



Management & Maintenance

Fish Hill Square - User Guide

BDP.



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1.0 Introduction

1.1 Purpose of this Guide

This guide has been prepared in conjunction with NHDC, HCC and BDP to ensure a high standard of maintenance and management is continued now and in the future for the recently completed public realm improvements.

The purpose of this guide is to assist the *users* of Fish Hill Square in Royston with the management and maintenance of the scheme. The guide focuses on the area that the enhancement works covered as shown on the adjacent plan.

The intention is that this guide is a working document and can be used by not only the local authority and its departments, but also as an easy reference guide for the Town Centre Manager and market operators.

The enhancement of the square has provided a new car free space that can be used by both spontaneous and organised events.

To ensure the town centre remains at a high standard it is imperative that the management and maintenance required is understood by all the users.

The guide:

- Identifies and addresses who is responsible for certain aspects of management;
- Identifies and addresses who is responsible for certain aspects of maintenance;
- Provides a detailed actions list for the repair and or replacement of components and the department responsible.
- Identifies procedures for events, the areas and facilities available along with the intended licensing agreements for cafes etc.

- Sets out the scheme components, material specifications, and identifies the suppliers for quick reference where applicable.
- Sets out the recommended overall cleaning strategy for the square.
- Sets out the agreed objectives for managing tree planting.

It is envisaged that this quick reference guide will assist in maintaining the quality of the recently implemented works to ensure it is safe, clean and in a good state of repair.

There are other documents available from NHDC if further information is required on the overall scheme or other technical information required. These documents consist of:

1. Operation and maintenance manual
2. Health and Safety file
3. Full Asset Register



1.2 Scheme Background

In June 2008 NHDC adopted the Royston Town Centre Strategy. The strategy sets out the vision for Royston Town Centre and includes an action plan to help bring forward opportunity sites identified within the strategy, and one of these key sites was Fish Hill Square. The strategy recommended an enhancement scheme to the space as it is a key pivotal space within the town.

In April 2010 BDP were commissioned to look at options for the enhancement of the space and help deliver it through to completion.

The redesigned space provides a much needed public space which can be used for both spontaneous and planned events. Access, parking, visibility, existing buildings and pedestrian movement were all considered as part of the scheme.

Project Aspirations:

The project team identified the aspirations for the site as outlined below:

- A high quality, attractive and robust scheme in terms of design and materials.
- A scheme which creates public pedestrian space which doesn't require the need for road closures or stopping up of parking bays to hold events
- Enhance the setting of the existing buildings and provide opportunities for outdoor seating within the square
- Retain an element of efficient parking ensuring that access is achievable to all premises
- Provide an art feature within the space as a point of interest and reflection of the area.

Project Objectives:

The design drew together all of the aspirations in a overall plan which includes the following key components.

- A new public space on the sunniest side of the site
- Pedestrian space in front of the old Court House
- Retention of 8 car parking spaces
- Retained vehicular access to Jepps Lane, the church and private driveways
- New loading bay linking to Fish Hill
- Enhanced paving quality throughout
- A new sculpture which was designed through a competition at a local school
- New drainage with an underground soak away.
- New coordinated street furniture and lighting throughout.
- In ground power supplies for events
- Strategic tree planting to add vegetation to the space

Project Completion:

Works on site took place between July and September 2011.

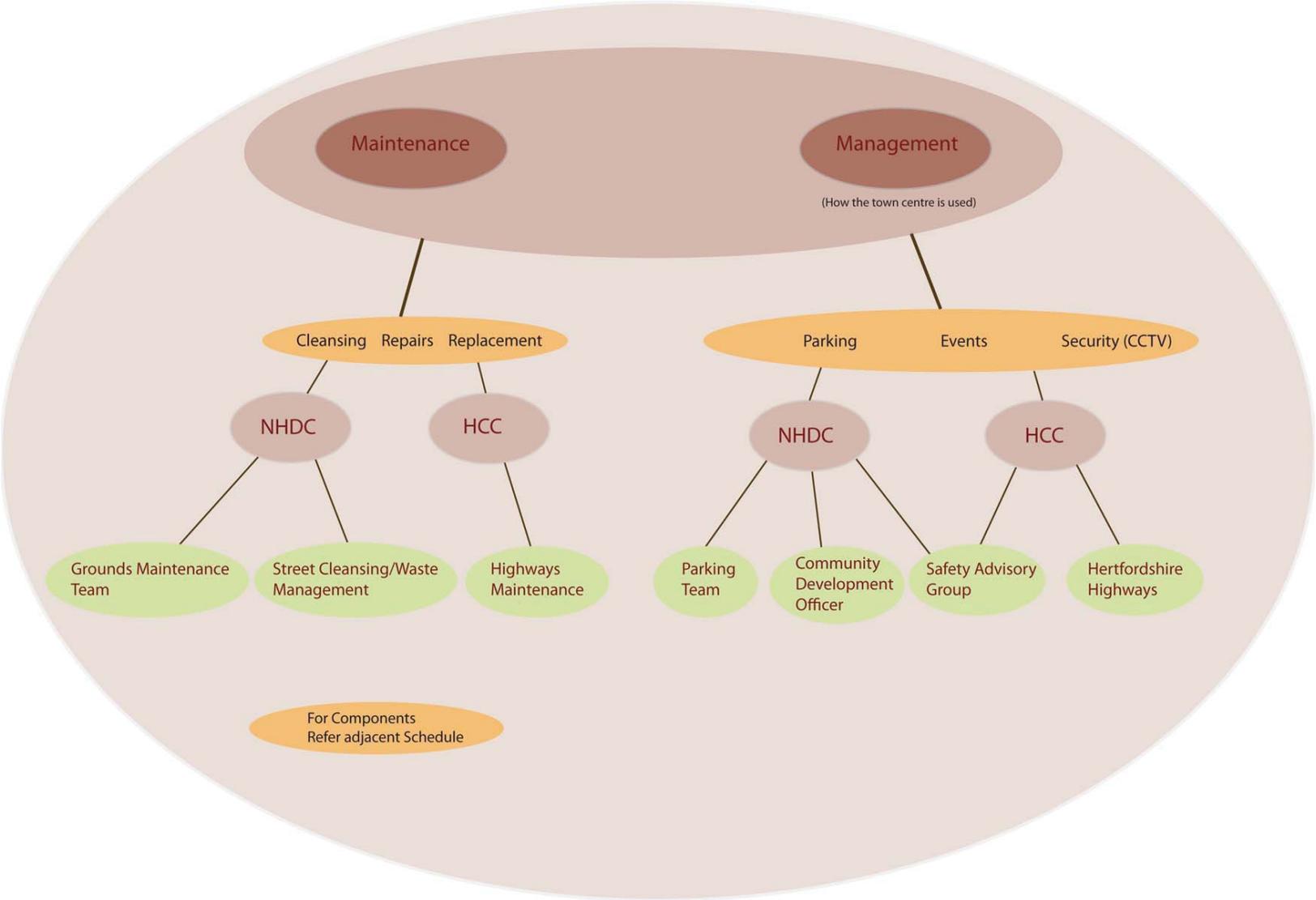
The enhancement works were formally opened on Saturday 19th November 2011





2.0 Quick Reference Guide

The 'Quick Reference Guide' outlines the key maintenance and management items associated with the town centre, the authority responsible and the associated team/department which will repond.



3.0 Detailed Action List

The following schedule lists each material component and department responsible for maintenance. The schedule also incorporates general actions and separates these between maintenance and management responsibilities. For further detailed information on costs refer to the Asset Register.- Appendix A.

Component / Item	Who Owns It (authority)	Action	Responsible Department / Contact
Street Furniture			
Signs & Posts - statutory	HCC	Routine / Replacement	Hertfordshire Highways
Signs & Posts - parking	NHDC	Routine / Replacement	Planning Services
Signs & Posts - Lit	HCC	Routine / Replacement	Hertfordshire Highways
Benches and seats	NHDC	Routine / Replacement	Property Services
Bollards	HCC	Routine / Replacement	Hertfordshire Highways
Litter Bins	NHDC	Routine	Street Cleansing / Refuse
		Replacement	Property Services
Cycle racks	NHDC	Routine / Replacement	Property Services
Market power supply	NHDC	Routine / Replacement	Property Services
Restricted Zone Signs	NHDC	Routine / Replacement	Property Services
Parking Pay Machine	NHDC	Routine / Replacement	Parkeon
Sculpture	NHDC	Routine / Replacement	Property Services
Lighting			
Lighting - building mounted	HCC	Routine / Replacement	Hertfordshire Highways
Lighting - columns	HCC	Routine / Replacement	Hertfordshire Highways
Lighting- Uplighters	HCC	Routine / Replacement	Hertfordshire Highways
CCTV cameras	NHDC	Routine / Replacement	Property Services
Energy- Tree/ Building Uplights	HCC	Routine / Replacement	Hertfordshire Highways
Energy- Street Lighting	HCC	Routine / Replacement	Hertfordshire Highways
Energy- Market power boxes	NHDC	Routine / Replacement	Property Services
Christmas lighting	Royston First	Routine / Replacement	Royston First
Surfacing			
Granite	HCC	Routine / Replacement	Hertfordshire Highways
Blacktop (HRA)	HCC	Routine / Replacement	Hertfordshire Highways
Granite kerbs	HCC	Routine / Replacement	Hertfordshire Highways
Granite Cobbles Loading Bay	HCC	Routine / Replacement	Hertfordshire Highways
Road markings	HCC	Routine / Replacement	Hertfordshire Highways
Pavers (Church Lane)	HCC	Routine / Replacement	Hertfordshire Highways
Parking Bays	NHDC	Routine / Replacement	Planning Services
Vegetation			
Trees	NHDC	Routine / Replacement	Parks and Countryside
Tree pits	NHDC	Routine / Replacement	Parks and Countryside
Drainage			
Gullies	HCC	Routine / Replacement	Hertfordshire Highways
Channels	HCC	Routine / Replacement	Hertfordshire Highways
Pipes	HCC	Routine / Replacement	Hertfordshire Highways
Outfalls	HCC	Routine / Replacement	Hertfordshire Highways
Connections	HCC	Routine / Replacement	Hertfordshire Highways
Service Covers	Utility Company	Routine / Replacement	Utility
Maintenance Activities			
Bins and cleansing pavements including annual deep clean of stone and chewing gum removal	NHDC	Routine	Waste Management
Removal of unlawful advertising signs from HCC property	HCC	Routine	Hertfordshire Highways
Removal of graffiti and fly posters from respective surface mounted signal cabinets	HCC/NHDC	Routine	Hertfordshire Highways/NHDC as part of budget provided by Hertfordshire
De-icing and removal of snow on carriageways	HCC	Routine (seasonal)	Hertfordshire Highways
De-icing and removal of snow on footways	HCC/NHDC	Routine (seasonal)	Hertfordshire Highways/NHDC as part
Removal of graffiti and fly posters from street furniture	NHDC	Routine	Waste Management
Management Activities			
Co-ordination of streetworks, ensuring utility compliance with the relevant streetworks legislation	HCC		Hertfordshire Highways
Reinstatement of surface materials in accordance with the relevant Street Works legislation	HCC		Hertfordshire Highways
Parking enforcement	NHDC		Parking Services
TRO's Road traffic, waiting restrictions and clearway marking signs	NHDC		Planning & Parking Services
Banners on lighting columns	NHDC		Hertfordshire Highways
Street trading	HCC		Hertfordshire Highways
Tourist information and pedestrian direction signs	NHDC		Property Services
CCTV system including cameras and control pillars	NHDC/HCC		Property Services/Herts Highways

4.1 The Use of the Space

The space has been designed to allow small - medium sized events to take place without the need of road closures and the temporary suspension of parking bays.

The adjacent diagram shows the available space and its dimensions. The adjacent images represent the possibilities within the space.

There are two in ground power boxes each containing 3 no 16amp plugs and 1 no 32 amp plug. Please note these require 13amp switched weather proof socket outlets and keys to operate the lid. These are metered supplies which link to the dedicated feeder pillar situated adjacent the wall of Henricks Hairdressing (shown on adjacent drawing)

NHDC – Property Services are responsible for the feeder pillar in the square. The Royston Town Centre Manager will be able to advise on the process and application to be made for use of the in ground power boxes for an event.

The initial concept envisaged that the town council will hold an events license for the area shown in red, and programme events throughout the calendar year. In addition any adjacent cafes wishing use of the pavement areas can do so within this license under the control of the town council. In this case no individual licenses are envisaged in the interests of managing the space and allowing equal opportunities to all local businesses and events organisers.

4.2 Procedures for holding an Event

Prior to organising your event, it is worth noting when current events are held and contacting the Town Centre Manager or North Hertfordshire District Council (NHDC) to ensure proposed dates are appropriate and free of programmed events.

The legal responsibility for the health, safety and welfare of an event lies with the event organiser(s). The event organiser(s) is also responsible for ensuring that the necessary permissions are applied for and obtained before the event.

The processes as outlined on the NHDC website under 'Leisure and Culture/Events/How to Organise an Event' should be followed.

An event organiser should:

Contact NHDC - All events planned for Royston should be directed initially through the Royston Town Centre manager.

The Council can offer advice to event organisers through its Safety Advisory Group Contact (SAG). This group primarily comprises representatives from the following groups:

North Hertfordshire District Council – Licensing, Environmental Health, Building Control, & Community Development

- The Police
- The Fire Service
- The Ambulance Service
- Hertfordshire Highways
- Hertfordshire County Council – Emergency
- Planning, Trading Standards

Other agencies may be invited to attend if it is felt necessary, these may include:

- Highways Agency
- Rail or Bus operators

The role of the SAG is to offer advice to event organisers and help them identify their legal duties. The group does not issue any approvals for events nor does the group have the power to stop, limit or place restrictions upon any event.

SAG members will offer advice and identify other aspects of organising an event that should be considered.

4.3 Applications

Event organisers may need to make more than one application, since your event may well be subject to more than one a piece of legislation. In the first instance organisers should:

- Complete an events notification form and return to the North Hertfordshire District Council contact listed on the bottom of the form.

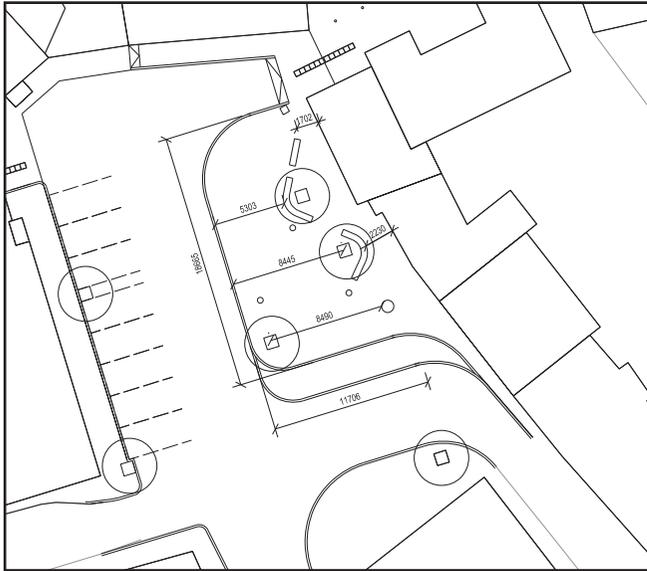
Then depending on the type of event and its location some or all of the following applications may be required:

- An application under the The Licensing Act 2003 for events requiring an entertainment license
- A land license application for events on NHDC land
- An application for event to be held on public road or footpath or requiring a diversion or closure of a road or footpath.

The SAG will be able to advise on the necessary applications required for the particular event.

Applications will need to be made a minimum 3 months in advance of any event taking place.

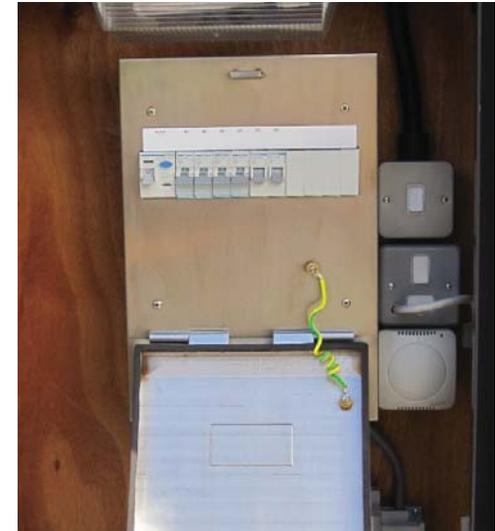




Dimensions of the space (in mm)



In ground power supplies



Feeder pillar



- Feeder pillar
- In ground power supplies

Total area available from building line to kerb edge is approximately 200m2.

The vehicular access needs to be kept clear at all times

The opposite car parking bays may be temporarily suspended for events following council procedures.

5.1 Surfacing

Main pedestrian areas: Granite Natural Stone Slabs

Material Specification:

- Stone type: Granite
- Slab Size: 300mm x 400mm x 50mm thick.
- Finish: Silver Grey (Royal White) flamed top and sawn sides
- Joints: 6mm
- Jointing material: Granatech jointing mortar
- Joint colour: Natural
- Joint cleaning: All excess mortar to be removed from face of slabs/ flags before it sets
- Concrete base: 125mm thick Polymer fibre reinforced concrete
- Bedding of units: 30mm thick 3:1 semi dry sand cement
- Laying: Immediately prior to laying slabs, back of slabs to be applied with a scrub layer of bonding agent to ensure cohesion between the stone and the mortar
- Cutting of slabs: Cut units cleanly and accurately, without spalling, to give neat junctions with edgings and adjoining finishes, no slab to be less than 30% of its original slab size
- Levels: To match as built and tie into adjacent paving and kerb lines

Replacement:

- All materials to be laid as per original specification with full concrete foundation, mortar bed, bonding agent and slurry jointing.
- All repairs to be carried out by skilled workforce.

Supplier Information:

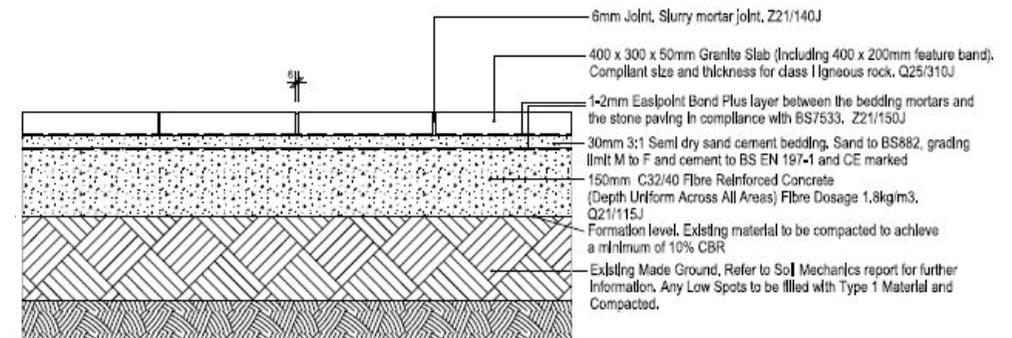
Hardscape

Blackburn Road Deakins Business Park Egerton,

Bolton, Lancashire BL7 9RP

Greater Manchester, North-West England

Tel: 01204590666



Feature Bands

Material Specification:

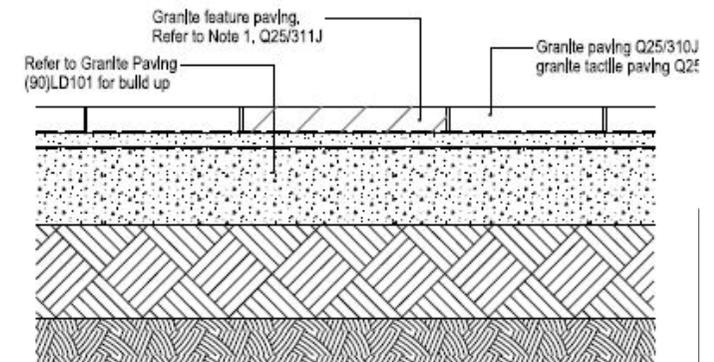
- Stone type: Granite
- Sizes: 200mm x 400mm x 50mm thick
- Finish:
 - For bands in paved areas
 - 34% to be Mid Grey (Kobra) Flamed
 - 33% to be Mid Pink (Darton) Flamed
 - 33% to be Yellow (Yellow Rock) Flamed.
 - For bands in sett areas
 - 34% to be Silver Grey (Royal White) Flamed
 - 33% to be Mid Pink (Darton) Flamed
 - 33% to be Yellow (Yellow Rock) Flamed
- Joints: 6mm
- Jointing material: Granatech jointing mortar
- Joint colour: Natural
- Joint cleaning: All excess mortar to be removed from face of slabs/ flags before it sets
- Concrete base: Vehicular areas: 150mm thick Polymer fibre reinforced concrete
Pedestrian areas: 125mm thick Polymer fibre reinforced concrete
- Bedding of units: Vehicular areas: 30mm thick proprietary mortar
Pedestrian areas: 30mm thick 3:1 semi dry sand cement
- Laying: Immediately prior to laying slabs, back of slabs to be applied with a scrub layer of bonding agent to ensure cohesion between the stone and the mortar
- Cutting of slabs: Cut units cleanly and accurately, without spalling, to give neat junctions with edgings and adjoining finishes, no slab to be less than 30% of its original slab size
- Levels: To match as built and tie into adjacent paving and kebs lines

Replacement:

- All materials to be laid as per original specification with full concrete foundation, mortar bed and slurry jointing.
- All repairs to be carried out by skilled workforce

Supplier Information:

Hardscape
Blackburn Road Deakins Business Park Egerton,
Bolton, Lancashire BL7 9RP
Greater Manchester, North-West England
Tel: 01204590666



Granite setts

Material Specification:

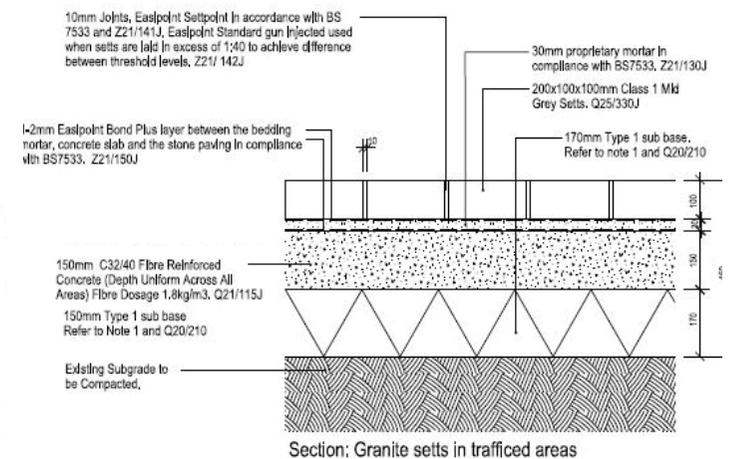
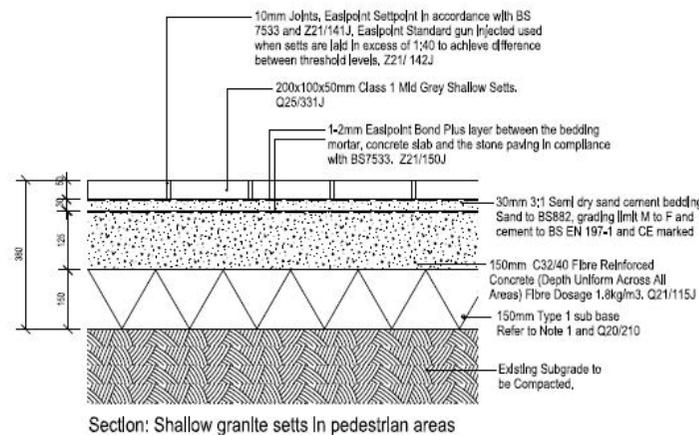
- Stone Type: Granite.
- Finish: Mid grey (Kobra). Flamed top and sawn sides.
- Sizes: Vehicular areas: 100mm x 200mm x 100mm thick.
- Pedestrian areas: 100mm x 200mm x 50mm thick.
- Joints: 10mm
- Jointing material: Granatech jointing mortar
- Joint colour: Natural
- Joint cleaning: all excess mortar to be removed from face of slabs/ flags before it sets
- Concrete base: Vehicular areas: 150mm thick Polymer fibre reinforced concrete
Pedestrian areas: 125mm thick Polymer fibre reinforced concrete
- Bedding of units: Vehicular areas: 30mm thick proprietary mortar
Pedestrian areas: 30mm thick 3:1 semi dry sand cement
- Laying: Immediately prior to laying slabs, back of slabs to be applied with a scrub layer of bonding agent to ensure cohesion between the stone and the mortar
- Cutting of slabs: Cut units cleanly and accurately, without spalling, to give neat junctions with edgings and adjoining finishes, no slab to be less than 30% of its original slab size
- Levels: To match as built and tie into adjacent paving and keel lines/curbs
- All materials to be laid as per original specification with full concrete foundation, mortar bed and slurry jointing.
- All repairs to be carried out by skilled workforce.



Supplier Information:

Hardscape

Blackburn Road Deakins Business Park Egerton,
Bolton, Lancashire BL7 9RP
Greater Manchester, North-West England
Tel: 01204590666 Fax: 01204590620



Asphalt

Material Specification:

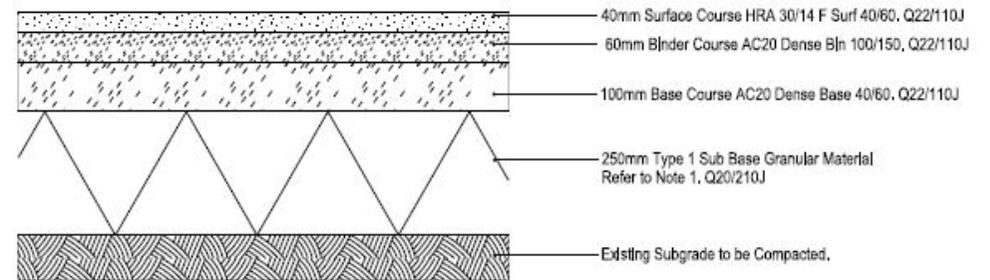
- Granular sub-base: 250mm compacted type 1
- Base: 100mm AC20 dense base, paving grade 40/60
- Binder course: 60mm AC20 dense bin, paving grade 100/150
- Surface course: 40mm HRA 30/14 Fine surf, paving grade 40/60
- Surface treatment: Pre coated chippings
- Levels: To match as built and tie into adjacent paving and keb lines

Road Lines:

- Product: Thermoplastic
- Colour: White
- Size: 50mm thick

Replacement:

- All materials to be laid as per original specification
- All repairs to be carried out by skilled workforce.



Tactile flags and slabs

Material Specification:

- Material: Granite
- Product reference: Granite blister hazard warning paving in accordance with DD CEN/TS 15209
- Colour: Mid Grey (Kobra).
- Nominal sizes: 400mm x 400mm x 50mm thick.

Supplier Information:

Hardscape

Blackburn Road Deakins Business Park Egerton, Bolton, Lancashire BL7 9RP

Greater Manchester, North-West England

Tel: 01204590666



Concrete block paving: John Street and Church Lane

Material Specification:

- Paving units: Salvaged pavers, matching existing pavers.
- Size: To match existing
- Laying course: 40mm thick Sand.
- Jointing: Sand to be brushed into joints
- Bond: To match existing.



5.2 Street Furniture

Granite Benches

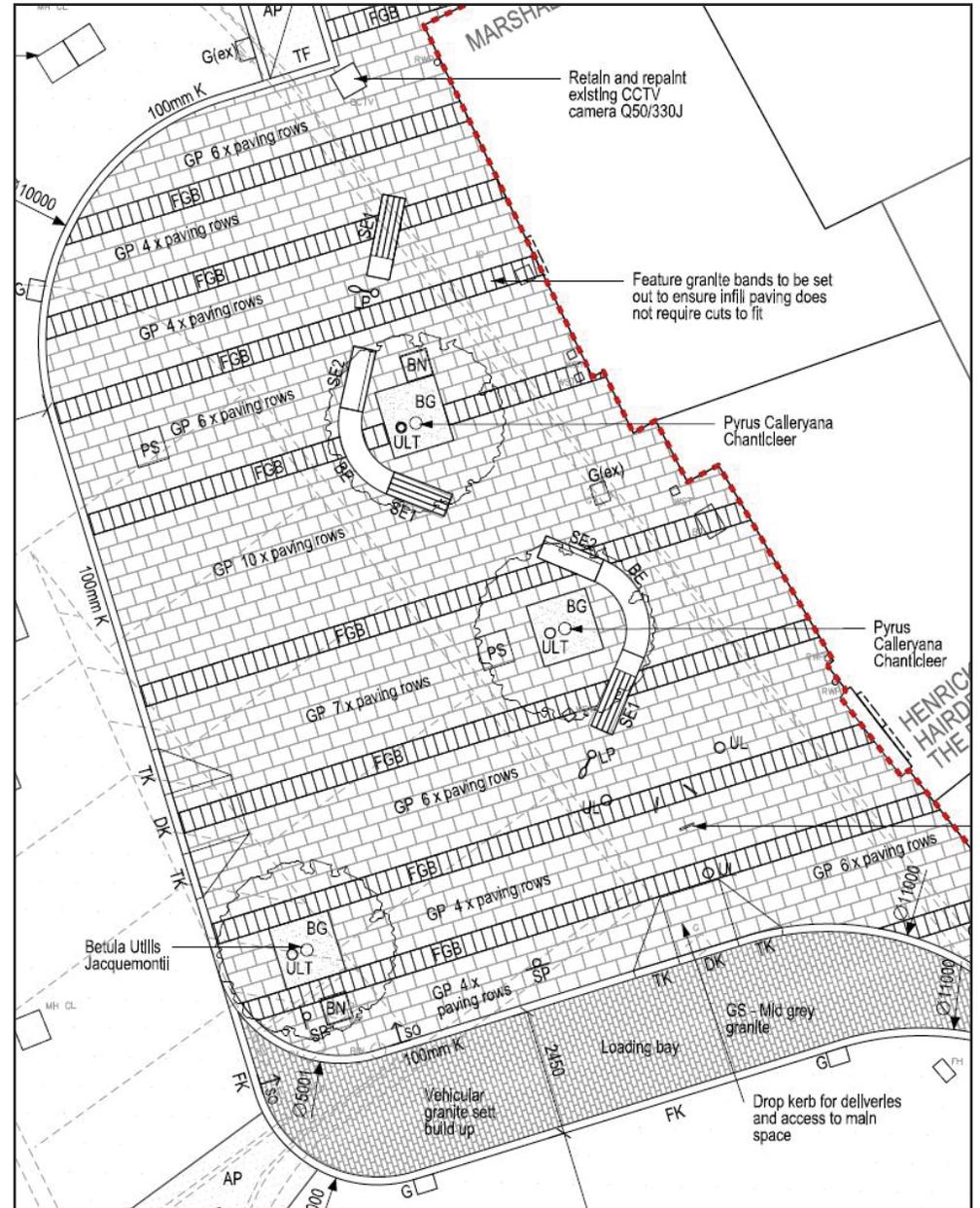
There are 4 different types of granite benches which are all bespoke and custom made. These include both straight and curved sections as shown on the adjacent drawing.

Specification:

- Material: Granite
- Colour: Mid grey (Kobra)
- Finish: Honed top, side and end elevations cropped except abutting end elevations which are sawn. 20mm chamfer to all exposed non abutting edges. The elevation of the 'Fish Hill Square' unit is fine picked.
- dimensions: generally 450mm wide x 500mm high or 390mm high for units which have a seat or bench secured to their top (of which 50mm is below ground level).
- Fixings: Granite blocks are mortar fixed to concrete foundation.
- Jointing: 10mm joint between granite units, filled with Fosroc Expanda Foa and sealed with marble grey sealant.
- Accessories: Wall mounted bench, secured to top of granite blocks.

Manufacturer:

Hardscape
 Blackburn Road Deakins Business Park Egerton,
 Bolton, Lancashire BL7 9RP
 Greater Manchester, North-West England
 Tel: 01204590666 Fax: 01204590620



Seats wall mounted

- Manufacturer: City Squared
- Product reference: Wall Mounted Basic Seat.
- Material: Stainless steel and iroko hardwood.
- Finish: To manufacturers specification.
- Colour: 18B29 to all metalwork.
- Size: 1200mm long x 450mm wide.
- Accessories/ Special requirements: Armrests to each end.
- Fixing: To manufacturers specification



Benches wall mounted

- Manufacturer: City Squared
- Product reference: Wall Mounted Backless Basic.
- Material: Stainless steel and iroko hardwood.
- Finish: To manufacturers specification.
- Colour: 18B29 to all metalwork.
- Size: 1200mm long x 450mm wide.
- Fixing: To manufacturers specification



Seats for Church Lane

- Manufacturer: City Squared
- Product reference: Basic seat.
- Material: Stainless steel and iroko hardwood.
- Finish: To manufacturers specification.
- Colour: 18B29 to all metalwork.
- Size: 1800mm long.
- Fixing: root fixed to manufacturers spec



Supplier Information:

Citysquared Ltd
Rutland House, 42 Call Lane, Leeds LS1 6DT
Telephone: 0870 420 2468

Litter Bins

- Manufacturer: BROXAP
- Product reference: BX ECO Broxap Ecobin.
- Material: Steel.
- Finish: As manufactured.
- Colour: 18B29.
- Accessories/ Special requirements: None.
- Fixing: To manufacturers specification

Supplier Information:

Broxap Ltd
Rowhurst Industrial Estate, Chesterton
Newcastle-under-Lyme, Staffordshire, ST5 6BD
Tel: 0844 800 4085



Bollards

- Manufacturer: BROXAP
- Product reference: BX 1521-RT Blackpool.
- Material: Steel.
- Colour: 18B29 post and bands to be painted silver to match existing.
- Height above ground: 810mm.



5.3 Lighting

Wall mounted lights

- Manufacturer: Phillips Lighting UK
- Wall bracket: Special wall mounting bracket with 60mm.
 - Finish: 18B29
- Luminaire:
 - Product: SRS421Milewide 60w CPO-TW road luminaire c/w electronic gear and 60w CPO-TW lamp.
 - Product reference number: SRS419 CPO-TW60W K EB II OC BS 18B29 P3
 - Finish: 18B29
- Fixing: Wall mounted lights fixed to existing building. Bracket fixing to manufacturers specification.



Light columns

- Manufacturer: Phillips Lighting UK
- Column: 8.0M embedded milewide column having 60mm single stub bracket 0 degree tilt for SRS419 lantern.
 - Product reference number: ZGB500 MILEWIDE 6.0M EM 60mm STB SIN BS 18B29
 - Finish: 18B29
- Luminaire:
 - Product: SRS421Milewide 60w CPO-TW road luminaire c/w electronic gear and 60w CPO-TW lamp.
 - Product reference number: SRS419 CPO-TW60W/728 K EB OC P3 BS 18B29
 - Finish: 18B29
- Fixing: Root fixed to manufacturers specification.



Tree Uplight

- Manufacturer: Phillips Lighting UK
- Product reference number: 20W LED in ground uplighter luminaire, cool white, DecoSecene Small, DBP521 CDM-TM20W/830 EB I MB GR Z RMR SVP DR LBSP, COF3 H, Recessed LED
- Finish: Stainless steel
- Rating: IP67



Building and Sculpture uplight

- Manufacturer: Phillips Lighting UK
- Product reference: DBP522 CDM-T35W/830 EB I MB GR Z HMG-FR RMR SVP DR LBSP
- Finish: Stainless steel
- Rating: IP67



Feeder Pillar

- Manufacturer: Charles Endirect Ltd
- Material: 3mm mild steel plate, hot dip galvanized to BSEN ISO 1461 Paint finish RAL 7016
- Hinges – stainless steel block hinge
- Locks – Anti-vandal tri-head lock
- Accessories:
 - Frost/condensation protection heater, thermostatically controlled
 - Internal light with local switched control
- Mounting – Root mounted on buried concrete base with cast-in cable ducts.



5.4 Sculpture

Sculpture

- Material: 30mm Water jet cut mild steel
- Finish: shot blast, flame spray zinc and powder coating
- Colour: MW151 it is a satin silver, by Akzo Nobel
- Finish below ground: black bitumen
- Fixing: Base plate and holding down bolts onto a concrete footing approximately 2m triangular and 900mm deep with reinforcement bar

Manufacturer:

Anthony Walters Architectural Metalwork
91 Southend, Garsington, Oxon OX44 9DJ
Tel: 01865 361777

Powder Coating by: CY Finishers

Metal Fabrication: AMR Sheet Metal Fabrication Ltd

Brass Plaque

- Material: 3mm thick brass
- Size: 160mm wide x 160mm high
- Edges: 2mm chamfer along the edges
- Text and linework: Etched into the plaque and painted black

Manufacturer:

Lewis Howes Signs & engraving Ltd
Abbey works, 19 Liverpool Street,
Liverpool, L3 6DX
Tel: 0151 227 2288



6.0 Trees

6.1 Tree Planting

Trees

Tree specifications:

- Pyrus Chanticleer 30-35cm girth at time of planting
- Betula Jacquemontii, 30-35cm girth at time of planting

Supplier Information:

Deepdale Nurseries

Tithe Farm, Hatley Road, Potton, Sandy,
Bedfordshire, SG19 2DX

Tree pits

Specification:

- Size: 1200mm x 1200mm x 900mm deep
- Soil: Urban Tree Soil such as Arbor Soil from Greenleaf
- Root barrier: ReRoot 1000 from Greenleaf
- Underground guying: Platipus underground guying - RF2 Rootball fixing kit
- Wtering system: Root Rain Precinct System from Greenleaf

Permeable Resin bonded gravel to Tree Pits

Material specification:

- Product: Arboresin
- Preparation: Lay Porausgeotextile over area to be surfaced
- 50mm depth loose aggregate over a geotextile layer
- 50mm depth resin bonded 10mm mixed washed and dried aggregate mixed with resin hardener
 - Colour: silver grey colour
 - Finish: Laid flush to adjacent paving

Supplier Information:

Greenleaf Horticulture

Haywood Way, Hastings, East Sussex, TN354PL

6.2 Tree Maintenance

NHDC Grounds Maintenance department undertakes all soft landscaping maintenance within the site boundary of the enhancement works. For any tree maintenance issues the Grounds maintenance team is the first port of call and no work to street trees should be undertaken without approval first.

Maintenance objectives:

- Prune and coppice trees with respect to their natural form and growth habit of the species. Avoid cutting during the nesting season.
- Ensure the trees and vegetation are cared for to allow them to mature naturally with the public realm

Watering

Trees require a minimum of 300 litres of water a month for the first summer. Water requirements will depend on location will require watering on a regular basis during dry spells. All trees have been installed with full underground root rain system for manual irrigation.

Cutting and pruning

- In accordance with BS 7370: Part 7370-4, clauses 3.6.3 to 3.6.5
- Tools – well maintained and sharp
- Chainsaws – do not use on branches of less than 50mm diameter
- Handsaws – cut in one continuous operation for form a smooth cut surface
- Removing branches – do not damage or tear the stem
- Wounds – keep as small as possible
- Cutting – cut at a fork or at the main stem to avoid stumps

- Large branches – remove only with prior approval
- Unsafe branches – remove epicormic shoots and potentially weak forks
- Disease or fungus – give notice if detected

Crown lifting

- Clearances – remove branch system to give clearance
- Height – 2.5m above footpaths and 3m above cycleways
- Removing branches – remove whole branches back to the stem, or cut lower portions of branches back to lateral or sublateral buds or branches. Do not leave stumps.

Cutting tree roots

- Excavation – use hand tools only
- Protected area – do not cut roots within an area which is the large of: the branch spread of the tree or and area with a radius of half the tree's height, measured from the trunk
- Do not cut roots above 50mm in diameter without approval
- Cutting- make clean smooth cuts with a hand saw
- Finishing – pare cut surfaces smooth with a sharp knife
- Cover cut roots with clear sharp sand
- Backfill with original topsoil

Bark damage

- Wounds – do not attempt to stop sap bleeding
- Bark – gently remove ragged edges using a sharp knife
- Remove splintered wood from deep wounds

Resin bonded tree pit surfacing

- Monitor cracking, dipping or lifting of surface
- It is envisaged that this surfacing will need to be broken out and replaced every 5-8 years dependant on the growth of th tree to avoid trip hazards.
- Specification - as first implemented in line with suppliers details.



7.0 Overall Cleaning Strategy

Cleaning Regime for Fish Hill Square:

The frequency should be as necessary to fulfil council's current standards in line with National Indicator 195.

- The minimum requirement within the town centre (enhanced zone) is a constant cleansing presence from 7am – 5.30pm, this includes the emptying of all litter bins to ensure capacity for use at all times.
 - Removal of litter, leaves and other debris should be carried out manually where possible or using mechanical means if required to ensure specifications are met.
 - Mechanical sweeping (applied sweeper) should occur on all hard areas including Granite. This must use soft nylon brushes and must only be used when water is present as part of the cleaning process. No additives are necessary.
 - Stubborn Stains should be removed by mix of warm water with a mild detergent which has a neutral ph. WEISS Grundreiniger available from steintec is a suitable detergent. The use of acid should be avoided as this will strip out the natural calcareous content of the stone, leaving a highly absorbent surface vulnerable to new staining.
 - Spot removal of gum should be made manually using a spatula or scraper to remove the physical piece of gum, the residual stain will disappear with subsequent routine cleaning.
 - General de-icing salts are to be used on all hard surfaces as necessary during cold periods.
- It is not recommended to carry out any annual clean or any high pressure water jetting; the above weekly cleaning regime is considered adequate and will allow the stone to mature naturally in its context.
 - All items of street furniture including the granite benches should be cleaned every 3 months.

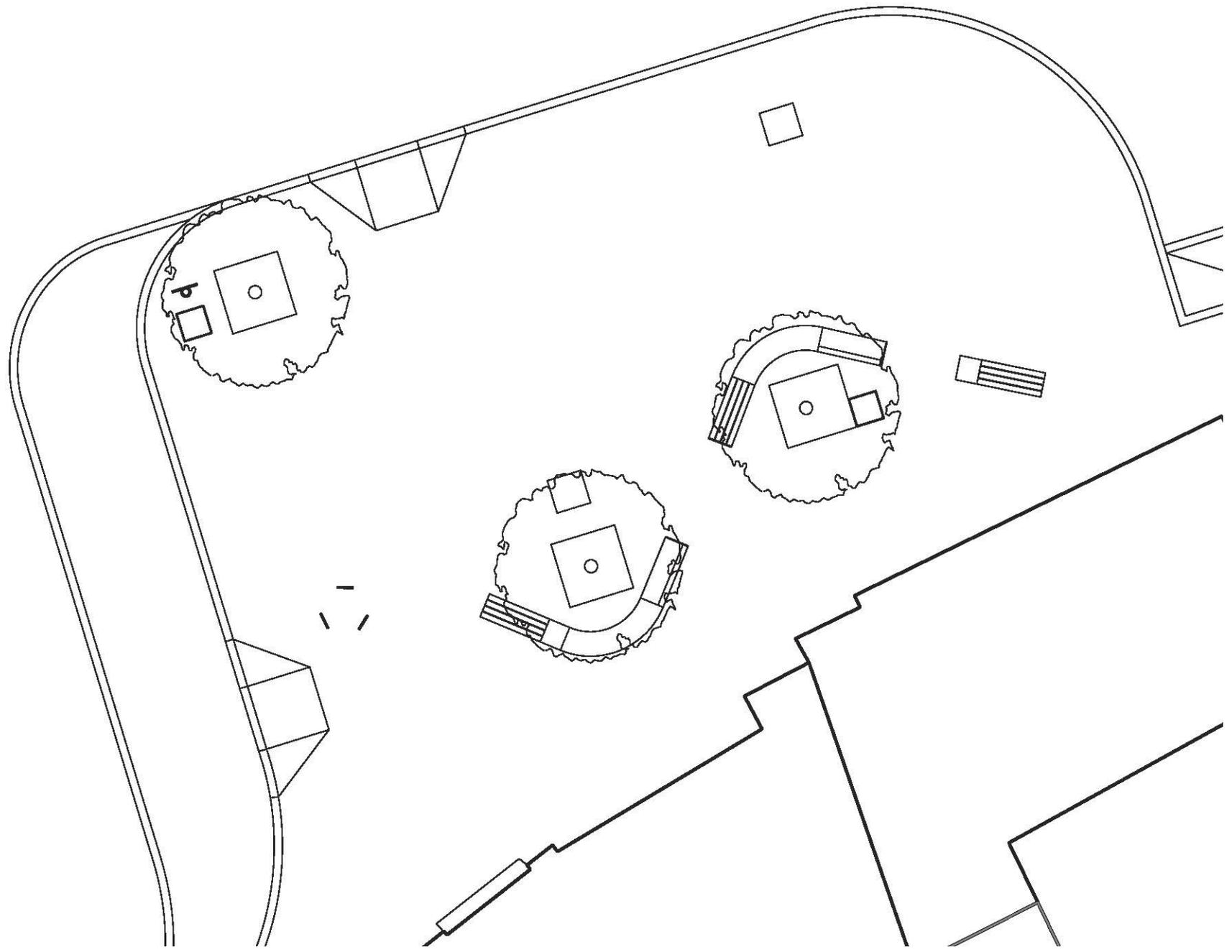


Appendix B - Base Plans

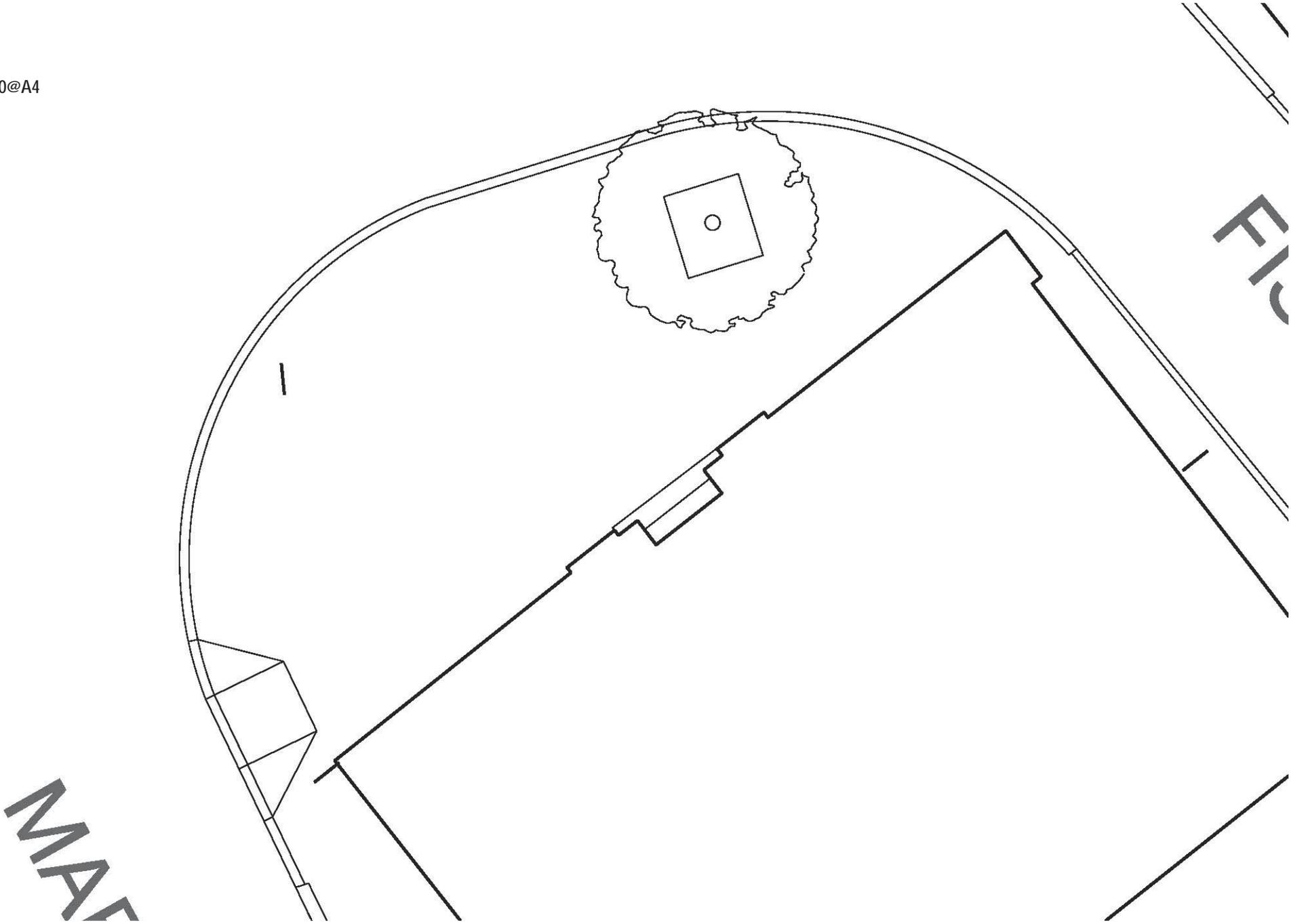
Plan 1:200@A4



Plan 1:100@A4



Plan 1:100@A4





General Notes

-  Works Boundary.
-  Extended Kerbs.
-  Attenuation Tank.
-  Beam & Slab Around Bottle Well
-  Bottle Well MH Id
-  Access point to Attenuation tank.

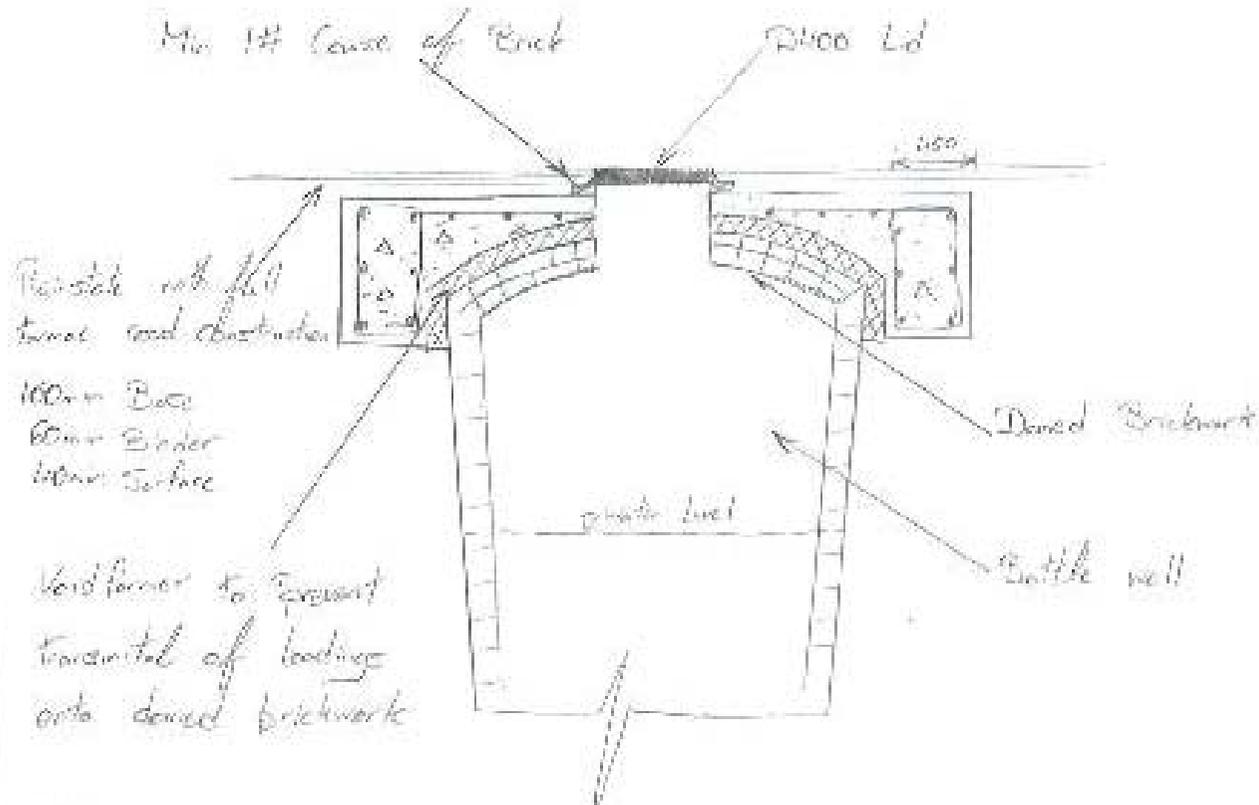
NO:	
Revision/issue	
Date	

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DRAWING NO: C0718/MAY/AB/01	TITLE: Fish-Hill Square. As-Built Drawing of underground features encountered, Constructed, Remaining.
DATE: 26/09/2011	
SCALE: NTS	

Construction detail for well
found within carriageway

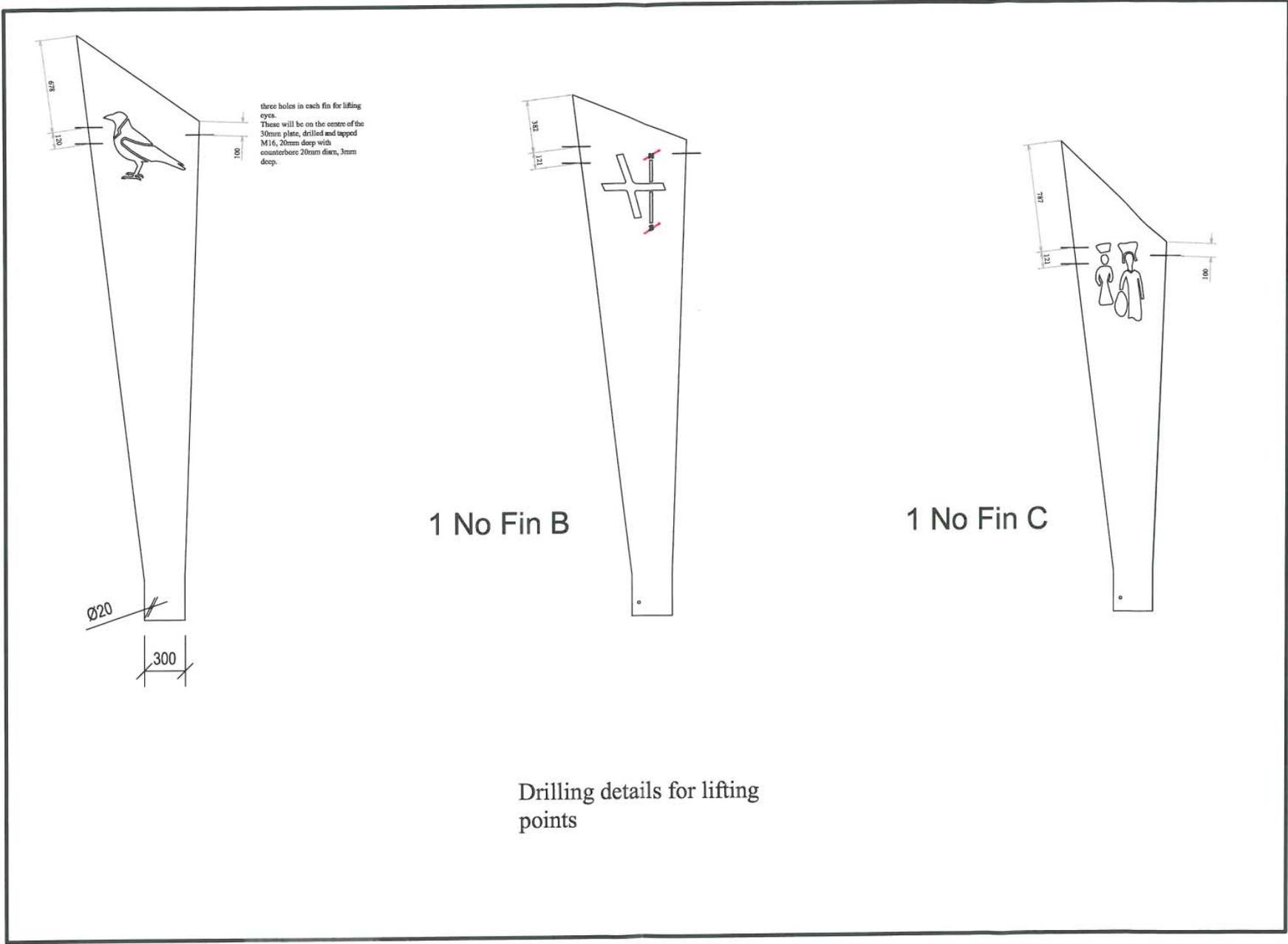
Section A-A

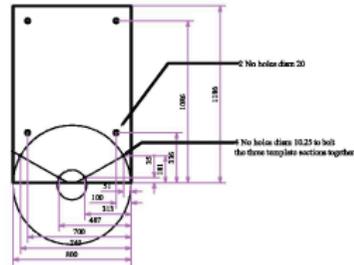
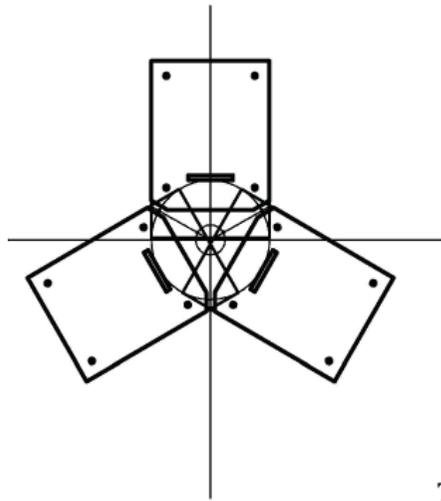


Notes

- All concrete to be poured in situ
- All concrete to be C32/46
- Cover to all steelwork min 50mm

Appendix D - Sculpture shop drawings

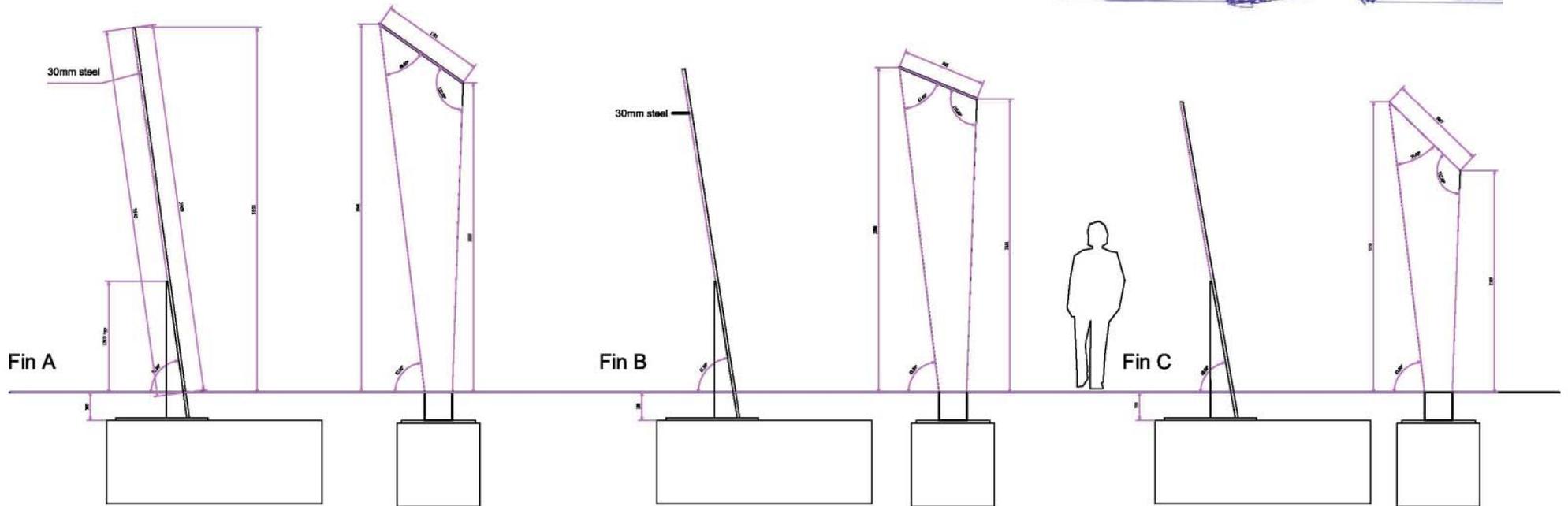
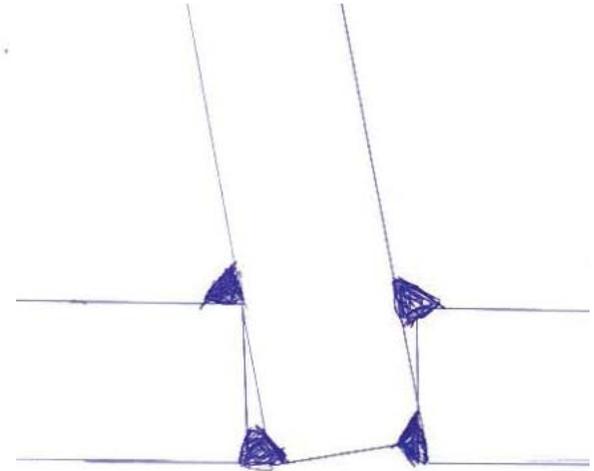
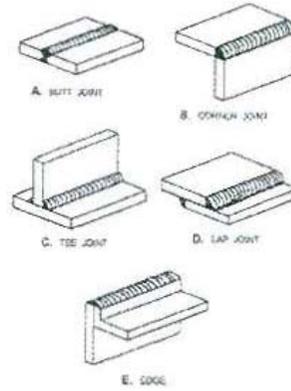


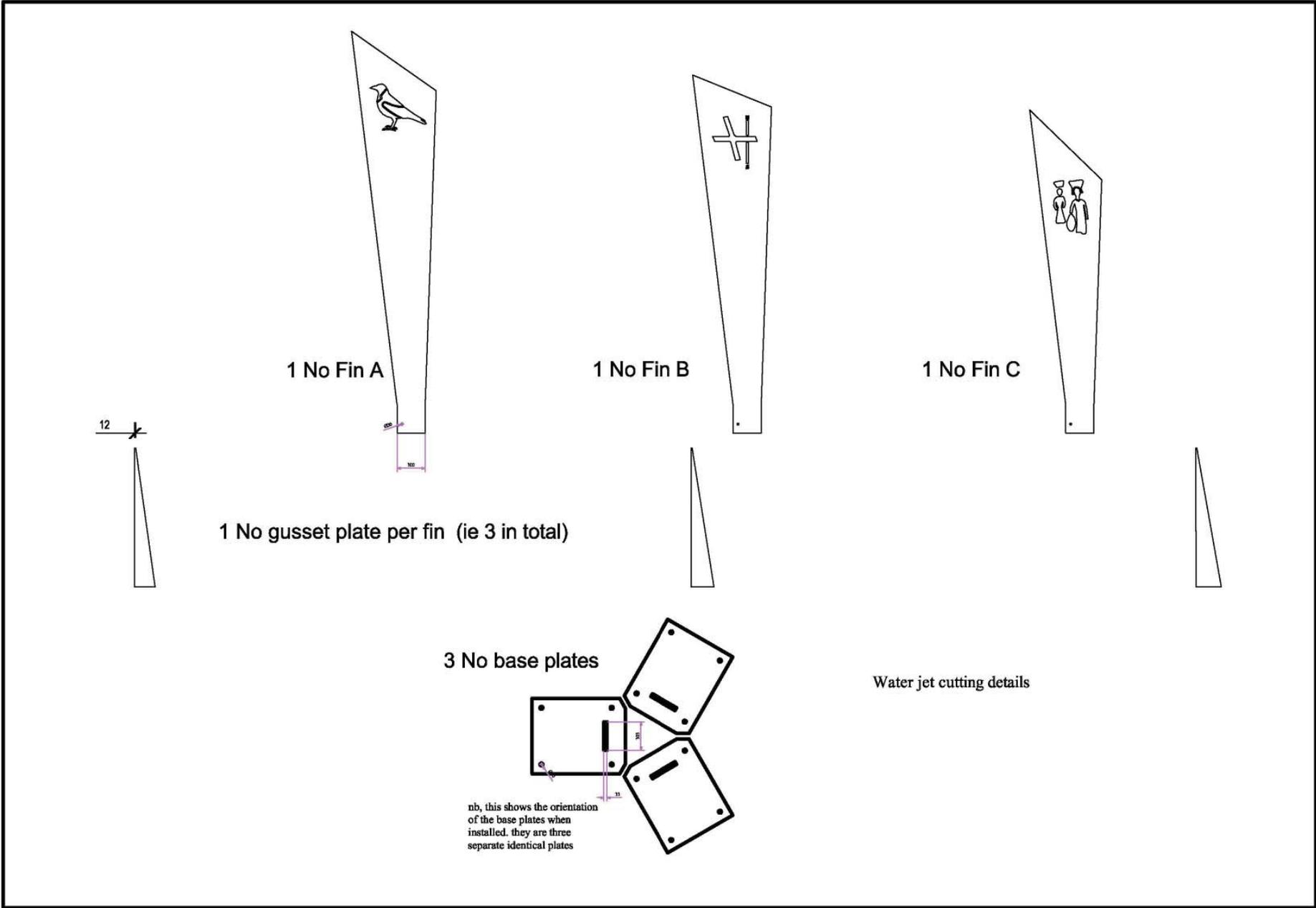


Template details

WELD JOINTS

The weld joint is where two or more metal parts are joined by welding. The five basic types of weld joints are the butt, corner, tee, lap, and edge, as shown in figure 3-6.





Appendix E - Construction Drawing List

P2003990

FHS DRAWING LIST – CONSTRUCTION ISSUE

June 2011 Rev C

MASTERPLAN PLANS

(90)LP001	Landscape Masterplan	1:200	A1	B
(90)LP002	Existing site and site extents	1:200	A1	B
(90)LP003	Existing Services Statutory records	1:200	A1	B
(90)LP004	Existing Services GPR Survey	1:200	A1	B
(90)LP005	Indicative implementation and phasing plan	NTS	A1	C

LANDSCAPE PLANS

(90)LP101	General Arrangement Plan Fish Hill Square	1:100	A1	F
(90)LP102	General Arrangement Plan Church Lane	1:100	A1	B
(90)LP103	Levels and Existing Survey	1:100	A1	B
(90)LP104	Site Clearance Plan	1:100	A1	B
(90)LP105	Existing Services GPR Survey - Fish Hill Square	1:100	A1	B
(90)LP106	Drainage Plan	1:100	A1	B
(90)LP107	Electrical Distribution Plan	1:100	A1	B
(90)LP108	Concrete Joints Plan	1:100	A1	B
(90)LP109	Signage Plan	1:100	A1	D
(90)LP110	Set Out Fish Hill Square	1:100	A1	A

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DRAINAGE PLANS

M10289 15_001_001	Hertfordshire Highways Plan Proposed Drainage Location	NTS	A3	-
M10289 15_001_002	Hertfordshire Highways Plan Weir Gully to Storage Crates	1:100	A3	A

ELECTRICAL PLANS

(61)E0001	LV Distribution Schematic	NTS	A1	B
(62)E0001	Electrical Services Details	NTS	A1	B

DETAILS- LD Series

(90)LD101	Granite Paving Detail (Pedestrian Areas)	1:10	A3	B
(90)LD102	Asphalt Details	1:10	A3	B
(90)LD103	Feature Paving Bands	1:10	A3	A
(90)LD104	Granite Setts Paving Detail	1:10	A3	B
(90)LD105	Flush Kerb Edging Detail	1:10	A3	B
(90)LD106	Upstand Kerb Edging Detail	1:10	A3	B
(90)LD107	Ramp Detail	1:10	A3	B
(90)LD201	Power Box Detail	1:10	A2	B
(90)LD202	Tree Pit Detail	1:20	A3	B
(90)LD203	Gully Detail	1:20	A3	B
(90)LD301	Isolation Joint	1:10	A3	B
(90)LD302	Expansion Joint	1:10	A3	B

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(90)LD303	Saw Cut Joint	1:10	A3	B
(90)LD401	Granite Bench Type 1	1:10	A3	B
(90)LD402	Granite Bench Type 2	1:10	A3	B
(90)LD403	Granite Bench Type 3	1:10	A3	B
(90)LD404	Granite Bench Type 4	1:20	A3	B
(90)LD501	Sculpture Fins	1:20	A3	A
(90)LD502	Sculpture Footing	1:20	A3	A

SCHEDULES AND SPECIFICATIONS

SPC(90)L001	Public Realm Specification	-	-	B
SPC(00)C100	Drainage Specification	-	-	B
SPC(00)E800	Electrical Systems Specification	-	-	B
SCH(00)E900	Schedule of Cables	-	-	B
SCH(90)L100	Luminaire Schedule	-	-	B
RPT(90)L100	Site Waste Management Plan	-	-	A

OTHER DOCUMENTS AND FILES

SUR_001	CBR and ground investigation survey		Report	
SUR_002	CCTV Drainage Survey		Report	
SUR_003	Existing Electrical Conditions Survey Plan and Corresponding Emails		Plan and text	
SUR_004	Highways Boundary Plan		Plan	
SUR_005	GPR survey		Plans	

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SUR_006	Topographic survey		Plans	
SUR_007	Cellar Survey (to be issued as additional tender information during the tender period as it will not be ready for Tender issue) and Surveyors letters of concern			
(90)LP_	Landscape base plans (90)LP_Clearance and Demolition (90)LP_Drainage (90)LP_Ducting Lights Circuits (90)LP_Landscape Plan		CAD files	

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