

Method Statement

For

Installation of Surface Water Drainage Network, SuDS Components and Flow Control Systems – Horsham Enterprise Park Phase 3

Site Name:	Horsham Enterprise Park – Phase 3	Job No:	
Client:			
Address:			
Author:	Manos Adoniadis	Date:	17/07/26
Reviewed By:	Peter Woodward	Date:	17/07/26
Reference No:		Revision:	Rev-1

PLANNING CONDITION COMPLIANCE STATEMENT

This Method Statement, together with the accompanying construction drawings listed in the register below, is submitted by Muse Developments (“the Applicant”) to Horsham District Council (“the Local Planning Authority”) for written approval, in order to discharge Pre-Commencement Condition 7, which states:

“Other than works of site survey and investigations, prior to the commencement of development, construction drawings of the surface water drainage network, associated sustainable drainage components and flow control mechanisms and a construction method statement shall be submitted and agreed in writing by the Local Planning Authority. The scheme shall then be constructed as per the agreed drawings, method statement, Flood Risk Assessment and Drainage Strategy (Project No. 17100 Issue C dated 12.09.2025) and remain in perpetuity for the lifetime of the development unless agreed in writing by the Local Planning Authority. No alteration to the agreed drainage scheme shall occur without prior written approval from the Local Planning Authority.”

This document addresses the requirement for a construction method statement, and is to be read alongside the drawings below and the Flood Risk Assessment and Drainage Strategy referenced in the Condition.

Drawing Register

Drawing No.	Title
17100-AAL-XX-XX-D-C-5100	Drainage – General Arrangement
17100-AAL-XX-XX-D-C-5101	Drainage – Sheet 1
17100-AAL-XX-XX-D-C-5102	Drainage – Sheet 2
17100-AAL-XX-XX-D-C-5103	Drainage – Sheet 3
17100-AAL-XX-XX-D-C-5104	Drainage – Sheet 4

Compliance commitment:

Amended Condition 7:

7 Pre-Commencement Condition: Other than works of site survey and investigations, prior to the commencement of development, construction drawings of the surface water drainage network, associated sustainable drainage components and flow control mechanisms and a construction method statement shall be submitted and agreed in writing by the Local Planning Authority. The scheme shall then be constructed as per the agreed drawings, method statement, and the principles described within the Flood Risk Assessment and Drainage Strategy (Project No. 17100 Issue C dated 12.09.2025) and remain in perpetuity for the lifetime of the development unless agreed in writing by the Local Planning Authority. No alteration to the agreed drainage scheme shall occur without prior written approval from the Local Planning Authority.

Reason: To ensure that the development achieves a high standard of sustainability and to comply with NPPF and Local Planning Policy 38 of the Horsham District Planning Framework

Method Statement Checklist

Section	Content	Applicable: Yes, No or N/A
1. Scope & Location of works	Description of the scope of works?	
	Location of works identified?	
	Working hours?	
2. Duration of works and start date	Duration of works and start date included?	
3. Access and Egress	Pedestrian access arrangements & segregation?	
	Traffic management arrangement for deliveries?	
4. Storage and house keeping	Material storage locations?	
	Removal of waste?	
	Housekeeping arrangements?	
5. H&S standards	Induction and briefing arrangements?	
	Inspection and certification arrangements?	
	Training requirements?	
	First Aid arrangements?	
	Temporary Works arrangements?	
	COSHH assessments?	
	Lifting operations (Tower crane, mobile crane or excavator)?	
6. Environment	Control of Noise? Control of vibration? Control of Dust?	
	Discharge or groundwater arrangements?	
	Site specific sensitive receptors? i.e. River, groundwater, wildlife?	
	Task / Access lighting arrangements?	
7. Plant & Equipment	Plant and equipment required?	
8. Resources, supervision and monitoring	Identify supervisors/manager?	
	Required operatives?	
9. Sequence of works	Sequence of works and methodology?	
	Risk assessments?	
	Manual Handling?	
10. PPE	Mandatory PPE required?	
	Work specific PPE required?	
11. Further guidance?	Identify further guidance?	

Method Statement for Installation of Deep Drainage

1. SCOPE & LOCATION OF WORKS

The works comprise the construction of the surface water drainage network and associated sustainable drainage (SuDS) components serving Phase 3 of Horsham Enterprise Park (the former Novartis site), Horsham, West Sussex, comprising:

- Below-ground surface water drainage pipework, manholes, inspection chambers, catchpits and road gullies;
- Six attenuation storage tanks (proprietary crate systems, e.g. StormBloc or similar approved);
- Eight permeable paving areas (Type C lined construction with 30% void material sub-base) discharging via Permavoid diffuser outlets;
- Rain gardens with perforated pipe laid at the base of a stone trench;
- Flow control chambers (Permavoid diffuser units and S.E.L. flow control manholes fitted with calibrated orifice plates);
- New connections and sewer diversions to the existing public surface water sewer in vitrified clay pipe, and associated works within the Southern Water easement corridor.

The full extent and location of the works is shown on the drawing register above. The site is bounded as shown on Drawing 17100-AAL-XX-XX-D-C-5100 (General Arrangement).

The works will take place during normal site hours: 08:00 to 18:00 Monday to Friday. No work will take place outside of these hours without the written permission of the Principal Contractor / Client.

2. DURATION OF WORKS & START DATE

Duration: The surface water drainage installation will be phased to follow the enabling and earthworks packages and precede plot construction, in line with the Phase 3 infrastructure programme.

Start date: No works of surface water drainage construction (other than site survey and investigation, excluded from this Condition) will commence until approval from the Local Authority.

3. ACCESS AND EGRESS

Access to the working area will be as per the site layout plan, which will be updated as circumstances change. Access to the excavations will be via a tied ladder, battered ramp or stairway system. All ladders will extend above the landing area by 1 metre. All routes will be always maintained in a clear and safe condition. For shallow trenches steps will be cut into the ground to allow safe access.

Coinford will ensure any vehicles travelling around site travel on designated traffic routes, any reversing operations will be under control of a banksman. All open excavations will be provided with edge protection at all times except as required for access.

4. STORAGE AND HOUSE KEEPING

All materials will be stored in a pre-arranged storage area to be agreed by the Principal Contractor. The storage and works areas will be always maintained in a safe and tidy state. All excavations will be barriered off and secured after hours.

Materials (drainage pipework, attenuation crate units, geotextile membranes, permeable paving sub-base aggregates, flow control chamber components and orifice plates) will be stored in a pre-arranged storage area agreed with the Principal Contractor, clear of watercourses and the Southern Water easement corridor.

5. HEALTH AND SAFETY STANDARDS TO APPLY

- 5.1 All operatives involved in this operation will have received a site-specific safety induction and a toolbox talk briefing on this work. They will sign the enclosed Method Statement/Risk Assessment acknowledgement form and in doing so agree to work in accordance with these requirements.
- 5.2 Enquiries are to be made to establish the presence of buried services. Drawings must be checked, and the area CAT scanned prior to commencing, with CAT and Genny. Southern Water and other statutory undertaker records will be checked for the diverted/retained assets shown on the drawings. The soil report is also to be checked for contaminated land.
- 5.3 All excavations will be inspected at the beginning and end of each shift, and a record of inspection made in the CDM Register (HSF 804).
- 5.4 All trenches and excavations liable to collapse will have the necessary supports or battered sides. All excavations will be provided with edge protection.
- 5.5 All plant operators will be in possession of a valid CPC/NPORS card. Copies of all certification will be kept in the Company's site office.
- 5.6 All plant movements will be under the control of a Banksman.
- 5.7 All Lifting Plant and Lifting Accessories will have a certificate of thorough test and examination, be inspected prior to use, and a record will be kept and recorded every seven days into the LOLER Register (HSF801). This register will be kept either in the site office. All other Plant and Equipment Inspections will be recorded in the PUWER Register (HSF 802). Any lifting completed by an excavator will require an excavator-lifting plan to be produced.
- 5.8 All operatives will always wear the required PPE. Details listed in Section 10 of this Method Statement.
- 5.9 Operatives that need to wear a harness will be required to hold Harness or Confined space training.
- 5.8 The Principal Contractor will provide First Aid facilities and personnel. In addition, the Company may have in attendance an additional qualified First Aider.
- 5.9 All excavations need to be entered into the Temporary Works Register. The need for standard or designed solutions will be identified on the TWR. Where the excavations are open cut, solutions detailed in the CIRIA 97: Trenching practices documents can be utilised.
- 5.10 COSHH assessments will be completed for jointing compounds, grouts, sealants, fuels and any flocculant products used for water treatment (see Environment section).

6. ENVIRONMENT

All issues detailed in the Construction Phase Health and Safety Plan will be adhered to at all times. Careful consideration will be given to noise and dust pollution and the transmigration of dust, debris and concrete onto the public footpaths and highways adjacent to the works area. Any material that is removed from site, Coinford will maintain logs and complete waste transfer notes from all loads removed from site.

Sensitive Receptors

The principal environmental sensitivities affecting these works are the existing site ditches and watercourses, the existing and diverted Southern Water public surface water sewer and manholes, and the integrity of the agreed SuDS network itself. The Southern Water easement (3.5 m each side of retained pipes, shown hatched on the drawings) will be respected at all times.

Pollution Prevention and Silt Control

Construction-phase surface water and sediment control will follow established best practice for groundworks of this nature, adapted to the site-specific drainage layout shown on the approved drawings:

Silt fencing/ gully guards will be installed around the existing/new gullies before any excavation or earthworks begin, and inspected and maintained routinely by the site team.

Any dewatering required from excavations, trenches or manhole construction will be pumped to ground, or if discharged, to a settlement tank – never discharged directly to a watercourse, ditch or the public surface water sewer.

Where water remains visibly turbid after settlement, it will be passed through a pipe reactor (gel flocculant treatment) or equivalent treatment train, with a capture channel using silt/floc mats and silt wattles, before any onward discharge.

Noise, vibration and dust will be controlled in accordance with the Construction Environmental Management Plan (CEMP). Refuelling and plant storage will be located away from watercourses and drainage gullies, with drip trays used beneath static plant and spill kits maintained on site.

7. PLANT AND EQUIPMENT

- CAT & Genny
- 360° excavator(s) and associated lifting equipment
- Dumper(s) and tipper vehicles
- Trench and manhole boxes and associated safety equipment
- Compaction equipment (plate compactor, trench roller / rammax)
- Attenuation crate lifting and assembly equipment
- Settlement tanks
- Pipe testing equipment (air/water test rig, CCTV survey camera)
- GPS/EDM setting-out equipment
- Excavation rescue equipment (Davit arm or rescue stretcher)

8. RESOURCES, SUPERVISION AND MONITORING

- Engineer
- Plant operators
- Pipe layer
- Labourers as required

All works will be monitored by the Site Foreman on site, and the visiting Contracts Manager and Safety Advisor. Workplace Inspections will be carried out by the Foreman or visiting Manager and recorded on the appropriate form HSF 301. All accidents and incidents will be recorded and when required by RIDDOR, will be reported to the appropriate authorities using the form F2508. Any information relating to such incidents will be copied to the Principal Contractor/ Client as required.

Key SuDS elements – attenuation tank crate assembly, permeable paving construction and flow control chamber/orifice plate installation – will be inspected, witnessed, and as built by the Engineer prior to backfill, with records retained to demonstrate compliance with the approved drawings and Drainage Strategy.

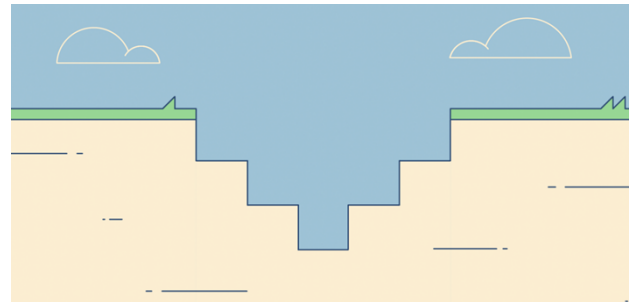
9. SEQUENCE OF WORKS

- 9.1 The area will be CAT scanned (CAT and Genny) for any existing services that have not already been identified and marked using spray paint. Existing service plans will be checked to see the location of any existing live services. If live services exist within 2m, engineer to set out positions from the 'As Built' drawings.

- 9.2 A permit to break ground will be issued prior to works commencing to be accompanied with a marked up drawing of all know services.
- 9.3 The Company's Engineer will mark out the drain run as marked on the approved drawings using GPS/EDM equipment.
- 9.4 An exclusion zone will be set up to ensure segregation between all mobile plant and pedestrians which is to be maintained at all times.
- 9.5 A trained banksman will control all plant movements within the working area and ensure all blind spots are managed at all times.

Open Cut

- 9.4 If space on site allows, if ground conditions are suitable and on-site assessment by the Site Manager deems suitable – the deep drainage may be installed by completing open cut excavations, therefore requiring no shoring equipment.
- 9.5 The excavation can be either battered at a safe angle (see CIRIA 97: Trenching practices report for safe angles depending on soil conditions) or stepped. For stepped excavations – for every 1m depth, there must be a 1m horizontal step.



- 9.6 Safe access via a gentle battered ramp, or Combisafe type stairway system to be used. 1m steps must NOT be used for safe access. Ensure operatives do not walk along steps.
- 9.7 Ground conditions must be routinely monitored at the beginning of every shift, after every break and after any situation that may alter the ground conditions (side loadings, weather etc). Site manager to record daily inspections on CDM register.

Drag boxes

- 9.8 A competent person will assemble the trench box\ at ground level. **The assembly instructions from the box manufacturer must be followed and provided to the operatives assembling the boxes.**
- 9.9 Once all boxes are assembled and the Permit to break ground signed, the excavation can commence.
- 9.10 Once the excavation reaches a depth of 1.5m, the bottom drag box can be lifted into the excavation. Tag lines to be used to control the box from a position of safety away from the edges of the excavation.
- 9.11 It will then be lowered into position using the excavator and chains in accordance with the site excavator lifting plan. The additional height of the box will offer fall protection to allow the chains to be removed from the box. Sheet piles may be used to close off open ends if needed.

- 9.12 An alternating sequence of excavation and lowering the trench box along will continue until the required depth is reached.
- 9.13 If a top unit is required for additional dig depth, then prior to installing the box within the trench. The top unit should be attached to the base by lowering the top panels over the base panels. Ensure all securing and safety pins are located into all connection points.
- 9.14 If at any point during the movement/dragging of trench boxes the box becomes stuck, operatives will stop immediately and report to site management so a separate SSOW can be produced for its safe removal. A designated extraction chain will be required, to avoid damaging the lifting chains.
- 9.10 Once the box has reached the correct depth, both sides outside of the box the ground will be levelled, and any voids filled.
- 9.11 If the box protrudes above ground level by 1m or more, then no edge protection panels need to be used. If the box protrudes above ground level by less than 1m – either the ground level either side of the box needs to be excavated and reduced until there is 1m height, or edge protection panels need to be fitted to both sides of the box.
- 9.12 **Wherever possible – maintain boxes 1m or more above ground level to prevent the need for edge protection installation and the risk of falls occurring.**
- 9.13 If edge protection panels are used – operatives are to fix edge protection panels to the edges of the box. Ensure the box is sat level and square within the excavation before attaching Edge protection to the side panels of the Drag Box. Always work from a position of safety. To protect against falls into the box at this point – operatives are to wear a harness and use a suitable anchor point.
- 9.14 Suitable anchor points would be - Davit arm attached to side of the box, Alsipercha hangman placed into weighted Kelly block, fall arrest block attached to either a manhole ring 1200 x 500mm or larger placed at a safe and suitable distance, or an 'O' ring of excavator chains placed directly above operative (excavator must be stationary and secured from accidental movement).
- 9.15 Safe access to the inside the box will be via a tied ladder and no works will take place outside the box. Ladder access platform to be attached to the side of the box. If boxes protrude 1m above ground level, a small ladder or Haki staircase will be required to access the ladder access platform.
- 9.12 Once operatives have entered the box all running machinery is to be switched off to ensure fumes do not enter the trench.
- 9.13 Once the pipelayer has entered the drag/manhole box the topman can position himself on the ladder platform and attach onto the handrail using a harness and lanyard to prevent falls into the excavation. This will enable them to keep communication with the pipelayer and enable them to operate the Davit winch in case of emergency.
- 9.14 If ground water is encountered, suitable pumps will be used to maintain a safe working area. See dewatering RAMS.
- 9.15 The drainage pipes will be placed to falls as per drawings on a bed of pea shingle, stabilised and haunched with shingle while being tested.
- 9.16 The areas around the pipes will be partially backfilled as per the specification.
- 9.17 The next section of trench can then continue to be excavated for the next section of pipes. Once the excavation reached the correct depth, the drag box can then be pulled forward.
- 9.18 The excavator will lift and drag the unit via the top front strut using the excavator bucket. Prior to entry check the access platform and edge protection panels remain secured.
- 9.19 The previous trench will then be carefully backfilled as per the specification and mechanically compacted in layers using a trench roller or rammex.
- 9.20 All excavated material will be transported to designated separate stockpiles unless otherwise instructed.

9.21 This procedure will continue until job completion.

Trench and manholes Boxes

- 9.22 A competent person will assemble the trench box\’s at ground level. **The assembly instructions from the box manufacturer must be followed and provided to the operatives assembling the boxes.**
- 9.23 Once all boxes are assembled and the Permit to break ground signed, the excavation can commence.
- 9.24 Once the excavation reaches a depth of 1.5m, the bottom Trench box can be lifted into the excavation. Tag lines to be used to control the box from a position of safety away from the edges of the excavation.
- 9.25 It will then be lowered into position using the excavator and chains in accordance with the site excavator lifting plan. Sheet piles will be used against 1 or 2 sides of the box as necessary.
- 9.26 Dig and push the base to the required depth advancing in 300mm increments by first digging within the box and then pushing each panel down using the excavator bucket on the panel excavator push points.
- 9.27 If a top unit is required for additional dig depth, then prior to installing the box within the trench. The top unit should be attached to the base by lowering the top panels over the base panels. Insert all connecting pins and safety clips.
- 9.28 If at any point during the movement/dragging of trench boxes the box becomes stuck, operatives are will stop immediately and report to site management so a separate SSOW can be produced for its safe removal. A designated extraction chain will be required.
- 9.29 Once the box has reached the correct depth, both sides of the box the ground will be levelled, and any voids filled.
- 9.30 If the box protrudes above ground level by 1m or more, then no edge protection panels need to be used. If the box protrudes above ground level by less than 1m – either the ground level either side of the box needs to be excavated and reduced until there is 1m height, or edge protection panels need to be fitted to both sides of the box.
- 9.31 If edge protection panels are used – operatives are to fix edge protection panels to the edges of the box. Ensure the box is sat level and square within the excavation before attaching Edge protection to the side panels of the Drag Box. Always work from a position of safety. To protect against falls into the box at this point – operatives are to wear a harness and use a suitable anchor point.
- 9.32 Suitable anchor points would be - Davit arm attached to side of the box, Alsipercha hangman placed into weighted Kelly block, fall arrest block attached to either a manhole ring 1200 x 500mm or larger placed at a safe and suitable distance, or to an ‘O’ ring of excavator chains placed directly above operative (excavator must be stationary and secured from accidental movement).
- 9.33 Safe access to the inside the box will be via a tied ladder and no works will take place outside the box. Ladder access platform to be attached to the side of the box. If boxes protrude 1m above ground level, a small ladder will be required to access the ladder access platform.
- 9.12 Once operatives have entered the box all running machinery is to be switched off to ensure fumes do not enter the trench.
- 9.34 Once the pipelayer has entered the drag/manhole box the topman can position himself on the ladder platform and attach onto the handrail using a harness and lanyard to prevent falls into the excavation. This will enable them to keep communication with the pipelayer and enable them to operate the Davit winch in case of emergency.
- 9.35 If ground water is encountered, suitable pumps will be used to maintain a safe working area.
- 9.36 The drainage pipes will be placed to falls as per drawings on a bed of pea shingle, stabilised and haunched with shingle while being tested.
- 9.37 The areas around the pipes will be partially backfilled as per the specification.

- 9.38 The next section of trench can then continue to be excavated for the next section of pipes. Once the excavation reached the correct depth, the next box can be installed as per the sequence above.
- 9.39 Once the 2nd trench box has been installed and the pipes laid and shingled, the 1st trench box can be removed.
- 9.40 Edge protection panels and ladder access platform to be removed. Always work from a position of safety. To protect against falls into the box at this point – operatives are to wear a harness and use a suitable anchor point. Suitable anchor points would be - Davit arm attached to side of the box, Alsipercha hangman placed into weighted Kelly block, fall arrest block attached to 'O' ring of excavator chains placed directly above operative (excavator must be stationary and secured from accidental movement).
- 9.41 The trench will then be carefully backfilled as per the specification and mechanically compacted using a trench roller or rammax.
- 9.42 All excavated material will be transported to designated separate stockpiles unless otherwise instructed.
- 9.43 This procedure will continue until job completion.

Manhole construction

- 9.44 The above sequence is to be followed to install a manhole box, with edge protection, access platform and Davit Arm.
- 9.45 Concrete to be placed into the manhole box to the base to be formed. Operatives must not be within the manhole box when placing concrete. Manhole channels and lateral rockers to be formed. Ensure the correct depth of concrete is placed over the soffit of the pipes.
- 9.46 Once base is complete, the first concrete manhole ring can be lifted into place. Ensure the lifts are completed as per the site Excavator lift plan. No lifting to be completed with operatives in the manhole box.
- 9.47 Once the ring just above the concrete base, operatives can assist to rotating/positioning the ring before it is slowly landed onto the concrete base.
- 9.48 Further rings can be placed with joints being completed as per the specification.
- 9.49 Depending on the depth of the manhole, it may be required to build the manhole up in sections (placing 2 rings, cover slab, concrete surround, strike shutter, remove cover slab, place further rings etc)
- 9.50 Wherever possible ensure the manhole rings protrude more than 1m above ground level to offer fall protection into the manhole. Where this does not become possible, alternative fall protection will be required.
- 9.51 Operatives to use the Davit arm connected to the manhole box and their harness to provide fall protection into the manhole during times the rings height above ground is less than 1m.
- 9.52 If manhole requires a concrete surround, concrete shutters to be lifted onto manhole and secured. Cover slab of manhole must be below the height of the concrete shutters, cover slab placed, and steel

manhole cover placed over cover slab opening. Concrete to be placed onto manhole and placed into shutter by operative. Operative to remain attached to Davit arm.

- 9.53 Concrete shutter to be removed (once concrete has cured) and ground backfilled around manhole with correct specification material, compacted in layers by rammax.
- 9.54 Once manhole reaches its final constructed height, steel manhole plate to be placed over the cover slab opening.
- 9.55 When road is being prepared for tarmac, steel manhole plate to be replaced with correct specification cover, bedded and haunched in place to prevent movement.

Remedial manhole works

- 9.56 Assess the manhole and works to be completed. If the manhole is deemed a Confined space, ensure AP 18 Confined Space procedure is followed. Use RA10 Confined space risk assessment.
- 9.57 Once manhole cover is removed, ensure the opening is protected by fencing barriers around the manhole.
- 9.58 Where remedial works are required on a concrete manhole which results in the removal of the cover slab, fall protection must be planned before works commence.
- 9.59 Removal the manhole cover slab will mean the manhole is lower than the surrounding ground level, and reducing the surround ground level down to offer fall protection will not be an option.
- 9.60 If the cover slab is removed, operatives must be protected against a fall. Operatives need a wear a harness and be fixed to a suitable anchor point. Alsipercha hangman placed into weighted Kelly block, a weighted man anchor, anchor point drilled and fixed into the tarmac or fall arrest block attached to 'O' ring of excavator chains placed directly above operative (excavator must be stationary and secured from accidental movement).
- 9.61 Where remedial works are required on a concrete manhole which results in the removal of the cover slab, fall protection must be planned before works commence.

Rescue planning

Works in Confined spaces must also include planning for rescue should an operative become unwell or injured whilst in the Confined space. Deep drainage works can be defined as a Confined space and sites should consider how they would retrieve an injured person from the excavation. One method which can be utilised in the use of a Davit arm detailed below.

High risk Confined space works

Where works are being completed in a high risk confined space the site to consider permanent attachment of the operative inside the Confined space to the davit arm. High risk areas would include sewers or pipes high risk of hazardous gases, lack of Oxygen or sewers/pipes likely to become high glow under certain conditions.

Fitting Davit arm to manhole/trench box

Lift and securely mount the lightweight davit clamp to a sufficiently robust and stable structure, usually the sides of manhole or trench boxes. Tighten using the 4 bolts and tool supplied. Once the clamp is fully tightened check that the base cannot be lifted, slide or rotate. Davit System must **NEVER** be clamped to sheets where the supporting waler is greater than 1.0m below ground level or cantilevered sheets.

- Using the mounting bracket on the lower pillar, install the fall arrest / rescue winch - placing the lip of the winch bracket into the cross bracket and secure into position using the locking pin.
- Rotate pillar so arm can be safely installed by hand from a position of safety. Lift into place slotting the upper davit pillar arm into the lower.
- Put the fall arrest / rescue winch into free-fall and extract the cable.
- If so desired you may allow the rubber ball on the cable to rest in the eyelet of the winch to prevent dirt entering.



RESCUE:

- Should a person become injured or unwell in the excavation the Davit arm can be used to recover the injured person.
- The davit can be used as a personnel recovery system in an emergency situation utilising a harness. Attach hook of fall arrest / rescue line through eye of suspension straps of the stretcher or harness attachment point.
- to rescue an injured party, engage winch arm by:
 - pulling out and holding positioning knob
 - push in winch arm and turn, ensuring that gears mesh
 - release the positioning knob
 - turn handle anticlockwise to lower the cable down into the excavation.
 - Attached the Davit arm cable to the attachment point on the harness and turn the handle clockwise to raise the stretcher/arrested person (whichever is quickest and safest).
- Once safely located above a safe area, lower the person/ stretcher to ground level using the winch.
- Always ensure davit operations are carried out from a point of safety and rescuers **DO NOT** stand on unsupported edges or put themselves at risk from falling in to the excavation.
- **In the event of a fall arrest incident place the equipment into quarantine.**
- The winch arrest hook will indicate that a fall arrest incident has occurred and is **NOT** to be used until repaired.

Alternative rescue plan

An alternative rescue plan if Davit arms are not being used is to utilise a rescue stretcher. In this situation an injured person is placed into a rescue stretcher and lifted out of the excavation by the attending excavator. A full sequence RAMS is available for this option.

Excavation and Pipe Laying

- Excavate to line and level using open-cut or supported (trench box) methods as ground conditions require.
- Drainage pipes will be placed to falls as per drawings on a bed of pea shingle, stabilised and haunched with shingle while being tested.
- The areas around the pipes will be partially backfilled as per the specification, then fully backfilled and compacted once testing is complete.

Attenuation Tank Installation

- Excavate to formation level and prepare a level, stable base; lay geotextile membrane wrap in accordance with the manufacturer's installation guidance.
- Assemble and install the proprietary crate units (e.g. StormBloc or similar approved) to the area, depth and base/top crate levels shown for each tank; wrap and backfill in accordance with the manufacturer's specification.
- Protect completed tanks from construction traffic loading until permanent surface finishes are in place.

Permeable Paving Construction

- Excavate and prepare formation to the specified minimum sub-base depth for each area; install the Type C lined system with 30% void material sub-base, laid to falls of 1:1000 toward the Permavoid diffuser outlet.
- Install the Permavoid diffuser unit and confirm the outlet connection before placing the permeable surfacing.

Flow Control Chambers and Commissioning

- Install each flow control manhole and fit the orifice plate size specified for that location (see the SuDS Components and Flow Control Schedule).
- The Engineer will inspect and verify each installed flow control prior to backfilling, confirming the as-built configuration matches the approved drawings and design discharge rate.

Connections, Testing and Reinstatement

- Construct new connections to the existing public surface water sewer and any sewer diversions in vitrified clay pipe, in liaison with Southern Water where the works affect their assets.
- Carry out pipe testing (air or water test) and CCTV survey of the completed network; verify flow control performance.
- Reinstatement surface finishes above the SuDS network; remove temporary environmental controls only once the contributing catchment is stabilised.
- Produce as-built survey and record drawings confirming the constructed scheme matches the agreed drawings and Drainage Strategy, for issue to the Applicant and the Local Planning Authority's records.
- This procedure will continue until job completion.

SuDS COMPONENTS AND FLOW CONTROL SCHEDULE

This schedule summarises the SuDS components and flow control mechanisms shown on the approved drawings, for ease of reference alongside the drawings themselves.

Attenuation Storage (proprietary crate system, e.g. StormBloc or similar approved)

Component	Area (m ²)	Depth (m)	Base level (m AOD)	Top level (m AOD)	Drawing ref.
Attenuation Tank 1	42.2	0.690	54.820	55.510	5101
Attenuation Tank 2	282.2	1.350	54.275	55.625	5102 / 5103
Attenuation Tank 3	225.0	1.470	54.715	56.185	5101 / 5103
Attenuation Tank 4	73.6	1.320	54.885	56.205	5102 / 5104
Attenuation Tank 5	48.0	0.690	55.190	55.880	5104
Attenuation Tank 6	135.0	1.050	55.185	56.235	5102 / 5104

Permeable Paving Areas

Component	Area (m ²)	Min. sub-base depth	Specification
Permeable Paving 1	253.8	0.500	Type C lined construction, 30% void material sub-base, laid at 1:1000 gradient toward Permavoid diffuser outlet
Permeable Paving 2	250.8	0.800	Type C lined construction, 30% void material sub-base, laid at 1:1000 gradient toward Permavoid diffuser outlet
Permeable Paving 3	340.0	0.600	Type C lined construction, 30% void material sub-base, laid at 1:1000 gradient toward Permavoid diffuser outlet
Permeable Paving 4	377.4	0.800	Type C lined construction, 30% void material sub-base, laid at 1:1000 gradient toward Permavoid diffuser outlet
Permeable Paving 5	440.4	0.700	Type C lined construction, 30% void material sub-base, laid at 1:1000 gradient toward Permavoid diffuser outlet
Permeable Paving 6	306.4	0.600	Type C lined construction, 30% void material sub-base, laid at 1:1000 gradient toward Permavoid diffuser outlet
Permeable Paving 7	199.3	0.600	Type C lined construction, 30% void material sub-base, laid at 1:1000 gradient toward Permavoid diffuser outlet
Permeable Paving 8	246.5	0.750	Type C lined construction, 30% void material sub-base, laid at 1:1000 gradient toward Permavoid diffuser outlet

Flow Control / Discharge Rates

Discharge from the site is restricted at a number of controlled locations, each fitted with a Permavoid diffuser unit and S.E.L. flow control manhole with a calibrated orifice plate, as follows:

Location (drawing ref.)	Design discharge rate	Mechanism
Sheet 1 (5101) – main site outfall	7.0 l/s	Permavoid diffuser unit and S.E.L. flow control manhole fitted with a calibrated orifice plate

Location (drawing ref.)	Design discharge rate	Mechanism
Sheet 2 (5102) – flow control A	8.2 l/s	Permavoid diffuser unit and S.E.L. flow control manhole fitted with a calibrated orifice plate
Sheet 2 (5102) – flow control B	20.0 l/s	Permavoid diffuser unit and S.E.L. flow control manhole fitted with a calibrated orifice plate
Sheet 2 (5102) – flow control C	60.0 l/s	Permavoid diffuser unit and S.E.L. flow control manhole fitted with a calibrated orifice plate
Sheet 4 (5104) – flow control D	8.2 l/s	Permavoid diffuser unit and S.E.L. flow control manhole fitted with a calibrated orifice plate
Sheet 4 (5104) – flow control E	21.5 l/s	Permavoid diffuser unit and S.E.L. flow control manhole fitted with a calibrated orifice plate

All discharge rates and orifice sizing are as shown on the approved drawings and are to be constructed and verified strictly in accordance with the Drainage Strategy. Rain gardens (100 mm diameter perforated pipe laid at the base of a stone trench) are distributed across the landscaped areas of the site and provide additional treatment/attenuation ahead of the piped network.

10. PPE

The following PPE will be required for this operation and will be issued and signed for by the receiving operative.

ITEM	STANDARD	REQUIREMENT
Hard Hat	BS EN 397	(Mandatory)
Hi Visibility Jacket	BS EN 471 Class 3	(Mandatory)
Protective Footwear	BS EN 345	(Mandatory)
Hand Protection	General Purpose Gloves	(Mandatory)
Protective Coveralls	BS EN 340 (Type 5)	(As required)
Safety Goggles	BS EN 166B	(As required)
Vapour/Particulate Respirator	BS EN 149	(As required)
Safety Gloves	BS EN 388	(As required)
Safety Harness (No built-in fall arrester)	BS EN 361	(As required)
Ear Defenders/Plugs	BS EN 352	(As required)
Waterproof / Waders	BS EN 343/ BS EN ISO 20345	As required (dewatering)
Trousers/Shorts	Shorts allowed except when concreting or tarmacing	

11. GENERAL GUIDANCE

Further guidance on these works is contained in the following

- The Company's Health & Safety Management System AP 20 Working at Height, AP 23 PPE, AP 18 Confined Space, AP 16 Groundworks.
- GE700 from Construction Skills issued to all Managers
- CIRIA 97: Trenching practices report
- HSG47 Avoiding Danger from Underground Services
- Flood Risk Assessment and Drainage Strategy – Arch Associates, Project No. 17100, Issue C, dated 12 September 2025
- Approved construction drawings 17100-AAL-XX-XX-D-C-5100 to 5104 (see Drawing Register)
- CIRIA C753 – The SuDS Manual
- Sewers for Adoption / Design and Construction Guidance (Southern Water)
- Manufacturer's installation guidance – attenuation crate system and Permavoid diffuser units

12. AMENDMENTS

If any variation to this method is required, then the amendment must be recorded below or on a Task Sheet (HSF 901). All operatives are to be briefed on the changes and revised methods.



RISK ASSESSMENT

Hazard	Consequence	Who is at Risk?	Risk Score			Control Measures	Remaining Risk Score		
			L	S	Score		L	S	Score
Working around moving plant Contact with personnel Contact with other plant Failure of plant Mis-use of plant Lifting operations	Death or Major Injury Damage to plant and property	Employees Members of Public	4	4	16	• All plant movements to be under the direct control of a trained and competent banksman; all bind spots to be controlled. • All plant operators to hold relevant CPCS/NPORS cards for plant operated with lifting ops if lifting trench/manhole boxes. • Robust exclusion zones to be in place around all items of plant to provide segregation between machinery and pedestrians/site personnel. • All operatives to signal the plant operator and ensure the signal is seen before approaching the plant. ("Thumbs Up") • Daily pre use checks to be completed prior to operation of any item of plant with faults reported immediately with site management. • Flashing beacons to be operational all times the plant is running. • Where personnel are working within trench all plant to be switched off to reduce impact of exhaust fumes. • All persons to wear hi-visibility clothing • Procedure for lifting trench/manhole boxes to be detailed within site excavator lifting plan. • Operatives to follow risks and controls outlined in associated document RA-02 The Operation of Plant	1	4	4
Contact with live services Electrocution	Death or Major Injury Burns for contact with electricity	Employees/3 rd Parties	3	4	12	• Ensure CAT & Genny survey is completed, with trial holes, before any mechanical digging. • Permit to dig to be accompanied by up-to-date service drawings with known services identified. • CAT & Genny scans to be completed by trained operatives only. • No mechanical digging to take place within 500mm of identified services. • Hand digging to take place with insulated shovels.	1	4	4

Hazard	Consequence	Who is at Risk?	Risk Score			Control Measures	Remaining Risk Score		
			L	S	Score		L	S	Score
Falls into Excavations Falls by persons into excavations Fall of plant into excavations	Death or Major Injury due to fall from height or contact from falling plant.	Employees/3 rd Parties	3	4	12	• Robust exclusion zones consisting of clipped heras fencing to be installed around all excavations accompanied by "Deep Drainage" warning signage. • Access into excavations/trench boxes is to be by secured ladder only fixed to secure access platform with safety gate. Haki staircases or ladder to be used to access platform if required. • Safety gate to be secured during breaks and at the end of each shift. • Edge protection to be installed to all trench/manhole boxes and to be fitted before box has been lowered fully into the ground so operatives are not approaching a lead edge to fit protection. • If operatives require to work around leading-edge adequate control measures to be established including working from a fixed anchor point and alsipercha system. See section 9 for further details. • Plant movements next to excavations to be managed by trained banksman at all times. • Plant stop blocks to be in place to prevent plant from approaching edges of excavations.	1	4	4
Fall into Manhole	Death or Major Injury	Employees/3 rd parties	4	4	16	• Ensure all manholes have correct covers placed. • During construction of manhole – use manhole steel plate on manholes cover slab to protect against falls into manhole. • If placing of steel manhole plate or cover is not possible, fence off manhole opening to prevent access. • During construction keep ground level around manhole 1m or greater, therefore manhole ring will offer fall protection. • Where this is not possible alternative means of protecting against a fall is required. See section 9 for details.	1	4	4
Collapse of excavation	Death or Major Injury	Employees/3 rd parties	4	4	16	• All excavations to be stepped/benched or battered as per ground conditions and weather conditions requires. • When required proprietary ground support systems to be used and installed in accordance with manufacturers guidelines. • No personnel are ever to enter an unsupported trench under any circumstances. • Trenches deeper than 1.5m should have trench support system in place, weather and ground conditions permitting. Depending on	1	4	4

Hazard	Consequence	Who is at Risk?	Risk Score			Control Measures	Remaining Risk Score		
			L	S	Score		L	S	Score
						ground conditions a support system may also need to be utilised for shallower excavations. - Only competent operatives to decide whether a trench requires stepped sides or a trench box. - Suitable egress to be in place to allow for quick exit in the event of an emergency. - Ensure operatives are trained and briefed on a suitable rescue plan.			
Working in confined spaces Working in hazardous environments Contact with chemical/biological hazards	Asphyxiation Inhalation of exhaust fumes Drowning Heat Stress Weils Disease	Employees/3 rd parties	3	4	12	- When an area has been identified as a confined space risks and control measures outlined in RA-10 Working in a Confined Space are to be followed at all times. - Operatives to have the correct confined entry and top man training. - All operatives to have been fully briefed as to rescue plans prior to works commencing. - A permit for confined space entry is to be issued prior to works commencing. - Fully certified winch system to be in place and present on the site LOLER register with all inspection certificates available. - Gas recordings to be taken at various depths at the start and during the operation. - The top man will not leave the area on ground level at any time whilst operatives are working below. - If operatives feel unwell at any time, they are not to enter the confined space; if operatives feel unwell whilst working, they are to report to the top man immediately and exit the trench immediately. - Operatives to have received a TBT on Weils disease to ensure the symptoms are recognised. - All plant to be turned off to ensure exhaust fumes do not enter the confined space.	1	4	4



Hazard	Consequence	Who is at Risk?	Risk Score			Control Measures	Remaining Risk Score		
			L	S	Score		L	S	Score
Manual Handling Effects of lifting/movement of materials	Muscular skeletal Injuries	Employees	3	3	9	- All operatives to follow all control measures outlined within RA-07 Manual Handling - Always use mechanical means of lifting if available. - When assessing a lift to be carried out manually supervisors and managers to consider T.I.L.E before completing an individual assessment. - Operatives to recognise their capabilities and only lift weights that they are comfortable with.	1	3	3
Noise and Vibration	Hearing loss; deafness White finger; blanching	Employees, 3 rd parties	3	3	9	- All operatives to follow all control measures outlined within RA-13 Noise & Vibration. - Operatives to be aware of the trigger times for all tools. - Task rotation to be implemented when necessary. - HAV recordings to be monitored, maintained and available. - Hearing protection zone signage to be displayed. - Task specific PPE worn at all times including earmuffs or ear plugs.	1	3	3
Damage to existing / diverted Southern Water assets	Loss of service, flooding, cost/programme impact	Public / operatives	3	2	6	3.5 m easement maintained each side of retained pipes (per drawing hatching); no excavation, plant crossing or storage within the easement without Engineer/Southern Water agreement; services scan and trial holes prior to excavation.	2	1	2



Risk Matrix Calculation

<u>SEVERITY RATING</u>	
<u>Index</u>	<u>Description</u>
1	No injury, damage, sickness or loss (with no time off)
2	Minor injury or illness, minor damage or loss (and/or up to 7 days off)
3	Reportable injuries or illness, substantial damage or loss (or over 7 days off)
4	Major injury, long term absence
5	Fatality, catastrophic damage or loss (Death)

<u>LIKELIHOOD RATING</u>		
<u>Index</u>	<u>Description</u>	<u>Definition</u>
1	Very Unlikely	Less than once every 10 years
2	Unlikely	Once in every 5 - 10 years
3	Likely	Once in every 2 - 5 years
4	Very likely	Once in every 2 years
5	Certain	More than once a year

L I K E L I H O O D	1	1	2	3	4	5
	2	2	4	6	8	10
	3	3	6	9	12	15
	4	4	8	12	16	20
	5	5	10	15	20	25
		1	2	3	4	5
		SEVERITY				

The level of risk is indicated by the following shading	
Very High	16 - 25
High	11-15
Medium	6 - 10
Low	1 - 5