

RAMS

Client Name:	Eastleigh Borough Council		Site Address/ Location:		
Contract Number	K25020		Address: Northern site compound; Fir Tree Ln, Horton Heath, Eastleigh SO50 7DF		
Contract Title:	EBC One Horton Heath				
Document Number	K25020/RAMS 5 /Rev A				
Prepared by	K Grad	Reviewed by	C Frize	Date	13/03/23
Title: Works in vicinity of watercourses (Environmental)					
1. Scope					
Scope of work include below: Safeguard measures when working within 10m buffer zones of any watercourse - The method statement shall cover the following requirements: - Timing of works - Details of use of construction machinery including the location and storage of plant, materials and fuel, access routes and haul roads, biosecurity). - Details of water management arrangements during construction including SUDS and other pollution control and prevention measures especially with regards to measures used to prevent the release of soil, silts and sediments, chemicals and fuels/oils into watercourses. - Details of protection of watercourses through the use and management of buffer zones - Details of pollution prevention and spillage control arrangements.					
2. Personnel Involved					
Luddon personnel: Senior Site Agent Mark Hill Foreman Drew Mears Manager Kasia Grad Site Engineer Dominika Andrzejewska 1 gang / road box excavation, installation of capping material 2 gangs/ SuDS construction					
Site/ Task Supervisor			Site Safety Officer/ Advisor		
Kasia Grad 079704 30834 Drew Mears 07583 070522			Ronnie Savage 07929 669876		
3. Equipment and Materials					
Equipment	Please refer to the table with construction dates in Methodology				

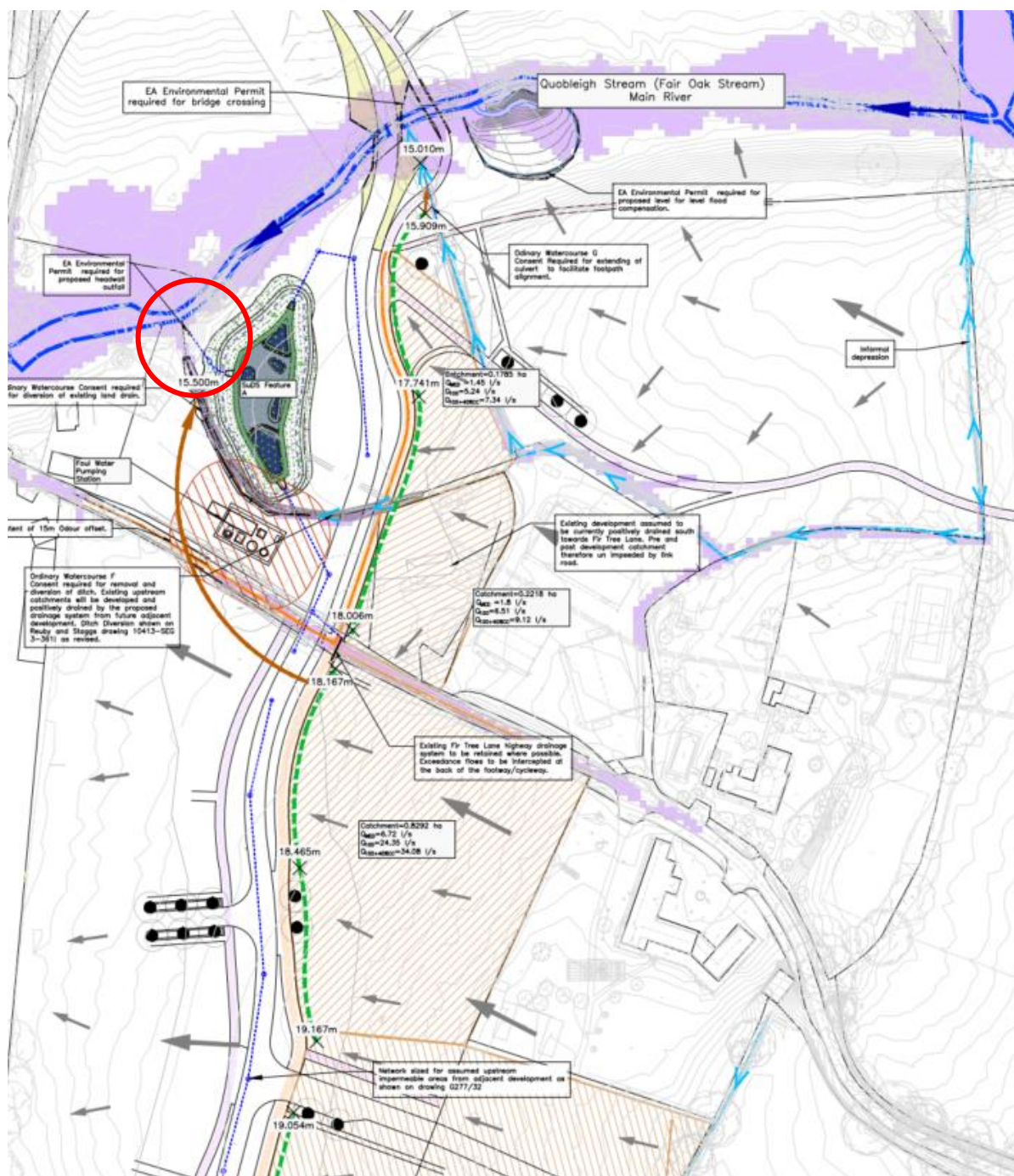
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Materials	• 6F2 aggregate • Clean shingle • drainage pipes • Precast concrete components • Sand bags • Silt traps • Geomembrane liner • Spill Booms and Bunds • Spill kits • Concrete							
4. Personal Protective Equipment								
Tick []: Mandatory pre-ticked.	✓	✓	✓	✓		✓		✓
								
	Safety Boots (not rigger type boots)	Helmet	Gloves	Eye Protection	Coveralls	Hi-viz	RPE	Ear defenders
	Other: Overalls to conform to the below spec; • EN ISO 13688:2013 - General requirements for protective clothing • EN ISO 20471:2013 Class 3 - Test method for high visibility • EN 1149-3:2004 - Anti Static - Test methods for measurements of charge decay • EN 1149-5:2008 - Anti Static - Material performance and design requirements • EN ISO 11611:2015 (Class 1 A1 A2) - Protective clothing for use in welding • EN ISO 11612:2015 (A1 A2 B1 C1) - Protection against heat and flame ARC FLASH IEC 61482-2:2009 - Performance requirements and design requirements EN 61482-1-2:2007 (Class 1 = 4kA) - Box Arc testing EN 61482-1-1:2009 (ATPV = 10.8 Cal/cm2) - Open Arc testing							
5. Temporary Works								
TBC								
6. Working Area								

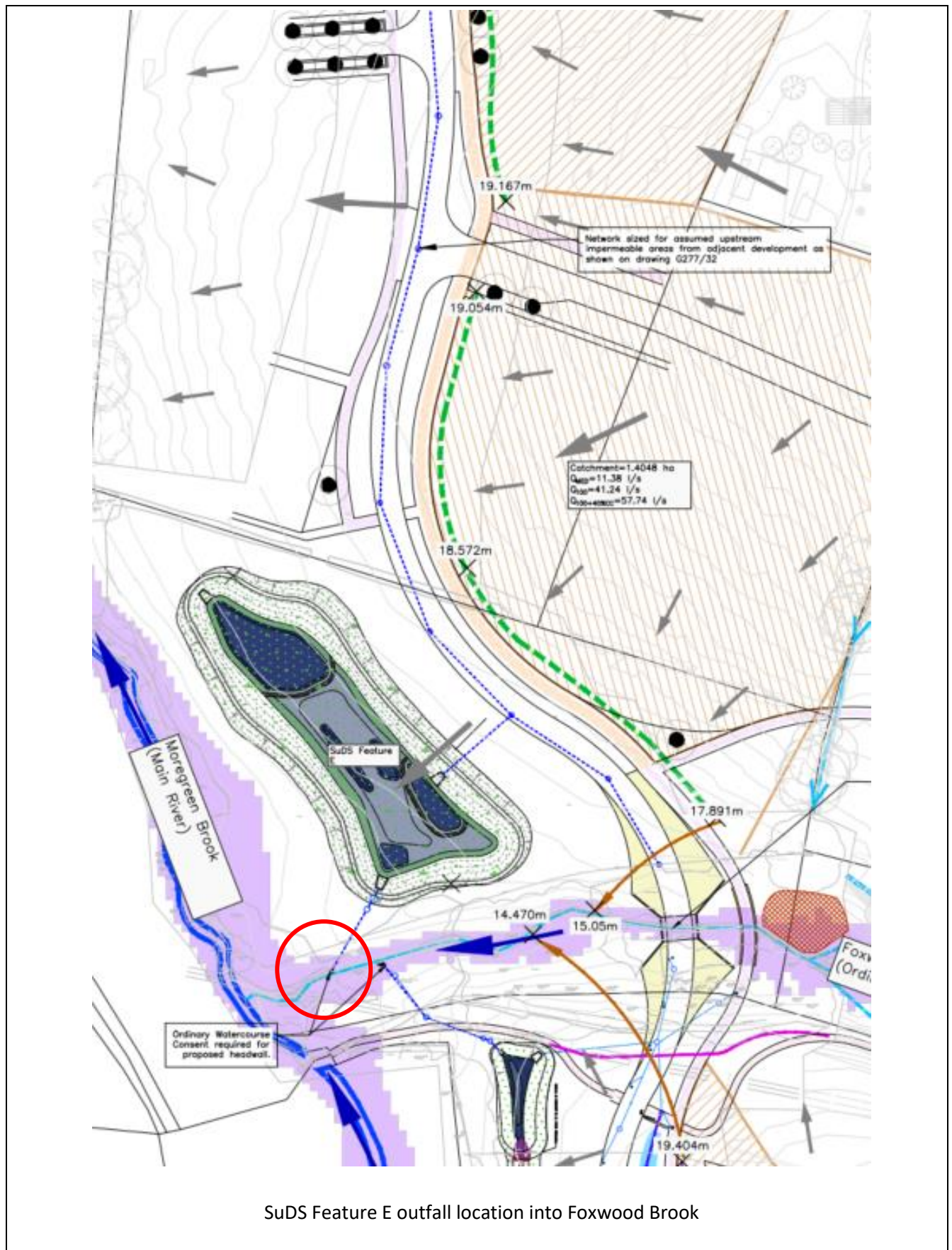


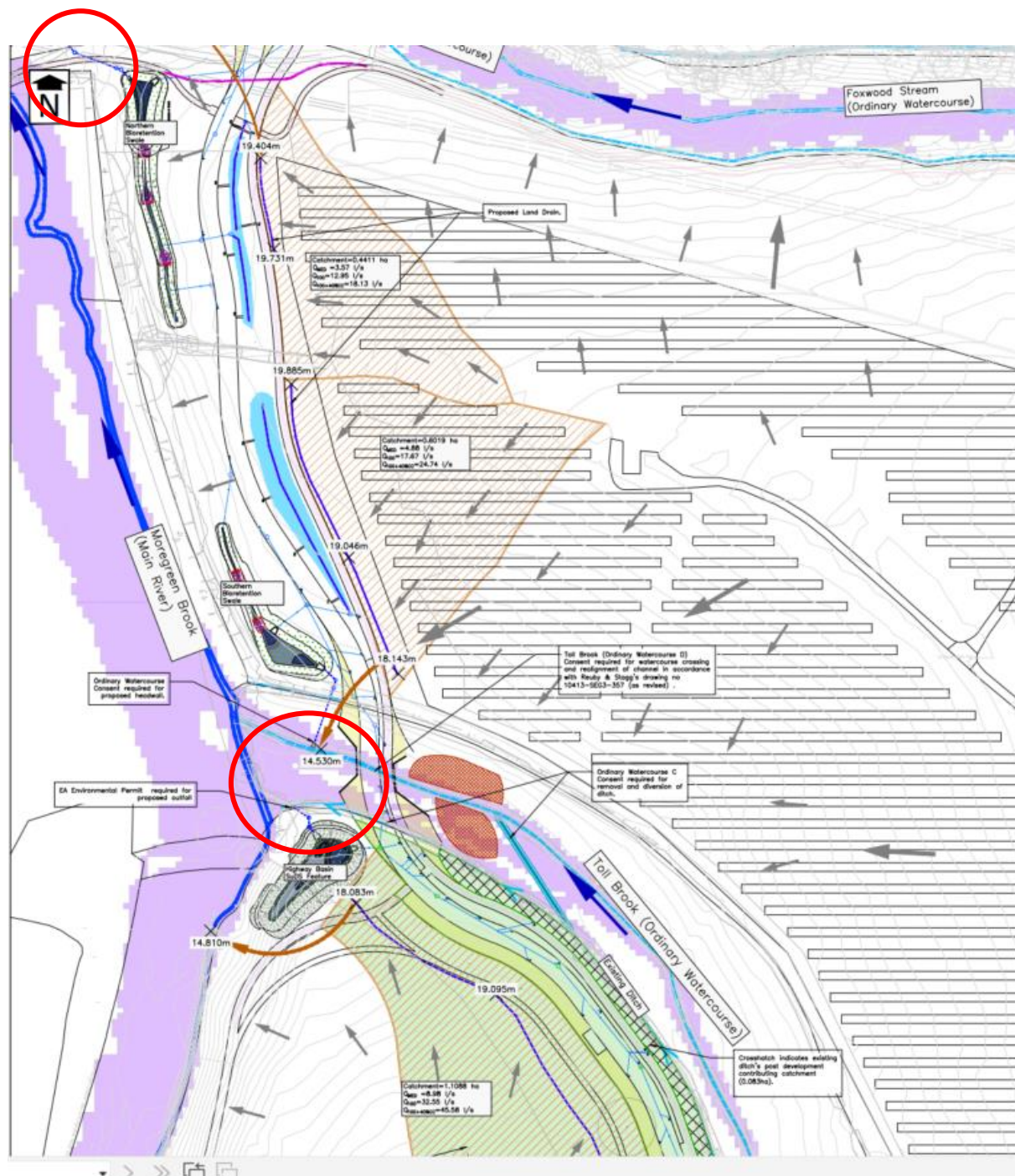
Site location

Locations of SuDS works within the 10m buffer zone

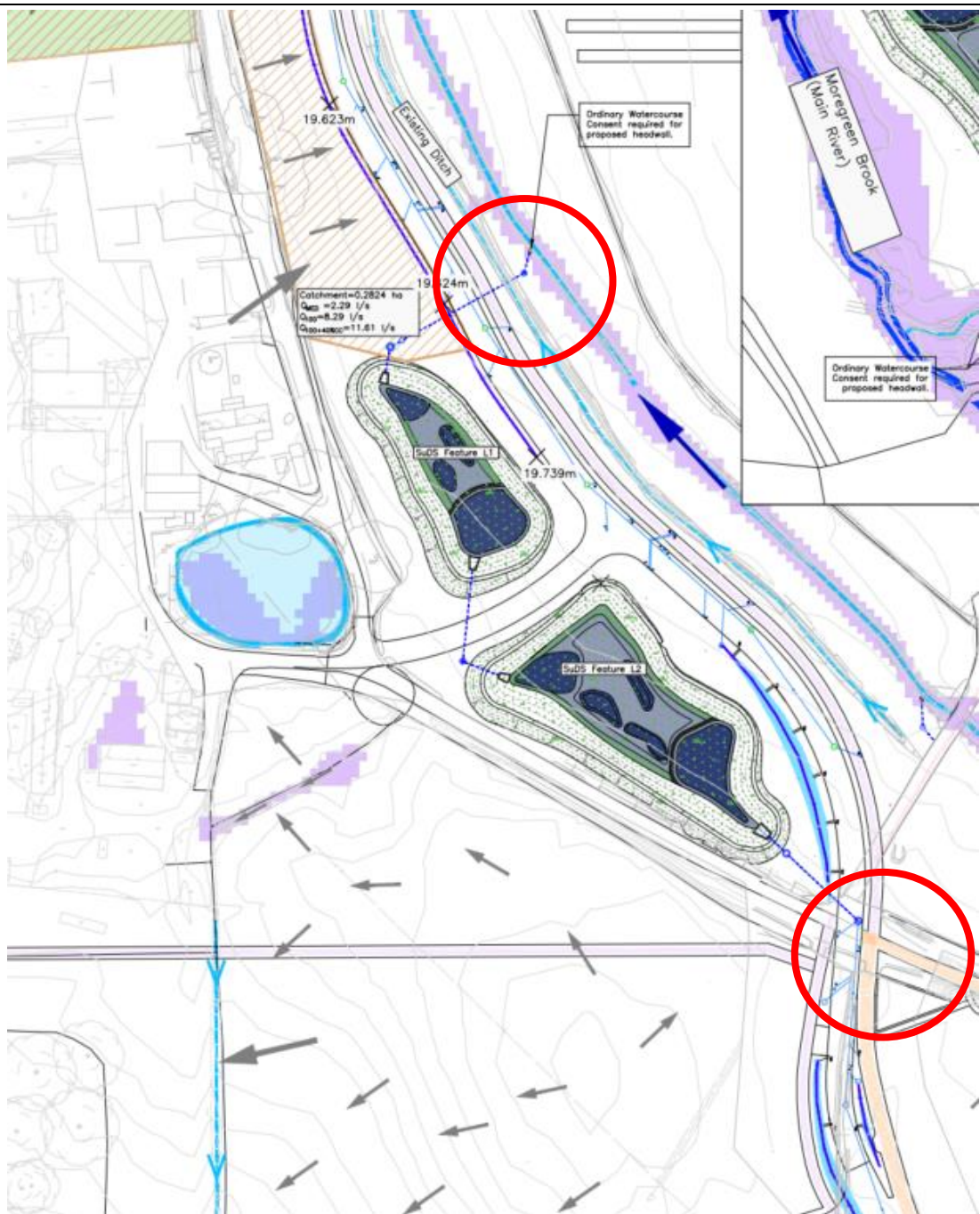


SuDS Feature A outfall location into Quobleigh stream





Bio-retention and Highway Basin outfall locations into Foxwood and Toll Brook



SuDS Feature L1 and L2 outfall locations into Toll Brook

7. Access & Egress, Plant material storage

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Access

- Works will be accessed from the compounds at Fir Tree Lane and Chalcroft Farm.



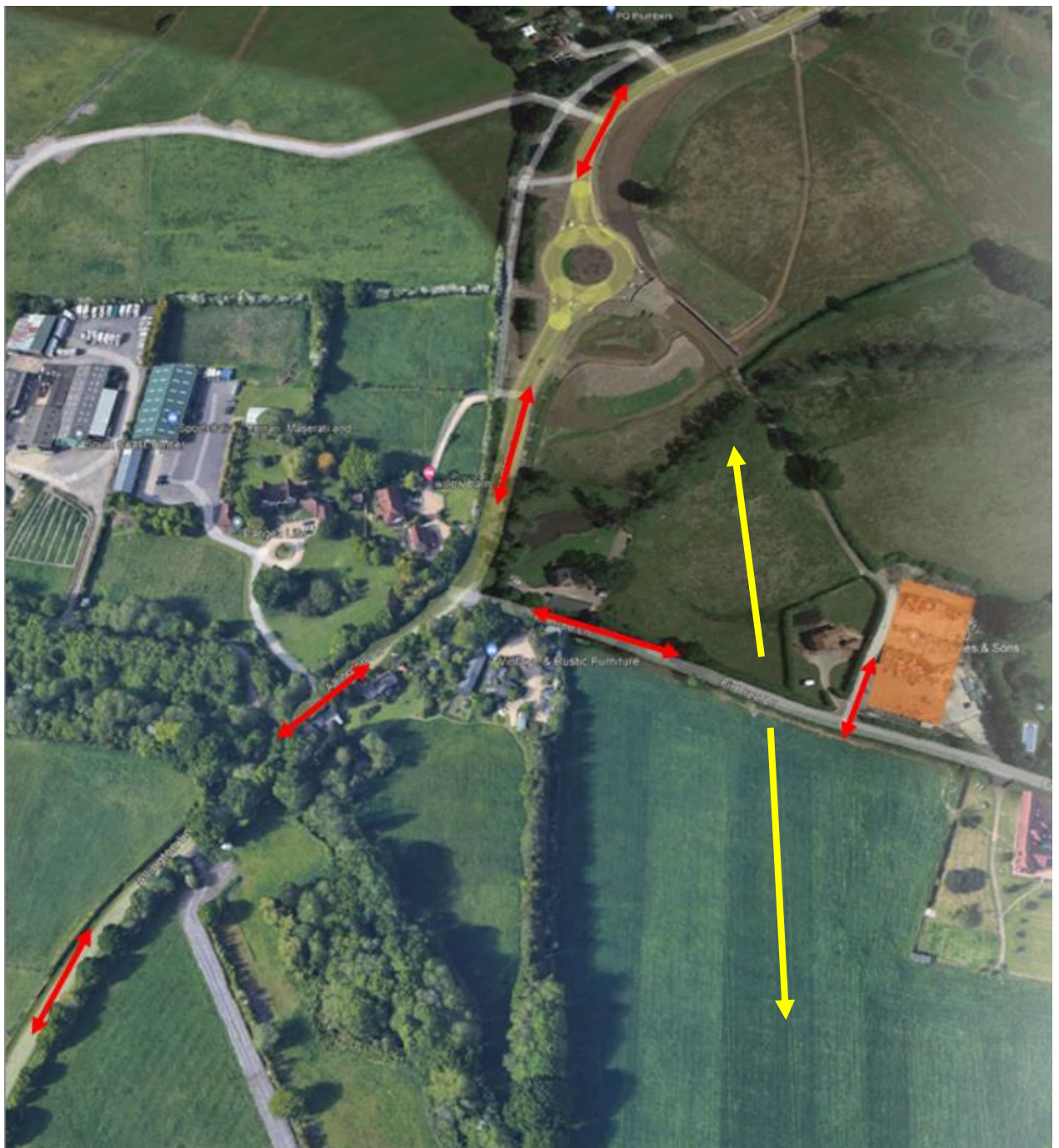
Compound locations



Access from Compound to works areas



Access for deliveries to compound



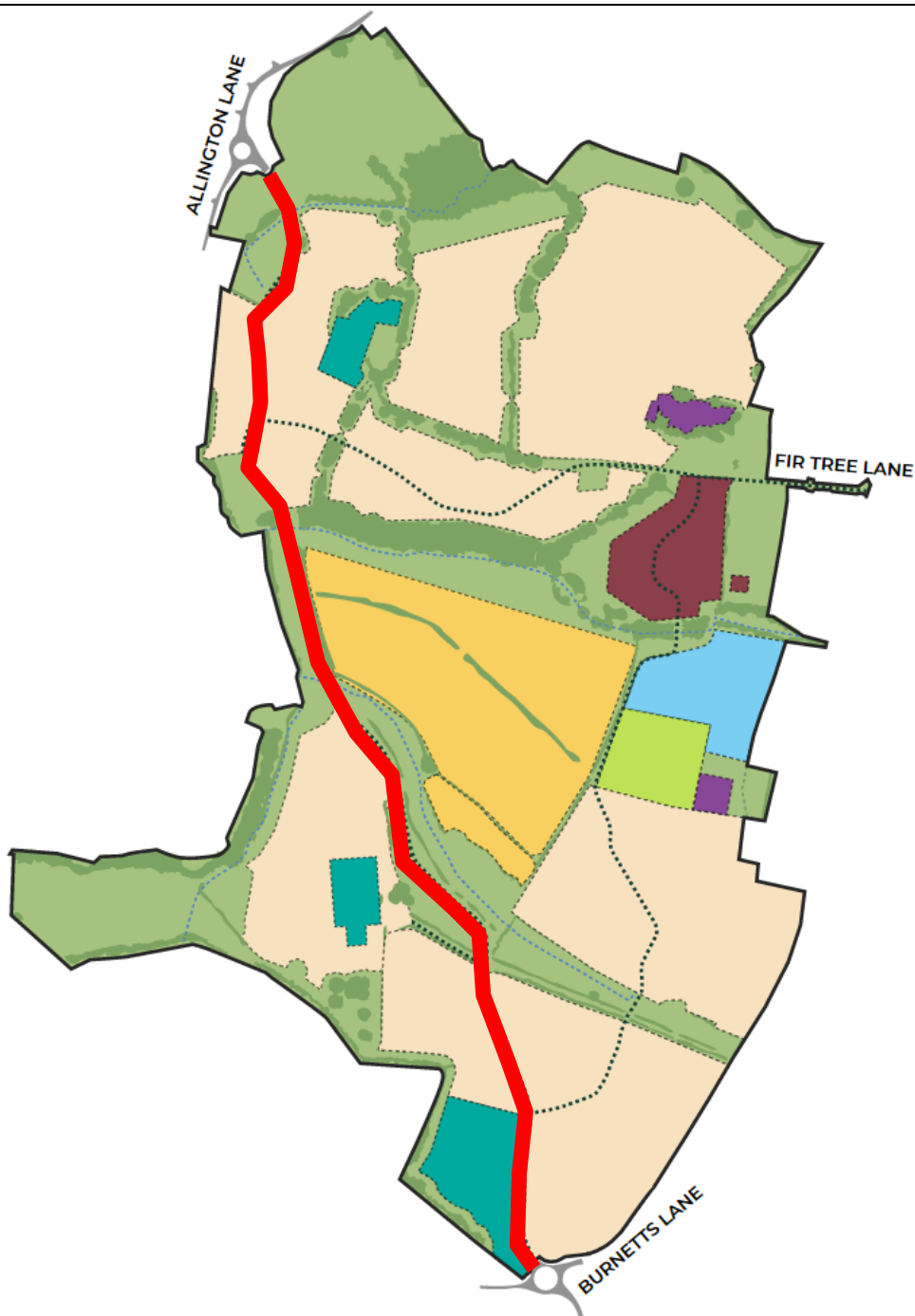
Northern Compound Access (Fir Tree Lane)



Southern Compound Access (Chalcroft Darn)

Haul Roads

- The main haul road through the site shall be formed as part of the permanent road works. The haul road shall be built up of a layer of geogrid with 300mm of 6F2 capping placed on top. This haul road shall link the roundabouts at Allington Lane to Burnett Lane. The line of the haul road is shown below.



- Where the haul roads encroach the 10m buffer zone i.e. brook crossings, the buffer zone shall be pegged out with pins and ticker tape to ensure vehicles stay out of this area and only use the designated haul road
- Secondary haul road shall be constructed with stone or track mats to works not sited within the road box i.e. foul pumping stations. The 'tributary' haul road shall come off the main haul road at the closest point to the works site. Vehicles to remain on the haul roads at all times until reaching the works area.

Material storage

- Materials will generally offloaded in the compound and then taken out to the point of works.

Aggregates shall be taken to the point of tip.

- All Fuel and COSHH items will be stored overnight within the compounds. Fuel will be stored within bunded tanks. COSHH will be stored in designated COSHH stores.
- No materials shall be stored within a flood plain or within the 10m buffer zone of a watercourse.
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Plant Storage

- Plant will generally be parked within the compound areas when not in use. Where this is not feasible, designated areas will be set out. These areas will have to move as works progress along the road.
- Plant shall not be parked up when not in use within the 10m buffer zone of the watercourse or flood plain areas.
- Plant will only be parked on haul road areas
- Small plant shall be taken back to the stores at the end of each shift and stored on spill mats.

Fuelling arrangements

- To prevent plant having to track long distances back to the compound to refuel, a towable bowser will be taken to designated fuelling points along the haul road
- All fuelling points shall be outside of any buffer zone (min 30m from watercourse)
- Fuelling points shall have spill kits at each location
- Spill mats shall be placed under the machine when fuelling.
- Towable bowser shall be returned to the compound for overnight storage each shift.

8. Additional Assessments

a) Refer to COSHH Assessments No(s):	TBC
b) Refer to Manual Handling Assessment No(s)	TBC
c) Refer to Noise Assessment No(s):	TBC
d) Refer to HAV Assessment No(s):	TBC
e) Refer to Lift Plan No(s):	TBC

9. Procedure

General rules

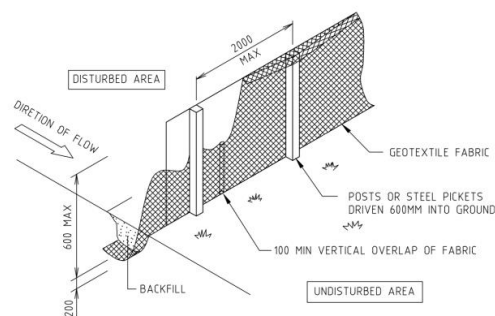
- Site induction to include ecology & environmental controls as well as pollution emergency response. All site team are to be briefed on the location of the 10m buffer zone demarcation areas.
- Agreed methodology and risk assessments to be briefed to all workforce and visitors
- Tree protection/hedgerow fencing is already installed
- Permits to work issued by Ecological Clerk of Works if required
- Inspection with Ecological Clerk of Works prior to works starting and during the works
- Regular inspections of fencing/barriers
- Regular Toolbox Talks on environmental constraints and measures
- All plant to have a daily inspection recorded ensuring that there are no oil / hose leaks. Any plant with a fault shall be quarantined until repaired.
- Spill kits to be located adjacent to any activities within the buffer zone

Water Management Arrangements

Activity	Approximate date of installation	Proposed Plant and Equipment
Excavation of road box and construction of haul roads in location of footpath	North 24/04/23 - 23/06/23 South 24/06/23 - 11/08/23	21t tracked excavator 25t Articulated dump truck(s). transport lorries with 6F2 material 20T (approx.50 per day) CAT D6 Dozers including with GPS equipment Self-propelled compaction equipment. Bunded Fuel bowser
SuDS Feature A (Headwall Outfall Quobleight Stream)-	16/06/23-28/06/23	9t / 13t tracked excavators 9t dumpers
SuDs Feature E- (Headwall Outfall Foxwood Stream)	29/06/23-28/06/23	
Northern bio-retension swale (Headwall Outfall Foxwood stream)	17/07/23-24/07/23	
Southern Bioretension Swale (Headwall Outfall connection to Toll Brook)	24/07/23-03/08/23	
Highway Basin SuDs Feature (Headwall Outfall-connection to existing ditch)	07/08/23-16/08/23	
SuDS Feature L1- (Headwall Outfall-connection to existing ditch)	16/08/23-31/08/23	

Site preparation

- Prior to any work commencement on-site, water samples for each location (above and below the works) must be taken to prove existing condition of the streams. Water sampling will be carried throughout the duration of the works. Testing records include: date, time, location, visual, odour, pH level, suspended solids, temperature , conductivity and other observation or comments.
- Prior to any work commencement the stream must be inspected and checked for the presence of fish.
- Silt nets shall be erected downstream at each of the works location prior to any works. The nets shall remain in place for at least 3 days once the works in the area are completed.



SEDIMENT FENCE DETAIL
NOT TO SCALE

- Any surplus soils not used to backfill with shall be removed from the buffer zone.
- Weather conditions and water flows will be monitored regularly to foresee any potential flooding or high flow events that could impact the works area.
- The buffer zone shall be pegged out and demarked with tape adjacent to the works sites to make operatives aware that they are now entering the 10m zone.

Stock Pile locations of surplus soils

- Stock piles of surplus topsoil and subsoils shall be moved to the locations below. The locations shall be outside the 10m buffer zone from watercourse.

FRP stock pile location



Chalcroft Farm Stockpile location



SuDS Ponds construction (outfall into brooks)

- Each one of the SuDS ponds has an outfall into one of the brooks. The proposed head walls are precast and are sited in the bank of the brook.
- Prior to works, silt nets shall be set up downstream of the works at each location.
- Water testing to be carried outstream and downstream at each location
- A 'U' shaped sand bag dam shall be installed in the river surrounding the works. The bags will be laid from approx. 1m upstream to 1m downstream of the works. The sand bags will encroach approx. half way across the brook allowing water to pass by.
- The inside of the dam will be pumped out. Safeguard measures of the pump to follow the same system as when installing the temp flume above.
- Once the area is emptied of water, the installation of the headwall can commence. All spoil to be removed and stored outside the 10m buffer zone

Pipe work from brook to the SuDS ponds

- Once the headwall is installed, a pipe track shall be excavated towards the SuDS ponds. The silt net and sand bag dam shall remain in place whilst these works continues with testing carried out on the water throughout.
- Between each brook and proposed SuDS pond, there is a hydrobrake and vortex defender MH to be installed
- The pipe work is then connected to the outfall SuDS pond head wall which will have already been installed at this point
- Once the pipework has been fully connected from brook to SUDS pond, only then will the sandbag dam and silt net be removed.
- No equipment shall require to work from the river. All equipment to remain on the bank to install the

permanent works

- As all new drainage runs into the SuDS ponds, a silt buster will be positioned at the outfall headwall. Water shall be pumped through the siltbuster into the newly constructed MH's. This will ensure that any silts flowing through the new drainage into the ponds shall have the silts removed prior to being discharged into the brooks.

Maintenance of watercourse flow

- Regular visual inspection and testing of the watercourse
- Regular inspection for debris/foreign objects within the watercourse that could impact flow
- Check silt containment measures, buffer zones, oil booms and spill kits are in good working order
- Report any anomalies to the client
- Regularly check flumes/pipes for blockage/debris and inlet and outlet

Pollution control measures

- Only bunded browsers are allowed to use
- All refuelling and bulk deliveries will be supervised
- Available capacity in the tank will be checked before refuelling
- Hoses and valves will be checked regularly for signs of wear
- Valves will be turned off after refuelling and lock them when not in use
- Drip trays will be positioned under pumps to catch minor spills
- Spill kit with sand will be kept on-site in the compound area and back of tipper vans.
- Incident response training will be provided to staff and subcontractors
- Concrete washout facilities will be located in compound area.

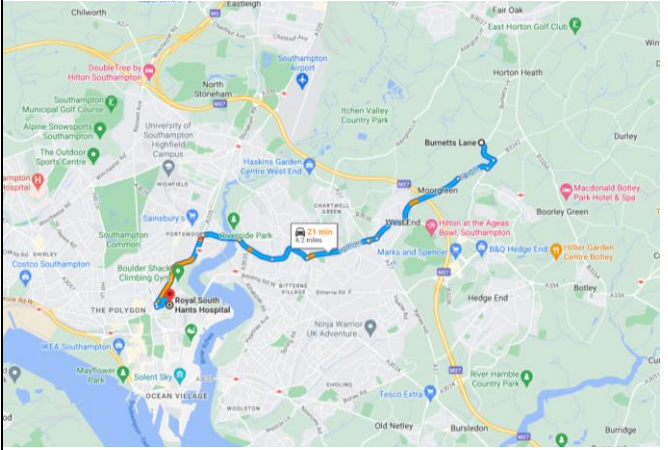
Pollution prevention

- The period of time that the stockpiles and ground are exposed will be kept to a minimum where possible and ideally the pipeline will be reinstated as soon as possible.
- Excavated materials will be kept well away from watercourses.
- Where pipe trenches are excavated in close proximity to the streams, storage of the materials can be on the topside on the trench, to prevent and excavated material falling into the watercourse.
- No plant or wheel washing will be carried out within 10m of the watercourses but at designated areas of hard standing.
- Pollution spill kits will be on site and any soils contaminated with fuel or oil will be removed to a suitable landfill site. All site staff will be trained in the use of spill kits.
- Chemicals and oils to be kept in a locked steel container away from any watercourse at construction compounds.
- Frequent use of Water tankers for dust control

10. a) First Aid

Name of On-site First Aider:	Drew Mears, Dominika Andrzejewska,
First Aid Box Location:	Within welfare area

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Location of Nearest Hospital:	The nearest hospital with A&E Facilities is: Royal South Hants Hospital Brintons Terrace, Southampton SO14 0YG Tel: 02380 540 087 (999 FOR EMERGENCIES) 
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10. b) Welfare Facilities and plant storage

Please refer to RAMS 1 Site set up

10. c) Emergency Response

Environmental incident

- Stop work immediately and prevent more material spilling or damage occurring if it is safety do so.
- Contain the spillage immediately using bunds, sand, drip tray or dedicated spill kit. If the spilt material floats on water, for example oil, you may be able to put a river boom across the water. If the spilt material mixes with water, you'll need to block the whole flow of the watercourse by damming it.
- Notify a site manager immediately providing the following information: whether the spill has entered or has potential to enter drain or stream affecting the environment, substance or species involved, location, cause of incident, volume or numbers involved, immediate action taken

Major incident -call in expert/specialist clean up contractor

Minor- clean up spill using appropriate spill control measure

- ENCoW shall formally record environmental incident

11. Planning

As per latest programme of work

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12. Subcontractors	
	TBC
13. Permits	
	Permit to Work issued by client
	Environmental Permit issued by client
14. Distribution	
Luddon Site	1 copy
Luddon Office	1 copy
Client	1 copy
15. Revisions	
No unauthorised alterations to this Method Statement are permitted.	
16. Declaration	
All work will be undertaken by qualified competent persons with experience in the type of work described above and in all cases in full accordance with Luddon Construction Limited's safety procedures as specified in our Health & Safety Policy.	

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Contract Title:				Contract Number:	
Prepared By: Kasia Grad				Date: 13/03/2023	
Reviewed By: Charles Frize				Date: 13/03/2023	
Issue	Sensitive Receptors	Potential Impact	(LxS) Rating	Mitigation/Control Measures	Residual Impact
WATER QUALITY	Discharge to Watercourses	Pollution caused by site runoff (including silt) and accidental spillage of pollutants.	4x4=16	Environmental permit in place Visual inspection of stream- <i>weekly, and during or following a rainfall event-</i> (check for a sediment plume, suspended solids, unusual color, presence of odor, decreased clarity, or presence of foam and/or a visible sheen on the water surface or visible oily deposits) Testing of stream water- <i>monthly or in the event of environmental incident in vicinity of stream -</i> Testing to be done to check pH level, suspended solids, Temperature and conductivity Regularly check flumes/pipes for blockage/debris and inlet and outlet Storage of material including aggregate/top soil/sub soil at least 10m from watercourses Site based staff must be aware of the location of the spill kits and know how to use this properly (this is part of induction and toolbox talk) Emergency response plan in place and briefed to the site team Storage of fuel, oils and chemicals only in compound area (at least 30m from any water body)	1x4=4

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				All refuelling of plant to be carried out in a designated area at least 30m away from drains to prevent contamination. Spill kits will be available on site in the event of any emergencies occurring. Daily check of silt containment measures, buffer zones, oil booms and spill kits if they are in good working order Plant and equipment to be, where feasible, moved away from the stream at the end of each day .If plant and equipment cannot be moved away from the stream then additional measures will be put in place, such as bunding and booms. Sandbag headwalls will be constructed at the inlet and outlet of the pipe. Report any anomalies to the client	
WATER QUALITY	Impact on fish	Negative impact on aquatic life	4x4=16	Fish passage must be maintained Fish Screen-profile wire to be mounted directly on the end of the intake pipe located in the stream Fish screens are designed to filter water containing aquatic organisms, debris and sediment. Regular visual inspection and testing of the watercourse Regular inspection for debris/foreign objects within the watercourse that could impact flow Regularly check pipes for blockage/debris and inlet and	1x4=4

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				outlet	
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Environmental Impact Rating Matrix

Severity (S)						
Likelihood		1	2	3	4	5
	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

1-7 Low Risk	8-10 Medium Risk	12 or more High Risk
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Likelihood (L) Score x Severity (S) Score = Risk Rating

Likelihood		Severity	
Score	Description	Score	Description
1	Very Unlikely	1	No adverse Impact
2	Unlikely	2	Minor Impact
3	Likely	3	Moderate Impact
4	Very Likely	4	Significant Impact
5	Highly Likely	5	Major Impact

