
Project: C725 – HTR – Bedhampton to reservoir pipeline

Document Number: HTR-WAB-PI-P2-TN-W-0002_P2 Alignment S4. P03 - Hooks Farm Way Playing Fields

Author: T. Helen **Date:** 2024/09/13

Checker: B. Phillips **Approver:** B. Curran

Document Title: P2 Alignment

Revision History

Date	Status & Revision	Author	Checker	Approver	Comment
29/04/2024	S4.P01	B. Phillips	T. Helen	B. Curran	Initial version for approval.
10/06/2024	S4.P02	A O'Neill	B. Phillips	B. Curran	Updated after client comments
13/09/2024	S4.P03	T. Helen	B. Phillips	B. Curran	Updated following planning consultation responses

1 Introduction

The purpose of this technical note is to present the route for the P2 section of the Bedhampton (BD) to Havant Thicket reservoir (HTR) pipeline. This is the section of the pipeline between Havant Rugby club (HRFC) in the south and Hooks Farm way in the north, crossing the Havant Borough Council (HBC) owned playing fields. This technical note follows *HTR-WAB-PI-P2-TN-W-0001_P2 Route Options* which detailed the different options considered during design.

The objectives of this technical note are to:

- Summarise the route.
- Summarise consultations that have taken place to date (both before and after the planning application submission).
- Detail the changes to the design incorporated to reduce the impact on the users of the council pitches.
- Identify the next steps to continue with the development of this pipeline section.

The originally proposed alignment of this P2 section (included in the pre-application consultation) is shown in Figure 1a (refer to Appendix C for the associated drawing) and the alignment included within the planning submission is shown in Figure 1b (refer to Appendix D for the associated drawing). Section 3 confirms the proposed arrangements, alongside a revision to the submitted scheme, and summarises the engagement held to date, Section 4 explains the incorporated mitigations and finally next steps are set out in Section 5.

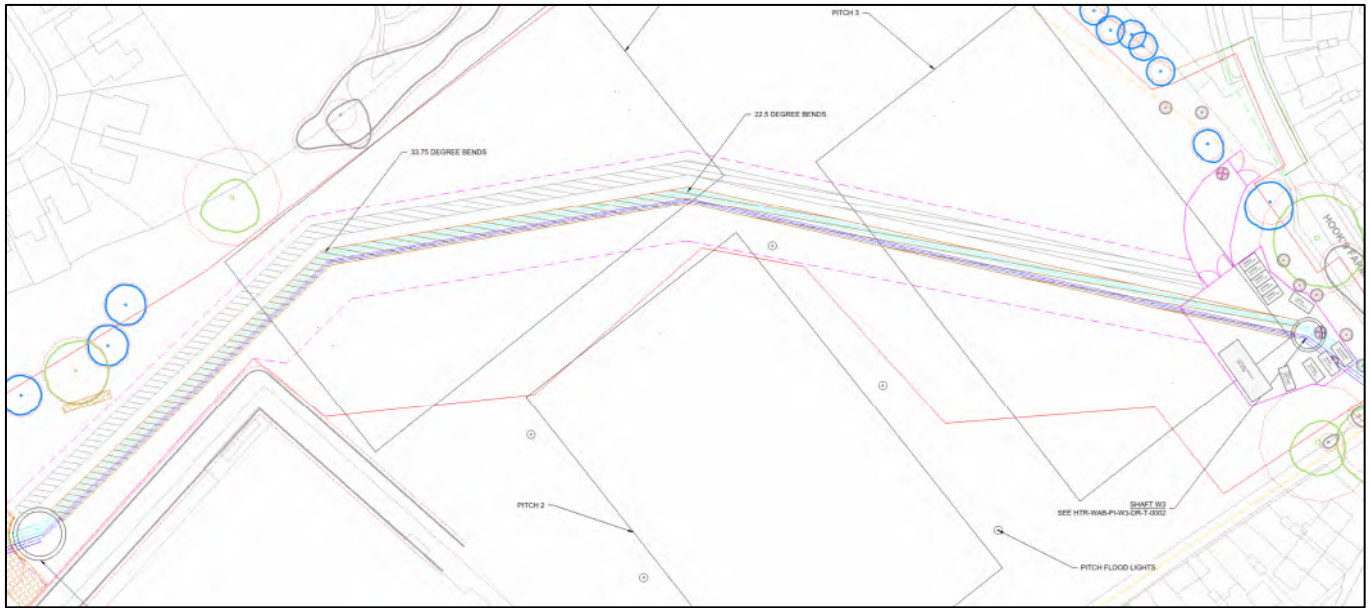


Figure 1a: P2 Scheme pre-application consultation

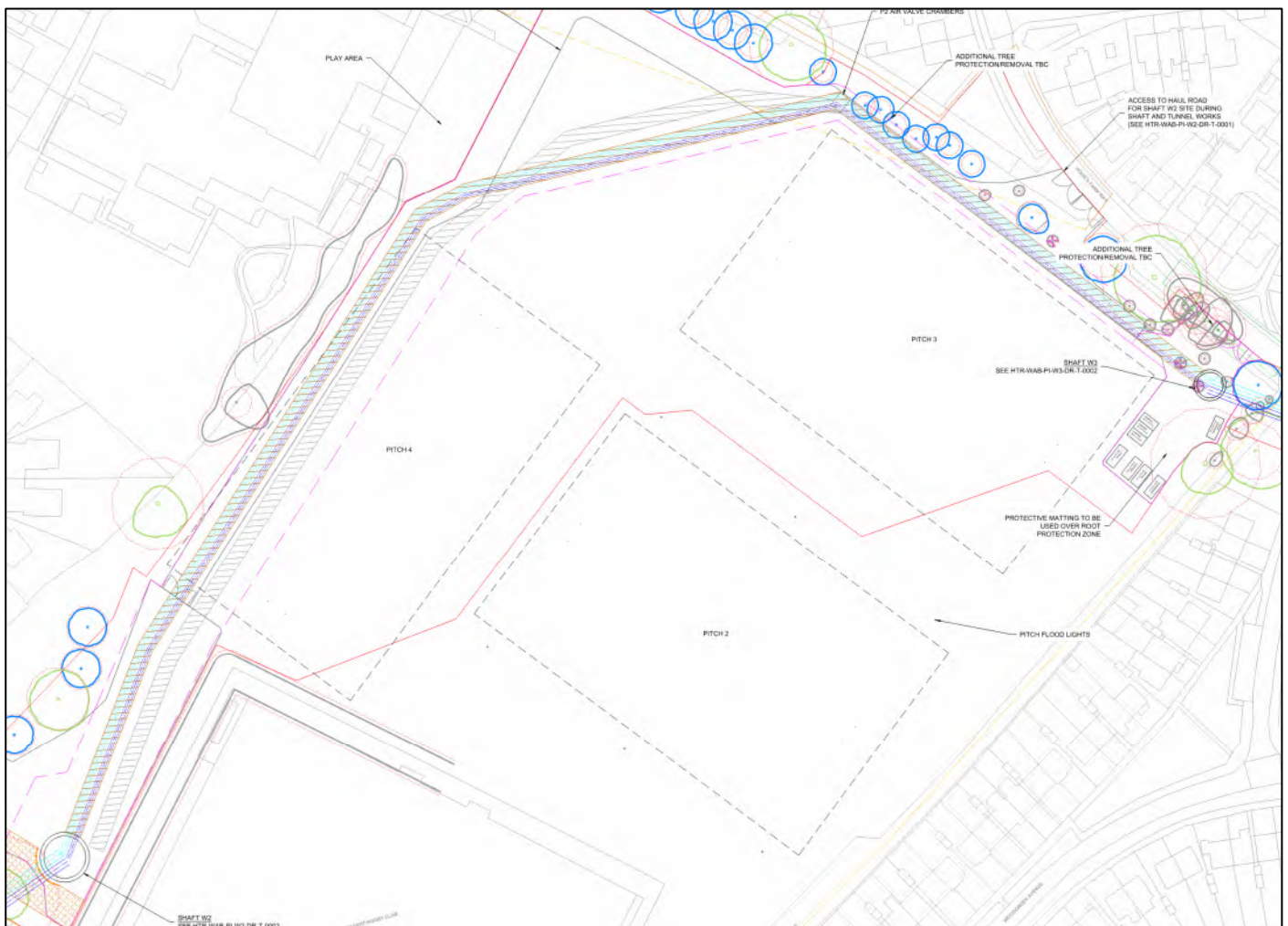


Figure 1b: Scheme submitted with planning application

2 Abbreviations

AFG	Artificial grass [pitch]	HCC	Hampshire County Council	POR	Portsmouth Water
BD	Bedhampton			RLB	Red line boundary
HBC	Havant Borough Council	HRFC	Havant Rugby Club	RPZ	Root protection zone
		HTR	Havant Thicket reservoir	WAB	Ward and Burke

3 Final Proposal

3.1 Alignment Overview

Following pre-application consultation, the pipelines were re-routed along the northern and eastern perimeter of the HBC playing field to reduce the impact of the open cut works on the pitches. This alignment is shown in **Figure 1b**, it avoids all current playing pitches but does still impact the old Pitch 4 (in the same location as the haul road).

Pitch 4 is currently used for training only, is not marked out and does not have any goalposts erected. HBC has confirmed that they will reinstate the pitch (marked with goalposts) for training purposes during the works. This will be circa 60m long by 35m wide, and move eastward slightly, to ensure a minimum 5m run-of all the way around the training pitch perimeter and to the adjacent playing pitch 2.

Along the western and northern sides of the playing field the fencing to the haul road which services the shafts has been kept a minimum of 5m from pitch 3 and 4 boundaries, in line with England Rugby guidance. There will remain a small area with only 3m clearance behind the dead-ball line at the eastern end of pitch 3, as shown in drawing *HTR-WAB-PI-W2-DR-T-0001_SITE COMPOUND LAYOUT SHAFT W2-A4.P05*. The risk of this shortened run-off will be assessed by HBC in collaboration with POR/WAB by means of a risk assessment with the pitch moved 2m to the west if deemed necessary. The higher risk sideline areas all have 5m clearance between the pitch and construction fencing during the playing season. During the open cut section works, which are proposed to be undertaken during the off season, the fencing will be moved to approximately 1 - 3m from the sideline to facilitate the larger area required for the open cut pipeline installation. To facilitate this change in alignment, a number of trees along the northern edge of the pitches will be translocated, pruned, or removed to be replanted after the works.

This means that, as the pipeline is installed during the off-season, use of Pitches 2 and 3 will not be impacted by the works regardless of installation program. Additionally, by following the boundaries of the playing fields, the overall “land take” of the works on the pitches is reduced, as the pipeline route follows the haul road. The pipeline corridor is approximately 10m wider (20m in total) than the haul road along the eastern and northeastern perimeters and narrows down to approximately 8m along the northern edge of pitch 3. 20m is the minimum working corridor required to install the pipe safely and efficiently, but this has been reduced to mitigate the impact to pitch 3 along the northern edge.

Following further post-submission engagement with St Thomas More’s School (see below), it is proposed to move the section of pipeline along the western boundary of the playing fields to the east, further away from the school, to allow the haul road to be used during the pipeline construction. This change will allow the pipeline installation adjacent to the school to be undertaken during the school summer holidays/rugby playing off-season whilst allowing other works at shaft 2 to continue. The haul road will run between the red line boundary and open-cut works, with noise barriers and hoarding parallel to the school boundary and next to noise producing equipment where possible. This is shown in **Figure 2** (refer to Appendix E for the associated drawing) below and informs a revised drawing for this section of the pipeline.

The site hoardings are shown by the solid pink line on the western boundary. The haul road (labelled) follows this boundary. The boundary during open cut works is shown by the dashed pink line to the East of the pipelines. Shaft W2 and W3 site compounds are also shown. See also the appended full-sized drawings.

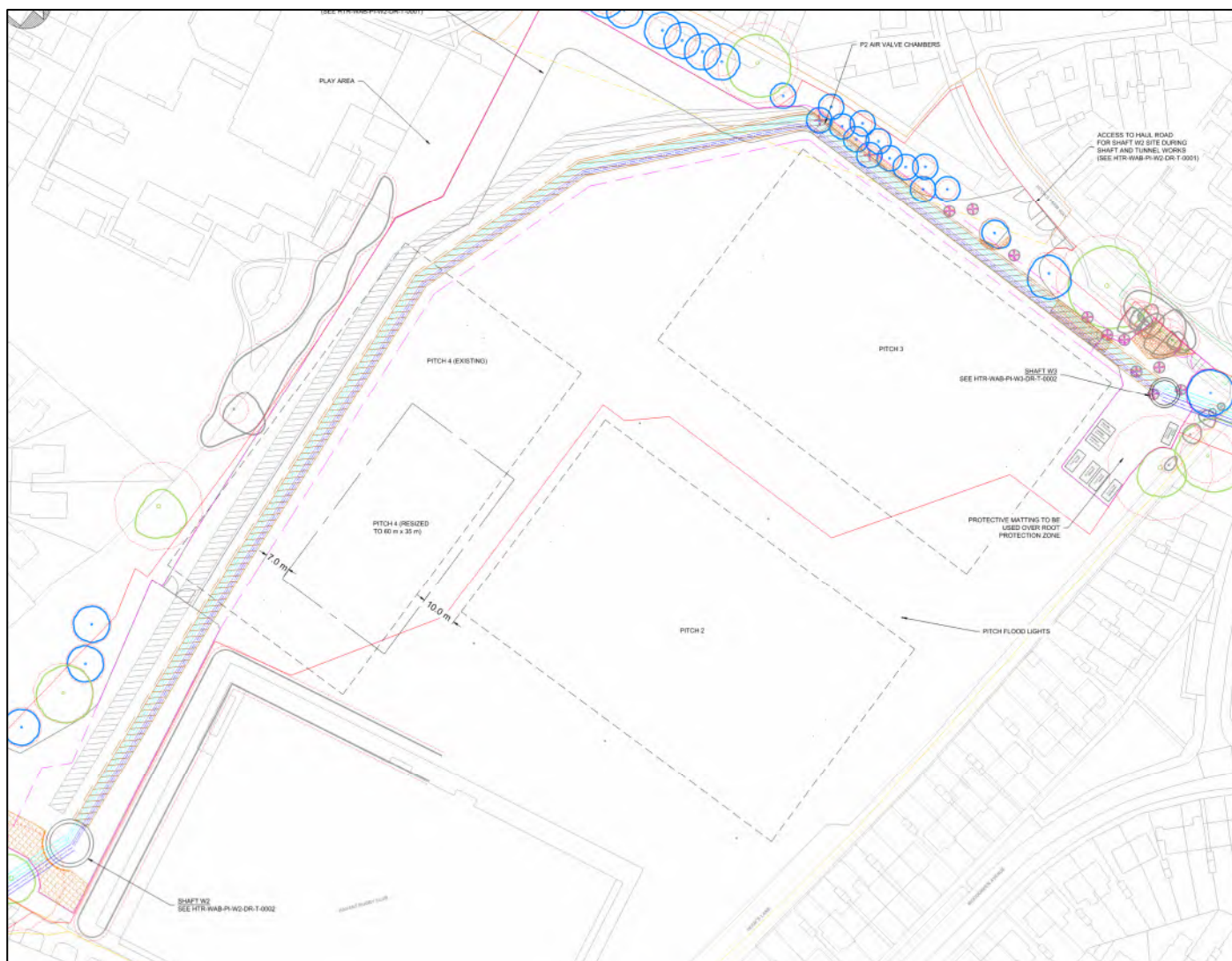


Figure 2 Revised P2 alignment

3.2 Construction sequence and program

Refer to Appendix F for details on the proposed construction sequence and programme.

3.3 Drawing references

The below listed drawings are the most up to date drawings, relevant to the works in question involving Section P2 of the Bedhampton to Havant Thicket Reservoir Pipeline. Note that drawings highlighted **yellow** are being resubmitted (post consultation period) to show the revised alignment of p2 (as shown in Figure 2 above):

- **HTR-WAB-PI-W2-DR-T-0001_SITE COMPOUND LAYOUT SHAFT W2-A4.P05**
- HTR-WAB-PI-W2-DR-T-0002_SHAFT W2 GENERAL ARRANGEMENT A4.P05
- HTR-WAB-PI-W3-DR-T-0001_SITE COMPOUND LAYOUT SHAFT W3 A4.P05
- HTR-WAB-PI-W3-DR-T-0002_SHAFT W3 GENERAL ARRANGEMENT A4.P04

- HTR-WAB-ZZ-ZZ-DR-T-0002_PIPELINE REDLINE BOUNDARY SHEET 1 A4.P05
- HTR-WAB-PI-P2-DR-T-0002_OPEN CUT SECTION P2 SITE PLAN A4.P07
- HTR-WAB-PI-P2-DR-T-0001_DUAL PIPELINE P AND LS SHEET 2 A4.P02

3.4 Pre-Application Consultation

18/01/2024 – Consultation meeting

Organisations represented: Portsmouth Water (POR), Ward and Burke (WAB), Havant Borough Council (HBC), the Rugby Football Union (RFU), Havant Rugby Football Club (HRFC).

Members of WAB, POR, HBC, HRFC and RFU teams all attended a meeting at Havant Rugby Club to discuss the proposed works and how to minimise any impacts on the playing pitches, whilst ensuring the pitches would benefit from post construction works. WAB presented drawings of numerous construction options and outlined the works and their duration. This included the best time of year to carry out the works so that it would not impact the rugby playing season.

Discussions were had regarding the location of the shafts and whether these could be moved to avoid impacting any of the marked playing pitches. HRFC raised concerns over losing space, players, and revenue. HRFC also stated that the northwest corner of the playing fields, and the area to the west of pitch 1, is not currently marked as a pitch by HBC nor does it have any goalposts erected. But the area is used by HRFC as a training area for Junior teams during busy periods. WAB outlined that the location of all works could not be moved to a space that would allow all pitches to remain in use and minimise the impact on unmarked areas, with HBC stating they were in discussions to set up temporary playing pitches elsewhere within Havant if required.

RFU discussed the level of upgrades that would need to be carried out to ensure that the pitches were left to RFU and Sport England specification, including the betterment to drainage and surface, which was noted by all parties to ensure accurate quotes for works could be secured to allow a better understanding of the works that would have to be done to get to this standard. HBC noted that any proposed improvements would need to be approved by HBC as the landowner, who would bear the responsibility for maintenance.

Meeting ended with HBC/HRFC/RFU agreeing to collate a response within a 2-week period on the preference of 'upgrade' that would be done to the pitches post construction.

10/04/2024 – Follow-up consultation meeting

Organisations represented: Portsmouth Water (POR), Ward and Burke (WAB), Havant Borough Council (HBC), the Rugby Football Union (RFU), Havant Rugby Football Club (HRFC).

The purpose of this meeting was for WAB and POR to update HBC, the RFU, and HRFC on their updated proposals for the route through the playing field. WAB explained the updated proposals that are being submitted for planning. The key changes presented were:

- The shaft W3 has been moved to provide greater clearance to the existing pitches.
- Works taking place during the Rugby season will no longer impact on Pitch 2 and 3 (including run-off areas).
- Works taking place out of season will not directly impact on the pitch playing surfaces.
- Size of compounds and haul roads reduced where possible and accesses to sites moved to minimise impact.
- Works scheduling being assessed to avoid open cut works during playing season.

HBC noted:

- An independent agent is to be appointed to manage all claims for compensation and requests for improvements to be made to the playing fields and pitches.
- A pitch use strategy is being produced and will be issued to POR / WAB once approved.
- Pitch 4 has not had posts installed this season and will likely become a training area going forward instead of a dedicated pitch.

- HBC's preference will likely be for all pitches / playing field areas impacted by the works to be reinstated to current condition (without improvements to drainage etc.).
- Inspections of the fields will take place regularly during WAB's maintenance contract for the reinstated works.

HRFC noted:

- Any loss of areas to train on (non-pitches) will require re-organisation of training (for example in Dingley Dell, and the former pitch 4 and pitch 5 areas).
- Similarly, any loss of area will also increase the workload on Pitches 2 and 3. This may lead to maintenance or overuse issues.

Overall, the parties were happier with the plans presented, although HRFC had concerns around the loss of playing area during the playing season. The meeting concluded with an agreement to hold further conversations via the agent once appointed, and with HBC in the periodic update meetings between HBC and POR/WAB.

Post Submission Consultation Response – Sport England

We liaised with Sport England during the pre-application stage to inform the design development. Following submission of the planning application they raised an objection stating the following concerns:

1. How is the club going to continue to maintain their existing level of activity given the impact on Pitch 4 and the training area known as the Dingley Dell? It is not appropriate to displace usage onto remaining pitches if these are already overplayed and usage is above the carrying capacity of the natural turf pitches. In this case, additional slots will need to be acquired on the rugby compliant AGP.
2. Confirmation that the run/off areas around the pitches will not be compromised by manholes and air vents, i.e. permanent infrastructure associated with the pipeline scheme
3. We do not support the proposed translocation and/or new tree planting on the principal playing field area as this encroaches onto usable playing field.

A response to these concerns was provided to the planning authority and is also given below. Each appoint is addressed in turn.

Point 1

Evidence of pitch bookings has been provided by HBC to the project team, these show no recorded bookings of Pitch 4 and the area known as "Dingley Dell" (where the Shaft W2 site compound will be located). Notwithstanding this, consultations with HRFC have identified that these areas are used informally for training and therefore an impact is expected. To mitigate against this, the following measures have been incorporated:

- The Haul road has been moved to the western boundary of the playing fields and its width reduced to a minimum.
- The more intrusive P2 open cut works have been moved to the off season (which corresponds to the school summer holidays). The area will be reinstated before the subsequent playing season and available for training use.
- An agreement has been reached with HBC to reinstate pitch 4 as a 60 m x 35 m pitch. This corresponds to the maximum size for U10 training and matches. It will also be reinstated with goal posts (which are currently not installed) to allow training use by other age grades. This will be reinstated before the works commence.
- Support will be offered to HRFC to cover proportionate associated expenses incurred as a result of the works (such as additional bookings of the AFG astro-turf pitch, or evidenced lost earnings) during the period.
- Collaboration with HBC is ongoing to locate alternative local playing areas if deemed required. Currently a "pitch strategy" for the HBC area is being developed by HBC and will be shared with the project team once available to guide this.

Point 2

As described above, and shown in the drawings of the scheme, 5 m runoff areas will be maintained around all pitches during the playing season, with the exception of a section past the dead-ball line of pitch 3. If, following risk assessment, this reduced distance is found to present a high risk of injury to players. Pitch 3 will be moved 2 m to the west to provide a 5 m runoff past the dead ball line.

Point 3

This is noted. The tree planting shown on the revised reinstatement drawings no longer encroaches on the playing pitches, the exact location will be agreed with the landowner (HBC). The intention is that this planting will complement their overall plans for enhancing the security of the site.

Post Submission Consultation Response – Havant Rugby Football Club

Following submission of the planning application Havant Rugby Football Club requested engagement with POR on the following topics:

1. Plans should align with previous agreed revisions; red line boundary still goes across middle of the pitch.
2. Need to shift sessions to AGP, which incurs extra costs, POR should pay for these extra costs, as otherwise will impact on viability of the Rugby Club.
3. Timings of works to comply with agreement with POR to ensure works are not undertaken during Rugby season.
4. Landscaping - needs to be maintained appropriately, this should be controlled through a planning condition.
5. Traffic - note that Fraser Road not being used - Traffic Management plans must clearly state that this route should not be used.
6. Southern Water water recycling - note this application excludes SW water recycling, however if SW approved then no need for further disruption, this needs to be enforced.

Point 1:

The red line boundary is the limit of area assessed as part of planning application. The site layouts show the intended locations for the works, which do not impact on the pitches, as discussed and agreed with the landowner.

Point 2:

Evidence of pitch bookings has been provided by HBC to the project team, these show no recorded bookings of Pitch 4 and the area known as “Dingley Dell” (where the Shaft W2 site compound will be located). Notwithstanding this, consultations with HRFC have identified that these areas are used informally for training and therefore an impact is expected. To mitigate against this, the following measures have been incorporated:

- **Support will be offered to the club to HRFC to cover justifiable proportionate associated expenses incurred as a result of the works (such as additional bookings of the AFG astro-turf pitch or evidenced lost earnings) during the period.**
- **Collaboration with HBC is ongoing to locate alternative local playing areas if deemed required. Currently a “pitch strategy” for the HBC area is being developed by the council and will be shared with the project team.**

Point 3:

Timing of the works has been scheduled to reduce the impact of HFRC. Works will be undertaken during the off season. Work passed St Thomas Primary School will be largely undertaken during the school summer holiday, which coincides with the rugby off season.

Point 4:

The Register of Environmental Actions and Commitments (in the Construction Environmental Management Plan (CEMP)) stipulates there will be a five-year aftercare period for all soft landscape is to be included within the construction contract to ensure successful establishment.

Point 5:

The Construction Traffic Management Plan (CTMP) and delivery instructions will not route traffic via Fraser Road to access the site.

Point 6:

If the Portsmouth Water pipeline planning application is approved, then Southern Water would not need to build a separate pipeline to serve their water recycling scheme and there would be no further disruption at the playing fields. Use of the pipeline by Southern Water will be subject to a separate permission known as a Development Consent Order.

Post Submission Consultation Response – St. Thomas More’s School

Engagement has taken place with St Thomas More’s School prior to and following submission of the planning application around the potential disruption caused to the school by the works. Following these, an objection to the planning has been received by HCC detailing the school’s concerns. A response to this objection has been provided to HCC and the key points are summarised below.

Noise Generated by the works

The school’s governance raised concerns about the noise generated by the works disrupting the learning of children in adjacent classrooms and noted that the noise assessment carried out as part of the planning application shows that disruptive levels of noise are expected during the open cut works.

Firstly, it should be noted that the duration of the opencut works will be short in the vicinity of the school, it has therefore been agreed that these works will take place during the school summer holidays, so that children are not present in the school during the works. This also aligns with the off season for HRFC.

Secondly, noise barriers (both fixed to the hoarding and mobile around the works) will be utilised during construction near St. Thomas Moore's, to eliminate the line-of-site between noise source and schools where possible.

Thirdly, the alignment of the pipelines through the P2 section has been altered to increase the distance between the school and excavation activities. The haul road will now run between the open cut excavation and the school. This will reduce the noise levels at the school further.

Finally, the objection requests that allowable noise levels and monitoring are agreed prior to the works commencing. These levels will be set in the projects noise and vibration monitoring plan, monitored, and adhered to during the works.

Dust generated by the works

Concerns were raised about dust generated by the construction works. POR and WAB will be employing best practice dust suppression techniques for the works and will periodically review and improve dust suppression techniques as required.

Potential damage from the works

It is not anticipated that the works will generate any damage to the school buildings or surrounding facilities due to the shallow nature of the open cut excavations. Notwithstanding this, a visual pre and post condition survey of any potentially affected buildings will be conducted to confirm this.

Decision to install pipeline using open cut method

Open-cut was chosen over microtunnelling for several reasons:

1. **Cost effectiveness**

Open-cut is the most cost-effective way to install pipework in open land, i.e. areas without buried services, rivers, or road crossings. We are also required by our regulator, OFWAT, to look at opportunities for financial efficiencies along the route.

2. **Programme improvement**

Open-cut construction allows this section of pipeline to be installed at a time to most reduce the impacts on the community, such as the school.

3. **Southern Water Scheme**

In relation to the Southern Water proposal, the differences come down to scheme requirements and the tunnelling techniques used. Portsmouth Water are utilising pipe jacking to tunnel part of the route. At the diameters being installed for this scheme, this method is technically capable of reaching lengths of circa 500m in one go, hence the need for multiple shafts along the route. Given the multiple shafts in this method of construction, it is typical to transition to open-cut where obstacles and obstructions (roads, rivers, etc.) are

not in the way. The type of tunnelling that Southern Water proposes is vastly different to what is proposed under our scheme. Their method uses a segmental tunnelling machine which can tunnel large distances (up to 10km and beyond) in one go. This type of tunnelling is vastly more expensive (in the regions of 3-4 multiples) and significantly more complex. It is therefore only utilised for larger diameters and distances, when pipe jacking is not suitable. It should also be noted that intermediate service shafts would need to be constructed to allow maintenance of the tunnelling machine part way along the route. Under the Southern Water proposals, this is planned for the playing fields, adjacent to St Thomas More School and would be a significant piece of construction to achieve the depths required.

Post Submission Consultation Response – Hampshire County Council (Local Education Authority)

HCC Local Education Authority expressed concerns on property being affected by the works, asking for a condition survey to be undertaken of the building and land of schools near works. Notably, these will be Bidbury Primary School and St Thomas More's School. It is not anticipated that the works will generate any damage to school buildings or surrounding facilities due to the shallow nature of the open cut excavations. Notwithstanding this, a visual pre and post condition survey of any affected school buildings will be conducted to confirm this.

Concerns were also expressed over noise, dust and the impact of construction traffic during school start and finishing times. To mitigate noise produced by open cut works, the P2 open cut works passing St Thomas More's School have been scheduled during the school holidays to avoid disruption to the school. Noise impacts will be mitigated for Thomas Moore as above. Noise barriers (both fixed to the hoarding and mobile around the works) will be utilised during construction near St. Bidbury, to eliminate the line-of-site between noise source and schools where possible. Dust mitigation techniques will be used during construction, employing best practice dust suppression techniques for the works and will periodically review and improve dust suppression techniques as required. School drop off and pick up time will be avoided, where possible. The proposed haul road around the playing fields means that construction traffic will not need to use of Fraser Road or pass adjacent to Bidbury School. The CTMP and delivery instructions will not route traffic via Fraser Road to access the site.

4 Additional Incorporated mitigations

4.1 Overview

To reduce the impacts on the pitches, a number of design changes were made to scheme submitted for planning, in addition to the re-alignment of the P2 opencut section, including:

- Shaft 3 location
- Location of air valve chamber on P2
- Temporary fencing relocation
- Removal of W2 air valves
- Removal of W3 air valves
- Relocation of haul road
- Tree relocation
- Access between playing fields and HRFC club house
- Balls entering work compound W3 and P2 haul road

These have reduced the temporary and permanent impact on the playing fields both during construction and operation and are detailed below.

4.2 Shaft 3 location

The location of Shaft 3 location (W3) was moved 11.5 m further east, as shown in Figure 3, and as indicated in the drawings submitted for planning. This movement places the shaft wall 10.7 m from the Dead-ball line of Pitch 3

(compared to 0.4 m in previous proposed position) and therefore allows the pitch to be used whilst the shaft is in its temporary condition (with a 3m run-off to the construction perimeter fencing). This was not possible with the original proposal *shown during the pre-application consultation* as the shaft was too close to the dead ball line.

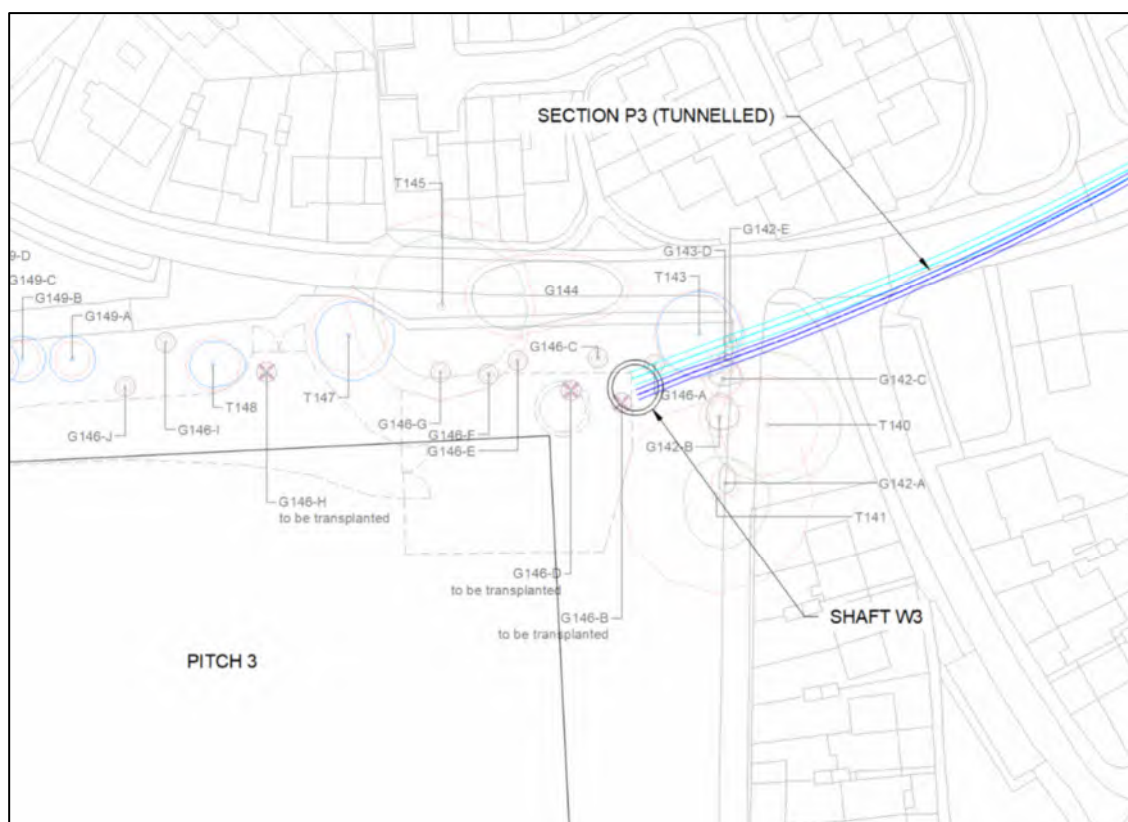


Figure 3 Revised shaft W3 location

4.3 Location of air valve chamber on P2

As a result of changing the alignment of the P2 pipeline following the pre-application consultation, a new air valve chamber was required at the local high point at approximately 310m chainage, this is indicated in the drawings submitted with the planning application. This chamber is located approximately 5m from the north-west corner of pitch 3 to ensure that the covers are a safe distance from the playing surface. Additionally, this means that the chambers are easily accessible from the concrete road running along the northern boundary of the site, meaning that vehicular access will not be required for maintenance. Permanent structures associated with the pipeline scheme, manholes and air vents, will not compromise run/off areas around the pitches on the playing fields.

4.4 Temporary fencing relocation

The works were realigned so that construction perimeter fencing during construction works are now a minimum 5m from the pitches, as indicated in the drawings submitted with the planning application, except for a small section on pitch 3 where this is reduced to 3m from the dead ball line. Additionally, all sharp corners in this <5m zone to the fencing will be chamfered to ensure no impacts onto 90° corners will be possible.

During the open cut works the fencing will be moved closer to the pitch sideline (around 1 - 3m clearance). These works will take place during the rugby off season so the risk to players during games is not increased.

4.5 Removal of W2 air valves

Following consultation with HBC and HRFC we are proposing to remove the need for an air valve at shaft W2. This has yet to go through technical clearance with POR (although it has been approved in principle) and as such was still indicated on the drawings submitted with the planning application. This change will leave no permanent above ground covers at the W2 shaft location, pending confirmation that the pipeline will be able to be inspected from the new air valve chamber.

4.6 Removal of W3 air valves

Following consultation with HBC and HRFC we are proposing to remove the need for an air valve at shaft W3. This has yet to go through technical clearance with POR (although it has been approved in principle) and as such was still indicated on the drawings submitted with the planning application. This change will leave no permanent above ground covers at the W3 shaft location, pending confirmation that the pipeline will be able to be inspected from the new air valve chamber.

4.7 Relocated haul road

The haul road for access shafts W2 and W3 was re-aligned to minimise the impact on the pitches as indicated on the drawings submitted with planning. This has meant that additional trees on the northern edge of the playing fields will have to be relocated or removed, and this has been agreed with the project Arboriculturist and HBC Landscape officer. The final locations will be agreed with HBC. The width of the haul road was reduced to as narrow as possible to further reduce the area loss associated with its installation. The open cut works have been moved away from the western boundary to reduce the impact on St Thomas More's School with a slight tweak to the haul road as noted in Section 3. This is indicated in the revised version of the drawings (as show in Figure 2).

4.8 Tree relocation

Tree translocation shown on the planning drawings was shown as indicative and will be agreed with HBC before planting. To prevent trees encroaching onto useable playing fields, tree translocation and planting will be located on the playing field boundaries. See Appendix G for revised tree relocation plans. Tree translocations to be agreed with landowner (HBC) are marked on the drawing.

4.9 Access between playing fields and HRFC club house

An access path (circa 1.5m wide) will be maintained to the east of the W2 working compound to allow access between the playing pitches and the clubhouse.

4.10 Balls entering work compound W3 and P2 haul road

A commitment has been made that a method for retrieval of balls entering the W3 work compound outside of working hours (typically over the weekend) will be agreed with HBC and HRFC. This may involve providing the club with additional balls, and returning any balls retrieved from the site on a Monday by works crews, erection of temporary nets (if practicable), or ensuring a full-time presence on-site outside of working hours (e.g. security) to periodically collect and return balls (or other sports equipment).

5 Next Steps

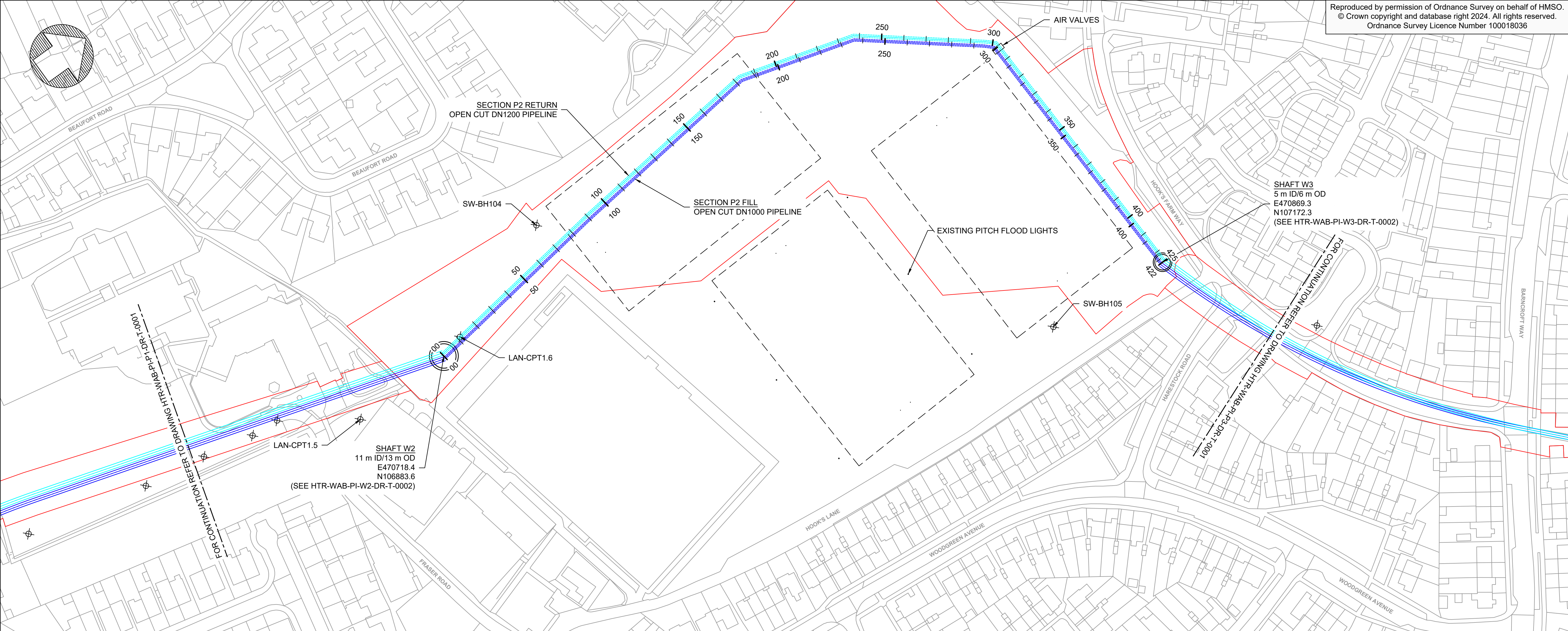
Following the consultation meetings, and further correspondence, the following next steps were identified:

- 1) **Submit revised P2 layout drawing to HBC as a change to the submitted planning application (Figure 2) along with this technical note.**
- 2) **A specialist agronomist has been appointed by WAB to establish a baseline appraisal of the current surface and prepare a specification for the reinstatement of the surface to ensure it is at a minimum equal to the current surface.**
- 3) **Negotiations between POR, WAB, HBC and all other stakeholders to be conducted via the HBC agent.**
- 4) **WAB / POR are to engage with a specialist sports turf contractor/agronomist to advise and produce a scheme of works for the reinstatement of the playing field areas affected.**
- 5) **Continued regular communication between POR, WAB, and HBC as the landowner of the playing fields. HBC are then to co-ordinate responses from stakeholders of the pitches.**

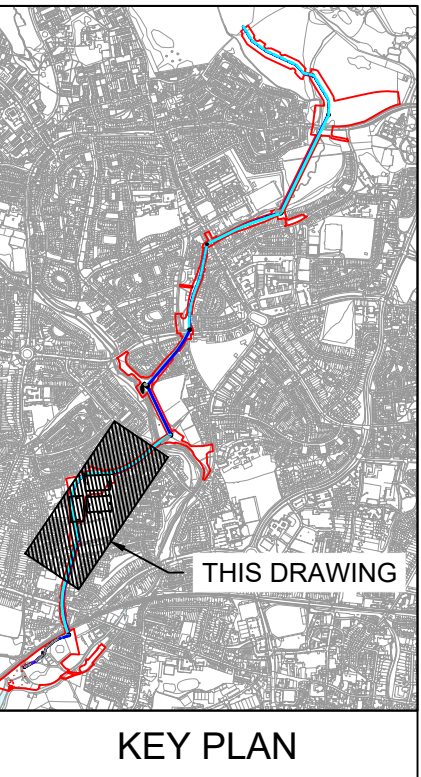
6 Summary

This technical note confirms the proposed route for the P2 section of the Bedhampton to Havant Thicket reservoir pipeline. It summarises the engagement that has taken place to date, the design changes that were adopted within the submitted scheme to reduce the pipeline's impact on the playing fields during both construction and operation and a further change to reduce the construction noise impact on St Thomas More's School. Finally, it identifies the next steps for proceeding with negotiations and the delivery of the scheme.

Appendix A : Plan and long-section drawing



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- Notes:
- FOR OPEN CUT CROSS SECTION SEE HTR-WAB-PI-ZZ-DR-W-0006
 - 4 NR. 90 mm DUCTS TO BE INSTALLED ADJACENT TO OPEN CUT PIPELINES WITH TEMPORARY DRAWPITS AT CIRCA 50 m SPACING (OMITTED FOR CLARITY). SEE HTR-WAB-PI-ZZ-DR-W-0006 AND HTR-WAB-PI-P2-DR-T-0002.

- LEGEND:
- FILL PIPELINE
 - RETURN PIPELINE
 - REDLINE BOUNDARY
 - RUGBY PITCH BOUNDARY (EXISTING)
 - GROUND INVESTIGATION LOCATION

ID = INNER DIAMETER
OD = OUTER DIAMETER

GEOTECHNICAL SECTIONS KEY

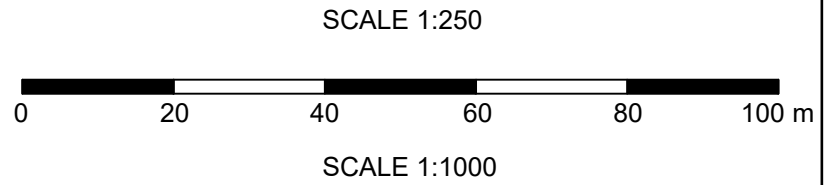
COLOUR = PRIMARY MATERIAL

- UNKNOWN
- MADE GROUND
- CLAY
- SILT
- SAND
- GRAVEL
- ASSESSED ZONE OF CORE LOSS

PATTERN = SECONDARY MATERIAL

- Clayey
- Silty
- Sandy
- Gravelly (or coarser)

IF MATERIAL COARSER THAN SAND IS PRESENT AS A TERTIARY OR LESSER COMPONENT, AN ADDITIONAL GRAVEL PATTERN IS ALSO SHOWN.



P03 A4	JT	BP	BC	MODIFIED P2 PIPELINE ROUTE	13/09/24
P02 A4	JT	BP	BC	PLANNING VERSION	03/05/24
P01 S4	JT	BP	BC	FILL PIPELINE UPSIZING	13/02/24
Rev	Drn	By	Ckd	App	By
				Description	Date



Drawing Suitability:	APPROVED FOR DETAILED DESIGN	Status:	A4
Contractors Drawing Number:	HTR-WAB-PI-P2-DR-T-0001		

Telephone: Havant (023) 9249 9888
Fax: Havant (023) 9245 3632
Website: www.portsmouthwater.co.uk
Registered Office: PO Box 8 West Street
Havant Hampshire PO9 1LG
REGISTERED IN ENGLAND No. 2536455

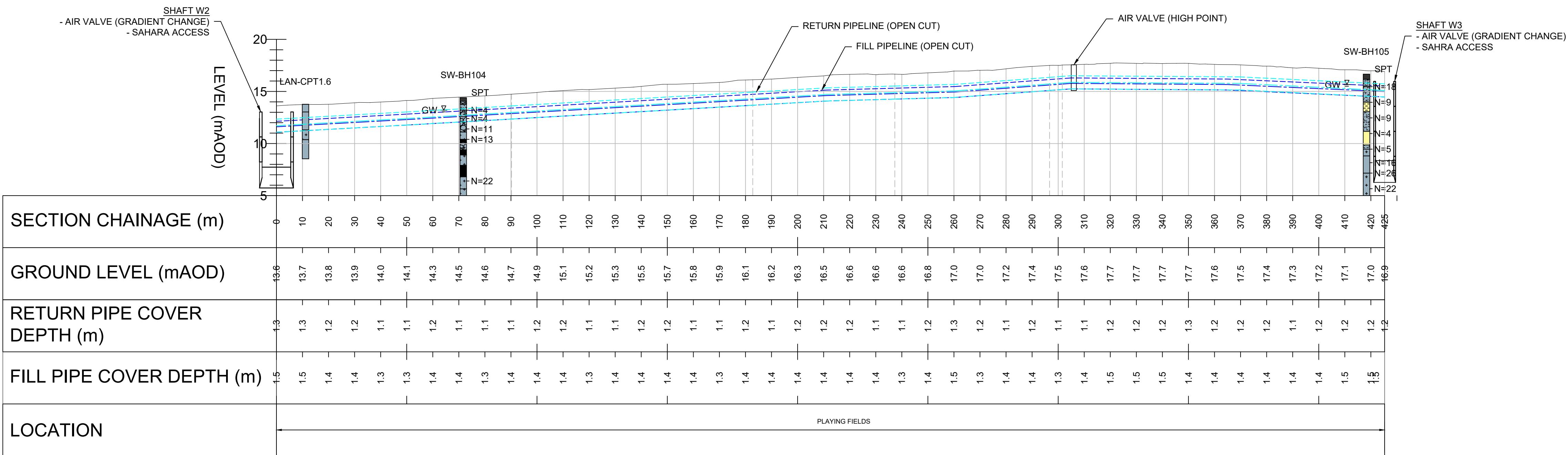


Date:	Scale:	Sheet:	Sheet Size:
13/09/2024	1:1000	02 of 09	A1

Project Title:
HAVANT THICKET RESERVOIR

Drawing Title:
BEDHAMPTON TO HTR PIPELINE
DUAL PIPELINE PLAN AND LONGSECTION
SECTION P2

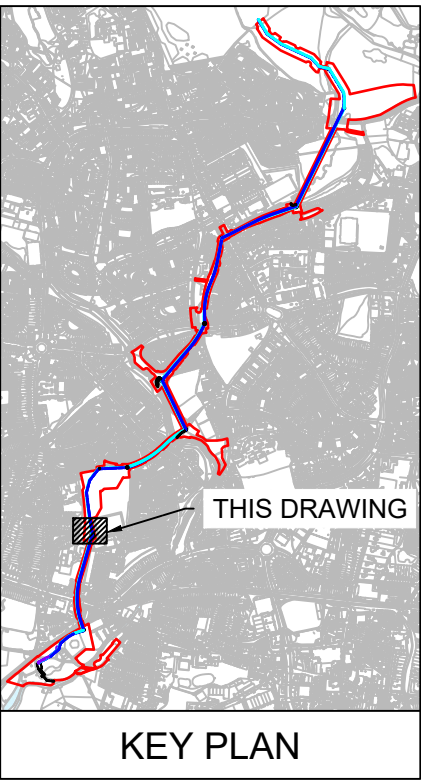
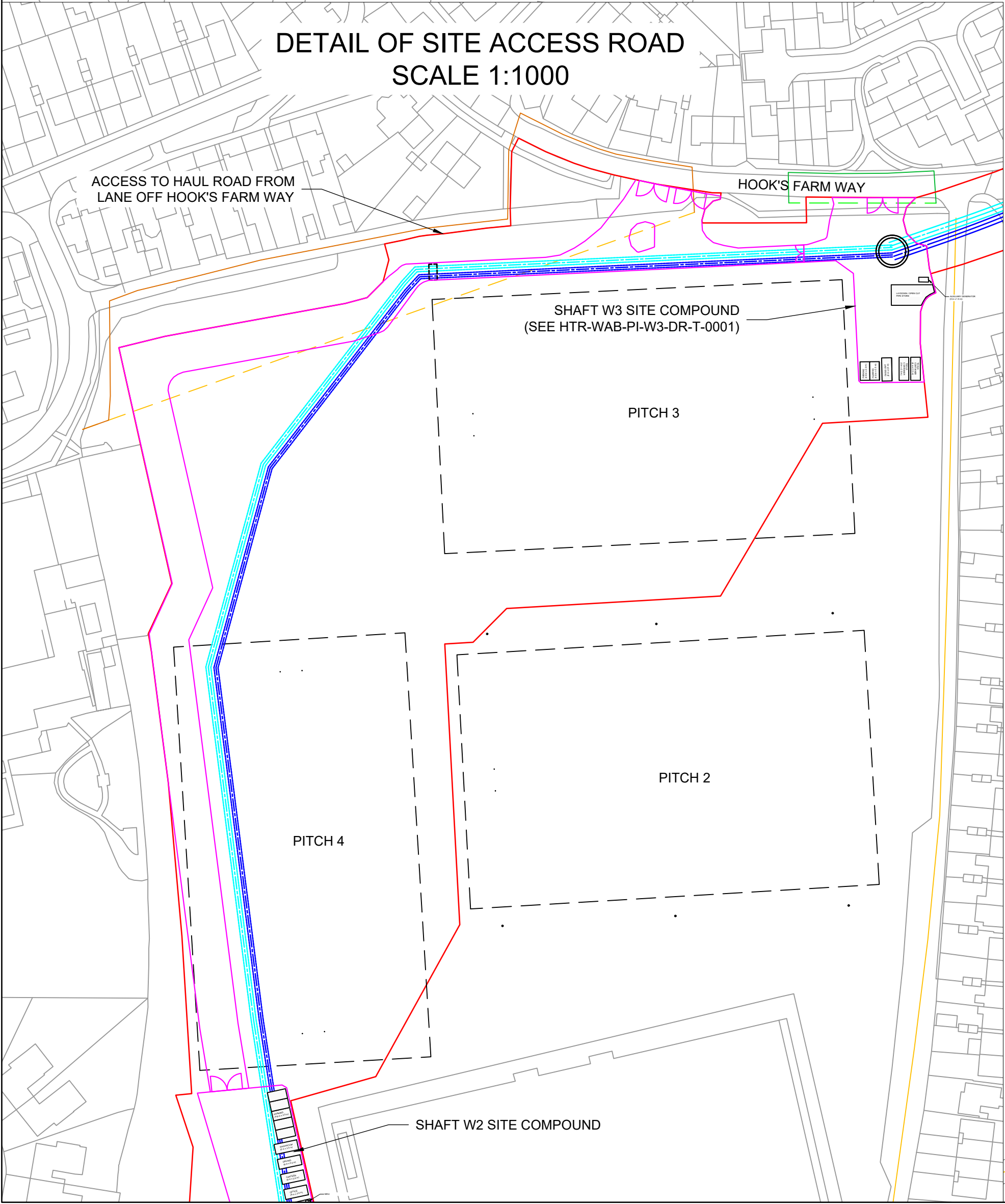
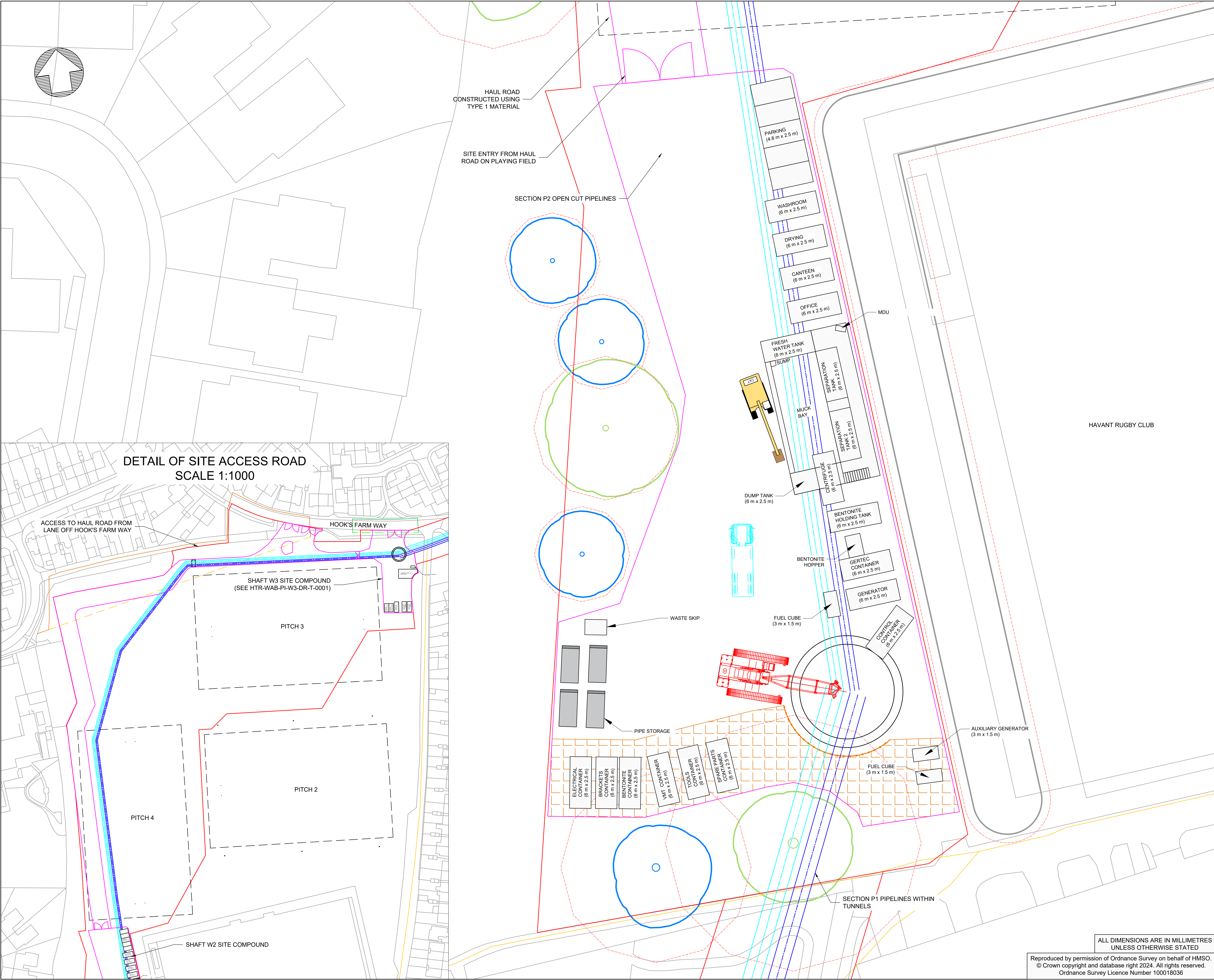
Portsmouth Water Drawing Number:	Rev:
	P03



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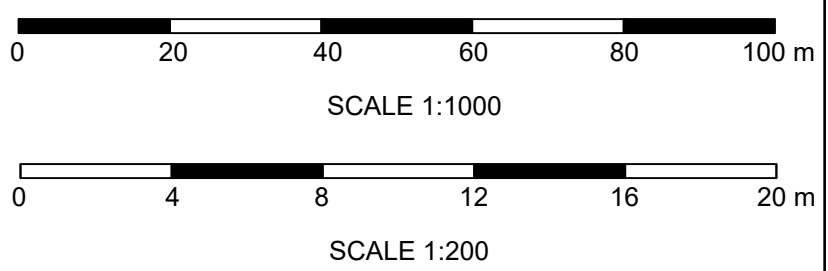
ALL DIMENSIONS ARE IN MILLIMETRES
UNLESS OTHERWISE STATED

Appendix B : Arrangement during tunnelling works



- Notes:
- THE TEMPORARY SITE COMPOUND SHOWN IS FOR CONSTRUCTION OF SHAFT W2 AND SECTION P1 PIPELINES.
 - FOR TEMPORARY SITE AREAS FOR CONSTRUCTION SECTION P2 OPEN CUT PIPELINES SEE HTR-WAB-PI-P2-DR-T-0002.
- Notes:

- FILL PIPELINE
- RETURN PIPELINE
- CONSTRUCTION SITE HOARDING
- REDLINE BOUNDARY
- RUGBY PITCH BOUNDARY
- PUBLIC RIGHT OF WAY
- PUBLIC RIGHT OF WAY CLOSURE
- PROPOSED PUBLIC RIGHT OF WAY DIVERSION
- FOOTPATH CLOSURE
- PROPOSED FOOTPATH DIVERSION
- ROOT PROTECTION MATTING
- CATEGORY A TREE
- CATEGORY B TREE
- CATEGORY U TREE
- CATEGORY C TREE
- ROOT PROTECTION AREA (RPA)



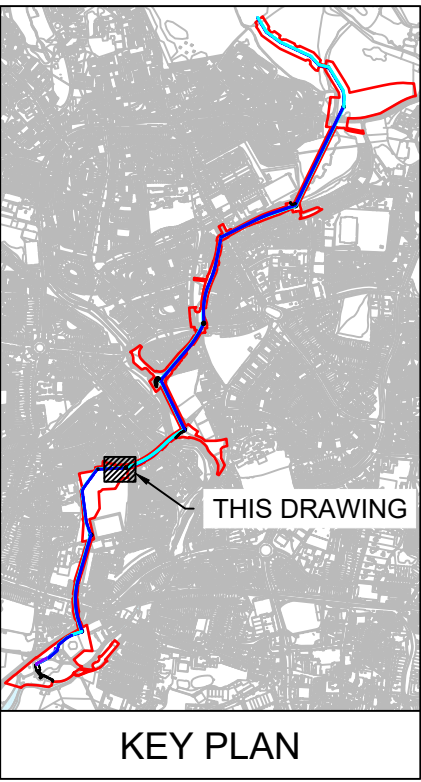
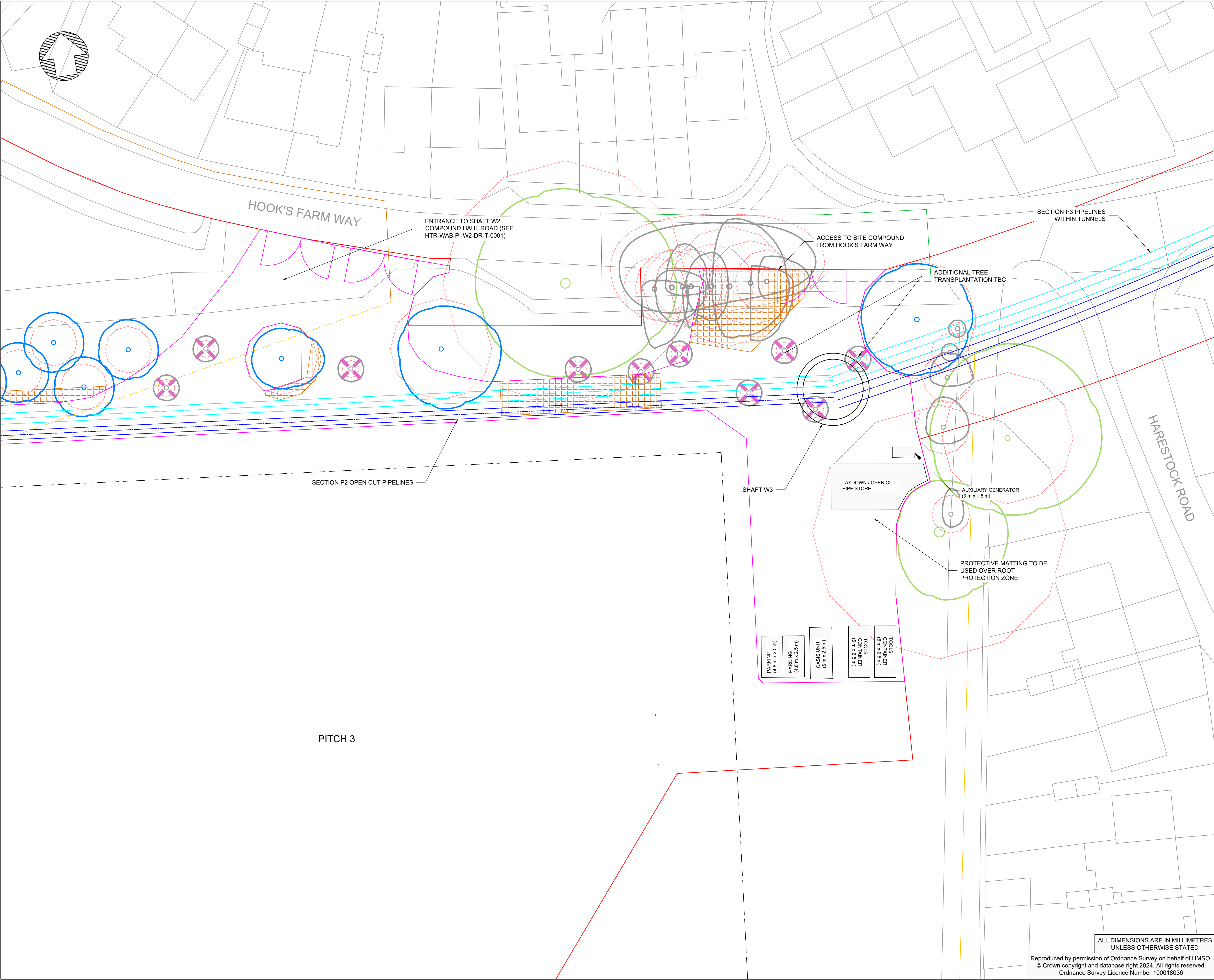
P06 A4	JT	BP	BC	MODIFICATION OF P2 PIPELINE ROUTE	13/09/24
P05 A4	JT	BP	BC	PLANNING VERSION	03/05/24
P04 S4	JT	BP	BC	BOUNDARY CHANGES	07/02/24
Rev	Dm	Ckd	Apv	Description	Date
	By	By	By		



Drawing Suitability:	APPROVED FOR DETAILED DESIGN	Status:	A4
Contractors Drawing Number:	HTR-WAB-PI-W2-DR-T-0001		
Telephone:	Havant (023) 9249 9888		
Fax:	Havant (023) 9245 3632		
Website:	www.portsmouthwater.co.uk		
Registered Office:	PO Box 8 West Street Havant Hampshire PO9 1LG REGISTERED IN ENGLAND No. 2536455		
Date:	13/09/2024	Scale:	1:200
Sheet:	01 of 01	Sheet Size:	A1
Project Title:	HAVANT THICKET RESERVOIR		
Drawing Title:	BEDHAMPTON TO HTR PIPELINE SHAFT W2 SITE COMPOUND LAYOUT		
Portsmouth Water Drawing Number:			Rev:
		P06	

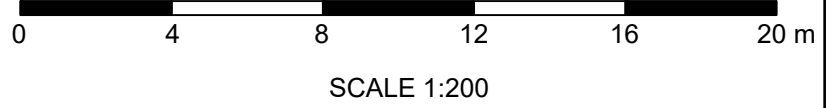
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- Notes:
1. THE TEMPORARY SITE COMPOUND SHOWN IS FOR CONSTRUCTION OF SHAFT W3 AND SECTION P3 PIPELINES.
 2. FOR TEMPORARY SITE AREAS FOR CONSTRUCTION SECTION P2 OPEN CUT PIPELINES SEE HTR-WAB-PI-P2-DR-T-0002.
 3. TEMPORARY NETTING TO BE INSTALLED ALONG COMPOUND BOUNDARY FACING PITCH 3 TO PREVENT BALLS ENTERING COMPOUND, AS REQUIRED.

- FILL PIPELINE
- RETURN PIPELINE
- CONSTRUCTION SITE HOARDING
- REDLINE BOUNDARY
- RUGBY PITCH BOUNDARY
- PUBLIC RIGHT OF WAY
- PUBLIC RIGHT OF WAY CLOSURE
- PROPOSED PUBLIC RIGHT OF WAY DIVERSION
- FOOTPATH CLOSURE
- PROPOSED FOOTPATH DIVERSION
- CATEGORY A TREE
- CATEGORY B TREE
- CATEGORY U TREE
- CATEGORY C TREE
- ROOT PROTECTION AREA
- TREE TO BE TRANSPLANTED
- ROOT PROTECTION MATTING



P05	JT	BP	BC	PLANNING VERSION	03/05/24
P04	JT	BP	BC	BOUNDARY CHANGE	07/02/24
P03	JT	BP	BC	FILL PIPELINE UPSIZE + SHAFT POSITION CHANGE	21/12/23
Rev	Dm	Ckd	App	Description	Date
	By	By	By		

WARD & BURKE

Drawing Suitability: **APPROVED FOR DETAILED DESIGN** Status: **A4**
Contractors Drawing Number: **HTR-WAB-PI-W3-DR-T-0001**

Telephone: Havant (023) 9249 9888
Fax: Havant (023) 9245 3632
Website: www.portsmouthwater.co.uk
Registered Office: PO Box 8 West Street
Havant Hampshire PO9 1LG
REGISTERED IN ENGLAND No. 2536455



Date: **03/05/2024** Scale: **1:200** Sheet: **01 of 01** Sheet Size: **A1**

Project Title: **HAVANT THICKET RESERVOIR**

Drawing Title: **BEDHAMPTON TO HTR PIPELINE
SHAFT W3
SITE COMPOUND LAYOUT**

Portsmouth Water Drawing Number: **P05**

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Appendix C : Arrangement during open cut works (Pre-Application Drawing)



-
- 0 10 20 30 40 50 m
- SCALE 1:500

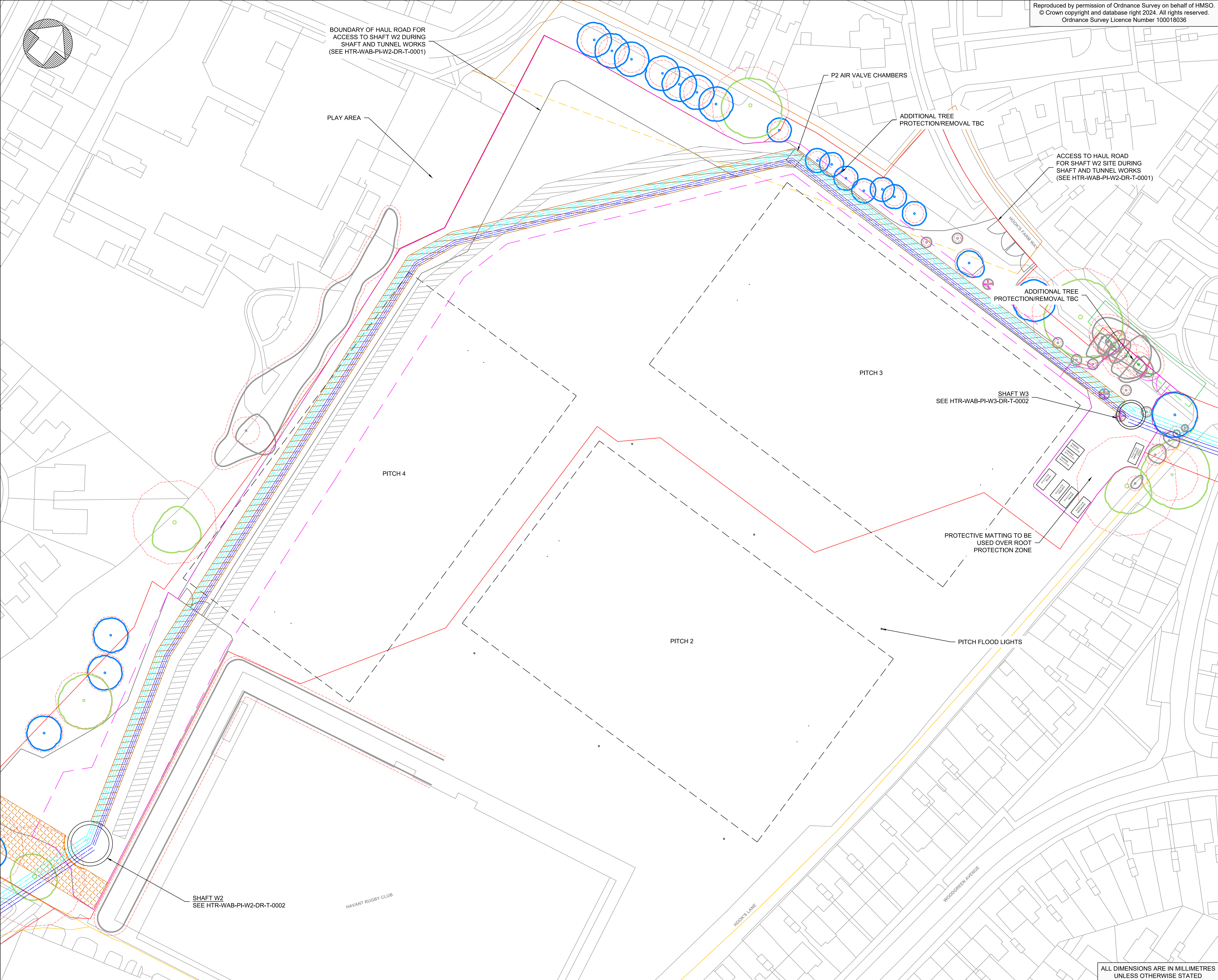
WARD & BURKE



Portsmouth Water Drawing Number:	Rev: P03
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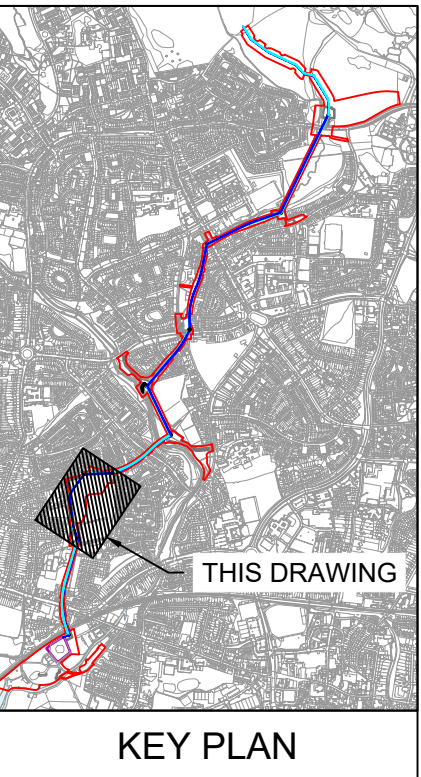
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Appendix D: Arrangement during open cut works (Planning - Application Drawing)



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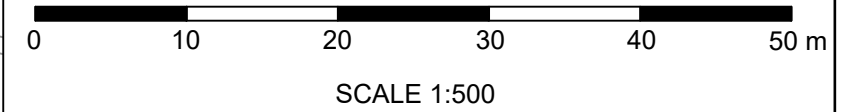
Notes:



Notes:

1. THE TEMPORARY SITE AREAS SHOWN ARE ONLY FOR OPEN CUT CONSTRUCTION OF SECTION P2 PIPELINES
2. FOR TEMPORARY SITE COMPOUNDS AT SHAFTS W2 AND W3 FOR CONSTRUCTION OF SECTIONS P1 AND P3 SEE HTR-WAB-PI-W1-DR-T-0001 AND HTR-WAB-PI-W1-DR-T-0003 RESPECTIVELY.

- FILL PIPELINE
- RETURN PIPELINE
- CONSTRUCTION SITE HOARDING
- TEMPORARY HERAS FENCING
- OPEN CUT TRENCH AREA
- HAUL ROAD
- REDLINE BOUNDARY
- RUGBY PITCH BOUNDARY
- PUBLIC RIGHT OF WAY
- PUBLIC RIGHT OF WAY CLOSURE
- PROPOSED PUBLIC RIGHT OF WAY DIVERSION
- FOOTPATH CLOSURE
- PROPOSED FOOTPATH DIVERSION
- ROOT PROTECTION MATTING
- PROTECTIVE FENCING
- CATEGORY A TREE
- CATEGORY B TREE
- CATEGORY U TREE
- CATEGORY C TREE
- ROOT PROTECTION AREA
- TREE TO BE TRANSPLANTED



P06 S4	JT	BP	BC	INCLUSION OF SHAFT/TUNNEL HAUL ROAD	23/02/24
P05 S4	JT	BP	BC	MINOR BOUNDARY CHANGES	07/02/24
P04 S4	JT	BP	BC	FILL PIPELINE UPSIZING + ROUTE CHANGE	22/12/23
Rev	Drn	By	Ckd	App	By
				Description	Date

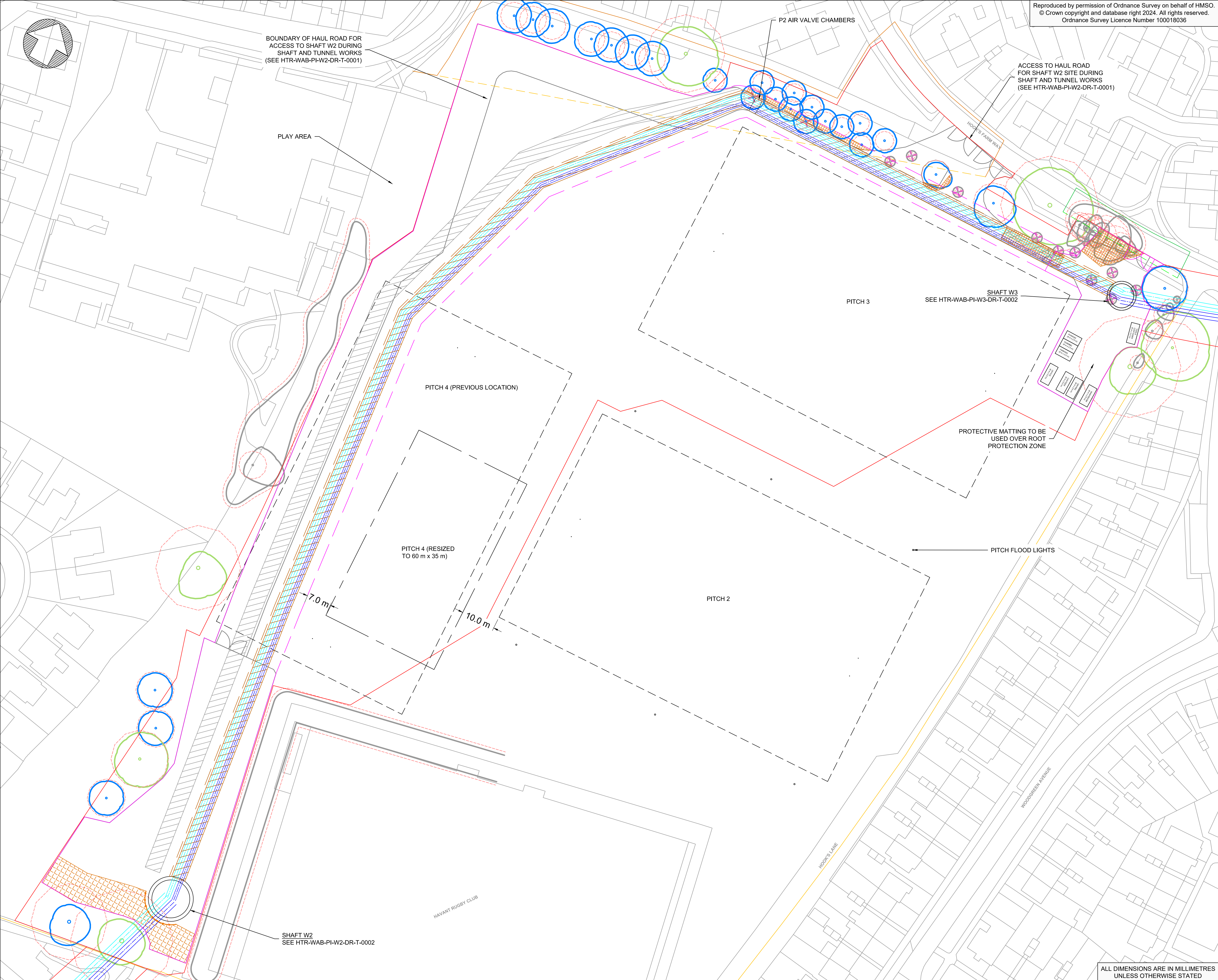
WARD & BURKE

Drawing Suitability:		FOR CONSTRUCTION APPROVAL		Status:	S4
Contractors Drawing Number:		HTR-WAB-PI-P2-DR-T-0002			
Telephone: Havant (023) 9249 9888 Fax: Havant (023) 9245 3632 Website: www.portsmouthwater.co.uk Registered Office: PO Box 8 West Street Havant Hampshire PO9 1LG REGISTERED IN ENGLAND No. 2536455					
Date:	23/02/2024	Scale:	1:500	Sheet:	01 of 01
Project Title:		HAVANT THICKET RESERVOIR			
Drawing Title:		BEDHAMPTON TO HTR PIPELINE SECTION P2 OPEN CUT SITE PLAN			
Portsmouth Water Drawing Number:				Rev:	P06

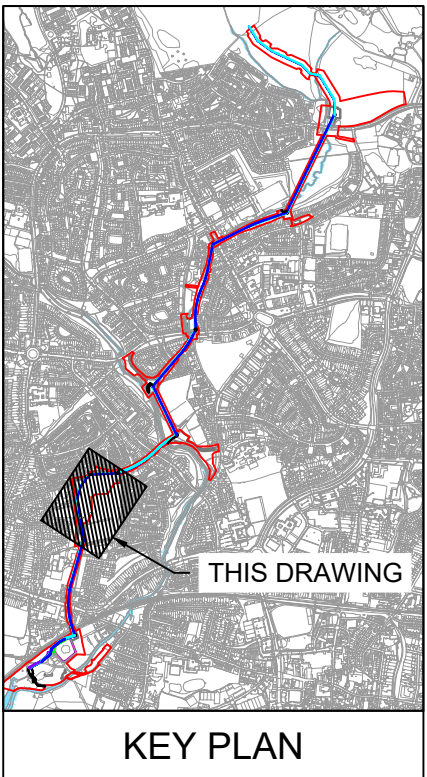


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Appendix E : Arrangement during open cut works (revised alignment)



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- Notes:
1. THE TEMPORARY SITE AREAS SHOWN ARE ONLY FOR OPEN CUT CONSTRUCTION OF SECTION P2 PIPELINES.
 2. FOR TEMPORARY SITE COMPOUNDS AT SHAFTS W2 AND W3 FOR CONSTRUCTION OF SECTIONS P1 AND P3 SEE HTR-WAB-PI-W1-DR-T-0001 AND HTR-WAB-PI-W1-DR-T-0003 RESPECTIVELY.
 3. 4 NR. 90 mm DUCTS TO BE INSTALLED ADJACENT TO OPEN CUT PIPELINES (SEE HTR-WAB-PI-ZZ-DR-W-0006). TEMPORARY DRAIN PITS TO BE INSTALLED AT CIRCA 50 m SPACING (OMITTED FOR CLARITY).

- FILL PIPELINE
- RETURN PIPELINE
- CONSTRUCTION SITE HOARDING
- TEMPORARY SITE FENCING
- OPEN CUT TRENCH AREA
- HAUL ROAD
- SHALLOW TRENCH FOR DUCT INSTALLATION
- REDLINE BOUNDARY
- RUGBY PITCH BOUNDARY (EXISTING)
- RUGBY PITCH BOUNDARY (RESIZED)
- PUBLIC RIGHT OF WAY
- PUBLIC RIGHT OF WAY CLOSURE
- PROPOSED PUBLIC RIGHT OF WAY DIVERSION
- FOOTPATH CLOSURE
- PROPOSED FOOTPATH DIVERSION
- ROOT PROTECTION MATTING
- CATEGORY A TREE
- CATEGORY B TREE
- CATEGORY U TREE
- CATEGORY C TREE
- ROOT PROTECTION AREA
- TREE TO BE TRANSPLANTED



P08	JT	BP	BC	MODIFIED P2 PIPELINE ROUTE	13/09/24
P07	JT	BP	BC	PLANNING VERSION	03/05/24
P06	JT	BP	BC	INCLUSION OF SHAFT/TUNNEL HAUL ROAD	23/02/24
Rev	Drn	By	Ckd	App	Date

WARD & BURKE

Drawing Suitability: APPROVED FOR DETAILED DESIGN Status: A4

Contractors Drawing Number: HTR-WAB-PI-P2-DR-T-0002

Telephone: Havant (023) 9249 9888
Fax: Havant (023) 9245 3632
Website: www.portsmouthwater.co.uk
Registered Office: PO Box 8 West Street
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Date: 13/09/2024 Scale: 1:500 Sheet: 01 of 01 Sheet Size: A1

Project Title: HAVANT THICKET RESERVOIR

Drawing Title: BEDHAMPTON TO HTR PIPELINE
SECTION P2
OPEN CUT SITE PLAN

Portsmouth Water Drawing Number: Rev: P08

ALL DIMENSIONS ARE IN MILLIMETRES
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Appendix F : Construction Sequence/Programme

Havant Thicket Reservoir – Main Pipeline Works

Construction Sequence



2025 Q2	2025 Q3	2025 Q4	2026 Q1	2026 Q2	2026 Q3	2026 Q6



- Mobilise to site
- Establish working compound to Shaft 2 and haul road

- Shaft
- Pipeline (opencut)
- - - Pipeline (tunnelled)
- Working Compound
- Haul Road

Havant Thicket Reservoir – Main Pipeline Works

Construction Sequence



2025 Q2	2025 Q3	2025 Q4	2026 Q1	2026 Q2	2026 Q3	2026 Q6



- Construct Shaft 2
- Install open cut pipework from shaft 2 towards shaft 3
- Establish working compound to Shaft 3 and haul road

- Shaft
- Pipeline (opencut)
- Pipeline (tunnelled)
- Working Compound
- Haul Road

Havant Thicket Reservoir – Main Pipeline Works

Construction Sequence



2025 Q2	2025 Q3	2025 Q4	2026 Q1	2026 Q2	2026 Q3	2026 Q6



- **Construct Shaft 3**
- **Complete open cut pipework to shaft 3**
- **Construct first tunnel south from Shaft 2**

- **Shaft**
- **Pipeline (opencut)**
- - - **Pipeline (tunnelled)**
- **Working Compound**
- **Haul Road**

Havant Thicket Reservoir – Main Pipeline Works

Construction Sequence

WARD & BURKE

2025 Q2	2025 Q3	2025 Q4	2026 Q1	2026 Q2	2026 Q3	2026 Q6



- Reinststate opencut section
- Construct second tunnel south from Shaft 2
- Construct first tunnel towards Shaft 3

- Shaft
- Pipeline (opencut)
- - - Pipeline (tunnelled)
- Working Compound
- Haul Road

Havant Thicket Reservoir – Main Pipeline Works

Construction Sequence



2025 Q2	2025 Q3	2025 Q4	2026 Q1	2026 Q2	2026 Q3	2026 Q6



- Fitout Shaft 2 and associated tunnels with product pipework.

●

 Shaft

—

 Pipeline (opencut)

- - -

 Pipeline (tunnelled)

■

 Working Compound

■

 Haul Road

Havant Thicket Reservoir – Main Pipeline Works

Construction Sequence



2025 Q2	2025 Q3	2025 Q4	2026 Q1	2026 Q2	2026 Q3	2026 Q6



- Reinstate Shaft 2 working compound and haul road
- Jack second tunnel towards Shaft 3

- Shaft
- Pipeline (opencut)
- - - Pipeline (tunnelled)
- Working Compound
- Haul Road

Havant Thicket Reservoir – Main Pipeline Works

Construction Sequence



2025 Q2	2025 Q3	2025 Q4	2026 Q1	2026 Q2	2026 Q3	2026 Q6



- Fitout Shaft 2 and associated tunnels with product pipework.

●

 Shaft

—

 Pipeline (opencut)

 Pipeline (tunnelled)

Working Compound

Haul Road

Havant Thicket Reservoir – Main Pipeline Works

Construction Sequence

WARD & BURKE



2025 Q2	2025 Q3	2025 Q4	2026 Q1	2026 Q2	2026 Q3	2026 Q6



- Reinstatement of Shaft 3 working compound and haul road

- Shaft
- Pipeline (opencut)
- Pipeline (tunnelled)
- Working Compound
- Haul Road

Havant Thicket Reservoir – Main Pipeline Works

Construction Sequence

WARD & BURKE



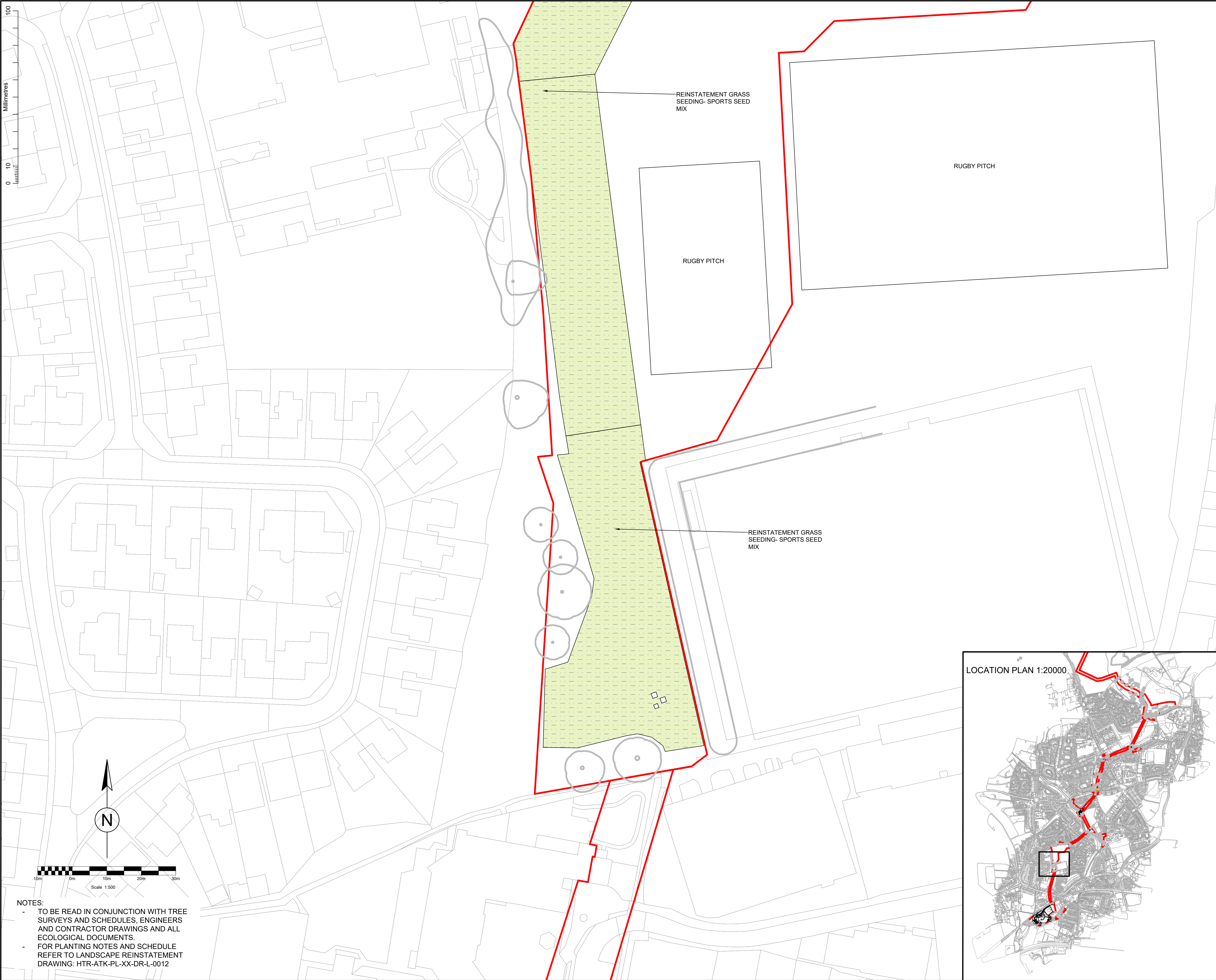
2025 Q2	2025 Q3	2025 Q4	2026 Q1	2026 Q2	2026 Q3	2026 Q6



- Works Complete

- Shaft
- Pipeline (opencut)
- Pipeline (tunnelled)
- Working Compound
- Haul Road

Appendix G : Landscape Reinstatement Drawings



KEY

APPLICATION BOUNDARY

TREES

EXISTING TREES TO BE RETAINED

PROPOSED TREES

MIXED SPECIES STANDARDS & FEATHERS
(EXACT PLANTING LOCATIONS TO BE CONFIRMED WITH HBC)

Ac = Acer campestre (Field Maple)

Ag = Alnus glutinosa (Alder)

Bpn = Betula pendula (Silver Birch)

Cm = Crataegus monogyna (Hawthorn)

Pn = Prunus avium (Wild Cherry)

Qr = Quercus robur (Oak)

Sa = Sorbus aucuparia (Rowan)

Sc = Salix caprea (Goat Willow)

Sf = Salix fragilis (Crack Willow)

Tc = Tilia cordata (Small leaved Lime)

TRANSLOCATED TREES

EXISTING TREES TO BE TRANSLOCATED TO NEW PLANTING POSITION AS PER ARBORICULTURAL METHOD AND SPECIFICATION. NOTE FINAL PLANTING LOCATIONS TO BE AGREED WITH HBC

GRASSLAND (PROPOSED)

AMENITY GRASS

G4 MODIFIED GRASSLAND, TO BE SEEDED WITH AMENITY GRASS SEED MIXTURE

SPORTS GRASS

G4 MODIFIED GRASSLAND, TO BE SEEDED WITH SPORTS GRASS SEED MIXTURE. (AGRONOMY REPORT TO BE UNDERTAKEN TO ESTABLISH THE EXISTING CONDITION OF THE SURFACE AND CONFIRM THE PROPOSED REINSTATEMENT RETURNS THE SURFACE TO THE SAME LEVEL.)

SPECIES-RICH GRASS

G3C OTHER NEUTRAL GRASSLAND, TO BE SEEDED WITH A SPECIES-RICH MEADOW MIXTURE

NATURAL REGENERATION

G3C OTHER NEUTRAL GRASSLAND, TOPSOIL TO BE STRIPPED AND REINSTATED POST WORKS. AREA TO NATURALLY REGENERATE FROM SEED BANK IN SOIL & GRASSLAND NEAR BY. ALTERNATIVELY TO BE SEEDED WITH LOCALLY HARVESTED SEED, AS PER ECOLOGISTS METHOD AND INSTRUCTIONS

TURF REMOVAL & REINSTATEMENT

G3C OTHER NEUTRAL GRASSLAND, TURF TO BE STRIPPED AND STORED ON SITE, THEN REINSTATED POST WORKS, AS PER ECOLOGISTS METHOD AND INSTRUCTIONS

PLANTING (PROPOSED)

BROADLEAF WOODLAND

W1G OTHER BROADLEAVED WOODLAND, PLANTING MIX OF TRANSPLANTS, FEATHERS AND STANDARDS

WET WOODLAND

W1D WET WOODLAND, PLANTING MIX OF TRANSPLANTS, FEATHERS AND STANDARDS. TO BE UNDER PLANTED WITH PLUG GROUND FLORA

MIXED SCRUB

H3H MIXED SCRUB, PLANTING MIX OF TRANSPLANTS, WITH SOME FEATHERED AND STANDARD TREES

DORMOUSE SCRUB

H3H MIXED SCRUB, PLANTING MIX OF TRANSPLANTS, WITH SOME FEATHERED AND STANDARD TREES

NATIVE HEDGE

H2AS SPECIES-RICH NATIVE HEDGEROW. PLANTING OF TRANSPLANTS TO GIVE >5 SPECIES PER 30M SECTION.

HARD LANDSCAPE (PROPOSED)

HARD SURFACE

FOOTPATH, ROAD OR HARD STANDING TO BE REINSTATED TO MATCH EXISTING TREATMENT

LOCATION PLAN 1:20000

NOTES:

- TO BE READ IN CONJUNCTION WITH TREE SURVEYS AND SCHEDULES, ENGINEERS AND CONTRACTOR DRAWINGS AND ALL ECOLOGICAL DOCUMENTS.

- FOR PLANTING NOTES AND SCHEDULE REFER TO LANDSCAPE REINSTATEMENT DRAWING: HTR-ATK-PL-XX-DR-L-0012

AtkinsRéalis

Two Chamberlain Square
Birmingham
West Midlands
B3 3AX

Tel: +44 (0)121 483 5757
Fax:
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Drawing Suitability: FOR INFORMATION

Status: S2

Contractors Drawing Number:

HTR

-ATK- PL- XX -DR- L-

0002

Project

Originator | Volume | Location | Type | Role | Number

Telephone: Havant (023) 9249 9888
Fax: Havant (023) 9245 3632
Website: www.portsmouthwater.co.uk
Registered Office: PO Box 9 West Street
Havant Hampshire PO9 1LG
REGISTERED IN ENGLAND No. 2536455

Portsmouth Water

Project Ref. No: HTR

Sheet: 2 of 12

Scale: 1:500

Sheet Size: A1

Project Title:

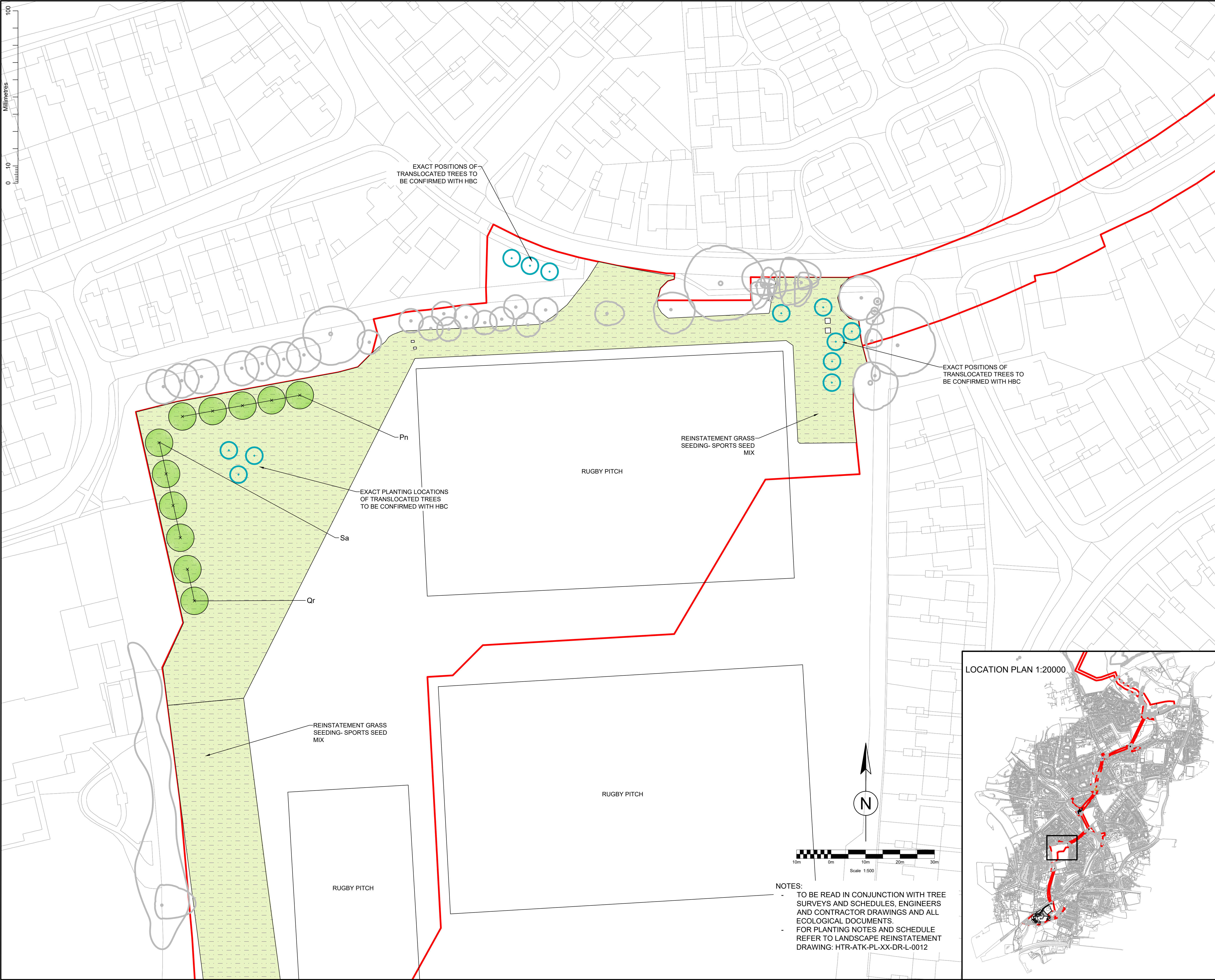
HAVANT THICKET RESERVOIR
PIPELINE APPLICATION

Drawing Title:

LANDSCAPE
REINSTATEMENT PLAN

Portsmouth Water Drawing Number:

Rev: P04



KEY

APPLICATION BOUNDARY

TREES

EXISTING TREES TO BE RETAINED

PROPOSED TREES
MIXED SPECIES STANDARDS & FEATHERS
(EXACT PLANTING LOCATIONS TO BE CONFIRMED WITH HBC)
Ac = Acer campestre (Field Maple)
Ag = Alnus glutinosa (Alder)
Bpn = Betula pendula (Silver Birch)
Cm = Crataegus monogyna (Hawthorn)
Pn = Prunus avium (Wild Cherry)
Qr = Quercus robur (Oak)
Sa = Sorbus aucuparia (Rowan)
Sc = Salix caprea (Goat Willow)
Sf = Salix fragilis (Crack Willow)
Tc = Tilia cordata (Small leaved Lime)

TRANSLOCATED TREES
EXISTING TREES TO BE TRANSLOCATED TO NEW PLANTING POSITION AS PER ARBORICULTURAL METHOD AND SPECIFICATION. NOTE FINAL PLANTING LOCATIONS TO BE AGREED WITH HBC

GRASSLAND (PROPOSED)

AMENITY GRASS
G4 MODIFIED GRASSLAND, TO BE SEEDDED WITH AMENITY GRASS SEED MIXTURE

SPORTS GRASS
G4 MODIFIED GRASSLAND, TO BE SEEDDED WITH SPORTS GRASS SEED MIXTURE. (AGROBIOLOGY REPORT TO BE UNDERTAKEN TO ESTABLISH THE EXISTING CONDITION OF THE SURFACE AND CONFIRM THE PROPOSED REINSTATEMENT RETURNS THE SURFACE TO THE SAME LEVEL)

SPECIES-RICH GRASS
G3C OTHER NEUTRAL GRASSLAND, TO BE SEEDDED WITH A SPECIES-RICH MEADOW MIXTURE

NATURAL REGENERATION
G3C OTHER NEUTRAL GRASSLAND, TOPSOIL TO BE STRIPPED AND REINSTATED POST WORKS. AREA TO NATURALLY REGENERATE FROM SEED BANK IN SOIL & GRASSLAND NEAR BY. ALTERNATIVELY TO BE SEEDDED WITH LOCALLY HARVESTED SEED, AS PER ECOLOGISTS METHOD AND INSTRUCTIONS

TURF REMOVAL & REINSTATEMENT
G3C OTHER NEUTRAL GRASSLAND, TURF TO BE STRIPPED AND STORED ON SITE, THEN REINSTATED POST WORKS, AS PER ECOLOGISTS METHOD AND INSTRUCTIONS

PLANTING (PROPOSED)

BROADLEAF WOODLAND
W1G OTHER BROADLEAVED WOODLAND, PLANTING MIX OF TRANSPLANTS, FEATHERS AND STANDARDS

WET WOODLAND
W1D WET WOODLAND, PLANTING MIX OF TRANSPLANTS, FEATHERS AND STANDARDS. TO BE UNDER PLANTED WITH PLUG GROUND FLORA.

MIXED SCRUB
H3H MIXED SCRUB, PLANTING MIX OF TRANSPLANTS, WITH SOME FEATHERED AND STANDARD TREES

DORMOUSE SCRUB
H3H MIXED SCRUB, PLANTING MIX OF TRANSPLANTS, WITH SOME FEATHERED AND STANDARD TREES

NATIVE HEDGE
H2A5 SPECIES-RICH NATIVE HEDGEROW. PLANTING OF TRANSPLANTS TO GIVE >5 SPECIES PER 30M SECTION.

HARD LANDSCAPE (PROPOSED)

HARD SURFACE
FOOTPATH, ROAD OR HARD STANDING TO BE REINSTATED TO MATCH EXISTING TREATMENT

P05	JS	DB	DB	JF	UPDATED TO COMMENTS	02/09/24
P04	JS	DB	DB	JF	UPDATED TO COMMENTS	08/08/24
P03	JS	DB	DB	JF	UPDATED TO COMMENTS	22/05/24
P02	JS	DB	DB	JF	UPDATED TO COMMENTS	15/05/24
P01	JS	DB	DB	JF	FOR REVIEW AND COMMENT	17/04/24
Rev. Status	Dm By	Ckd By	Rev By	Auth By	Description	Date

AtkinsRéalis

Two Chamberlain Square
Birmingham
West Midlands
B3 3AX

Tel: +44 (0)121 483 5757
Fax:
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Drawing Suitability: **FOR INFORMATION** Status: **S2**

Contractors Drawing Number:
HTR -ATK- PL- XX -DR- L- 0003
Project [Originator] [Volume] [Location] Type Role Number

Telephone: Havant (023) 9249 9888
Fax: Havant (023) 9245 3632
Website: www.portsmouthwater.co.uk
Registered Office: PO Box 8 West Street
Havant Hampshire PO9 1LG
REGISTERED IN ENGLAND No. 2536455

Portsmouth Water

Project Ref. No:	Sheet:	Scale:	Sheet Size:
HTR	3 of 12	1:500	A1

Project Title: **HAVANT THICKET RESERVOIR PIPELINE APPLICATION**

Drawing Title: **LANDSCAPE REINSTATEMENT PLAN**

Portsmouth Water Drawing Number: Rev: **P05**

NOTES:

- TO BE READ IN CONJUNCTION WITH TREE SURVEYS AND SCHEDULES, ENGINEERS AND CONTRACTOR DRAWINGS AND ALL ECOLOGICAL DOCUMENTS.
- FOR PLANTING NOTES AND SCHEDULE REFER TO LANDSCAPE REINSTATEMENT DRAWING: HTR-ATK-PL-XX-DR-L-0012

