



AQUIND Limited

AQUIND INTERCONNECTOR

Environmental Statement Addendum – Appendix 13 Framework Management Plan for Recreational Impacts

The Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations
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WSP

WSP House

70 Chancery Lane

London

WC2A 1AF

+44 20 7314 5000

www.wsp.com

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Prepared By	J. Laver, R. Thompson
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1. INTRODUCTION

- 1.1.1.1. This Framework Management Plan for Recreational Impacts (hereafter referred to as the 'FMP') provides further information on predicted effects arising from the construction of the Proposed Development on key recreational assets and outlines the possible mitigation measures proposed to address those effects.
- 1.1.1.2. The recreational assets within this document are identified in Table 25.14 of Chapter 25 (Socio-economics) of the Environmental Statement ('ES') Volume 1 (APP-140) submitted in November 2019 as part of the application for a Development Consent Order ('DCO') for the AQUIND Interconnector (the 'Proposed Development') ('the Application').
- 1.1.1.3. This document only considers sites where a significant effect (defined as moderate adverse and above in the ES) was identified, prior to mitigation.
- 1.1.1.4. The information presented, including the construction and reinstatement dates and timelines, is indicative. The detailed proposals will be confirmed as part of the detailed design for the Proposed Development. This FMP outlines ways in which construction mitigation presented in the ES can be implemented to reduce effects. It demonstrates that mitigation is feasible and achievable in this respect.
- 1.1.1.5. The recommendations in this report in relation to reinstatement have been independently reviewed by PSD Agronomy ("PSD"). PSD are specialist independent sports turf contractors and pitch specialists and were commissioned by the Applicant in January 2021 to assess the condition and quality of pitches and the position in relation to the drainage which serves those (where applicable), and have made subsequent to undertaking the surveys provided a number of recommendations for reinstatement, including the verification of the timescales required for reinstatement to be undertaken and to be effective. A copy PSDs Review of Proposed Pitch Mitigation and Reinstatement Strategies is included at Appendix E to this FMP.

2. POTENTIAL TYPES OF DISTURBANCE

- 2.1.1.1. Chapter 25 (Socio-economics) of the ES identifies potential types of recreational disturbance effects. These include:
- Disruption during construction, including changes to access and amenity value, for users of leisure facilities, recreational and open spaces, Public Rights of Way (PRoW), and cycle routes; and
 - Disruption during construction, to tourism, including changes of access to tourist attractions and events.
- 2.1.1.2. A study area of 500 m from the Order Limits onshore was used to identify receptors that may be impacted by construction activities. Based on best practice guidance and professional judgement, receptors within 500 m are those most likely to be affected as a result of construction activities and changes to access (the study area is further discussed in Section 25.1.2 of the ES (APP-140)).

3. GENERAL MITIGATION

- 3.1.1.1. Chapter 25 (Socio-economics) outlines a number of principles from Chapter 3 (Description of the Proposed Development) of the ES Volume 1 (APP-118) and a range of mitigation measures that are designed to ameliorate recreational disturbance effects.
- General principles include:
 - *Where PRow or off-road cycle routes need to be closed, an alternative route and signage will be provided in advance of the temporary closure. (25.4.6.7)*
 - *Working hours for the installation of the Onshore Cable are Monday to Friday, 07.00-17.00 and Saturday typically 08:00 to 13:00; and for the construction of the Converter Station are 08.00 -18.00 Monday to Friday and Saturday morning typically between 08.00-13.00. There will be some working outside these hours for example to undertake trenchless techniques on the Onshore Cable Route (12 to 24-hour shifts), reduce duration of works in some locations, accommodate delivery of abnormal loads and minimise traffic impacts, or overnight to limit daytime disruption. Working hours for the Marine Cable installation will be 24 hours. (25.4.6.9).*
 - Embedded mitigation measures that minimise effects include:
 - *Horizontal directional drilling ('HDD') will be used at Landfall, Milton and Eastney Allotments / Milton Locks Nature Reserve. This avoids direct impacts on Eastney Beach, the Allotments and Milton Locks Nature Reserve.*
 - *Where the Onshore Cable Corridor crosses open space, the Onshore Cable Route has been designed to avoid key recreational facilities. This includes avoiding:

 - *Farlington Playing Fields cricket squares (although one of the squares is affected); and*
 - *Bransbury Park football pitch, skate park and footway. (25.7.2.1)**
 - The following mitigation measures are incorporated into the Onshore Outline Construction Environmental Management Plan ("OOCEMP") (REP6-036) to minimise effects on users of recreational and open space sites:
 - *5.12.4.1 The community groups who utilise the areas of recreational and open space which will be impacted by the construction of the Proposed Development would be informed of the nature, timing and duration of particular activities during the construction stage; and*

- *If alternative routes or spaces are required to be utilised in and around areas of open and recreational space, directions would be clearly communicated at the appropriate place.*
- *5.12.4.2 The construction programme will be reviewed by the construction contractor(s) to see where there are opportunities to reduce effects on open space, for example by reducing construction programme through concurrent working on a single or multiple spaces (including car parks) and avoiding key events.*
- *5.12.4.3 The areas required for longer-term construction works, such as Trenchless methods, within the Order Limits will also be reviewed by the construction contractors to determine whether there are any opportunities to reduce areas of open space required for long-term works; and*
- *The Applicant will discuss with local authorities and the University of Portsmouth opportunities to provide temporary mitigation during periods of disruption, such as where sports pitches are affected, reconfiguring pitches to maximise use of unaffected areas.*
- *5.12.4.4 Areas of open space will be restored, as far as practicable, to the same condition as they were in prior to construction.*
- *5.12.4.5 Where the Order Limits are crossed by off-road PRow or Cycle routes, there is the potential for the route to be closed temporarily during construction for safety purposes. To mitigate this disruption, an alternative route will be provided along with signage in advance of the temporary closure.*

4. RECREATIONAL ASSETS

4.1. OVERVIEW

- 4.1.1.1. This section provides further detail on how the measures from the ES outlined in Section 3 can be implemented to mitigate effects. General principles of this mitigation are set out below, followed by a discussion of individual sites.
- 4.1.1.2. For all recreational assets considered in this FMP, Temporary Works will be phased to minimise disruption during the construction period. The area for Temporary Works for each phase will be securely fenced off, and the public excluded. These areas will be kept to the minimum as reasonably practicable – large enough to allow efficient working and construction access, but no larger than is needed. An example of this is illustrated in Appendix A which summarises indicative phasing of works and working areas at Farlington Playing Fields (a less detailed version of this plan forms Appendix 25.5 (Illustrative Phasing of Works at Example Public Open Spaces) of the ES Volume 3 (APP-473)).
- 4.1.1.3. It should be noted that for the construction periods described in this section at each recreation site, the duration of the works includes HDD, cable trenching, joint bays, installations, and other activities, and may not be consecutive, for example due to the installation of each circuit at different time. Therefore, there may be periods between phases of construction where works are not being undertaken and the relevant recreation site is reinstated for the intervening period of time.

4.1.2. REINSTATEMENT

- 4.1.2.1. As well as the temporary reduction in usable playing pitches or open spaces caused by areas of Temporary Works, reinstatement of these areas will be required where either trenching has occurred, or where matting has been laid down; for example, to create temporary routes for vehicles and mobile plant to ameliorate the impacts of movements on the surface. The areas required for the cable trenches and supporting activities will be carefully laid out, to keep the disruption caused by the works and the extent of reinstatement required to a minimum.
- 4.1.2.2. Taking account of factors including: indicative duration and proposed method of construction works; current use; type of grassland; and existing maintenance regimes and irrigation; PSD have outlined the following reinstatement recommendations for sports pitches¹ based on site surveys undertaken over a two day period 20-21 January 2021:

¹ Farlington Fields, Bransbury Park, Baffins Milton Rovers and Langstone Harbour Sports Ground, University of Portsmouth Playing Fields, and Zetland Fields

- Reseeding of pitches is not suitable at any of the sites;
- Removal of existing turf, storage, and the reuse of this turf for sports pitches is unlikely to be feasible at any of the sites, as it adds considerable time to the duration of the work, requires additional storage space and introduces risk in terms of reinstatement quality which is better managed using imported turf;
- Importing of new turf for reinstatement of pitches is recommended as the most viable option for all sites;
- Where excavated material will be used to backfill trenches, the topsoil should be stripped separately to the subsoil, and stored locally with appropriate protection from the weather; and
- The use of thick cut 'big roll turf' is proposed as an option (where suitable), which allows for quicker reinstatement. On all sites, provision of irrigation and a period of contractor maintenance should be allowed for.

4.1.2.3. PSD have advised that thick cut, big roll turf will mean that affected pitches are playable within 2-3 weeks, this is considerably faster than the 8 weeks reinstatement that has been allowed for other types of re-turfing. It is therefore likely that the reinstatement of sports pitches within this management plan will take place over a 2-3 week period, however, to ensure that there is adequate contingency, for example, for continued irrigation during periods of dry weather, a total of 8 weeks has been applied in the assessment of impacts. This ensures that the worst case scenario has been assessed where new turf for reinstatement of pitches is proposed.

4.1.2.4. It should be noted that reinstatement for sports pitches differs to reinstatement generally, due to the requirement for the surface to accommodate use by sports teams. Outside of sports pitches, reuse of existing turf, import of different types of turf or reseeded can be applied depending on a number of factors relating to area affected, duration of works, time of year and requirement for irrigation. For example, re-turfing for reinstatement of foraging grassland for Brent Geese is suitable for immediate use following reinstatement with new. This document, and the reinstatement timescales detailed herein, only applies to reinstatement for recreation and in particular, sports pitches.

4.1.2.5. Detailed methods for pitch or open space reinstatement will be discussed and agreed with the PCC, and the University of Portsmouth (as relevant) before commencement of construction. Proposals will be submitted by the Contractor for the returning to service of any pitches that would be affected, including methodology, area affected and programme. All pitch reinstatement will be carried out in accordance with the Sport England Design Guidance Note '*Natural Turf for Sport (Updated guidance for 2011)*', with reinstatement work on pitches undertaken by a specialist agronomist or sports turf contractor to ensure that the relevant pitch is reinstated to an equivalent quality to that which has been temporarily lost or affected.

4.1.2.6. For recreation sites with formal pitches, temporary pitch realignment has been proposed in order to ameliorate direct impacts on the pitches during the construction works associated with the Proposed Development. In accordance with advice from Sport England, the following aspects have been taken into account:

- Where possible, there should be no direct impacts on cricket squares as these take a longer time to reinstate, and a 2.74 m (3 yard) perimeter around the cricket square and boundary line to prevent damage or obstruction; and
- Requirements for player run-off areas have been included when considering temporary alternative locations for pitches (a 3 m perimeter around each football pitch and a 5 m perimeter around each rugby pitch).

4.2. PUBLIC OPEN SPACE AND PLAYING FIELDS

4.2.1. FARLINGTON PLAYING FIELDS

4.2.1.1. Farlington Playing Fields includes three cricket pitches, ten adult football pitches, and one nine-a-side (9v9) football pitch. Plate 1 shows the 9v9 football pitch located furthest north, and the three cricket pitches² in the northern part of the playing fields (overlapping two of the adult football pitches), with the remaining eight football pitches in the southern half of the playing fields. Cricket pitch 3 and football pitch 10 are both currently disused but could be reinstated in the future.

4.2.1.2. PSD note that Farlington Playing Fields is Sport England Pitch Grade Type 5 Pipe drained with sand slits, and comment that the site surveys observed that the existing slit drains installed in 2004 are no longer functional.

² Cricket pitches are denoted by the solid black line surrounding the yellow cricket square area. Cricket squares are the playing area used in games, while cricket pitches surrounding the squares are the wider play area where balls may land and be caught.



--- Order Limits Football pitches Cricket squares

Plate 1 - Farlington Playing Fields

- 4.2.1.3. The main local cricket leagues which use Farlington Playing Fields are the Southern Premier Cricket League and the Hampshire Cricket League. Both of these leagues have fixtures scheduled on Saturdays during May to August. It is likely that any other local leagues which use Farlington Playing Fields will have a similar schedule. The cricket pitches are also available to hire from April to August.
- 4.2.1.4. The local City of Portsmouth Sunday Football League has fixtures scheduled on Sundays from September to mid-May. It is likely that any other local leagues which use the Playing Fields will have a similar schedule. The football pitches are available for hire from September to April, with any annual pitch renovations required likely taking place from April to July.
- 4.2.1.5. It is also acknowledged that the pitches are likely to be used for informal recreation outside of the playing season, in addition to formal clubs and users booking the pitches. It is understood that 56 different teams are known to use the football pitches (an average of 238 senior football matches per season) with Sunday morning representing the most intensive period of use, with 10-11 matches being played on average. Some games also take place on Sunday afternoons and there are occasional mid-week games. Cricket matches are played at weekends and during the week, with an average of 39 matches during the playing season.
- 4.2.1.6. Farlington Playing Fields Car Park provides parking for approximately 150 vehicles in unmarked bays (informal parking).

- 4.2.1.7. The playing fields are recognised as a Solent Waders and Brent Goose Strategy (SWBGS) site, which are sites known to be used by wintering birds from the nearby Chichester and Langstone Harbour Special Protection Area (SPA). To avoid disturbance to wintering birds, construction works will be restricted from October to March inclusive, as outlined in the OOCEMP.
- 4.2.1.8. St John’s College Southsea playing fields (outside of the Order Limits) are situated immediately to the east of and accessed via Farlington Playing Fields. The playing fields are used by the school for rugby and cricket and Portsmouth 3rd XI and Purbrook 3rd XI on alternate weekends.
- 4.2.1.9. Farlington Playing Fields has also previously been used for off-site camping and car parking for the Victorious Festival during the August bank holiday weekend.

MITIGATION AND MANAGEMENT

- 4.2.1.10. The ES found that there would be a moderate to major adverse effect on users of Farlington Playing Fields, and that the following mitigation would reduce this to a moderate adverse effect:
- Consultation with affected users and the local authority;
 - Restoration of recreational and open space and car parks; and
 - Contractor review of the construction programme and working areas.
- 4.2.1.11. Indicative phasing plans have been prepared for Farlington Playing Fields, which describe the duration of given stages of the works, their approximate footprint, and associated constraints (Appendix A). Farlington Playing Fields may be affected for up to 52 weeks (not continuously with works anticipated to be undertaken over two summers noting no works will be undertaken between October to March) based on a worst-case scenario as outlined in the ES. However, an additional 8 weeks should be added to this period for effective reinstatement of sports pitches each year. Plate 2 shows how an indicative route alignment would minimise the impact on pitches and how available space could be used for alternative pitch layouts for the duration of the impact (also see Appendix A for further details). The working cable corridor width would typically be no more than 15 m in width and is approximately 530 m long in this location, although this may be broken down into sections.
- 4.2.1.12. Disruption to recreation at Farlington Playing Fields, taking account of the works outlined above, is anticipated to be as follows, based on the indicative phasing timings outlined in Appendix A:
- Phase 1: would be undertaken in April 2022 for 2 weeks. The works area for Phase 1 affects football pitch 10.
 - Phase 2: would be undertaken in mid-April to June 2022 for 6 weeks. The works area for Phase 2 affects football pitches and 4, 8, and 10.

- Phase 3: would be undertaken in June to August 2022 for 13 weeks. The works area for Phase 3 affects football pitches 4, 8, and 10, the 9v9 football pitch, and cricket pitch 3.
- Phase 4: would be undertaken in late August 2022 for 2 weeks. The works would be cleared to allow for the Victorious Festival.
- Phase 5: would be undertaken in September 2022, for four weeks. The works area for Phase 5 affects football pitches 4, 8, and 10, the 9v9 football pitch, and cricket pitch 3.
- Phase 6: would be undertaken in October 2022 to March 2023. The works would be cleared for wintering bird activity.
- Phase 7: would be undertaken in mid-April to June 2023 for a period of approximately 6 weeks. The works area for Phase 7 affects football pitches 4, 8, and 10.
- Phase 8: would be undertaken in June to mid-August 2023 for 13 weeks. The works area for Phase 8 affects football pitches 4, 8, and 10, the 9v9 football pitch and cricket pitch 3.
- Phase 9: would be undertaken in late August 2023 for 2 weeks. The works would be cleared to allow for the Victorious Festival.
- Phase 10: would be undertaken in September 2023 for 4 weeks. The works area for Phase 10 affects football pitches 4 and 8.

4.2.1.13. On the basis of the above works periods, advice from PSD is that in order to allow reinstatement and play on pitches as soon as possible following the completion of construction works, thick cut ‘big roll turf’ will allow for the most rapid re-turfing and bedding in period. PSD recommends that this type of turf would result in limited downtime as far as possible in the context of the works at Farlington Fields for the affected pitches 4, 8, 10, the 9v9 football pitch, and cricket pitch 3, as this type of turf can be played on 2-3 weeks after laying, reducing pitch downtime considerably.

4.2.1.14. PSD’s site survey concluded that the current pitch arrangement at Farlington Fields utilises the most suitable parts of the site, with ground undulations and water ponding affecting other parts of the site which would make them unsuitable for sport. As such, it is acknowledged that there will be reinstatement of pitches 4, 8, 10, the 9v9 pitch, and cricket pitch 3 required after the relevant work phases. Appendix D provides further information on reinstatement, including drainage, resettlement and ground protection for Farlington Playing Fields.

4.2.1.15. Given that football pitch 10 is not currently in use (with PSD noting during the site survey that it was not marked for play), if Pitch 10 was used as a realignment location for the 9v9 football pitch, this would result in no impact to the 9v9 pitch. This alternative location for the 9v9 pitch is shown in Plate 2. Additionally, cricket pitch 3 is not currently in use, so there would be no impact from the works on its use for matches.

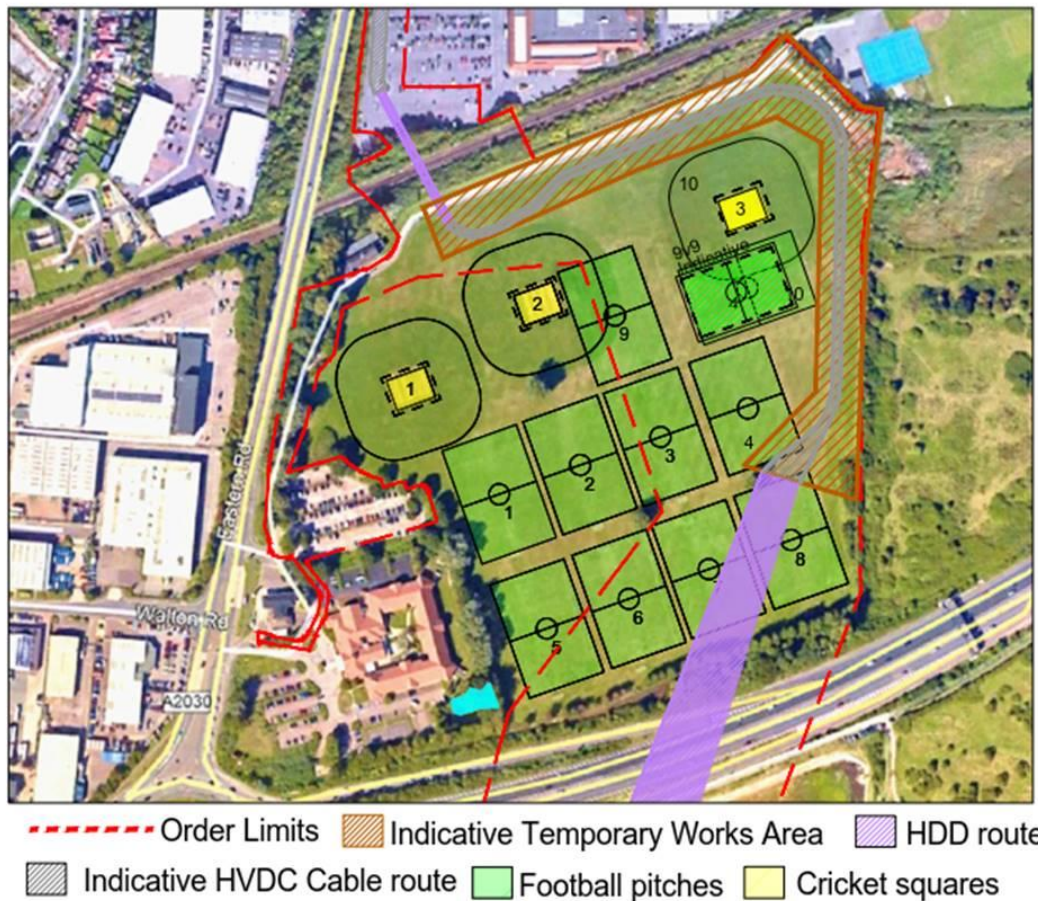


Plate 2 - Farlington Playing Fields, indicative construction lay-out

4.2.1.16. PSD also made a number of recommendations for further mitigation, relating to alignment of works, in particular the cable corridor, joint bays and HDD compound to avoid pitches 4, 8 and 10. Initial review of proposals has suggested that this is feasible, and this will be explored further during detailed design with the relevant Contractor once appointed.

SUMMARY

4.2.1.17. Appendix C uses the indicative phasing information from Appendix A to illustrate impacts on sports use of each pitch during the playing season. Using these dates, this can be summarised as follows for pitches on Farlington:

- There will be no impact on football pitches 1, 2, 3, 5, 6, 7, and 9.
- Football pitch 4 will be affected for a total of 36 weeks over three playing seasons (6 weeks of the end of the 2021/22 season by Phase 2 works 10 weeks of the 2022/23 season by Phase 5 (plus 8 weeks allowance for reinstatement) and Phase 7 works, and 4 weeks of the 2023/24 season by Phase 10 works (plus 8 weeks allowance for reinstatement) 4.2.1.14
- Football pitch 8 will be affected for a total of 36 weeks over three playing seasons (6 weeks at the end of the 2021/22 season by Phase 2 works, 10 weeks of the 2022/23 season by Phase 5 (plus 8 weeks allowance for reinstatement) and Phase 7 works, and 4 weeks of the 2023/24 season by Phase 10 works plus 8 weeks allowance for reinstatement)
- Football pitch 10 (which is currently not in use) will be affected for 30 weeks over two playing seasons (8 weeks of the 2021/2022 season by the Phase 1 and Phase 2 works, and 10 weeks in 2023 by the Phase 5 (plus 8 weeks allowance for reinstatement) and Phase 7 works (plus 4 weeks allowance for reinstatement in the playing season following Phase 8)). 4.2.1.14
- The 9x9 football pitch will be affected for a total of 16 weeks over two playing seasons (4 weeks of the 2022/23 playing season by Phase 5 works, plus an allowance of 8 weeks reinstatement, in addition to 4 weeks reinstatement in the playing season following Phase 8 in the 2023/2024 season). However, there will be no disruption to the playing season for this pitch if relocated.
- There will also be an impact on informal use of football pitches outside the playing season, through the summer months, however it is possible that informal use could take place on other pitches at Farlington Playing Fields.
- There will be no impact on cricket pitches 1 and 2.
- Cricket pitch 3 (which is currently not in use), will be affected for a total of 26 weeks over two playing seasons (13 weeks of the 2022/23 playing season by the Phase 3 works, and 13 weeks of the 2023/24 season by the Phase 8 works, reinstatement is out of season). Given that cricket pitch 3 is currently not in use, the most appropriate level of reinstatement will be agreed with PCC.
- There are a number of options to further mitigate impact on pitches, both through further arrangement of works during detailed design and effective reinstatement using big roll turf, predicted to be 2-3 weeks (the 2-3 week reinstatement timescale

would reduce the 8 week durations stated, though 8 weeks is stated to ensure a worst case impact is detailed).

- 4.2.1.18. Due to works on the playing fields, the car park would be subject to temporary partial closure of two weeks in April 2022 during Phase 1. There is limited capacity at other nearby car parks (Farlington Marshes Car Park is 500 m to the south) as an alternative.
- 4.2.1.19. As outlined in the Framework Traffic Management Strategy (REP6-030) principles for mitigation, access to St John's College Southsea playing fields will be maintained for the duration of the works period, with any temporary closures to be agreed in advance between the Contractor and the college.
- 4.2.1.20. In respect of events, the contractor will clear all works except HDD4 to minimise disruption at key events, this includes the Victorious Festival. The layout of the site for festival purposes is relatively fixed, given the need to segregate the car parking and camping areas, and ensure that the campsite is away from residential dwellings. In agreement with festival organisers, the contractor would be able to put in place temporary surfacing for the car parking area however it is recognised that this would be difficult to deliver for the camping area of the site.

4.2.2. BAFFINS MILTON ROVERS FOOTBALL GROUND AND ASSOCIATED LANGSTONE HARBOUR SPORTS GROUND

- 4.2.2.1. Baffins Milton Rovers Football Club ('BMRFC') football ground and Langstone Harbour Sports Ground comprise two football pitches, of which the main pitch is at the northern end of the ground, and the secondary pitch to the south. A cricket pitch is situated between the two football pitches (see Plate 3).
- 4.2.2.2. PSD note that the southern football pitch is Sport England Pitch Grade Type 1 Undrained.



Order Limits
 Indicative Temporary Works Area
 Indicative HVDC Cable route
 Football pitches
 Cricket squares

Plate 3 - Baffin Milton Rovers football ground and Langstone Harbour Sports Ground

- 4.2.2.3. On the northern pitch, BMRFC play in the Wessex Football League with fixtures from August to April, totalling approximately 18 home fixtures per year, plus friendly matches. The pitch is also used by Portsmouth and Southsea CC 3rd and 4th XI, Portsmouth Ladies, plus some Sunday fixtures and mid-week matches. The southern pitch is occasionally used by BMRFC reserves for training and matches and is also used by the public.
- 4.2.2.4. Scheduled games take place on the Langstone Harbour cricket pitch between April and September, with an average of 37 matches per season. The football and cricket pitches may also be used for informal matches and recreation throughout the year.

- 4.2.2.5. The playing fields are recognised as a SWBGS site, which are sites known to be used by wintering birds from the nearby Chichester and Langstone Harbour SPA. Accordingly, construction works are not to be undertaken from October to March inclusive to avoid impacts on wintering birds.

MITIGATION AND MANAGEMENT

- 4.2.2.6. Chapter 25 (Socio-economics) of the ES found that there would be a moderate adverse effect on users of BMRFC and associated Langstone Harbour sports ground and that the following mitigation relevant to this site would reduce this to a minor to moderate adverse effect:

- Consultation with affected users;
- Restoration of recreational and open space and car parks; and
- Contractor review of construction programme and working areas.

- 4.2.2.7. For trenching, temporary working areas could be positioned anywhere within the Order Limits, with the cable corridor typically no more than 15 m in width, and up to 450 m in length at this location, although this may be broken down into sections.

- 4.2.2.8. In the ES it was stated that the works at BMRFC and the Langstone Harbour Sports Ground would be undertaken over a period of eight weeks (not continuous) as a worst-case scenario, however it has been confirmed that this can be reduced to approximately three weeks total (1 week at BMRFC and 2 weeks for the Langstone Harbour football pitch and cricket square). An additional 8 weeks should be added to this period for reinstatement allowance (though recommended to be re-turfing using 'big roll turf' which has the potential to reduce the reinstatement period and make pitches playable in 2-3 weeks).

- 4.2.2.9. The route where the cable would be installed is to the western edge of BMRFC (northern football pitch), through the pitch and the western edge of the cricket pitch and southern football pitch. Following discussions with the Chairman of BMRFC, agreement in principle has been given to this route, subject to the timing of the works and reinstatement being during the off-season, so that the pitch can be re-turfed as part of their normal end of season works. Taking this approach would result in no impact on the functionality of the northern football pitch during the playing season.

- 4.2.2.10. Realignment of the southern football pitch at Langstone Harbour Sports Ground to the east of its current location was considered to create enough space for trenching to the west without impinging on the pitch, however there is insufficient space on the western edge of the football ground to accommodate this; as confirmed by PSD's site surveys. Therefore, direct effects to this pitch cannot be avoided.

4.2.2.11. It is anticipated that works in this area would be undertaken in June-July 2023. The use of 'big roll turf' would mean that the pitch would be playable within 2-3 weeks in time for the start of the playing season. However, a contingency of 8 weeks has been allowed for reinstatement. If the full 8 weeks are required, there is potential for 4 weeks to be lost at the start of the playing season, however if the reinstatement works are completed in the 2-3 weeks assessed by PSD then there would not be any impacts on the playing season.

4.2.2.12. Given the route (the permissible outer limits of which are defined by the Order Limits) and works layout, the cricket square would be avoided, however the layout of works would still cross the cricket pitch outfield (the wider area surrounding the cricket square). As per the above, the cricket pitch would therefore be temporarily lost for a period of approximately 2 weeks, with an additional 8 weeks allowance for reinstatement (maximum 10 weeks in total).

SUMMARY

4.2.2.13. The works at BMRFC and Langstone Harbour Sports Ground will result in the following temporary recreational disturbances:

- Temporary loss of the Langstone Harbour Sports Ground football pitch for a maximum period of approximately 8 weeks of the playing season, (2 weeks for the undertaking of works during the summer months and a worst case allowance of 8 weeks for reinstatement during the playing season).
- Temporary loss of the Langstone Harbour Sports Ground cricket pitch for a maximum period of 10 weeks during the playing season (approximately 2 weeks, and a maximum 8 weeks to allow for reinstatement of the pitch). However, if the reinstatement can take place in the 2-3 weeks assessed by PSD then the length of time the pitch is out of action will be reduced.
- No impact on Baffins Milton Rovers football pitch playing season.

4.2.3. UNIVERSITY OF PORTSMOUTH PLAYING FIELDS

4.2.3.1. The University of Portsmouth Playing Fields are located in the eastern part of the Langstone Campus (see Plate 4). PSD note that the University of Portsmouth Playing Fields are Sport England Pitch Grade Type 1 undrained.



Plate 4 - University of Portsmouth playing fields

4.2.3.2.

As shown in Plate 4, the Order Limits do not impinge on any of the pitches in the western part of the Langstone Campus (Langstone Sports Centre) so these will not be affected.

4.2.3.3. The University of Portsmouth Playing Fields lie to the east of the Langstone Sports Centre buildings and are available for use by University teams and summer schools only, with no access to the general public. All three sports pitches (two rugby pitches and one football pitch) on the University of Portsmouth playing fields fall within the Order Limits, and the ES assumes that the use of these will be restricted for up to 12 weeks (not continuously).

4.2.3.4. The PSD survey noted that no pitch markings were evident at the time of the visit, and it was reported that the site had been left for geese activity for the past 2 years. Extensive contamination of the surface by geese faeces was evident with damage to the sward noted caused by the geese ripping at the grass.

4.2.3.5. The playing fields are recognised as a SWBGS site, which are sites known to be used by wintering birds from the nearby Chichester and Langstone Harbour SPA. Accordingly, construction works will not be undertaken from October to March inclusive, to avoid impacts on wintering birds.

MITIGATION AND MANAGEMENT

4.2.3.6. Chapter 25 (Socio-economics) of the ES found that there would be a moderate adverse effect on users of the playing fields, and that the following mitigation would reduce this to a minor to moderate adverse effect:

- Consultation with affected users and University of Portsmouth;
- Restoration of recreational space; and
- Contractor review of construction programme and working areas.

4.2.3.7. For trenching, working areas could be positioned anywhere within the Order Limits. These working corridors would typically be no more than 15 m wide and would be up to 320 m in length at this location. The majority of the area is subject to cable installation via trenching, taking up to 4 weeks in this location. In addition, approximately 8 weeks should be allowed for reinstatement.

4.2.3.8. Whilst the PSD survey noted that there was no evidence of current pitch use, when the pitches are in use the heaviest use is likely to be within term time, although they may be used time throughout the year. Given the seasonal restrictions for wintering birds described above, the route installation will be between April and September (see Appendix C for further details).

4.2.3.9. The University of Portsmouth have expressed a preference for the works to stay as close to the eastern edge of the Order Limits as possible which would provide maximum flexibility for moving pitches. If the cable route were to be along the eastern edge of the Order Limits, direct impacts on the football pitch and the southern rugby pitch could be avoided completely by realigning the rugby pitch to the west, as shown on Plate 5, and the football pitch falling outside the Temporary Works Area. This would allow the pitch widths and the recommended run-off areas to be maintained. However, direct impacts on the northern rugby pitch could not be avoided, as there is insufficient room to the west of this pitch to be able to move it far enough across and out of the Order Limits.

4.2.3.10. It is anticipated that works in this area would be undertaken in April/ May (for a period of 4 weeks), with an additional period of approximately 8 weeks allowed for reinstatement of pitches. Appendix C shows the period of impact on each pitch and the effect during the playing season. This will mean that if not realigned, the football and rugby pitches are temporarily lost for up to 8 weeks at the end of the 2021/22 playing season but will be reinstated and available for the 1st September start of the 2022/23 season. It is acknowledged that any out of term time summer use would also be affected.

SUMMARY

4.2.3.11. The works at University of Portsmouth Playing Fields will result in the following temporary recreational disturbances:

- Temporary loss of the football pitch for the duration of works for 4-6 weeks of the University Playing season. If the temporary working area can be maintained on an eastern alignment, impacts would be avoided.
- Temporary loss of the southern rugby pitch for the duration of works for 4 weeks (assuming works start in early April) of the playing season. However, any summer use up to the end of July, would also be affected. If the temporary working area can be maintained on an eastern alignment, and the pitch is realigned, then impacts would be avoided.
- Temporary loss of the northern rugby pitch for 4 weeks (assuming works start in early April) of the playing season. However, any summer use up to the end of July, would also be affected.

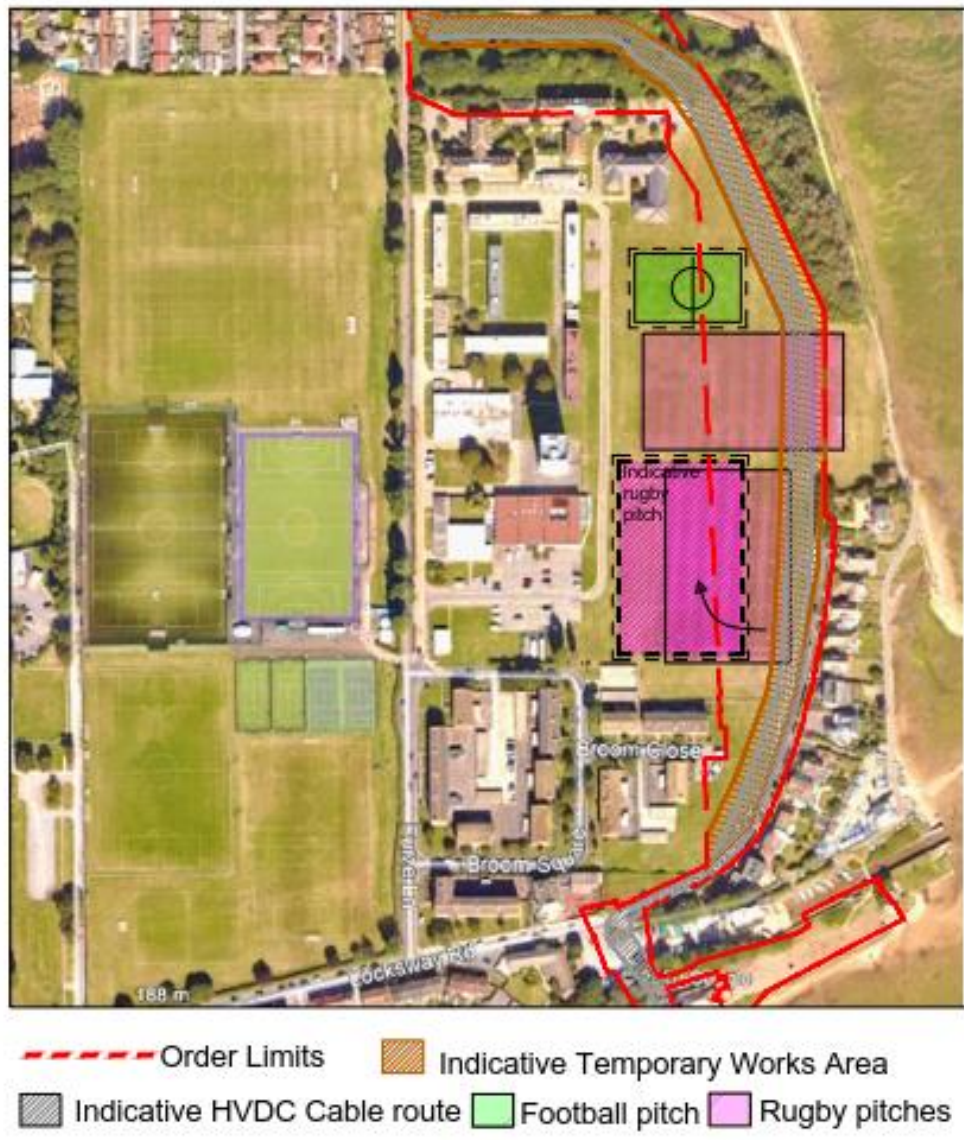


Plate 5 - University of Portsmouth playing and fields and Langstone sports site, indicative construction lay-out

4.2.4. BRANSBURY PARK

4.2.4.1. Bransbury Park includes a flower garden, children’s play area, skate park, and three football pitches. The Order Limits impinge upon one of the football pitches and also a footpath that crosses the park (see Plate 6). Facilities within the park are publicly accessible, with the football pitches available for public use at all times for informal recreation.

- 4.2.4.2. It is understood that the football pitches are used by 33 local teams, playing approximately 54 games per season.
- 4.2.4.3. PSD note that the Bransbury Park football pitches are Sport England Pitch Grade Type 1, undrained.





- - - Order Limits  Indicative Temporary Works Area
 Football pitches  Indicative HVDC Cable route

Plate 6 - Bransbury Park

- 4.2.4.4. Chapter 25 (Socio-economics) of the ES found that there would be a moderate to major adverse effect on users of the park, and that the following mitigation would reduce this to a minor to moderate adverse effect:
- Consultation with affected users and local authority;
 - Restoration of recreational and open space and car parks; and
 - Contractor review of construction programme and working areas.
- 4.2.4.5. The proposed construction activities would not preclude the use of most of the park as the proposed temporary construction area is limited to the west of the skate park, and to the eastern side of the middle football pitch. Bransbury Road Car Park (comprising approximately 40 spaces, two of which are accessible bays) would also be temporarily restricted for a period of 4 weeks, limiting access for those travelling by car. Alternative parking includes on street parking on surrounding residential roads, including Henderson Road and Bransbury Road, all within 400 m.
- 4.2.4.6. Cable trenching would be undertaken over a period of 4 weeks with an additional 8 weeks (maximum) allowed for reinstatement of the middle football pitch, with the cable corridor typically no more than 15 m in width. In addition, it is anticipated jointing activities would take up to 8 weeks (4 weeks per circuit) but would be limited to a localised area at the joint bay. Works indicatively programmed for December/January.
- 4.2.4.7. It is anticipated that the middle football pitch can be reconfigured to lie outside of the Order Limits, by moving the middle pitch to the west. This would also require slight reduction in size of both the middle and western pitches, reducing the distance between pitches from 8 m to 6 m, and reducing the size of both pitches by 6 m (down to the regulation size of 90 m, from a slightly larger existing size of 96 m).
- 4.2.4.8. PSD's site survey noted that due to a group of 3 trees being present at the western end of the western pitch (preventing a western realignment), that temporary resizing of both the western and middle pitches was the most appropriate option for reconfiguration, providing one existing goalmouth (which will form part of the penalty area of the relocated central pitch) is reinstated at the end of the 2020/21 season, prior to the works taking place.
- 4.2.4.9. Due to the informal recreational nature of pitch use, and the presence of one alternative pitch within the Park, by keeping works to the eastern side of the Order Limits corridor and resizing and reconfiguring the western and middle pitches (and associated reinstatement of the goal mouth) recreational disturbances to football pitch users can be avoided entirely. An indicative layout of the pitches during construction is shown in Plate 7.

SUMMARY

- 4.2.4.10. If the middle pitch is not realigned, the worst case assessment is that it will be lost for up to 12 weeks (4 weeks construction period and an allowance of 8 weeks for reinstatement). This would be reduced if reinstatement can take place in the 2-3 weeks assessed by PSD. However, the recommendation is that middle and western football pitches are resized and reconfigured to be outside of the order limits, which would avoid recreational disturbance for users of the football pitches.



Plate 7 - Bransbury Park, indicative construction layout

4.2.5. PORTSDOWN HILL

4.2.5.1. Portsdown Hill is an informal recreation space with picnic benches and views south towards the sea. It is served by a car park accessed from Portsdown Hill Road (Plate 8).



Plate 8 - Portsdown Hill and car park

- 4.2.5.2. Chapter 25 (Socio-economics) of the ES found that there would be a moderate adverse effect on users of Portsdown Hill, and following mitigation this would reduce to a minor to moderate adverse effect:
- Consultation with affected users and local authority;
 - Restoration of open space and car park; and
 - Contractor review of construction programme and working areas.
- 4.2.5.3. The proposed construction activities would result in reduced access and partial loss of the car park. Up to 4 weeks has been allowed for cable trenching and reinstatement of the car park. In addition, joint bay construction activities would take up to 8 weeks (4 weeks per circuit) in this location. .
- 4.2.5.4. The cable corridor would typically be no more than 15m in width, and approximately 200 m in length at this location. These works indicatively take place between mid-February and the end of March 2022.
- 4.2.5.5. Alternative car parking includes on street parking on surrounding residential roads, including Hilltop Crescent, The Brow, and Oakhurst Gardens, all within 500 m.
- 4.2.5.6. Temporary recreational disturbances on the amenity of open space users would be limited.

4.2.6. ZETLAND FIELD

4.2.6.1. Zetland Field is a recreational open space which includes a playground and a single football goal, used for informal play (with no marked or formal football pitch) (see Plate 9).

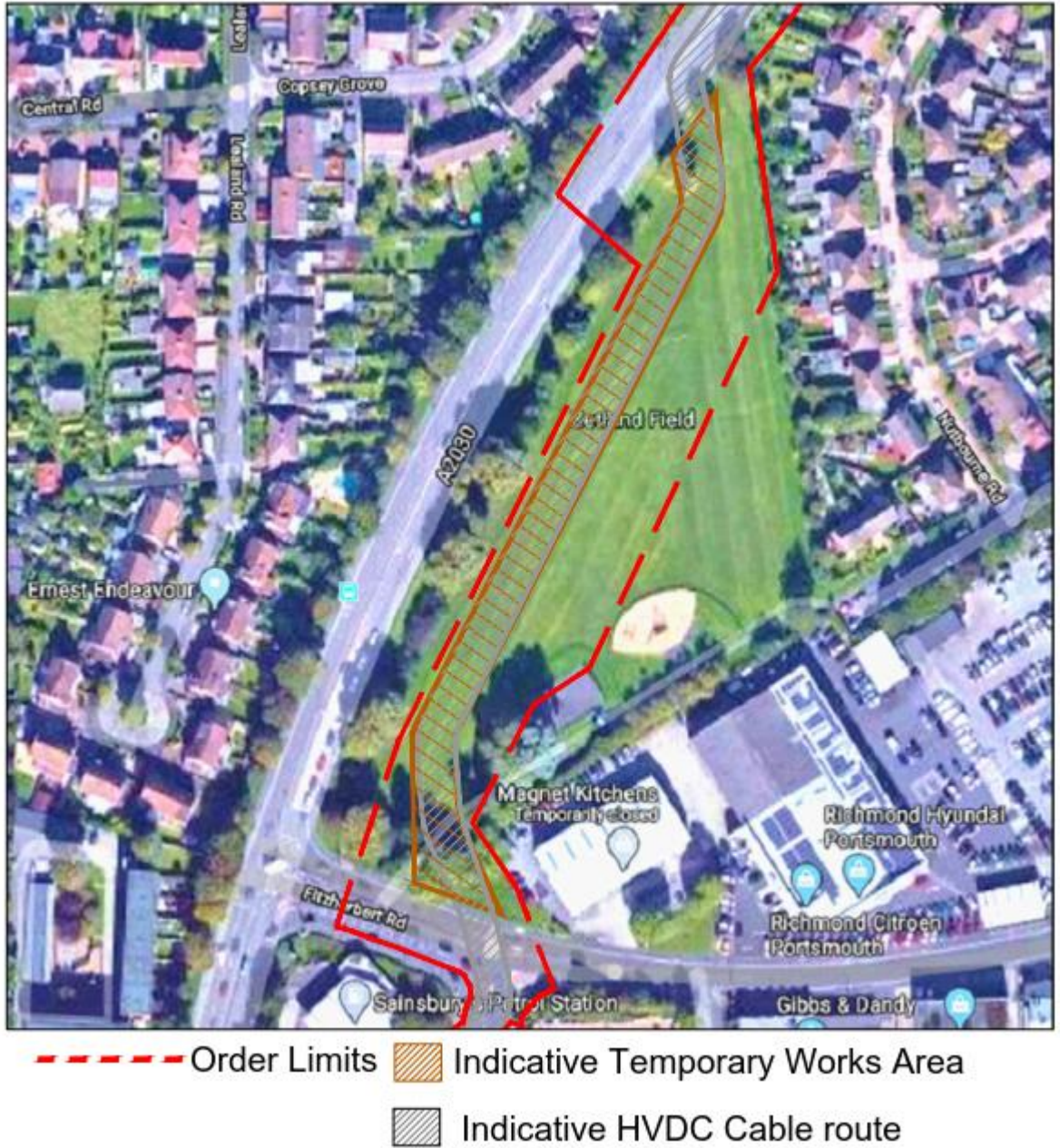


Plate 9 - Zetland Field, indicative construction layout

4.2.6.2. Chapter 25 (Socio-economics) of the ES found that there would be a moderate adverse effect on users of the park, and that the following mitigation would reduce this to a minor to moderate adverse effect:

- Consultation with affected users and local authority;
- Restoration of recreational and open space; and
- Contractor review of construction programme and working areas.

4.2.6.3. Cable trenching would be undertaken over a period of 2 weeks; and this would indicatively take place between mid-September and mid-October 2022. In addition, a period of 8 weeks should be allowed for reinstatement. Joint bay construction activities would also take up to 8 weeks (up to 4 weeks per circuit, for a total of two circuits) in a localised area.

4.2.6.4. An indicative Cable Route at Plate 10 shows that if positioned along the western edge, this would minimise the impact, with the remainder of the Order Limits being used for access and temporary storage. The cable corridor would typically be no more than 15 m in width, and up to 300 m long at this location.

4.2.6.5. To minimise recreational disturbance further, the single set of goalposts located within the Order Limits at the northern end of the fields could be moved to the eastern side of the field to ensure they remain available for use during construction works (see Plate 9). However, following discussion with PCC, it has been agreed that where preferable due to the informal nature of the playing field, the single goal could be dismantled for the duration of the works and then reinstated by the contractor in its original location after works are completed.

4.2.7. MILTON COMMON

4.2.7.1. Milton Common has a network of informal recreational and permissive paths that provide access across the Common and to Langstone Harbour Coastal Path (see Plate 10).

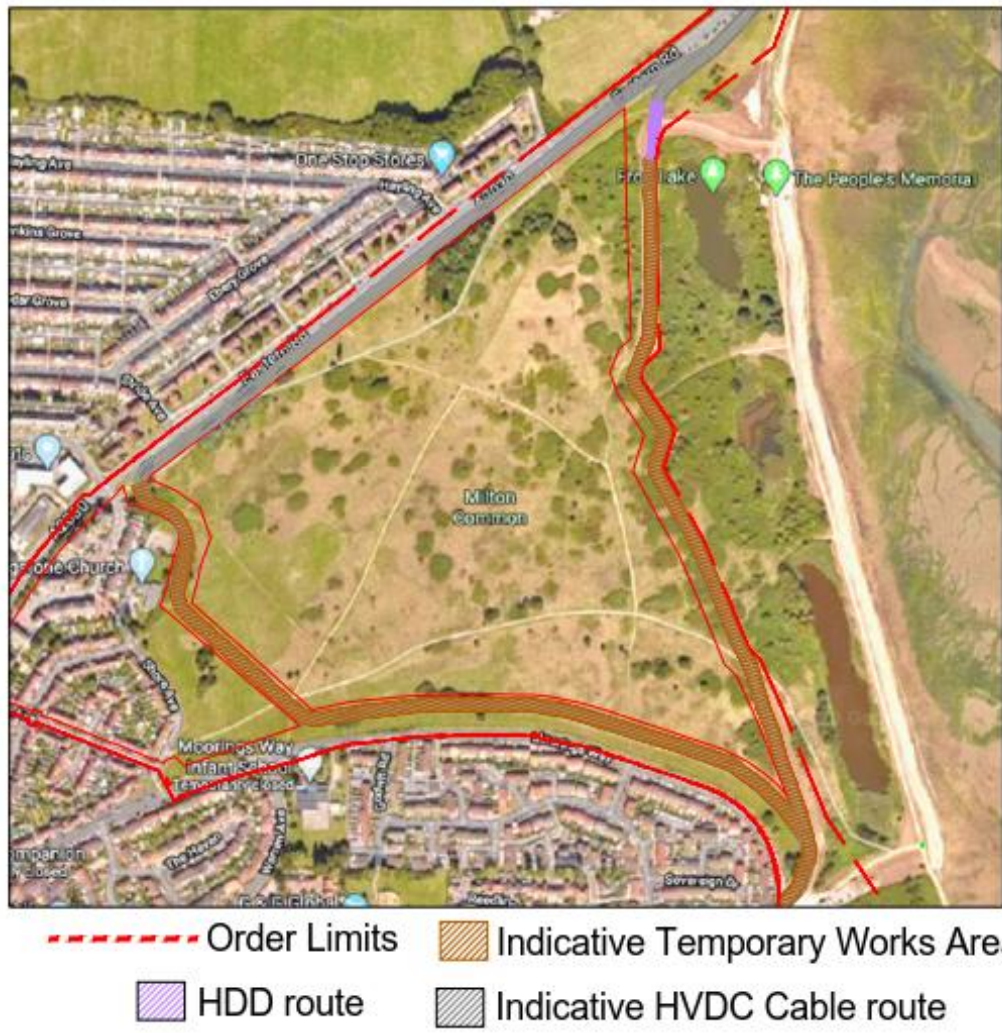


Plate 10 - Milton Common

4.2.7.2. Chapter 25 (Socio-economics) of the ES found that there would be a moderate adverse effect on users of the common, and that the following mitigation would reduce this to a minor to moderate adverse effect:

- Consultation with affected users and local authority;
- Restoration of recreational and open space; and
- Contractor review of construction programme and working areas.

4.2.7.3. Working areas associated with cabling would typically be no more than 15 m wide, and up to 830 m in length at this location, although this would be broken down into sections.

- 4.2.7.4. The construction works will be short duration activities and will be undertaken over a period of 23 weeks in total (not continuously). The works will indicatively be undertaken throughout separate construction phases (trenching April 2022 – June 2022, HDD6 September 2023, excavation of joint bays September 2023, Cable pulling between September – October 2023, jointing and reinstatement December 2023 – January 2024) between April 2022 to January 2024.
- 4.2.7.5. There is potential to reduce the 23 week duration if the short HDD can be carried out at the same time as trenching. In addition, a maximum of 8 weeks should be allowed for restoration following the undertaking of works to install each cable circuit.
- 4.2.7.6. There are numerous permissive paths across Milton Common which provide alternatives for recreational users and trenching work would be unlikely to significantly impede access across most of Milton Common. Work will proceed in sections so that at any one time the footprint of the works will be limited.
- 4.2.7.7. Whilst there are some small community events held on Milton Common, it is anticipated that these could be undertaken in areas outside the Order Limits where they coincide with the works in this location being undertaken (including Portsmouth City countryside ranger nature talks and walks, five aside football tournaments and the annual Milton and Eastney History D-Day Walk which passes through the southern section of the common).

4.2.8. FORT CUMBERLAND ROAD CAR PARK

- 4.2.8.1. The Fort Cumberland Road car park may be used in connection with the adjacent Fort Cumberland Site of Importance for Nature Conservation (SINC), and to Eastney Beach. The car park has capacity for approximately 100 vehicles (in informal unmarked spaces). Construction activity in the Fort Cumberland Road car park would cause temporary loss of amenity and has the potential to impede access to the SINC and beach for recreational users.
- 4.2.8.2. Works would be undertaken for a period of up to 66 weeks (not continuously) and this would be dependent on weather conditions, due to its association to the offshore element of the Proposed Development. The site is shown in Plate 11.



- | | |
|--|---|
|  Order Limits |  Indicative Temporary Works Area |
|  HDD route |  Indicative HVDC Cable route |

Plate 11 - Fort Cumberland Road car park

4.2.8.3. Chapter 25 (Socio-economics) of the ES identifies that there would be a moderate adverse effect on users of Fort Cumberland Road Car Park prior to mitigation. The following mitigation would reduce this to a minor to moderate adverse effect:

- Consultation with affected users and local authority;
- Restoration of recreational and open space and car parks. Fort Cumberland Road Car Park is currently unsurfaced. As part of reinstatement following construction, the Applicant will leave the car park in a better condition, in discussion with PCC. This can encourage better parking and greater capacity use of the remaining car park area; and
- Contractor review of construction programme and working areas.

4.2.8.4. Indicative phasing plans have been prepared for Fort Cumberland Road car park (see Appendix B) which describe the duration of given stages of the work and their approximate footprint.

Table 4.1 - Indicative phasing and constraints for Fort Cumberland Road Car Park

Phase	Works	Indicative Date	Constraints
1	HDD assumed for all ducts	44 weeks Q3 2021 to Q2 2022	75% of car park occupied
2	Construct Transition Joint Bay (TJB) for 1st circuit, pull onshore cables and offshore cables, joint and permanently reinstate	5 weeks Q2 2022	50% of car park occupied
3	Car park all clear	-	-
4	Construct TJB for 2nd circuit pull onshore cables and offshore cables, joint and permanently reinstate	5 weeks Q3 2022	50% of car park occupied
5	Construct Optical Regeneration Station ('ORS')	12 weeks winter 2022-2023	50% of car park occupied
6	Car park all clear	Q2 2023	-

4.2.8.5. The occupancy surveys undertaken at Fort Cumberland Car Park demonstrate a maximum occupancy of 63 vehicles in the Car Park at any one time. The occupancy surveys in question were undertaken over a bank holiday weekend in August 2020 and thus are thought to reflect a robust assessment of peak demand for the Car Park despite the current Covid-19 pandemic. Further to this, overnight parking surveys have been undertaken by the Applicant investigating the reserve capacity available in alternative parking locations local to the Car Park, for example on the nearby residential roads of Ferry Road Gibraltar Road and Lumsden Road. These surveys demonstrate reserve capacity on nearby residential streets for over 70 vehicles, suggesting there is sufficient reserve capacity to accommodate all displaced vehicles during works.

- 4.2.8.6. Post construction, the Applicant will undertake surfacing of the car park to provide a better surface for users, and white lining of spaces will encourage better use of space and overall capacity.
- 4.2.8.7. The Applicant has submitted an updated version of the indicative layout shown on the drawing 'Fort Cumberland Car Park Proposed Layout with Formal Parking Bays' submitted at D7 (REP7-045) which includes proposed reinstatement.
- 4.2.8.8. Car park aisles and the access road are to be constructed using asphalt. Details of sub-base, binder course and base course will be confirmed during detailed design. Car parking spaces are to be constructed from grasscrete / grassblock or similar modular pre-cast concrete systems, with the exact details to be confirmed during detailed design.




5. SECURING MITIGATION



- 5.1.1.1. The ES presents a worst-case scenario regarding timings and works footprints. This FMP has demonstrated ways in which the general mitigation principles described in Section 4 above can be applied during the construction phase to minimise recreational disturbance effects. Particular focus is given to the phasing of the works and minimising the working areas. In addition, specific mitigation (for example relocation of pitches) has been explored and will be adopted where necessary and practicable.
- 5.1.1.2. The OOCEMP submitted for the DCO includes the mitigation measures summarised in Section 3 of this FMP and is included in the tender for the construction contract. It also specifies the use of the Method Statement attached at Appendix D for construction at Farlington Fields. Other measures included within the tender specification will ensure that the appointed contractor installs the cable route in a manner that mitigates, so far as is reasonably practicable, disruption to the use of recreational facilities within the Order Limits. The OOCEMP is secured by Requirement 15 of the DCO and ensures that areas of open space will be restored to the same condition as they were in prior to construction (REP1-021).
- 5.1.1.3. It is proposed that a Section 106 Agreement is entered into with Portsmouth City Council, alongside a Deed of Undertaking to allow for access onto areas outside of the Order limits, to provide planning obligations relating to pitch realignment and reinstatement to ameliorate the impacts on the relevant sports pitches. Should Portsmouth City Council be agreeable to this proposal, the impacts on the Portsmouth residents who utilise the relevant sports pitches would be further reduced.




Appendix A – Farlington Playing Fields Indicative Phasing


APPENDIX A: FARLINGTON PLAYING FIELDS INDICATIVE PHASING

Note that the following figures in this appendix show the indicative phasing plans for Farlington Fields only. Please refer to Plate 2 of this Framework Management Plan for the indicative construction layout plan, including possible alternative locations for pitches.

Phase	Works	Indicative construction Date	Description	Works footprint
1	Use of a small portion of the car park for initial plant and materials deliveries. Duct installation for both circuits (“CCTs”) contained within The Indicative High Voltage Direct Current (HVDC) Cable corridor which is 12m in width. Area outside footprint of cable trenches is protected with track matting.	April 2022 (2 weeks)	The Indicative Temporary Works area would affect the corner of football pitch 10, as well as the northern section of the car park	 <p>PHASE 1</p>
2	1st Circuit HDD3 duct stringing and welding contained within the Indicative HVDC cable corridor protected with track matting.	Mid-April – June 2022 (6 weeks)	The Indicative Temporary Works Area would directly impact football pitches 4, 8 and 10. The Indicative Temporary Works area adjacent to the 9v9 football pitch and cricket pitch 3.	 <p>PHASE 2</p>
3	The Indicative HVDC Cable Corridor includes construction compounds associated with HDD3 and HDD4 construction activities.	June 2022 – Mid August 2022 (13 weeks) Note- HDD4 requires 24/7 working to complete works within this duration	The Indicative Temporary Works Area would affect the 9v9 football pitch, football pitches 4, 8 and 10, and cricket pitch 3. The Indicative Temporary Works Area is adjacent to cricket pitch 2, along with football pitches 3, 7, and 9.	 <p>PHASE 3</p>

Phase	Works	Indicative construction Date	Description	Works footprint
4	HDD3 and HDD4 all clear for the Victorious Festival.	Late August 2022 (2 weeks)	The site is used for Victorious Festival off-site camping during August bank holiday.	 <p>Order Limits Football pitches Cricket squares PHASE 4</p>
5	Indicative HVDC Cable Corridor includes temporary working areas for connections from ducts to HDD3 and HDD4, Joint Bay Construction, HVDC cable installation, HVDC jointing, and joint bay back fill / reinstatement	September 2022 (4 weeks) An additional 8 weeks once the works are complete, for re-turfing.	The Indicative Temporary Works Area would affect the football pitches 4, 8, 10, the 9v9 football pitch and cricket pitch 3. . The Indicative Temporary Works area is adjacent to cricket pitch 2.	 <p>Order Limits Indicative HVDC Cable Corridor HDD route Football pitches Cricket squares Indicative HVDC Cable route PHASE 5</p>
6	No works – avoiding wintering bird season	October 2022 – March 2023	No works	 <p>Order Limits Football pitches Cricket squares PHASE 6</p>

Phase	Works	Indicative construction Date	Description	Works footprint
7	2nd Circuit HDD3 duct stringing and welding contained within the Indicative HVDC Cable corridor protected with track matting.	Mid-April – June 2023 (6 weeks)	The Indicative Temporary Works Area would affect football pitches 4, 8 and 10, and is adjacent to the 9v9 football pitch and cricket pitch 3	
8	Indicative HVDC Cable Corridor includes construction compound associated with HDD3.	June 2023 – Mid Aug 2023 (13 weeks)	The Indicative Temporary Works Area would affect football pitches 4, 8, and 10, the 9v9 football pitch, Cricket pitch 3. The Indicative Temporary Works Area is adjacent to football pitches 3, 7, and 9.	
9	HDD3 all clear- Victorious Festival	Late Aug 2023 (2 weeks)	No works	



Phase	Works	Indicative construction Date	Description	Works footprint
10	Indicative HVDC Cable Corridor includes temporary working area for connections from ducts to HDD3, joint bay construction, HVDC cable installation, HVDC jointing and joint bay back fill / reinstatement for 2nd circuit.	September 2023 (4 weeks) An additional 8 weeks once the works are complete, for re-turfing.	The Indicative Temporary Works Area would affect football pitches 4 and 8. The Indicative Temporary Works Area is adjacent to football pitch 10.	



Appendix B – Fort Cumberland Road Car Park Indicative Phasing

APPENDIX B: FORT CUMBERLAND ROAD CAR PARK INDICATIVE PHASING

Note that the following figures in this appendix show the indicative phasing plans for Fort Cumberland Car Park only. Please refer to Section 4.2.8 of this Framework Management Plan for further information.

Phase	Works	Indicative Construction Date	Description	Works footprint
1	HDD assumed for all ducts	44 weeks Q3 2021 to Q2 2022	75% of car park occupied	<p style="text-align: center;">PHASE 1</p>
2	Construct TJB for 1 st circuit, pull onshore and offshore cables, joint and permanently reinstate	5 weeks Q2 2022	50% of car park occupied	<p style="text-align: center;">PHASE 2</p>

Phase	Works	Indicative Construction Date	Description	Works footprint
3	Car park all clear	-	-	 <p data-bbox="1792 890 1982 911">Order Limits</p> <p data-bbox="2101 926 2228 957">PHASE 3</p>
4	Construct TJB for 2 nd circuit, pull onshore and offshore cables, joint and permanently reinstate	5 weeks Q3 2022	50% of car park occupied	 <p data-bbox="1822 1520 2457 1570">Order Limits Indicative Temporary Works Area HDD route Indicative HVDC Cable route</p> <p data-bbox="2059 1583 2199 1614">PHASE 4</p>

Phase	Works	Indicative Construction Date	Description	Works footprint
5	Construct Optical Regeneration Station (ORS)	12 weeks winter 2022-2023	50% of car park occupied	 <p data-bbox="1804 856 2368 884">--- Order Limits ■ Indicative Temporary Works Area</p> <p data-bbox="2077 898 2196 926">PHASE 5</p>
6	Car park all clear	Q2 2023	-	 <p data-bbox="1804 1465 2451 1493">--- Order Limits ■ Indicative ORS Buildings</p> <p data-bbox="2077 1518 2226 1545">PHASE 6</p>

Appendix C – Impacts on Sports Pitches

	2021												2022												2023												2024																								
	Pitch	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug																			
Farlington Football Pitches	1	Football Season September to May Bird Breeding Season												Football Season September to May Bird Breeding Season (Phase 6)												Football Season September to May Bird Breeding Season												Football Season September to May Bird Breeding Season																							
	2	Football Season September to May												Football Season September to May												Football Season September to May												Football Season September to May																							
	3	Football Season September to May												Football Season September to May												Football Season September to May												Football Season September to May																							
	4	Football Season September to May												Phase 2 - Mid April to June - 6 weeks				Phase 3 - June to Aug - 13 weeks				Phase 5 - Sept - 4 weeks				8 weeks				Phase 7 - Mid April to June - 6 weeks				Phase 8 - June to mid Aug - 13 weeks				Phase 10 - Sept - 4 weeks				8 weeks																			
	5	Football Season September to May												Football Season September to May												Football Season September to May												Football Season September to May																							
	6	Football Season September to May												Football Season September to May												Football Season September to May												Football Season September to May																							
	7	Football Season September to May												Football Season September to May												Football Season September to May												Football Season September to May																							
	8	Football Season September to May												Phase 2 - Mid April to June - 6 weeks				Phase 3 - June to Aug - 13 weeks				Phase 5 - Sept - 4 weeks				8 weeks				Phase 7 - Mid April to June - 6 weeks				Phase 8 - June to mid Aug - 13 weeks				Phase 10 - Sept - 4 weeks				8 weeks																			
	9	Football Season September to May												Football Season September to May												Football Season September to May												Football Season September to May																							
	9a	Football Season September to May												Phase 3 - June to Aug - 13 weeks				Phase 5 - Sept - 4 weeks				8 weeks				Phase 8 - June to mid Aug - 13 weeks				8 weeks																															
	Use of Pitches as Location for the BVO PITCH	Football Season September to May												Football Season September to May												Football Season September to May												Football Season September to May																							
	10	Football Season September to May												Phase 1 - April - 2 weeks		Phase 2 - Mid April to June - 4 weeks		Phase 3 - June to Aug - 13 weeks				Phase 5 - Sept - 4 weeks				8 weeks				Phase 7 - Mid April to June - 6 weeks				Phase 8 - June to mid Aug - 13 weeks				8 weeks																							
	Use of Pitches as Location for the BVO PITCH	Football Season September to May												Unavailable for duration of works												Unavailable												Unavailable for duration of works												8 weeks											
	Farlington Cricket Pitch	1													Training April - May. Games take place May- Aug.												Training April - May. Games take place May- Aug.												Disused April - May. Games take place May- Aug.																						
2														Training April - May. Games take place May- Aug.												Training April - May. Games take place May- Aug.												Training April - May. Games take place May- Aug.																							
3														Training April - May. Games take place May- Aug.												Phase 3 - June to Aug - 13 weeks				Phase 5 - 4 weeks				8 weeks				Phase 8 - June to mid Aug - 13 weeks				8 weeks																			
BMRFC Football Ground and Langstone Harbour	Northern Pitch	BMRFC Season												BMRFC Season												BMRFC Season												BMRFC Season																							
	Southern Pitch	Used by BMRFC reserves for training and matches												Used by BMRFC reserves for training and matches												1 week												Used by BMRFC reserves for training and matches																							
	Cricket Pitch	Playing Season April - Sept												Playing Season April - Sept												Playing Season April - Sept												8 weeks																							
University of Portsmouth Playing Fields	Northern Football Pitch	Football Season September to May												4 weeks				8 weeks				Football Season September to May												Football Season September to May																											
	Middle Rugby Pitch	Rugby Season - September to April												4 weeks				8 weeks				Rugby Season - September to April												Rugby Season - September to April																											
	Southern Rugby Pitch	Rugby Season - September to April												4 weeks				8 weeks				Rugby Season - September to April												Rugby Season - September to April																											
Bransbury Park	Western Pitch	Football Season September to May												Football Season September to May												Football Season September to May												Football Season September to May																							
	Centre Pitch	Football Season September to May												Dec- Jan - 4 weeks				8 weeks				Football Season September to May												Football Season September to May																											
	Eastern Pitch	Football Season September to May												Football Season September to May												Football Season September to May												Football Season September to May																							

Appendix D – Farlington Fields Method Statement

INTRODUCTION

The Applicant appointed Professional Sportsturf Design (NW) Ltd. (PSD) to provide expert input into the proposals for the reinstatement of drainage and pitches (and the associated reinstatement programme) following installation of the HVDC cables. The survey of Farlington Playing Fields by PSD and their review of the reinstatement proposals has ensured suitable approaches to mitigation are proposed and that the anticipated timescales for reinstatement are confirmed to be realistic and achievable.

This method statement has been prepared in collaboration with PSD, taking into account the following assessments:

- Site survey to determine current pitch condition based on industry standard Performance Quality Standard (PQS) testing of the existing sports pitches;
- Assessment of existing drainage, its current condition and performance;
- Assessment of the feasibility of relocating sports pitches as proposed in the Framework Management Plan (FMP) for Recreational Impacts (document reference 7.8.1.13); and
- Assessment of site influencing factors which could potentially affect the works being undertaken and in turn the approach to reinstatement and timescales for this to be effective.

PRINCIPLES FOR CONSTRUCTION AND REINSTATEMENT WORKS

The following principles of good practice will be applied when works are undertaken at Farlington Playing Fields:

- reinstatement will be to at least equivalent to the existing surface quality and in accordance with Sport England Design Guidance Note 'Natural Turf for Sport (Updated guidance for 2011)';
- reinstatement must not result in increased maintenance after sites have been handed back to PCC following the initial reinstatement management period;
- all existing drainage affected by works will be reinstated at the earliest opportunity during the works;
- land drains will be protected from point loading pressure caused by plant and equipment with the use of track mats. For protection under stone haul roads a geogrid mesh material will be used to reinforce the underlying soil which in turn will mitigate damage caused by wheel loading pressures. Alternatively track matting may also be used as a suitable geogrid / stone haul road alternative;
- where plant/equipment and contractor's vehicles need to be taken onto grass surfaces, appropriate protection will be provided to prevent depressions in the surface which cannot be removed by conventional decompaction operations, such as vertidrainage;

- flood risk must not be increased during construction where any land drains are damaged by trenching activities, during construction of HDD pits and joint bays, and all land drains must be repaired ahead of subsoil back filling;
- temporary drainage will be provided during construction where pitches in use are directly and / or indirectly affected by interruption or damage to the drainage system;
- where excavated material is used to backfill trenches, top soil will be stripped and stored locally separate to subsoil with appropriate weather protection. Excavated material unable to achieve the required California Bearing Pressure (CBR) value will be replaced by suitable imported material; and
- considering the reinstatement timescales, re-use of existing turf is unsuitable as it adds considerable time to the duration of the works which introduces risk in terms of reinstatement quality. To facilitate the reinstatement of sports pitches, importing of turf will be based on the use of big roll, sports grade turf such as County Turf Sports Greenspace (<https://countyturf.co.uk/sports-greenscape/key-data>).

FARLINGTON PLAYING FIELD – EXISTING DRAINAGE SYSTEM

Based on the As Laid Plan provided, a surface bypass system comprising lateral drains at about 8.5m centres and slit drains at about 2m centres was installed in 2004 equivalent to a Sport England Type 5 standard. Due to the topography and a ridge running across the middle of the site, the southern half outfalls on the southern elevation via a non-return tidal flap passing under the A27 dual carriageway with the northern half discharging into an open ditch in the north east corner which passes under the railway to the north.

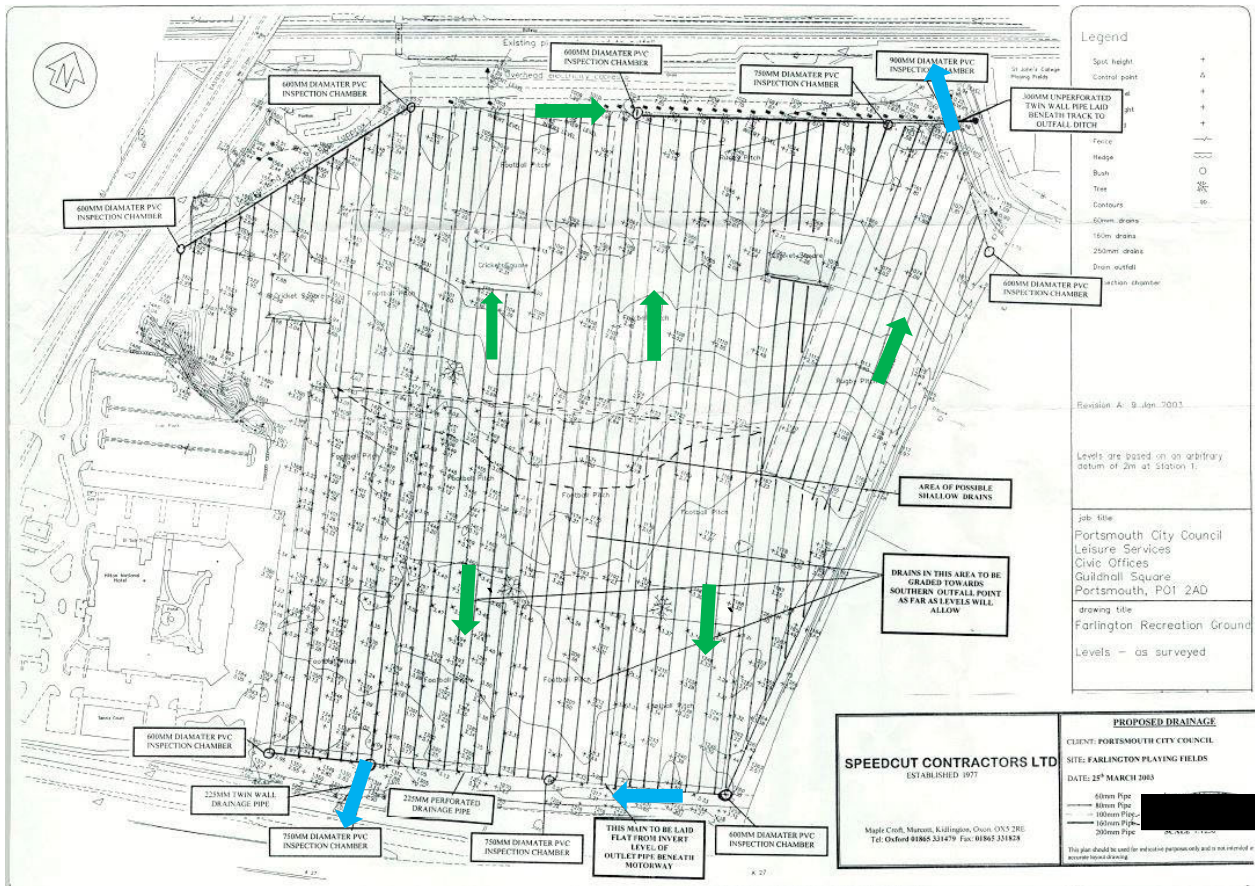


Plate 1 – Farlington As Laid drainage plan (2004)

Due to the main drain backing up at the time of the survey in January 2021, checks on the condition and performance of the lateral drains was restricted to the north eastern quarter where flow could be assessed. Excavations over a lateral drain found 100mm topsoil over 50mm coarse sand blinding layer with clean 6-10mm gravel exposed at circa 210mm.

The lateral drain was checked by pouring a steady flow of approximately 25 litres of water carefully onto clean gravel which evacuated immediately with no evidence of restricted flow. Due to the main drain backing up further downstream which will have prevented the lateral drains from discharging, no further checks were made on the pipe drainage system.

A check was undertaken on the slit drain at the same location which confirmed that due to a soil cap of circa 75mm before exposing the gravel backfill, the slit drains are confirmed as serving no function in terms of surface drainage to the pitches. For reference, slit drains which are the main interceptor of surface water in a bypass drainage system typically have a lifespan of 5-8 years depending on usage level, climatic conditions and routine maintenance such as annual sand topdressing.

Tests using the double ring infiltrometer method confirmed that there was negligible difference between the native soil, a slit drain and a lateral drain with no movement of water recorded over a 60-minute period.

Based on the site investigations carried out by PSD, it is concluded that the slit drains are no longer functional and serve no benefit to the general drainage of the pitches. The lateral drains are still able to evacuate water from the profile to the main drain infrastructure, though the soil capping is severely inhibiting any removal of surface water which is the function of the slit drains in a functioning system.

PROPOSED DRAINAGE REINSTATEMENT

SURVEYS, PLANNING AND MONITORING

Land drainage surveys at pre-Construction Stage, the production of a reinstatement plan and post-Construction stage must be undertaken in order to monitor the impacts of the Proposed Development.

PRE-CONSTRUCTION

Prior to commencement of construction temporary works will be implemented to protect existing drainage. Land drains will be protected from point loading pressure caused by plant and equipment with the use of appropriate track mats. For protection under stone haul roads an appropriate geogrid mesh material will be used to reinforce the underlying soil which in turn will mitigate damage caused by wheel loading pressures. Alternatively, track matting may also be used as a suitable geogrid / stone haul road alternative.

DURING CONSTRUCTION

Damage to the existing drainage infrastructure will be avoided in so far as is practicable. Consideration will be given to the realignment of the cable duct trench route along the eastern elevation so far as possible so that the trenches run parallel to the lateral drains which it is anticipated will allow the cable circuits to be installed between drains. Where this approach is able to be taken no disruption to the drainage in this area would occur until the curve in the north east corner, where disruption becomes unavoidable due to the layout of the drainage and onshore cable route being located along the edge of the Playing Fields.

Where land drains are damaged by trenching activities, during construction of HDD pits and the construction of joint bays, it must be ensured that flood risk is not increased .

Drains affected by the works for more than 2 weeks must be allowed to discharge to an appropriate outlet to prevent backing-up of the system upstream. Where the installation of temporary soakaways is required for longer phases e.g. HDD launch pit area, this will be provided.

Land drains damaged by trenching activities must be repaired on the same working day ahead of subsoil back filling where the situation is considered an emergency (i.e. if relevant action is not taken, there will be adverse health, safety, security or environmental consequences that in the reasonable opinion of the undertaker would outweigh the adverse effects to the public of taking that action).

Temporary drainage measures will be implemented as necessary during construction where pitches in use are indirectly affected by interruption or damage to the drainage system.

Existing drainage being retained will be protected as necessary to prevent ingress of permeable backfill and soil and the temporary use of proprietary end caps is recommended where drains are cut.

REINSTATEMENT

All damaged drains will be repaired ahead of subsoil back filling in accordance with the reinstatement plan.

The timing of the disruption to the existing drainage system varies in accordance with the phasing of the works. The drainage reinstatement will be undertaken at the earliest opportunity upon completion of each section/phase.

Short lengths of pipe will be installed to reconnect existing lateral drains and where necessary new lateral drains will be installed in larger areas such as HDD launch pit.

It is anticipated that the reinstatement of short lateral drainage runs affected during duct trench works will be undertaken using 80mm diameter uPVC perforated pipe sleeved inside a 100mm diameter slotted twin wall smooth bore pipe (see Plate 2) to ensure that existing pipes are securely reconnected with the twin wall pipe providing additional rigidity to mitigate against potential future settlement. This approach or a suitable alternative will be confirmed in the reinstatement plan.

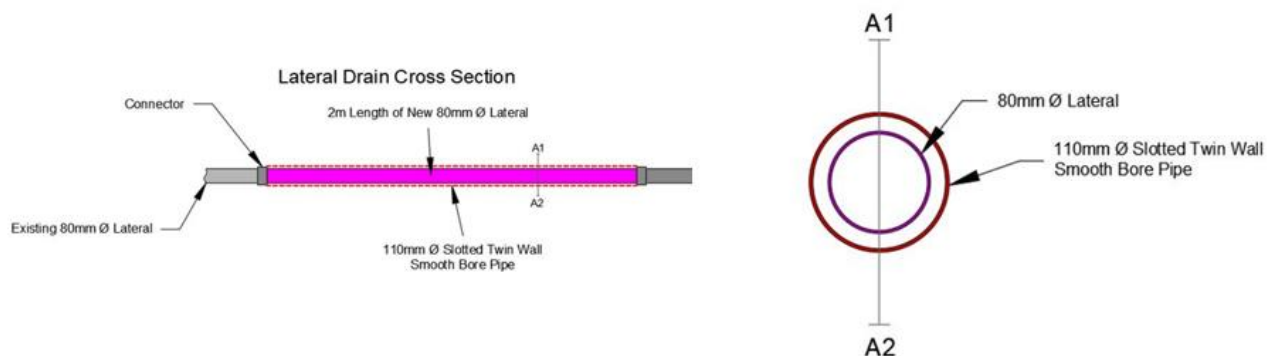


Plate 2 – Proposed lateral drain reinstatement

The use of 100mm diameter twin wall smooth bore pipe connected to the existing main drain will be considered for the launch pit area. This approach or a suitable alternative will be confirmed in the reinstatement plan.

In terms of the methodology for reinstatement of shallow excavations, a number of options are potentially available depending on each situation. In all cases, backfilling of excavations should achieve a CBR value of minimum 5% at maximum 500mm increments to mitigate against potential future settlement in conjunction with appropriate uniform consolidation of the topsoil avoiding excessive compaction which will inhibit rooting and turf establishment.

Reinstatement of individual drainage trenches must be undertaken using specified and approved materials comprising permeable backfill e.g. 2-6mm gravel, topped with sand or sand:soil rootzone, ensuring a clean connection is made with the turf that will be laid during final reinstatement.

At the end of the works in the final year the reinstated areas will require new slit drains to be installed at 2m centres to return the areas to SE Type 5 status. With reinstatement scheduled to take place in September, installation of slit drains should be delayed until the end of the football season as there will be insufficient time for the slits to establish before the pitches are required for use.

POST-REINSTATEMENT

Random flow tests of reinstated drains, including a camera survey of main drains to observe discharge into the main drain, will be undertaken. The drainage survey information will be submitted to PCC to confirm the satisfactory completion of the reinstatement work.

An as-built final record plan clearly showing the location of cables, drainage and surface reinstatement work will be submitted to PCC.

PROPOSED SURFACE REINSTATEMENT

With reference to the specialist report at Appendix E of the FMP, reinstatement will be based on all work areas being reinstated to a standard at least equivalent to the existing. It should be noted that whatever form of reinstatement is used e.g. turf or seed, some difference in appearance will be inevitable until such time as natural grass species selection has taken place. With the site being a playing field but also subject to use by wintering birds all areas should be reinstated as a perennial ryegrass dominant mixed sward.

All pitch reinstatement will be carried out in accordance with the Sport England Design Guidance Note 'Natural Turf for Sport (Updated guidance for 2011)'.

In all cases, backfilling of excavations should achieve a CBR value of 5% at maximum 500mm increments to mitigate against potential future settlement in conjunction with appropriate uniform consolidation of the topsoil avoiding excessive compaction which will inhibit rooting and turf establishment.

The surface level of playing surfaces post reinstatement must meet with Performance Quality Standard guidelines of 25mm under a 2m straight edge for a Basic standard pitch. To manage post construction settlement of deep excavations within Farlington Playing Fields to meet the Performance Quality Standard guidelines, suitable fill material in accordance with guidance of CIRIA FB75 and CIRIA SP78 will be specified at detailed design stage.

In terms of post turfing and seeding establishment time, periods of 8 weeks have been allowed for turf (existing re-laid and new) (though big roll turf with 40mm thick cut turf will be considered for any playing areas required for the following winter sport season as this type of turf can be played on 2-3 weeks after laying, reducing pitch downtime considerably).

On the basis that work areas at Farlington Playing Fields is not expected to be available for reinstatement until September, either standard thickness (15-20mm) wide format or big roll turf with 40mm thick cut turf considered for any playing areas will be used for the following winter sport season.

Where necessary to meet completion deadlines, the timing of reinstatement will be planned to start once areas become available. Note that Phase 3 and Phase 8 areas not required in Phases 5 and 10 respectively could potentially be reinstated in September at the start of the last phases which should ensure that all reinstatement is completed in October.

Where reinstatement is undertaken throughout August and early September and if prevailing weather conditions are dry irrigation (5mm/day) will be provided. An element of specialist sportsturf contractor maintenance (initial rolling, mowing and application of fertiliser) until such time as the surfaces are established and handed back to PCC for routine maintenance.

Reinstatement of cricket squares should be by fraise mowing to remove the vegetation, overseeding, fertilising and decompaction with scarifying replacing fraise mowing. Both

methods if undertaken by the end of September will ensure that Cricket 3 can be used the following season.

Performance Quality Standard (PQS) testing of the pitches affected by the works should be undertaken in October of each construction year to confirm that they meet Basic Standard requirements before play commences.

Appendix E – PSD Agronomy Review: Proposed Pitch Mitigation and Reinstatement Strategies Report

A Report to AQUIND Ltd

To Review Proposed Pitch Mitigation and Reinstatement Strategies Regarding Installation of the

AQUIND INTERCONNECTOR, PORTSMOUTH



February 2021

Job Title **AQUIND INTERCONNECTOR, PORTSMOUTH**

Job Number **1671**

Document Title **Aquind Interconnector, Portsmouth Pitch Mitigation and Reinstatement Assessment**

Document Reference **O/001/AQI/1671/R/210201 Rev 0**

Prepared By **Gary Owen**

Signed 

Date **12/02/2021**

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1.0 INTRODUCTION & OBJECTIVES

Project Context

Aquind Ltd is proposing to construct and operate an electricity interconnector between France and the UK known as AQUIND Interconnector.

The project broadly includes installation of two pairs of underground HVDC Cables, each pair accompanied by a smaller diameter Fibre Optic Cables for data transmission crossing several open spaces, including the following sports pitches in Portsmouth:

- Farlington Playing Field (Portsmouth City Council)
- Langstone Harbour Sports Ground (Portsmouth City Council)
- University of Portsmouth Playing Field
- Bransbury Park (Portsmouth City Council)

Context for Services

A Framework Management Plan (FMP) for Recreational Impacts has been produced by WSP Ltd to look at how impacts on open spaces, and in particular, sports pitches can be minimised.

The FMP document is based on an indicative programme for the works and outlines reinstatement options for affected pitches and open spaces, temporary pitch realignment opportunities to avoid/minimise direct impact on pitches and sites. It provides indicative proposals for the phasing of the works to outline how works may be undertaken within the Order Limits.

The document confirms that all pitch reinstatement will be carried out in accordance with the Sport England Design Guidance Note 'Natural Turf for Sport (Updated guidance for 2011)'. The FMP recognises the need for reinstatement works to be undertaken by a specialist agronomist or sports turf contractor to ensure that pitches are reinstated to an equivalent quality.

Scope of Services

Professional Sportsturf Design (NW) Ltd (PSD) have been appointed to provide a short feasibility report, setting out recommended reinstatement methods for pitches/playing areas at each site as well as duration for reinstatement. Public Open Spaces affected by the works are not covered in the scope of this report.

Following initial discussions regarding the sites, Baffins Milton Rovers FC which is a private Club situated adjacent to Langstone Harbour Sports Ground was included in the scope of this report for completeness.

Primary Objectives of the Study

A visit was made to each site 20-21 January 2021 to primarily assess the following:

- Determine current pitch condition based around industry standard Performance Quality Standard (PQS) testing of existing and proposed playing areas
- Assess existing drainage condition and performance (Farlington Playing Field only) to determine implications of the work on drainage and proposals for reinstatement

- Assess the feasibility of relocating sports pitches as proposed in the FMP
- General assessment of site influencing factors which could potentially affect the works

Post site visits, a number of discussions have been held with members of the project team to discuss the findings and consider alternative arrangements which could potentially reduce the overall impact of the works in some situations.

The report has been set out on a 'site by site' basis, outlining existing FMP proposals and summarising our findings and recommendations. Reference should be made to the FMP document for details of proposals for each site.

Notes and Clarifications

When considering FMP proposal options for reinstatement, PSD's recommendations and proposals including alternative options where possible, have generally been based on the time of year the works are planned may occur, the current surface requirements e.g., pitch/amenity grass and potential post reinstatement maintenance requirements.

In all situations, reinstatement options provided will be at least equivalent to the existing surface quality and be in accordance with Sport England guidelines. Where possible, proposed reinstatement should not result in increased maintenance inputs after sites have been handed back to landowners.

Allowance has been made to reinstate all known drainage affected by the works (primarily affecting Farlington Playing Field) at the earliest opportunity during the works. An appropriate validation survey should be included in the final method for works to ensure that all drainage is fully restored and functional.

Regarding reinstatement, PSD would recommend that all excavations achieve a California Bearing Ratio (CBR) value of 5% to minimise the risk of future settlement where cut/fill earthworks are required. Excavated material should be backfilled in layers of no more than 300mm with the CBR value checked after compaction of each layer.

In all situations where plant/equipment and Contractor's vehicles need to be taken onto a grass surface, appropriate protection must be used to prevent depressions in the surface which cannot be removed by conventional decompaction operations such as Vertidrainage. Loss of vegetation will be inevitable in some situations due to the length of time that grass will be covered and therefore reinstatement will be required following the works.

Regarding excavations where excavated material will be used to backfill trenches etc, it is assumed that the topsoil will be stripped separate to the subsoil, stored locally including appropriate protection from the weather. Excavated material unable to achieve the required CBR value will require replacement material to be sourced and used.

Importing of turf for reinstatement purposes is based on the use of big roll, sports grade turf such as County Turf Sports Greenscape <https://countyturf.co.uk/sports-greenscape/key-data>.

Turf reinstatement proposals are based on standard thickness turf (15-20mm thick) with an option for 40mm thick for playing areas to reduce establishment periods. In some situations, seeding of reinstated areas might be appropriate subject to Landowner agreement and ensuring there are no adverse ecological impacts associated with doing so.

Re-use of existing turf currently proposed for some situations, is deemed as unsuitable for this project as it adds considerable time to the duration of the work, requires additional storage space and introduces risk in terms of reinstatement quality which is better managed

using imported turf. All phases of work should allow for the existing vegetation to be removed from excavated areas. Any visual difference between the existing sward and the imported turf will diminish over time.

2.0 EXECUTIVE SUMMARY

The works are complex and planning is needed in terms of programme and working areas, to reduce the impact on the sites inspected, particularly Farlington Playing Field. It is PSD's opinion that the proposed works with careful planning and appointment of skilled contractors including specialist sportsturf contractors to reinstate affected drainage and grass surfaces, all areas inspected can be returned to an equivalent if not better condition.

The report includes proposals contained in the original Framework Management Plan provided at the time of appointment together with suggested amendments aimed at significantly reducing the impact on temporary loss of playing surfaces and existing services which in the main, relates to Farlington Playing Field.

Except for the HDD-4 launch pit works at Farlington, most excavations are relatively shallow. Providing backfilling of excavations is done using suitable material achieving a CBR value of 5%, the risk of future settlement relating to existing drainage should be mitigated. To manage post construction settlement of deep excavations within Farlington Playing Fields to meet the Performance Quality Standard guidelines, suitable fill material in accordance with guidance of CIRIA FB75 and CIRIA SP78 will be specified at detailed design stage.

Reviewing proposed options for reinstatement of playing surfaces, it is PSD's opinion that lifting and re-use of existing turf is not practical for this project and will result in adding risk. With seeding unlikely to be suitable to meet establishment deadlines based on the programme constraints, the use of big roll turf is recommended which must be installed by specialist contractors.

PSD's recommendation would be to use either standard thickness (15-20mm) wide format, big roll turf with 40mm thick cut turf considered for any playing areas required for the following winter sport season as this type of turf can be played on 2-3 weeks after laying, reducing pitch downtime considerably.

Should playing areas require reinstatement for play the following season or as soon as possible e.g., Langstone Harbour cricket outfield, the use of thick cut big roll turf has been proposed. With all reinstatement options, provision of irrigation (max. 5mm/day) and a period of contractor maintenance to undertake initial mowing, rolling and an application of fertiliser should be allowed for during each 8-week establishment period.

3.0 SUMMARY OF FINDINGS

3.1 Site Locations

The aerial image taken from Google Earth shows the playing field sites affected by the works in relation to the wider Portsmouth area.

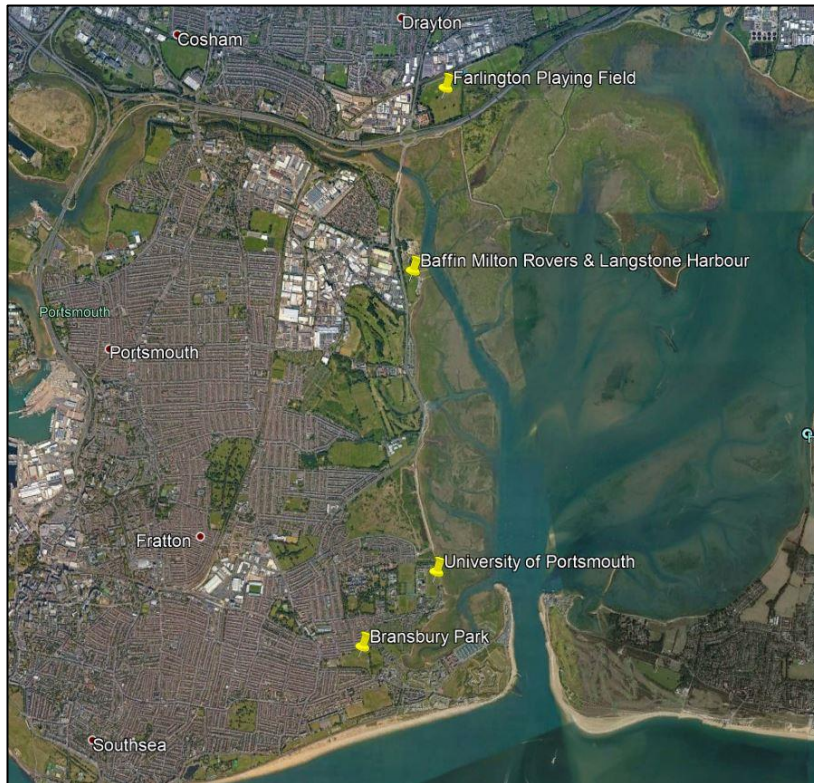


Plate 1: Site location

3.2 Bransbury Park (FMP Reference 4.2.4)

3.2.1 FMP Summary:

Indicative timing of the works: December 2022/January 2023

Scope: 2x HVDC cable trenches south to north adjacent to skate park

Duration: 4 weeks + 8 weeks establishment after reinstatement

Impact on pitch availability: Pitch relocation required to avoid loss of 1 pitch and maintain current provision

Existing drainage: None present

Sport England Pitch Grade: Type 1 Undrained

General Assessment: Perennial ryegrass/ meadowgrass sward; 45-55% grass cover on western pitch, 60-96% on central pitch; minimal thatch; western pitch much firmer than central pitch, latter borderline SE compliant; surface levels undulating; 140-200mm friable sandy topsoil including occasional stone, moist with water noted at 300mm; surface compaction noted but no obvious wet areas; 32-150mm/hr infiltration recorded, latter over grit layer at 700mm (SE compliant).

Using GPS data taken from site, the existing layout (see Plate 2 below and Appendix 1) provides a gap of circa 9m from the skate park to the run-off for the centre pitch. PSD partially concur with the FMP recommendation of pitch realignment and re-sizing for this site subject to agreement with Portsmouth City Council (PCC).

Due to a group of 3 trees being present at the western end of the western pitch, PSD do not consider moving this pitch to be feasible but reducing it to 90 x 60m to mirror the adjacent pitch and those at Farlington Playing Field is feasible provided one existing goalmouth which will form part of the penalty area of the relocated central pitch is reinstated at the end of the preceding season. Allowance will need to be made to reinstate all temporary goalmouths that will be in the field of play when pitches are returned to their original locations.

Confirmation that proposed pitch sizes of 90 x 60m + 3m run-offs to all sides would be provided resulting in a temporary working corridor of circa 18m which should be sufficient with a minimum 12m corridor understood to be required. Regarding the works and reinstatement, due to the time of year the biggest risk will be unsuitable ground conditions and damage to soil structure etc. Allowance should be made to import standard thickness, big roll (750 or 1250mm wide) turf on the basis that PCC do not required the pitches to be returned to their original locations until the start of the playing season following the works being undertaken, by which time standard thickness turf will be suitably established for play.

Seeding is not considered an option for this site due to the time of year.



Plate 2: Bransbury Park proposed pitch layout

3.3 University of Portsmouth (FMP Reference 4.2.3)

3.3.1 FMP Summary:

Indictive timing of the works: April & May 2022

Scope: 2x HVDC cable trenches along eastern elevation. Pitch relocation suggested.

Duration: 4 weeks + 8 weeks establishment after reinstatement

Impact on pitch availability: Loss of northern football & middle rugby for 4 weeks + 8 weeks establishment; potential loss of southern rugby pitch avoided if relocated outside of work area.

Existing drainage: None

Note – irrigation water take-off points present on the western elevation, numerous inspection chambers around the perimeter understood to be foul water system.

Sport England Pitch Grade: Type 1 Undrained

General Assessment (note pitches not used for past 2 seasons): Mixed sward including desirable perennial ryegrass creeping bent, fescues & meadowgrass; full good grass cover; 10-30mm thatch; soft but compliant surface firmness and surface levels; 140-210mm topsoil (rugby), 340mm east of football, including occasional flint/stone over chalk; no obvious wet areas; 70-100mm/hr infiltration recorded (SE compliant).

No pitch markings were evident at the time of the visit and it was reported that the site had been left for Geese activity for the past 2 years with no sports use for the duration of this period. Extensive contamination of the surface by Geese faeces was evident with damage to the sward noted caused by the Geese ripping at the grass. Confirmation of intended usage is required for this site to provide the most appropriate reinstatement.

Reviewing the proposed pitch relocation of the southern pitch outside of the temporary works area shown in Plate 5 in the FMP and using GPS data collected from site, although surface levels are acceptable and there is no significant difference in the existing swards and soil profiles, it will not be possible to retain the current pitch size whilst providing the recommended run-off sizes due to a building in the south west corner encroaching into the playing area.

Keeping the pitch width at 65m and based on the recommended run-offs of 5m to all sides for rugby and 3m for football, pitch length would be approx. 83m for rugby and 97m for football (see Plate 3 and Appendix 2). Regardless of rugby or football use, a temporary working corridor of circa 18m should be provided, which if sufficient could potentially avoid any impact to the northern football pitch. Loss of the middle rugby pitch during the period of works is however unavoidable.

Regarding the works and reinstatement, stone (flint) contamination of the topsoil was noted which could be problematic if seeding is to be considered as an option for this site. Use of standard thickness turf would eliminate the risk of stones contaminating the surface but provision of temporary irrigation capable of applying 5mm of water/day to the reinstated area is essential due to the work being carried out during the summer months (in line with wintering bird restrictions).

Use of big roll (750 or 1250mm wide) is recommended over domestic standard turf as there will be significantly fewer edges of turf which will be prone to drying out and shrinkage. Standard thickness should be suitable if the pitches are not required until the start of the following playing season in September.

Seeding is not considered a feasible option for this site due to the time of year when works must be completed and potential stone contamination in the topsoil.



Plate 3: University of Portsmouth proposed temporary pitch layout

3.4 Langstone Harbour Sports Ground (FMP Reference 4.2.2)

Note – refer to 3.5 for Baffins Milton Rovers FC

3.4.1 FMP Summary:

Indicative timing of the works: June/July 2023

Scope: 2x HVDC cable trenches along western elevation.

Duration: 8 weeks potentially reduced to 3 weeks (includes BMRFC) + 8 weeks establishment after reinstatement

Impact on pitch availability (based on 3 weeks duration): Loss of football pitch for 8 weeks at the start of the playing season when works are undertaken (noting works must be undertaken in the summer due to ecological restrictions) during turf establishment; no impact shown for the cricket pitch.

Existing drainage & services: None

Sport England Pitch Grade: Type 1 Undrained

General Assessment: Mixed sward including desirable perennial ryegrass, very low weed content; good grass cover apart from football goalmouths; minimal thatch; compliant surface firmness and surface levels; variable depth topsoil over clay subsoil; low areas in goalmouths holding water; 8-42mm/hr infiltration recorded (SE compliant).

Confirmation that no options are available to relocate pitches due to site constraints and site investigations did not identify any issues that could potentially affect the works based on the use of big roll turf for reinstatement.

Reference the impact on the football pitch, if the works can be timed as close to the end of the season as possible combined with the use of big roll turf and provision for irrigation during the summer months, it should be possible to eliminate the loss of the pitch at the start of the playing season in September.

The works which affect the western elevation of the cricket outfield are expected to take 1 week. Use of big roll, potentially thick cut turf and provision for irrigation during the summer months could keep loss of use down to a total of 3-4 weeks.

With access to the work area crossing either the cricket outfield or the football pitch, use of appropriate trackway will be essential and ideally moved during the works to minimise the grass dying back.



Plate 4: Langstone Harbour Sports Ground (note Baffins Milton Rovers FC to the north of the site)

3.5 Baffins Milton Rovers FC (FMP Reference 4.2.2)

Information in the FMP Summary does not cover this site in detail as the Chairman of the club has agreed in principle if the works are done at the end of the season and the excavated trenches reinstated so that the pitch can be resurfaced as part of their normal end of season works.

Sport England Pitch Grade: Type 1 Undrained

General Assessment: Mixed sward including desirable perennial ryegrass, very low weed content; good grass cover apart from goalmouths; soft, saturated variable depth topsoil over clay subsoil including fill type material in places; extensive surface poaching evident, waterlogged; 0mm/hr infiltration.

Following discussions with the groundsman during the site investigations, it was confirmed that an attenuation crate system is present in the western run-off the full length of the pitch with short lateral drains extending up to 5m into the pitch and at 3m centres discharging into the attenuation crates.

Full details of the crate system are not known but the cable duct works will need to avoid the crates and the drains reinstated although their benefit and effectiveness in terms of drainage performance are questionable. At the time of the visit, the pitch exhibited very poor drainage properties with extensive surface ponding evident due to a combination of a construction profile with very poor natural drainage properties (infiltration was negligible), absence of an efficient drainage system and undulating surface levels. It was also reported that matches are frequently cancelled due to waterlogging.

Other services and infrastructure that are present (see Plate 5 and Appendix 3) and should be noted are:

- The electrical supply to the western floodlights installed in the northern run-off crosses the work area
- Potentially an irrigation pipe in the western run-off which comes from an irrigation tank and pump situated in the north west corner of the site potentially in the line of the work area.
- Perimeter fencing
- Perimeter spectator rail and concrete path

Site access is also very limited and adequate protection will be required to avoid disruption to the playing surface along the access route unless alternative access can be arranged in either the north west or south west corners of the pitch.

Subject to agreement with the Club, reinstatement could potentially be backfilling of excavated materials only although allowance should be made for the importing of topsoil or proprietary sand:soil rootzone if the excavated topsoil is of very poor quality.



Plate 5: Baffins Milton Rovers FC – existing services

3.6 Farlington Playing Field (FMP Reference 4.2.1)

3.6.1 FMP Summary:

Indicative timing of the works:

Phases 1-6: April-September 2022

Phases 7-10: April-September 2023

Scope:

4no. HDD-3 cable exit pits 1.5 x 1.5 x 1.85m deep

2no. cable joint bays 15 x 3 x 1.5m deep

2no. HVDC cable trenches along north eastern and northern elevations (15m working corridor)

1no. 5m deep HDD-4 launch pit including cable depth transition zone

Impact on pitch availability:

a) Football

Pitches 4, 8, 10 & 9v9 affected in both years of proposed works with potential for loss of some pitches for up to 8 weeks during establishment period after reinstatement¹.

b) Cricket

Loss of cricket pitch #3 in 2022 and 2023.

Proposed pitch mitigation:

Relocation of pitches 4, 8, 10 & 9v9 at various times in both proposed years of construction.

Existing drainage & services:

Pipe drainage system to entire area installed circa 2003 comprising approx. 8.5m centre lateral drains and slit drains at 2m centres; water supply to cricket squares x3.

Sport England Pitch Grade: Type 5 Pipe drained with sand slits²

¹ It should be noted that the location of the 9v9 pitch shown in the FMP document has changed resulting in the pitch being affected by additional phases of work.

² Note that the existing slit drains installed in 2004 are no longer functional.

General Assessment:

a) Existing Football Pitches

Mixed sward including desirable perennial ryegrass, low weed content; soft, generally very moist/saturated variable depth topsoil over clay subsoil; good grass cover apart from goalmouths; levels compliant but moderately undulating in some low areas, no significant dishing of goalmouths evident; infiltration borderline compliant.

b) Proposed Temporary Pitch Locations

Similar to existing pitches but more undulating and ponding evident in low areas.

c) Existing Drainage Performance

Pipe and slit drains capped with soil, infiltration tests recorded 0mm/hr in 9v9 proposed temporary location; gravel backfill of lateral drains clean and in good condition below 200mm; flow test excellent, suitable for connecting new secondary drainage into.

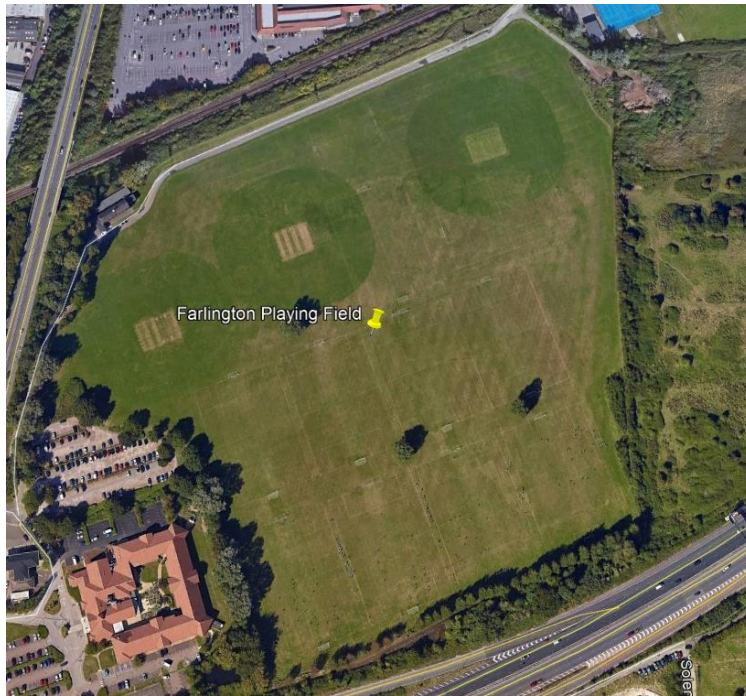


Plate 6: Farlington Playing Field

3.6.2 Works and Pitch Mitigation Overview

The works will have an impact on the availability of some football pitches during the physical work periods in both proposed years of construction plus pitch downtime following proposed turf reinstatement (8 weeks) which is generally scheduled for the August/September in each year prior to the bird breeding season when no works take place.

Disruption to the drainage system will occur where cable duct installation (circa 1100mm deep with the depth adjusted to suit the drainage) must cross existing laterals, in the vicinity of a deep excavation for the launch pit tunnelling under the railway and potentially the pits for the HDD exit point (NE corner of Pitch 8) and 2no. joint bays east of Pitch 4.

Current mitigation in terms of loss of football pitches is where possible, to reposition pitches in other parts of the site not currently used for football such as the cricket outfields.

PSD have undertaken an extensive review of current mitigation proposals taking GPS data of existing pitch locations, visually assessing proposed relocated areas and other factors which could potentially affect relocating the pitches.

PSD's consensus is that the current pitch arrangement utilises the most suitable parts of the site for football and that the proposed pitch relocations are not ideal due to the ground being undulating and in some places such as the proposed relocations for Pitch 8 and 9v9 prone to ponding which was evident at the time of the site investigations (see Plate 7 and Appendix 4).

It should be noted that reviewing the proposed pitch relocations, to move pitches 4 & 10 as currently proposed in Plate 7, Pitch 9 would also require moving west to provide sufficient space for 3m run-offs to all sides and an irrigation point for Cricket 3 would be in the field of play for Pitch 10. There is also insufficient space for a 73 x 45m 9v9 plus 3m run-offs to the north of Cricket 1 although a 61 x 43m 7v7 plus 3m run-offs would fit, though extensive ponding was evident here at the time of inspection.



Plate 7: Farlington proposed pitch relocation mitigation as per FMP

Reviewing all options, PSD's recommendation is to consider changing Pitch 10 to 9v9 size (79 x 51m overall area) and not relocate Pitches 4, 8 and 10 due to proposed locations being unsuitable (see Plate 8). Reinstating playing areas using thick cut big roll turf can reduce current establishment periods to minimise the impact on pitch availability at the start of each playing season following the works.

It is also recommended that the cable duct trench route along the eastern elevation is realigned so that the trenches run parallel to the lateral drains allowing them to be installed between drains resulting in no disruption to the drainage in this area until the curve in the north east corner where disruption becomes unavoidable.

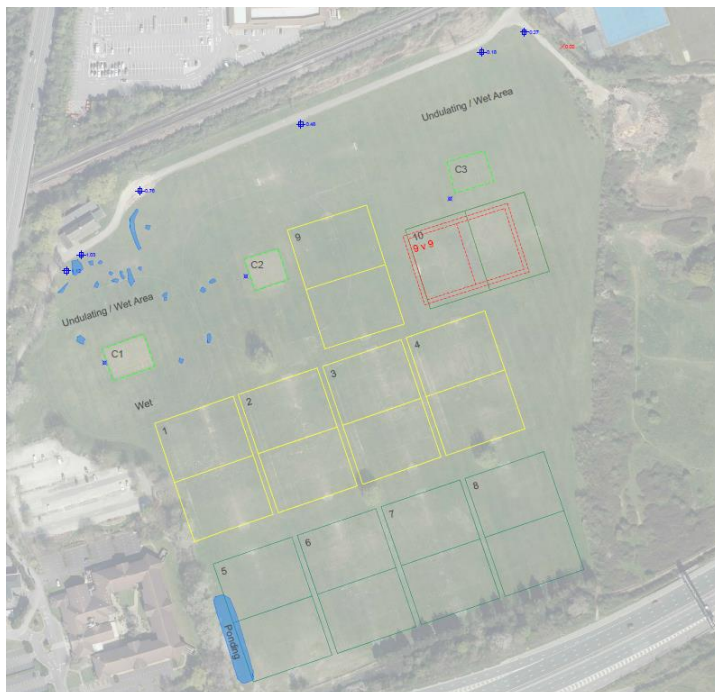


Plate 8: Farlington PSD proposed pitch relocation mitigation

3.6.3 Existing Drainage System

Based on the As Laid Plan provided (see Plate 99 and Appendix 5), a surface bypass system comprising lateral drains at 8.5m centres and slit drains at 2m centres was installed in 2004 equivalent to a Sport England Type 5 standard. Due to the topography and a ridge running

across the middle of the site, the southern half outfalls on the southern elevation via a non-return tidal flap passing under the A27 dual carriageway with the northern half discharging into an open ditch in the north east corner which passes under the railway to the north.

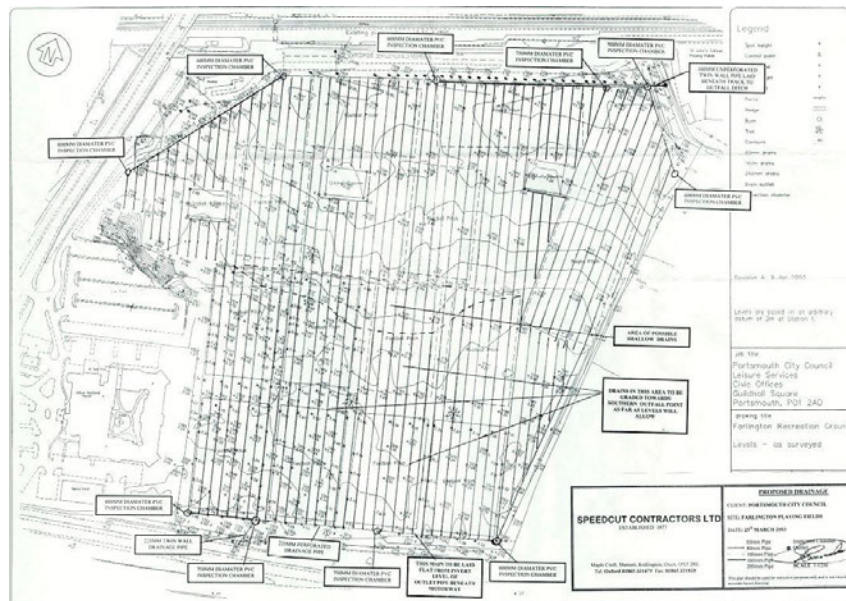


Plate 9: Farlington As Laid drainage plan (2004)

Plate 10 provides an overview of topography and surface water flow across the site.

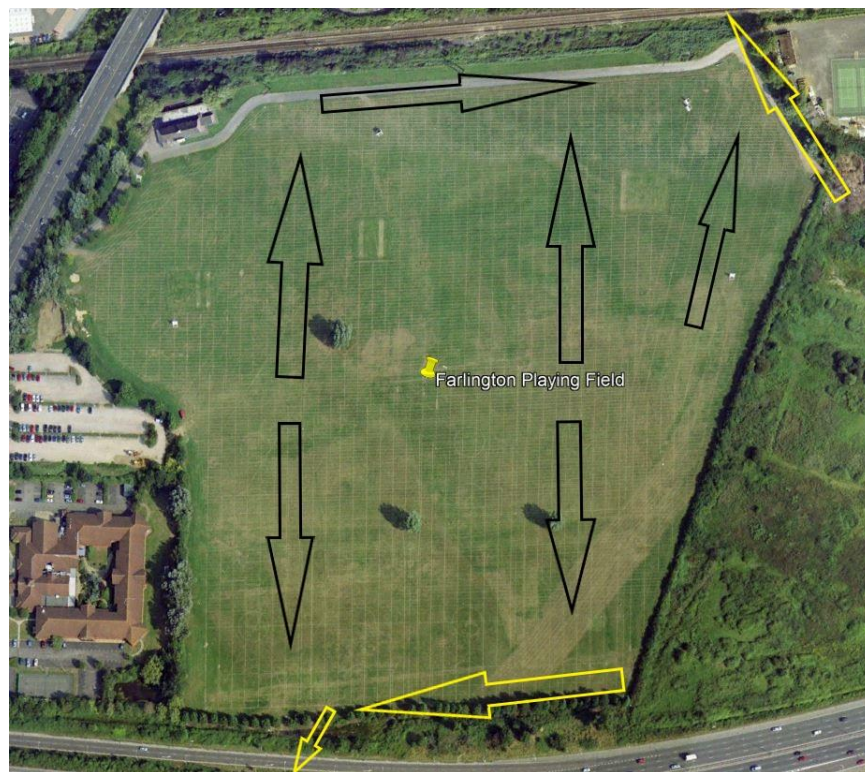


Plate 10: Overview of Farlington topography and surface flow

Investigations on site were intended to check the condition of the main drain through to the outfall using a drain camera and exposing lateral and slit drains to check their function.

However, due to the culvert passing under the railway being 80-85% full causing the ditch and main drain to back-up as far as the last chamber approaching the pavilion, the camera survey was not possible although good flow was evident in the aforementioned chamber indicating that the function of the main drain for the northern half of the site appears to be good but is reliant on the water level in the ditch.

Due to the main drain backing up, checks on the condition and performance of the lateral drains was restricted to the north eastern quarter where flow could be assessed. Excavations over a lateral drain found 100mm topsoil over 50mm coarse sand blinding layer with clean 6-10mm gravel exposed at circa 210mm.

The lateral drain was checked by pouring a steady flow of approx. 25 litres of water carefully onto clean gravel which evacuated immediately with no evidence of restricted flow. Due to the main drain backing up further downstream which will have prevented the lateral drains from discharging, no further checks were made on the pipe drainage system.

A check was done on the slit drain at the same location which confirmed that due to a soil cap of circa 75mm before exposing the gravel backfill, the slit drains are confirmed as serving no function in terms of surface drainage to the pitches. For reference, slit drains which are the main interceptor of surface water in a bypass drainage system typically have a lifespan of 5-8 years depending on usage level, climatic conditions and routine maintenance such as annual sand topdressing.

Tests using the double ring infiltrometer method confirmed that there was negligible difference between the native soil, a slit drain and a lateral drain with no movement of water recorded over a 60 minute period.

Based on the site investigations carried out, it can be concluded that the slit drains are no longer functional serving no benefit to the general drainage of the pitches with the lateral drains still able to evacuate water from the profile to the main drain infrastructure although the soil capping is severely inhibiting any removal of surface water which is the function of the slit drains in a functioning system.

3.6.4 Proposed Drainage Reinstatement

The FMP document acknowledges that reinstatement of the existing drainage system will be required as a result of the works. No information has been provided in the FMP regarding proposed methodology but reviewing the work, disruption to the existing drainage will be confined to the lateral drainage only with the main drain infrastructure unaffected in all phases. Regarding lateral drainage (80mm diameter uPVC perforated pipe), the works will affect the eastern side, north east corner and northern elevation in the following places:

The FMP document acknowledges that reinstatement of the existing drainage system will be required as a result of the works. No information has been provided in the FMP regarding proposed methodology but reviewing the work, disruption to the existing drainage will be confined to the lateral drainage only with the main drain infrastructure unaffected in all phases. Regarding lateral drainage (80mm diameter uPVC perforated pipe), the works will affect the eastern side, north east corner and northern elevation in the following places:

- HDD-3 exit point
- HDD-4 launch pitch for the railway tunnel
- HVDC duct trench.

The detailed design stage must ensure the following is allowed for:

- Protection of existing drainage being retained to prevent ingress of permeable backfill and soil. The use of proprietary end caps is advised where drains are cut.
- Drains severed by the works for more than 2 weeks (all bar Phase 1 HVDC duct trench installation) must be allowed to discharge to an appropriate outlet to prevent backing-up of the system upstream. Installation of temporary soakaways might be required for longer phases e.g., HDD launch pit area.
- Installation of short lengths of pipe to reconnect existing laterals or installation of new lateral drains in larger areas such as HDD launch pit.
- Random flow test of reinstated drains including camera survey of main drains to observe discharge into the main drain.

The timing of the disruption varies in accordance with the phasing of work but it is PSD's understanding that drainage reinstatement will be undertaken at the earliest opportunity upon completion of each section or phase e.g. the HVDC duct trench works in Phase 1 affects the most lateral drains but occurs over the shortest period of time (2 weeks, April 2022). As such it should be possible to cap severed drains, undertake the works and reinstate the drainage.

Regarding reinstatement of short lateral drainage runs, use of 80mm diameter uPVC perforated pipe sleeved inside 100mm diameter slotted twin wall smooth bore pipe (see Plate 11) will ensure that existing pipes are securely reconnected with the twin wall pipe providing additional rigidity to mitigate against potential future settlement.

Use of 100mm diameter twin wall smooth bore pipe connected to the existing main drain is recommended for the launch pit area. The timing of the disruption varies in accordance with the phasing of work but it is PSD's understanding that drainage reinstatement will be undertaken at the earliest opportunity upon completion of each section or phase e.g. the HVDC duct trench works in Phase 1 affects the most lateral drains but occurs over the shortest period of time (2 weeks, April 2022). As such it should be possible to cap severed drains, undertake the works and reinstate the drainage.

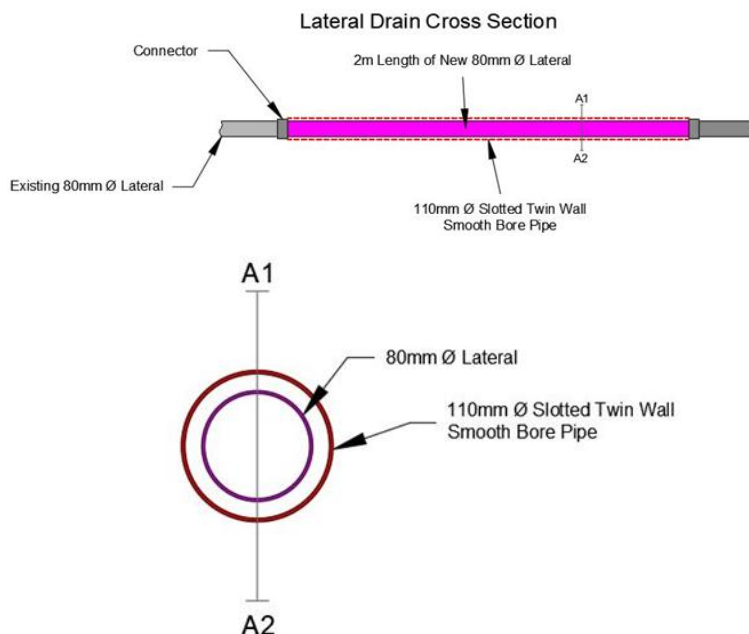


Plate 11: Proposed lateral drain reinstatement

In terms of the methodology for reinstatement, a number of options are potentially available depending on each situation. In all cases, backfilling of excavations should achieve a CBR value of 5% at maximum 500mm increments to mitigate against potential future settlement in conjunction with appropriate uniform consolidation of the topsoil avoiding excessive compaction which will inhibit rooting and turf establishment.

Reinstatement of individual drainage trenches must be done using specified and approved materials comprising permeable backfill e.g. 2-6mm gravel, topped with sand or sand:soil rootzone ensuring a clean connection is made with the turf that will be laid during final reinstatement.

At the end of the works in the final year, the reinstated areas will require new slit drains to be installed at 2m centres to return the areas to SE Type 5 status. With reinstatement scheduled to take place in September, installation of slit drains should be delayed until the end of the football season in April/May 2024 as there will be insufficient time for the slits to establish before the pitches are required for use.

3.6.5 Proposed Surface Reinstatement

In terms of the methodology for reinstatement, a number of options are potentially available depending on each situation. In all cases, backfilling of excavations should achieve a CBR value of 5% at maximum 500mm increments to mitigate against potential future settlement in conjunction with appropriate uniform consolidation of the topsoil avoiding excessive compaction which will inhibit rooting and turf establishment.

An estimate of potential settlement would be 15-20mm in Year 1 up to a maximum of 50mm over 7-10 years. Confirmation that the playing surface in terms of surface level post reinstatement must meet with Performance Quality Standard guidelines of 25mm under a 2m straight edge for a Basic standard pitch. To manage post construction settlement of deep excavations within Farlington Playing Fields to meet the Performance Quality Standard guidelines, suitable fill material in accordance with guidance of CIRIA FB75 and CIRIA SP78 will be specified at detailed design stage.

For the purpose of this report, reinstatement has been based on all work areas being reinstated to a standard at least equivalent to the existing. Football pitches should meet PQS Basic Standard.

Football pitches should meet PQS Basic Standard. It should be noted that whatever form of reinstatement is used e.g., turf or seed, some difference in appearance will be inevitable until such time as natural grass species selection has taken place. With the site being a playing field, unless agreed otherwise with PCC, all areas should be reinstated as a perennial ryegrass dominant mixed sward in keeping with the existing due to the playing field being a designated site for Brent Geese.

The FMP document (ref. 4.1.2.4) confirms that all pitch reinstatement will be carried out in accordance with the Sport England Design Guidance Note 'Natural Turf for Sport (Updated guidance for 2011)'. Current proposals (FMP ref. 4.1.2.2) refer to 3 options for reinstatement, these essentially being:

- Option 1 Remove and relay existing turf for areas where work will be completed within 1 week.
- Option 2 Removal of turf and replacement with new turf for areas of work taking longer than 1 week.
- Option 3 Removal of existing turf and re-seeding.

In terms of post turfing and seeding establishment time, periods of 8 weeks have been allowed for turf (existing re-laid and new) and 10 weeks for seeding. It is also noted that in most areas reinstatement should be complete by the 1st October in time for the start of the over-wintering bird season, with Phases 5 and 10 being reinstated in October.

Reference the above, it is PSD's opinion that without specialist equipment to lift the existing turf in big roll, wide format (750 or 1250mm wide), trying to utilise the existing turf in domestic turf sizes is fraught with potential issues and is not really feasible for any of the sites.

With some work areas at Farlington not expected to be available for reinstatement until September, PSD's recommendation would be to use either standard thickness (15-20mm) wide format, big roll turf with 40mm thick cut turf considered for any playing areas required for the following winter sport season as this type of turf can be played on 2-3 weeks after laying, reducing pitch downtime considerably.

In terms of reinstatement timescales, typical installation rates for big roll turf installation are 1,250m²/day for standard thickness turf and 600m²/day for thick cut turf. Taking the worst-case scenario of Phases 3 and 8 needing to be returfed which equates to circa 43,000m² in total comprising 16,675m² existing pitches, 25,725m² playing field and 600m² Cricket 3, turfing could take in the region of 50 days to complete.

In order to meet completion deadlines, the timing of reinstatement will need to be planned to start once areas become available. Note that Phase 3 and Phase 8 areas not required in Phases 5 and 10 respectively could potentially be reinstated in September at the start of the last phases which should ensure that all reinstatement is completed in October. If seeding of non-playing areas is acceptable to PCC and can be undertaken by mid-September, weather and/or irrigation permitting, a sward of 60-80% density could potentially be established by the end of September saving considerable time and cost.

Note that turfing of the cricket square is not recommended and should be reinstated by fraise mowing in 2022 to remove the vegetation, overseeding, fertilising and decompaction with scarifying replacing fraise mowing in 2023. Both methods if undertaken by the end of September will ensure that Cricket 3 can be used the following season.

The phasing plan presented when the study was commissioned confirmed that work at Farlington affects extensive parts of the overall site at various times during 2022 and 2023 with Pitches 4, 8 and 10 affected in both years with the 9v9 also affected due to it being in the 15m works corridor to the joint bays and HDD exit point.

Further mitigation can be applied as presented in 3.6.2 Works and Pitch Mitigation Overview so that all bar the existing 9v9 pitch can be retained with no widespread covering of grass areas required other than the identified work areas.

Subject to final works programming and detailed design to incorporate recommendations, it is PSD's estimate that the only existing playing area that might require reinstating for play during the 2022/23 football season is the 9v9 pitch should it be retained in its current location. If the proposed temporary resizing of Pitch 10 is adopted by PCC for the winter sports season, there would not be a requirement to reinstate that area using thick cut turf.

The establishment period of 10 weeks is likely to make seeding unfeasible in order to have a suitably dense sward for the over-wintering season.

Other points to note regarding reinstatement are the provision for irrigation (5mm/day) typically throughout August and early September if prevailing weather conditions are dry plus an element of specialist sportsturf contractor maintenance (initial rolling, mowing and application of fertiliser) until such time as the surfaces are established and handed back to PCC for routine maintenance.

Performance Quality Standard (PQS) testing of the pitches affected by the works should be undertaken in October of each construction year to confirm that they meet Basic Standard requirements before play commences.

4.0 CONCLUSIONS

The works are complex and planning is needed in terms of programme and working areas, to reduce the impact on the sites inspected, particularly Farlington Playing Field. It is PSD's opinion that the proposed works with careful planning and appointment of skilled contractors including specialist sportsturf contractors to reinstate affected drainage and grass surfaces, all areas inspected can be returned to an equivalent if not better condition providing appropriate surface protection is used to prevent depressions in the surface which cannot be removed by conventional decompaction techniques such as Vertidrainning.

The report includes proposals contained in the Framework Management Plan provided at the time of appointment. A review of work areas should be undertaken at detailed design stage to identify whether amendments can be made aimed at reducing the impact on temporary loss of playing surfaces and existing services which in the main, relates to Farlington Playing Field.

Apart from the launch pit works at Farlington, most excavations are relatively shallow. Providing backfilling of excavations is done using suitable material achieving a CBR value of 5%, the risk of future settlement relating to existing drainage should be mitigated. However, deep excavations such as the launch pit works should involve a suitably qualified engineer.

Reviewing proposed options for reinstatement of playing surfaces, it is PSD's opinion that lifting and re-use of existing turf is not practical for this project and will result in adding risk. With seeding unlikely to be suitable to meet establishment deadlines, the use of big roll turf is recommended which must be installed by specialist contractors. Sufficient time will need to be factored into the programme to allow for the turfing to be completed in line with project deadlines.

Should playing areas require reinstatement for play the following season or as soon as possible e.g., Langstone Harbour cricket outfield, the use of thick cut big roll turf has been proposed.

With all reinstatement options, provision of 5mm/day irrigation and a period of contractor maintenance to include initial rolling to smooth levels, mowing and an application of fertiliser should be allowed for to ensure until the pitches meet the required PQS Basic standard. to include initial rolling to smooth levels, mowing and an application of fertiliser should be allowed for to ensure the pitches meet the required PQS Basic standard.

5.0 ADDITIONAL INFORMATION

This report does not constitute a detailed Specification or Bill of Quantities for any works proposed therein, and as such, is not suitable for use in obtaining prices from contractors or as a formal construction contract document.

Successful implementation of the proposed works to construct the natural grass pitches should involve the preparation of a full design and specification and the skilled implementation of the designed works. It must be appreciated that the preparation of good sports turf surfaces involves a great deal of skill and care. Materials, particularly soils on site, are variable. The way in which the works are implemented and especially the weather and ground conditions prevailing at the time are as important as the methods used.

Following handover of the pitches, post construction and initial establishment, it is essential that the facilities should be properly managed, receiving a full maintenance programme designed around the individual requirements of the site.

6.0 CONTACT DETAILS

Mr Gary Owen
Professional Sportsturf Design (NW) Ltd
Wigan Road
Leyland
Lancashire
PR25 5XW

Tel: 01772 297830

APPENDIX 1

AQUIND INTERCONNECTOR

BRANSBURY PARK

EXISTING and PSD PROPOSED TEMPORARY PITCH LAYOUT



Notes:
 1. Do not scale from this drawing. All dimensions to be checked on site. Do not make assumptions.

Revisions				
Rev	Date	Description	Drawn By	Checked By

- Legend**
- Football Pitch
 - - - 3m Safety Margin
 - + Goal Post (Existing)
 - + Goal Post Socket (Not in use)
 - \longleftrightarrow Dimensions
 - - - Footpath
 - Play Area
 - Infiltration Test Location

PSD Professional Sportsfield Design (North West) Ltd.
 Wigan Road, Leyland, Lancs. PR25 5XW, UK
 Tel: +44 (0)1772 297830 Fax: +44 (0)1772 297838
 Email: enquiries@psdpsports.com Website: www.psdpsports.com

CLIENT **Aquind Limited**

PROJECT **Aquind Interconnector**

DRAWING **Bransbury Park - Existing Pitch Layout**

Status	Prelim	Issued By	GO	Revision	P1
Project No	1671	Date	Jan 2021	Drawing No	1671/003A
Paper Size	A3	Scale	1:1000		



Notes:
 1. Do not scale from this drawing. All dimensions to be checked on site. Do not make assumptions.

Revisions				
Rev	Date	Description	Drawn By	Checked By

- Legend
- Football Pitch
 - - - 3m Safety Margin
 - \longleftrightarrow Dimensions
 - - - Footpath
 - Play Area

PSD Professional Sportsfield Design (North West) Ltd.
 Wagon Road, Leyland, Lancs. PR25 5XW, UK
 Tel: +44 (0)1772 297830 Fax: +44 (0)1772 297838
 Email: central@psdsw.com Website: www.psdsw.com

CLIENT **Aquind Limited**

PROJECT **Aquind Interconnector**

DRAWING **Bransbury Park - Proposed Pitch Layout**

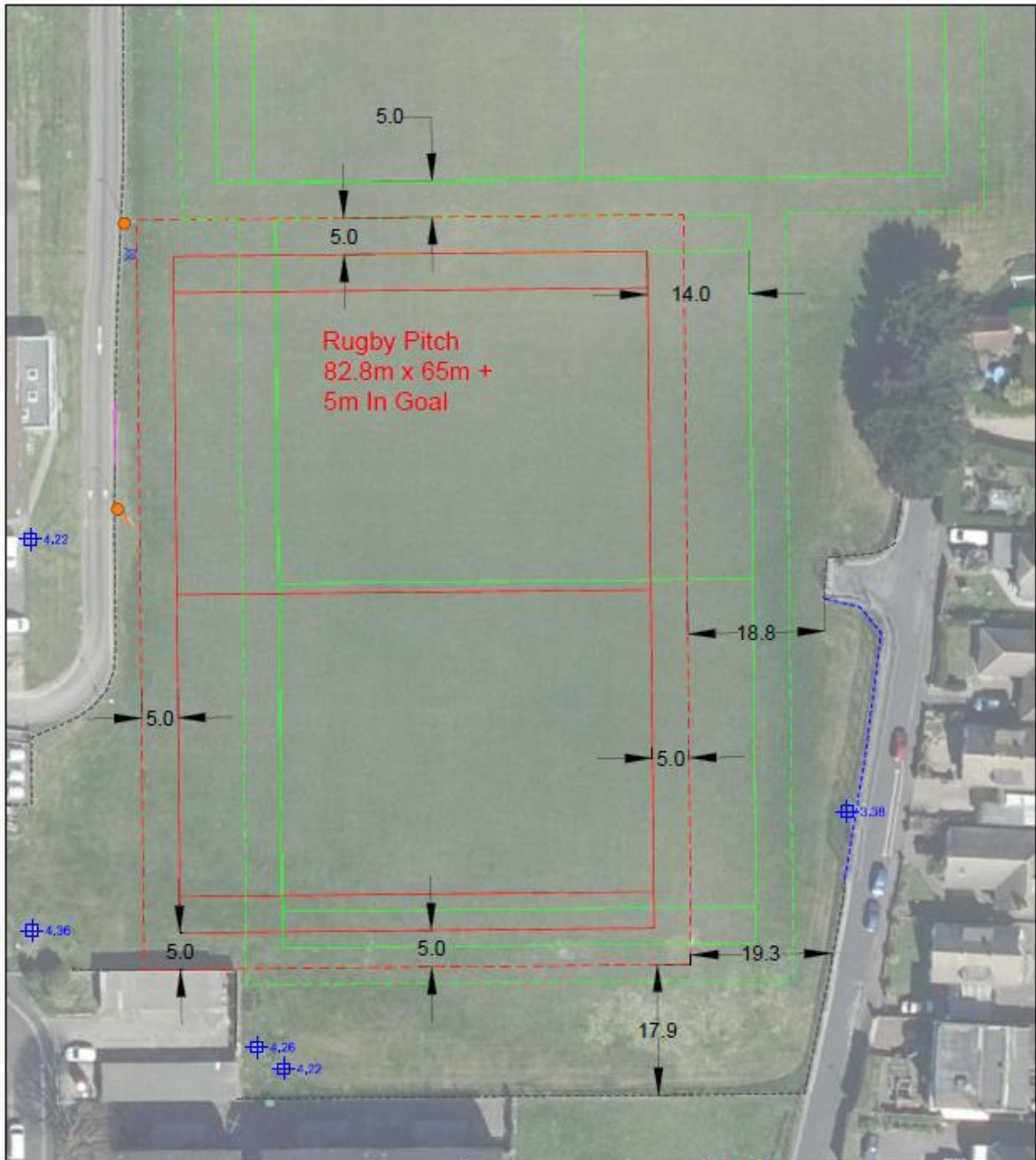
Status	Prelim	Issued By	GO	Revision	P1
Project No	1671	Date	Jan 2021	Drawing No	1671/003B
Paper Size	A3	Scale	1:1000		

APPENDIX 2

AQUIND INTERCONNECTOR

UNIVERSITY of PORTSMOUTH

PROPOSED TEMPORARY PITCH LAYOUT

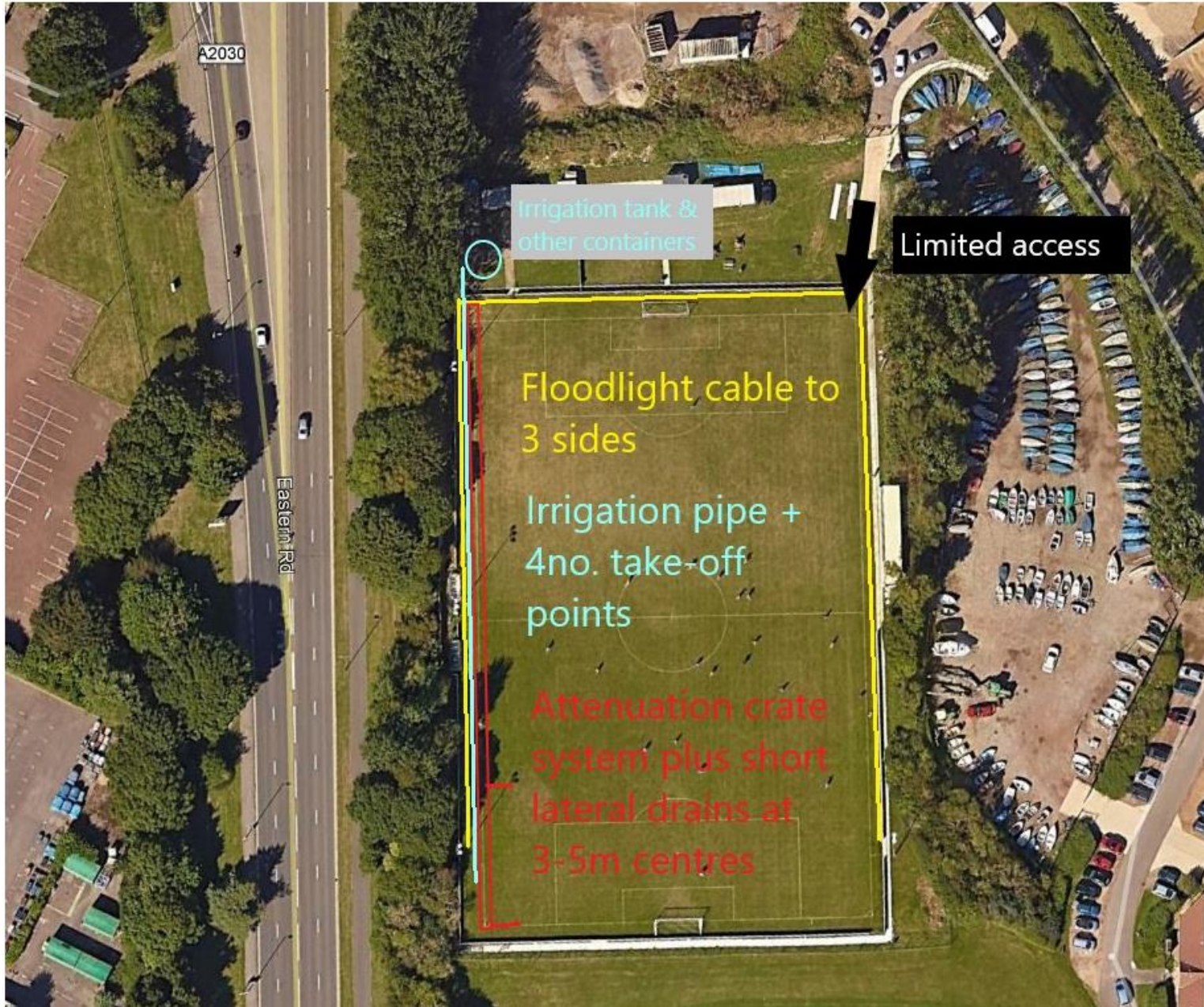


<p>Legend</p> <ul style="list-style-type: none"> — Pitch (Existing) - - - 5m Safety Margin (Existing) — Pitch (Proposed) - - - 5m Safety Margin (Proposed) Fence - - - Ball Stop Fencing ⊕ Irrigation Connection ⊕ Inspection Chamber Wall — Gate ● Sign ● Street Light 		<p>Notes</p> <p>1. Do not scale from this drawing. All dimensions to be checked on site. Do not make assumptions.</p>	<div style="text-align: right;"> <p>Professional Sporting Design (North West) Ltd. Wigan Road, Leyland, Lancs, PR25 5XW, UK Tel: 0144 221773 221830 Fax: 0144 221772 221825 Email: info@psdgroup.co.uk Website: www.psdgroup.co.uk</p> </div> <p>CLIENT Aquind Limited</p> <p>PROJECT Aquind interconnector</p> <p>DRAWING University of Portsmouth - Proposed Pitch Layout</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">Name</td> <td style="width: 25%;">Position</td> <td style="width: 25%;">Initials</td> <td style="width: 25%;">Date</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">Project No:</td> <td style="width: 25%;">Date:</td> <td style="width: 25%;">Drawing No:</td> <td style="width: 25%;">Scale:</td> </tr> <tr> <td>1671</td> <td>Jan 2021</td> <td>1671/002B</td> <td>1:500</td> </tr> </table>	Name	Position	Initials	Date													Project No:	Date:	Drawing No:	Scale:	1671	Jan 2021	1671/002B	1:500
Name	Position	Initials	Date																								
Project No:	Date:	Drawing No:	Scale:																								
1671	Jan 2021	1671/002B	1:500																								

APPENDIX 3

AQUIND INTERCONNECTOR

BAFFINS MILTON ROVERS FC - EXISTING SITE LAYOUT



APPENDIX 4

AQUIND INTERCONNECTOR

FARLINGTON PLAYING FIELD

EXISTING, FMP & PSD PROPOSED LAYOUTS



Notes:
 1. Do not scale from this drawing. All dimensions to be checked on site. Do not make assumptions.

Revisions				
Rev	Date	Description	Drawn By	Checked By

Legend

- Football Pitch
- + Goal Post Socket
- Football Pitch (Not marked on site, location inferred from aerial photograph)
- Cricket Square
- x Irrigation Connection
- Inspection Chamber
- Drainage Pipe
- Drainage Pipe (Not Located)
- Ditch / Culvert under railway
- x Water Level
- Wet Area
- Infiltration Test Location

Pitch Number	Size (m)	Min Safety Margin (m)
1	90m x 60m	1.87
2	90m x 60m	1.87
3	90m x 60m	2.04
4	90m x 60m	2.04
5	90m x 60m	2.03
6	90m x 60m	2.03
7	90m x 60m	1.91
8	90m x 60m	1.91
9	90m x 60m	3.00
10	90m x 60m	3.00
9v9	73.1 x 45.7	3.00

Professional Sportsurf Design (North West) Ltd.
 Wigan Road, Leyland, Lancs. PR25 5XW, UK
 Tel: +44 (0)1772 287830 Fax: +44 (0)1772 287838
 E-mail: enquiries@spdsdesign.com Website: www.spdsdesign.com

CLIENT	Aquind Limited		
PROJECT	Aquind Interconnector		
DRAWING	Farlington Playing Fields - Existing Pitch Layout		
SCALE	Prelim	ISSUED BY	GO
PROJECT No	1671	DATE	Jan 2021
PAPER SIZE	A1	SCALE	1:1000
REVISION	PI	DRAWING No	1671/001A



Notes:
 1. Do not scale from this drawing. All dimensions to be checked on site. Do not make assumptions.

Rev	Date	Description	Drawn By	Checked By

- Legend**
- Proposed Pitch Location with 3m Safety Margin
 - Existing Football Pitch
 - Existing Football Pitch (Not marked on site, location inferred from aerial photograph)
 - Existing Cricket Square
 - ⊗ Irrigation Connection
 - ⊕ Inspection Chamber
 - × Water Level
 - Wet Area

Existing Pitch Location

Pitch Number	Size (m)	Min Safety Margin (m)
1	90 x 60	1.87
2	90 x 60	1.87
3	90 x 60	2.04
4	90 x 60	2.04
5	90 x 60	2.03
6	90 x 60	2.03
7	90 x 60	1.91
8	90 x 60	1.91
9	90 x 60	3.00
10	90 x 60	3.00
9v9	73.1 x 45.7	3.00

Proposed Pitch Location

Pitch Number	Size (m)	Min Safety Margin (m)
4	90m x 60m	3.00
8	90m x 60m	3.00
9	90m x 60m	3.00
10	90m x 60m	3.00
7v7	61 x 43	3.00

PSD Professional Sportsurf Design (North West) Ltd.
 Wigan Road, Layland, Latics, PR25 5XW, UK
 Tel: +44 (0)1772 297830 Fax: +44 (0)1772 297836
 Email: sales@psdsportsurf.co.uk Website: www.psdsportsurf.co.uk

CLIENT					
Aquad Limited					
PROJECT					
Aquad Interconnector					
DRAWINGS					
Farlington Playing Fields - Proposed Temporary Pitch Layout					
Scale	Prelim	Issued For	GO	Revision	PI
Project No	1571	Date	Jan 2021	Drawing No	1671/001B
Paper Size	A1	Scale	1:1000		



Notes:
 1. Do not scale from this drawing. All dimensions to be checked on site. Do not make assumptions.

Rev	Date	Description	Drawn By	Checked By
P2	10/02/2021	Cable trench / work area removed	OM	GO

- Legend**
- - - Proposed 9v9 Pitch Location with 3m Safety Margin
 - Existing Football Pitch
 - Existing Football Pitch (Not marked on site, location inferred from aerial photograph)
 - - - Existing Cricket Square
 - ⊗ Irrigation Connection
 - ⊕ Inspection Chamber
 - × Water Level
 - Wet Area

Proposed Pitch Provision

Pitch Number	Size (m)	Min Safety Margin (m)
1	90 x 60	1.87
2	90 x 60	1.87
3	90 x 60	2.04
4	90 x 60	2.04
5	90 x 60	2.03
6	90 x 60	2.03
7	90 x 60	1.91
8	90 x 60	1.91
9	90 x 60	3.00
10	90 x 60	3.00
9v9	73 x 46	3.00

PSD Professional Sportsturf Design (North West) Ltd.
 Wagh Road, Leyland, Lancs. PR25 5XW, UK
 Tel: +44 (0)1772 257830 Fax: +44 (0)1772 257839
 Email: enquiries@psdgroup.co.uk Website: www.psdesign.co.uk

AGRICULTURE
LABSPORT

CLIENT Aquind Limited

PROJECT Aquind Interconnector

DRAWING Farrington Playing Fields - Proposed PSD Temporary Pitch Layout

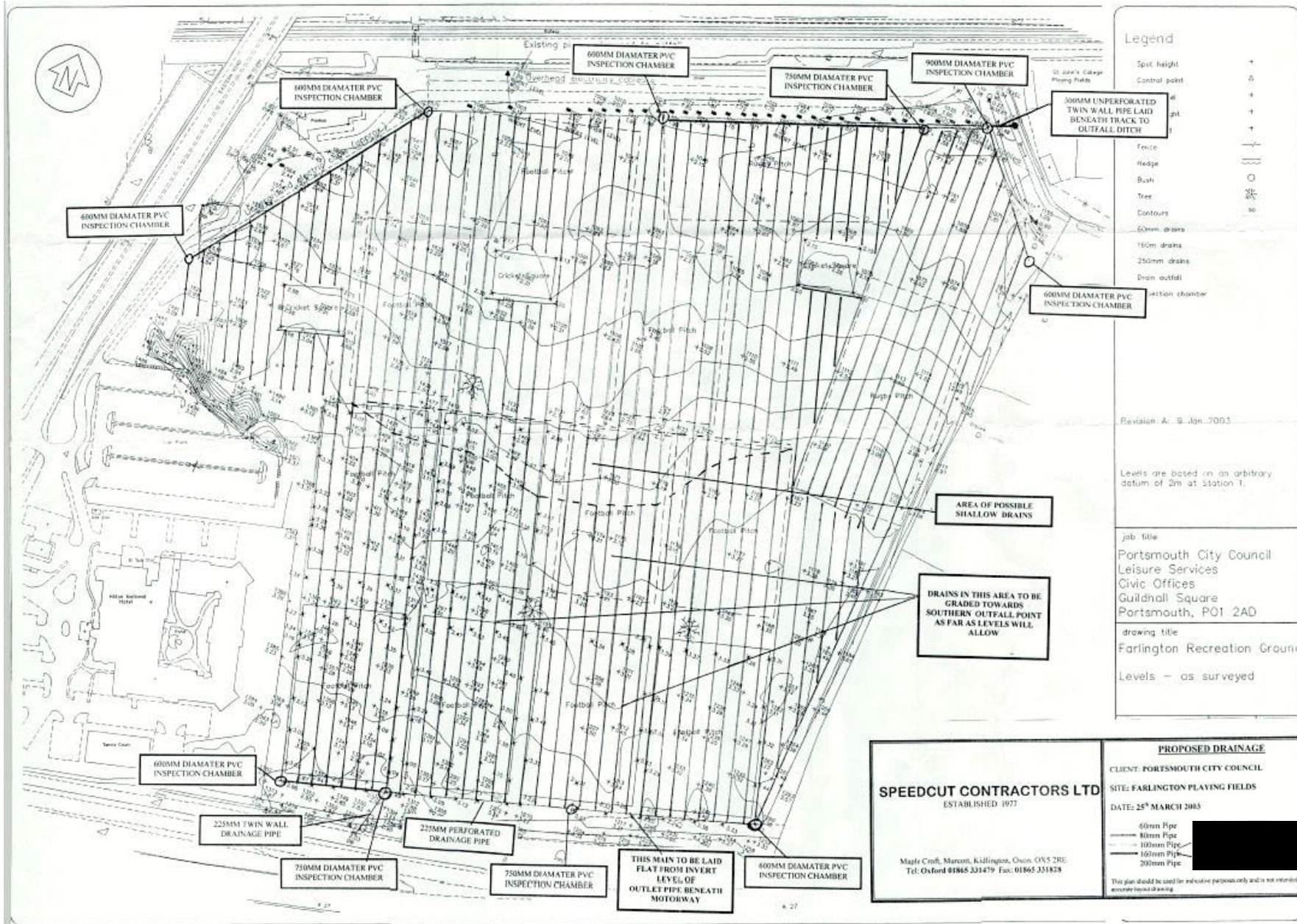
Block	Prelim	Issued By	GO	Revision	P2
Project No	1671	Date	Jan 2021	Drawing No	
Paper Size	A1	Scale	1:1000		1671/001C

APPENDIX 5

AQUIND INTERCONNECTOR

FARLINGTON PLAYING FIELD

AS-LAID DRAINAGE (2004)



Legend

Spot height +
 Control point Δ
 300mm UNPERFORATED TWIN WALL PIPE LAID BENEATH TRACK TO OUTFALL DITCH
 Fence ———
 Hedge ———
 Bush ○
 Tree ○
 Contours 30
 60mm drains ———
 160mm drains ———
 250mm drains ———
 Drain outfall ———
 Inspection chamber ○

Revision: A. 9. Jgn. 2003

Levels are based on an arbitrary datum of 2m at Station 1.

job title
 Portsmouth City Council
 Leisure Services
 Civic Offices
 Guildhall Square
 Portsmouth, PO1 2AD

drawing title
 Farlington Recreation Ground

Levels - as surveyed

PROPOSED DRAINAGE

CLIENT: PORTSMOUTH CITY COUNCIL
 SITE: FARLINGTON PLAYING FIELDS
 DATE: 25th MARCH 2003

50mm Pipe ———
 80mm Pipe ———
 100mm Pipe ———
 160mm Pipe ———
 200mm Pipe ———

SPEEDCUT CONTRACTORS LTD
 ESTABLISHED 1977

Maple Croft, Marcott, Killington, Oxon. OX5 2RE
 Tel: Oxford 01865 331479 Fax: 01865 331828

This plan should be used for indicative purposes only and is not intended as accuracy layout drawing.

APPENDIX 6

AQUIND INTERCONNECTOR

PERFORMANCE QUALITY STANDARDS ASSESSMENTS

Performance Quality Standards

Client & Project: Aquind Ltd – Portsmouth Interconnector

Physical Site Survey date:

20th January 2021

Site: Farlington Playing Field Pitch 4

ELEMENT	LIMITS	METHOD OF TEST	Visit 1	Visit 2
Ground cover %	>75%	BS 7370 : P3 A6	✓	
Broad-leaved weeds %	<10	BS 7370 : P3 A6	✓	
Sward height mm	20-70 PS 30-60 CS	BS 7370 : P3 A3	✓	
Thatch depth mm	<15	BS 7370 : P3 A7	✓	
Hardness in g	35-200	STRI method of test using a 0.5 kg Clegg Impact Hammer from a drop height of 0.55 m	✓	
Water infiltration rate mm d ⁻¹	5 (mm/hr)	BS 7370 : P3 A8	✓	
Evenness (2 metre straight edge)	<25 mm	BS 7370 : P3 A6	✓	
Slope: Direction of play (%)	<1.00 - 1.25	BS 7370 : P3 A5	✓	
Across play (%)	<1.25 - 2.5%		✓	
pH value	5.8 – 7.5	ISO 10390	Not tested	
General Comments:	<p>Pitches not in use due to Covid-19 restrictions. Last use not known. Sward: Perennial ryegrass, Bent, Meadowgrass species Weeds: Clover, Ribwort Goalmouths: Worn and holding water Levels: Gently undulating Topsoil: 180-290mm depth with evidence of organic matter accumulation in upper 20mm, variable moisture but not saturated; wormcasting evident</p>			

KEY: SH = Sward Height PS = Playing Season CS = Closed Season

Visual assessment is an acceptable alternative method of testing, if undertaken by a turfgrass consultant who is able to satisfy the selection criteria identified within the Turfgrass Consultants – Construction/Upgrade Brief.

Assessment undertaken by: Gareth Phillips

Consultancy: Professional Sportsturf Design (NW) Ltd

Performance Quality Standards

Client & Project: Aquind Ltd – Portsmouth Interconnector

Physical Site Survey date: 20th January 2021

Site: Farlington Playing Field Pitch 8

ELEMENT	LIMITS	METHOD OF TEST	Visit 1	Visit 2
Ground cover %	>75%	BS 7370 : P3 A6	✓	
Broad-leaved weeds %	<10	BS 7370 : P3 A6	✓	
Sward height mm	20-70 PS 30-60 CS	BS 7370 : P3 A3	✓	
Thatch depth mm	<15	BS 7370 : P3 A7	✘	
Hardness in g	35-200	STRI method of test using a 0.5 kg Clegg Impact Hammer from a drop height of 0.55 m	✓	
Water infiltration rate mm d ⁻¹	5 (mm/hr)	BS 7370 : P3 A8	✘	
Evenness (2 metre straight edge)	<25 mm	BS 7370 : P3 A6	✓	
Slope: Direction of play (%)	<1.00 - 1.25	BS 7370 : P3 A5	✓	
Across play (%)	<1.25 - 2.5%		✓	
pH value	5.8 – 7.5	ISO 10390	Not tested	
General Comments:	<p>Pitches not in use due to Covid-19 restrictions. Last use not known. Sward: Perennial ryegrass, Bent, Meadowgrass species Weeds: Clover, Daisy, Creeping Buttercup Goalmouths: Wear in goalmouths but not raised or dished impeding pitch being extended or relocated Levels: Ponding evident in low area in SE corner Topsoil: 180mm depth with evidence of organic matter accumulation in upper 40mm, saturated; heavy clay >180mm</p>			

KEY: SH = Sward Height PS = Playing Season CS = Closed Season

Visual assessment is an acceptable alternative method of testing, if undertaken by a turfgrass consultant who is able to satisfy the selection criteria identified within the Turfgrass Consultants – Construction/Upgrade Brief.

Assessment undertaken by: Gareth Phillips

Consultancy: Professional Sportsturf Design (NW) Ltd

Performance Quality Standards

Client & Project: Aquind Ltd – Portsmouth Interconnector

Physical Site Survey date:

20th January 2021

Site: Farlington Playing Field Pitch 10

ELEMENT	LIMITS	METHOD OF TEST	Visit 1	Visit 2
Ground cover %	>75%	BS 7370 : P3 A6	✓	
Broad-leaved weeds %	<10	BS 7370 : P3 A6	✓	
Sward height mm	20-70 PS 30-60 CS	BS 7370 : P3 A3	✓	
Thatch depth mm	<15	BS 7370 : P3 A7	✗	
Hardness in g	35-200	STRI method of test using a 0.5 kg Clegg Impact Hammer from a drop height of 0.55 m	✗	
Water infiltration rate mm d ⁻¹	5 (mm/hr)	BS 7370 : P3 A8	✗	
Evenness (2 metre straight edge)	<25 mm	BS 7370 : P3 A6	✗	
Slope: Direction of play (%)	<1.00 - 1.25	BS 7370 : P3 A5	✓	
Across play (%)	<1.25 - 2.5%		✓	
pH value	5.8 – 7.5	ISO 10390	Not tested	
General Comments:	<p>Pitches not in use due to Covid-19 restrictions. Last use not known. Pitch not marked for play Sward: Perennial ryegrass, Bent, Meadowgrass species Weeds: Clover, Ribwort Goalmouths: No wear as pitch not in use Levels: Undulating, ponding evident in low areas Topsoil: 140-180mm depth with evidence of organic matter accumulation in upper 40mm, saturated.</p>			

KEY: SH = Sward Height PS = Playing Season CS = Closed Season

Visual assessment is an acceptable alternative method of testing, if undertaken by a turfgrass consultant who is able to satisfy the selection criteria identified within the Turfgrass Consultants – Construction/Upgrade Brief.

Assessment undertaken by: Gareth Phillips

Consultancy: Professional Sportsturf Design (NW) Ltd

Performance Quality Standards

Client & Project: Aquind Ltd – Portsmouth Interconnector

Physical Site Survey date:

20th January 2021

Site: Farlington Playing Field Pitches 4 & 10 Proposed Temporary Relocation

ELEMENT	LIMITS	METHOD OF TEST	Visit 1	Visit 2
Ground cover %	>75%	BS 7370 : P3 A6	✓	
Broad-leaved weeds %	<10	BS 7370 : P3 A6	✓	
Sward height mm	20-70 PS 30-60 CS	BS 7370 : P3 A3	✓	
Thatch depth mm	<15	BS 7370 : P3 A7	✗	
Hardness in g	35-200	STRI method of test using a 0.5 kg Clegg Impact Hammer from a drop height of 0.55 m	✗	
Water infiltration rate mm d ⁻¹	5 (mm/hr)	BS 7370 : P3 A8	✗	
Evenness (2 metre straight edge)	<25 mm	BS 7370 : P3 A6	✓	
Slope: Direction of play (%)	<1.00 - 1.25	BS 7370 : P3 A5	✓	
Across play (%)	<1.25 - 2.5%		✓	
pH value	5.8 – 7.5	ISO 10390	Not tested	
General Comments:	<p>Currently cricket outfield for C3 – proposed location for Pitches 4 & 10 temporary repositioning Sward: Perennial ryegrass, Bent, Meadowgrass species Weeds: Clover, Ribwort Goalmouths: N/A Levels: Moderate undulations with ponding evident in low areas Topsoil: 170-200mm depth with evidence of organic matter accumulation in upper 25-30mm, saturated.</p>			

KEY: SH = Sward Height PS = Playing Season CS = Closed Season

Visual assessment is an acceptable alternative method of testing, if undertaken by a turfgrass consultant who is able to satisfy the selection criteria identified within the Turfgrass Consultants – Construction/Upgrade Brief.

Assessment undertaken by: Gareth Phillips

Consultancy: Professional Sportsturf Design (NW) Ltd

Performance Quality Standards

Client & Project: Aquind Ltd – Portsmouth Interconnector

Physical Site Survey date:

20th January 2021

Site: Farlington Playing Field Pitch 8 Proposed Temporary Relocation

ELEMENT	LIMITS	METHOD OF TEST	Visit 1	Visit 2
Ground cover %	>75%	BS 7370 : P3 A6	✓	
Broad-leaved weeds %	<10	BS 7370 : P3 A6	✓	
Sward height mm	20-70 PS 30-60 CS	BS 7370 : P3 A3	✗	
Thatch depth mm	<15	BS 7370 : P3 A7	✓	
Hardness in g	35-200	STRI method of test using a 0.5 kg Clegg Impact Hammer from a drop height of 0.55 m	✗	
Water infiltration rate mm d ⁻¹	5 (mm/hr)	BS 7370 : P3 A8	✗	
Evenness (2 metre straight edge)	<25 mm	BS 7370 : P3 A6	✓	
Slope: Direction of play (%)	<1.00 - 1.25	BS 7370 : P3 A5	✓	
Across play (%)	<1.25 - 2.5%		✓	
pH value	5.8 – 7.5	ISO 10390	Not tested	
General Comments:	<p>Currently cricket outfield for C1& C2 – proposed location for Pitch 8 temporary repositioning Sward: Perennial ryegrass, Bent, Meadowgrass species Weeds: Clover, Ribwort Goalmouths: N/A Levels: Moderate undulations with ponding evident in low areas Topsoil: 160-210mm depth with evidence of organic matter accumulation in upper 25-30mm, saturated.</p>			

KEY: SH = Sward Height PS = Playing Season CS = Closed Season

Visual assessment is an acceptable alternative method of testing, if undertaken by a turfgrass consultant who is able to satisfy the selection criteria identified within the Turfgrass Consultants – Construction/Upgrade Brief.

Assessment undertaken by: Gareth Phillips

Consultancy: Professional Sportsturf Design (NW) Ltd

Performance Quality Standards

Client & Project: Aquind Ltd – Portsmouth Interconnector

Physical Site Survey date:

20th January 2021

Site: Farlington Playing Field 9v9 Pitch Proposed Temporary Relocation

ELEMENT	LIMITS	METHOD OF TEST	Visit 1	Visit 2
Ground cover %	>75%	BS 7370 : P3 A6	✓	
Broad-leaved weeds %	<10	BS 7370 : P3 A6	✓	
Sward height mm	20-70 PS 30-60 CS	BS 7370 : P3 A3	✗	
Thatch depth mm	<15	BS 7370 : P3 A7	✓	
Hardness in g	35-200	STRI method of test using a 0.5 kg Clegg Impact Hammer from a drop height of 0.55 m	✗	
Water infiltration rate mm d ⁻¹	5 (mm/hr)	BS 7370 : P3 A8	✗	
Evenness (2 metre straight edge)	<25 mm	BS 7370 : P3 A6	✓	
Slope: Direction of play (%)	<1.00 - 1.25	BS 7370 : P3 A5	✓	
Across play (%)	<1.25 - 2.5%		✓	
pH value	5.8 – 7.5	ISO 10390	Not tested	
General Comments:	<p>Currently cricket outfield for C1 – proposed location for 9v9 Pitch temporary repositioning Sward: Perennial ryegrass, Bent, Meadowgrass species Weeds: Clover, Ribwort Goalmouths: N/A Levels: Moderate undulations with ponding evident in low areas Topsoil: 160-200mm depth with evidence of organic matter accumulation in upper 5-10mm, saturated.</p>			

KEY: SH = Sward Height PS = Playing Season CS = Closed Season

Visual assessment is an acceptable alternative method of testing, if undertaken by a turfgrass consultant who is able to satisfy the selection criteria identified within the Turfgrass Consultants – Construction/Upgrade Brief.

Assessment undertaken by: Gareth Phillips

Consultancy: Professional Sportsturf Design (NW) Ltd

Performance Quality Standards

Client & Project: Aquind Ltd – Portsmouth Interconnector

Physical Site Survey date:

20th January 2021

Site: Baffins Milton Rovers FC

ELEMENT	LIMITS	METHOD OF TEST	Visit 1	Visit 2
Ground cover %	>75%	BS 7370 : P3 A6	✓	
Broad-leaved weeds %	<10	BS 7370 : P3 A6	✓	
Sward height mm	20-70 PS 30-60 CS	BS 7370 : P3 A3	✓	
Thatch depth mm	<15	BS 7370 : P3 A7	✓	
Hardness in g	35-200	STRI method of test using a 0.5 kg Clegg Impact Hammer from a drop height of 0.55 m	✗	
Water infiltration rate mm d ⁻¹	5 (mm/hr)	BS 7370 : P3 A8	✗	
Evenness (2 metre straight edge)	<25 mm	BS 7370 : P3 A6	✓	
Slope: Direction of play (%)	<1.00 - 1.25	BS 7370 : P3 A5	✓	
Across play (%)	<1.25 - 2.5%		✓	
pH value	5.8 – 7.5	ISO 10390	Not tested	
General Comments:	<p>Pitch not in use due to Covid-19 restrictions Sward: Perennial ryegrass, Meadowgrass species, no weeds Goalmouths: wear evident Levels: Moderate undulations with ponding evident in low areas, pitch entrance (NE) low. Topsoil: 140-190mm depth, 'heavy' & saturated over clay subsoil including stone contamination (possibly poor quality fill import in localised areas)</p>			

KEY: SH = Sward Height PS = Playing Season CS = Closed Season

Visual assessment is an acceptable alternative method of testing, if undertaken by a turfgrass consultant who is able to satisfy the selection criteria identified within the Turfgrass Consultants – Construction/Upgrade Brief.

Assessment undertaken by: Gareth Phillips

Consultancy: Professional Sportsturf Design (NW) Ltd

Performance Quality Standards

Client & Project: Aquind Ltd – Portsmouth Interconnector

Physical Site Survey date:

20th January 2021

Site: Langstone Harbour Sports Ground – Cricket Outfield

ELEMENT	LIMITS	METHOD OF TEST	Visit 1	Visit 2
Ground cover %	>75%	BS 7370 : P3 A6	✓	
Broad-leaved weeds %	<10	BS 7370 : P3 A6	✓	
Sward height mm	20-70 PS 30-60 CS	BS 7370 : P3 A3	✗	
Thatch depth mm	<15	BS 7370 : P3 A7	✓	
Hardness in g	35-200	STRI method of test using a 0.5 kg Clegg Impact Hammer from a drop height of 0.55 m	✗	
Water infiltration rate mm d ⁻¹	5 (mm/hr)	BS 7370 : P3 A8	✓	
Evenness (2 metre straight edge)	<25 mm	BS 7370 : P3 A6	✓	
Slope: Direction of play (%)	<1.00 - 1.25	BS 7370 : P3 A5	✓	
Across play (%)	<1.25 - 2.5%		✓	
pH value	5.8 – 7.5	ISO 10390	Not tested	
General Comments:	Sward: Perennial ryegrass, Bent, Meadowgrass species Weeds: Clover, Daisy, Plantains Goalmouths: N/A Levels: Minor undulations, no ponding evident in low areas Topsoil: 110-200mm depth with minor evidence of organic matter accumulation in upper 5-10mm.			

KEY: SH = Sward Height PS = Playing Season CS = Closed Season

Visual assessment is an acceptable alternative method of testing, if undertaken by a turfgrass consultant who is able to satisfy the selection criteria identified within the Turfgrass Consultants – Construction/Upgrade Brief.

Assessment undertaken by: Gareth Phillips

Consultancy: Professional Sportsturf Design (NW) Ltd

Performance Quality Standards

Client & Project: Aquind Ltd – Portsmouth Interconnector

Physical Site Survey date:

20th January 2021

Site: Langstone Harbour Sports Ground – Football Pitch

ELEMENT	LIMITS	METHOD OF TEST	Visit 1	Visit 2
Ground cover %	>75%	BS 7370 : P3 A6	✓	
Broad-leaved weeds %	<10	BS 7370 : P3 A6	✓	
Sward height mm	20-70 PS 30-60 CS	BS 7370 : P3 A3	✘	
Thatch depth mm	<15	BS 7370 : P3 A7	✓	
Hardness in g	35-200	STRI method of test using a 0.5 kg Clegg Impact Hammer from a drop height of 0.55 m	✓	
Water infiltration rate mm d ⁻¹	5 (mm/hr)	BS 7370 : P3 A8	✓	
Evenness (2 metre straight edge)	<25 mm	BS 7370 : P3 A6	✓	
Slope: Direction of play (%)	<1.00 - 1.25	BS 7370 : P3 A5	✓	
Across play (%)	<1.25 - 2.5%		✓	
pH value	5.8 – 7.5	ISO 10390	Not tested	
General Comments:	Sward: Perennial ryegrass, Bent, Meadowgrass species Weeds: Clover, Daisy, Plantains Goalmouths: South worn, low areas holding water Levels: Minor undulations, no ponding evident in low areas apart from goalmouths Topsoil: 170-240mm depth with minor evidence of organic matter accumulation in upper 10mm.			

KEY: SH = Sward Height

PS = Playing Season

CS = Closed Season

Visual assessment is an acceptable alternative method of testing, if undertaken by a turfgrass consultant who is able to satisfy the selection criteria identified within the Turfgrass Consultants – Construction/Upgrade Brief.

Performance Quality Standards

Client & Project: Aquind Ltd – Portsmouth Interconnector

Physical Site Survey date:

21st January 2021

Site: University of Portsmouth – South Rugby

ELEMENT	LIMITS	METHOD OF TEST	Visit 1	Visit 2
Ground cover %	>75%	BS 7370 : P3 A6	✓	
Broad-leaved weeds %	<10	BS 7370 : P3 A6	✓	
Sward height mm	20-70 PS 30-60 CS	BS 7370 : P3 A3	✗	
Thatch depth mm	<15	BS 7370 : P3 A7	✗	
Hardness in g	35-200	STRI method of test using a 0.5 kg Clegg Impact Hammer from a drop height of 0.55 m	✓	
Water infiltration rate mm d ⁻¹	5 (mm/hr)	BS 7370 : P3 A8	✓	
Evenness (2 metre straight edge)	<25 mm	BS 7370 : P3 A6	✓	
Slope: Direction of play (%)	<1.00 - 1.25	BS 7370 : P3 A5	✗/✓	
Across play (%)	<1.25 - 2.5%		✓	
pH value	5.8 – 7.5	ISO 10390	Not tested	
General Comments:	<p>Pitch not marked – reported to be not used for previous 2 years Sward: Perennial ryegrass, Creeping Bent, Fescue species, Meadowgrass species Weeds: Thistle (Sow), Dandelion, Yarrow, Ribwort Plantain, moss Levels: Slight undulations, no ponding evident in low areas Topsoil: 190-210mm depth with distinct thatch accumulation; aerobic; occasional flint/stone; chalk at 200mm Other: Extensive surface contamination from Geese faeces; grass short due to feeding</p>			

KEY: SH = Sward Height PS = Playing Season CS = Closed Season

Visual assessment is an acceptable alternative method of testing, if undertaken by a turfgrass consultant who is able to satisfy the selection criteria identified within the Turfgrass Consultants – Construction/Upgrade Brief.

Assessment undertaken by: Gareth Phillips

Consultancy: Professional Sportsturf Design (NW) Ltd

Performance Quality Standards

Client & Project: Aquind Ltd – Portsmouth Interconnector

Physical Site Survey date:

21st January 2021

Site: University of Portsmouth – North Rugby & Mini Football

ELEMENT	LIMITS	METHOD OF TEST	Visit 1	Visit 2
Ground cover %	>75%	BS 7370 : P3 A6	✓	
Broad-leaved weeds %	<10	BS 7370 : P3 A6	✓	
Sward height mm	20-70 PS 30-60 CS	BS 7370 : P3 A3	✗	
Thatch depth mm	<15	BS 7370 : P3 A7	✗	
Hardness in g	35-200	STRI method of test using a 0.5 kg Clegg Impact Hammer from a drop height of 0.55 m	✓	
Water infiltration rate mm d ⁻¹	5 (mm/hr)	BS 7370 : P3 A8	✓	
Evenness (2 metre straight edge)	<25 mm	BS 7370 : P3 A6	✓	
Slope: Direction of play (%)	<1.00 - 1.25	BS 7370 : P3 A5	✗/✓	
Across play (%)	<1.25 - 2.5%		✓	
pH value	5.8 – 7.5	ISO 10390	Not tested	
General Comments:	<p>Pitch not marked – reported to be not used for previous 2 years Sward: Perennial ryegrass, Creeping Bent, Fescue species, Meadowgrass species Weeds: Thistle (Sow), Dandelion, Yarrow, Ribwort Plantain, moss Levels: Slight undulations, no ponding evident in low areas Topsoil: 140mm depth (rugby), 340mm (football) with 20mm thatch layer; aerobic; occasional flint/stone; chalk at 230mm Other: Extensive surface contamination from Geese faeces; grass short due to feeding</p>			

KEY: SH = Sward Height PS = Playing Season CS = Closed Season

Visual assessment is an acceptable alternative method of testing, if undertaken by a turfgrass consultant who is able to satisfy the selection criteria identified within the Turfgrass Consultants – Construction/Upgrade Brief.

Assessment undertaken by: Gareth Phillips

Consultancy: Professional Sportsturf Design (NW) Ltd

Performance Quality Standards

Client & Project: Aquind Ltd – Portsmouth Interconnector

Physical Site Survey date:

21st January 2021

Site: Bransbury Park – Centre Pitch

ELEMENT	LIMITS	METHOD OF TEST	Visit 1	Visit 2
Ground cover %	>75%	BS 7370 : P3 A6	✘	
Broad-leaved weeds %	<10	BS 7370 : P3 A6	✓	
Sward height mm	20-70 PS 30-60 CS	BS 7370 : P3 A3	✓	
Thatch depth mm	<15	BS 7370 : P3 A7	✓	
Hardness in g	35-200	STRI method of test using a 0.5 kg Clegg Impact Hammer from a drop height of 0.55 m	✘	
Water infiltration rate mm d ⁻¹	5 (mm/hr)	BS 7370 : P3 A8	✓	
Evenness (2 metre straight edge)	<25 mm	BS 7370 : P3 A6	✓	
Slope: Direction of play (%)	<1.00 - 1.25	BS 7370 : P3 A5	✓	
Across play (%)	<1.25 - 2.5%		✓	
pH value	5.8 – 7.5	ISO 10390	Not tested	
General Comments:	Sward: Perennial ryegrass, Meadowgrass species Weeds: Clover Levels: Undulating but no ponding evident in low areas Topsoil: Very sandy, friable, 140-200mm depth with 0-30mm thatch layer; surface compaction Other: Typical wear pattern			

KEY: SH = Sward Height PS = Playing Season CS = Closed Season

Visual assessment is an acceptable alternative method of testing, if undertaken by a turfgrass consultant who is able to satisfy the selection criteria identified within the Turfgrass Consultants – Construction/Upgrade Brief.

Assessment undertaken by: Gareth Phillips

Consultancy: Professional Sportsturf Design (NW) Ltd

Performance Quality Standards

Client & Project: Aquind Ltd – Portsmouth Interconnector

Physical Site Survey date:

21st January 2021

Site: Bransbury Park – Eastern Pitch including proposed temporary location

ELEMENT	LIMITS	METHOD OF TEST	Visit 1	Visit 2
Ground cover %	>75%	BS 7370 : P3 A6	✘	
Broad-leaved weeds %	<10	BS 7370 : P3 A6	✓	
Sward height mm	20-70 PS 30-60 CS	BS 7370 : P3 A3	✓	
Thatch depth mm	<15	BS 7370 : P3 A7	✓	
Hardness in g	35-200	STRI method of test using a 0.5 kg Clegg Impact Hammer from a drop height of 0.55 m	✓	
Water infiltration rate mm d ⁻¹	5 (mm/hr)	BS 7370 : P3 A8	✓	
Evenness (2 metre straight edge)	<25 mm	BS 7370 : P3 A6	✓	
Slope: Direction of play (%)	<1.00 - 1.25	BS 7370 : P3 A5	✓	
Across play (%)	<1.25 - 2.5%		✓	
pH value	5.8 – 7.5	ISO 10390	Not tested	
General Comments:	Sward: Perennial ryegrass, Meadowgrass species Weeds: Clover Levels: Undulating but no ponding evident in low areas Topsoil: Very sandy, friable, 140-200mm depth with 0-10mm thatch layer; surface compaction; water evident at 300mm Other: Typical wear pattern			

KEY: SH = Sward Height PS = Playing Season CS = Closed Season

Visual assessment is an acceptable alternative method of testing, if undertaken by a turfgrass consultant who is able to satisfy the selection criteria identified within the Turfgrass Consultants – Construction/Upgrade Brief.

Assessment undertaken by: Gareth Phillips

Consultancy: Professional Sportsturf Design (NW) Ltd

