

East Sussex National Golf Course - Surface Water Monitoring and Control

March 2022



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Appendix A - Flood Risk Construction Management Plan (Hydrgeo October 2021)

Appendix B – Detailed Drainage Sheets for the three Areas

Appendix C – Discharge Notice from the LPA

Introduction

1.0 The scheme benefits from a Decision Notice issued by Wealdon District Council, reference WD/2019/0715/MAJ, dated 3rd March 2021. This allows for the following:

- The remodelling of land currently occupied by three academy holes into a 9 hole par 3 course, footgolf course and a 3G synthetic grass football pitch
- The provision of a changing room building to service the football pitch
- The remodelling of the driving range outfield to improve its drainage characterises ease of maintenance and the visibility of sections of the outfield from the teeing area
- The provision of a new synthetic grass and natural grass tee on the driving range
- The creation of a dedicated short game area, featuring a target green, practice bunker and surround practice approach fairway
- The provision of an overflow car park
- An extensive native planting scheme (trees, shrubs, native wildflower grassland)

The desired effect is to improve the sporting offer, improve drainage and increase biodiversity at the site.

1.1 The Site can effectively be split into three distinct development areas that will be subject to recovery activities:

1. The driving range (southern area)
2. The 9 hole par 3 golf course (eastern area), which includes the 3G football pitch in its western most part
3. The chipping green (western area)

1.2 The Environmental Impact Assessment Screening Request (Appendix C of the WRP) summarises the proposed works as follows:

“The proposed earthworks will require the alteration of existing ground levels with an average height change of approximately 1 to 1.5 m. The maximum height is influenced by the existing topography of the land and the requirements of the design. In order for maintenance of the slopes no bank will exceed 1 in 3...

It is envisaged that the practice ground and short game area will be constructed first followed by the 3G pitch and par 3 golf course.”

Site Setting

2.0 The site is an existing golf course with a centrally located hotel and spa (arc shaped) with associated car parking. The scheme is to be carried out on behalf of the landowner.

2.1 The address of the site is East Sussex National Golf Club, Little Horstead, Uckfield, East Sussex TN22 5ES, National Grid Reference for the centre of the site is TQ 47676 17862. The site is located just off the A22 to the south of Ridgewood at Little Horsted.

2.2 The application area comprises a total of 14.82 Ha of land.

2.3 The application site falls entirely within the confines of East Sussex National. The land on which the works are proposed is currently almost entirely used for the purposes of golf play or golf practice. An area on the application site is unused managed grassland and a small area is used as a helicopter landing pad.

2.4 The site slopes from north east to south west towards a shallow valley. The high point in the north east reaches a maximum of 35m (AOD) to a low point in the south west of 27m (AOD).

Existing Hydrology

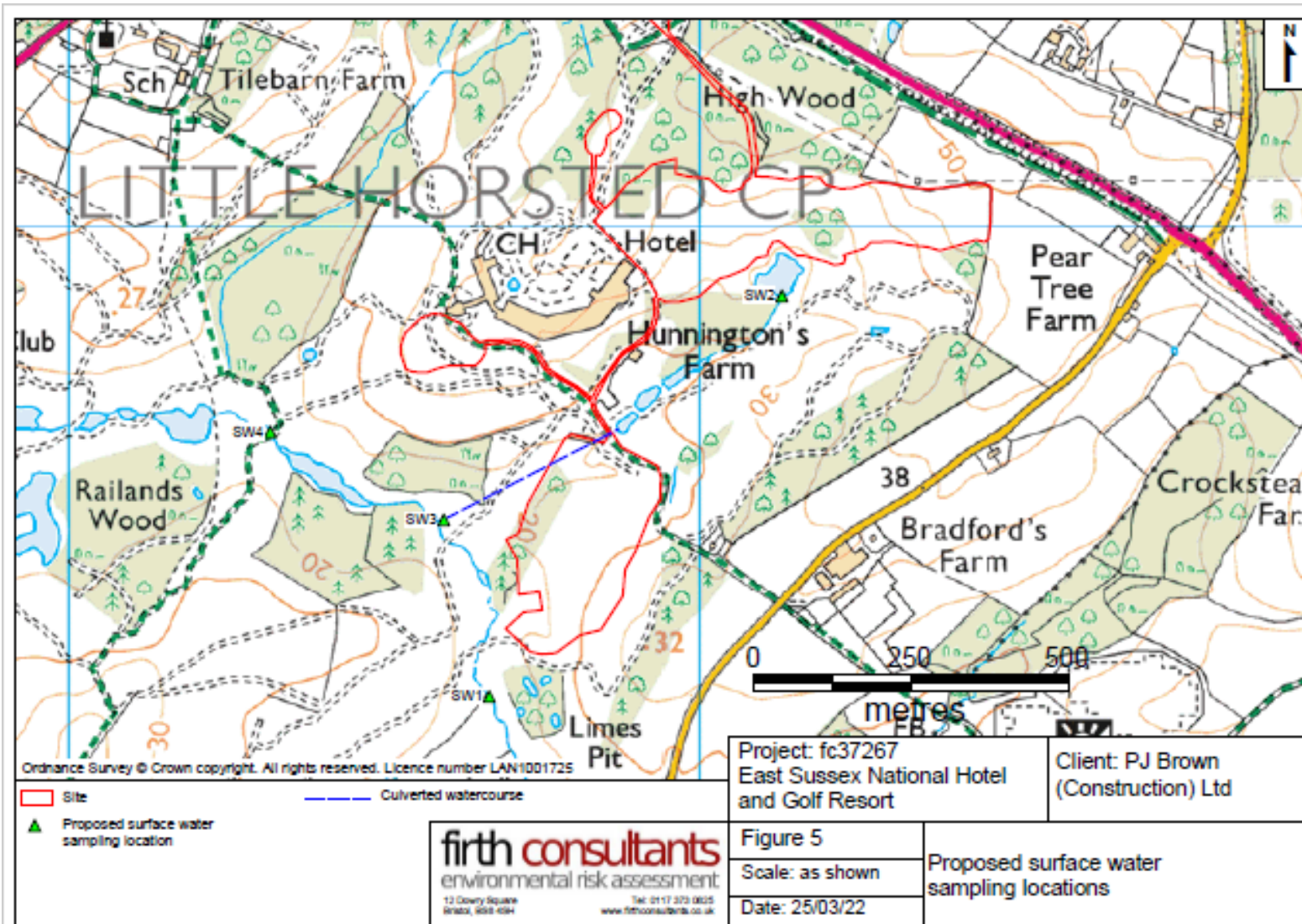
3.0 The Flood Risk Assessment produced by Hydrogeo describes the hydrology as follows:

“Flowing from north east to south west is a small watercourse close to the eastern boundary of the site. The majority of rainfall in the north east area of the site discharges into the small watercourse. The source of the small watercourse is a woodland at the far north eastern corner of the golf course from where it is culverted to a ‘dry pond’. The watercourse flows through a series of ponds via pipes / culverts and below the golf driving range the watercourse is culverted before discharging to a larger watercourse to the south of the site which flows to the west through a number of ponds / lakes and under the A26 to the west of the site.

High Cross lake is situated approximately 600m from the northern boundary of the site. The River Uck is approximately 2.50km from the western boundary of the site. The existing ground is of low permeability, lacking in topsoil and excessively undulating. Waterlogging of the practice ground occurs in the wetter months which makes it difficult to drain in the wetter months and very difficult to maintain any grass growth in the summer.”

3.2 Water feature on the site and surrounding as well as the proposed surface water monitoring points re shown on the plan below.

Surface water features and proposed monitoring points



Conceptual Model

4.0 The UK approach to risk assessment is the Source – Pathway – Receptor relationship. For the site the following applies:

Source	Pathway	Receptor	Control /Comment	Residue risk
Waste	Infiltration	Groundwater	Waste acceptance procedures. Inert waste.	Low
Waste	Infiltration / surface water runoff	Pond to east with stream running to SW (partially culverted)	Waste acceptance procedures. Inert waste. Settlement areas located at low point on site, location subject to operations at the time, to delay direct runoff, allows natural deposition of suspended solids. Surface water monitoring.	Low
Fuel	Infiltration / surface water runoff	Groundwater and pond to the west	Fuel Bowser Supervised fuelling Spill kits. Groundwater and surface water monitoring.	Low

Monitoring Objective

5.0 Given that the western portion of the site is located on a Secondary A Aquifer there is the potential risk of pollution of groundwater, the risks to groundwater are discussed in the Hydrogeological Risk Assessment and therefore not reproduced here, but readers are referred to that document.

5.1 A surface water feature pond is located in the eastern part of the site and therefore there is the potential to cause pollution and therefore there is a need to carry out monitoring of that.

5.2 The monitoring objectives for the site are:

- To establish a baseline for the existing quality of surface water at the site
- Identify if the waste deposition activities are having a negative impact on water quality
- Establish a data set of water quality before, during and after waste deposition that can be used in support of the Permit Surrender Application

5.3 Given that the wastes to be accepted are inert there is no requirement for the collection or monitoring of leachate.

Monitoring points

6.0 Sampling will be undertaken at the approximate points identified in the plan above –four locations are proposed that will give good background quality data and an indication if the proposed activities are having an impact.

1. Little Horted Stream upstream of the site;
2. The pond to the south of the Eastern area;
3. The discharge from the culvert that runs from the ponds at Hunnington's Farm to the Little Horsted Stream; and
4. Little Horsted Stream downstream of the site where the public footpath crossed the stream.

Sampling frequency and analytical suite

7.0 Surface water will be sampled using a clean baler lowered into the water

7.1 Sampling frequency for surface water will be 3 monthly.

7.2 All water samples will be placed in containers provided by the chosen MCERT laboratory given the parameters to be tested, including any preservatives recommended by the laboratory.

7.3 The results will be compared against the Drinking Water Standards and Environmental Quality Standards in the first instance, and also against background results.

7.4 The level of detection of the Laboratory will be confirmed prior to submission of the samples.

7.5 Samples will be placed in a cool box and transported directly to the laboratory immediately after being taken.

7.6 Chain of custody forms will be provided by the chosen laboratory, these shall be completed by the experienced sampling and the laboratory staff.

7.7 The analytical suite is:

Ammoniacal nitrogen

Antimony

Arsenic

Cadmium

Chromium

Copper

Lead

Nickel

Manganese

Iron

Selenium

Zinc

Bariun

Chloride

Nitrite

Nitrate

Sulphate

Fluoranthene

Benzo(a)pyrene

Anthracene

Fluoranthene

Phenol

Aliphatic >C5 - C6

Aliphatic >C6 - C8

Aliphatic >C8 - C10

Aliphatic >C10 - C12

Aliphatic >C12 - C16

Aliphatic >C16 - C21

Aliphatic >C21 - C35

Aliphatic >C35 - C40

Aromatics > C5 - C7

Aromatics > C7 - C8

Aromatics > C8 - C10

Aromatics >C10 - C12

Aromatics >C12 - C16

Aromatics >C16 - C21

Aromatics >C21 - C35

Aromatics >C35 - C40

Total TPH C6 - C40

Reporting

- 8.0 Analysis reports will be provided by the laboratory in excel and pdf format.
- 8.1 The analytical suite and frequency of monitoring will be kept under review.
- 8.2 Any failures will be investigated and reported to the Environment Agency.

Surface Water Management During Construction

9.0 Condition 4 of the Decision Notice states:

“Before preparation of ground levels of the development (excluding site set up and the delivery of machinery on site for the purposes of land contour, remodelling), further details of surface water drainage and management shall be submitted to and approved by the Local Planning Authority. The details shall include:

1. The surface water drainage strategy outlined in Hydrogeo's Flood Risk Assessment and Drainage Design Report (dated June 2020) should be carried forward to detailed design. Surface water runoff from the proposed development should be limited to greenfield runoff rates for all rainfall events, including those with a 1 in 100 (plus climate change) annual probability of occurrence. Evidence of this (in the form of hydraulic calculations) should be submitted with the detailed drainage drawings. The hydraulic calculations should take into account the connectivity of the different surface water drainage features.
2. The details of the outfall of the proposed attenuation ponds and how it connects into the existing outfall should be provided as part of the detailed design. This should include cross sections and invert levels.
3. The detailed design should include information on how surface water flows exceeding the capacity of the surface water drainage features will be managed safely.
4. The applicant should detail measures to manage flood risk, both on and off the site, during the construction phase. This may take the form of a standalone document or incorporated into the Construction Management Plan for the development (see condition 2).
5. Prior to occupation or first use of any part of the development, evidence (including photographs) should be submitted showing that the drainage system has been constructed as per the final agreed detailed drainage designs.

REASON: Whilst Hydrogeo's Flood Risk Assessment and Drainage Design Report (dated June 2020) forms an acceptable baseline to inform the grant of planning permission, some further refinement and details are required in order to secure a satisfactory standard of development, having regard to SPO12, SPO13 and WCS14 to the Wealden Core Strategy Local Plan 2013, Saved Policy CS2 of the adopted Wealden Local Plan 1998, coupled with the requirements of paragraph 163 of the National Planning Policy Framework 2019.”

9.1 Appendix A is the report submitted in response to the condition. Appendix B are the associated detailed Drainage Sheets for the 3 areas covered by the permission and Appendix C is the Discharge Notice approving the report.

9.2 Whilst the report is entitled Flood Risk Construction Management Plan it also covers water quality issues and the protection of water during the construction phase as well as the final drainage after completion of the scheme, including drainage from the new changing room and 3G pitch.

9.3 Section 2 of the report details Surface Water Management During Construction.

9.4 Section 3 of the report contains additional details relating to Monitoring and Control.

9.5 Therefore, readers are referred specifically to Sections 2 and 3 with regards to the Environmental Permit Application.

Appendix A – Flood Risk Construction Management Plan

See:

- Section 2 Surface Water Management During Construction

- Section 3 Monitoring and Control

(which is additional to that in the above report)





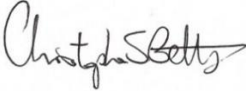

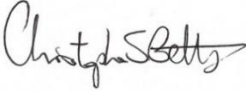

Flood Risk Construction Management Plan

East Sussex National Golf Club

On behalf of

P J Brown (Construction) Limited

Quality Management

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Appendices

Appendix A

Surface Water Runoff Flow Routes

1 Introduction

1.1 Background

This Flood Risk Construction Management Plan has been prepared by Hydrogeo Ltd to support the discharge of conditions relating to a Decision Notice dated 3rd March 2021 for the proposed development at East Sussex National Golf Club, Uckfield, TN22 5ES (the Site).

The overall flood risk, when considered from all known sources to the Proposed Development is considered low. Further details are available in the site-specific Flood Risk Assessment undertaken by Hydrogeo Ltd (HYG582, dated 05/06/2020).

1.2 Purpose

This document sets out the measures for the management of flood risk, both on and off the site, during the construction phase of the proposed development at the Site.

This plan has been comprised of and is directly referenced from the latest technical SuDS guidance within the *CIRIA Report C697 The SuDS Manual (2013)* and *CIRIA Report C768 Guidance on the Construction of SuDS (2017)*.

The activities listed are generic to the relative SuDS types and represent the minimum requirements, however additional tasks or varied measures may be instructed as required. Specific measures for the management of flood risk during the construction phase should be monitored and schedules adjusted to suit requirements.

All those responsible for construction should follow relevant health and safety legislation for all activities listed within this report (including lone working, if relevant) and risk assessments should always be undertaken.

This report is to be read in conjunction with the Drainage Design Report dated July 2021 for the location of all SuDS systems on this site.

1.3 Existing Development

The site is currently used for the purposes of golf play or golf practice. An area on the application site is unused managed grassland and a small area is used as a helicopter landing pad.

1.4 Proposed Development

It is understood that the proposals are for the remodelling of land currently occupied by three academy holes into a 9 hole par 3 course, footgolf course and a 3G synthetic grass football pitch, creation of a dedicated short game area, a driving range and an extensive native planting scheme

1.5 SuDS Layout and Design

It is recognised that consideration of flood issues should not be confined to the floodplain. The alteration of natural surface water flow patterns through developments can lead to problems elsewhere in the catchment, particularly flooding downstream. For example, replacing vegetated areas with roofs, roads and other paved areas can increase both the total and the peak flow of surface water runoff from the development site. Changes of land use on previously developed land can also have significant downstream impacts where the existing drainage system may not have sufficient capacity for the additional drainage.

A SuDS Design for the site proposals has been developed to manage and reduce the flood risk posed by the surface water runoff from the site. An assessment of the surface water runoff rates has been undertaken, in order to determine the surface water options and attenuation requirements for the site. The assessment considers the impact of the development compared to current conditions. Therefore, the surface water attenuation requirement for the developed site can be determined and reviewed against existing arrangements.

The surface water drainage arrangements for any development site should be such that the volumes and peak flow rates of surface water leaving a developed site are no greater than the rates prior to the proposed development, unless specific off-site arrangements are made and result in the same net effect.

The main SuDS components within the SuDS Design are:

Par 3 Golf and Footgolf Course (including 3G pitch)

This area will be constructed predominantly from permeable surfaces, surface water will be discharged to the lateral drains which will discharge into the vegetated detention basin to the centre of the area. The remainder of the site that is not formally drained will be permeable surfaces. The majority of rainwater falling on these areas will soak into the ground.

The typical sublayer build-up of a 3G pitch comprises 65mm porous macadam base / 300mm stone subbase / geo-synthetic layer. The proposed 3G pitch will be under drained via lateral drains with 80mm diameter perforated pipes at 5.00m centres (this will be ultimately decided by the installer/manufacturer) which will ultimately discharge into the vegetated detention basin. The surface water runoff from the proposed changing rooms will ultimately discharge into the vegetated detention basin at the centre of the Par 3 golf course area.

The Par 3 and footgolf course will be under drained via lateral drains with 80mm diameter perforated pipes at 5.00m centres and then via main carrier drains. These areas will discharge via the drains to swales to convey the surface water into an existing central vegetated detention basin. The vegetated detention basin will also provide filtering of the surface water runoff trapping sediment, organic matter and oil residue that will be broken down by bacterial action. Outflow from the vegetated detention basin will be via a Hydrobrake (MD-SHE-0296-5850-2350-5850) at a restricted discharge rate of 58.52 l/s discharging into the pond to the south of the Par 3 course which discharges to the watercourse which flows from north east to south west of the site. This area of the site will adhere greenfield runoff rates for all events up to and including the 1 in 100 year (+40%) rainfall event with restricted discharge from the vegetated detention basin to the pond at greenfield runoff rates.

Driving Range

The area will be constructed predominantly from permeable surfaces, surface water will be discharged to the lateral drains which will then flow into a vegetated detention basin with discharge via a v notch weir to the existing natural wetland area to the north of the site and onto the watercourse which flows along the north western edge of the driving range. The remainder of the site that is not formally drained will be permeable surfaces. The majority of rainwater falling on these areas will soak into the ground.

The driving range will be under drained via lateral drains with 80mm diameter perforated pipes at 5.00m centres and main carrier drains which will discharge into a vegetated detention basin with outflow via a v-notch weirs to the existing wetland area. The lateral drains and detention basin will allow a small amount of infiltration of water into the soils via clean grit/gravel and perforated pipes. The clean grit and gravel will provide filtering of the surface water runoff trapping sediment, organic matter and oil residue that will be broken down by bacterial action.

The vegetated detention basin will attenuate surface water runoff while also allowing water to be harvested for irrigation of the golf course. The vegetated detention basin will also provide filtering of the surface water runoff trapping sediment, organic matter and oil residue that will be broken down by bacterial action.

Short Game Area

The area will be constructed predominantly from permeable surfaces. The short game area will be drained via filter drains around the perimeter of the area which will discharge into the existing piped drainage which runs in a south westerly direction towards the watercourse.

Filter drains are shallow trenches filled with stone/gravel that create temporary storage for the attenuation, conveyance, and filtration of surface water. The filter drains would be filled with 40mm cleaned stone and a 100mm diameter perforated pipe that carries flow.

2 Surface Water Management During Construction

2.1 Surface Water Management During Construction

The surface water runoff flow routes are shown in Appendix A.

2.2 Construction Phase Surface Water Impacts

The Proposed Development has the potential to introduce contaminants from the associated machinery, infrastructure, transportation, importation of constructions materials and maintenance and storage of plant equipment, as well as increasing flood risk on and off-site, as discussed below:

Excavated Ground and Exposed Ground

Recently disturbed and vegetation free ground allows for relatively low velocity runoff to erode the surface. This leads to increased runoff and sedimentation of receiving waters, thereby increasing flood risk / potential impacts on water quality.

Stockpiles

Rainfall could lead to erosion of material should a stockpile be uncovered. This could lead to siltation of drainage or receiving watercourses and therefore an increase in flood risk / potential impact on water quality.

Access Track

The runoff from the access track contains a large amount of suspended solids as well as hydrocarbons. This could lead to siltation of drainage or receiving watercourse and therefore an increased flood risk. This could also impact upon water quality.

Oils and Hydrocarbons

The use of oils and hydrocarbons on construction Sites provide a risk of leakages and spillages, leading to pollution incidents. This could affect the water quality in drainage / receiving watercourses and aquifers.

2.3 Construction Phase Surface Water Management Plan

The following Section provides detail on Site drainage during the Construction Phase, this will reduce the potential for vehicle movement on wet ground, which can increase the potential for compaction.

In summary, the Environment Agency¹, CIRIA guidance² and Government guidance³ states that the following methods of surface water management should be put in place during the construction phase to ensure pollution, sediment and erosion control:

Excavated Ground and Exposed Ground

To limit the volume of runoff reaching the exposed ground, runoff diversion or interception devices / bunds can be placed upstream of exposed ground. To help control sediment in runoff from leaving the Site or entering drainage, silt fences, bunds, hay bales or ditches can be placed downstream of exposed ground to intercept runoff.

Plant and Wheel Washing

Plant wheel washing will take place in designated locations away from watercourse. The area will be tanked and will not be allowed to discharge into a watercourse or infiltrate to groundwater.

Mud deposits would be controlled at entry and exits to the site using wheel washing facilities and / or road sweepers operating during earthworks or other times as considered necessary.

Tools and plant would be washed out and cleaned in designated areas within the site compound where runoff can be isolated for treatment before discharge to surface water drainage under appropriate consent and / or agreement with the Environment Agency, or otherwise removed from site for appropriate disposal at a licenced waste management facility.

¹ Environment Agency (2021). Pollution prevention for businesses.
Environment Agency (2021). Check if you need permission to do work on a river, flood defence or sea Defence.
Environment Agency (2015). Manage water on land: guidance for land managers.
Environment Agency (2021) Oil storage regulations for businesses.
Environment Agency Guidance 'Manage water on land: guidance for land managers' (2015).
² Control of Water Pollution from Construction Sites – Guide to Good Practice (SP156).
Control of Water Pollution from Construction Sites – Guidance for Consultants (C532).
Environmental good practice on site (C741).
Groundwater control: design and practice (second edition) (C750).
The SuDS Manual (C753).
Guidance on the construction of SuDS (C768).
³ <https://www.gov.uk/guidance/storing-oil-at-a-home-or-business>, May 2015.
<https://www.gov.uk/guidance/manage-waste-on-land-guidance-for-land-managers>, May 2014.

Stockpiles

Soil stockpiles will be located away from any Site drainage systems and measures to intercept runoff will be incorporated, such as a silt fence or small perimeter bunds around the base of the stockpiles. Concrete should also be stored to prevent release into drains.

Access Track

The construction phase access track will be designed so that the length is kept to a minimum, but still serves its purpose. The gradient will be shallow to prevent increasing runoff velocity and, if possible, bunds and / or discrete ditches constructed to intercept the runoff. The access track will be sprayed regularly to keep down dust. If any section of the access track is hard surfaced, then it will be swept on a regular basis to prevent accumulation of dust and mud.

Oils and Hydrocarbons

Simple measures can be taken to prevent oil and hydrocarbons becoming pollutants, such as:

- Maintenance of machinery and plant
- Drip trays
- Regular checking of machinery and plant for oil leaks
- Correct storage facilities
- Check for signs of wear and tear on tanks
- Care with specific procedures when refuelling
- Designated areas for refuelling
- Emergency spill kit located near refuelling area
- Regular emptying of bunds
- Tanks located in secure areas to stop vandalism

Ground Compaction

In order to minimise ground compaction, the following measures will be implemented.

- A temporary hardcore surface will be placed as the construction Site access road (to be removed at the end of the Construction Phase).
- Vehicle movements on bare soil will be minimised.

- Vehicle movements on wet ground will be minimised.

The pollution, sediment and erosion control mitigation measures as detailed above will ensure that the effects on receptors during the construction phase are negligible.

Soil management

The limits of topsoil stripping will be minimised at the Site to reduce site runoff volumes. Preserving the quantity and quality of the site topsoil is critical to preserving the site runoff rates both during and after construction and to promote stabilisation vegetation establishment. Topsoil stripping will be limited to the areas necessary for access road and construction and for the creation of temporary laydown areas, as required. All stripped topsoil must remain on the Site and be reused for landscaping or restoration.

Watercourse / Drainage Channels

The gradient of any constructed drainage channels needs to be carefully considered. If the gradient is made too flat, then the channel is likely to silt up and reduce the flow capacity of the channel and prevent sediment travelling downstream. Alternatively, if the gradient is made too steep, this can increase erosion of the ditch banks which would result in an increase in the quantity of sediments which migrate downstream.

If sediment from disturbed ground was found to be excessively mobilised through the minor channels network, this would be mitigated by temporary sediment control measures (e.g. geotextiles/straw bales).

2.4 Spillage – Emergency Action

Health and safety consideration are a priority and addressing accidental spillages should only be attempted if the nature of the spillage is known and its potential hazardous properties are understood.

Most spillages on developments are of compounds that do not pose a serious risk to the environment if they enter the drainage in a slow and controlled manner with time available for natural breakdown in a treatment system. Therefore, small spillages of oil, milk or other known organic substances should be removed where possible using soak mats as recommended by the Environment Agency, with residual spillage allowed to bioremediate in the drainage system.

In the event of a serious spillage, either by volume or of unknown or toxic compounds, then isolate the spillage with soil, turf or fabric and block outlet pipes from chamber(s)

downstream of the spillage with a bung(s), (A bung for blocking pipes may be made by wrapping soil or turf in a plastic sheet or closely woven fabric.)

Contact the Environment Agency immediately. Tel: 0800 80 70 60.

3 Monitoring and Controls

3.1 Monitoring

On site meetings / inspections will be carried out as necessary to confirm the appropriate use of mitigation measures identified within the Contractor's environmental plans relating to pollution control. These meetings / inspections will highlight any further issues / measures which may be relevant either prior to commencement or during the works.

To ensure all mitigation measures put in place are maintained and continue to be effective, monitoring will be carried out. To ensure compliance of the works with this Pollution Prevention Plan, the Balance of Plant Contractor's works will be regularly inspected.

Regular checks of plant and equipment will be undertaken by the Contractor to identify any oil or fuel leaks will be carried out to confirm the condition of the plant. Records will be kept of all inspections / findings for review and for discussion during regular meetings as discussed above. Regular checks for visual evidence of contamination / sediment will also be made alongside watercourses, nearby working areas and in areas of surface water discharge.

Work shall be stopped in the event that a suspected unrecorded non-native invasive plant is encountered and the Environment Agency shall be consulted.

A Pollution Prevention Measures Register (PPMR) will be maintained in which all mitigation measures put into place will be listed, and audited weekly to assess the requirement for maintenance.

3.2 Records

Records will be kept for all initial, final and routine monitoring inspections of Contractor's mechanical plant and working construction areas, as well as ecological and environmental issues. These records will be stored in an agreed location on site and be available for internal and external monitoring as required.

Record sheets will detail the date, location of inspection, frequency, findings, appropriate person/s notified and identified actions, as necessary.

3.3 Training

All employees, subcontractors, suppliers and visitors to the site will be notified via a site induction of the requirements on site for water management, flood risk and silt management. Through tool box talks, site personnel and subcontractors will be educated on those aspects of environmental management as appropriate to the task assigned to them.

Consultation meetings will include discussion on the works to be undertaken, review of applicable Environmental Plans and agreement on required mitigation and pollution prevention measures. Measures agreed at such consultation meetings will be disseminated to the relevant employees, subcontractors, suppliers and other appropriate persons via tool box talks and formal communications (email / memo), particularly where required for record purposes (e.g. variations, auditing and monitoring records).

The Contractor will ultimately be responsible for overseeing and enforcing pollution prevention procedures such that potential adverse impacts to human health or the environment from any activities involving handling of potential pollutants are avoided or mitigated. For the avoidance of doubt, pollution prevention procedures include, but are not necessarily limited to: all aspects of traffic, plant and materials management, waste management, surface water and drainage management and concrete management.

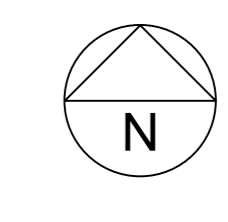
3.4 Alterations

If any alterations are proposed to the development, the design engineer must be notified so that the impact/implications of the work can be assessed.

Appendices

Appendix A

Surface Water Runoff Flow Routes



Notes

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ARCHITECT'S, ENGINEERS AND SPECIALIST'S DRAWINGS TOGETHER WITH THE APPROPRIATE SPECIFICATION.
2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED. FOR THE PURPOSES OF CONSTRUCTION THIS DRAWING MUST NOT BE SCALED AND ONLY WRITTEN DIMENSIONS ON SITE PRIOR TO CONSTRUCTION AND ANY DISCREPANCIES TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER IN WRITING.
3. ALL LEVELS ARE IN METRES UNLESS OTHERWISE STATED.

Legend

EXCEEDANCE FLOOD FLOW DIRECTION ARROW

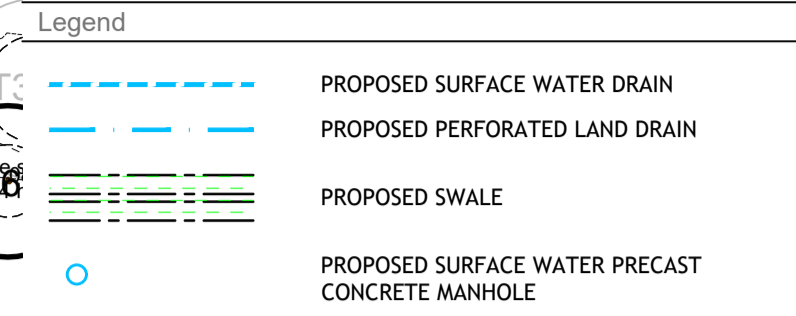


Project	EAST SUSSEX NATIONAL GOLF CLUB		
Title	EXCEEDANCE FLOWS		
Scale	1:1000@A0	Drawn	JH
Date	Sept21	Checked	JH
Drawing Ref	Project no: 15-10-21 and 15-10-21		
Client		Appr	
Rev	Date	By	Description
P1	15-10-21	JH	Issued for Information



Notes

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- ALL LEVELS ARE IN METRES UNO & TO OS DATUM.



MATCH LINE - REFER TO SHEET 2 FOR CONTINUATION

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P2	18-10-21	JH	Drainage details added.	JH
P1	15-10-21	JH	Issued for Information	JH
Rev	Date	By	Description	Appd

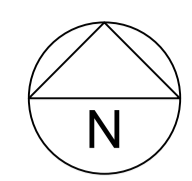
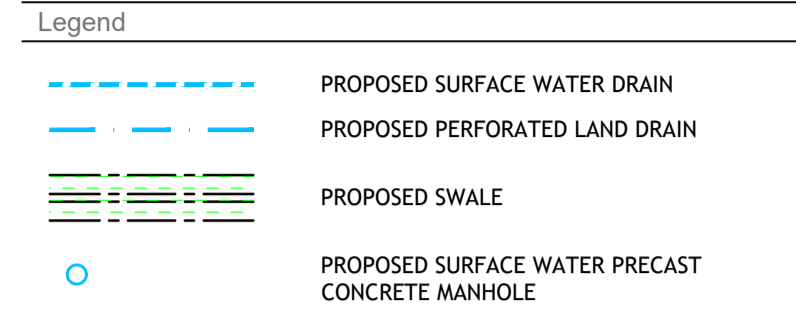
Project
EAST SUSSEX NATIONAL GOLF CLUB

Title
DRAINAGE PLAN - SHEET 1

Scale	Drawn	Revision
1:500@A1	JH	P2
Date	Checked	
Sept'21	JH	

Drawing Ref:
Project no/Originator/Volume/Level/Type/Sheet/Number
001

- Notes
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 3. ALL LEVELS ARE IN METRES UNO & TO OS DATUM.



MATCH LINE - REFER TO SHEET 1 FOR CONTINUATION

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Rev	Date	By	Description	Appd
P2	18-10-21	JH	Drainage details added.	JH
P1	15-10-21	JH	Issued for Information	JH

Client
-

Project
EAST SUSSEX NATIONAL GOLF CLUB

Title
DRAINAGE PLAN - SHEET 2

Scale	Drawn	Revision
1:500@A1	JH	P2
Date	Checked	
Sept'21	JH	

Drawing Ref:
Project no/Originator/Volume/Level/Type/Sheet/Number
- 002

- Notes
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 3. ALL LEVELS ARE IN METRES UNO & TO OS DATUM.

- Legend
- PROPOSED SURFACE WATER DRAIN
 - - - - PROPOSED PERFORATED LAND DRAIN
 - PROPOSED SURFACE WATER PRECAST CONCRETE MANHOLE



Rev	Date	By	Description	Appd
P2	18-10-21	JH	Drainage details added.	JH
P1	15-10-21	JH	Issued for Information	JH
Client				

Project
EAST SUSSEX NATIONAL GOLF CLUB

Title
DRAINAGE PLAN - SHEET 3

Scale	Drawn	Revision
1:500@A1	JH	P2
Date	Checked	
Sept'21	JH	

Drawing Ref:
 Project no/Originator/Volume/Level/Type/Sheet/Number
 - **003**



Notes

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Legend

	PROPOSED SURFACE WATER DRAIN
	PROPOSED PERFORATED LAND DRAIN
	PROPOSED SURFACE WATER PRECAST CONCRETE MANHOLE

P2	18-10-21	JH	Drainage details added.	JH
P1	15-10-21	JH	Issued for Information	JH
Rev	Date	By	Description	Appd

Project
EAST SUSSEX NATIONAL GOLF CLUB

Title
DRAINAGE PLAN - SHEET 4

Scale	Drawn	Revision
1:500@A1	JH	P2
Date	Checked	
Sept'21	JH	

Drawing Ref:
Project no/Originator/Volume/Level/Type/Sheet/Number
- - - - - 004

MATCH LINE - REFER TO SHEET 5 FOR CONTINUATION

MATCH LINE - REFER TO SHEET 5 FOR CONTINUATION





MATCH LINE - REFER TO SHEET 4 FOR CONTINUATION

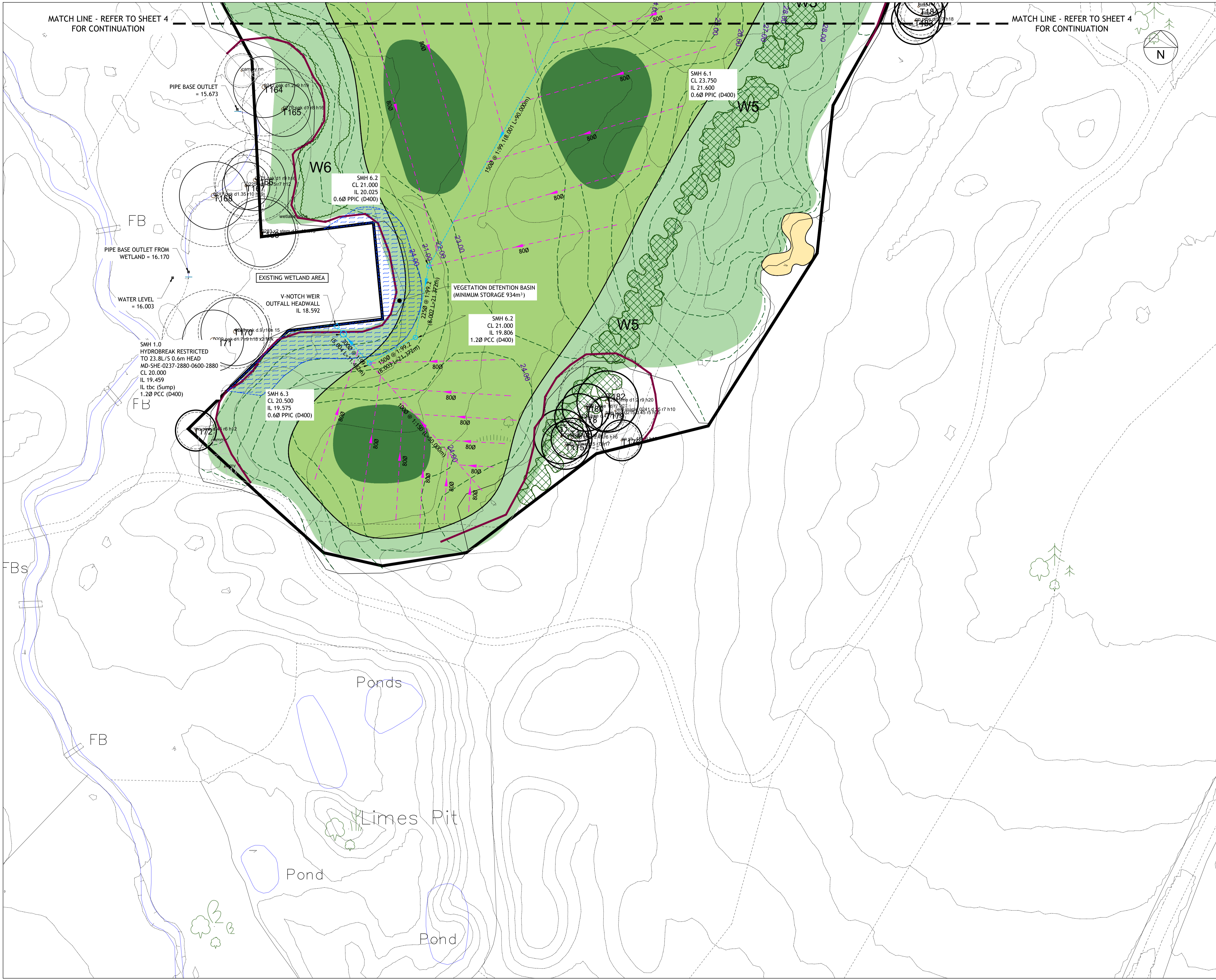
MATCH LINE - REFER TO SHEET 4 FOR CONTINUATION

Notes

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3. ALL LEVELS ARE IN METRES UNO & TO OS DATUM.

Legend

-  PROPOSED SURFACE WATER DRAIN
-  PROPOSED PERFORATED LAND DRAIN
-  PROPOSED SURFACE WATER PRECAST CONCRETE MANHOLE
-  VEGETATION DETENTION BASIN



SMH 1.0
HYDROBREAK RESTRICTED
TO 23.8L/S 0.6m HEAD
MD-SHE-0237-2880-0600-2880
CL 20.000
IL 19.459
IL tbc (Sump)
1.2Ø PCC (D400)

SMH 6.2
CL 21.000
IL 20.025
0.6Ø PPIC (D400)

SMH 6.1
CL 23.750
IL 21.600
0.6Ø PPIC (D400)

SMH 6.2
CL 21.000
IL 19.806
1.2Ø PCC (D400)

SMH 6.3
CL 20.500
IL 19.575
0.6Ø PPIC (D400)

EXISTING WETLAND AREA

VEGETATION DETENTION BASIN
(MINIMUM STORAGE 934m³)

Ponds

Limes Pit

Pond

Pond

Rev	Date	By	Description	Appd
P2	18-10-21	JH	Drainage details added.	JH
P1	15-10-21	JH	Issued for Information	JH

Client
-

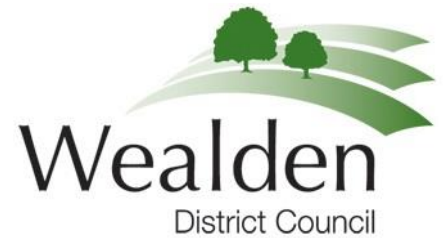
Project
EAST SUSSEX NATIONAL GOLF CLUB

Title
DRAINAGE PLAN - SHEET 5

Scale	Drawn	Revision
1:500@A1	JH	P2
Date	Checked	
Sept'21	JH	

Drawing Ref:
Project no/Originator/Volume/Level/Type/Sheet/Number
-

OUR REF: SSC/WD/2019/0715/MAJ
ASK FOR: **Sarah Scannell Tel: 01892 602512**
DATE: 24 January 2022
YOUR REF:



Weller Designs Ltd
Bishops Mead House
Bishops Mead
West Street
Farnham
GU9 7DU

Head of Planning and Environmental Services

Dear Mr Weller

Re: **WD/2019/0715/MAJ**

**THE REMODELLING OF LAND CURRENTLY OCCUPIED BY THREE ACADEMY HOLES INTO A 9 HOLE PAR 3 COURSE, FOOTGOLF COURSE AND ONE 3G SYNTHETIC GRASS FOOTBALL PITCH TOGETHER WITH THE PROVISION OF A CHANGING ROOM BUILDING TO SERVICE THE FOOTBALL PITCH AND SPECTATOR BENCHES. THE PROPOSAL ALSO INCLUDES THE REMODELLING OF THE DRIVING RANGE OUTFIELD TO IMPROVE ITS DRAINAGE CHARACTERISTICS, EASE OF MAINTENANCE AND THE VISIBILITY FROM THE TEEING AREA. A NEW SYNTHETIC GRASS AND NATURAL GRASS TEEING AREA IS PROPOSED AT THE NORTHERN END OF THE DRIVING RANGE. IN ADDITION A DEDICATED SHORT GAME AREA IS PROPOSED.
EAST SUSSEX NATIONAL GOLF CLUB, LITTLE HORSTED, UCKFIELD, TN22 5ES**

Condition 4 – surface water drainage and management

ESCC has confirmed that the information submitted is satisfactory and condition 4 can be discharged subject to, in due course, evidence that the drainage system is in place prior to first use under part 5.

Yours sincerely,

Sarah Scannell

Senior Planning Officer (North Team)

Planning and Environmental Services, Wealden District Council

sarah.scannell@wealden.gov.uk

for Head of Planning & Environmental Services

