# Screening for Appropriate Assessment for Astro Pitch in Sean Walsh Park

Technical Report

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South Dublin County Council

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# Contract

This report describes work commissioned by South Dublin County Council, by an email on 17-12-2020. Hannah Mulcahy, Will Mulville and Patricia Byrne of JBA Consulting carried out this work.

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# Abbreviations

| | |
|---|---|
| AA | Appropriate Assessment |
| CIEEM | Chartered Institute of Ecology and Environmental Management |
| DoEHLG | Department of the Environment, Heritage and Local Government |
| EC | European Community |
| EPA | Environmental Protection Agency |
| GSI | Geological Survey of Ireland |
| IROPI | Imperative Reasons of Over-riding Public Interest |
| NBDC | National Biodiversity Data Centre |
| NPWS | National Parks and Wildlife Services |
| RBMP | River Basin Management Plan |
| QI | Qualifying Interest |
| SAC | Special Area of Conservation, protected under the EU Habitats Directive |
| SPA | Special Protection Area for birds, protected under the EU Habitats Directive |
| WFD | Water Framework Directive |
| ZOI | Zone of Influence |

# 1 Introduction

## 1.1 Background

JBA Consulting Ireland Ltd. has been commissioned by South Dublin County Council to undertake a Screening for Appropriate Assessment in relation to a proposed project involving the installation of an Astro Turf pitch in Sean Walsh Park, Tallaght, Dublin 24.

A separate Ecological Impact Assessment (EcIA) and an Environmental Impact Assessment (EIA) Screening report has been carried out for this proposed project.

## 1.2 Legislative Context

Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora, known as the 'Habitats Directive' - provides legal protection for habitats and species of European importance. Article 2 of the Directive requires the maintenance or restoration of habitats and species of European Community interest, at a favourable conservation status. Articles 3 - 9 provide the legislative means to protect habitats and species of Community interest through the establishment and conservation of an EU-wide network of sites known as Natura 2000 sites. Natura 2000 sites are Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79 / 409 / EEC).

Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans or projects affecting Natura 2000 sites. Article 6(3) establishes the requirement for Appropriate Assessment:

"*Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public*."

Article 6(4) deals with the steps that should be taken when it is determined, as a result of Appropriate Assessment, that a plan/project will adversely affect a European site. Issues dealing with alternative solutions, imperative reasons of overriding public interest and compensatory measures need to be addressed in this case.

Article 6(4) states:

"*If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member States shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.*

*Where the site concerned hosts a priority natural habitat type and / or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest*."

The requirements of Articles 6(3) and 6(4) of the Habitats Directive have been transposed into Irish legislation by means of the Habitats Regulations, 1997 (S.I. No. 94 of 1997) and the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 / 2011).

## 1.3 Appropriate Assessment Process

Guidance on the Appropriate Assessment (AA) process was produced by the European Commission in 2002, which was subsequently developed into guidance specifically for Ireland by the Department of Environment, Heritage and Local Government (DEHLG) (2009). These guidance documents identify a staged approach to conducting an AA, as shown Figure 1-1.

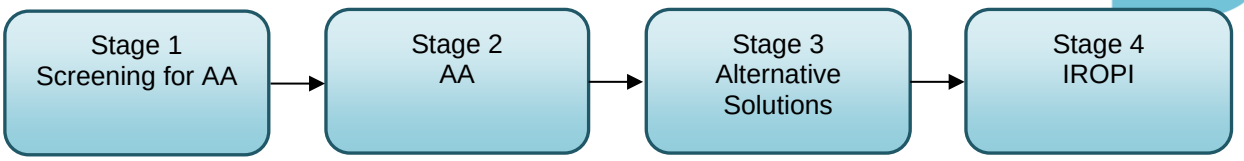



Figure 1-1: The Appropriate Assessment Process (from: Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities, DEHLG, 2009).

### 1.3.1 Stage 1 - Screening for AA

The initial, screening stage of the Appropriate Assessment is to determine:

- whether the proposed plan or project is directly connected with or necessary for the management of the European designated site for nature conservation
- if it is likely to have a significant adverse effect on the European designated site, either individually or in combination with other plans or projects

For those sites where, potential adverse impacts are identified, either alone or in combination with other plans or projects, further assessment is necessary to determine if the proposals will have an adverse impact on the integrity of a European designated site, in view of the site's conservation objectives (i.e. the process proceeds to Stage 2).

### 1.3.2 Stage 2 - AA

This stage requires a more in-depth evaluation of the plan or project, and the potential direct and indirect impacts of them on the integrity and interest features of the European designated site(s), alone and in-combination with other plans and projects, taking into account the site's structure, function and conservation objectives. Where required, mitigation or avoidance measures will be suggested.

The competent authority can only agree to the plan or project after having ascertained that it will not adversely affect the integrity of the site(s) concerned. If this cannot be determined, and where mitigation cannot be achieved, then alternative solutions will need to be considered (i.e. the process proceeds to Stage 3).

### 1.3.3 Stage 3 - Alternative Solutions

Where adverse impacts on the integrity of Natura 2000 sites are identified, and mitigation cannot be satisfactorily implemented, alternative ways of achieving the objectives of the plan or project that avoid adverse impacts need to be considered. If none can be found, the process proceeds to Stage 4.

### 1.3.4 Stage 4 - IROPI

Where adverse impacts of a plan or project on the integrity of Natura 2000 sites are identified and no alternative solutions exist, the plan will only be allowed to progress if imperative reasons of overriding public interest can be demonstrated. In this case compensatory measures will be required.

The process only proceeds through each of the four stages for certain plans or projects. For example, for a plan or project, not connected with management of a site, but where no likely significant impacts are identified, the process stops at stage 1. Throughout the process, the precautionary principle must be applied, so that any uncertainties do not result in adverse impacts on a site.

This report is in support of a Stage 1 Screening for Appropriate Assessment.

## 1.4 Guidance on Appropriate Assessment

The Screening for Appropriate Assessment has been carried out with reference to the following documents:

- DoEHLG (2009 rev 2010) Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government (DoEHLG 2009a).
- European Commission (2018). Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC (EC 2018)

- EC (2002) Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg. European Commission (European Commission et al. 2002).
- EC (2007) Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC – Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interest, compensatory measures, overall coherence, opinion of the commission. European Commission (European Commission 2007).
- CIEEM (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland - Terrestrial, Freshwater and Coastal, Second Ed. ((CIEEM 2018))
- Fossitt, J., (2000). A Guide to Habitats in Ireland. The Heritage Council, Kilkenny (Fossitt 2000).

## 1.5 Methodology

### 1.5.1 Desktop study

A desktop study was conducted of available published and unpublished information, along with a review of data available on the NPWS and National Biodiversity Data Centre (NBDC) web-based databases, in order to identify key habitats and species (including legally protected and species of conservation concern) that may be present within ecologically relevant distances from the scheme as explained below. The data sources below were consulted for the desktop study:

- NPWS website (www.npws.ie), (https://www.npws.ie/), where site synopses, Natura 2000 data forms and conservation objectives were obtained along with Annex 1 habitat distribution data and status reports. (DoEHLG 2009b)
- National Biodiversity Data Centre (NBDC) Maps (http://maps.biodiversityireland.ie/#/Map)
- Environmental Protection Agency (EPA) maps website (https://gis.epa.ie/EPAMaps/)
- River Basin Management Plans (RBMP) (www.wfdireland.ie);
- NBDC Biodiversity Maps (http://maps.biodiversityireland.ie/#/Map);
- Catchments (www.catchments.ie)
- Planning Applications (myplan.ie)
- Geological data (gsi.ie/data-and-maps)

### 1.5.2 Ecological Field Surveys

To inform this AA Screening an ecological survey were carried out on 18th December 2020 by JBA Ecologists Patricia Byrne and William Mulville.

The ecological walkover survey was carried out in general accordance with the methods outlined in the following documents:

- Heritage Council (2011). Best Practice Guidance for Habitat Survey and Mapping (Smith et al. 2011).
- Fossitt, J. (2000). A Guide to Habitats in Ireland. The Heritage Council, Kilkenny (Fossitt 2000).

## 1.6 Limitations and Constraints

The screening assessment necessarily relies on some assumptions and it was inevitably subject to some limitations. These would not affect the conclusion, but the following points are recorded in order to ensure the basis of the assessment is clear:

- This assessment is based on the methodology for proposed works as described in this report. Where changes to methodology occur, an ecologist will need to be consulted to determine if the changes need reassessment.
- Adverse weather can cause delays to the schedule and alter the timing of works. This has been accounted for using a worst-case scenario where necessary.
- The habitat surveys were carried out outside of the plant growing season. However habitats were identified from vegetative features of plants

# 2 Project Description

## 2.1 The 'Project'

The proposed development is not directly connected with or necessary to the management of any Natura 2000 site and may have potential adverse impacts upon Natura 2000 sites in its vicinity. Therefore, the proposed project is subject to the requirements of the AA process.

## 2.2 Site location

The proposed Astro-turf pitch is located beside Tallaght Stadium and bordered by the N81 to the north, and the Old Bawn Community School to the south. (Figure 2-1). The site is located in the north-west corner of Sean Walsh Park, currently composed of a flat, grassy area with a small woodland between the site and the school. Sean Walsh Park contains playing pitches and recreational areas, as well as areas managed for wildlife, and an aquatic environment in Whitestown Stream, and a number of ponds on-site. Whitestown Stream flows through the park in a west to east direction and is 200m south of the proposed Astro-pitch site.


Figure 2-1: Site location

## 2.3 Proposed project

The proposed development will comprise of a 3G Artificial Grass Pitch with total dimensions 100m x 60m with a playing surface of 52m x 92m. This will also involve the installation of:

- Floodlighting comprised of 250lux system (suitable for the FAI's low-level competition football and rugby training);
- Hardstanding/access path on the northern edge of the pitch;
- 5.0m high perimeter fencing on all sides;
- A double gate access point with detox area;
- 2 no. single gates (one on the eastern perimeter and one on the southwestern perimeter) to facilitate ball retrieval.

Proposed drainage will consist of:

- 80mm lateral drainage pipes across the width of the pitch laid at 10m centres connected into perimeter carrier drainage 150mm.
- Potential connection into existing drainage network/ new proposed SUDS soakaway to be explored.

Maximum depth of excavations

- Pitch construction depth standard 420mm (300mm sub-base, 40mm engineering base layer (optional), 20mm shockpad, 60mm synthetic turf).
- Localised Floodlighting Column approx. 1.85m
- Fencing foundations approx. 900mm

It is envisaged that construction will take 14 weeks for a new-build full-size 3G pitch facility. The proposed site layout is shown in Appendix A and drainage plan in Appendix B

# 3 Existing Environment

## 3.1 Baseline conditions

A habitat survey was carried out on the 18th December 2020 by JBA Ecologists Patricia Byrne and William Mulville.

Habitats recorded at the site are presented in Table 3-1 and shown in Figure 3-1. A larger map provided in Appendix C. Habitats and species are described in detail in the following sections. None of the habitats represent Annex 1 habitat.

## 3.2 Habitats

Table 3-1: List of habitats recorded on site

| Habitat | Fossitt Code |
|---|---|
| Amenity grassland (improved) | GA2 |
| Dry calcareous and neutral grassland | GS1 |
| (Mixed) Broadleaved woodland | WD1 |
| Treelines | WL2 |


Figure 3-1 Habitat map of the proposed project area

### 3.2.1 GA2 - Amenity grassland (improved)

The location of the proposed pitch is currently composed of grassland managed for amenity and therefore has very little species richness. During the survey only Rye-grass *Lolium perenne*, and Creeping Buttercup *Ranunculus repens* were recorded.

Figure 3-2 Amenity grassland and neutral grassland area with Bamboo

### 3.2.2 GS1 - Dry calcareous and neutral grassland

A small area of neutral grassland was recorded between the school boundary and the woodland strip. This grassland contained species such as False Oat-grass *Arrhenatherum elatius*, Cocksfoot *Dactylis glomerata*, Rush Juncaceae spp, Thistle species, and a patch of ornamental bamboo.

### 3.2.3 WD1 - (Mixed) Broadleaved woodland

A strip of broadleaved woodland borders the east and north boundary of the school. This woodland is composed of Ash *Fraxinus excelsior*, Alder *Alnus glutinosa*, and Birch with an understorey of Bramble *Rubus fructicosus*, Cow Parsley *Anthriscus sylvestris*, Common Hogweed *Heracleum sphondylium*, and Thistle species.

A small area of woodland is can be found near the path which contains Alder, Birch, Ash, Beech *Fagus sylvatica* with an understorey of Bramble, Cow Parsley, Creeping Buttercup *Ranunculus repens*, Ivy *Hedera hibernica*. Ornamental plants include cotoneaster species and a palm.

### 3.2.4 WL2 - Treelines

A treeline composed of Beech and Birch trees borders the south of the site between the proposed pitch and the Old Bawn Community School (Figure 3-3).

Figure 3-3 Beech Treeline (L) and Mixed broadleaf woodland (R)

## 3.3 Waterbodies within the Vicinity of the Proposed Site

The proposed Astro Pitch is located to the North of Sean Walsh Park, which lies within the Water Framework Directive (WFD) sub-catchment Dodder_SC_010 (EPA, 2020). Whitestown Stream is located approximately 200m to the south of the proposed site. This stream flows in a west to east direction and passes through Sean Walsh Park. A tributary of the Whitestown Stream flows in a south to north direction through Sean Walsh Park and connects with Whitestown Stream approximately 190m east of the proposed site. Whitestown Stream feeds into River Dodder approximately 2.5km east of the proposed site.

River Dodder, which originates from Dublin Mountains and outfalls into River Liffey by the Grand Canal Docks before reaching Dublin Bay and the Irish Sea.

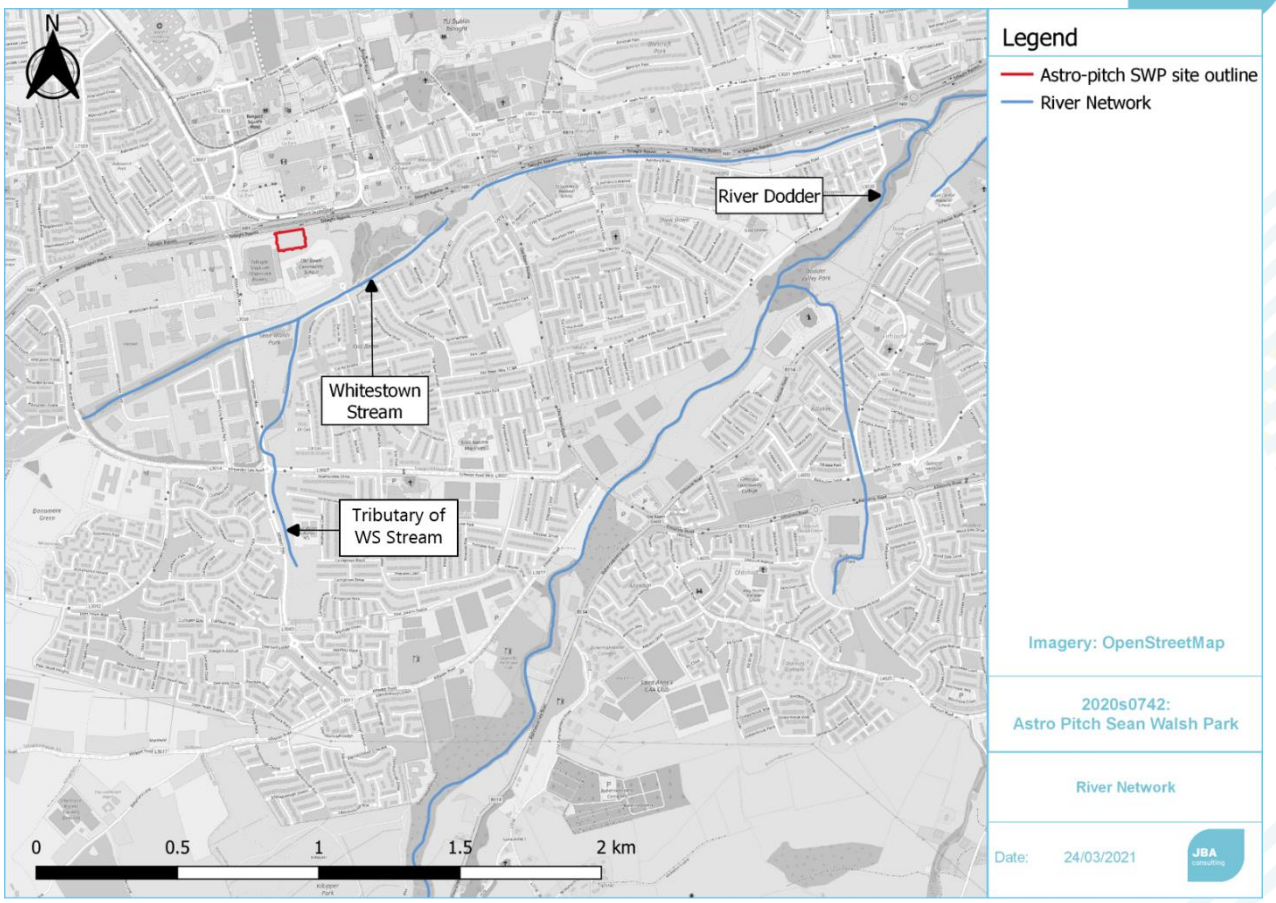



Figure 3-4 Surface water near site

# 4 Natura 2000 Sites

The DEHLG (2009) guidance identifies that Screening for Appropriate Assessment of a plan or project should consider the following Natura 2000 sites:

- Any Natura 2000 sites within or adjacent to the plan or project area.
- Any Natura 2000 sites within the likely zone of impact of the plan or project. This is dependent on the nature and scale of the plan, with 15km generally recommended for plans, but potentially much less for projects.
- Any Natura 2000 sites that are more than 15km from the plan or project area, but may potentially be impacted upon, for example, through a hydrological connection.

The scale of proposed works are considered of 'Project' status. Given that there is a pathway between close to the Sean Walsh Park and Dublin Bay, Natura 2000 sites within a 15km range of the proposed development were examined. The Natura 2000 sites within the range are listed in Table 4-1 below and their location are shown in Figure 4-1.

## 4.1 Project Area of Influence

The project will primarily affect the site only, but a wider area of influence is used for impacts relating to noise disturbance (1km), air pollution (10km), surface water (15km), with an additional 2km from connecting transitional waters to coastal areas; and any supporting habitat for SAC/SPA species (15km).

Table 4-1: Natura 2000 sites located within the 15km Zone of Influence (ZoI) of the proposed development.

| Natura 2000 site | Site Code | Approximate direct distance from site | Surface water connection? |
|---|---|---|---|
| Glenasmole Valley SAC | 001209 | 2.8 km | No |
| Wicklow Mountains SAC | 002122 | 5.1 km | No |
| Wicklow Mountains SPA | 004040 | 6.9 km | No |
| South Dublin Bay SAC | 000210 | 11.6 km | No |
| South Dublin Bay and River Tolka Estuary SPA | 004024 | 11.6 km | No |
| North Bull Island SPA | 004006 | 15.6km | No |
| North Dublin Bay SAC | 000206 | 15.6km | No |
| Rye Water Valley/Carton SAC | 001398 | 11.6 km | No |
| Knocksink Wood SAC | 000725 | 13 km | No |
| Poulaphouca Reservoir SPA | 004063 | 13.6 km | No |
| Red Bog, Kildare SAC | 000397 | 14.5 km | No |

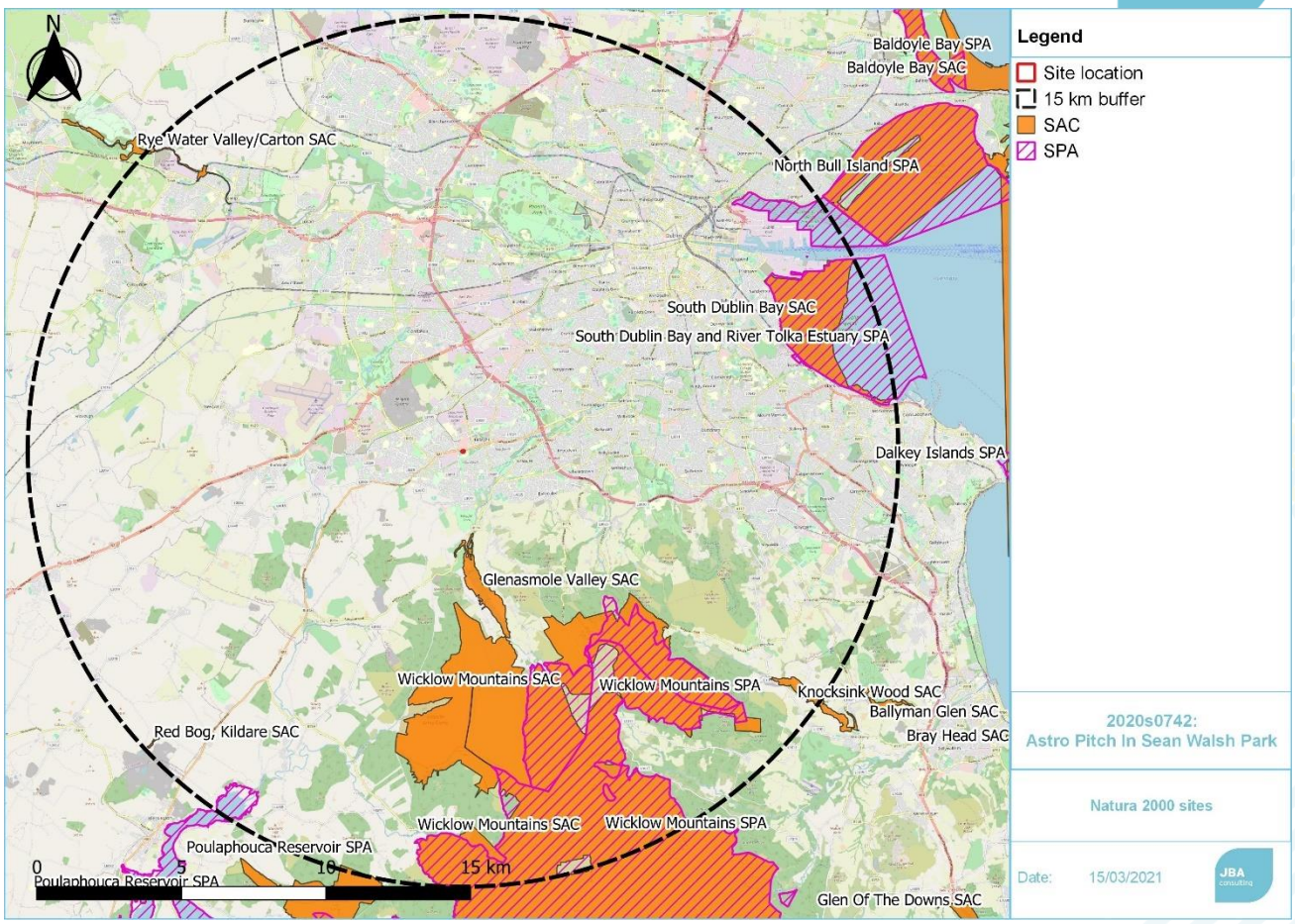



Figure 4-1: Natura 2000 sites and site location.

The proposed project to construct an Astro Pitch is considered to be small scale and will mainly have a local impact. The Dublin Bay Natura 2000 sites that are considered to be within the Zone of Influence (ZoI), given the surface water pathway between Whitestown Stream and Dublin Bay are:

The Dublin Bay Natura 2000 sites that are considered to be within the 15km Zone of Influence (ZoI), and hydrologically linked via Whitestown Stream, River Dodder and Dublin Bay are:

- No sites (project is 200m away from nearest Waterbody)

The Natura 2000 sites that are also considered to be within ZoI given the close distance are:

- Glenasmole Valley SAC
- Wicklow Mountains SAC
- Wicklow Mountains SPA

The Natura 2000 sites that sites within 1km potentially at risk from noise pollution are:

- No sites

All other Natura 2000 sites are outside of the ZoI due to the distance (>10km) from the proposed site and the lack of surface water pathways. The Natura 2000 sites considered to be within the ZoI are described in detail in Table 4-2.

Table 4-2: Site briefs; Qualifying Interests; and project-relevant threats /pressures and their impacts and sources in relation to the Natura 2000 sites within the ZoI (plus hydrological connectivity extension).

| Site Name | Brief | Qualifying Interests | Project Relevant Threats / Pressures: Impact (Source) |
|---|---|---|---|
| Glensamole Valley SAC | Glenasmole Valley lies at the northern foothills of the Dublin and Wicklow Mountains. Spring lines occur along both sides of the northern part of the valley. The River Dodder flows through the valley and within the site the river has been impounded to form two reservoirs. Associated with the reservoirs are areas of swamp and marsh vegetation. The valley is heavily wooded, mostly with mixed woodland of both deciduous and coniferous species. Dry calcareous pasture grassland, improved to varying degrees, is a main habitat of the valley sides and occurs in association with wet grassland and, in places of seepage, fen or marsh type vegetation. The site has important examples of petrifying springs. Good examples of orchid rich calcareous grassland, including *Pseudorchis albida* (legally protected) and *Orchis morio* (Red Data Book species) are found here. Molinia meadows are also represented (NPWS, 2013). | - Semi-natural dry grassland and scrubland facies on calcareous substrates (Festuco-Brometalia) (*important orchid sites) [6210]<br>- Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) [6410]<br>- Petrifying springs with tufa formation (Cratoneurion)* [7220]<br><br>(NPWS, 2020) | **Diffuse groundwater pollution due to non-sewered population:** Moderate Impact (outside)<br><br>**Mowing / cutting of grassland:** Low Impact (outside)<br><br>**Diffuse pollution to surface waters due to agricultural and forestry activities:** Moderate Impact (outside)<br><br>**Diffuse pollution to surface waters due to household sewage and waste waters:** Moderate Impact (outside)<br><br>(NPWS, 2017). |
| | | | |
| Wicklow Mountain SAC | An extensive upland site comprising much of the Wicklow Mountains and extending into Co. Dublin. The site includes the headwaters of several major rivers, including the Liffey, the Dargle and the Slaney. Exposed rock and scree are included in the features found in the SAC. The dominant habitats on the site are blanket bog, heaths and upland grassland. The site comprises the largest complex of upland habitats in eastern Ireland, with important examples of blanket bog, wet heath and dry heath, extensive in area and mostly of good quality. Alpine heath occurs at high levels, along with calcareous and siliceous rocky habitats harbouring an arctic-alpine flora. A fine series of oligotrophic lakes occur, with some recorded to contain Arctic char (*Salvelinus alpinus*). Several oakwoods of moderate quality, typical of the dry acidic woods of eastern Ireland, are found. Seven Red Data Book plant species occur, including the rare Alpine Lady's-mantle (*Alchemilla alpina*) and *Nitella gracilis* at its only Irish station. The site supports significant populations of breeding Merlin (*Falco* | - Otter (*Lutra lutra*) [1355]<br>- Oligotrophic water containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110]<br>- Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletalia uniflorae* and/or *Isoeto-Nanojuncetea* [3130]<br>- Natural dystrophic lakes and ponds [3160]<br>- Northern Atlantic wet heaths with *Erica tetralix* [4010]<br>- European dry heaths [4030]<br>- Alpine and Boreal heaths [4060]<br>- Calaminarian grasslands of the *Violetalia calaminariae* [6130] | N/A |

| Site Name | Brief | Qualifying Interests | Project Relevant Threats / Pressures: Impact (Source) |
|---|---|---|---|
| | *columbarius*) and Peregrine Falcon (*Falco peregrinus*). The site is important for rare breeding passerines of oakwoods, notably Common Redstart (*Phoenicurus phoenicurus*) and Wood Warbler (*Phylloscopus sibilatrix*). The site also has breeding Ring Ouzel (*Turdus torquatus*) and Red Grouse (*Lagopus lagopus*). Eurasian Otter (*Lutra lutra*) occurs on several of the riverine systems (NPWS, 2017b). | - Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) * [6230]<br>- Blanket bogs (* if active bog) [7130]<br>- Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*) [8110]<br>- Calcareous rocky slopes with chasmophytic vegetation [8210]<br>- Siliceous rocky slopes with chasmophytic vegetation [8220]<br>- Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]<br>(NPWS, 2017c) | |
| | | | |
| Wicklow Mountains SPA | The dominant habitats present are blanket bog, heaths and upland grassland. Fine examples of native Oak woodlands are found in the Glendalough area. The site, which is within the Wicklow Mountains National Park, is fragmented into about 20 separate parcels of land.<br>The site supports good examples of both upland and woodland bird communities. It has breeding *Falco columbarius* and *Falco peregrinus*, as well as *Turdus torquatus* and *Lagopus lagopus*, both of the latter being Red-listed in Ireland. It is the only site in Ireland where *Mergus merganser* breeds regularly. It is important for rare breeding passerines of oak woods, notably *Phoenicurus phoenicurus* and *Phylloscopus sibilatrix*. It also has *Sylvia borin* and *Sylvia atricapilla*.<br>(NPWS, 2018) | - Merlin (*Falco columbarius*) [A098]<br>- Peregrine (*Falco peregrinus*) [A103]<br>(NPWS, 2020b) | N/A |
| | | | |

* = priority Annex I habitat

# 5 Screening Assessment

## 5.1 Introduction

The following section documents the screening exercise used to assess the likely adverse effects of the project on the Natura 2000 site identified in Section 4 above.

This section identifies the potential impacts which may arise as result of the proposed project. It then goes on to identify how these impacts could potentially impact on Natura 2000 sites listed in Table 4-1. The significance of potential impacts is also assessed, with any potential in-combination effects also identified.

The Natura 2000 sites to be assessed, with distances from the proposed project, are:

- Glenasmole Valley SAC - 2.8km
- Wicklow Mountains SAC - 5.1km
- Wicklow Mountains SPA - 6.9km

## 5.2 Assessment Criteria

### 5.2.1 Description of the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the Natura 2000 sites

Potential adverse impacts that could cause a likely significant effect on the qualifying interests of the Natura 2000 sites, or the sites as a whole, during the construction and operational phases of the project, are considered using three main pathways surface water, groundwater and land and air pathways. Surface water pathways can result in impacts where material entering the surface water drainage are carried in this water to sites that are connected downstream and can there impact surface water bodies themselves, and surface water dependent species and habitat the rely on them. Groundwater pathways can transmit impacts where there is contamination of water entering the groundwater body which is then discharged (sometimes over periods of several decades) an impacts groundwater dependent habitats and species that rely on them. Land pathways are related to physical disturbance of habitat or species and generally only occur over short physical distance. Air pathways relate to the transport of material, generally dust and atmospheric pollution, via air movements and are subsequent deposited on habitats and species in or connected to the Natura 2000 sites.

The proposed project is not anticipated to impact on the qualifying interests of any of the identified SACs or SPAs due to the absence of pathways between any potential source of impact and receiving environment in the case of the Natura 2000 sites. The rationale for excluding impacts via the main pathways is given in more detail in the following section.

### 5.2.2 Surface Water Pathways

The proposed site has no surface water connectivity any Natura 2000 site. The discharge of surface water from the site currently discharges to the ground, and this will remain unchanged during and following construction, with surface water discharging to the ground through a proposed SUDS soakaway The proposed project is approximately 220metres from the Whitestown stream. This stream is connected to four Natura 2000 sites (South Dublin Bay and River Tolka Estuary SPA, South Dublin Bay SAC, North Bull Island SPA, North Dublin Bay SAC) in Dublin Bay via the Dodder River which enters the River Liffey at Ringsend and then Dublin Bay. These four Natura 2000 sites are located downstream of the proposed site, along 14km of the River Dodder/Whitestown stream pathway and 2km of the River Liffey/ Dublin Bay pathway for a total of 16km of river surface pathway.

However it is unlikely that the Whitestown Stream will be a pathway to these receptors from this proposed project, as the site is located 220m away from this stream.

The proposed project has no surface water connectivity with Rye Water Valley/Carton SAC, Wicklow Mountain SAC as they are in a different river catchment. Glenasmole Valley SAC is located in the River Dodder Catchment but is located upstream on a separate tributary from the Dodder River to the Whitestown Stream (Figure 3-4)

Given the small scale of the project, its distance to the nearest waterbody (lack of pathway), and the distance of 16km of river pathway downstream to the Natura 2000 sites it is not anticipated that any potential impact to these Natura 2000 sites will be significant.

### 5.2.3 Groundwater

The site is located within Ground waterbody IE_EA_G_008 which has a poorly productive bedrock. The aquifer vulnerability in the immediate surrounding area of the proposed site is ranked as 'Low' Figure 5-1 (GSI 2019).

The proposed works generally only require shallow excavations, with the Pitch construction depth standard 420mm (300mm sub-base, 40mm engineering base layer (optional), 20mm shockpad, 60mm synthetic turf). Localised Floodlighting will require 1.5m excavations for lighting columns.

The closest path for groundwater would be via discharge the Whitestown Stream. Given the low productivity of this GWB, the distance of 250m to the waterbody, the small scale project and the large distance to the Natura 2000 sites, significant impacts via groundwater pathways are not anticipated.

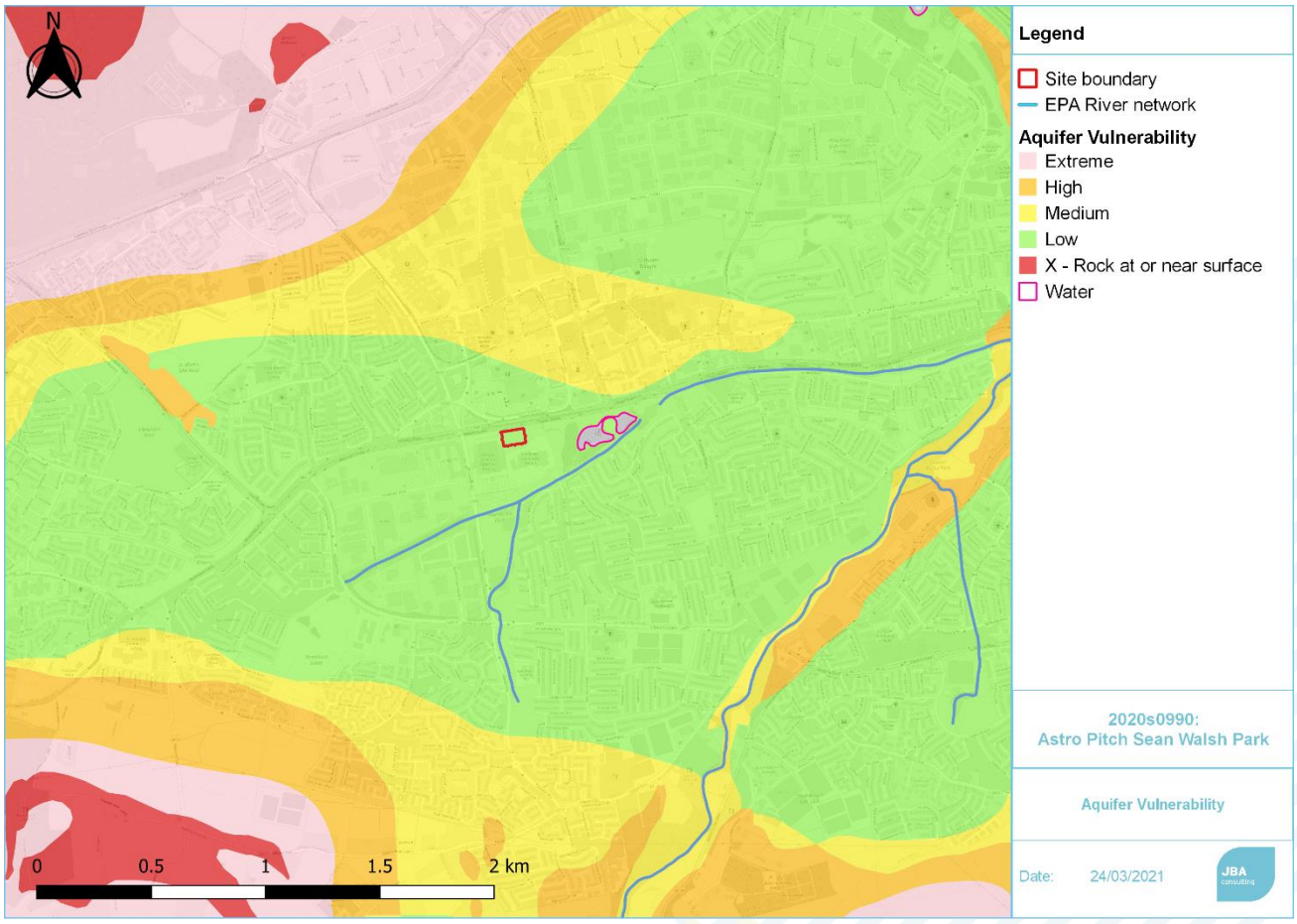



Figure 5-1: Aquifer vulnerability of proposed site and nearby Natura 2000 sites.

### 5.2.4 Land and Air

The loss or degradation of supporting habitats outside the identified Natura 2000 sites via land- and air-based impacts could have potential adverse impacts on a number of the QIs associated with these Natura 2000 sites.

#### Land (physical on-site and noise disturbance)

There will be an increase in human presence and noise during the construction and operation of the proposed Astro pitch. However, since the proposed site is located in an urban area and is more than

2.0km distance from the nearest Natura 2000 site, impacts via land pathways are not expected on any of the Natura 2000 sites.

#### Air Pollution

Dust release and vehicle emissions can travel considerable distances and could potentially affect the Annex habitats and species, even if they are not located within close distance to the proposed project. The distance and direction of travel is dependent upon wind speed and direction. The proposed site has a west south-west prevailing wind year-round (Windfinder.com, 2020), therefore, any dust generated on-site will most likely be transported towards South Dublin Bay and River Tolka Estuary SPA and South Dublin Bay SAC/SPA.

Given the small scale of the project, the urban location and the distance from the Natura 2000 sites (>10km), any dust and vehicle emissions are not anticipated to have a significant impact on the QIs of the Natura 2000 sites.

### 5.2.5 Summary

Due to the location of the proposed site and its distance from the Natura 2000 sites, when considering impacts via surface water, groundwater (to surface water) and land pathways to the SACs or SPAs are not anticipated.

### 5.2.6 Description of likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the Natura 2000 sites

| Project Elements | Comment |
|---|---|
| Size and scale | The proposed development will comprise of a 3G Artificial Grass Pitch with total dimensions 100m x 60m with a playing surface of 52m x 92m. This will also involve the installation of Floodlighting comprised of 250lux system, Hardstanding/access path on the northern edge of the pitch; 5.0m high perimeter fencing surrounding the pitch; A double gate access point with detox area; and 2 no. single gates (one on the eastern perimeter and one on the southwestern perimeter) to facilitate ball retrieval.<br><br>Proposed drainage will consist of 80mm lateral drainage pipes across the width of the pitch laid at 10m centres connected into perimeter carrier drainage 150mm. There will connection into existing drainage network/ new proposed SUDS soakaway area to the south of the pitch. |
| Land-take | There will be no direct land take from any of Natura 2000 sites. |
| Distance from Natura 2000 site or key features of the site | The Natura 2000 sites and their proximity to the proposed site:<br>• Glenasmole Valley SAC - 2.8km<br>• Wicklow Mountains SAC - 5.1km<br>• Wicklow Mountains SPA - 6.9km<br>• South Dublin Bay and River Tolka Estuary SPA - 11.6km<br>• South Dublin Bay SAC - 11.6km<br>• North Bull Island SPA - 15.6km<br>• North Dublin Bay SAC - 15.6km |
| Resource requirements (water abstraction etc.) | There will be no water abstraction requirements. |
| Emissions (disposal to land, water or air) | Temporary Impacts:<br><br>Water: It is not anticipated that any impacts will occur via surface water pathways as the closest waterbody is 220m away. There will be no impacts via ground-water pathways due to the low productivity of the geology of the site. |

| | |
|---|---|
| | Air: there may be some release of dusts or fumes into the air during construction, but this is expected to be small and the receptors downwind are more than 10km away. Therefore, it is not anticipated that there will be any impacts for air pathways.<br><br>Permanent Impacts: none anticipated |
| Excavation requirements | Maximum depth of excavations<br>• Pitch construction depth standard 420mm (300mm sub-base, 40mm engineering base layer (optional), 20mm shockpad, 60mm synthetic turf).<br>• Floodlighting column 2m<br>• Fencing foundations 1m |
| Transportation requirements | Temporary Impacts:<br>Levels of traffic to the site during the construction phase will increase traffic to the area but will be temporary in nature. All access to the site will be on pre-existing roads and transportation requirements will not affect Natura sites.<br><br>Permanent Impacts:<br>Operational traffic to and from the site will be on pre-existing urban roads and will utilise the current Tallaght Stadium car park. The amount of traffic is anticipated to be the same as existing. Transport requirement will not affect Natura 2000 sites. |
| 2Duration of construction, operation, decommissioning etc. | Construction will last 14 weeks. Operation will be permanent, and no decommissioning is anticipated. |
| Other | None |

### 5.2.7 Description of likely changes to the Natura 2000 sites

| Potential Impact | Comments |
|---|---|
| Reduction of habitat area | There will be no reduction in habitat area for any of the Natura 2000 sites. |
| Disturbance to key species | Temporary Impacts:<br>The construction of the Astro Pitch will temporarily increase the noise level and disturbance locally. However, no significant impacts are anticipated to key species given scale and temporary nature of the construction phase and distance from the Natura 2000 sites.<br><br>Permanent Impacts:<br>No disturbance to key species is anticipated during operation of the project. |
| Habitat or species fragmentation | No habitat or species fragmentation is likely as the project poses no restrictions to habitats or species of the Natura 2000 sites. |
| Reduction in species density | None anticipated |
| Changes in key indicators of conservation value (water quality etc.) | Temporary Impacts on Water Quality:<br>Changes in key indicators, such as water quality, are not anticipated during the construction phase of the development.<br>Permanent Impacts on Water Quality:<br>Changes in key indicators, such as water quality, are not |

| | |
|---|---|
| | anticipated during the operational phase of the development. |
| Climate change | N/A |

### 5.2.8 Description of likely impacts on the Natura 2000 sites as a whole

| Potential Impact | Comments |
|---|---|
| Interference with the key relationships that define the structure of the site | Interference with the key relationships that define the structure of the Natura 2000 sites is not anticipated during the construction and operational phases of the development. |
| Interference with key relationships that define the function of the site | Interference with key relationships that define the function of the Natura 2000 sites is not anticipated during the construction and operational phases of the development |

Provide indicators of significance as a result of the identification of effects set out above in terms of:

| Potential Impact | Indicators |
|---|---|
| Loss (Estimated percentage of lost area of habitat) | No Natura 2000 sites will experience a direct loss in habitat area. |
| Fragmentation | Fragmentation of habitat and/or species is not anticipated. |
| Disruption & disturbance | Disruption and/ or disturbance is not anticipated. |
| Change to key elements of the site (e.g. water quality etc.) | Potential temporary changes to key elements (i.e. water quality) of the site are not anticipated. |

### 5.2.9 Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is unknown

Based upon best scientific judgement, no significant impacts are expected from the elements mentioned above; and that no significant gaps in knowledge of the scale or magnitude of potential impacts from the proposed site exist.

## 5.3 Concluding Statement

Following initial screening of the proposed project in Sean Walsh Park, and based upon best scientific judgement it is concluded that there will be *no likely significant effects* from the project on the following Natura 2000 sites:

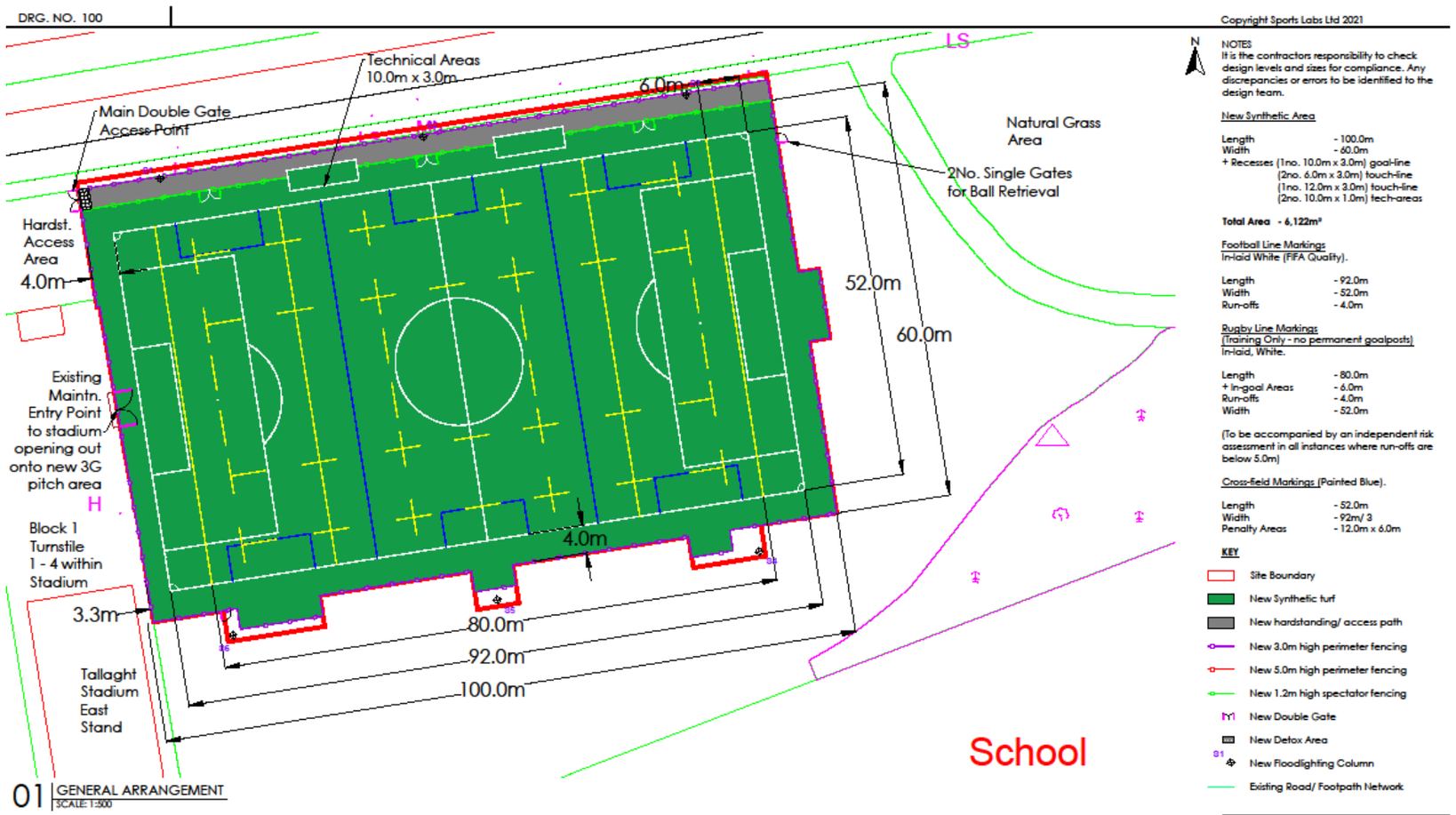
- Glenasmole Valley SAC
- Wicklow Mountains SAC
- Wicklow Mountains SPA
- South Dublin Bay and River Tolka Estuary SPA
- South Dublin Bay SAC
- North Bull Island SPA
- North Dublin Bay SAC

This assessment is based on the methodology for proposed works as described in this report. Where changes to methodology occur, an ecologist will need to be consulted to determine if the changes need reassessment.

If any changes occur in the design of these works, a new Screening for Appropriate Assessment is required.

# Appendices

## A Site Layout Plan






N

NOTES
It is the contractors responsibility to check design levels and sizes for compliance. Any discrepancies or errors to be identified to the design team.

New Synthetic Area

| | |
|---|---|
| Length | - 100.0m |
| Width | - 60.0m |
| + Recesses (1no. 10.0m x 3.0m) goal-line | |
| (2no. 6.0m x 3.0m) touch-line | |
| (1no. 12.0m x 3.0m) touch-line | |
| (2no. 10.0m x 1.0m) tech-areas | |

**Total Area - 6,122m²**

Football Line Markings
In-laid White (FIFA Quality).

| | |
|---|---|
| Length | - 92.0m |
| Width | - 52.0m |
| Run-offs | - 4.0m |

Rugby Line Markings
(Training Only - no permanent goalposts)
In-laid, White.

| | |
|---|---|
| Length | - 80.0m |
| + In-goal Areas | - 6.0m |
| Run-offs | - 4.0m |
| Width | - 52.0m |

(To be accompanied by an independent risk assessment in all instances where run-offs are below 5.0m)

Cross-field Markings (Painted Blue).

| | |
|---|---|
| Length | - 52.0m |
| Width | - 92m/ 3 |
| Penalty Areas | - 12.0m x 6.0m |

KEY

- Site Boundary
- New Synthetic turf
- New hardstanding/ access path
- New 3.0m high perimeter fencing
- New 5.0m high perimeter fencing
- New 1.2m high spectator fencing
- New Double Gate
- New Detox Area
- B1 New Floodlighting Column
- Existing Road/ Footpath Network

| REVISION | DETAILS | BY | DATE | CHECKED |
|---|---|---|---|---|

sportslabsconsult
info@sportslabsconsult.com

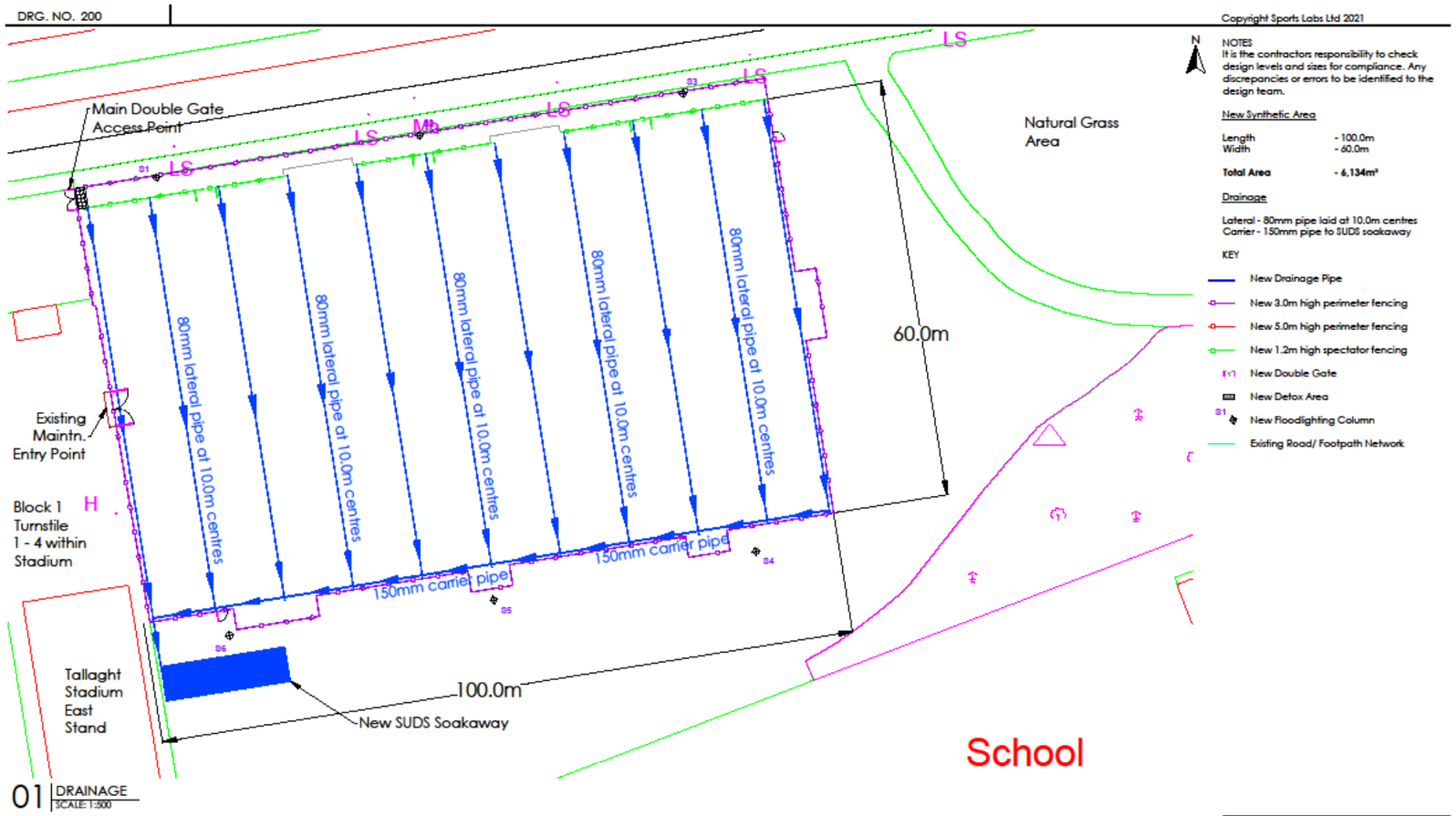
TALLAGHT 3G
GENERAL ARRANGEMENT
NEW 3G PITCH

Scale bar 1:1000

| | | |
|---|---|---|
| Date: 05/2021 | Job No. 2936 | Drawn by: RD |
| Scale: 1:500 @ A3 | | Checked by: DD |

100

# B Drainage Plan




sportslabsconsult
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TALLAGHT 3G
DRAINAGE
NEW 3G PITCH

Job No. 2936

200

# C Habitat Map

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