



P2970

**ENVIRONMENTAL IMPACT ASSESSMENT REPORT
VOLUME 1: NON-TECHINCAL SUMMARY**

CAVAN REGIONAL SPORTS CAMPUS

CAVAN

CLIENT: McADAM

MARCH 2024

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1.0 INTRODUCTION

Cavan County Council are planning the development of the Cavan Regional Sports Campus (the proposed development).

This document comprises the Non-Technical Summary (NTS) of the Environmental Impact Report (EiAR) prepared in support of the planning application made for the Project. The EiAR is presented as separate documents comprising the main text and figures (Volume 2) and the accompanying technical appendices (Volume 3). The full planning application and accompanying EiAR can be found at www.cavancoco.ie/cavanregionalsportscampus.

1.1 Project Overview

The proposed development site is located at lands north, south and west of Royal School Cavan and west of Breffni Park GAA grounds, County Cavan.

The proposed location is shown in Figure 1 below.

Figure 1: Site Location



(Source: Google Earth)

The site is not located within any sites that are nationally or internationally designated for their nature conservation importance. However, the proposed development site is located approximately 3.69km south-east of the Lough Oughter SPA and Lough Oughter and Associated Loughs SAC. The location of these SACs in relation to the proposed development, and the potential for the proposed development to impact upon them, has been assessed throughout the EIAR as well as in the Natura Impact Statement (NIS).

The need for the proposed development has been identified for a considerable time by Cavan County Council. The details of the need for the development are set out in Section 3.

The proposed development is described in detail in Section 2, but will include the following:

- Indoor sports complex to include sports halls with spectator seating, fitness studios, changing facilities, reception, café and ancillary accommodation.
- 7 no. outdoor sports pitches.
- Covered sports arena with playing pitch, spectator seating and other ancillary accommodation.
- Ancillary sporting facilities include 8 lane athletics track and cricket practice nets.
- New vehicular access / junction and closure of Park Lane/Dublin vehicular junction, relocation of existing Breffni Park turnstiles to facilitate reconfiguration of Park Lane, bridge structure, internal roads, cycle/pedestrian paths, associated car/bus/cycle parking, electric charge points and streetlighting.
- Pedestrian access points of Kilnavara Lane and Dublin Road.
- Hard and soft landscaping including acoustic fencing, wildlife habitat area/corridors, artificial badger-sett, walking trails and other ancillary works such as spectator stands, retaining walls, fencing and ball stop fencing, team shelters, toilet block, floodlighting, signage, drainage infrastructure including attenuation tanks, SuDs and culverting of a minor watercourse, storage space, ESB Substation, ancillary accommodation and all associated site works to accommodate the development.

1.2 Contents of the EIAR – Statutory Requirements

The EIAR has been prepared in accordance with the requirements of the following legislation and having regard to the following Guidance:

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- European Commission Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment (codification) as amended by Directive 2014/52/EU;
 - UNEC Convention on Environmental Impact Assessment in a Transboundary Context, 1991;
 - The Planning and Development Act, 2000 (as amended) and the Planning and Development Regulations 2000-2019;
 - European Commission, Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions (May 1999);
 - European Commission, Guidance – EIA Scoping (2017);
 - European Commission, Guidance – EIA report (2017);
 - EPA, Advice Notes on Current Practice (in the preparation of Environmental Impact Statements) (September 2003);
 - EPA, Guidelines on the Information to be contained in Environmental Impact Assessment Reports (Draft, August 2017);
 - European Commission, Guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment (April 2013);
 - European Commission Guidance on the Application of the Environmental Impact Assessment Procedure for Large-Scale Transboundary Projects (2013);
 - Circular Letter PI 1/2017: Implementation of Directive 2014/52/EU on the effects of certain public and private projects on the environment (EIA Directive);
 - The European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No. 296 of 2018),and;
 - The Guidelines for Planning Authorities and An Bord Pleanála on Carrying Out Environmental Impact Assessment (2018).

1.3 Methodology

The broad methodology framework used in each environmental chapter includes the following:

- Introduction
- Methodology
- Existing Environment
- Potential Impacts
- Mitigation Measures
- Residual Impacts

Introduction

This section introduces the environmental topic to be assessed and the areas to be examined within the assessment.

Methodology

Specific topic related methodologies are outlined in this section. This includes the methodology used in describing the existing environment and undertaking the impact assessment. It is important that the methodology is documented so that the reader understands how the assessment was undertaken.

Existing Environment

In order to predict any likely impact of the Project it is necessary to first accurately establish and describe the existing environment. Any available existing baseline environmental monitoring data can also be used as a valuable reference for the assessment of actual impacts from a development once it is in operation.

To describe the existing environment, desktop reviews of existing data sources have been undertaken for each specialist area. Desktop studies are also supplemented by specialised field walkovers or studies, where appropriate, to confirm the accuracy of the desktop study or to gather more baseline environmental information for incorporation into the EIAR.

The existing environment is evaluated with particular consideration given to the character of the existing environment that is distinctive and what the significance of this is. The significance of a specific environment can be derived from legislation, national policies, local plans and policies, guidelines or professional judgements. The sensitivity of the environment is also considered.

Potential Impacts

In this section, the EIAR predicts how the Project will interact with the receiving environment. Impacts from both the construction and operation phases of the proposed development are outlined. The evaluation of the significance of the impact is also undertaken.

Mitigation Measures

If significant impacts are anticipated mitigation measures are devised to minimise impacts on the environment.

Residual Impacts

The assessment identifies the likely impacts that will occur after the proposed mitigation measures have been put in place.

1.4 EIAR Study Team

MCL Consulting and McAdam have coordinated the EIAR with MCL Consulting compiling the EIAR on behalf of Cavan County Council. Sub-consultants have undertaken specialist assessments where necessary.

The study team members and the chapters they have prepared within the EIAR are listed in Table 1.

Table 1: EIAR Study Team

Chapter	Company
Introduction	MCL Consulting
Proposed Development	McAdam
Need for the Development	MCL Consulting and Cavan County Council
EIA Screening and Scoping	MCL Consulting
Consideration of Alternatives	McAdam
Policy	Carlin Planning Ltd.
Population and Human Health	Carlin Planning Ltd.
Biodiversity	MCL Consulting
Land, Soils and Water	MCL Consulting and McCloy Consulting Ltd.
Air and Vibration	MCL Consulting
Noise and Vibration	MCL Consulting
Material Assets	MCL Consulting and McAdam
Traffic	Hoy Dorman Ltd.
Cultural heritage	Consarc Design Group
Archaeology	Gahan and Long Ltd.
Landscape and Visual Impact	Mcllwaine Landscape Architects
Cumulative Impacts, Interrelationships and Major Accidents & Disasters	MCL Consulting

2.0 PROPOSED DEVELOPMENT

2.1 Description of Site Location

Cavan County Council (CCC) are planning the development of a regionally significant Sports Campus (hereafter referred to as the 'Proposed Development'). Cavan County Council in conjunction with the Royal School Cavan, and the Cavan GAA County Board have been successful in securing stream 1 funding from the Large-Scale Sport Infrastructure Fund (LSSIF) for the proposed Cavan Regional Sports Campus. Stream 1 funding is for the design stage of the project and will be followed in the future by an application for stream 2 funding for capital grants towards the construction of the designed project. An application has also been made for SEUPB PEACE IV Shared Space & Services funding, with CCC acting as the applicant.

The site is located adjacent to Cavan River which is hydraulically linked to Lough Oughter SAC and SPA. Cavan River hosts several identifiable features including white clawed crayfish, and otters. The site setting and habitat provide a rich ecological environment evidenced by the discovery of a badger sett, and otter activity. Bat activity is designated as high and bat roost surveys have been carried out. Evidence of pine martin activity has also been discovered on site.

The proposed development will extend to a total of 28 hectares on lands to the Southwest of Cavan Town, located between the Kingspan Breffni stadium and the Royal School, Cavan and to the west of Dublin Road, (IGR 242095, 304048).

The site incorporates existing sporting facilities used by the Royal School for physical education and Cavan GAA for training; this includes one shale gravel hockey pitch and adjoining soccer field and a GAA grass training pitch. The remainder of the site lands are undeveloped.

2.2 Proposed Development Summary

The Cavan Regional Sports Campus is proposed as a regionally significant Sports Campus within Cavan Town (Co. Cavan), County Cavan and the wider region.

The Development proposals focus on:

- Provision of indoor and outdoor sports facilities to address a deficit of facilities within Cavan Town, County Cavan, and the wider region.

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- Provision of sporting facilities for non-mainstream sports to address the need for inappropriate surfaces, safety concerns, high costs of equipment and transportation and neutral venues for competitions.
 - Addressing the deficiency in sporting facilities impedes the ability to target people who are inactive, or fall out of physical activity throughout the lifecycle, specifically older adults, people with a disability, disadvantaged communities, women and girls and young people.
 - Creation of pedestrian and cycle trails and improved connectivity locally by connecting existing routes.

Already used by the local communities as an informal walking route, the new and improved connections will promote walking and cycling routes, ensuring accessibility for all.

The overall project vision is to create a Sports Campus that connects communities within a shared space promoting local heritage and culture, making the most of the existing landscape's unique natural assets.

The site is typified by a green fields, mature hedgerows, undulating topography and a number of sports pitch developments. Whilst ecologically sensitive the site is located adjacent to Cavan town centre and is zoned for sporting and community use with the CDP. The proposed development addresses the ecological sensitivities by maintaining as much of the natural landscape and features as possible, replacing significantly more than is being removed and protecting sensitive ecological features during construction and operational phases. An extensive area of 'wildlife creation zone' is proposed populated with native species trees and shrubs, and foraging corridors are proposed to provide safe access for wildlife affected by the development.

2.2.1 Cavan Regional Sports Campus Proposals

The proposals involve the provision of a Regional Sports Complex as envisaged within the Cavan County Development Plan 2022-28. The project description includes the following:

The description of development reads as follows:

- The proposed development involves the provision of Cavan Regional Sports Campus, consisting of the following components:
- Indoor sports complex to include sports halls with spectator seating, fitness studios, changing facilities, reception, café and ancillary accommodation.

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- 7 no. outdoor sports pitches.
 - Covered sports arena with playing pitch, spectator seating and other ancillary accommodation.
 - Ancillary sporting facilities include 8 lane athletics track and cricket practice nets.
 - New vehicular access / junction and closure of Park Lane/Dublin vehicular junction, relocation of existing Breffni Park turnstiles to facilitate reconfiguration of Park Lane, bridge structure, internal roads, cycle/pedestrian paths, associated car/bus/cycle parking, electric charge points and streetlighting.
 - Pedestrian access points of Kilnavaragh Lane and Dublin Road.
 - Hard and soft landscaping including acoustic fencing, wildlife habitat area/corridors, artificial badger-sett, walking trails and other ancillary works such as spectator stands, retaining walls, fencing and ball stop fencing, team shelters, toilet block, floodlighting, signage, drainage infrastructure including attenuation tanks, SuDS and culverting of a minor watercourse, storage space, ESB Substation, ancillary accommodation and all associated site works to accommodate the development.

An Environmental Impact Assessment Report (EIAR) and Natura Impact Statement (NIS) have been prepared and included as part of the application for approval in respect of the proposed development. The proposals can be broken down in detail into the following elements:

- GAA sports facilities including:
 - 4 no. external floodlit sand mattress grass pitches with ball stop fencing at both ends (12m H x 30m W), pitch dimensions – 143m x 86m plus 5m wide run-off width to all sides
 - Covered Spectator Stand accommodating 599 people
 - Toilet Block
 - Car parking
- External floodlit 4G multisport pitch with 4.2m high open mesh perimeter fencing, 1.1m high spectator fencing to one side, ball stop fencing at both ends (12m H x 30m W), 2 x pitch side team shelters, and covered spectator stand accommodating 242 people, pitch dimension – 115 x 72m plus 5m (ends) & 3m (sides) wide run-off widths.
- External floodlit synthetic hockey pitch with 4.2m high open mesh perimeter fencing, 1.1m high spectator fencing to one side, and 2 x pitch side team shelters, pitch dimension – 91.4m x 55m plus 5m (ends) & 4m (sides) wide run-off widths

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- Sports Arena - fabric covered tensile roof structure with cladding side walls and end gables to accommodate internal synthetic pitch with mezzanine level spectator seating along one side, and ancillary accommodation with GIA of 8,280 sqm.
 - Sports Building – 2 storeys with physical link to Sports Arena with a GIA of 6,000sqm incorporating:
 - 8 court sports hall with retractable bleachers spectator seating
 - Changing Rooms
 - Gym, Fitness studios, Reception, café, social spaces
 - Storage and ancillary accommodation
 - 8 Lane external floodlit athletics track with grass soccer pitch to infield including
 - Covered Spectator Stand accommodating 452 people with storage accommodation under.
 - New road junction to Dublin Road for access to the sports campus with the provision of a right-hand turn lane and pedestrian crossings.
 - Internal site access roads including bridge structure over Cavan River
 - Stopping up of the Park Lane /Dublin Road vehicular junction and use for pedestrians only.
 - Relocation of the existing Breffni Park turnstiles to facilitate the reconfiguration of Park Lane,
 - Pedestrian access points off Kilnavaragh Lane and the Dublin Road
 - Car/Accessible Parking for 310+ vehicles
 - Bus Parking for 4 vehicles
 - Cycle Parking for 24 bicycles
 - External and Landscaping works including;
 - Soft and hard landscaping including public realm and connecting paths and steps.
 - Wildlife habitat creation area
 - Wildlife Foraging Corridors and Walking Trails
 - Artificial badger sett.
 - Other ancillary development:
 - Bin Storage Compound
 - Retaining Wall Structures
 - Fencing and ball stop fencing, acoustic fencing.
 - Boundary wall and railings and pedestrian access gates to site boundary with Royal School Cavan
 - Cut and Fill earthworks to provide level surfaces for pitches and buildings and creation of grass banking to GAA pitches and grass terraced banking to athletics track.

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- Drainage works and infrastructure including attenuation tanks, Sustainable Urban Drainage (SuDS) and culverting of a minor watercourse.
 - Storage space
 - ESB Substation and other ancillary electrical engineering works.
 - Ancillary accommodation and all associated site works to accommodate the development.

2.2.2 Bridge Proposal

The vehicular, pedestrian and cycle bridge will provide the connection between the lands either side of the Cavan river ravine.

The proposed bridge location is positioned to minimize the length of crossing of the river minimizing the impact to the watercourse. The bridge will be a single span integral reinforced concrete bridge structure supported on piles foundations. The bridge will have an overall length of just under 32m.

2.2.3 General Requirements of Proposed Development

Sustainable development is central to the design, delivery and implementation ethos of CCC. The proposed development is designed so that it is iconic, of high architectural and landscape quality, sympathetically incorporated within the site whilst reflecting its own importance as a location of regional importance. The design aims to create a beautiful, welcoming, person centred environment which optimises opportunities for sporting, recreational, cultural and community activities. In addition, the design includes proposals for landscaping and maximising the potential for the use of external space.

A great deal of effort has gone into optimising the site layout in order that the minimum amount of earth material will need to be removed off site to reduce carbon emissions and landfill. The design elements of the project will support the use of indigenous planting materials with local provenance. Where possible it is the intention to relocate existing indigenous vegetation affected by the development to the habitat creation zones. Sustainable Urban Drainage System (SuDS) has been applied for containment of run-off and attenuation from proposed hard surfaces. Mitigation measures have been employed to ensure that there is no short, medium and long term impact to the Cavan River environs, habitats and species. Refer to outline Construction Environmental Management Plan, Appendix 2.1 (Volume 3 of the EIAR).

The project aims to deliver sustainable development in materials choice, facilities location, orientation and design features ensuring low environmental impact including:

- The use of timber from sustainable sources
- The use of loose ground cover to facilitate water percolation and minimal impact on the natural water flow to the Cavan River
- Orientation of the main building to maximise solar gain for space heating and use of renewable energy sources including photovoltaics and air source heat pumps.
- Use of existing and realigned site contours for new path networks to minimize site impact and the carbon footprint of new path infrastructure.
- Optimisation of the use and mix of space in terms of functional space, circulation space and provision for services both planned at this stage and flexible in terms of future re-designation of areas.

The design proposal have considered and incorporated:

- Specification of high quality/low maintenance fittings and finishes which are considered aesthetically pleasing while vandalism resistant.
- Maximisation of useable space whilst providing appropriate circulation and atrium spaces.
- High energy efficiency, NZEB, and environmentally sustainable design.
- Low maintenance design and specifications.
- High quality external finishes and detailing appropriate to the prevailing climatic conditions.
- Access and facilities for the disabled and emergency services/maintenance requirements.
- Internal flexibility in terms of grid spacing and adaptable partitioning systems, accessibility to all services for all units for future flexibility.
- Incorporation of all Mechanical and Electrical services, particularly IT services for ease of access to services for alteration and extension at a later stage.
- Buildability in terms of economy of construction and programme constraints.

Design life of all structural elements of the campus shall be a minimum of 50+ years with the bridge being 120 years and with 15 years to first significant external maintenance.

2.3 Proposed Development

2.3.1 Approach Roads

Development will include for a new access and road junction to Dublin Road for access to the sports campus. The site entrance will require amendment to the existing R212 Dubin road to incorporate right hand turning lane and uncontrolled pedestrian and cycle lane crossings.

The works will further require stopping up of the current Park lane entrance and diverting this to the new formed access road into the site.

The new access will extent along the existing Breffni Park service road extending to a proposed bridge structure over the Cavan River extending to the internal site infrastructure. Adjacent to this access road it is proposed to provide an amendment to the layout of the Breffni Park access control areas and turnstiles.

Along this access road it is proposed to construct segregated pedestrian / cycle lanes in accordance with the National Transport Authority Cycle Design Manual (September 2023). These are to extend into the development until shared surfacing access implemented at the locations of the site infrastructure / pedestrian and vehicular routes.

All works designed in accordance with DMURS (Design Manual for Urban Roads and Streets) design standards, including roads marking and traffic signs.

2.3.2 Internal Roads and Parking

Two-way traffic flow will be accommodated within the site extending to the proposed car parling areas. Servicing & vehicular access proposed as shared surface extending to the running track and hockey pitch adjacent to the proposed sports centre.

All access routes and car parks proposed to further accommodate

- Bust / coach drop off / pick up
- Staff / public parking
- Electric Vehicle Charging points.
- Disabled car parking spaces.

2.3.3 Internal Path Networks

A series of internal pathways are proposed with a mix of surface finishes (asphalt, bound aggregate and reinforced grass) and widths. Core network paths are designed to provide continuity across the development including throughout the boundary landscaping proposals.

2.3.4 Proposed Indoor Sports Complex & Covered Sports Arena

The Sports Building and Covered Arena has a pivotal role to play within the Sports Campus. In this regard its orientation and placement centrally, maximise its access to the external pitches as well as connection to the main pathway and cycleway network. It has also been considered in terms of orientation (for passive solar gain), ground profiling (to locate it outside of the 1:100 year flood event flood levels). Externally the landscape complies with Building Access regulations providing adequate and appropriate surfacing for visitor.

The Sports Building is physically linked to the Sports Arena structure and accommodates changing , shower and toilet facilities for the arena. The sports building is zoned as follows:

Ground Floor

- Main entrance, reception and café, visitor toilets and dedicated community space
- Controlled access to 8 court indoor sports hall, sports hall changing, shower & wc facilities and fitness suite 'village change' space, access to 1st floor Fitness Suite
- Dedicated changing, shower & wc facilities for i) external pitches and ii) Sports Arena

First Floor

- Fitness Suite comprising 500sqm Gym, Fitness and Spin studios
- Open-plan office accommodation
- Event, community, flexible usage space
- Sports hall viewing

The Sports Arena structure accommodates a fully enclosed 103 x 60m synthetic grass pitch with a ridge height of 16m and 9m eaves height. These type of spaces are unheated and do not require mechanical ventilation. A tensile fabric roof provides an effective weather barrier whilst reducing the roof structure and overall costs. All sides of the structure will be fully enclosed using composite cladding panels. This solution is effective in reducing construction and operational phase costs and carbon footprint.

Foul sewage from the facility will flow by gravity via a piped sewerage system to link to the Irish Water network near the vehicle entrance to the Royal School on Dublin Road.

2.3.5 Proposed Athletics Track & Spectator Stand

A 400m floodlit athletics track is located to the north of the site to provide regional dedicated athletics' facilities. The track is designed to World Athletics and IOC standards. The proposed track surface will be EPDM polymeric rubber surface. A full-size sand-mattress soccer pitch is located in the track 'infield' to optimise the potential of the campus facilities. 2 long jump runways and landing areas are located outside the track to the west opposite the spectator stand. Other integrated athletics facilities include steeplechase water jump, pole vault facility and facilities for throwing events including safety cage.

A 1.1m high spectator barrier around the perimeter facilitates 360° close-up spectator viewing. It is proposed to utilise the natural topography of the site to create a number of grassed terraces to the west of the track for spectators.

The spectator stand will provide seating for over 450 spectators. The seating terracing is elevated to maximise the viewing potential and to allow undercroft accommodation for equipment storage. Athletes will use the shower and changing facilities located in the main sports building. Accessible toilets and a Changing Places toilet will also be located within the stand structure and a lift will provide accessible access to a dedicated wheelchair viewing area in the stand.

The track and stand will be fully enclosed within 3m high open mesh 'paladin' style security fence to both protect the facilities and for public safety during out of hours periods.

2.3.6 Proposed Synthetic Hockey Pitch

A full-size floodlit synthetic hockey pitch with sand dressed hockey turf surface is located to the northeast of the site with key adjacency to the Royal School. As development partners, the Royal School will utilise these facilities following the loss of their existing shale pitch. This will provide a significant upgrade of facilities for the school as well as a top-level facility for the sports campus for local and regional use. The pitch has min. run-off of 4m to all sides and a spectator barrier along the south side with 2 covered team benches integrated into it. The pitch will be fully enclosed within 4.2m high "ball stop' open mesh 'paladin' style fence to both protect the facilities and for public safety during out of hours periods. Designs since have been developed in accordance with:

- Hockey Ireland guidelines

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- International Hockey Federation (FIH) – Facilities Guidance
 - England Hockey – Facilities strategy

These guides and ongoing conversations with the Client and stakeholders have informed play space principles that will be taken forward and developed in more detail following planning approval.

2.3.7 Proposed Synthetic Multisport Pitch & Spectator Stand

A 115 x 72m floodlit synthetic multisport pitch with 3/4G surface is located centrally within the site adjacent to the sports building. This pitch will be a significant asset of the campus and will address the need for all-weather external sports facilities identified by the council. The size of the pitch will provide full size facilities for a range of sports and will facilitate sub-division for training, reduced team size games, youth level sports and much more. The pitch has min. run-off of 3m to all sides and a spectator barrier along the north side with 2 covered team benches integrated into it.

The facility is augmented with a small spectator stand, 30m (W) x 12m (H) ball catch nets at either end and will be fully enclosed within 4.2m high “ball stop’ open mesh ‘paladin’ style fence to both protect the facilities and for public safety during out of hours periods.

2.3.8 Proposed Sand Mattress GAA Pitches, Spectator Stand and Toilet Block.

4 floodlit sand mattress natural turf GAA pitches are proposed within the southern section of the site. They will have physical adjacency to the Cavan County GAA Kingspan Breffni facilities with vehicular and pedestrian linkage over the Cavan River by an existing bridge structure. All pitches will have a playing area of 143 x 86m to match the adjacent stadium pitch with 5m wide run-off areas to all sides. The pitches will be located on 2 terraces formed by cut and fill to the existing sloping topography. These terraces will be located above the existing floodplain 0.1% AEP present day level to facilitate all year around usage and will be separated 4m vertically. A fully accessible pedestrian route will be provided to the upper terrace from the footway network and the car park.

A spectator stand is situated at the pitch adjacent to the proposed car park with seating provision for around 600 people. The stand will be built into the proposed slope between the pitch terraces with stepped access to both sides. This pitch will have a 1.1m spectator around its perimeter. All pitches will have 30m (W) x 12m (H) ball catch nets at goal ends. A standalone toilet block is proposed at the upper terrace level to service this pitch zone.

2.3.9 Ground Reprofilng

To facilitate the works extensive movement of material is required. Where required the ground will be locally reprofiled to achieve the necessary design parameters for the proposed pavements. The earthwork movements will be in accordance with the Flood Risk Assessment which illustrates the floodplain associated with the adjacent Cavan River. Due to the reprofiling requirements in an area designated as a flood plain, all amendments to ground levels were assessed in the Flood Risk Assessment.

2.3.10 Utilities

Currently the proposed development site has electrical infrastructure on it. The electrical infrastructure includes ESB Overhead Cables which traverse the site in a south-southeast direction from Kilnavaragh Lane towards the Kingspan Breffni stadium.

A new electrical substation will be provided adjacent to the new Sports Building and Arena. This substation will service all new building and pitch facilities proposed for the sports campus.

The ESB overhead cables are to be diverted underground to achieved landscape and health and safety benefits. This will be facilitated by a notified contractor on behalf of ESB.

Telecom infrastructure to facilitate building services and CCTV provision at the bridge will be provided through application to EIRCOM.

2.3.11 External Lighting Proposals

These proposals aim to provide an aesthetically pleasing, low maintenance and uniformly lit external space to enable users to orientate themselves, identify other users, detect potential hazards, discourage crime, and engender a feeling of safety and security. All external luminaires will be at least IP66, IK10 where appropriate on glass and coverings, have a minimum warranty of 5 years to cover all LEDs, power packs, drivers, glass covers and other associated parts. Final procurement will consider future costs and availability of equipment after warranty periods expire.

Environmental mitigation measures

The luminaires will comply with the ILP Guidance note 08/18 Bats and Artificial Lighting in the UK. This will be achieved using fittings with the following parameters:

- LED lamp packages
- Lamps with a Colour temperature – warm white – 2700k
- Upward Light Output Ratio = 0% (except for bridge feature lighting)
- Good lens control to avoid light spillage.

Lighting columns will be positioned so that they are as far as possible from mapped badger runs thereby reducing the disturbance to wildlife.

Controls

Controls prevent unnecessary lighting thereby reducing light pollution, electrical energy consumption and carbon emissions. Seasonal lighting and adaptive lighting will be used.

- Seasonal lighting – lighting only comes on at dusk through use of photocells and timeclocks.
- Adaptive lighting – lighting levels can be increased or reduced down to zero depending on the usage expected.

Given the dynamic nature of the lighting controls a Council representative will be designated to take on the responsibility to manage the controls to suit once use of the park has been established over time. Pre-setting the lighting controls at the start is unlikely to give optimum performance over the long term.

Figure 2: Lighting Proposals Vehicle Access Roads



Car Parks and Roadways

This area will be illuminated to “BS5489-1:2020 Design of road lighting. Part 1: Lighting of roads and public amenity areas – code of practice” which will provide a minimum average horizontal illuminance of 10 lux with a minimum uniformity of 0.25. The roads will be illuminated using a 6m galvanised conical steel lighting column. The street lighting lanterns will utilise the latest LED lighting technology. The colour temperature will be 2700K (warm white) with a CRI of 80. Luminaires shall be mounted close to pedestrian crossing points. Seasonal lighting and Adaptive lighting controls will apply in this area.

Pitch Floodlighting

Each Sports pitch will have the capability of being illuminated via column mounted floodlights. The lighting levels are dependent on the sport associated with the particular sport. These have been identified and designated at the outset, by the Council. The highest columns will be 21.3m and these surround the running track. The GAA pitches will be illuminated using 18m columns and the hockey and football pitches illuminated using 15.2m columns. The pitch lighting will be controlled, so as they operate only when the pitch is in use and the lighting will be automatically extinguished after a preset time from when the pitch uses is completed.

Figure 3: Floodlighting



Indoor Sports Complex & Covered Sports Arena

The indoor covered sports area will be illuminated using roof mounted ‘ball proof’ LED fittings controlled from automatic time clock-controlled switches located and activated at the reception area. The fittings shall be grouped in banks to allow multi use of the area with different sports being accommodated simultaneously. The ceiling mounted fittings will utilise the latest LED lighting technology. Adaptive lighting controls would apply in this area.

3.0 NEED FOR THE DEVELOPMENT

Within the current adapted corporate plan, the first key strategic action was the expansion of recreational facilities throughout the county, including the development of a regional multi sports facility in Cavan town.

A 'needs analyses' of the county has highlighted that the county does not have sufficient indoor and outdoor sports facilities to meet the demand, particularly for non-mainstream sports.

It is recognised that this deficiency in sporting facilities impedes the ability to target people who are inactive, or fall out of physical activity throughout the lifecycle, specifically older adults, people with a disability, disadvantaged communities, women and girls and young people.

An extensive consultation process was conducted in 2018 as part of a Feasibility study for the need of a Regional Sporting Facility for Cavan, this involved:

- A web-based survey (103 responses),
- The forming of focus groups with 10 National Governing Bodies of Sport,
- A public meeting (17 attendees across 8 sporting clubs), and
- 12 individual meetings with key stakeholders.

In total, 74 different organisations participated in the consultation process.

The review of existing sporting infrastructure revealed that GAA clubs predominantly use their own club facilities, while many other sports clubs utilised the facilities of other clubs for the purpose of training.

The consultation identified key challenges faced by sporting clubs in the promotion of minority sports, these include:

- inappropriate surfaces,
- safety concerns,
- lack of proper pitches and grounds,
- high costs for equipment and transportation, and
- insufficient neutral venues for competitions.

Furthermore, mainstream sports like GAA, Soccer, and Rugby face challenges related to space limitations, lack of all-weather surfaces, covered training areas and inadequate changing facilities.

This lack of available facilities is inhibiting the development of cross border and cross-community relationships and resulting in issues of social division and segregation as there are no opportunities for people to come together and connect through safe, shared, and inclusive activities.

This proposal will help to increase cross-community and cross-border integration in Cavan and the surrounding area by utilising lands previously owned by Cavan GAA and the Royal School.

The project partnership has a shared vision to transform the undeveloped town centre site into a sports campus with regional significance.

3.1 Regional Spatial and Economic Strategic for the Northern and Western Region

The Regional Spatial and Economic Strategic for the Northern and Western Region (RSES) provides a high-level development framework for the Northern and Western Region that supports the implementation of the National Planning Framework (NPF) and the relevant economic policies and objectives of Government. It provides a 12-year strategy to deliver the transformational change that is necessary to achieve the objectives and vision of the Assembly.

Cavan Town is noted as a Key Town by the RSES with Cavan Town described as performing a regional function, being the largest town within the Cavan/ Monaghan/Leitrim sub-region and being the town which experienced the largest growth within the past 10 years. It is described as having strategic facilities such as an acute hospital, Cavan Institute, Local Authority Headquarters, Agricultural College, Cathedrals and Sports Stadium.

The proposed development can achieve one of the key future priorities listed by the RSES as the following,

Develop a regional standard multi-sports facility to service the current and future needs of the town and wider county.

There is therefore a clear need for the proposed development as set out in the RSES.

3.2 Cavan Development Plan

Section 2.2.14 of the Cavan Development Plan sets out map based specific objectives for several areas within the Development Boundary. Objective 6 relates specifically to the proposed development.

6. Support the provision of a Sport Campus to build on existing sporting facilities, with the provision of additional pitch's and supporting infrastructure as well as:

- *Create permeability and linkages to the central town core and Dublin Road through strategic movement corridors*
- *Identify appropriate development opportunities*
- *Create visual and physical linkages to Swellan Lough*
- *Support and provide amenity opportunities*

The proposed development will directly enable the achievement of this objective by providing a sports campus whilst also providing additional pitches and supporting infrastructure. The proposed development will cater to a wide variety of sports and activities thereby supporting and providing amenity opportunities.

The proposed development will also enable greater connectivity. Currently the site consists of a patchwork of agricultural fields which are not accessible by the general public. A number of paths intersect the proposed development, opening up this area of land, creating greater permeability throughout the area and linkages between the east of the town and Swellan Lough.

Objective 14 is also relevant when considering the need for the development.

14. Provide for linear river walk. To maintain an exclusion zone along the length of the river, which would be kept free from development, this would be of appropriate width depending on gradients along both sides of the river. This area will form a linear parkway and wildlife corridor.

The proposed development is situated adjacent to the Cavan River with the river forming a key consideration in the design process. The proposed development maintains a development free corridor (with the exception of the required access bridge) running along the length of the Cavan River. This riparian corridor will be planted out with scrub/tree/woodland planting, encouraging its use as a wildlife corridor. This approach has been agreed with Inland Fisheries during a site meeting carried out 27/02/24.

4.0 EIA SCREENING AND SCOPING

4.1 EIA Screening

An Environmental Impact Assessment (EIA) Screening took place with regard to this Proposed Development in order to determine if an EIAR was required. A mandatory EIAR is required for developments that are a class of development specified within Annex 1 of the EIA Directive (as amended), or within Schedule 5 of the Planning and Development Regulations 2001 (as amended). The Proposed Development (see Section 3) has been screened under Part 2, Schedule 5 of the Planning and Development Regulations 2001, as amended. It is considered that the Proposed Development falls within a class of development being 10(b)(vi):

10. Infrastructure Project

(iv) Urban development which would involve an area greater than 2 hectares in the case of a business district, 10 hectares in the case of other parts of a built-up area and 20 hectares elsewhere.

It is considered that the site is located within a 'built up area' for the purposes of Schedule 5, Part 2, Category 10(b)(iv) and therefore the 10ha threshold would apply. The site is some c. 28a and therefore above the threshold and a mandatory has been completed in support of the Proposed Development.

4.1.1 Appropriate Assessment

Appropriate Assessment (AA) is a focused and detailed impact assessment of the implications of a plan or proposed development, alone and in combination with other plans and proposed developments, on the integrity of a Natura 2000 site in view of its conservation objectives. The obligation to undertake AA derives from Article 6(3) and 6(4) of the Habitats Directive.

Prior to AA, screening for AA must be carried out. The screening process concluded that the proposed development was likely to have a significant effect on the nearby European Sites and therefore shall be subject to an appropriate assessment.

The aim of the second stage is for the competent authority to carry out an appropriate assessment to determine if the proposed development will have an adverse effect on the integrity of a European Site; the competent authority may only approve the proposed development where they conclude beyond reasonable scientific doubt that the Proposed development will not adversely affect the integrity of a European Site. In order to provide the competent authority (in this case ABP) with the necessary

scientific information to allow them to conduct such an assessment, a Natura Impact Statement has been prepared and included as part of the consent application.

4.2 EIA Scoping

As part of the scoping process for this EIAR, a Scoping Report was prepared to identify the issues, as set out in Article 3 of the Directive, which are likely to be important during the EIA process. The scoping process identified the sources or causes of potential environmental effects, the pathways by which the effects can happen, and the sensitive receptors, which are likely to be affected. As well as identifying which issues should be examined in the EIAR, the scoping process also considered the level of detail that is appropriate to consider for each issue.

A comprehensive scoping process has been carried out to gather feedback and guidance on the requirements for inclusion within the EIAR. A Scoping Report was prepared and submitted to ABP (ABP-317891-23) however a tight schedule for delivery of the EIA has not allowed for feedback to be received from this Scoping Report. The Scoping Report has therefore been used to internally inform the direction of the EIAR.

The Scoping Report describes the construction and operational impacts likely to be caused by the Proposed Development, the methodology proposed to assess these impacts and suggests some preliminary mitigation measures for each environmental topic. Based on the findings of this report, none of the environmental topics could be scoped out at either the construction or operational stage of the Proposed Development. The final EIAR has therefore assessed the construction and operational impacts of the development for the full suite of environmental topics as assessed within this Scoping Report.

4.3 Consultation

Consultation was carried out with Paul O’Doherty (Conservation Ranger), Chris Liu (Conservation Ranger) and Dr. Maurice Evans (Divisional Manager) of the National Parks and Wildlife Service (NPWS). A site meeting was attended by MCL Consulting, representatives from NPWS, McAdam Design and Cavan County Council on 15th February 2024 in order to ascertain the extent of ecology surveys previously carried out on site discuss suitable mitigation measures for the proposed development. All relevant information has been integrated into this EIAR.

Consultation with Inland Fisheries (Ailish Keane- Senior Environmental Officer) has been undertaken, with a site visit on 27th February 2024 to discuss proposed mitigation and future survey requirements as well as enhancements within the riparian buffer zone.

5.0 CONSIDERATION OF ALTERNATIVES

This section outlines the Sports Campus layout and design considerations examined during the development of the proposal, including the reasonable alternatives considered and the main reasons for the selection of the proposed park layout and design, taking into account the effects of the project on the environment.

5.1 Consideration of Alternatives Approach

In accordance with the Directive 2011/92/EU as amended by Directive 2014/52/EU and, in consideration of the EPA's Guideline on the Information to be Contained in Environmental Impact Assessment Reports Draft August 2017, this chapter addresses alternatives under the following headings:

- 'Do Nothing' Alternative
- Alternative Locations
- Alternative Layouts

5.2 The "Do Nothing" Alternative

The "Do Nothing" alternative was reviewed against the Need and Demand (refer to Chapter 2, Volume 2 of this EIA Report, "Need for Development").

Following its completion and commissioning the Cavan Regional Sports Campus will:

- Address the identified deficit in indoor and outdoor sports facilities to meet demand, particularly for non-mainstream sports.
- Promote the development of cross border and cross-community relationships that result in issues of social division and segregation as there are currently no opportunities for people to come together and connect through safe, shared, and inclusive activities.
- Address challenges related to space limitations, lack of all-weather surfaces, covered training areas and inadequate changing facilities for mainstream sports like GAA, Soccer, and Rugby.

-
- Address a deficiency in sporting facilities that currently impedes the ability to target people who are inactive, or fall out of physical activity throughout the lifecycle, specifically older adults, people with a disability, disadvantaged communities, women and girls and young people.

As a result, the “Do Nothing” alternative was therefore discounted.

5.3 Site Location

5.3.1 Proposed Site Location

Within the Cavan County Council current adapted corporate plan, the first key strategic action was the expansion of recreational facilities throughout the county, including the development of a regional multi sports facility in Cavan town.

A ‘needs analyses’ of the county highlighted that the county does not have sufficient indoor and outdoor sports facilities to meet the demand, particularly for non-mainstream sports.

It is recognised that this deficiency in sporting facilities impedes the ability to target people who are inactive, or fall out of physical activity throughout the lifecycle, specifically older adults, people with a disability, disadvantaged communities, women and girls and young people.

An extensive consultation process was conducted in 2018 as part of a Feasibility study for the need of a Regional Sporting Facility for Cavan, this involved:

- A web-based survey (103 responses).
- The forming of focus groups with 10 National Governing Bodies of Sport.
- A public meeting (17 attendees across 8 sporting clubs).
- 12 individual meetings with key stakeholders.

In total, 74 different organisations participated in the consultation process.

Cavan County Council in conjunction with the Royal School Cavan, and the Cavan GAA County Board were successful in securing stream 1 funding from the Large-Scale Sport Infrastructure Fund (LSSIF) for the proposed Cavan Regional Sports Campus. Stream 1 funding is for the design stage of the project and will be followed in the future by an application for stream 2 funding for capital grants towards the

construction of the designed project. An application has also been made for SEUPB PEACE PLUS Programme: Building Peaceful and Thriving Communities.

The site benefits of compatibility to the proposals in consideration of:-

- The Regional Spatial and Economic Strategy (RSES) notes that Cavan Town performs a regional function, being the largest town within the Cavan/ Monaghan/Leitrim sub-region, therefore the Cavan Town is of suitable scale to provide and utilise an amenity of this size and significance.
- its accessibility from the town centre; the site is within walking and cycling distance from the respective town centres.
- its alignment with National, Regional and Local policies to provide sporting, cultural and community amenities.
- Zoning and CO6 Objective within the CDP.

5.3.2 Alternative Site Locations

The Project team initially identified 8 potential development sites, this extended to 11 during the analysis phase. Every site was visited, photographed and initial site assessments conducted by the appointed team. The identified sites were then shortlisted and those carried forward were assessed.

Site Options Sifting

To effectively sift or shortlist the site options identified above, each was 'sifted' against the assessment criteria. The following overarching points are noted:

- The council owned sites were not of sufficient scale to enable a one site solution. It became clear from an early stage that any preferred site would require either land transfer or land purchase to the local authority.
- Most sites accessed present major earthworks levelling, access or ground condition barriers and will require significant works.
- Sites to the North of the town centre offer strong links to major road infrastructure but present difficulties in terms of public access.
- Lands to the South-East, South and South-West of Cavan Town present the best connectivity with the town centre regeneration and revitalisation priorities, these sites also demonstrate access in terms of walking/cyclin, whilst still offering connectivity to major infrastructure such as the Dublin Road.

-
- Swellan Lough was referenced consistently as having significant potential and is an untapped resource for the town, sites that offered connectivity here were found to have been preferable.

Shortlist of Site Options

In considering the initial site assessment, the following were shortlisted for further consideration and analysis:

- Approx. 14-hectare Site situated to the South-East of Cavan Town .1
- Approx. 8-hectare Site situated to the East of Cavan Town.
- Approx. 18-hectare Site situated to the South-West of Cavan Town (Located between Breffni Park and The Royal School).

Location

- Orientation
- Access to main roads
- Relation to Town Centre
- Adjoining Properties
- Site Entrance Details
- Access to Public Transport

Site Details

- Site area/Size
- Shape of site
- Levels
- Boundary Conditions
- Ground Conditions

Planning Restrictions

- Zoning
- Access
- Impact on Neighbouring Properties
- Site Profile

Development Impact

- Strategic Alignment of site to consultation findings and wider policy priorities for Cavan.

From this assessment the 'preferred' site was identified.

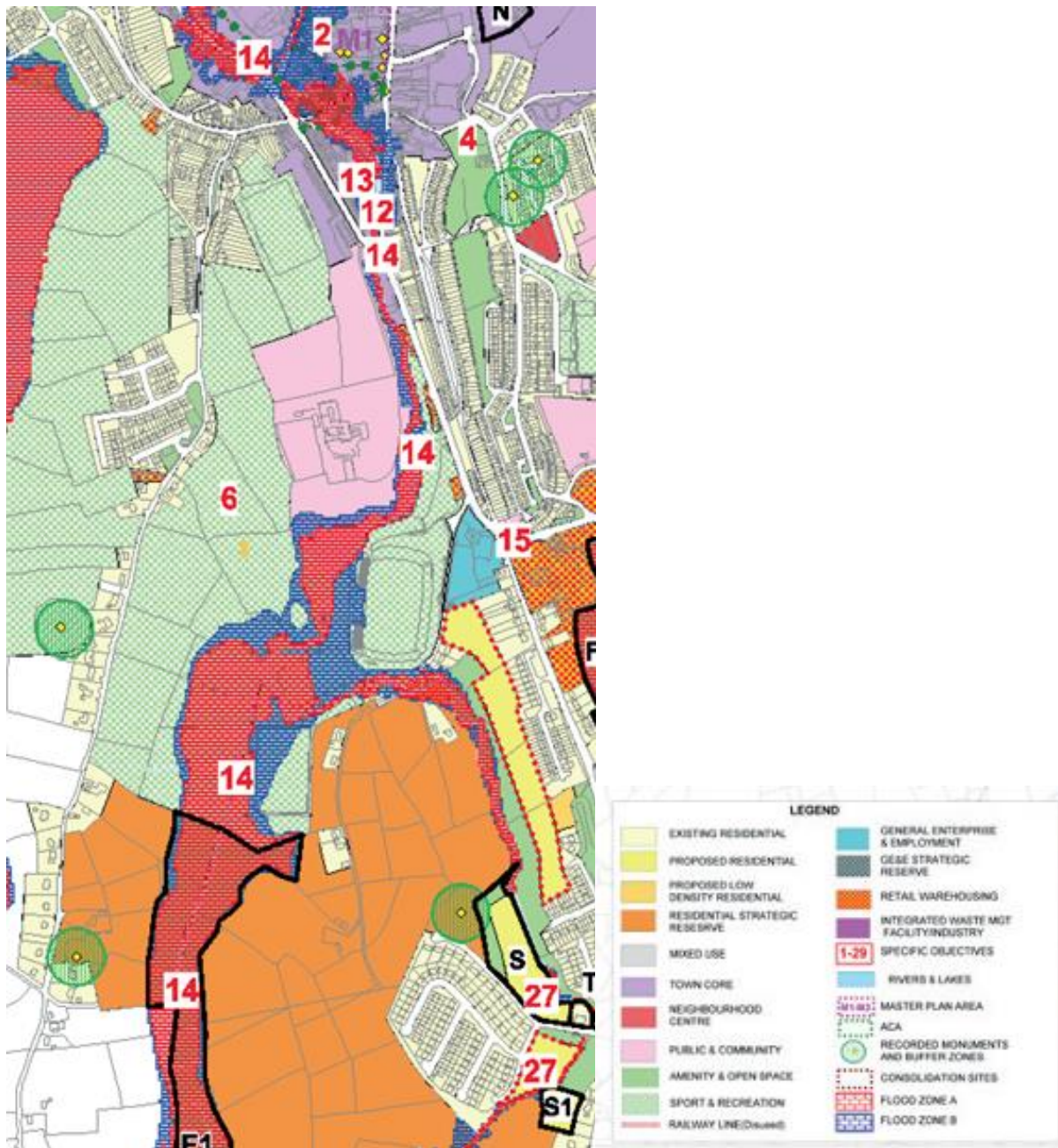
Site Zoning

The Cavan County Council Development Plan 2022-2028, extract presented in Figure 4, has zoned the development site for 'Sports and Recreation' uses. This parcel of lands allows for connectivity to Cavan Town, and good vehicular access from the Dublin Road.

The 'Sports and Recreation' zoning also applies to lands close to Cavan Town between Kilnavarragh Lane and Swellan Lough, however vehicular access to these lands for a major sports facility is not as favourable and the lands are topographically less suitable for pitch development.

In consideration of the fact that the site is zoned for sports and community use within the Cavan County Development Plan (CDP) and CDP Objective C06 states 'support the provision of a Sport Campus to build on existing sporting facilities, with the provision of additional pitch's and supporting infrastructure'.

Figure 4: Land Zoning (Extract), Cavan County Council Development Plan 2022-2028



Therefore, the proposed development site is the most optimal location for the facility with important proximity to Cavan Town.

5.4 Alternative Access

The Council undertook an alternative access appraisal assessing various possible options for the site access, looking at the pros and cons of four different options:-

- Kilnavara Lane
- Dublin Road- Crossing Deep Ravine
- Dublin Road Via Breffni Park North Terrance
- Park Lane

This options appraisal document, which concluded that the Dublin Road Via Breffni Park North Terrance as being the most viable site access option, is presented as Appendix 5.1 of Volume 3 of the EIAR.

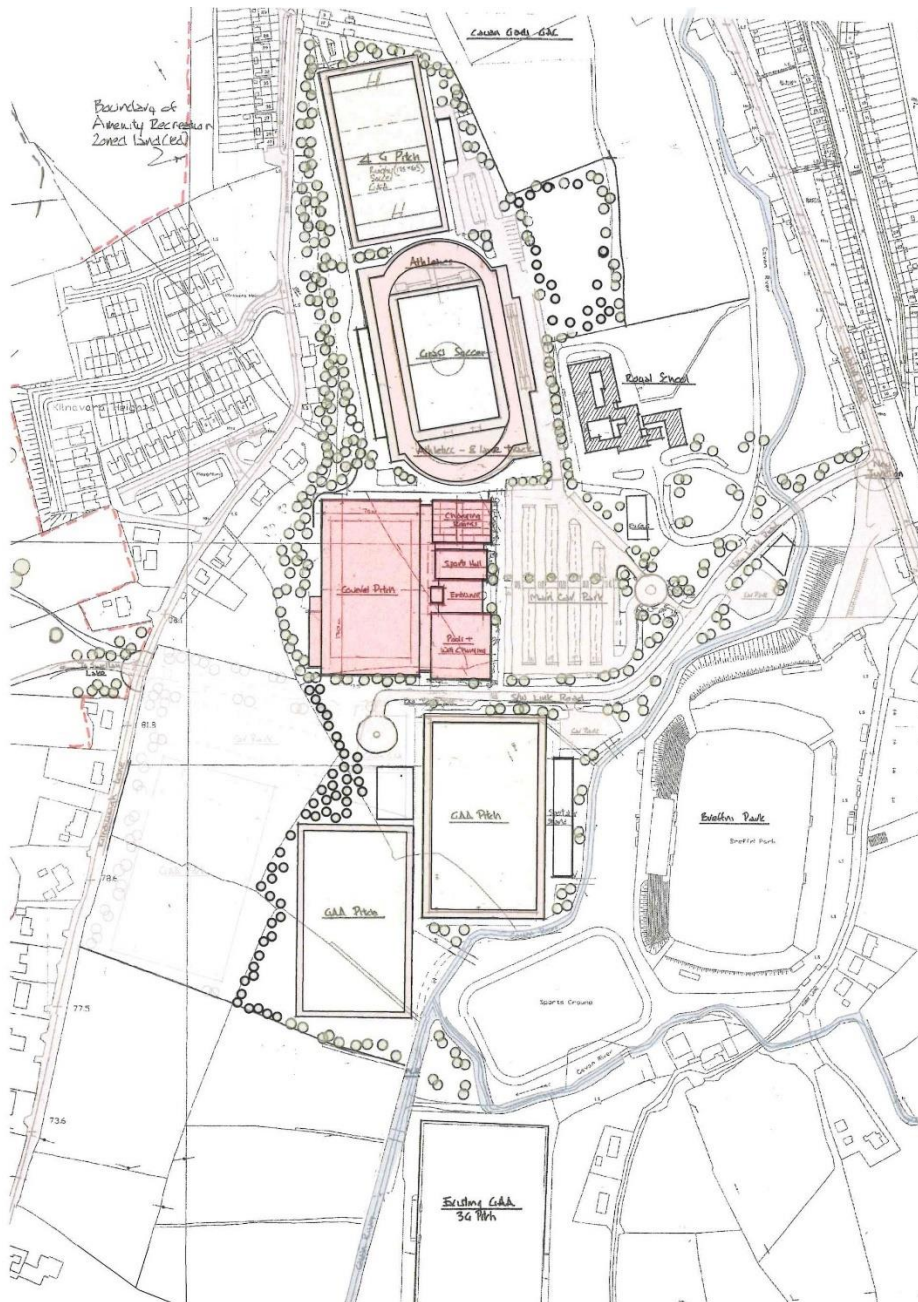
5.5 Alternative Site Layouts

An initial concept layout, developed by HPA Architecture working with Cavan County Council was presented to the Design Team. This is presented as Figure 5.

This concept presented a layout involving different elements of the proposed development, including an enclosed arena with ancillary structures, positioned centrally, an athletics track with 4G pitch to the north, a car park located south of the Royal School, and up to three open GAA pitches in the southern portion of the site.

This is a different layout to the final proposed layout and is also slightly smaller in scale compared to the final design, not extending as far south (smaller site area).

Figure 5: Initial Concept Plan



As part of the initial Stages of designing the development the Design Team was required to preset at least three alternative layouts for consideration by the Council and other stakeholders. Three layout 'Options' were developed, as presented in Appendix 5.2 of Volume 3 of the EIAR. These alternative layouts were informed by initial environmental survey works, including ecology works, to help identify any major constraints. Feedback from other stakeholders, including the GAA and Royal School was also taken into account to accommodate their needs and expectations for the proposed development.

It was quickly established that the location of the access bridge across the Cavan River as presented in the Concept Plan was going to be significantly impactful to the local ecology, cutting through a small, but ecologically-sensitive patch of native riparian woodland. The environmental team advised that this bridge should be located further to the south in a less impactful, more ecologically benign, area of the site.

The development also had to accommodate and incorporate existing development within the site, including a recently completed small car park and access bridge located west of Breffni Park.

Further consultations with key stakeholders were undertaken to help develop development options within the site. The Royal School also identified the need for a Hockey Pitch, ideally positioned close to their existing school site. Various alternative layouts were presented the Council and key stakeholders by the design team, showing different positions and orientations for the main development components and in the end a total of around five (5) main layout options were considered.

During that process, additional greenfield lands to the south of the original development site extends became available and these lands were therefore considered for incorporation into the development, allowing the additional of two further GAA pitches, making five GAA pitches in total. The GAA identified a need for additional pitches for training and to encourage development of youth teams and this fitted with the decision to expand the development into a larger site. This 'Option 5' design layout for the expanded development site is presented as Figure 6.

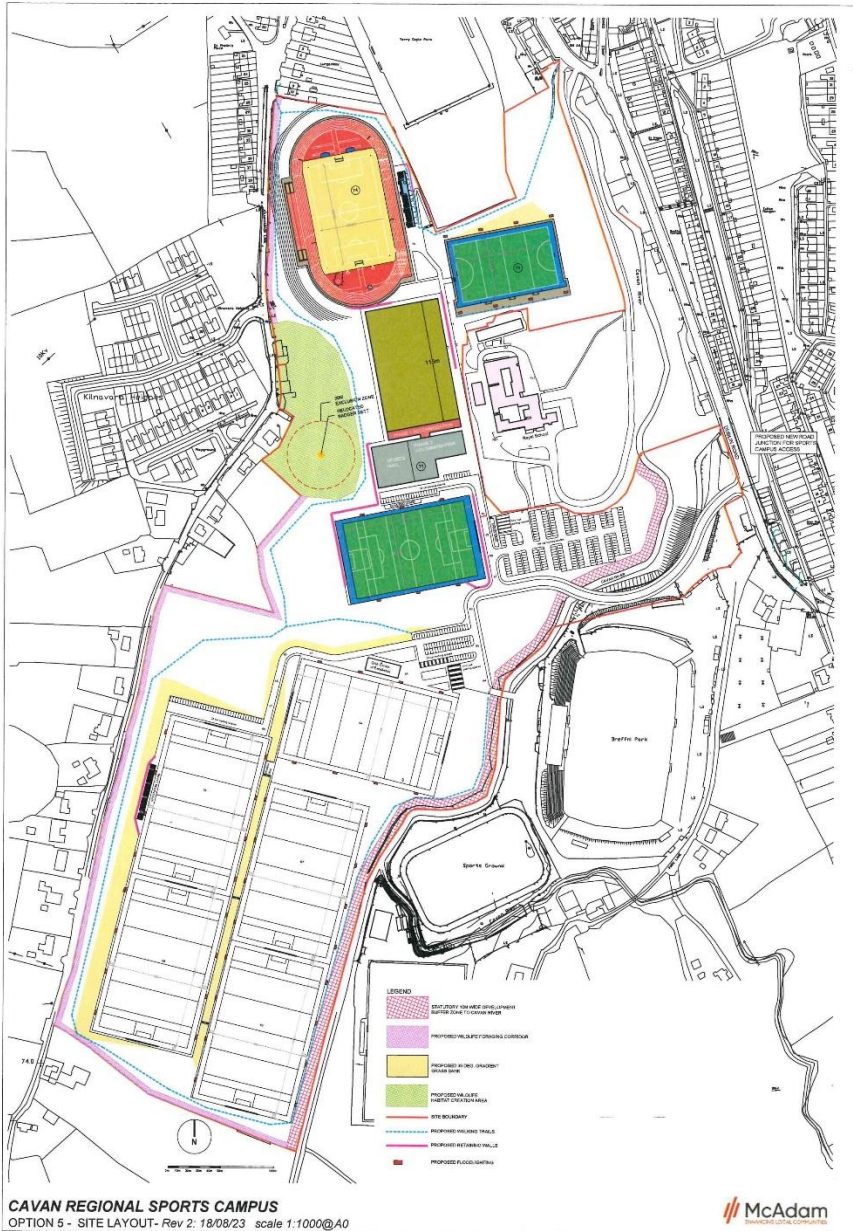
Bat Roost Potential works were undertaken to identify trees within the development site of particular worth in terms of bat habitat. Each design option was considered in terms of habitat loss in relation bat and breeding bird and this, along with other practical and environmental considerations helped drive the decision regarding which design layout option would be brought forward for full design.

Option 5 was selected by the stakeholders to be brought forward for full design, since this layout met all of the stakeholders requirements, and appeared to be the least impactful layout in terms of habitat loss and amenity protection.

Option 5, and the expansion of the development area, also facilitated the opportunity to set-aside a suitably large area within the development for wildlife compensation and visual / noise screening.

Option 5 also facilitated the opportunity to propose further wildlife habitat creation of a riparian planted strip extending along the western margin of the Cavan River.

Figure 6: 'Option 5' Concept Plan



During the detailed design stage, other more minor alterations were made to the layout to further minimise environmental impacts:-

- The main carpark layout was re-designed to allow for the retention of a mature and prominent oak tree south of the Royal School.

-
- The development layout was slightly modified to allow for the creation of a central wildlife corridor to encourage mammal connectivity between the wildlife set-aside area in the west and the riparian zone in the east.
 - Review of published flood mapping, and additional flood modelling carried out as part of the environmental works, identified that some areas of the southern area of the site were prone to fluvial flooding and this constrained the type of development which could be proposed there. The pitch layout in the southern area of the site was modified, resulting in the loss of one GAA pitch (4 now in total).
 - Feedback from the local community indicated that some form of 'garden' within the development would be worth considering. A garden area was designed in the flood plain area in the vicinity of the lost pitch. However, Further consideration of flood risk policy in relation to acceptable development in the flood plain, led to the removal of the garden area from the development layout plans.
 - Feedback from the local community indicated that some walking trails allowing pedestrian access to the site and walking / running opportunities within the development, hence a number of pedestrian access points and path networks were added.

5.6 Conclusions

The selection of the site location has been made on sound policy grounds based on Location, Site Details, Planning Restrictions and Development Impact. There is no suitable alternative site in the vicinity of Cavan Town. Having the facility sited close to Cavan Town and the existing Breffni Park is vital to the accessibility and success of the proposed scheme.

The development also incorporates the use of brownfield lands in Cavan Town (lands to west of Dublin Road) to minimise the use of virgin land. The use of brownfield land for redevelopment is in line with the EPA brownfield land and sustainability development policies as described in the EPA Document '*Ireland's Environment – AN Integrated Assessment*'. This encourages the use of brownfield land in urban setting for development stating '*Practising sustainable land management and soil conservation principles at the heart of the planning process means shifting away from a reliance on zoning of greenfield lands towards more brownfield development opportunities in and around our major cities and towns*'.

A range of alternative layouts were considered as part of the process to develop a sustainable and low impact solution for the development, and through this process the design layout has been optimised allowing potential environmental and amenity impacts to be minimised.

6.0 ENVIRONMENTAL TOPICS COVERED IN THE EIA

6.1 Population and Human Health

This chapter of the Environmental Impact Assessment Report (EIAR) sets out an assessment of the likely impacts of the proposed Cavan Regional Sports Campus on the local population and human health. The impacts on human health can be influenced by various social, economic, and environmental factors. The significance of these factors may differ depending on the specific details of the project and the unique circumstances of the local community.

The primary objective of an Environmental Impact Assessment (EIA) is to assess the potential environmental impacts that could pose risks to both the environment and human health during the planning phase of the development. Given to the complexity of health, the planning system categorises health determinants, such as activities and hazards with potential health implications, into separate technical disciplines and chapters within an EIAR. These chapters focus on areas such as air quality, noise, and transport. The purpose of this chapter is to utilise and expand on the main findings presented in each relevant EIAR chapter in order to assess the potential risks posed to local communities. This chapter also provides an overview of the environmental baseline, findings from studies and consultations, and any assumptions and limitations encountered during data compilation.

The environment can be affected by any development, which can have both direct and indirect impacts on humans. These impacts can be positive or negative. It is important to thoroughly address any potential impact on the population and human health that may arise from a development proposal. It is considered that the direct impacts on population and human health can come from air quality, noise, traffic, socio-economic impacts and also potential impacts to the land and water quality.

This chapter draws out the key components of the EIAR relevant to the population and human health and cross references where necessary with other chapters of the EIAR. Interactions are considered as appropriate with other chapters as appropriate.

No mitigation measures are recommended specifically with regard population and human health as there are no anticipated significant effects from the construction or operational phase. Mitigation

however is considered within various chapters within the EIAR and are relevant to a broader range of sensitive receptors. Mitigation however is considered to further reduce or completely eradicate the potential for any significant impact upon population and human health.

It is considered that the impacts to the population and human health will be generally positive and will support many of the strategic and local objectives set out within the National Policy Framework (NPF) and the Cork County Development Plan in relation to communities, health and wellbeing and quality of life.

In conclusion, it is unlikely that the construction or operation of the proposed development will have any significant effects on human health. This assessment is made on the basis that any potential changes in health indicators would not be substantial enough to observe any noticeable shifts in the overall health and wellbeing of the locality or community.

6.2 Biodiversity

MCL Consulting were appointed by McAdam Design Ltd to undertake an ecological appraisal of the proposal for a sports campus to be located on lands north, south and west of Royal School Cavan and west of Breffni Park GAA grounds, County Cavan.

Following an initial ecological assessment and subsequent recommendations, MCL Consulting were appointed to undertake a suite of protected species surveys including, breeding birds, otter, pine marten and badger, as well as undertaking an Appropriate Assessment and Natura Impact Statement. Further surveys for white clawed crayfish and freshwater pearl mussel are to be undertaken during early 2024. Further bat roosting assessments and bat activity surveys of the site were undertaken by AECOMM. MCL Consulting were appointed to provide further stage 2 ecology assessments and suitable mitigation measures regarding potential impacts on the proposed sites local habitats, flora and fauna populations and ensure the proposed development is environmentally and ecologically sensitive. A detailed badger sett relocation is to be undertaken, with closure of an existing breeding sett, and provision of a new, artificial sett within a dedicated habitat compensation zone. Riparian zone planting is to be undertaken to provide a habitat buffer between the development and the Cavan River, as well as further habitat compensation enhancement works including partial hedgerow translocation and woodland planting.

The Chapter (Chapter 8 of Volume 2) reports the outcome of the assessment of likely significant effects arising from the proposed development on ecologically sensitive receptors. Effects considered include both protected species and habitat scale assessments within the Site and off-Site. It also describes the assessment methodology, baseline conditions, any primary and tertiary mitigation adopted for the purposes of the assessment, a summary of the likely significant effects taking into account legislation, the further mitigation measures required to prevent, reduce or offset any significant negative effects, and the likely residual effects after these measures have been employed.

Overall, the site is of moderate ecological value primarily due to the presence of protected species rather than value and diversity of habitats. Scheme design has followed the mitigation hierarchy and retained aquatic habitats with suitable buffers as well boundary vegetation and high value trees where feasible. Mitigation measures are recommended to ensure the functionality of these retained habitats are maintained during and post construction.

Due to the presence of commuting bats on site, mitigation measures are provided that reduce effects during construction and operation from lighting and disturbance. The use of a buffer and sensitive light schemes will be key to maintaining dark corridors across the site. With these in place, the effects reduce from major to negligible.

Detailed mitigation is provided in relation to protection of aquatic habitats and associated fauna, and further documentation such as a surface water management plan and CEMP are required to provide full details and will result in negligible impacts.

The active badger sett on Site is to be closed under ecological supervision, with a replacement sett and suitable habitat compensation and underpasses provided. However, there could be an overall reduction in foraging opportunities within the site and therefore, the maintenance of ecological corridors around the Site through underpass provision, allows ongoing access into the wider landscape and allows movement of badgers to alternative foraging grounds. The result of this is likely to be a minor negative effect to badger foraging.

Following the creation of the habitat compensation area and other landscape planting to incorporate woodland and grassland habitats across the Site, it is anticipated that there will be an offset of negative impacts from habitat loss.

Therefore there is not considered to be any residual significant effect as a result of the scheme, provided the detailed mitigation is adhered to.

6.3 Lands, Soils and Waters

This chapter of the EIA considers the likely significant effects on the land, hydrogeological and hydrological environment associated with the construction and operation of the proposed Cavan Regional Sports Campus, Co. Cavan, Cavan Town.

This assessment and techniques used are aimed at identifying the environmental impacts of the proposed development on the Soils and Waters environments with mitigation measures developed for the construction and operation stages to ensure that the development is sensitive to the location and impacts are minimal.

This chapter draws on and summarises information and assessments considered in detail by technical reports, submitted as Technical Appendices in Volume 3 of the EIA and presented in the form expected by the competent authority when consulted in relation to the planning application.

This assessment determines the nature, scale and significance of the effects of the proposed development on the baseline (current) scenario in accordance with a methodology stated within The Institute of Environmental Management and Assessment guidance¹.

The significance of any potential impact has been determined based on:-

- the importance of the feature to be protected.
- the magnitude of the impact on the receiving geological / hydrogeological / hydrological environment.

Using information from the desk study and data from the site investigation, an estimation of the importance of the soils, geological and waters environment within the study area is assessed.

¹ Institute of Environment Management and Assessment (2004) Guidelines for Environmental Impact Assessment

6.3.1 Evaluation of Impacts

Construction Phase

Implementation of the mitigation measures outlined in the **Error! Reference source not found.** section (Section 9.9.1 of Chapter 9 of the EIAR), in line with good construction practices, will minimise the risk to the water environment during the construction phase of the proposed development and any residual impacts will be neutral and temporary.

Operational Phase

Following implementation of mitigation outlined in the **Error! Reference source not found.** section (Section 9.9.2 of Chapter 9 of the EIAR), potential impacts to the water environment are related to flood waters and will be avoided / prevented, reduced or offset. Residual impacts would be reduced to neutral significance, due to the adoption of appropriate additional mitigation measures. For example, a 'not significant' impact for flood risk has been achieved with the provision of SuDS designed to achieve greenfield runoff rates.

6.3.2 Conclusion and Residual Impacts

The assessment identifies the potential impacts to land, groundwater and interconnections with surface water. This assessment summarises the state of the land and water quality. It summarises the relevant legislation and guidance and provides appropriate baseline information, enabling the potential effects to be identified.

Aspects of the design, construction and operation of the proposed development that may potentially impact on the receiving water environment have been identified and the pathways for impacts assessed. It has been determined that without mitigation of the proposed development would be likely to cause negative impacts to the water environment due to sedimentation mobilisation and fuel / cement spillages if not appropriately managed during the construction phase.

The implementation of a Construction Environmental Management Plan combined with best practice and rapid response to spillage events eliminates or reduces the potential significance to all water receptors to "not significant". An Outline CEMP has been developed to support the proposed development and guide the process of preparing a Final CEMP.

All potential long term impacts to land, soil and water are related to surface water runoff, which will be managed by a SuDS scheme.

The Flood Risk Assessment confirms that the proposed development causes no change to predicted flood extents or flow routes outside the site, and no measurable effect to flood levels outside the site, and no increased pollution loading which is not properly managed, therefore cumulative effects are considered insignificant.

Implementation of the mitigation proposed eliminates or reduces the potential significance to all receptors to “not significant”. Therefore, there are no significant residual effects to the soils and waters environments from the proposed development.

6.4 Air and Climate

The Air and Climate Chapter sets out the Air Quality and Climate Impact Assessment for the Project as a whole.

With regard to Air Quality this assessment is based on published best practice guidance such as the National Society for Clean Air Development Control: Planning for Air Quality and the Government Technical Guidance (LAQM TG(16)). There are two main methods by which a development’s impact on air quality can be determined:

- Air quality screening assessments
- Atmospheric dispersion assessments

The main existing impact on air quality in the vicinity of the proposed development site is due to emissions from traffic along with domestic and industrial emissions. The existing air quality in proximity to the site is ‘good’.

There will be a potential for construction dust to be generated due to construction activities and the movement of construction vehicles during the construction phase. The approximate 19 and 28 months for phase 1 and 2 respectively will have a short-term and localised negligible impact on air quality. The mitigation measures outlined will reduce the potential for construction dust impact to negligible.

An assessment of the potential air quality impact on the existing residential receivers in proximity to the proposed development site due to additional traffic emissions has been undertaken. The proposed development will have a negligible impact on local air quality using the Environmental Protection UK (EPUK) and Institute of Air Quality Management (IAQM) guidance “Land-Use Planning & Development Control: Planning for Air Quality (January 2017). A screening assessment using the DMRB Screening

Assessment Tool to estimate future additional levels of air pollutants and the relative impact on sensitive receptors has not been necessary based on the future proposed traffic flow information provided by the traffic consultants for the proposed development.

An indoor sports complex building is to be provided incorporating sports halls with spectator seating, fitness studios, changing facilities, reception, canteen and ancillary accommodation. The heating systems for the proposed sports complex building are to be air/water heat pump type system. Therefore, emissions from space heating requirements will result in an insignificant impact on local air quality. At this stage of the design process accurate data cannot be provided in relation to the exact manufacturer and supplier, etc. However, it can be stated that the emissions from the heating requirements of a modern system will not result in a significant impact on local air quality.

It is therefore concluded that the proposed development will not have an adverse impact on air quality in the vicinity of the site and there will be no significant air quality impact on residents in the area.

6.5 Noise and Vibration

The Noise and Vibration Chapter sets out a noise and vibration impact assessment for the proposed sport regional campus in County Cavan.

The proposal is for the construction of a regional sports campus including an athletics track, stand and soccer pitch infield, hockey pitch, covered arena, multisport pitch and stand, GAA pitch and stand and GAA training pitches.

The sound levels of the local area consist of local road traffic.

The proposal has the potential to increase noise levels due to construction works phases and also has the potential to introduce operational noise due to the sports pitches and spectators using the facilities and these scenarios are therefore also assessed.

The assessment considers the predicted noise levels at the nearest noise-sensitive receptors (NSRs) from typical sport pitches and spectator noise levels following best practice and current guidance.

The predicted noise levels are compared to the existing baseline measured sound levels at the NSRs, and guidance from Sport England, World Health Organisation (WHO) and British Standard BS 8233 for suitable outdoor and internal noise levels.

The likelihood of adverse impact at the NSRs are assessed based on the proposed industrial and commercial noise introduced by the proposal.

An assessment is carried out for noise and vibration impacts during the construction phase and control and mitigation measures are provided following BS 5228:2014.

Noise modelling has been completed to determine the potential future noise impacts of the proposal at the nearest noise sensitive receptors.

The predicted noise levels without mitigation measures exceeded the guideline level of 50 dB(A) in the amenity spaces of noise-sensitive receptors.

Plant noise has been assessed according to BS 4142 for the proposed rooftop plant for the proposal. The predicted noise levels and rating level are below the measured background sound level for the noise sensitive receptors and therefore results in no impact.

Mitigation in the form of a noise barrier around the southern perimeter of the site showed that noise levels were reduced to achieve the 50 dB(A) guideline noise level in amenity spaces.

The cumulative noise impact of the proposed sports campus was modelled and predicted to not exceed a noise level of 50 dB(A) and is in line with the guideline level not to be exceeded for sports activities and the WHO guidance for external amenity.

The noise modelling predictions aim to provide a worst case in terms of future operational noise levels and are considered acceptable for the proposed development.

6.6 Materials Assets

The Material Assets Chapter describes material assets that are potentially impacted by the proposed development. The purpose of this assessment is to identify relevant material assets that are within the vicinity of the proposed development site or will be utilised by the development, to determine the

impact, if any, on these resources, and propose mitigation where necessary to ensure that they are used in a sustainable manner.

6.6.1 Scope of Assessment

Material assets are defined in the EPA Draft Advice Notes for Preparing Environmental Impact Statements (2015) as:

“Resources that are valued and that are intrinsic to specific places [...] They may be either of human or natural origin. The assessment shall be concerned primarily with ensuring equitable and sustainable use of resources”.

The characteristics of the potential impacts consider the following factors:

- Impacts on Population and Human Health
- Impacts on Biodiversity
- Impacts on Soils and Water
- Impacts on Air and Climate
- Impacts on Noise and Vibration
- Impacts on Cultural Heritage
- Impacts on Landscape and Visual Impact

These potential impacts are assessed within the designated Chapters of the EIAR.

The definition of ‘Material Assets’ in the EPA Revised Draft Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (August 2017), lists Built Services, Roads and Traffic, and Waste Management as material assets and recommends the following topic areas to be assessed for Roads and Traffic and Built Services:

Material Asset	Considerations
Roads and Traffic	Construction Phase
	Operational Phase
Built Services	Electricity
	Telecommunications
	Water Supply Infrastructure
	Sewerage

The Material Assets Chapter focuses on the assessment of the impacts on Built Services only. The assessment of Roads and Traffic is provided in Chapter 13 of the EIAR (and summarised in Section 6.7 of this NTS). As there is no interface with rail or aviation infrastructure, no impacts on rail and aviation were anticipated.

6.6.2 Assessment of Significant Impacts

Do Nothing Impact

In order to provide a qualitative and equitable assessment of the proposed development, the likely impacts upon the receiving environment were considered in the scenario, should no development be proposed.

If the proposed development does not proceed there would be no additional demand of loading on built services.

Predicted Construction Phase

Utilities

The proposal will provide new connections to the existing wastewater, water and electrical supply networks (utilities).

Temporary wastewater and electrical supply for utilization during construction works will be provided by the Contractor(s). Connection to the local water supply may be permissible on agreement with Irish Water.

The existing overhead ESB cables traversing the site will be diverted underground. Construction works associated with the diversion of the overhead cables and electrical substation are subject to detailed

design and ESB requirements. Work to remove the existing overhead lines shall be carried out in the first phases of construction within the project.

The potential impact from the construction phase of the proposed development on the local utility networks is likely to be short term on low.

Waste

The proposed development will require a large amount of cut and fill, with the majority of the excavated material to be retained on site for re-grading works. As such there will be limited off site removal of waste material from construction activities. Furthermore, no demolition is required during the construction phase, further limiting any waste materials.

Construction related waste will also be created on the proposed development site. This has the potential to impact on the local municipal waste disposal network.

The potential from the construction phase on municipal waste disposal is likely to be short-term and moderate and will be required to be undertaken in accordance with best practice.

Predicted Operational Phase

Utilities

The development will be connected to mains utilities including water, wastewater and electric networks, subject to detailed design considerations and consents. The impact of the operational phase of the proposed development is likely to slightly increase the demand on the existing supply; water supply and electrical supply will be metered whilst only foul wastewater will be discharge to the local wastewater network.

Proposed surface water drainage for the proposed development is detailed in Chapter 9 of this EIA Report, "Lands, Soils and Water".

The potential impact from the Operational Phase on the wastewater and water supply network is likely to be long term and low.

The potential impact from the Operational Phase on the electrical supply, including diversion of overhead cables is expected to be long term and of benefit the aesthetic of the site.

Waste

The impact on the operational phase of the proposed development on municipal waste disposal is likely to be a marginal increase in demand. The potential impact from the operational phase on municipal waste disposal is likely to be long term and minor.

Predicted Cumulative Impact

The cumulative effects of the proposed development on foul and surface water disposal, water supply, electrical supply and municipal waste will be considered by the relevant utility providers and are anticipated not to be significant.

6.6.3 Conclusion

A qualitative description of the resultant specific direct, indirect, secondary, cumulative, short, medium and long-term permanent, temporary, positive and negative effects as well as impact interactions which the proposed development may have, assuming all mitigation measures are fully and successfully applied were assessed. In addition to mitigation measures outlined in this Chapter, mitigation measures have also been considered throughout this EIA Report.

Construction Phase

If unregulated, predicted impacts associated with the construction phase of the proposed development on Built Services would be expected to include potential disruption to local natural and human material assets resulting in both short-term and long-term impacts. The implementation of the mitigation measures set out in this Chapter and the subsequent Chapters of the EIA Report would ensure that there is unlikely to be any significant residual impact during the construction phase. Therefore, impacts are likely to be temporary and neutral.

Operational Phase

The proposed development is unlikely to have any significant impact on the local water, electricity or waste management networks and the overall impact with respect to these utilities can be described as long-term and neutral.

The predicted wastewater generation of the proposed development will be adequately accommodated in the local foul sewer network. Residual predicted impacts on this infrastructure are likely to be long-term and neutral.

The surface water drainage strategy for the proposed development has been designed to comply with the requirements of the 'Cavan County Development Plan 2022-2028' to promote and encourage the use of Sustainable Drainage Systems (SuDS) throughout and is therefore unlikely to have any residual impacts in terms of the impact on surface water drainage. Refer to Chapter 9, "Lands and Soils" for details.

6.7 Traffic

This chapter along with the accompanying Traffic Assessment (Appendix 13.1 of Volume 3) assesses the traffic impact of the proposed development.

While adopting the relevant guidelines, the assessment methodology relies on the following principles.

- Expected use of the proposed sports facility – The PEACE Link in Clones, Co Monaghan is a similar facility which has been surveyed on both weekdays and weekends to ascertain likely generated use to the proposed development.
- Baseline traffic surveys - Baseline traffic surveying desktop study with existing traffic data available combined with additional traffic surveys specific to the proposed development.

In establishing the impact proposed development traffic will have on the existing baseline traffic the following method has been adopted.

- Existing Road Network - Comparing the baseline traffic presented to the additional traffic generated during construction and operation for normal use.

No discount for existing trips associated with the Royal School and Park Lane to ensure robust assessment.

The assessment concludes that the proposed development peak hours of traffic operation fall outside the existing peak hours of existing traffic network, therefore in traffic terms the impact is minimal with significant benefit to sustainable transport and footpath links throughout Cavan. The provision of a right turn lane will assist in benefiting vehicles turning right into the proposed development whilst facilitating through traffic.

In addition to the health benefits of the scheme, the scheme also brings significant benefits relating to Park Lane realignment; Breffni Park new parking and pitches; the Royal School new drop off for parents and buses; and removing that traffic from the existing school site.

Given the result of this study it is considered the traffic impact of the proposed is negligible to slight on the receiving environment, particularly during the construction phase.

6.8 Cultural Heritage

This Chapter of the EIAR has been written to address Architectural & Cultural Heritage for the proposed Cavan Regional Sports Campus, located to the South of the town, for Cavan County Council. More detail can be found in the Architectural Heritage Impact Assessment (AHIA) which is included as an appendix to the EIAR – (Appendix 14.1 of Volume 3)

The initial findings of the heritage analysis were prepared in parallel with completing the design work, in order that the findings could inform the design and be factored into the decisions made to ensure that the heritage is protected by considering potential impacts and mitigating them where possible.

The site visit was carried out by Graeme Moore - RIBA Accredited Specialist Conservation Architect (RIBA SCA) on Friday 8th December 2023. This site inspection assessed the Heritage of the immediate surroundings of the proposal, Protected Structures and important views for the purposes of this report.

6.8.1 Conclusions/Residual Impacts

The Lead Architects, Planning Consultant and Client have shown due diligence to consider the Cultural Heritage as part of the design process by appointing a Conservation Architect along with other appropriate professionals.

Individual Protected Structures and views which may have vulnerabilities have been identified in the analysis section of this report.

The Cultural Heritage assessment has been completed in parallel with the design process to assist in informing the design work for the sports buildings, pitches and associated public realm spaces.

The process has analysed the proposals to ensure that the Protected Structures are not adversely affected by the proposed works, taking account of heritage Policy as set out in the AHIA (Appendix 14.1 of Volume 3).

As the works are focussed on site works adjacent to the buildings, rather than to the buildings themselves, it is anticipated that the impacts on the Protected Structures will not be significant and that the scheme as a whole will be hugely positive upon completion for the community.

6.9 Archaeology

The Archaeology Impact Assessment contained within the Archaeology Chapter was conducted in three stages. Firstly a detailed desktop survey was undertaken to identify all known archaeological sites, designated architectural heritage structures and other undesignated cultural heritage assets within the study area.

The principal sources reviewed for this assessment of the known archaeological resource are the Sites and Monuments Record (SMR) and the Record of Monuments and Places (RMP). Archaeological monuments included in the statutory RMP are legally protected and are generally referred to as 'Recorded Monuments'.

Secondly a detailed walkover survey of the proposed route of the greenway was conducted by a fully qualified archaeologist. Finally, the information provided by both the site inspection and the desk top survey was assessed in relation to the potential impact of the proposed development on archaeology and the opportunities it may present. Having assessed the potential impact upon archaeology, a mitigation strategy has been established.

The desk top survey has indicated that there are no known archaeological sites within the red line boundary for the application site. Looking beyond the application site, the wider search area identified 18 known archaeological sites. These included seven sites of early medieval date. While none of these sites will be directly affected by the proposed development they do point to a level of human activity in this area from these times and the application site may be located within a wider early medieval landscape.

The application site is approximately 18.5ha of mostly previously undeveloped land. Such sites are rarely archaeologically sterile and it is possible that previously unknown, sub-surface archaeological

deposits could be identified here. Should such deposits exist then they may be impacted upon by the proposed construction programme. The extent of any such impact can be reduced through the implementation of a pre-construction mitigation strategy. This should include:

- Geophysical survey of the development area to identify potential sub-surface archaeological deposits.
- Archaeological test trenching of identified geophysical anomalies.
- Preservation in-situ or by record of the identified archaeological deposits
- Production of a final excavation report and deposition of site archive with National Museum Ireland.

Following the implementation of this mitigation, the proposed development will have no residual impact upon archaeological features within the site.

6.10 Landscape and Visual Impact

The aim of this assessment is to describe, classify and evaluate the receiving environment, in order to be able to make an assessment of the likely landscape and visual impacts that the proposed development will cause, thereby providing guidance for landscape design and appropriate mitigation measures to be incorporated in the proposals for the site. The existing landscape character and visual conditions have been separately surveyed and assessed. The landscape assessment identifies constituent features and elements which characterise this particular landscape. The visual assessment establishes the area in which the development may be visible, the different groups of people who may experience views of the development and the nature of views and visual amenity.

6.10.1 Statement of Significant Effect/Conclusion

The site can accommodate the development without, in the longer term, a major change in the landscape character of the surrounding area. This is due to the secluded riverside setting, the development of the main buildings sunken into the site topography, the retention of existing vegetation where practicable, and the generous planting proposed to help integrate the new development.

The chapter concludes that this will have no appreciable impact on the inherent qualities of the landscape/townscape setting of Cavan town rather that it will rationalize land use in creating a new

sports campus with the character of a town park and introducing a more urban context to the Royal School listed buildings.

The chapter also concludes that the development will have no appreciable impact on the setting of the recorded monument Ref CV025-074.

The direct landscape loss of agricultural land in developing the facility will be compensated for by capitalising on other landscape resources such as increased specimen tree, woodland and hedge planting, significantly improving and extending these habitats.

The northern section of the development is partially open to short views in from minor roads to the northeasteast, south and southwest, at distances ranging from 124 to 241 metres from the site. Parts of the development would initially be visible reducing in time as mitigation planting becomes established. In addition, this planting will have a positive effect in extending and enhancing the specimen tree and woodland cover in the locality (see Appendix 16.5 of Volume 3 - Viewpoints VP4 to VP8).

The site is open to short views from viewpoints in close proximity to the site along Kilnavarragh Lane. Some of these views are glimpse views, filtered by the presence of existing topography and vegetation. For many of these locations the timber acoustic barrier will constitute a visual intrusion, (though it will immediately screen the development from most road users) reducing in time as the existing hedgerow increases in height (i.e. managed with less severe trimming) or as new mitigation planting becomes established.

Long and short views from all other directions are screened by the local topography, built form and vegetation, or are from such distant vantage points as to be insignificant.

In conclusion it is considered that there are no significant adverse long-term landscape and visual effects arising with respect to public or private amenity.

7.0 CUMULATIVE IMPACTS, INTERACTIONS & MAJOR ACCIDENTS AND DISASTERS

An assessment of the likely significant cumulative effects of the proposed development with other developments has been undertaken in ES Chapters 7 – 16. During the assessment process, coordination took place between assessment specialists to ensure that interacting impacts arising from the proposed development were identified, assessed and, where appropriate, mitigated. None of the assessments have identified any significant cumulative effect when considered against the developments considered in Chapter 17 of the EIAR.

In addition, while there is potential for the impacts described to interact, it is unlikely, as a result of the mitigation measures proposed, that any of these interactions will result in significant additional impacts that are not already anticipated by each environmental topic.

The proposed development is designed, and will be built and operated, in accordance with best practice. It has been ensured that the proposed development is capable of being constructed safely and without risk to health, can be maintained safely, and complies with all relevant health and safety legislation.