PROJECT REF: P2970

APPENDIX 8.3

OTTER SURVEY

CAVAN REGIONAL SPORTS CAMPUS

CLIENT: MCADAM DESIGN

DATE: FEBRUARY 2024

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CONTENTS

FIGURES

TABLES

APPENDICES

Survey Plan

1.0 INTRODUCTION

MCL Consulting Ltd (MCL) was appointed by McAdam Design on behalf of Cavan County Council to undertake an otter survey for a proposed development of 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.

Due to the presence of suitable habitat, mammal activity along the Cavan River, NPWS records, the proximity of the proposed development site to a designated site with Eurasian Otter as a qualifying feature and the extensive territorial range of Eurasian Otter; further survey work is required to fully determine/confirm the presence of otter as well as determine otter activity in or near the site and to develop suitable mitigation strategies.

1.1 Site Description

The proposed project relates to circa 28ha situated to the Southwest of Cavan Town, located between Kingspan Breffni Park and the Royal School, Cavan. The site incorporates existing sporting facilities used by the Royal School for physical education; this including one shale gravel hockey pitch and adjoining soccer field. The remainder of the school lands are undeveloped. The site also includes lands to the southwest of Breffni Park. A site location map is presented in Figure 1.

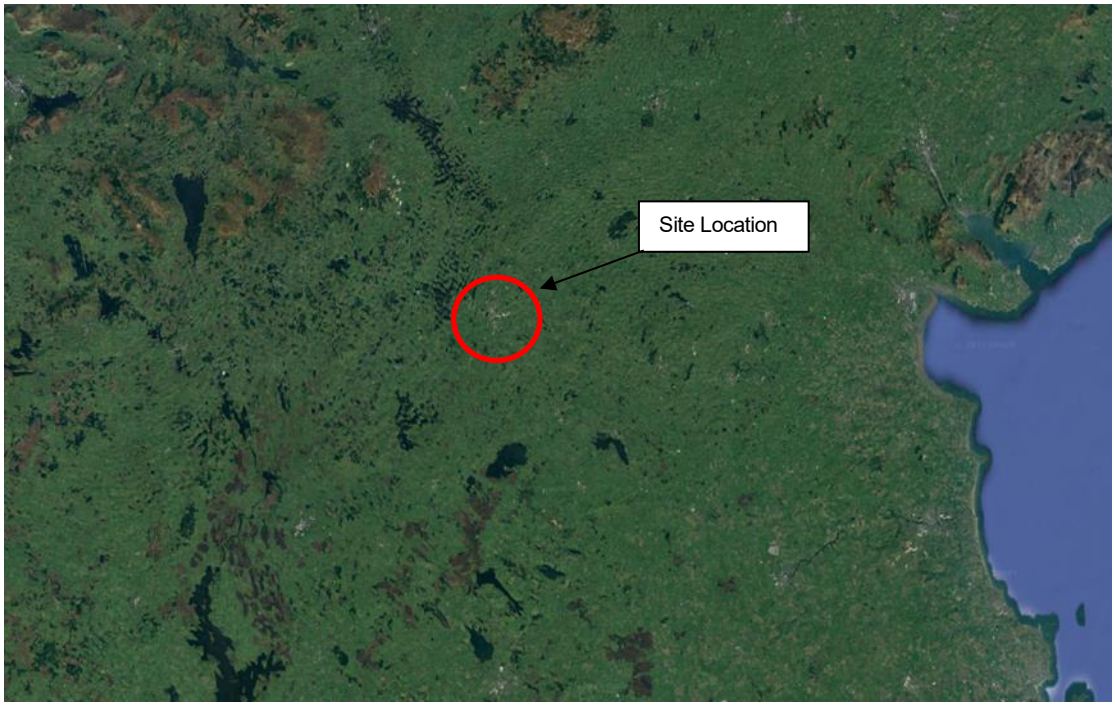

Figure 1: Site Location

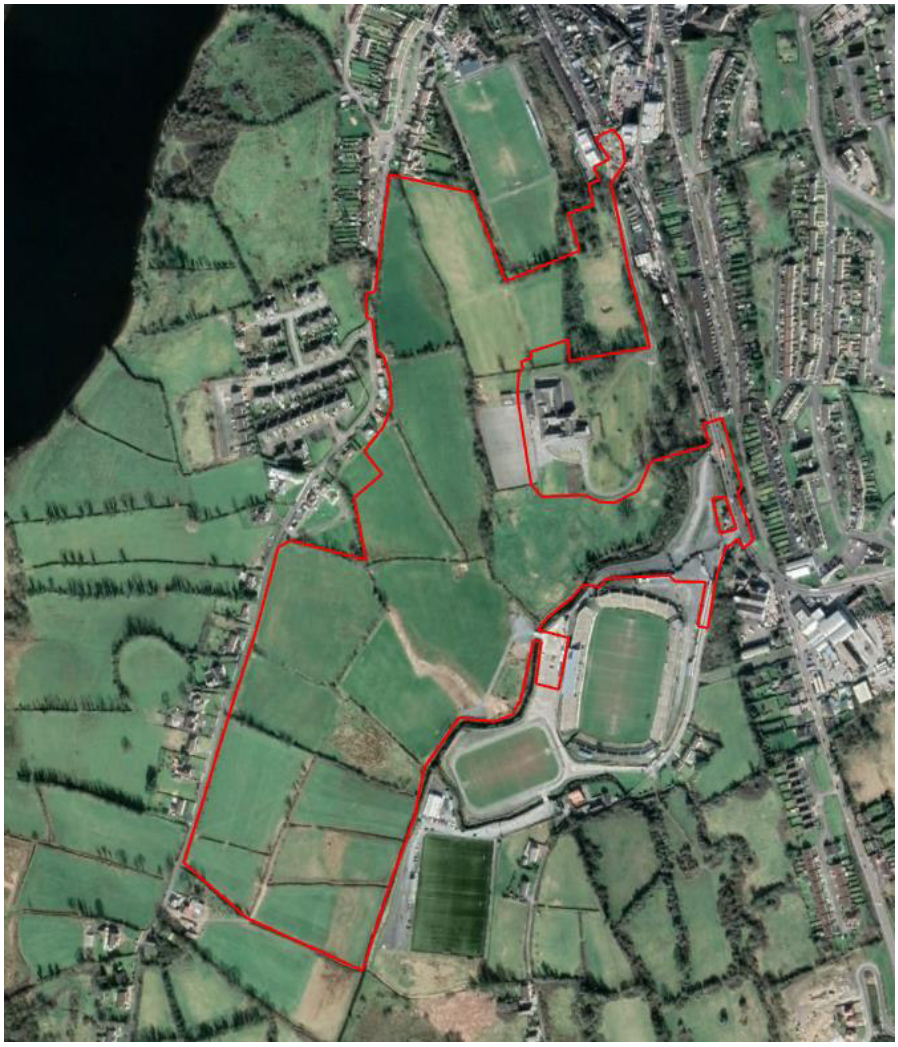

Figure 2: Red Line Boundary

1.2 Proposed Development

The development comprises the following components:-

- 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.
- The proposed bridge is a single span integral reinforced concrete bridge, supported on piled foundations.

1.3 Aims and Objectives

- Desk study to assess previous records of otter, suitable habitat on site and surrounding area
- Undertake otter survey of the Cavan River
- Mapping and collation of photographs for identified features including identified holts, couches, latrines or feeding evidence
- Recommendations for mitigation, and compensation measures
- Protection of otter throughout the construction and operational phase
- Details of all proposed works adjacent to the Cavan River and relevant timing

1.4 Consultation

Consultation was carried out with Paul O'Doherty 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. All relevant information has been integrated into this report.

Inland Fisheries Ireland is to be consulted in relation to detailed mitigation measures to protect water quality in the Cavan River. Outcomes of this are to be provided as an addendum.

2.0 SURVEYORS/AUTHORS

MCL Consulting is a Northern Ireland based multidisciplinary environmental consultancy which provides expert advice for a wide range of ecological services in support of Environmental Impact Assessments (EIA).

Ryan Boyle BSc MSc – Principal Ecologist

Field work was carried out by Ryan Boyle who was principal ecologist at MCL Consulting. Ryan has a MSc in Ecological Management and Conservation Biology from Queens University Belfast and a BSc (Hons) in Bioveterinary Sciences from Harper Adams University. He has 8 years of professional and voluntary experience in the ecological, environmental and conservation sector having worked as a herpetological keeper at Chester Zoo working on conservation breeding programmes with the aim of wild reintroductions, a zookeeper at Belfast Zoo, environmental assistant at GRAHAM, volunteered with the Belfast Hills Partnership partaking in a number of surveys such as bats, phase 1 habitat surveys, preliminary ecological appraisals, environmental farming schemes, soil carbon surveys, river fly surveys and is the chair for the Northern Ireland Amphibian and Reptile Group. He is experienced in species identification, management and mitigation, badger surveys, otter surveys bat activity surveys, preliminary ecological appraisals, biodiversity checklists, bat roost potential surveys, newt surveys, breeding bird surveys, vantage point surveys as well as in-depth research desk studies to generate informative conclusions based upon historical data with experience in applying these skills to development industries.

Emily Taylor BSc MSc –Senior Ecologist

Field work was carried out by Emily Taylor, a graduate ecologist at MCL Consulting. She has an MSc in Ecological Management and Conservation Biology from Queen's University Belfast and has a BSc (Hons) in Biological Sciences from Durham University. She has a range of experience in ecological field skills, having undertaken placements with both the RSPB and the Armagh, Banbridge and Craigavon Borough Council's biodiversity department. She is a current regional surveyor for the Northern Ireland Amphibian and Reptile Group, a seasonal volunteer for the Bat Conservation Trust and a member of the Botanical Society of Britain and Ireland. She has regular experience in conducting biodiversity checklists, extended phase 1 habitat surveys, bat roost potential surveys, bat activity surveys and breeding bird surveys. She also has experience in surveying for otters, badgers, lizards and newts. She is a qualified tree climber, with a LANTRA qualification in tree access using a rope and harness and aerial

rescue and has completed both Construction Site Register (CSR) and Personal Track Safety (PTS) training.

Peter McKnight BSc MSc – Consultant Ecologist

Field work was carried out by Peter McKnight, a consultant ecologist at MCL Consulting. He graduated from Queen's University Belfast with a bachelor's degree (BSc) in Planning, Environment and Development as well as a master's degree (MSc) in Ecological Management and Conservation Biology. He has previous employment experience with EcoSeeds where he would assist in the growing, cleaning and distribution of wildflower seeds including hydroseeding. He also worked for Ulster Wildlife as a Nature Reserve Assistant, treating invasive species and managing the bespoke needs of nature reserves across Northern Ireland including scrub removal, path/fence maintenance and botanical surveys. During this job he obtained LANTRA certification in the Safe Use of Pesticides, Brushcutters and Woodchippers as well as a Rescue Emergency Care certificate in Essential First Aid for the Outdoors including Emergency First Aid at Work. During his BSc, he went to Peru with Operation Wallacea to the Amazon Rainforest for 4 weeks, surveying varying tropical species including fishing bats, caiman and tropical birds. He also holds a Construction Skills Register (CSR) card.

Zachary Rose BSc MSc – Consultant Ecologist

Field work and reporting was carried out by Zachary Rose, a consultant ecologist at MCL Consulting. He has an MSc in Ecological Management and Conservation Biology as well as a BSc (Hons) in Zoology both from Queen's University Belfast. He has 3 years of experience volunteering with Ulster Wildlife, treating invasives, maintaining nature reserves and helping with the native oyster project at Bangor marina. During his time at Ulster Wildlife, he completed weeklong hedgehog surveys in the summer of 2021 and 2022 as well as gaining a LANTRA certification in the safe use of pesticides. He has 2 years of experience working for the consultancy company Tetra Tech as a seasonal field ecologist. During this time, he led several emergence and re-entry bat surveys alongside completing otter, badger, hare and smooth newt surveys. He also gained experience doing video analysis and writing PEA reports during this time. He has also led several guided bat walk and talk evenings for Newtownards Community group in the summer of 2022 and summer 2023. He also holds a Construction Skills Register (CSR) card.

Amy Skuce BSc (Hons) MCIEEM – Principal Ecologist

Fieldwork and reporting was carried out by Amy Skuce, a Principal Ecologist at MCL Consulting. She has a BSc (Hons) in Countryside and Environmental Management from Harper Adams University and is a Full Member of the Chartered Institute of Ecology and Environmental Management (CIEEM). She has nine years of experience as a professional ecologist undertaking extensive survey work as well as designing appropriate mitigation for a range of schemes. Amy holds a Level 4 Field Identification Skills Certificate (FISC) and is an experienced botanical surveyor and is proficient in extended phase one habitat surveys, UKHABs and Biodiversity Net Gain assessments as well as National Vegetation Classification (NVC) surveys. She also has experience in undertaking bat roost potential surveys, bat activity surveys, badger surveys as well as a range of riparian mammal and herptile surveys.

3.0 LEGISLATION, POLICY AND GUIDELINES

Otter

This report takes into account the following legislative protections in relation to Pine Marten: Wildlife Acts 1976-2012 (as amended) and Wildlife (Amendment) Act 2000 and EU Habitats Directive 92/43/EEC.

Under this legislation it is an offence to:

- Intentionally or recklessly kill, injure, or take a pine marten; or
- Intentionally or recklessly damage or destroy, or obstruct access to, any structure or place that pine martens use for shelter or protection; or
- Intentionally or recklessly damages or destroys anything which conceals or protects any such structure; or
- Intentionally or recklessly disturbs a pine marten while it is occupying a structure or place which it uses for shelter or protection.
- In addition, any person who knowingly causes or permits to be done an act which is made unlawful by any of these provisions shall also be guilty of an offence.
- In addition, any person who knowingly causes or permits to be done an act which is made unlawful by any of these provisions shall also be guilty of an offence. There is no provision within the legislation to issue licenses to kill pine marten for the purpose of development.

Reference is made where relevant to local and national policy documents such as:

- National Biodiversity Action Plan, 4th Edition (2024).
- Cavan Town and Environs Development Plan (2014-2020)
- Cavan Town and Environs Development Plan Draft (2022)

4.0 METHODOLOGY

4.1 Desk Study

A total of 4 otter records were identified within 2km of the site, the most recent from 2010.

Table 1: NPWS otter records

Grid Ref	Scientific name	Common name	Date
H40440549	*Lutra lutra*	Eurasian Otter	2019
H30	*Lutra lutra*	Eurasian Otter	1990
H418047	*Lutra lutra*	Eurasian Otter	1980
H405022	*Lutra lutra*	Eurasian Otter	1980

4.2 Field Study

The aim of the otter survey and assessment was to:

- Determine the presence of otter through field signs onsite and within the stream, and ~30m beyond the site boundary; and
- To develop suitable mitigation plans in the event of confirmed otter species presence, as appropriate.

4.2.1 Preliminary Otter Survey

Field signs are important when determining if otters are present or absent within a site. The following field signs are used to evidence:

- spraint;
- anal jelly;
- forage remains (e.g. fish heads);
- slides;
- couches/hovers and;
- holts.

Surveys were undertaken during dry periods, and local weather conditions had not been subject to heavy rainfall during the days previously.

Remote camera trap monitoring was utilised to monitor for otter activity in the Cavan River.

4.2.2 Survey Constraints

There were some areas of river with restricted access due to the overgrowth of scrub and the steep banks. These were able to be inspected from a distance.

Table 3 below summarises the dates of surveys, timings and weather conditions experienced at the time of survey (temperature ˚C, wind speed, cloud-cover Oktas and precipitation).

Table 2: Survey timing and weather conditions

Surveyors	Date	Start Time	Finish time	Temp. (°C)	Wind (km/h)	Oktas	Pp. (%)
Ryan Boyle BSc (Hons) MSc	29/04/2023	11:30	14:30	11	28	0/8	0
	21/06/2023	07:30	10:30	12	9	8/8	0
	22/07/2023	08:30	10:30	14	9	6/8	30
	26/08/2023	09:00	12:00	11	11	5/8	25
Peter McKnight BSc (Hons) MSc	29/11/2023	11:10	15:00	2	2	5/8	10

4.3 Results

A walkover of the proposed site was carried out to investigate for any signs of otter presence such as tracks, trails and scat. Where possible the Cavan River was surveyed for presence of holts, feeding remains and scats.

Any potential trails or signs of otters entering or exiting the site along the perimeters along with other signs of otter presence and activity were noted.

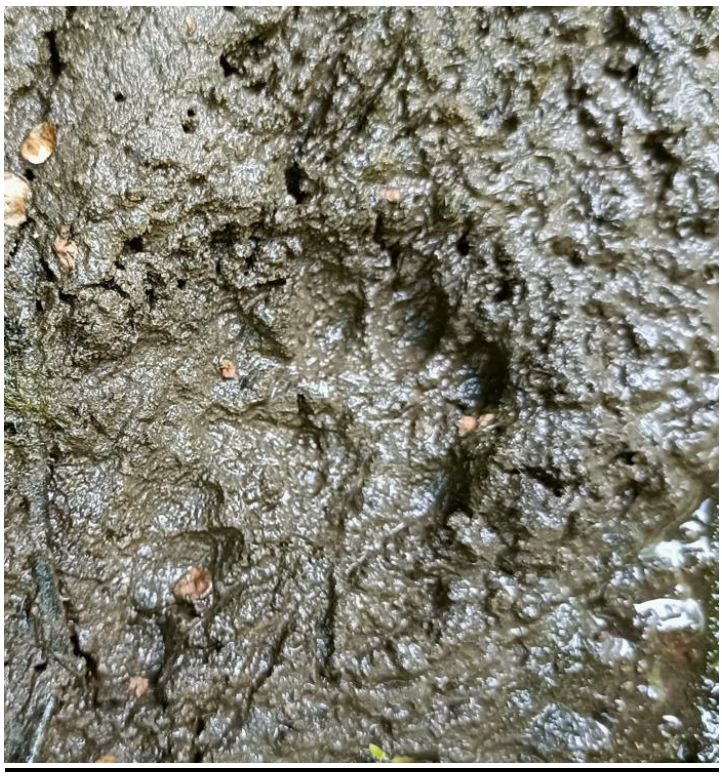

Figure 3: Otter print

During a search of the Cavan river several signs of otter presence were identified. This included otter prints, scat and feeding remains. During the survey no otter holts, natal dens or breeding sites were observed within the surrounding area of the proposals. However, physical evidence found primarily in the form of spraints have shown that otters are active in the area and are likely using the Cavan River to travel throughout the wider area.

Remote camera monitoring was undertaken between 6th and 20th June 2023 and 29th November and 19th December 2023 which confirmed presence of otter within the river.

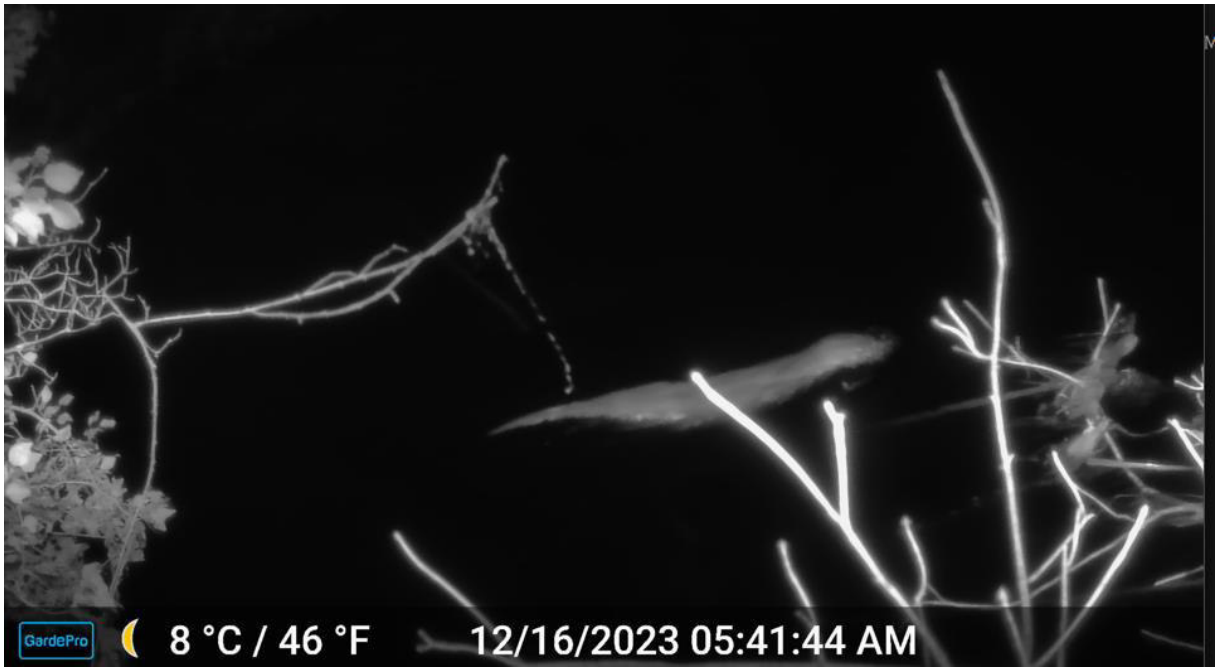

Figure 4: Otter recorded within river

5.0 ASSESSMENT AND RECOMMENDATIONS

Otters and their holts are strictly protected under Irish legislation. Therefore, it is an offence to deliberately capture, injury or kill otters, disturb them or their holts, damage or destroy holts or impair their ability to hibernate or migrate as well as breeding sites.

No evidence of holts, breeding or otherwise, was recorded during the otter surveys within the site. The absence of holts and couches onsite greatly reduces the risk of impacts to the local otter populations. The site is considered to be used by commuting and foraging otter, with moderate levels of activity identified during the surveys.

The proposed development has been designed in close liaison with the ecology team and mitigation for otter presence has been built into the site design. The majority of the site works are proposed in habitats of limited suitability for otter (open pasture). Boundary vegetation is to be retained, including areas of woodland adjacent to the Cavan River. A works exclusion buffer for the river is to be implemented, lessening the impacts on this habitat.

However, proposals incorporate building a vehicle bridge across the Cavan River. As such without mitigation there are construction phase risks of:

- damage of or disturbance to resting sites;
- loss of commuting or foraging habitat;
- direct mortality

and operational phase risks of:

- Lighting
- Recreational disturbance

There is no predicted loss of holts or resting places through this development, but there is potential for the degradation and disturbance of commuting routes and foraging habitat, as well as potential for the water quality of the Cavan River to be affected. An updated survey for otter presence should be undertaken prior to commencement of development works to ascertain whether new holts have been created in the interim period. The following mitigation measures are considered sufficient for the level of impacts envisaged by the proposals.

5.1 Mitigation Measures

An ecological clerk of works (ECoW) should be appointed prior to commencement of onsite works and a visual check of the works area will be undertaken every day for presence or evidence of otter.

Bridge design should ensure that ongoing habitat connectivity within the Cavan River is maintained. **Mammal ledges** should be installed within the bridge structure to ensure that no connectivity along the river is lost to the otters utilising it as a commuting route. It is recommended these are installed to be between 45cm to 60cm wide, approximately 15cm above the highest flood level and at least 60cm below the top of the bridge to give suitable headroom.

For mammal species such as otter, construction-phase disturbance effects from noise would not be expected to extend beyond 100m. No holts were recorded during site visits but as otter are known to be present onsite, an updated otter survey must therefore be undertaken of the bridge works area and a 250m buffer. Should any holt be identified monitoring must be undertaken to ascertain its status as a breeding holt, and any relevant licences applied for.

A, oCEMP has been prepared to outline the necessary construction controls on drainage management. An Environmental Monitoring Plan has also been developed detailing the proposed environmental water quality monitoring which will be implemented during the construction phase.

The site drainage system adopts Sustainable Drainage (SuDS) systems to encourage infiltration of runoff to ground and drainage from vehicular areas (access roads, car parks etc) is served with suitably-sized flow attenuation systems and interceptors for sediment and oil pollution control. A suitable **Surface Water Management Plan (SWMP)** should be developed and submitted to for review prior to the commencement of the construction phase. These measures should offer adequate protection to the Cavan River for the operational phase. This plan will include spill action plans, specify spill kit contents, and outline a robust method for ensuring that no construction related suspended solids enter the river system.

Inland Fisheries Ireland is to be consulted in relation to detailed mitigation measures to protect water quality in the Cavan River. Outcomes of this are to be provided as an addendum.

Provision of measures to prevent the release of sediment during the construction work will be installed prior to the commencement of site clearance. Protective measures may include but are not limited to:

- to the use of silt fences and sedimentation mats.
- Provision of exclusion zones and barriers (sediment fences) between earthworks, stockpiles and temporary surfaces will be enacted to prevent sediment washing into the receiving water environment.
- Temporary construction surface drainage and sediment control measures will be in place before earthworks commence.
- If pouring of cementitious materials is required for the works adjacent to the watercourses, this will be carried out in the dry
- If dewatering is required, water will be treated prior to discharge to the existing watercourse. This will include treatment for silt removal either via silt trap, settlement tanks or ponds.
- There will be no direct pumping of contaminated water from the works to the surface water drainage/stream network at any time.
- Foul drainage from site offices and compounds, where not directed to the existing wastewater network, will be contained and disposed of off-site in an appropriate manner and in accordance with the relevant statutory regulations, to prevent the pollution of watercourses.

During the construction phase of the development, all machinery should be appropriately cordoned off at the end of each working day. A suitable method of egress, such as a plank, from any open pits or holes created during this phase should be placed to prevent otter from becoming trapped on site. All construction work should also be limited to daylight hours to reduce the levels of disturbance.

A soft start approach be implemented when the use and starting of heavy machinery is required adjacent the river. The soft-start methodology will be required every time

machinery is started following a 30minute rest period. Once machinery is in full operation associated noise and vibration will keep fish outside of the area of influence allowing them time to leave the area of disturbance.

During the construction phase, general management and protection measures should be implemented prior to works commencing on site, these include:

- The use of noisy machinery should cease at least 2 hours before sunset
- Security lighting should be directed away from identified mammal trails and denning sites
- An adequate supply of water should be made available on site for effective dust suppression
- Any exposed open pipe systems must be capped to prevent otter access
- No excavations are to be left uncovered or without a means of egress (a sloped plank for example) overnight, as otter may fall in or enter in search of food and become trapped
- No buildings or storage units are to be left open overnight, as otter may enter and become trapped
- No poisonous or potentially harmful substances or materials are to be left unsecured overnight
- Chemicals should be stored as far from the river as possible
- Special care should be given to protect water sources, as these are likely to be utilized by otter

Enhancement planting of native species is to be undertaken in riparian buffer areas. This will improve biodiversity of the site, further supporting any otter populations utilising the river. It will also act as a natural buffer between the waterbody and the proposal site, reducing the likelihood of direct human disturbance, and improving the surface water drainage path by reducing the speed of the flow of water.

Whilst otters can become used to low to moderate levels of artificial lighting, being recorded in town centre riparian areas, the current onsite habitat is a dark corridor and increased lighting is likely to result in increased disturbance. As such artificial lighting should be avoided where possible in the river corridor and on the newly installed bridges. Where this is not possible, such as for safety reasons on bridges, then the lighting design should consider the below guidelines:

- Install lamps and the lowest permissible density; (waist high bollards)
- Lighting within the river corridor to be avoided where posible
- Lamps should be positioned to direct light to avoid upward spill onto any green corridors/river corridor that could be used by commuting otter;
- LED lighting – with no/low UV component is recommended;
- Lights with a warm colour temperature – 3000K or 2700K have significantly less impact on bats;
- Light sources that peak higher than 550nm also reduce impacts to otter; and
- The use of timers and dimmers to avoid lighting areas of the site all night is recommended.

6.0 CONCLUSION

Overall, otter activity on site appears to be moderate. There is evidence of otters present on the, indicating they are likely using the river as a commuting route or potentially a foraging site, although no holts were identified onsite.

Prior to commencement of works an updated survey should be undertaken to ascertain current activity levels and presence of holts etc.

Mitigative measures are suggested here to reduce the impact this development may have on any otter populations utilising this waterbody. This will incorporate strict pollution prevention measures as well as general construction mitigation measures.

A minimum 10m buffer should be implemented around the watercourse, mammal ledges should be inserted into any bridges being installed along the river, a surface water management plan should be developed, compensatory native planting should take place around the watercourse, and care should be taken during the construction phase to ensure works are as wildlife friendly as possible.

Report Prepared By: -

Amy Skuce BSc (Hons), MCIEEM

Principal Ecologist

Reviewed By: -

Emily Taylor BSc (Hons), MSc

Senior Ecologist

7.0 REFERENCES

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NIEA Otters and Development. Available at: https://cieem.net/wp-content/uploads/2019/07/natural-information-otters-and-development-2011.pdf

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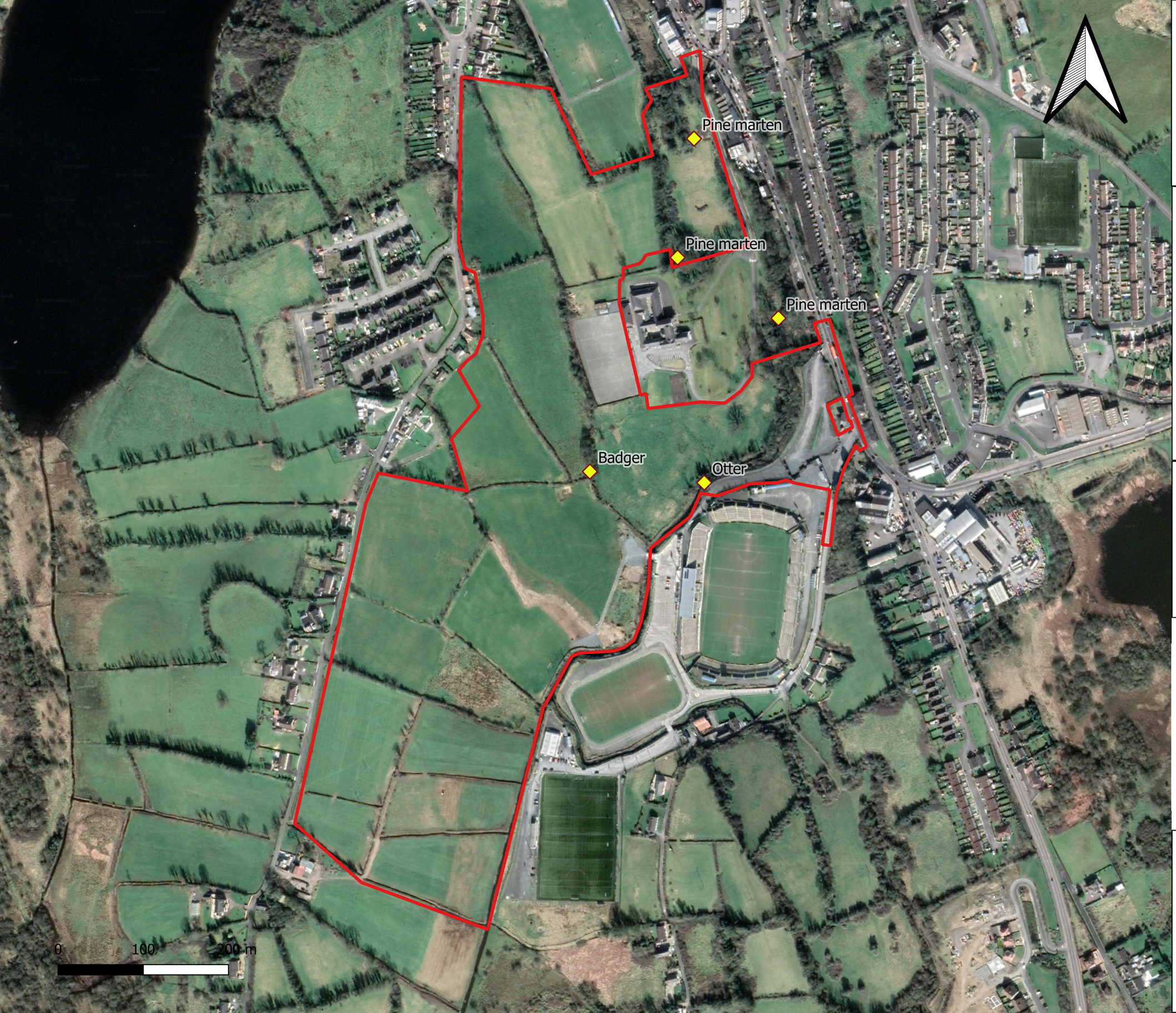
APPENDICES



Legend

- SpeciesSightings
- Site Boundary

Camera Sightings

Created by: Peter McKnight

Reviewed by: Amy Skuce

Client: McAdam Design

Scale: 4000 @ A3

Date: 22/02/2024

Unit 5, Forty Eight North,
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LEGEND:

Existing trees / hedges to be retained in accordance with BS 5837:2012 and best arboricultural practice at the time of execution of the works. Blue line denotes Root Protection Area (RPA). Remedial surgery as Arboriculturist's recommendations.

Existing trees to be removed for Health & Safety reasons or to facilitate development.

Existing hedges/scrub vegetation to be removed to facilitate development. Note: See below where this vegetation to be translocated into wildlife area.

Proposed extra heavy standard / semi mature specimen tree planting. Note: See below for suggested species / location & specification.

Proposed hedge planting of mixed evergreen and deciduous species for biodiversity & seasonal effect with bark mulch. Note: See below for suggested species / location & specification.

Proposed woodland planted areas of mixed evergreen and deciduous species for biodiversity & seasonal effect. Note: See below for suggested species / location & specification.

Proposed wildlife compensation area of mixed evergreen and deciduous species for biodiversity & seasonal effect. Note: See below for suggested species / location & specification.

Proposed amenity planting to Main Entrance / Plaza, Car Park Areas of mixed evergreen and deciduous species for biodiversity & seasonal effect. Note: See below for suggested species / location & specification.

Proposed grass seeded areas. Species as recommended by Sports Turf Specialist.

Proposed species rich grass seeded areas. Species of local provenance & as recommended by Ecologist.

Proposed damp meadow / riparian grass seeded areas. Species of local provenance & as recommended by Ecologist.

Proposed translocated hedge / scrub material, along margins of wildlife compensation area as recommended by the Ecologist. Areas to be kept irrigated until established as directed by the Ecologist.

Suggested Species, Specification & Planting Requirements:

Proposed Extra Heavy Standard / Semi Mature Specimen Tree Planting.

- Suggested Species: Wetter areas.
- Alnus glutinosa (Alder)
- Salix species (Willow)

- Suggested Species: Drier areas.

- Malus sylvestris (Crab apple)
- Quercus robur (Oak)
- Betula pendula (Silver birch)

- Specification: Extra Heavy Standard size 16-18 cms girth; 450cms minimum height; 200cms minimum clear stem; 3 x transplanted; container grown, & Semi Mature size 20-25 cms girth; 500 - 550cms minimum height; 250cms minimum clear stem; 3 x transplanted; container grown.
- Planting: Extra Heavy Standard & Semi Mature trees to be planted in freedraining topsoiled pits 1500mm dia x 750mm deep with 75mm deep medium grade ornamental composted surface bark mulch, laid in accordance with specification.

Proposed Hedge Planting:

Mixed evergreen and deciduous species for biodiversity & seasonal effect with 75mm deep medium grade ornamental composted surface bark mulch, laid in accordance with specification.

- Suggested Species:

- Crataegus monogyna (Hawthorn)
- Rosa canina (Dog rose)
- Rubus fruticosus (Bramble)
- Prunus spinosa (Blackthorn)
- Viburnum opulus (Guelder rose)
- Ilex aquifolium (Holly)
- Euonymus europaeus (Spindle)

- Specification: Plants to be 60-80cm in height, 2x transplanted; container grown or bare root depending on time of year.
- Planting: Hedge plants to be planted in 300mm deep freedraining good quality topsoiled trenches, with soil ameliorants and slow release fertiliser, @ ctrs as appropriate.

Proposed Woodland Planting:

Areas of mixed evergreen and deciduous species for biodiversity & seasonal effect.

- Suggested species:

- Betula pubescens (Downy Birch)
- Crataegus monogyna (Hawthorn)
- Corylus avellana (Hazel)
- Ilex aquilfolium (Holly)
- Viburnum opulus (Guelder Rose)
- Prunus padus (Bird Cherry)
- Prunus avium (Wild Cherry)
- Quercus robur (Oak)
- Sorbus aucuparia (Mountain Ash)

- Specification: Plants to be 60-80cm in height, 2x transplanted; container grown or bare root depending on time of year.
- Planting: Woodland planted areas to have 300mm min depth good quality freedraining topsoil with soil ameliorants and slow release fertiliser. Woodland plants to be planted at 1000mm centres.

Wildlife Compensation Area:

- Suggested species

- Sambucus nigra (Elder)
- Sorbus aucuparia (Rowan)
- Corylus avellana (Hazel)
- Prunus avium (Wild Cherry)
- Prunus padus (Bird Cherry)
- Salix caprea (Pussy willow)
- Salix cinerea (Grey sallow)

- Specification: Plants to be 60-80cm in height, 2x transplanted; container grown or bare root depending on time of year.
- Planting: Planted areas to have 300mm min depth good quality freedraining topsoil with soil ameliorants and slow release fertiliser. Woodland plants to be planted at 1000mm centres.

Proposed Amenity Planting to Main Entrance / Plaza, Car Park Areas:

- Specification: Plants to be between 20cm & 1200cm in height, container grown in pot sizes ranging from 1ltr to 10ltr.
- Planting: Amenity planted areas to have 300mm min depth good quality freedraining topsoil with soil ameliorants and slow release fertiliser. Plants to be planted at between 250mm &1000mm centres depending on species.

- Suggested species (Pollinator Friendly)

- Cornus sanguinea 'Midwinter Fire' (Dogwood)
- Viburnum tinus 'Eve Price' (Laurustinus)
- Skimmia (Japanese Skimmia)
- Verbena bonariensis (Tall Verbena)
- Lavandula hidcote (English Lavender)
- Miscanthus sinensis 'Kleine silberspinne' (Silver Grass)

- Grass Seeded Areas:

- Suggested species

- Hard wearing, as recommended by Sports Turf Specialist.

- Specification: All grass seeded areas to be seeded over, 50mm - 150mm depth topsoil, or as recommended by Sports Turf Specialist.

- Species Rich Grass Seeded Areas:

- Suggested species

- Species of local provenance & as recommended by Ecologist.

- Specification: All species rich grass areas to be seeded over, 50mm - 150mm depth topsoil.

- Damp Meadow / Riparian Grass Seeded Areas: 10m wide margin to Cavan River and wetland scrapes in wildlife compensation area.

- Suggested species

- Species of local provenance & as recommended by Ecologist.

- Specification: All species rich grass areas to be seeded over, 50mm - 150mm depth topsoil.

Proposed woodland planted areas (stepping stones) of mixed evergreen and deciduous species for biodiversity & seasonal effect.

Proposed translocated hedge / scrub material, along margins of wildlife compensation area as recommended by the Ecologist.

Proposed wildlife compensation area of mixed evergreen and deciduous species for biodiversity & seasonal effect.

Proposed damp meadow grass seeded areas.

Proposed translocated hedge / scrub material, along margins of wildlife compensation area as recommended by the Ecologist.

Proposed badger commuting corridor / woodland planted areas (stepping stones) of mixed evergreen and deciduous species for biodiversity & seasonal effect.

Proposed relocated badger sett & 30m exclusion zone.

Existing boundary hedge retained & allowed to grow on.

Existing tree planting to be enhanced with additional native species tree & shrub understorey planting of mixed evergreen & deciduous species for biodiversity & seasonal effect.

Refer to woodland planting for typical species.

Proposed 10m wide margin of damp meadow / riparian grass seeded areas along edge of Cavan River.

Wildlife garden to be planted out / managed by the GAA Club.

NOTES:

1. Do not scale off this drawing
2. Drawing to be read in conjunction with the specification and all relevant drawing information.
3. Contractor to check all dimensions on site. McIlwaine Landscape Architects to be advised of any discrepancies between this drawing and site conditions immediately.
4. Dimensions are in millimetres unless otherwise stated.

This drawing has been produced for the client for the project on the site shown. It was prepared for a purpose agreed with the client and will have a commensurate degree of accuracy. It is not a "record drawing". This drawing is not intended for use by any other person or for any other purpose than that specified here. McIlwaine Landscape Architects accept no liability whatsoever if this drawing is used by any other person or for any other purpose.

Terry Coyle Park

Breffni Park

Sports Ground

Royal School Cavan School

Basketball Court

Playground

Kilnavara Heights

Kilnavara Court

St Phelim's Place

Lurganboy

St Brigids Terrace

Tullac Mongan

Breffni Terrace

Cavan River

DUBLIN ROAD

CAVAN RIVER

PARK LANE

4no. bus parking spaces

100 car parking spaces

150 car parking spaces

SITE LAYOUT & LANDSCAPE PLAN, SCALE 1:1000 @ A0

MAIN ENTRANCE / PLAZA, SCALE 1:250 @ A0

Rev: Date:

McILWAINE LANDSCAPE ARCHITECTS

PROJECT
Cavan County Council
Cavan Regional Sports Campus

DRAWING TITLE
Site Layout &
Landscape Plan

Status Stage 1

Scale	Drawn	Checked	Date
As shown	JAM	BMcI	07.03.24

Project No.	Drawing No.
2320	CSC-MLA-XX-00-DR-L-2001

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