
Kirkby Valley Golf Club

Preliminary Otter Survey Report

Compiled by Ecology Services Ltd.

on behalf of

L32 Trading Ltd.

April 2020 (updated September 2020, January 2021 & August 2021)



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1.0 Introduction

- 1.1 Ecology Services Limited was commissioned by L32 Trading Ltd. in May 2019, to undertake Ecological Survey works in the form of a preliminary otter (*Lutra lutra*) survey at Kirkby Valley Golf Club, Ingoe Lane, Liverpool, L32 4SS, hereinafter referred to as 'the site'. The centre of the development area is located by National Grid Reference (NGR) 339582, 397944 and the location of the development area is shown on the Figures. As over a year had passed since the initial survey, updated surveys were commissioned by L32 Trading Ltd. in 2020 and 2021.
- 1.2 The survey requirement was determined during an earlier Preliminary Ecological Appraisal survey, conducted in May 2019, where suitable habitat to support otter was identified.

Site description

- 1.3 The site is located on the outskirts to the east of the town of Kirkby. The development area includes the existing golf course and an area of land to the south-west of the golf course, bounded by Valley Road to the south and Aintree Lane to the west. The south-western part of the development area comprises three fields of unmanaged rough grassland with scattered trees, tall ruderal vegetation, wet grassland and hedgerows along the field boundaries. The River Alt runs south to north through the site.
- 1.4 The golf course is dominated by amenity grassland with stands of scattered trees, plantation woodland and occasional rough grassland, scrub, ponds and ditches. A railway corridor borders the north of the golf course, with an area of woodland mosaic and the Leeds Liverpool Canal to the north. The M57 motorway borders the east of the site. The development area and golf course are collectively referred to as 'the site'.

Proposals and context

- 1.5 Four parcels of land within the site, collectively referred to as the 'development area', are proposed for (re)development as shown on Figure 7 including:
- Reconfiguration and other improvement works across the entire golf course including the reshaping of tees / greens / bunkers and erection of a footbridge over the River Alt to provide both an improved 18 hole course and a new 9 hole course.
 - New and improved irrigation / drainage works (including irrigation lake), extensive tree and shrub planting, and ecological mitigation measures across the course.
 - The erection of a new 2 storey Clubhouse;
 - Retention, alteration and extension of the existing clubhouse and its change of use to form a golf-related / grounds maintenance training academy (existing access and car park retained / unchanged).
 - A new greenkeeper's compound with associated building and security fencing.
 - Provision of an adventure golf course and practice putting green; and provision of a golf driving range with an associated 2 storey building and external lighting and safety netting.
 - 6 synthetic outdoor 5-a-side football pitches, 5 synthetic outdoor tennis courts, 1 external bowling green with associated timber players' hut plus associated lighting and means of enclosure.
 - Car and cycle parking spaces to serve all of the above facilities with two new vehicular accesses created onto Valley Road.
 - Formation of a new gated access via Aintree Lane for the use of construction traffic and (upon completion of development works) for the sole use of course operatives for the purposes of course management / maintenance.

- 1.6 Two lakes are also proposed to assist with course irrigation and ecological mitigation at the site.
- 1.7 The proposals include the development of a footbridge going over the River Alt to connect the new developments and the existing club house. Three outfalls along the western bank of the river are also proposed.
- 1.8 The aim of the survey was to:
- Undertake a desktop study for records of otter within 2km of the site;
 - Undertaken a preliminary otter survey of 200m in either direction of riparian habitats at the new footbridge crossing point. The survey area was considered sufficient, due to the predicted small-scale impact of the development at the time of the 2019 survey. The survey area was extended in 2021 to take into account of reconfiguration of the wider golf course.
 - Determine if further more detailed otter surveys are required.
- 1.9 This report has been produced to identify the baseline ecological conditions for the development area and for the surrounding habitats in order to identify any potential constraints regarding otters to the proposals. Where there is potential for habitats and/or species to be significantly affected by the proposals, the report assesses these impacts and identifies appropriate survey and/or mitigation requirements.

2.0 Planning Policy and Legislation

Planning Policy

- 2.1 The National Planning Policy Framework (NPPF, 2021) places a clear responsibility on Local Planning Authorities (LPA) to contribute to conserving and enhancing the natural and local environment. LPAs should promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species (e.g. Species of Principal importance, Local Biodiversity Action Plan species); and identify and pursue opportunities for securing measurable net gains for biodiversity. Therefore, where developments requiring planning permission may affect protected or notable species such as otters, it is preferable that an appropriate mitigation strategy is produced to ensure they are protected from the adverse effects of development and options to negate the impact should be considered, together with opportunities for enhancement.
- 2.2 The Office of the Deputy Prime Minister (ODPM) Circular 06/2005 provides administrative guidance on the application of the law in relation to planning and nature conservation. This guidance requires local planning authorities to take account of the conservation of protected species when determining planning applications and makes the presence of a protected species a material consideration when assessing a development proposal that, if carried out, would be likely to result in harm to the species or its habitat.
- 2.3 Where developments requiring planning permission are likely to impact upon protected species such as otter it is necessary that protected species surveys are undertaken and submitted to meet the requirements of paragraph 98 of ODPM Circular 06/2005 which states that:
- *'The presence of a protected species is a material consideration when a planning authority's considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat'.*

- 2.4 Although the UKBAP has been superseded by the UK Post-2010 Biodiversity Framework and, in England, Biodiversity 2020: A strategy for England's wildlife and ecosystem services (2011), many Local Authorities have prepared and operate Local Biodiversity Action Plans (LBAPs). LBAPs not only highlight habitats and species that are of Principal Importance but also habitats and species that are of local importance. LBAPs will be prepared for these habitats and species. Listing of habitat or species in a LBAP does not confer any new statutory or planning policy protection, however, impacts upon species prioritised in LBAPs may be a material consideration in a planning application. Otters are a North Merseyside Biodiversity Action Plan (LBAP) species.

Legislation and Licensing

- 2.5 The European otter is protected under the Conservation of Habitats and Species Regulations 2017 (as amended)¹ (The Habitat Regulations) and the Wildlife and Countryside Act (W&CA) 1981.
- 2.6 In England and Wales it is illegal (under the Habitat Regulations) to:
- Deliberately capture, injure or kill an otter.
 - Damage or destroy a breeding site or resting place.
 - Deliberately disturb an otter, particularly in a way which is likely to:
 - a) To impair their ability to survive, breed or reproduce, rear or nurture young
 - b) To affect significantly the local distribution or abundance of the species.
 - There are also offences in relation to possession, control, sale, transport etc.
 - There is no incidental result defence for the above offences.
- 2.7 It is also an offence in England and Wales (under the W&CA) to:
- Intentionally or recklessly obstruct access to a place of shelter or protection or disturb an animal occupying such a place.
 - The incidental defence may apply.
- 2.8 Otters are a Species of Principal Importance for the conservation of Biodiversity in England under the Natural Environment and Rural Communities (NERC) Act 2006, and as such are capable of being a material consideration in planning. Section 40 of the NERC Act (2006), places a duty to conserve biodiversity on every public body. The Section 41 (S41) list of Habitats and Species of Principal Importance is used to guide decision-makers, such as public bodies including local and regional authorities, in implementing their duty under Section 40 of the NERC Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal (e.g. planning) functions.
- 2.9 In England and Wales an otter survey licence is required to undertake prolonged or internal inspections of structures considered likely to be in use as an otter resting site and if there is a reasonable chance of disturbance occurring.
- 2.10 Where otters are affected by the proposals a derogation licence is required to damage or destroy an otter resting site and/or to disturb an otter in a significant manner.

¹ As amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, which continue the same provision for European protected species, licensing requirements and protected areas after Brexit.

3.0 Methodology

Desktop Study

- 3.1 Ecological data and historic records were collated from the following sources listed in Table 1.

Table 1: Desktop Study Results and Record Centres Consulted

Source of information	Information supplied
Multi-Agency Geographic Information for the Countryside (https://magic.defra.gov.uk/)	To identify protected sites and Habitats of Principal Importance within 2km of the site.
Natural Environment and Rural Communities (NERC) Act 2006	Review of Species of Principal Importance known to occur in the region.
North Merseyside Local Biodiversity Action Plan (NMBAP)	Identification of local BAP species known to occur in the region.
Merseyside Biobank	To identify non-statutory designated sites and species of interest within c.2km of the site.

- 3.2 The aim of the desktop study was to check for any other records and information on otter status in the local area. The desktop study was undertaken on 23rd May 2019 as part of the Preliminary Ecological Appraisal undertaken at the site. An updated desktop study was undertaken on 15th January 2021.
- 3.3 Historically, otters occurred over most of the UK. However, persecution, habitat loss and, more recently, the impact of toxic organochlorine insecticides caused a marked reduction in the range of the species. At present, the majority of the otter population in Great Britain occurs in Scotland, with a significant proportion of this number being found in the north and west of the country. Other strong populations survive in Wales and Ireland. The otter is still scarce over much of England, where the highest concentrations are in the south-west. However, recent surveys suggest that the otter population is recovering well and recolonising parts of its former range.
- 3.4 The most recent Otter Survey of England (2009-10, Crawford, 2011), reported that the North West region had shown a major increase in otter range since the last survey in 2000-02. The increase has been particularly impressive in the north where otters appeared to have re-colonised all the available rivers and streams even in the uplands. Regular surveys by Environment Agency staff since 1998 have shown that otters have been slowly re-colonising the area since then but it will probably be some time before this part of the region reaches full carrying capacity.
- 3.5 In the central part of the region the increase in range has also been considerable. In the 2000-02 survey only three positive sites were found between Lancaster and the Liverpool, Warrington and Manchester urban area. In the 2009-10 survey there were 21 positive sites in that area, mainly in the Ribble catchment but also spreading into the Douglas and Wyre and with an outlier on the River Roch. Otters are now widely distributed on the Ribble and Lune catchments. These rivers provide corridors for re-colonisation of the catchments to the north of the urban area of Liverpool, Warrington and Manchester and re-colonisation of the area would be expected in the next few years.
- 3.6 In the report of the 2000-02 survey concern was expressed at the very slow rate of colonisation of the southern part of North West Region. Otters are now widely distributed within the Weaver catchment and appear to have spread from there into adjacent catchments such as the upper Mersey and Goyt. They are now widely distributed south of the urban area of Liverpool, Warrington and Manchester but appear to be present only in small numbers.

Initial re-colonisation and consolidation still remains surprisingly slow despite the close connections with the Severn and Dee catchments.

Survey Methods

- 3.7 The following otter survey methodology was designed using methods outlined by Chanin (2003a), Natural England guidance² and Protected Species Advice for Developers (Scottish Natural Heritage³) taking into account the scale of the development.
- 3.8 The 2019 and 2020 preliminary otter surveys included 200m in either direction of riparian habitats at the new footbridge crossing point. The survey area was considered sufficient, due to the predicted small-scale impact of the development at the time of the 2019 survey. The survey area was extended in 2021 to take into account reconfiguration works within the wider golf course.
- 3.9 The 2019 and 2020 survey involved experienced ecologists walking within the watercourse, where possible, and along the top of the banks of the River Alt, up to 200m up and down stream of the footbridge and path crossing point, encompassing the proposed outfall locations and within a 50m buffer around the surveyed watercourse. In 2021 the same methodology was applied but the survey area was extended to encompass the wider golf course. The Figures shows the survey areas.
- 3.10 The surveyors searched for field signs including spraints, footprints, resting places, pathways, slides, feeding remains, jelly and smears. Otters are mainly nocturnal and sparsely distributed. Any direct observations were recorded.

Spraints

- 3.11 Whilst walking along the river banks, all raised places like rocks or tree stumps were checked for spraints. Otter droppings, when fresh, are black and tarry with an oily smell, as they get older they become dry and grey/white/green in colour.
- 3.12 Spraints often contain fish bones and scales/exoskeleton/crabs and amphibian bones. They have a distinctive smell often described as Jasmine tea, fresh mown hay and are slightly sweet and fishy.

Footprints

- 3.13 All otter tracks will be recorded if found; they are a characteristic field sign but can be difficult to find. The best places to look for tracks are muddy river banks. Otters have five toes, with their toe prints often 'tear drop' shaped.

Other Field Signs: Feeding remains, Pathways, Slides, Jelly and Smears

- 3.14 Other field signs include: feeding remains, although they can be difficult to confirm as being otter; pathways along river banks and to favoured feeding sites or habitats, but these are not diagnostic; and slides where access to the water course is easily available, however these can be used by other mammals such as badger and dogs etc. Jelly and smears are rarely found.

Resting Sites

- 3.15 Resting sites can be below and/or above ground. Below ground resting sites include burrows/tunnels, cavities in undercut banks, under tree roots, enclosed drainage structures, cavities behind bank protection and other man-made structures such as drains/pipes and jetties.

² <https://www.gov.uk/guidance/otters-protection-surveys-and-licences>

³ <https://www.nature.scot/sites/default/files/2019-01/Species%20Planning%20Advice%20Project%20-%20Otter.pdf>

Resting places above ground include dense scrub, flood debris and reed beds. Resting places are generally categorised within the three categories below:

- **Holt:** an underground or other fully enclosed shelter of which the full extent cannot be seen, can range from enlarged rabbit holes and cavities amongst tree roots to rock piles and man-made structures.
- **Hover:** an above ground, semi-enclosed resting place, often found under overhanging river banks or tree root plates.
- **Couch:** a nest-like structure (0.3 - 1m in diameter) constructed from nearby vegetation or a depression in a stick pile.

3.16 Resting sites also include natal holts, which are inconspicuous with few field signs present. They can be several hundred meters from water and are believed to be located away from areas of other otter activity (off main rivers). Rearing holts are more conspicuous, tending to be located close to food sources with significant amounts of spraints nearby, when they are in use. Both natal holts and rearing holts are below ground resting sites.

3.17 It can be difficult to confirm the use of an otter resting but suitable resting places can be determined during the preliminary otter survey. To confirm a resting place, further surveys are likely to be required.

Timing

3.18 Natural England advises that otter surveys can be undertaken at all times of the year although Spring is optimum, if weather conditions are suitable prior to and during the surveys. The survey was undertaken on 24th May 2019, with a further update surveys undertaken on 18th September 2020 and 28th June 2021.

Weather Conditions

3.19 Weather conditions prior to and during the surveys were dry and conditions were suitable to undertake such a survey.

Personnel

3.20 All survey works were undertaken by experienced Consultant Ecologists Miss C. Wood BSc (Hons), MSc, Mr B. Meadows BSc (Hons) and Mr. C. Smith BA (Hons), MSc. Health and safety is essential when working near water and surveyors worked in pairs, complete with buoyancy jackets, where appropriate.

Constraints

3.21 The banks of the River Alt were very steep in some areas and were heavily vegetated with dense bramble scrub restricting access into the river and along its banks, which may have limited the survey findings.

3.22 Due to the River Alt being too deep in several areas along with dense bank vegetation, the two extremities of the extended survey area could not be accessed and therefore were not fully surveyed during the 2021 survey. These constraints have been taken into consideration in the evaluation and recommendations.

3.23 It is noted that otters have large home ranges and a single otter survey only provides a snapshot of otter usage on site. For a further detailed understanding of the species status within the survey area, surveys would be required through an extended period.

4.0 Results and Evaluation

Desktop Study

- 4.1 The desktop study undertaken in 2019 found no records of otter within 1km of the development site. The updated desktop study undertaken in 2021 found no records of otter within 1km of the development site.
- 4.2 Otter is a European protected species, a Species of Principal Importance and a North Merseyside BAP species.

Habitat Description

- 4.3 The River Alt is connected to the Leeds Liverpool Canal, which provides a suitable riparian corridor for otter should they be present locally and connectivity to the wider survey area is good.
- 4.4 The former ecological appraisal and the otter survey found that Kirkby Valley Golf Club contained some features that were suitable for use as resting sites, including under-scouring of the banks and around tree roots.
- 4.5 The survey found a large portion of the survey area to be subject to frequent public disturbance by golfers, which reduces the majority of site's potential for natal and rearing holts.
- 4.6 Where the new footbridge and outfalls are to be located, no suitable below ground resting sites were discovered in close proximity. Habitats were suitable for above ground resting places, but no evidence of use was found.
- 4.7 The habitats were found to be mostly the same in September 2020. There is the one area near to the car park to the south where works had been undertaken and vegetation largely removed. A short section of bank immediately north of the existing footbridge had also been cleared of vegetation along with an area of adjacent scrub habitat.
- 4.8 During additional visits to the site in January 2021, the habitats on site were mostly found to be the same as in 2019 and 2020. Works as part of the reconfiguration of the golf course have been undertaken and the vegetation largely removed along the banks of the River Alt in the north of the site. Areas of scrub within the golf course have also been removed to facilitate the ongoing course works.

Survey Results

- 4.9 No evidence of otter was recorded during the 2019 survey. A mammal pathway was located approximately 150m north west of the proposed footbridge going through a hedge; there was no evidence, however, to suggest this was made by an otter.
- 4.10 Otter field signs were confirmed during the 2020 and 2021 surveys undertaken by Ecology Services Ltd; the following field signs were recorded:
- Otter spraint (dropping)
 - Otter footprints
- 4.11 Habitats were suitable for above ground resting places but no evidence of use was found.
- 4.12 The results of the surveys are presented on Figures 1 to 6.

Spraints

- 4.13 In 2020, three otter spraints were found under a tree south of the proposed footbridge and a further two spraints under the bridge on Moor Lane (now closed to vehicle traffic), one of which appeared fresh.
- 4.14 In 2021, two old spraints were found during the survey, one located under the bridge on Moor Lane (now closed to vehicle traffic) and one located under the bridge on Valley Road (A506).

Prints

- 4.15 In 2020, a lot of otter footprints were present under the bridge on Moor Lane (now closed to vehicle traffic).
- 4.16 In 2021, otter footprints were located at two locations, under the railway bridge to the north of the site, and approximately 50m south of Valley Road.

Other Field Signs: Feeding remains, Pathways, Slides, Jelly and Smears

- 4.17 No other field signs were found on the 2019, 2020 or 2021 surveys.

Resting Sites

- 4.18 Where the new footbridge and outfalls are to be located, no suitable below ground resting sites were discovered in close proximity, during any of the surveys. Habitats were suitable for above ground resting places in 2019, 2020 and 2021, but no evidence of a use was found.

Evaluation

- 4.19 The desktop studies did not identify any records of otter within 1km of the site. Otter is a European protected species, a Species of Principal Importance and a North Merseyside BAP species.
- 4.20 No signs of otter were found during the 2019 survey, however, evidence of otter in the form of spraints and prints were found during the 2020 and 2021 surveys. Suitable below ground resting sites are absent in close proximity to the works, but suitable above ground resting places have been identified in close proximity to the development area and there is potential, therefore, for otters to utilise these habitats. Otters are a highly transient species and riparian habitats can be dynamic.

5.0 Impacts and Recommendations

- 5.1 Evidence of use of the River Alt by otter in the form of spraints and footprints was identified during the 2020 and 2021 surveys.
- 5.2 Although the proposed works are fairly extensive, only a relatively small element of the works are likely to affect a small area of riparian habitat, this area does not contain any suitable underground resting places for otter. Underground resting sites would provide protection for natal or a rearing den, but these are usually located some distance from a main watercourse. As underground resting sites are absent and the River Alt is a main river, it is not considered that the works will directly affect either a natal or rearing den nor will the works cause disturbance or impair otters' ability to survive, breed or reproduce, rear or nurture young or significantly affect the local distribution or abundance of the species.
- 5.3 There are suitable above ground resting places, namely scrub and trees, in relatively close proximity to the works that may provide temporary shelter otters; neither of the three surveys identified use of this habitat for such purposes. As habitats are suitable in close proximity to the works and otters have been found present on this section of the River Alt, should an otter

be utilising an above ground resting place at that time, disturbance is possible, should an otter be present.

- 5.4 Otters are generally active over at night and the works are also unlikely to injure or kill an otter.
- 5.5 It is considered unlikely that the proposed works will result in the permanent loss of a significant area of suitable above ground resting habitat and the impact of habitat loss is therefore considered negligible.
- 5.6 Regarding the works along the banks of the River Alt, it is considered that the vegetation including bankside grassland, scrub and tall ruderal will re-establish naturally over time and that the loss of these habitats will be enhanced through the landscape scheme proposed for the site which includes the planting of trees, areas of scrub and two lakes with associated riparian habitat, that may be suitable for use by otter.
- 5.7 Therefore, there are potential implications in relation to otter and the proposed development including the new footbridge and outfall in relation to potential above ground resting sites and potential disturbance should an otter be present. As otters are a highly transient species, riparian habitats can be dynamic and as suitable above ground resting places have been identified in close proximity to the works, it is recommended that a pre-development otter survey is undertaken to check for signs of otter use to ensure that there is no disturbance to otter should an animal be occupying the above ground resting opportunities. The pre-development otter survey would advise if any further works were required.
- 5.8 Based on the results of the current surveys, it is considered that a European Protected Species Mitigation Licence application is not required and that no further monitoring surveys (required to inform such a licence) are necessary.
- 5.9 However, it is recommended that all works on site are informed by precautionary working methods designed to reduce any potential impact on otter populations. These methods should include the following measures:
- Any works within 8m of a Main River will require consent from the Environment Agency.
 - All proposed works should be limited to daylight hours; otters are primarily a nocturnal species and therefore disturbance is more likely during the night time.
 - All works close to the River Alt should adopt standard pollution prevention guidance, also ensuring no silt pollution gets into the River Alt or land drains, in order to prevent environmental damage caused by the siltation of otter habitat and the potential direct impact of siltation on otter prey species.
 - During groundwater discharge operations, the banks of the River Alt should not be damaged or impacted.
 - All works (except for the groundwater discharge operations) should remain within the proposed site boundaries; if further works are required off site, the advice of an ecologist should be sought.
 - All excavations on site should be covered overnight to prevent otters from falling in and being injured or trapped. Excavations should then be checked prior to works commencing each morning by an assigned member of staff on site.
 - If any excavations must remain open overnight, it is recommended that access ramps are installed each night to allow any animals that accidentally fall in to the excavation a means of climbing out. These can be roughened planks of wood or even a ramp of earth.

- Daily checks of any excavation should be made by construction staff prior to commencing work to ensure that no otters or other animals have become trapped in the excavations. Should a trapped otter be found within the works, all works in that area must cease immediately, the area vacated and Ecology Services Ltd should be immediately contacted for advice.
- Consideration should be given to the placement of any topsoil storage or piles of materials that may create mounds suitable for temporary holt creation. Any such piles should be checked on a daily basis by construction staff to ensure that no evidence of an animal's presence is present, especially evidence of burrowing. If activity is suspected, works in that area should cease and the advice of an ecologist sought.

5.10 In order to minimise potential effects of artificial lighting on otters using the River Alt, both during construction and the operational phase upon completion of the proposed development, a sensitive lighting scheme should be designed and implemented. Lighting levels should be at the minimum required for health and safety, and avoided wherever possible. The lighting strategy should be reviewed at an appropriate stage of design by a suitably experienced ecologist.

6.0 Conclusion

- 6.1 Evidence of use of the River Alt and surrounding area by otter was identified during the surveys. Therefore, there are potential implications in relation to otter and the proposed development including the new footbridge and outfalls.
- 6.2 There are no suitable below ground resting places for otter and it is considered unlikely that the proposed works will result in the loss of a significant area of suitable above ground resting habitat. Should an otter be utilising an above ground resting place at the time of development, however, disturbance is possible.
- 6.3 Otters are a highly transient species, suitable aquatic/riparian habitats are present in the wider survey area and suitable above ground resting places have been identified in close proximity to the works. It is therefore recommended that a pre-development otter survey is undertaken to check for signs of otter use to ensure that there is no disturbance to otter should an animal be occupying the above ground resting opportunities. The pre-development otter survey would advise if any further works were required to avoid disturbance to otters.
- 6.4 Precautionary working methods will also be put in place to ensure potential otter disturbance is avoided.

7.0 References

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Figure 1:
Otter Survey Map and Survey Results 2019

Figure 1: 2019 Otter Survey Map and Results

Map Ref: (NGR) 339723, 397826
Map Scale: 1:150 @ A3

KEY

- Proposed bridge
- Section of the River Alt surveyed for Otter (200m either side of proposed bridge)
- 50m Survey buffer
- Mammal Path
- Hedgerow
- Proposed outfalls (approximate location)

Contains Ordnance Survey data © Crown copyright and database right 2021

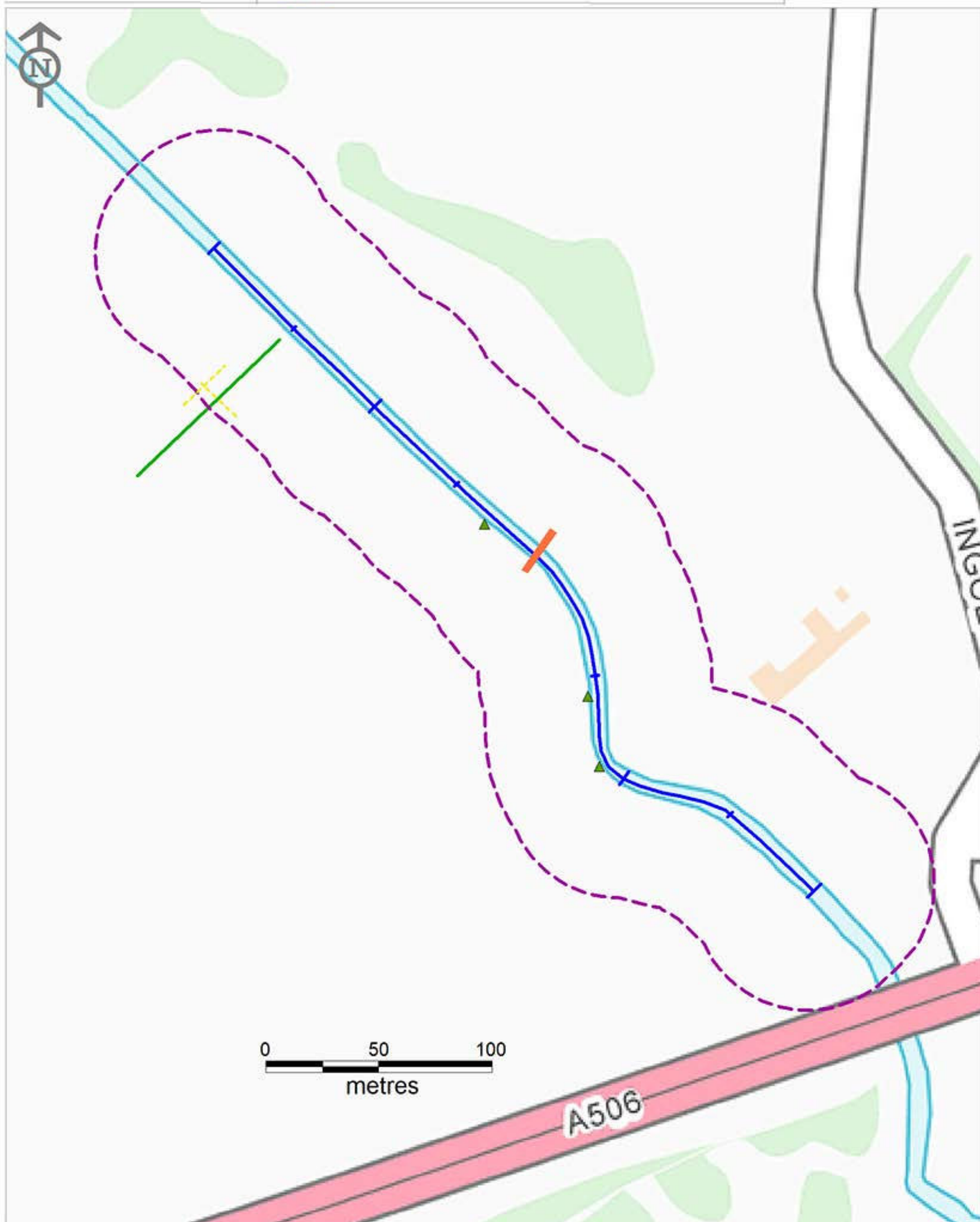


Figure 2:
Otter Survey Map (Section 1) and Survey Results 2020

Figure 2:
2020 Otter Survey
Map and Results 1.

Map Ref: (NGR) 339723, 397826
Map Scale: 1:725 @ A3

Contains Ordnance Survey data © Crown copyright and database right 2021

KEY

- Proposed bridge
- Proposed outfall
- Section of the River Ait surveyed for Otter (200m either side of the proposed bridge)

- 50m Survey buffer
- Otter spraint
- Otter footprints

Kirkby Municipal Golf Course

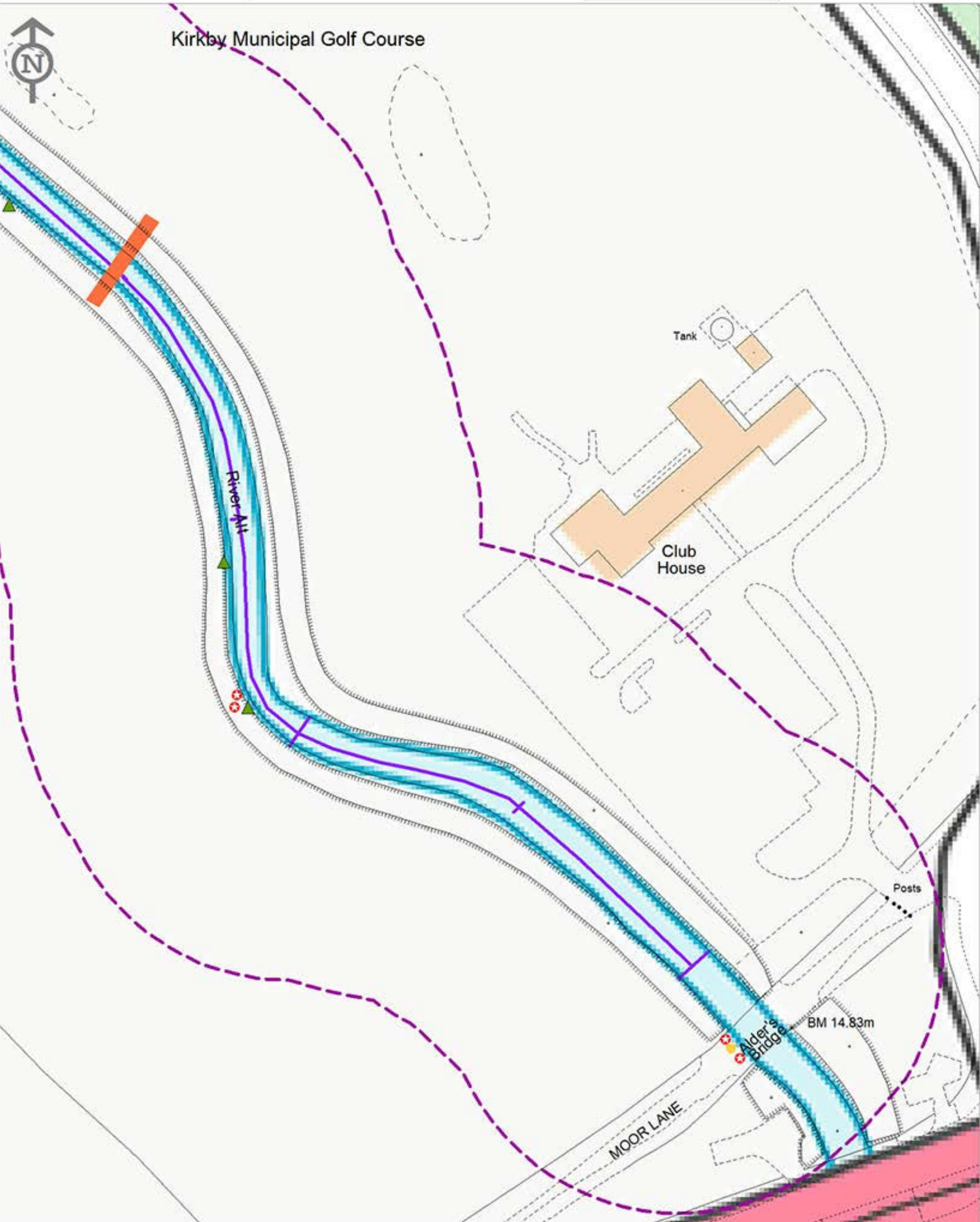


Figure 3:
Otter Survey Map (Section 2) and Survey Results 2020

Figure 3: 2020 Otter Survey Map and Results 2.

Map Ref: (NGR) 339723, 397826
Map Scale: 1:725 @ A3

KEY

-  Proposed bridge
-  Proposed outfall
-  Section of the River Alt surveyed for Otter (200m either side of the proposed bridge)

-  50m Survey buffer
-  Otter spraint
-  Otter footprints

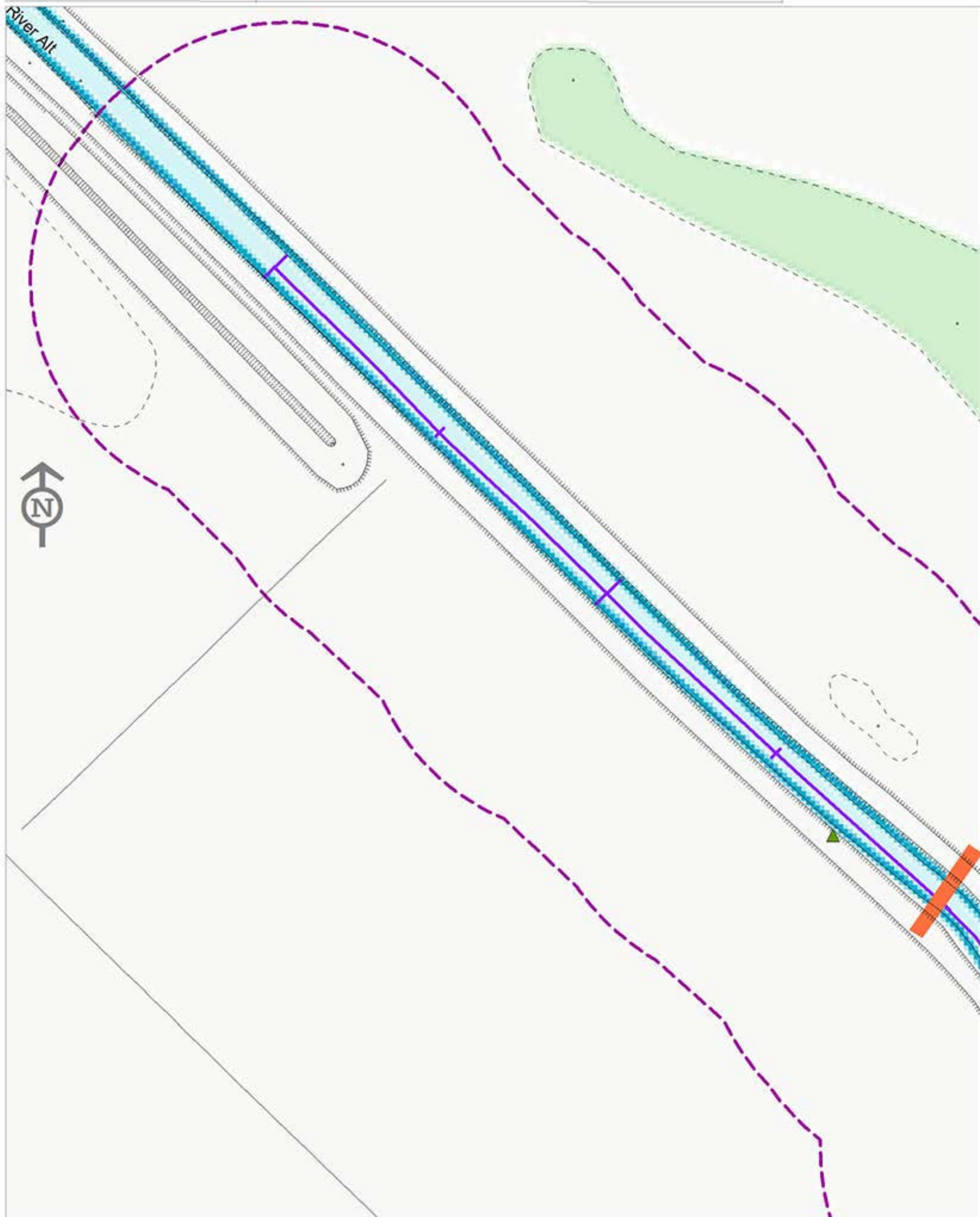


Figure 4:
Otter Survey Map (Results 1) and Results 2021

Figure 4:
2021 Otter Survey
Map and Results 1.

Map Ref: (NGR) 339723, 397826
Map Scale: 1:1,500 @ A3

KEY

- | | |
|---|--|
|  Site boundary |  50m survey buffer |
|  Proposed footbridge |  Otter footprints |
|  Proposed outfall (approximate location) |  Otter spraint |
|  Otter survey area |  No access |

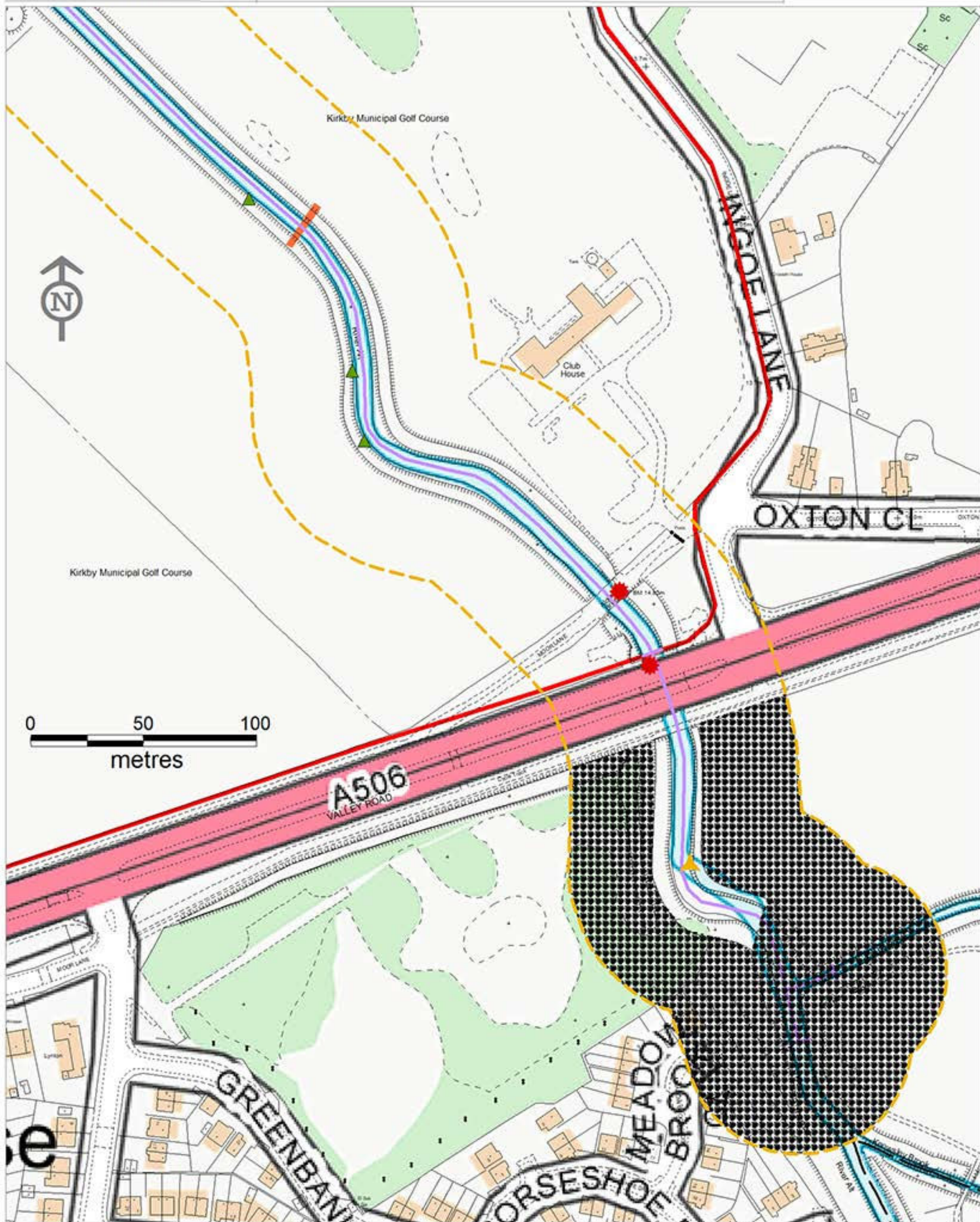


Figure 5:
Otter Survey Map (Results 2) and Results 2021

Figure 5:
2021 Otter Survey
Map and Results 2.

Map Ref: (NGR) 339723, 397826
Map Scale: 1:1,500 @ A3

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KEY

-  Site boundary
-  Proposed footbridge
-  Proposed outfall (approximate location)
-  Otter survey area
-  50m survey buffer
-  Otter footprints
-  Otter spraint
-  No access

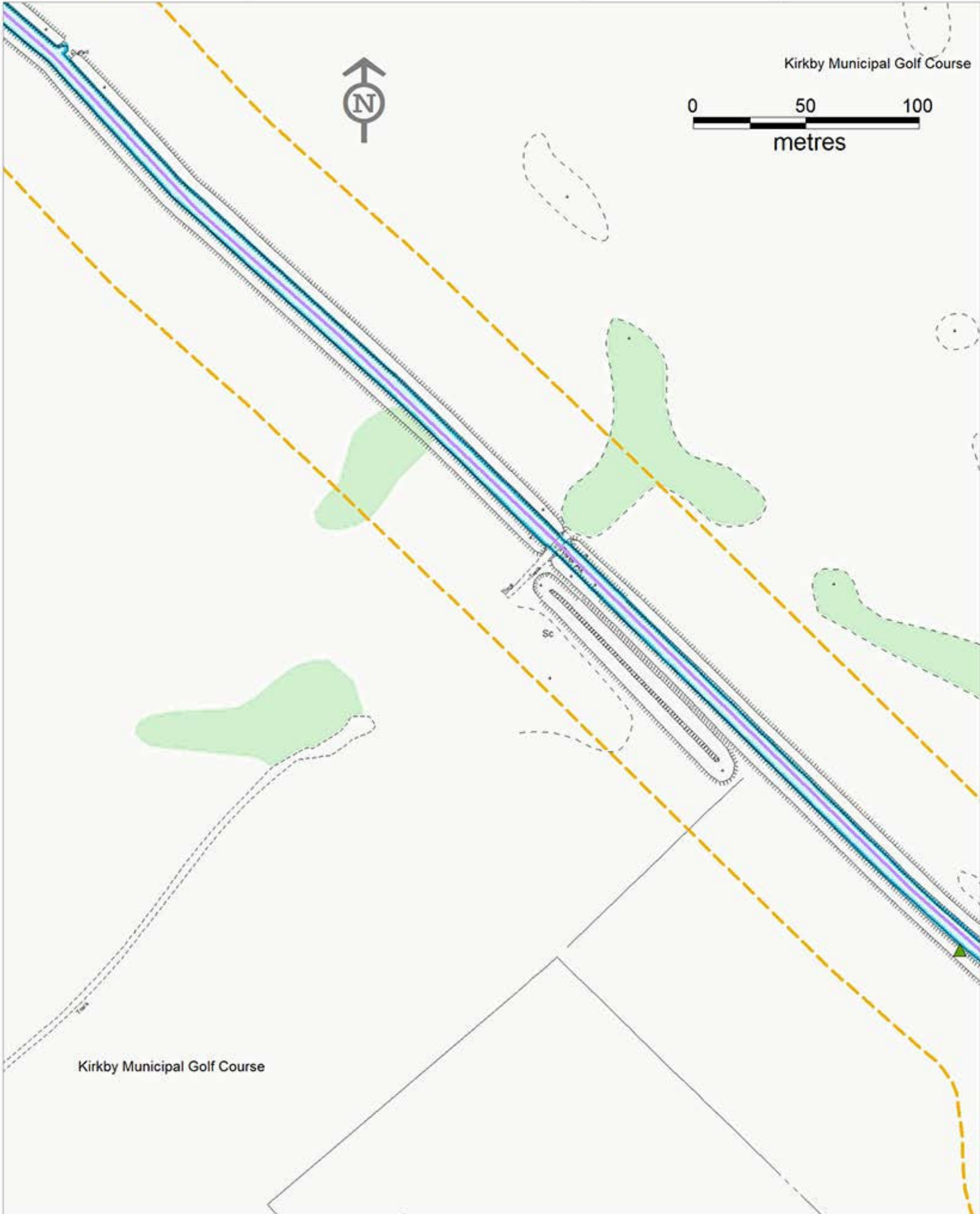


Figure 6:
Otter Survey Map (Results 3) and Results 2021

Figure 6:
2021 Otter Survey
Map and Results 3.

Map Ref: (NGR) 339723, 397826
Map Scale: 1:1,500 @ A3

KEY

- | | |
|---|--|
|  Site boundary |  50m survey buffer |
|  Proposed footbridge |  Otter footprints |
|  Proposed outfall (approximate location) |  Otter spraint |
|  Otter survey area |  No access |

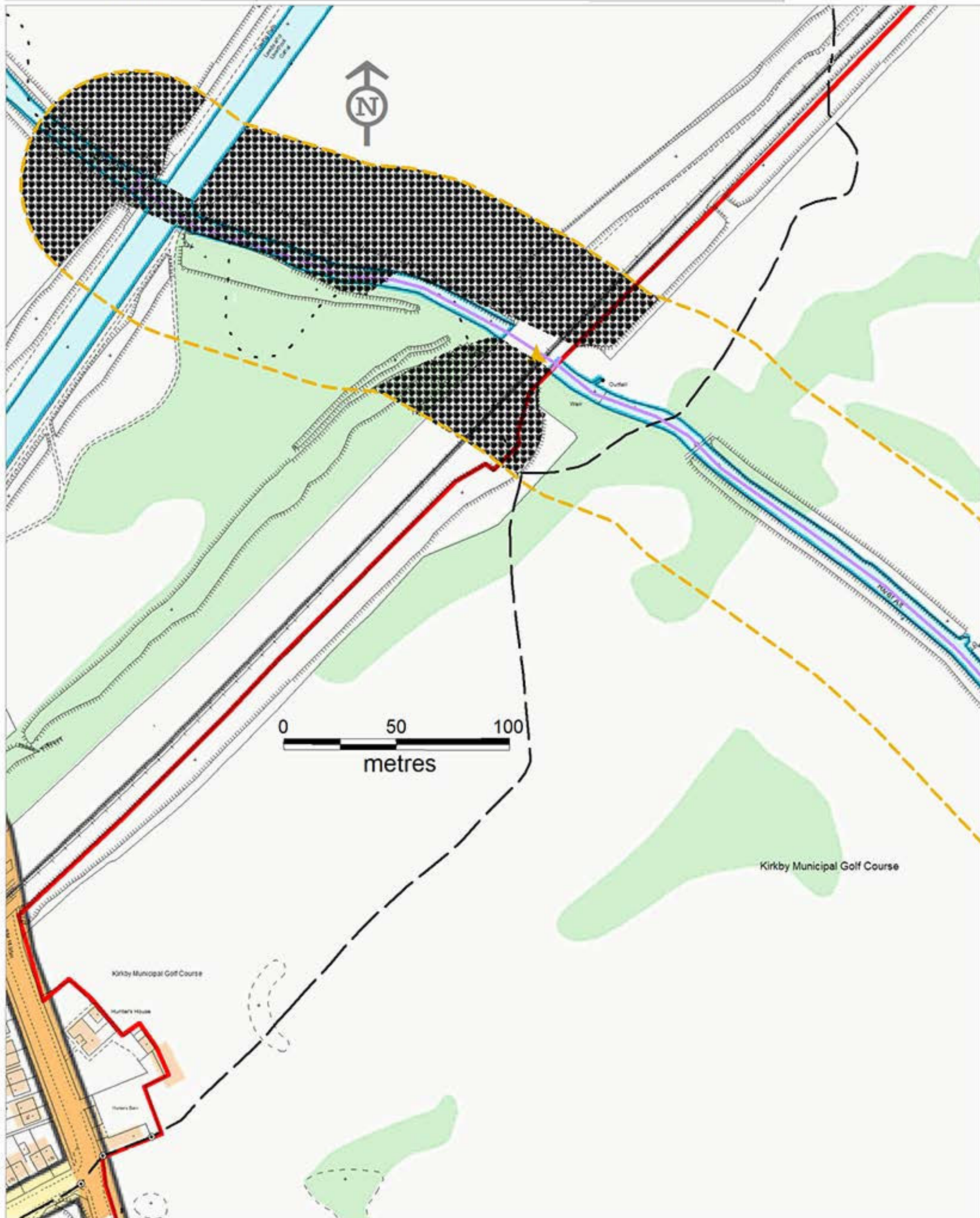


Figure 7:
9627-L22_C-Proposed Estate Plan



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SITE SPECIFIC HAZARDS

IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONSTRUCTION ACT 1991, THE FOLLOWING SIGNIFICANT HAZARDS HAVE BEEN IDENTIFIED AND TAKEN INTO CONSIDERATION BY THE CLIENT. THE CLIENT ACCEPTS THAT THE INFORMATION CONTAINED HEREIN IS NOT TO BE USED FOR ANY OTHER PURPOSE.

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NOTES

— SITE BOUNDARY 80.3055 HECTARES

— OTHER LAND IN THE OWNERSHIP OF THE CLIENT

SCALE 1:2500

0m 25 50 75 100 125 150

- ROOT PROTECTION AREA
- CATEGORY B TREE
- CATEGORY C TREE
- CATEGORY U TREE
- CROWN SPREAD
- TREE/SHRUB REMOVED

REV C 28.04.21: HIGHWAY UPDATE
REV B 16.03.21: GENERAL UPDATE
REV A 15.12.20: UPDATED
REV DATE NOTES

CLIENT / PROJECT
MAGHULL DEVELOPMENTS LTD
KIRKBY GOLF CLUB - VALLEY ROAD
KIRKBY
DRAWING TITLE
PROPOSED ESTATE PLAN

STATUS				
PLANNING				
DATE	17.11.20	DRAWN	RSL	SCALE @ A1
				1:2500
PROJECT NUMBER	9627	DATE	L22	C
DRAWING NO	9627	DATE	L22	C
THE RATCLIFFE GROVES PARTNERSHIP				
MANCHESTER				
101 MANCHESTER ROAD				
BURY LANCASHIRE, M33 6TD				
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