



**AVRIO**



## Appropriate Assessment Screening Report

Active Travel Site 1,  
Carrick-On-Suir, Co. Tipperary

## Project Details

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Client:	Tipperary County Council
Site Address	Carrick-On-Suir, Co. Tipperary
Services Provided:	Preparation of an Appropriate Assessment Screening Report

## AVRIO Quality Information

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# 1. Introduction

## 1.1 Background

AVRIO Environmental Management Limited, hereafter "AVRIO", has been appointed by CST Group on behalf of Tipperary County Council to undertake a Stage 1 Appropriate Assessment Screening Report for the construction of a one-way traffic system with improved footways and parking facilities on the main streets in Carrickbeg, Carrick on Suir. Tipperary County Council aim to provide a more attractive streetscape that improves mobility for all modes of transport within the project extents. The design will deliver continuous walking routes with safe crossing points at the desired locations (IGR: S 39897 21516)<sup>1</sup>.

## 1.2 Requirement for an Appropriate Assessment

This Appropriate Assessment Screening was prepared for a proposed development at Carrickbeg, Carrick on Suir, Co. Tipperary. Having regard to the location of the proposed development site and its proximity to sites designated under the Natura 2000 network, an Appropriate Assessment Screening (Stage 1) of the proposed development was prepared in accordance with Article 6 of the Habitats Directive. This report will allow the competent authority, to undertake an Appropriate Assessment of the proposed development, as required under Article 6(3) of the Habitats Directive<sup>2</sup>.

The purpose of the assessment is to determine the appropriateness of the proposed project in the context of the conservation status of a European protected site or sites. In Ireland, an Appropriate Assessment takes the form of an Appropriate Assessment Screening Report (AASR). An AASR refers to the several distinct stages of assessment which must be undertaken in accordance with The Conservation of Habitats and Species Regulations 2017 and The Conservation of Offshore Marine Habitats and Species Regulations 2017 to determine if a plan or project may affect the protected features of a habitats site before deciding whether to undertake, permit or authorise it. An appropriate assessment is required in order to assess the likely significant effects (LSE) of a plan or project either individually or in combination with other plans or projects on a protected habitats site (European/Ramsar sites).

## 1.3 The Aim of the Report

This Appropriate Assessment Screening has been prepared in accordance with the European Commission's Assessment of Plans and Projects Significantly affecting Natura 2000 Sites: Methodological Guidance on the provisions of Article 6(3) and 6(4) of the Habitats Directive 92/43/EEC (E.C., 2001) and Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC (E.C., 2018)<sup>3</sup> and it provides an assessment of the potential effects of a proposed development at Carrickbeg, Carrick on Suir, Co. Tipperary.

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<sup>1</sup> Location of Application Site: [Irish Grid Reference Finder](#) (Accessed August 2022).

<sup>2</sup> EC (2000) Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg. European Commission

<sup>3</sup> EC (2001) Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Articles 6(3) and (4) of the Habitats Directive 92/43/EEC;

A Stage 1 AASR should provide the information required in order to establish whether or not a proposed development is likely to have a significant impact on certain Natura 2000 sites in the context of their conservation objectives and specifically on the habitats and species for which the Natura 2000 conservation sites have been designated. Accordingly, a comprehensive assessment of the potential impacts of this application was carried out between July and August 2022 by AVRIO. This assessment allowed areas of potential ecological value and potential ecological constraints associated with this proposed development to be identified and it also enabled potential ecological impacts associated with the proposed development to be assessed and mitigated for.

## 1.4 Regulatory Context

### 1.4.1 Relevant Legislation

#### 1.4.1.1 *The Birds Directive*

- The Birds Directive (Council Directive 2009/147/E.C.) recognises that certain species of birds should be subject to special conservation measures concerning their habitats<sup>4</sup>. The Directive requires that Member States take measures to classify the most suitable areas as Special Protection Areas (SPAs) for the conservation of bird species listed in Annex 1 of the Directive. SPAs are selected for bird species (listed in Annex I of the Birds Directive), that are regularly occurring populations of migratory bird species, and the SPA areas are of international importance for these migratory birds.

#### 1.4.1.2 *The E.U. Habitats Directive*

- The E.U. Habitats Directive (92/43/EEC) requires that Member States designate and ensure that particular protection is given to sites (Special Areas of Conservation) which are made up of or support particular habitats and species listed in annexes to this Directive.<sup>5</sup> Articles 6(3) and 6(4) of this Directive also call for the undertaking of an Appropriate Assessment for plans and projects not directly connected with or necessary to the management of, but which are likely to have a significant effect on any European designated sites (i.e. SACs and SPAs).

#### 1.4.1.3 *The Water Framework Directive*

- The Water Framework Directive (WFD) (2000/60/E.C.), which came into force in December 2000, establishes a framework for community action in the field of water policy. The WFD was transposed into Irish law by the European Communities (Water Policy) Regulations 2003 (S.I. 722 of 2003)<sup>6</sup>. The WFD rationalises and updates existing legislation and provides for water management on the basis of River Basin Districts (RBDs). RBDs are essentially administrative areas for coordinated water management and are comprised of multiple river basins (or catchments), with cross-border basins (i.e. those covering the territory of more than one Member State) assigned to an international RBD. The aim of the WFD is to ensure that waters achieve at least good status by 2021 and that status does not deteriorate in any waters.

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<sup>4</sup> European Communities (Conservation of Wild Birds) Regulations, 1985, SI 291/1985 & amendments – <http://www.irishstatutebook.ie>;

<sup>5</sup> European Communities (Natural Habitats) Regulations, SI 94/1997, SI 233/1998 & SI 378/2005 – <http://www.irishstatutebook.ie>;

<sup>6</sup> Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy.

## 1.4.2 Appropriate Assessment & Habitats Directive

Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora – the ‘Habitats Directive’ - provides legal protection for habitats and species of European importance. Article 2 of the Directive requires the maintenance or restoration of habitats and species of European Community interest at a favourable conservation status<sup>7</sup>. Articles 3 - 9 provide the legislative means to protect habitats and species of Community interest through the establishment and conservation of an EU-wide network of sites known as Natura 2000. Natura 2000 is a network of areas designated (or in the latter stages of designation) established to ensure the long-term survival of Europe’s most valuable and threatened species and habitats. Specifically:

- Special Areas of Conservation (SAC) designated under the European Union Habitats Directive for their habitats and/or species of European importance;
- Special Protection Areas (SPA) designated under the European Union Birds Directive for rare, vulnerable and regularly occurring migratory bird species and internally important wetlands;
- Candidate and proposed sites (cSAC and pSPA) submitted to the European Commission but not yet formally adopted; and
- Sites of Community Importance (SCI) adopted by the European Commission but not yet formally designated by the Member State.

Ramsar Sites have no legal protection as such under Irish legislation, their actual protection derives from other designations of the site such as SPAs or Nature Reserves. However, Ramsar sites listed under the 1971 Ramsar Convention on Wetlands of International Importance should receive the same protection as designated SPAs and SACs because Ireland was a contracting parties to adopt the Convention of wetlands. The objective of the RAMSAR designation is the conservation of wetland habitats, especially for waterfowl. RAMSAR sites often overlap with SACs and SPAs. For the purpose of this assessment RAMSAR sites will also be given consideration.

The Habitats Directive requires competent authorities to carry out a ‘Habitats Directive Assessment’ of plans and projects that are likely to have a significant effect on Natura 2000 sites, either individually or in combination with other plans or projects.

This report presents the results of the initial stage of this assessment i.e. screening stage and reports the outcomes and conclusions of assessments undertaken pursuant to the requirements of Article 6 of Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora (the Habitats Directive).

Articles 6(3) and 6(4) of the Habitats Directive sets out the decision-making tests for plans or projects affecting Natura 2000 sites<sup>8</sup>. Article 6(3) establishes the requirement for Appropriate Assessment:

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<sup>7</sup> Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora

<sup>8</sup> EC (2007a) Guidance document on Article 6(4) of the ‘Habitats Directive’ 92/43/EEC – Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interest, compensatory measures, overall coherence, opinion of the commission. Office for Official Publications of the European Communities, Luxembourg. European Commission



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

Article 6(4) deals with the steps that should be taken when it is determined, as a result of appropriate assessment, that a plan/project will adversely affect a European site. Issues dealing with alternative solutions, imperative reasons of overriding public interest and compensatory measures need to be addressed in this case<sup>9</sup>.

Article 6(4) states:

*“If in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member States shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted. Where the site concerned hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest.”*

### 1.4.3 Screening for Appropriate Assessment

Screening is the process of determining whether a Stage 2 Appropriate Assessment is required for a plan or project. The Competent Authority's determination as to whether an Appropriate Assessment is required must be made on the basis of objective information and should be recorded. The Competent Authority may request information to be supplied to enable it to carry out a screening.

Consultants or project proponents may provide the competent authority with the information necessary for them to determine whether an Appropriate Assessment is required and provide advice to assist them in the Article 6(3) Appropriate Assessment Screening decision.

Where it cannot be excluded beyond reasonable scientific doubt at the Screening stage, that a proposed plan or project, individually or in combination with other plans and projects, would have a significant effect on the conservation objectives of a European site, an Appropriate Assessment is required.

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<sup>9</sup> EC (2007b) Interpretation Manual of European Union Habitats. Version EUR 27. European Commission, DG Environment;

## 1.5 Statement of Authority

**Amy Gallagher:** This report has been prepared by Amy Gallagher, BSc (Hons), MSc, QCIEEM. Amy is an Ecologist at AVRIO Environmental Management. She holds a BSc (Hons) in Ecological Management and an MSc in Ecological Management and Conservation Biology from Queens University Belfast. Amy is an ecologist with over 3 years of experience within the environmental industry. Amy is currently applying for qualifying membership with the Chartered Institute of Ecology and Environmental Management (CIEEM), an organisation requiring peer review and a high standard of professional conduct. Amy has experience contributing to Ecological Impact Assessments (EclA) including assessments for priority species such as Bats, Badger, Otter, Marsh Fritillary, Dragonfly and Damselfly, and habitats assessments including Phase I and Fossitt Habitat Surveys. Amy has experience in Habitat Regulation Assessment (HRA/AASR/NIS), Invasive Species Surveys and Management and production of site-specific mitigation proposals for a range of developments throughout Northern Ireland and the Republic of Ireland. Amy is a qualifying member of the Chartered Institute of Ecology and Environmental Management (CIEEM), an organisation requiring peer review and a high standard of professional conduct

**Fergal Maguire:** This report has been reviewed by Fergal Maguire, NDA, BSc (Hons), PIEMA. Fergal is the General Manager at AVRIO Environmental Management and Principal Environmental and Ecological Consultant. He holds an NDA and BSc (Hons) in Environmental Science from the Institute of Technology, Sligo. Fergal is a member of the Institute of Environmental Management & Assessment (IEMA), an organisation requiring peer review and a high standard of professional conduct. He has over 8 years of experience within the environmental industry. He has experience contributing to a number of Environmental Impact Assessments, environmental licence and surrender applications, including Industrial Emissions Licences (IEL), Integrated Pollution Control Licences (IPC) and Waste Licences for submission to the Irish Environmental Protection Agency (EPA), Northern Ireland Environment Agency (NIEA), Scottish Environment Protection Agency (SEPA), United Kingdom Environment Agency (E.A.) and a number of Local Authorities throughout the U.K. and Ireland. Fergal has extensive experience in the sustainable development and management of a number of IED licenced facilities throughout Ireland, the U.K. and greater Europe, as well as general consultancy within the waste management, environmental compliance and ecological sectors. Fergal has extensive experience in Ecological Impact Assessments (EclA) including, priority species such as Bats, Badger, Otter, Red Squirrel, Pine martin and breeding birds, and habitats assessments including Phase I and Fossitt Habitat Surveys. Fergal has extensive experience in Habitat Regulation Assessments (HRA/AASR/NIS), Ecological Clerk of Works (ECoW), Invasive Species Surveys and Management and production of site-specific mitigation proposals for a range of developments throughout Northern Ireland and the Republic of Ireland.

## 2. Methodology

### 2.1 Appropriate Assessment

In addition to the guidelines referenced above, the following relevant documents were also considered in the preparation of this report:

1. Council of the European Commission (1992) Council Directive 92/43/EEC of 21<sup>st</sup> May 1992 on the conservation of natural habitats and of wild fauna and flora. Official Journal of the European Communities. Series L 20, pp. 7-49.<sup>10</sup>
2. E.C. (2000) Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg.<sup>11</sup>
3. European Commission (2001). Assessment of Plans and Projects Significantly Affecting Natura 2000 sites: Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC.<sup>12</sup>
4. European Commission (2006). Nature and Biodiversity Cases: Ruling of the European Court of Justice.<sup>13</sup>
5. E.C. (2007) Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC – Clarification of the concepts of alternative solutions, imperative reasons of overriding public interest, compensatory measures, overall coherence. Opinion of the commission.<sup>14</sup>
6. E.C. (2013) Interpretation Manual of European Union Habitats. Version EUR 28. European Commission.<sup>15</sup>
7. European Commission (2018). Managing Natura 2000 Sites: The Provisions of Article 6 of the 'Habitats' Directive 92/43/EEC.<sup>16</sup>
8. European Communities (Natural Habitats) (Amendment) Regulations 2005<sup>17</sup>;

Stages of the assessments pursuant to Article 6(3) of the Habitats Directive are set out in the European Commission Guidance within the following documents:

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<sup>10</sup> EC (2002) Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg. European Commission;

<sup>11</sup> EC (2002) Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg. European Commission;

<sup>12</sup> EC (2001) Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Articles 6(3) and (4) of the Habitats Directive 92/43/EEC;

<sup>13</sup> EC (2006) Nature and Biodiversity Cases: Ruling of the European Court of Justice, Office for Official Publications of the European Communities, Luxembourg. European Commission;

<sup>14</sup> EC (2007a) Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC – Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interest, compensatory measures, overall coherence, opinion of the commission. Office for Official Publications of the European Communities, Luxembourg. European Commission;

<sup>15</sup> EC (2013) Interpretation Manual of European Union Habitats. Version EUR 28. Office for Official Publications of the European Communities, Luxembourg. European Commission.

<sup>16</sup> EC (2018). Managing Natura 2000 Sites: The Provisions of Article 6 of the 'Habitats' Directive 92/43/EEC. . Office for Official Publications of the European Communities, Luxembourg. European Commission.

<sup>17</sup> EC (1997) 2006. The European Communities (Natural Habitats)(Amendment) Regulations 2005.

- 'Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provision of Article 6(3) and (4) of the Habitats Directive 92/43/EEC'<sup>18</sup>; and
- 'Managing Natura 2000 Sites, The provisions of Article 6 of the 'Habitats Directive 92/43/EEC'<sup>19</sup>.

When considering the precautionary principle, the emphasis for assessment should be on objectively demonstrating with supporting evidence that:

- There will be no significant effects on a Natura 2000 site;
- There will be no adverse effects on the integrity of a Natura 2000 site;
- There is an absence of alternatives to the project or plan that is likely to have an adverse effect on the integrity of a Natura 2000 site; and
- There are compensation measures that maintain or enhance the overall coherence of Natura 2000.

In accordance with European Commission guidance, a stage by stage approach is followed for an AASR. The result obtained upon the completion of each stage determines the requirement for and scope of any subsequent stage. This translates into a four-stage process to assess the impacts, on a designated site or species, of a policy or proposal.

The four-stage process is:

**Stage 1: Screening or Test of Likely Significance (TOLS)** – identifies if the plan or project is directly connected with, or necessary to the management of the Natura 2000 site.

This stage also identifies the likely impacts of a plan or project upon the Natura 2000 site, either alone or in combination with other plans or projects and assesses whether the impact is likely to be significant.

**Stage 2: Appropriate Assessment** – the consideration of the impact on the integrity of the Natura 2000 site of the plan or project, either alone or in combination with other plans or projects with respect to the site's structure and function and its conservation objectives. Additionally, where there are adverse impacts, an assessment of the potential mitigation of those impacts.

**Stage 3: Assessment of Alternative Solutions** – examines alternative ways of achieving the objectives of the plan or project that avoid significant effects on the integrity of the Natura 2000 site identified at stage 2.

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<sup>18</sup> Available from: [http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/natura\\_2000\\_assess\\_en.pdf](http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/natura_2000_assess_en.pdf)

<sup>19</sup> Available from: [http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/provision\\_of\\_art6\\_en.pdf](http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/provision_of_art6_en.pdf)

**Stage 4: Assessment where no alternative solutions exist and where adverse impacts remain** – an assessment of compensatory measures where, in light of an assessment of imperative reasons of overriding public interest, it is deemed that the plan or project should proceed. This stage is also known as the ‘derogation stage’ and projects only reach this stage where it is determined that the development is of a critical nature for social or economic reasons.

In complying with the obligations set out in Articles 6(3) and following the guidelines described above, Stage 1 ASSR has been structured as a stage by stage approach as follows:

- Description of the proposed project;
- Identification of the Natura 2000 sites close to the proposed development;
- Identification and description of any individual and cumulative impacts on the Natura 2000 sites likely to result from the project;
- Assessment of the significance of the impacts identified above on site integrity. Exclusion of sites where it can be objectively concluded that there will be no significant effects;
- Description of proven mitigation measures.

## 2.2 Desk Study

Information pertaining to the proposed site and the surrounding environment was studied and assessed prior to the completion of this assessment. The following data sources were accessed in order to complete a thorough examination of potential impacts:

- Mammals, Amphibians and Reptiles website<sup>20</sup>;
- Environmental Protection Agency Geographic Information System (EPAGIS)<sup>21</sup>;
- National Biodiversity Data Centre (NBDC)<sup>22</sup>;
- CST Group<sup>23</sup>
- Tipperary County Council<sup>24</sup>
- National Biodiversity Network (NBN) Atlas<sup>25</sup>.
- National Parks and Wildlife Service (NPWS) online map viewer<sup>27</sup>;

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<sup>20</sup> Mammals, Amphibians and Reptiles: <http://www.habitas.org.uk/nimars/>

<sup>21</sup> Environmental Protection Agency Geographic Information System: <https://gis.epa.ie/EPAMaps/>

<sup>22</sup> National Biodiversity Data Centre: [www.biodiversityireland.ie](http://www.biodiversityireland.ie)

<sup>23</sup> CST Group– Development Information

<sup>24</sup> Tipperary County Council– Development Information

<sup>25</sup> National Biodiversity Network (NBN) Atlas: [Explore Your Area | NBN Atlas](#)

<sup>27</sup> National Parks and Wildlife Service: National Parks & Wildlife Service ([npws.ie](http://npws.ie))

- Ordnance Survey Ireland Map Viewer: Geohive<sup>28</sup>;
- NPWS Article 17 Metadata and GIS Database<sup>29</sup>;
- BirdWatch Ireland;<sup>30</sup>
- Teagasc soil area maps;<sup>31</sup>
- Geological Survey Ireland (GSI) area maps;<sup>32</sup>
- South Eastern River Basin District (SWRBD) datasets (Water Framework Directive);<sup>33</sup>
- Water Matters.<sup>35</sup>

## 2.3 Site Location & Current Use

The proposed development is located at Carrickbeg, Carrick-On-Suir, Co. Tipperary (IGR: S 39897 21516).

The site is located within Carrick-On-Suir town centre, 22.6km northwest of Waterford city centre and 35.9km southwest of Kilkenny city centre.

The scheme is located in an urban area. The site includes hardstanding, parkland, car parks and roads within the town of Carrick-On-Suir. The main focus of this active travel scheme is on pedestrians. Tipperary County Council seek to deliver a One-way traffic system with Improved footways and parking facilities on the main streets in Carrickbeg, Carrick on Suir. The site includes Abbey Hill, Bridge St., Friar St., Waterford Road and Corpse Road.

The wider environs include the R680 regional road from Clonmel, County Tipperary to Waterford city centre, which is located to the south. Residential dwellings and Commercial properties within the town of Carrick-On-Suir are located outwith the site boundary. The River Suir is also located the north of the development. The wider environs also include interspersed areas of agricultural grassland, single dwellings, farms, woodland, treelines, hedgerows and watercourses.

The site is within close proximity to an internationally designated site (SAC, SPA, cSAC, pSPA and RAMSAR). The site is 5m south of the Lower River Suir SAC and the development site is also within proximity Comeragh Mountains SAC.

Furthermore, the site is within 15km of a number of nationally designated sites (NHAs and pNHA). The nearest nationally designated site (River Suir Below Carrick-On-Suir pNHA) is situated approximately 623m to the east. There are a further 8 pNHAs and 1 NHA within 15km of the development (Tibberaghny Marshes pNHA, Fiddown Island pNHA,

<sup>28</sup> Ordnance Survey Ireland Map Viewer - GeoHive: <https://webapps.geohive.ie/mapviewer/index.html>

<sup>29</sup> NPWS Article 17 Metadata and GIS Database: <https://www.npws.ie/maps-and-data/habitat-and-species-data/article-17>

<sup>30</sup> Bird Watch Ireland: <https://birdwatchireland.ie/>

<sup>31</sup> Teagasc soil area maps: <https://www.teagasc.ie/crops/soil--soil-fertility/county-soil-maps/>

<sup>32</sup> Geological Survey Ireland (GSI) area maps: <https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=a30af518e87a4c0ab2fbde2aac3c228>

<sup>33</sup> South Eastern River Basin District (SWRBD) datasets: <https://data.gov.ie/dataset/water-framework-directive-river-basin-districts>

<sup>35</sup> Water Matters Catchment Information: <https://www.catchments.ie/download/water-matters-say/>

Portlaw Woods pNHA, Lower river Suir (Coolfinn, Portlaw) pNHA, Comeragh Mountains pNHA, Toor Wood pNHA, Kilsheelin Lake pNHA and Slievenamon Bog NHA). Under the Wildlife Amendment Act (2000), NHAs are legally protected from damage from the date they are formally proposed for designation. Prior to statutory designation, pNHAs are subject to limited protection, in the form of recognition of the ecological value of pNHAs by Planning and Licencing Authorities in accordance with NPWS guidelines<sup>36</sup>.

As NHAs and pNHAs do not form part of the Natura 2000 network they are not given further consideration in this report.

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<sup>36</sup> NPWS NHAs & pNHAs: <https://www.npws.ie/protected-sites/nha>

Figure 2-1: details the site location within the environs of Carrick-On-Suir, Co. Tipperary and additionally details the site boundary location within the immediate environs.

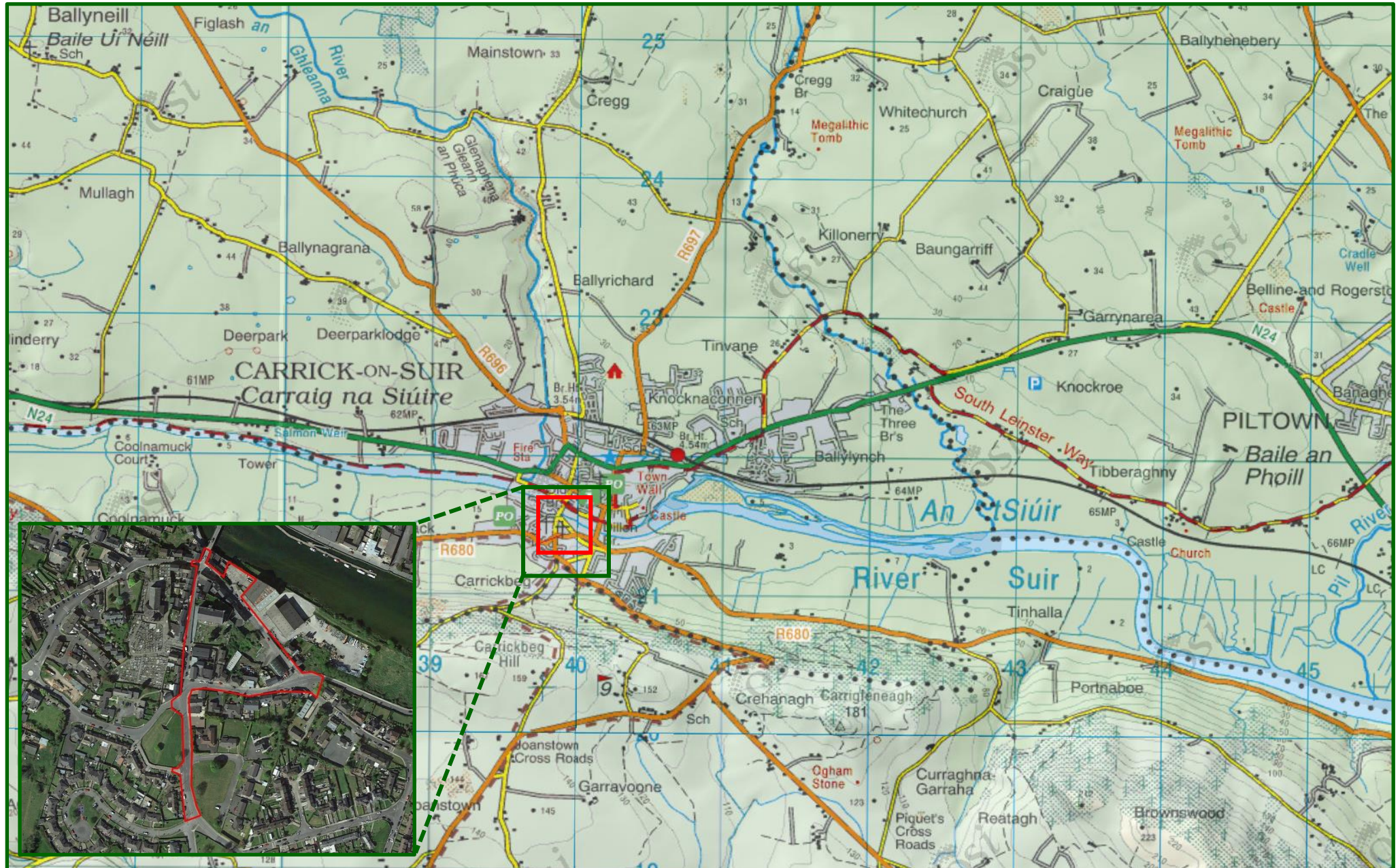


Figure 2-1: Site Location



## 2.4 Characteristics of the Proposed Development

### 2.4.1 Description of the Project

The proposed active travel project is located in Carrickbeg, south of the River Suir in Carrick on Suir. The project includes the provision of new/ widened footpaths, off-street parking and the conversion of Abbey Hill and part of Waterford Road to one-way. Tipperary County Council aim to provide a more attractive streetscape that improves mobility for all modes of transport within the project extents. The design will deliver continuous walking routes with safe crossing points at the desired locations.

The proposed works area includes Abbey Hill, Waterford Road from Abbey Hill to Corpse Road (Regional Road R676), Corpse Road from Waterford Road to Seskin Court and part of Bridge Street. The extent of this application is shown on Drawing No. 121291-3500.

The overarching objectives of the project are to:

- Encourage more sustainable modes of transport in Carrick on Suir Town.
- Provide safe routes for walking in the Carrickbeg area.

#### 2.4.1.1 Nature of the Works

The proposed works will involve:

1. Breaking out of the existing footpaths and carriageway;
2. Excavation of acceptable/ unacceptable material and importation of subbase;
3. Construction of new bituminous carriageway and concrete footpaths to a new alignment within the boundaries of the existing streetscape;
4. Provision of defined car parking within the proposed works area;
5. Installation of a macadam surface layer in the off-street carparks;
6. Minor alterations to existing surface water drainage features within the proposed works area. (The existing drainage system is being maintained with existing gullies relocated as necessary – the area contributing to drainage remains unaltered);
7. Signage and road markings;
8. Public lighting; and,
9. Provision of tree pits, planting of trees and other landscaping measures.

#### 2.4.1.2 Principal Project Features

##### **Abbey Hill**

Abbey Hill will become one-way south from its junction with Bridge St to its junction with Corpse Road.

### **Waterford Road**

Waterford Road will become one-way south-east from its junction with Abbey Heights/ Bridge Street for a distance of 40m to the proposed off-street carpark to the north of Waterford Road.

### **Off-Street Parking**

Two new off-street carparks are proposed off Waterford Road. One to the north off Waterford Road will contain 24 spaces and one to the south with 9 spaces.

### **Footpaths**

New and widened footpaths are being provided throughout, reducing road carriageway widths and installation of new and improvement of existing pedestrian crossings.

### **Boundary Works**

A short section of boundary wall is to be removed to facilitate the parking areas.

### **Public Lighting**

It is proposed to provide public lighting within the off-street carparks.

## 2.4.2 Description of the Baseline Ecological Environment (AECOM)

Assessing the impacts of any project and associated activities requires an understanding of the ecological baseline conditions prior to and at the time of the project proceeding. Ecological baseline conditions are those existing in the absence of proposed activities<sup>37</sup>.

A walkover of the site was undertaken on 1<sup>st</sup> August 2022 by a qualified ecologist from AVRIO, and habitats present were identified in accordance with the JNCC Phase 1 Habitats Guide<sup>38</sup>. Plant nomenclature for vascular plants follows 'New Flora of the British Isles, while mosses and liverworts nomenclature follows 'Mosses and Liverworts of Britain and Ireland - a field guide'.

The walkover survey was designed to assess the potential impacts of the proposed development on Natura 2000 sites downstream. The walkover survey comprehensively covered the entire study area of the subject development and surrounding habitats.

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<sup>37</sup> CIEEM, 2018, Guidelines for Ecological Impact Assessment in the UK and Ireland. Terrestrial, Freshwater, Coastal and Marine;

<sup>38</sup> JNCC (2010): Handbook for Phase 1 Habitat Survey - A technique for Environmental Audit. Peterborough

## Survey Constraints & Limitations

Weather conditions were optimal during the survey. Access to private properties was not available at the time of the survey, therefore certain areas had to be visually surveyed from adjoining lands.

### *2.4.2.1 Site Overview & Habitats On-site*

The scheme is located in the urban area of Carrick-On-Suir. The site includes areas of Buildings and Artificial Surfaces, Scrub, Amenity Grassland, Flowerbeds and Borders and Ornamental/Non-native Shrub within the town of Carrick-On-Suir. Roads within the development include the R676, R680, Abbey Hill, Waterford Road, Friar St and Bridge St.

The development will include all for all works required for provision of the footpaths, to include excavation of existing surfaced areas, installation of stone aggregate sub-base and laying of bituminous macadam surfacing and concrete. Where necessary upgraded lighting and drainage will be installed.

### *2.4.2.2 Assessment for Annex I Habitats*

No Annex I Habitats were identified within the survey area either during the site visit or in the desk study.

### *2.4.2.3 Invasive Species (Flora) Survey*

The site, the extended land holding, and the surrounding areas were comprehensively surveyed and searched for invasive species, focusing on those species listed under Third Schedule of the Wildlife Act. Two invasive species were identified Buddleia (*Buddleja davidii*) and Japanese Knotweed (*Fallopia japonica*). Japanese Knotweed is listed under 'Regulation 49: Prohibition on introduction and dispersal of certain species', which places restrictions on the introduction of any plant species listed in the Third schedule. This legislation states, a person shall be guilty of an offence if they:

- Plant, disperse, allow or cause to disperse, spread or cause to grow the plant in Ireland.<sup>39</sup>

Buddleia, while not listed on the above regulations, it is included in the NRA Guidelines on the Management of Noxious Weeds and Non-native Species on National Roads<sup>40</sup> as this species have been shown to have an adverse impact on landscape quality, native biodiversity or infrastructure; and is likely to be encountered during road schemes.

Grid references of invasive species are listed below:

- S 39925 21515 – 1 stock of Buddleia;
- S 39921 21509 – Buddleia along a wall;
- S 39913 21510 – 5-6 inches stocks of Buddleia behind the wall;

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<sup>39</sup> EC Birds and Natural Habitats Regulations, Regulation 49 & 50

<sup>40</sup> NRA Guidelines on the Management of Noxious Weeds and Non-native Species on National Roads 2010

- S 39910 21492 – Buddleia growing within an area of shrub;
- S 39917 21474 – Mature stands of Japanese Knotweed growing from a wall;
- S 39913 21478 – Buddleia growing at the right side of side within an area of shrub;
- S 39921 21484 – Buddleia growing within shrub;
- S 39929 21496 – Buddleia growing over a wall.

#### *4.4.2.4 Priority Species*

The road and all trees within the survey area are considered Negligible for roosting bats.

There are no badger setts or evidence of badger within 25 metres of the site.

There is no suitable habitat for otter on-site; No signs of the species were identified.

There is suitable breeding and foraging habitat within the site boundary for breeding birds.

There was no suitable habitat identified for common lizard, red squirrel, or smooth newt.

Some invertebrate Priority Species (e.g. moths with common larval food plant species) may frequent the site.

#### *4.4.2.5 Other Surveys & Assessments*

##### **Stage 3 Flood Risk Identification**

A Stage 3 Detailed Flood Risk Assessment report has been prepared by JKB Consulting Engineers dated August 2022. The report assessed Fluvial Flooding, Coastal

Flooding, Pluvial Flooding and Groundwater Flooding. The proposed development comprises footpaths and car parking and falls into the category of local transport infrastructure, as a result the development is classified as “Less Vulnerable Development.” The Planning System and Flood Risk Management Guidelines gives definitions for the type of developments that can take place in each Flood Zone. Only coastal and fluvial flood zones are considered in determining whether a Justification Test is required.

	Flood Zone A	Flood Zone B	Flood Zone C
Highly vulnerable development	Justification Test	Justification Test	Appropriate
Less vulnerable development	Justification Test	Appropriate	Appropriate
Water-compatible development	Appropriate	Appropriate	Appropriate

**Table 2-1:** Matrix of Vulnerability Versus Flood Zone to indicate Justification Requirement  
(Ref: JKB - Detailed Flood Risk Assessment Carrickbeg Active Travel Scheme)

As the site has been designated as Flood Zone C, less vulnerable development proposed in Flood Zone C is considered appropriate as per Table 2-1 above.

**Flood Mitigation Measures**

The proposed development is located above the higher 0.1% AEP fluvial flood level, which is 3.34 AOD. The closest area of the development to the fluvial floodplain is a proposed car park located at the northern corner of the site on the Waterford Road. The lowest current ground level within this area is 3.63mAOD, with the proposed minimum level to be 3.67mAOD. This provides 330mm of freeboard above higher 0.1% AEP fluvial flood level. Consideration could be given to the raising the levels further to provide further protection against climate change. However, given that the development is less vulnerable development and the impact on the development on flooding would minimal the current freeboard is deemed acceptable.

**Conclusion**

A review of the flooding and flood risk in the area was carried out as the site is located near the River Suir. Flood Maps produced as part of the CFRAMS were consulted to establish the Flood Zone. The proposed development is found to be located within Flood Zone C for fluvial, pluvial and coastal flooding and in accordance with The Planning

System & Flood Risk Management Guidelines the proposed development is deemed appropriate for this flood zone designation. The full report provided by JKB Consulting Engineers can be seen attached in Appendix C.

### **Outline Construction Environmental Management Plan (CEMP)**

An Outline Construction Environmental Management Plan (CEMP) has been prepared by CST Group dated the 2<sup>nd</sup> of September 2022, outlining the general environmental controls required for the implementation of the proposed Cycle paths, footpaths and associated works that form the proposed active travel proposal. Once appointed, it will be the responsibility of the Main Contractor to prepare and submit a detailed project specific CEMP for the local authority's approval. The CEMP will be a live document that will be updated by the Main Contractor, as required throughout the project lifecycle. The full report provided by CST Group can be seen attached in Appendix C.

### **Outline Biosecurity Plan (BP)**

An Outline Biosecurity Plan (BP) has been prepared by CST Group dated the 6<sup>th</sup> of September 2022, outlining the general biosecurity activities required in order to manage and prevent the spread of the invasive plant species, for the implementation of the proposed Cycle paths, footpaths and associated works that form the proposed active travel proposals. Once appointed, it will be the responsibility of the Main Contractor to prepare and submit a detailed Biosecurity Plan for the local authority's approval. The Biosecurity Plan will be a live document that will be updated throughout the project lifecycle by the Main Contractor as required. The full report provided by CST Group can be seen attached in Appendix C.

## 3. Identification of Relevant European Sites

### 3.1 Identification of the European Sites within the Likely Zone of Impact

The following methodology was used to establish which European Sites are within the Likely Zone of Impact of the proposed development:

- The most up to date GIS spatial datasets for European designated sites and water catchments were downloaded from the NPWS website<sup>41</sup> and the EPA website<sup>42</sup> on the 17<sup>th</sup> August 2022. These datasets were utilised to identify European Sites that could feasibly be affected by the proposed development;
- All European Sites within a distance of 15km surrounding the development site were identified and are detailed in Figure 3-1 below. In addition, the potential for connectivity with European Sites at distances greater than 15km from the proposed development was also considered. In this case, the proposed project does not give rise to the potential for likely significant effects on European Sites located beyond the 15km zone;
- In relation to Special Protection Areas, in the absence of any specific European or Irish guidance in relation to such sites, the Scottish Natural Heritage (SNH) Guidance, 'Assessing Connectivity with Special Protection Areas (SPA)' (2016) was consulted<sup>43</sup>. This document provides guidance in relation to the identification of connectivity between proposed developments and Special Protection Areas. The guidance considers the distances species may travel beyond the boundary of their SPAs and provides information on dispersal and foraging ranges of bird species that are frequently encountered when considering plans and projects;
- Figure 3-1 details the location of the proposed development in relation to all European sites within 15km in Ireland;
- Table 3-1 provides details of all relevant European Sites identified in the preceding steps and assesses which are within the likely Zone of Impact. The assessment considers any likely direct or indirect impacts of the proposed development, both alone and in combination with other plans and projects, on European Sites by virtue of the following criteria: size and scale, land-take, distance from the European Site or key features of the site, resource requirements, emissions, excavation requirements, transportation requirements and duration of construction, operation and decommissioning were considered in this screening assessment;
- The site synopses and conservation objectives, as per the appropriate datasets, were consulted and reviewed when preparing this report (17<sup>th</sup> August 2022).
- Where potential pathways for Significant Effect are identified, the site is included within the Likely Zone of Impact, and further assessment is required.

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<sup>41</sup>NPWS Protected Site Synopses and maps available on <https://www.npws.ie/protected-sites>

<sup>42</sup> EPA maps available on [EPA Maps](#)

<sup>43</sup> Scottish Natural Heritage (SNH) (July 2013) Assessing Connectivity with Special Protection Areas (SPA);

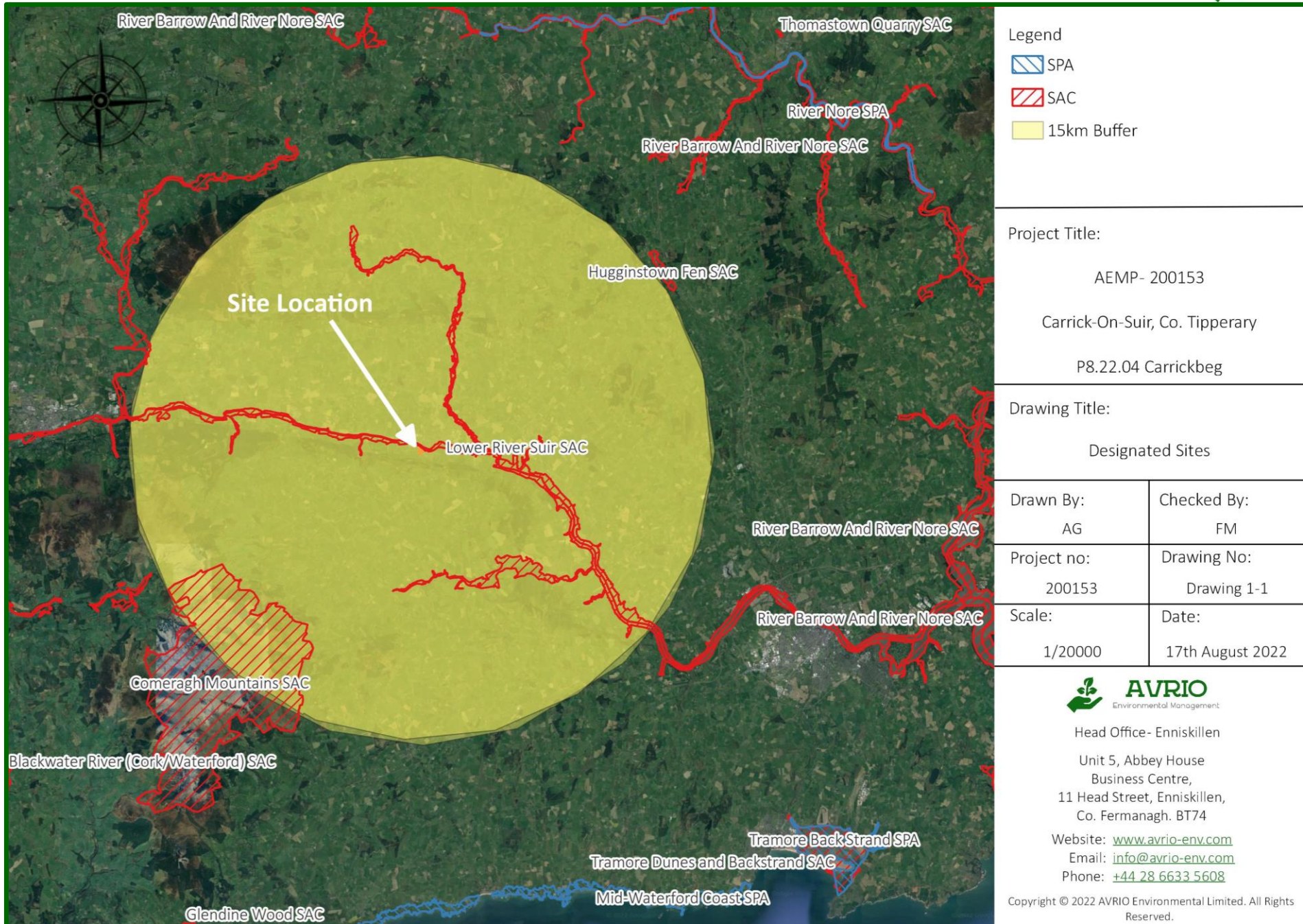


Figure 3-1: Natura 2000 Sites within a 15km Buffer



**Table 3-1:** Identification of designated sites within 15km

European Sites and distance from subject development	Qualify Interests/Special Conservation Interests for which the European site has been designated (Sourced from NPWS online Conservation Objectives, www.npws.ie on the 17/08/2022)	Conservation Objectives	Likely Zone of Impact Determination
Special Areas of Conservation (SAC)			
<p>Lower River Suir SAC [002137] Distance: 5m</p>	<ul style="list-style-type: none"> <li>➤ Atlantic salt meadows (Glauco-Puccinellietalia maritima)</li> <li>➤ Mediterranean salt meadows (Juncetalia maritimi)</li> <li>➤ Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation</li> <li>➤ Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels</li> <li>➤ Old sessile oak woods with Ilex and Blechnum in the British Isles</li> <li>➤ Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)</li> <li>➤ Taxus baccata woods of the British Isles</li> <li>➤ Margaritifera margaritifera (Freshwater Pearl Mussel)</li> <li>➤ Austroptamobius pallipes (White-clawed Crayfish)</li> <li>➤ Petromyzon marinus (Sea Lamprey)</li> </ul>	<p>Detailed conservation objectives for this site (Version 2, April 2015) were reviewed as part of the assessment and are available at <a href="http://www.npws.ie">www.npws.ie</a></p>	<p>This development is located 118m to the north-northwest of this SAC. There is no spatial overlap or no direct land-take from this SAC. No direct impacts are anticipated.</p> <p>The proposed development site is potentially hydrologically connected to this SAC via existing road and field drainage networks within the footprint of development. These drainage networks likely drain into the River Suir, which comprises part of this SAC. These drains are potential pollutant pathways from the development site to the Lower River Suir SAC. Additionally, the dispersal of unmanaged invasive species as a result of construction activities or via the above pathways could give rise to significant effects.</p> <p>However, sufficient mitigation measures detailed within the Construction Environmental Management Plan (CEMP) and Biosecurity Plan (BP) (Appendix C), negates any indirect impacts to this SAC.</p>

	<ul style="list-style-type: none"> <li>➤ Lampetra planeri (Brook Lamprey)</li> <li>➤ Lampetra fluviatilis (River Lamprey)</li> <li>➤ Alosa fallax fallax (Twaite Shad)</li> <li>➤ Salmo salar (Salmon)</li> <li>➤ Lutra lutra (Otter)</li> </ul>		<p>This SAC is not within the likely zone of impact, and no further assessment is required.</p>
<p>Comeragh Mountains SAC [001952] Distance: 10.6km</p>	<ul style="list-style-type: none"> <li>➤ Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)</li> <li>➤ Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation</li> <li>➤ Northern Atlantic wet heaths with Erica tetralix</li> <li>➤ European dry heaths</li> <li>➤ Alpine and Boreal heaths</li> <li>➤ Blanket bogs (* if active bog)</li> <li>➤ Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)</li> <li>➤ Calcareous rocky slopes with chasmophytic vegetation</li> <li>➤ Siliceous rocky slopes with chasmophytic vegetation</li> <li>➤ Hamatocaulis vernicosus (Slender Green Feather-moss)</li> </ul>	<p>Detailed conservation objectives for this site (Version 2, April 2015) were reviewed as part of the assessment and are available at <a href="http://www.npws.ie">www.npws.ie</a></p>	<p>This development is located 11.2km to the northeast of this SAC. There is no spatial overlap or no direct land take from this SAC. No direct impacts are anticipated.</p> <p>No hydrological connection exists between the site of the proposed development and this SAC, therefore, there is no pathway for significant effects via direct or indirect impacts to this SAC.</p> <p>This site is not within the Likely Zone of Impact, and no further assessment is required.</p>

## 3.2 Natura 2000 Impact Assessment

The potential impacts of the proposed development on the Natura 2000 sites identified above are described in table 3-2 below.

**Table 3-2:** Natura 2000 Impact Assessment

Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on nearby Natura 2000 site:
<p>The proposed works will have no impact upon the integrity of the site structure of the designated sites identified, i.e., Lower River Suir SAC and Comeragh Mountains SAC. There are no individual elements of the proposed project that are likely to give rise to negative impacts on these aforementioned sites if the mitigation proposed by CST Group (Appendix C &amp;D) is implemented.</p> <p>The application site is, at its closest to Lower River Suir SAC, a distance of 5m; however, it is considered that the measures detailed within the Construction Environmental Management Plan (CEMP) and Biosecurity Plan (BP) will prevent a direct source – pathway – receptor linkage between the works site and any designated site, therefore, no impacts will occur.</p>
Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the nearby Natura 2000 sites by virtue of:
<p><b>Size &amp; Scale:</b> Given the size and scale of the works and no direct source – pathway – receptor linkage between the works site and any designated site, no impacts will occur.</p> <p><b>Land-take:</b> There will be no land-take from any designated site. There will be no interference with the boundaries of any designated site.</p> <p><b>Distance from Natura 2000 Site (or key features of the site):</b> At its closest point, the site of the proposed works is situated at a distance of 5m from Lower River Suir SAC and 10.6km from Comeragh Mountains SAC. These distances are adequate to predict that there will be no impacts upon these designated sites, provided measures detailed within the Construction Environmental Management Plan (CEMP) and Biosecurity Plan (BP) are adhered to. These measures remove any direct source-pathway-receptor linkages between designated sites and the development site.</p> <p><b>Resource Requirements (water abstraction etc.):</b> No resources will be taken from any Natura 2000 site, and there are no resource requirements that will impact any designated site.</p> <p><b>Emissions:</b> Neither the construction nor the operation of the proposed works will result in any emissions to the identified SACs. There will be no run-off (untreated or other) from the works site directly to any SAC, SPA, pSPA or RAMSAR site provided environmental mitigation measures provided measures detailed within the Construction Environmental Management Plan (CEMP) and Biosecurity Plan (BP) are adhered to. These measures remove any direct source-pathway-receptor linkages between designated sites and the development site.</p> <p><b>Excavation Requirements:</b> Excavated material from the construction will be used on-site. Any remaining will be disposed of in a responsible manner at a licensed facility away from any designated sites or areas of conservation value.</p>

**Transportation requirements:** There will be no additional transportation requirements resulting from the proposed development and associated works that will have any impact upon the Natura 2000 sites identified.

**In-Combination / Cumulative Impacts:** The proposed application was considered in combination with other developments or proposed developments in the area, and potential cumulative impacts were considered. A number of planning applications associated with the development of Carrick-On-Suir, have been granted planning permission or are under review in the preceding five years, and where necessary, these applications were accompanied by Appropriate Assessment reports (Stage I / Stage II). Any future individual application that has the potential to impact upon a Natura 2000 site will be subject to Appropriate Assessment (AA) as required under Articles 6(3) of the Habitats Directive. The proposed development will not lead to any cumulative impacts upon any designated site when considered in combination with other developments that have been adequately screened for AA or where mitigation measures have been included as part of a Stage 2 AA for these developments.

**Duration of Construction, Operation & Decommissioning:** Once construction begins, the development should be complete within 6 months.

Describe any likely changes to the nearby Natura 2000 sites arising as a result of:

**Reduction of habitat area:** The proposed development lies outside the boundaries of any Natura 2000 site identified above. There will be no reduction of designated habitat area within any SAC, SPA, pSPA or RAMSAR site. There will be no impacts upon the habitat qualifying interests of the Lower River Suir SAC or Comeragh Mountains SAC. All of the site features are outside of the zone of influence of the development, provided measures detailed within the Construction Environmental Management Plan (CEMP) and Biosecurity Plan (BP) are adhered to. These measures remove any direct source-pathway-receptor linkages between designated sites and the development site removing any potential impact. There will be no interference with the boundaries of any SAC, SPA, pSPA or RAMSAR site.

**Disturbance to Key Species:** All designated sites identified lay outside of the zone of influence of the development; therefore, there will be no disturbance to key species associated with any designated site.

**Habitat or species fragmentation:** There will be no habitat or species fragmentation within any SAC, SPA, pSPA or RAMSAR site. No ecological corridors between the proposed site and any designated site exist, which could cause habitat, or species fragmentation provided measures detailed within the Construction Environmental Management Plan (CEMP) and Biosecurity Plan (BP) are adhered to; therefore, no habitat or species fragmentation will occur.

**Reduction in species density:** There will be no reduction in species density within any SAC, SPA, pSPA or RAMSAR site.

**Changes in key indicators of conservation value (water quality etc.):** There will be no negative impacts upon surface or groundwater quality within any SAC, SPA, pSPA or RAMSAR site provided measures detailed within the Construction Environmental Management Plan (CEMP) and Biosecurity Plan (BP) are adhered to. There will be no negative impacts upon the water quality in any designated site.

Describe any likely impacts on the nearby Natura 2000 sites as a whole in terms of:

**Interference with the key relationships that define the structure or function of the site:** It is not considered likely that there will be any impacts on the key relationships that define the structure or function of any Natura 2000 sites identified.

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

**Loss - Estimated percentage of lost area of habitat:** None

**Fragmentation:** None

**Disruption & disturbance:** None

**Change to key elements of the site (e.g. water quality etc.):** None

## 4. Article 6(3) Appropriate Assessment Screening Statement & Conclusions

### 4.1 Screening Statement

The findings of this Screening Assessment are presented following the European Commission's Assessment of Plans and Projects Significantly affecting Natura 2000 Sites: Methodological Guidance on the provisions of Article 6(3) and 6(4) of the Habitats Directive 92/43/EEC (EC, 2001) and Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC (EC, 2018).

In order to assess the impact on the Natura 2000 sites, a standard source-pathway-receptor model is utilised. Therefore, in order for an impact to be established, all three of these elements must be present. Where mitigation measures are put in place to ensure that one or all of these elements are removed, the potential impact is deemed to be not relevant or significant.

2 Natura 2000 sites are present within 15km of the site, including:

- Lower River Suir SAC; and
- Comeragh Mountains SAC

The test of likely significance (TOLS) has concluded that the source-pathway-receptor mechanism in addition to considering other elements highlighted above, cannot be established for these sites provided measures detailed within the Construction Environmental Management Plan (CEMP) and Biosecurity Plan (BP) are adhered to as part of the works. These measures remove any direct source-pathway-receptor linkages between these designated areas and the works site removing any potential impact. Due to the benign nature of the development, all of these designations highlighted above can be screened out.

### 4.2 Screening Conclusions

This initial Stage 1 assessment has concluded that there will be no likely significant direct or indirect impacts on any Natura 2000 site, individually or in combination, as a result of the proposal. Therefore, there is no requirement to progress to Stage 2 (Appropriate Assessment) in this instance.

## 5. Appropriate Assessment Conclusions

In accordance with Article 6(3) of the Habitats Directive, the relevant case law established best practices and the precautionary principle, this Appropriate Assessment Stage 1 Screening Report has examined the details of the project in relation to the relevant Natura 2000 sites within 15km of the works site.

In view of the best scientific knowledge and on the basis of objective information, it can be concluded that this application, whether individually or in combination with other plans and projects, will have no impact upon any Natura 2000 sites. The integrity of these sites will be maintained, and the habitats and species associated with these sites will not be adversely affected. It is of the opinion of this author that this application does not need to proceed to Stage II of the Appropriate Assessment process.





## Appendix B Photographs



Picture 1: Photograph showing storm drain on-site



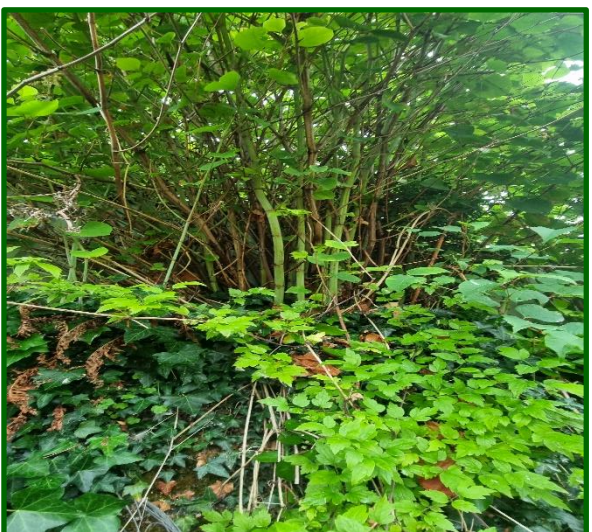
Picture 2: Photograph showing footpath on-site



Picture 3: Photograph showing amenity grassland & shrub on-site



Picture 4: Photograph showing road on-site



Picture 5: Photograph showing Japanese Knotweed on-site



Picture 6: Photograph showing Buddleia on-site

## Appendix C

### Stage 3 Detailed Flood Risk Assessment & Environmental Mitigation Requirements (Outline CEMP & Biosecurity Plan)



CONSULTING ENGINEERS

**Detailed Flood Risk Assessment for  
Carrickbeg Active Travel Scheme**

August 2022

## Revision Schedule

### Report

August 2022  
JKB2266

Rev	Date	Details	Prepared by
00	August 2022	Final Report	<b>J Bradshaw CEng MICE</b> Civil Engineer and Flood Risk Specialist
01	September 2022	Final Report	<b>J Bradshaw CEng MICE</b> Civil Engineer and Flood Risk Specialist

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Appendix A – Drawings

Appendix B – OPW Past Flood Event Local Area Summary Report

Appendix C – OPW CFRAM Map

# 1 Introduction

## 1.1 Background

JKB Consulting Engineers Ltd “JKB Consulting” was appointed to undertake a Stage 3 Flood Risk Assessment for a proposed active travel development in the Carrickbeg area of Carrick on Suir (southside of the river) with the aim of improving traffic management and vehicular circulation on Abbey Heights, Bridge Street, Corpse Road and the Waterford road. The proposal involves making both Abbey Heights (south from its junction with Bridge St to its junction with Corpse Road) and part of the Waterford road (south-east from its junction with Abbey Heights/ Bridge Street for a distance of 40m to the proposed off-street carpark to the north of Waterford Road) one way. Two new areas of car parking are proposed, one north of the Waterford Road that will provide 24 spaces and one south that will provide 9 spaces. Footpaths are to be provided in the area as well and new pedestrian crossings and improvements to older crossings. A small portion of a boundary wall on the southern side of the Waterford road is to be demolished to facilitate access to the smaller car park. Public lighting is proposed in the car parks. The flood risk assessment is carried out in accordance with the requirements of “The Planning System & Flood Risk Management Guidelines” published by the Department of the Environment, Heritage and Local Government in November 2009.

The proposed scheme is detailed in drawings provided by CST Group Chartered Consulting Engineers and included in Appendix A of this report.

## 1.2 Qualifications and Experience of Assessor

This flood risk assessment has been carried out by Jonathan Bradshaw, a Chartered Member of the Institution of Civil Engineers. Jonathan has over 15 years’ experience in flood risk and drainage assessments and has prepared flood risk and drainage assessments for numerous large private developments, flood alleviation schemes, as well as several major road projects.

## 1.3 Information Consulted

This flood risk assessment has been prepared based on the information available from the following sources:

- OPW website [www.floodinfo.ie](http://www.floodinfo.ie);
- DECLG website [www.myplan.ie](http://www.myplan.ie)
- OPW website [www.floodmaps.ie](http://www.floodmaps.ie)
- WCC and Irish Water Records
- Geological Survey of Ireland Maps
- Architectural drawings
- Topographical survey of the proposed site.

## 2 Site Details

### 2.1 Site Locations

The proposed development is located in the Carrickbeg area of Carrick on Suir on the southside of the River Suir. The site location is shown in Figure 1.

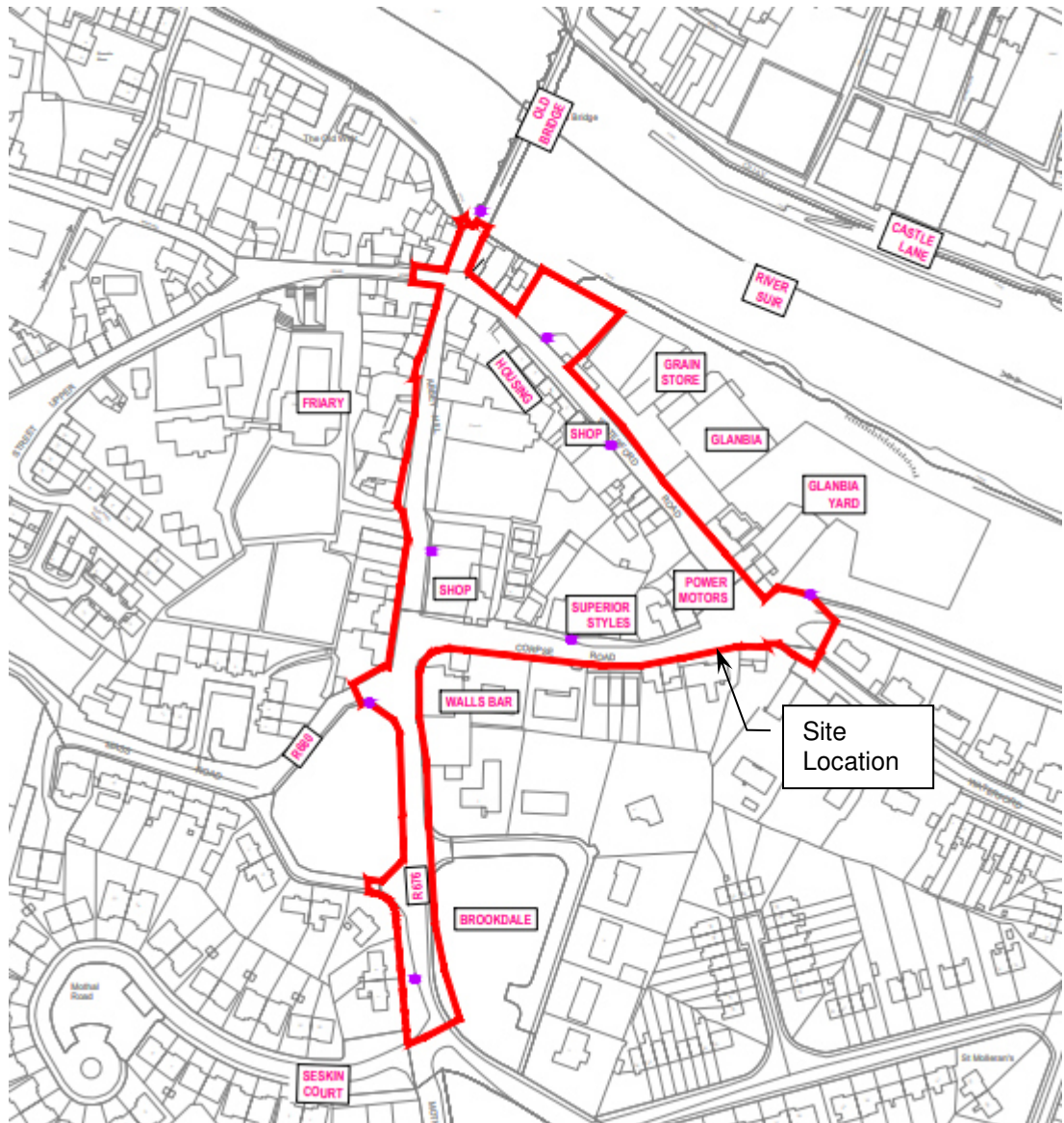
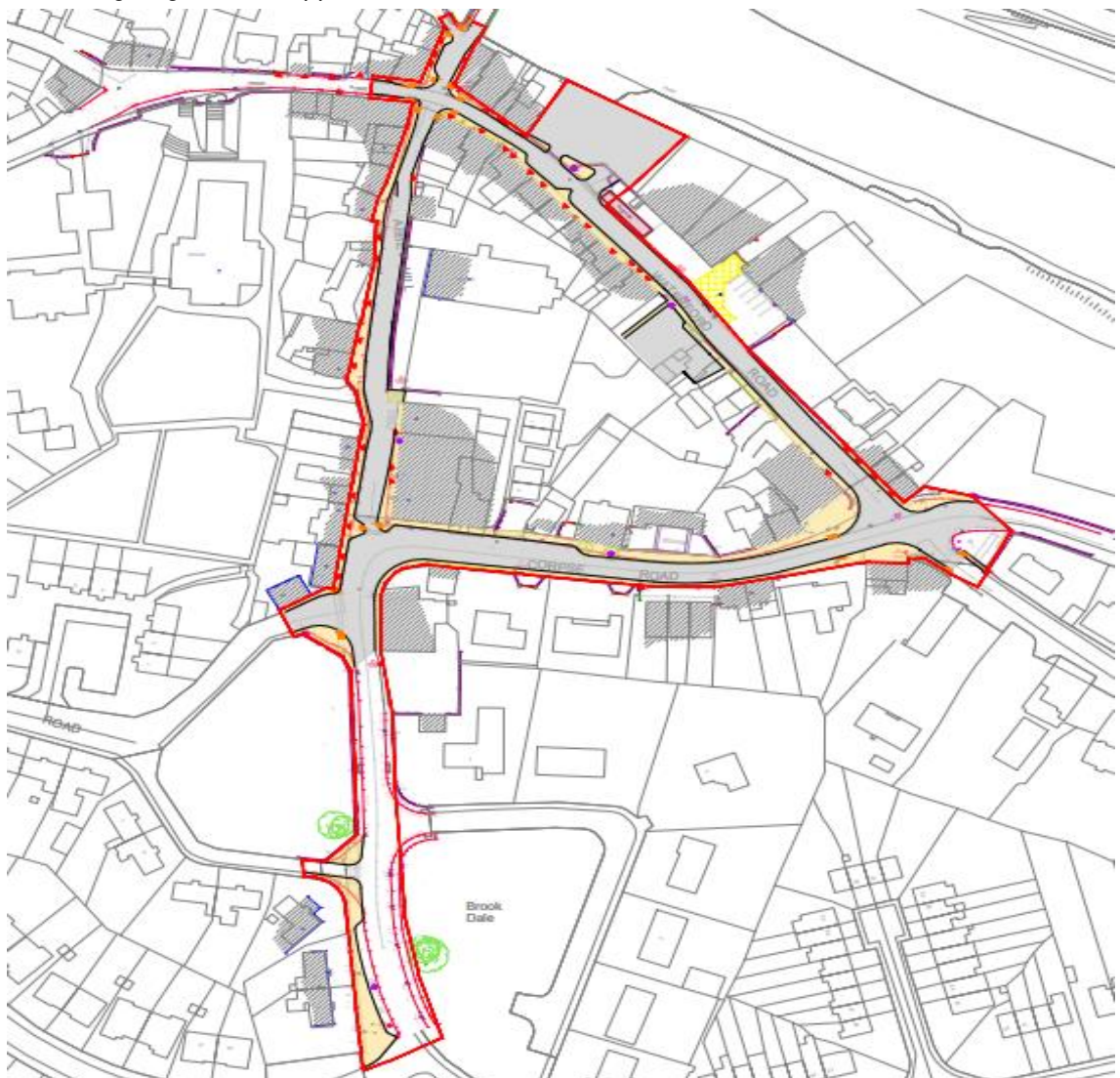


Figure 1: Site Location Plan (Google Maps)

## 2.2 Proposed Development

The proposed developments aims to improve improving traffic management and vehicular circulation on Abbey Heights, Bridge Street, Corpse Road and the Waterford road. The proposal involves making both Abbey Heights (south from its junction with Bridge St to its junction with Corpse Road) and part of the Waterford road (south-east from its junction with Abbey Heights/ Bridge Street for a distance of 40m to the proposed off-street carpark to the north of Waterford Road) one way.

Two new areas of car parking are proposed, one north of the Waterford Road that will provide 24 spaces and one south that will provide 9 spaces. Footpaths are to be provided in the area as well and new pedestrian crossings and improvements to older crossings. A small portion of a boundary wall on the southern side of the Waterford road is to be demolished to facilitate access to the smaller car park (Northern Car Park). Public lighting is proposed in the car parks. Further details of the proposed development are shown on drawings supplied by CST Group Chartered Consulting Engineers in Appendix A.



**Figure 2: Proposed Development**



## 3 Legislation and guidance

### 3.1 The Planning System and Flood Risk Management Guidelines

In September 2008, “The Planning System and Flood Risk Management” Guidelines were published by the Department of the Environment, Heritage and Local Government in Draft Format. In November 2009, the adopted version of the document was published.

The Flood Risk Management Guidelines give guidance on flood risk and development. The guidelines recommend a precautionary approach when considering flood risk management in the planning system. The core principle of the guidelines is to adopt a flood risk sequential approach to managing flood risk and to avoid development in areas that are at risk. The sequential approach is based on the identification of flood zones for river and coastal flooding. The guidelines include definitions of Flood Zones A, B and C, as defined below. It should be noted that these do not consider the presence of flood defences, as there remain risks of overtopping and breach of the defences.

- Flood Zone A – where the probability of flooding from rivers and the sea is highest (greater than 1% or 1 in 100 for river flooding or 0.5% or 1 in 200 for coastal flooding).
- Flood Zone B – where the probability of flooding from rivers and the sea is moderate (between 0.1% or 1 in 1000 and 1% or 1 in 100 for river flooding and between 0.1% or 1 in 1000 year and 0.5% or 1 in 200 for coastal flooding).
- Flood Zone C – where the probability of flooding from rivers and the sea is low (less than 0.1% or 1 in 1000 for both river and coastal flooding).

Once a flood zone has been identified, the guidelines set out the different types of development appropriate to each zone. Exceptions to the restriction of development due to potential flood risks are provided for through the use of the Justification Test, where the planning need and the sustainable management of flood risk to an acceptable level must be demonstrated. This recognises that there will be a need for future development in existing towns and urban centres that lie within flood risk zones, and that the avoidance of all future development in these areas would be unsustainable. A three staged approach to undertaking an FRA is recommended:

- Stage 1: Flood Risk Identification – Identification of any issues relating to the site that will require further investigation through a Flood Risk Assessment;
- Stage 2: Initial Flood Risk Assessment – Involves establishment of the sources of flooding, the extent of the flood risk, potential impacts of the development and possible mitigation measure;
- Stage 3: Detailed Flood Risk Assessment – Assess flood risk issues in sufficient detail to provide quantitative appraisal of potential flood risk of the development, impacts of the flooding elsewhere and the effectiveness of any proposed mitigation measures.

This report addresses the requirements for Stage 3.

### 3.2 Carrick on Suir Town Development Plan 2013

The Carrick on Suir Town Development Plan 2013, has been reviewed as part of this assessment and the following policies are considered pertinent to this Stage 3 FRA:

- Policy INF 21: The Planning Authority will require development proposals within Flood Zone A and Flood Zone B to comply with the recommendations of Section 5.3 of the Strategic Flood Risk Assessment. Applications will also be required to be accompanied by a comprehensive Stage 3 Flood Risk Assessment for proposals in an area at risk of flooding, adjoining same or where cumulative impacts may result in a flood risk elsewhere, in low lying areas and in areas adjacent to streams.



#### 4.2 Site Walkover

A site visit was carried out on the 1<sup>st</sup> August 2022 this did not identify any other watercourses.

#### 4.3 Topographical Survey

A topographical survey of the site was provided by the applicant for the purposes of the flood risk assessment. The topographical survey is shown drawing JKB2266\_001 in Appendix A.

#### 4.4 Site Geology

The geology of the site was reviewed using data from the Geological Survey of Ireland. The geology of the site varies, with areas between, Yellow & red sandstone & green mudstone, Sandstone, shale & thin limestone, and Dark muddy limestone, shale. An extract of the Geological Survey of Ireland Map is shown in Figure 4.



Figure 4: Geology of the Surrounding Area (source: Geological Survey of Ireland)

#### 4.5 Historical Flooding

The Office of Public Works (OPW) Flood Hazard Mapping website holds a record of historic flood events. A review of the database indicated a number of historical flooding events close to the site. However, on review of the historical flooding report there does not appear to be any evidence of flooding of the proposed development area. Figure 5, shows the past flood event data, see Appendix B for full report. Please note that this is not a guaranteed record of all flood events.

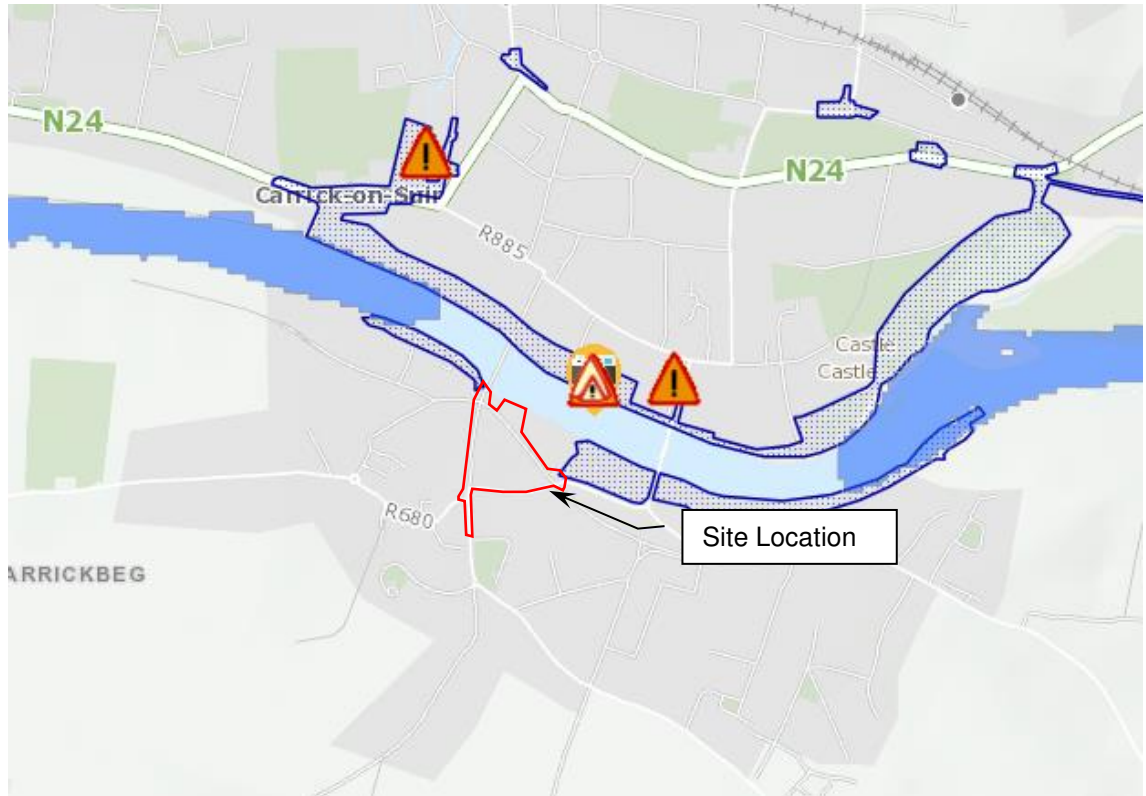
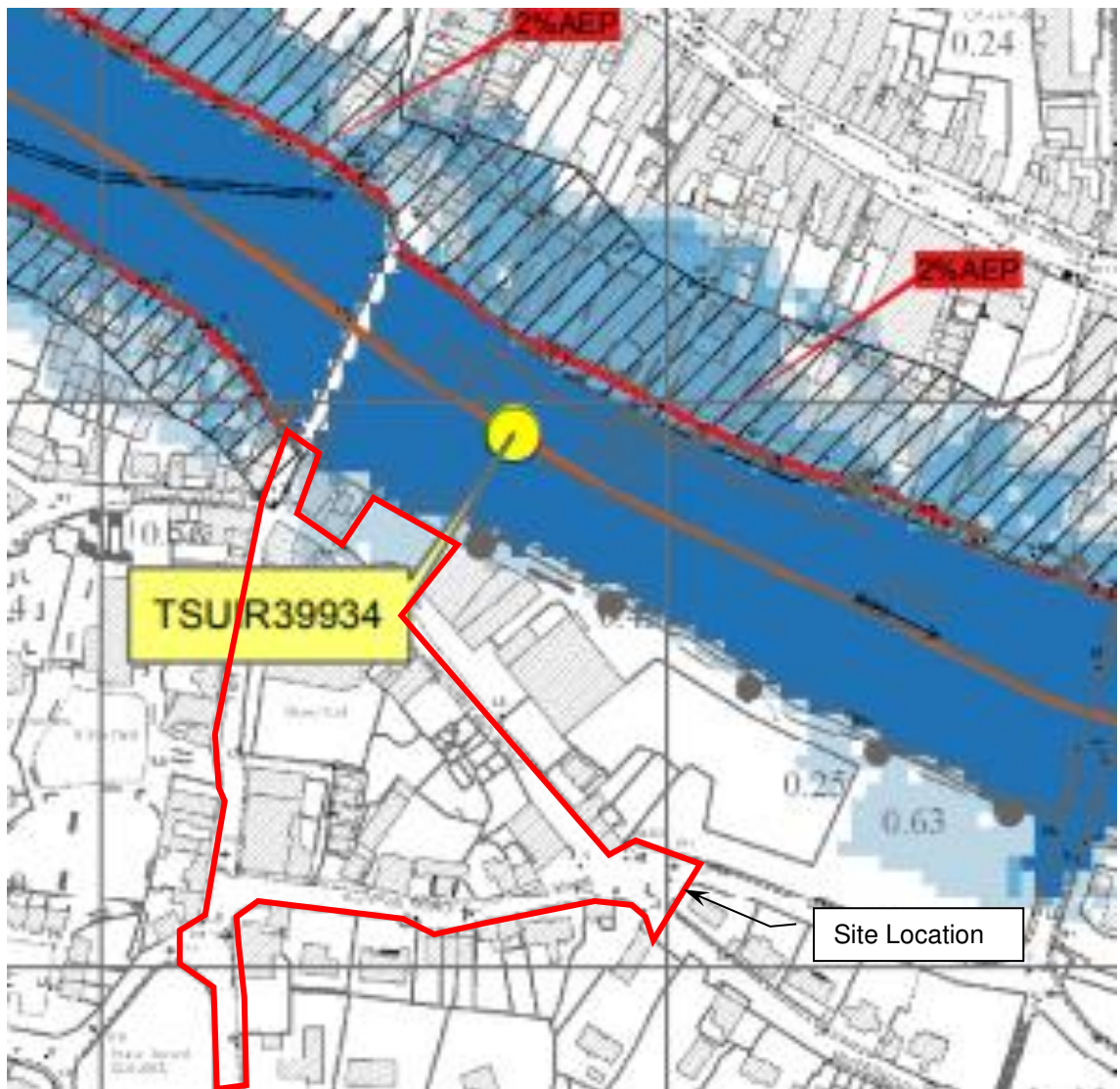


Figure 5: OPW Past Flood Event Record

#### 4.7 CFRAMS Mapping

The OPW has published detailed flood hazard mapping for the area based on results from the Suir CFRAMS. This includes flood extent and flood depth mapping for a number of return periods for fluvial and coastal flood events. Full CFRAMS fluvial and coastal flood maps for the area are included in Appendix C of this report

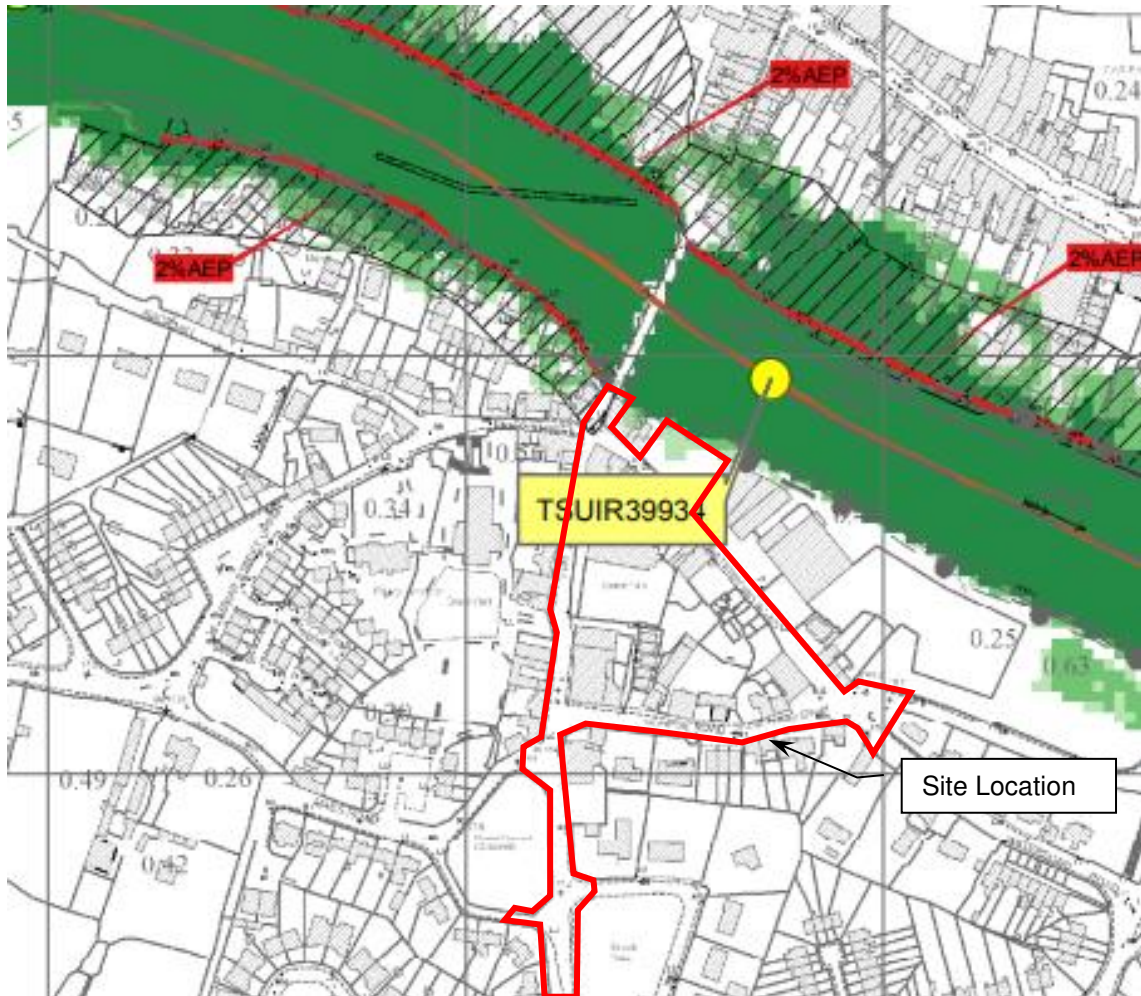
Figure 6 below shows an extract from the Suir CFRAMS fluvial flood map for the area surrounding the proposed development site.



**Figure 6: Extract from CFRAM fluvial flood map**

As can be seen from the map above, there is a possibility of fluvial flooding on the site during the 10%, 1% or 0.1% AEP events near the proposed car park along the Waterford Road.

Figure 7 below shows an extract from the Suir CFRAMS coastal flood map for the area surrounding the proposed development site.



**Figure 7: Extract from CFRAM coastal flood map**

As can be seen from the map above, there is a possibility of fluvial flooding on the site during the 10%, 0.5% or 0.1% AEP events near the proposed car park along the Waterford Road.

#### 4.8 Modelled Flood Levels and Flood Zones

The site has been assessed in accordance with the “The Planning System and Flood Risk Management” Guidelines. As part of the sequential test, the OPW flood hazard maps have been consulted, as have the Catchment Flood Risk Assessment Maps. The site is located in close proximity to CFRAM modelling node TSUIR39934 on the River Suir. The predicted flood levels for fluvial and coastal flood events are as per Table 1 and 2 below.

Node	10% AEP (mAOD)	1%AEP (mAOD)	0.1%AEP (mAOD)
TSUIR39934	2.82	3.06	3.24

**Table 1: CFRAM Fluvial Predicted Flood Levels in Vicinity of Site.**

Node	10% AEP (mAOD)	0.5%AEP (mAOD)	0.1%AEP (mAOD)
TSUIR39934	2.9	3.2	3.34

**Table 2: CFRAM Coastal Predicted Flood Levels in Vicinity of Site.**

JKB Consulting has compared the CFRAMS flood levels outlined within Table 1 and 2 with the recent topographical survey of the site and can confirm that the site is not located within a 0.1%AEP Fluvial flood zone or 0.1%AEP Coastal flood zone. Drawing JKB2266\_002 and Drawing JKB2266\_003 in Appendix A shows the extent of the 0.1%AEP Fluvial and Coastal Flood Levels against the existing ground levels

JKB Consulting has reviewed all the information above and concluded that the site is located in Flood Zone C.

#### 4.9 Estimate of Flood Zone

The site has been assessed in accordance with the “The Planning System and Flood Risk Management” Guidelines. As part of the sequential test, the OPW flood hazard maps have been consulted, as have the Catchment Flood Risk Assessment Maps.

JKB Consulting has compared the CFRAMS flood levels outlined within Table 1 with the recent topographical survey of the site and can confirm that the flooding is contained within the River Suir at this location. JKB Consulting has reviewed all the information above and concluded that the site is located in Flood Zone C.



## 5 Flood Risk Assessment

### 5.1 Sources of Flooding

When carrying out a Flood Risk Assessment, consideration is given to all potential risk and sources of flood water at the site. A summary of the sources is outlined within Table 2.

Source of Flooding	Risk
Fluvial Flooding	Fluvial flooding is the result of a river exceeding its capacity and excess water spilling out onto the adjacent floodplain. From a review of the available information the 0.1%AEP fluvial flood level is 3.34mOD and the existing site levels are above this level. From a review of the available information, it is considered that the site is at low risk of fluvial flooding. The proposed development will all be located in areas designated Flood Zone C.
Coastal Flooding	Coastal Flooding is the result of sea levels which are higher than normal and result in sea water flowing inland during high tides or storm surges. The subject site is located close to an area of coastal flooding. The 0.1%AEP coastal flood level is 3.24mOD and the existing site levels are above this level. From a review of the available information, it is considered that the site is at low risk of coastal flooding. The proposed development will all be located in areas designated Flood Zone C.
Pluvial Flooding	Pluvial Flooding is the result of rainfall-generated overland flows which arise before run-off can enter any watercourse or sewer. It is usually associated with high-intensity rainfall. There are no areas within the site which are subject to pluvial flooding based on a review of the PFRA mapping. The surface water from the site will be attenuated to greenfield runoff and managed onsite. The surface water network will be designed for a 1 in 100-year storm with a 20% allowance for climate change.
Groundwater Flooding	Groundwater Flooding occurs when the level of the water stored in the ground rises as a result of prolonged rainfall. The study area is not at risk of groundwater flooding. The development does not include any infrastructure which would be impacted by groundwater flooding.

**Table 3: Sources of Flooding**

## 5.2 Site Vulnerability

The proposed development comprises footpaths and car parking and falls into the category of local transport infrastructure, as a result the development is classified as “Less Vulnerable Development.” The Planning System and Flood Risk Management Guidelines gives definitions for the type of developments that can take place in each Flood Zone. Only coastal and fluvial flood zones are considered in determining whether a Justification Test is required.

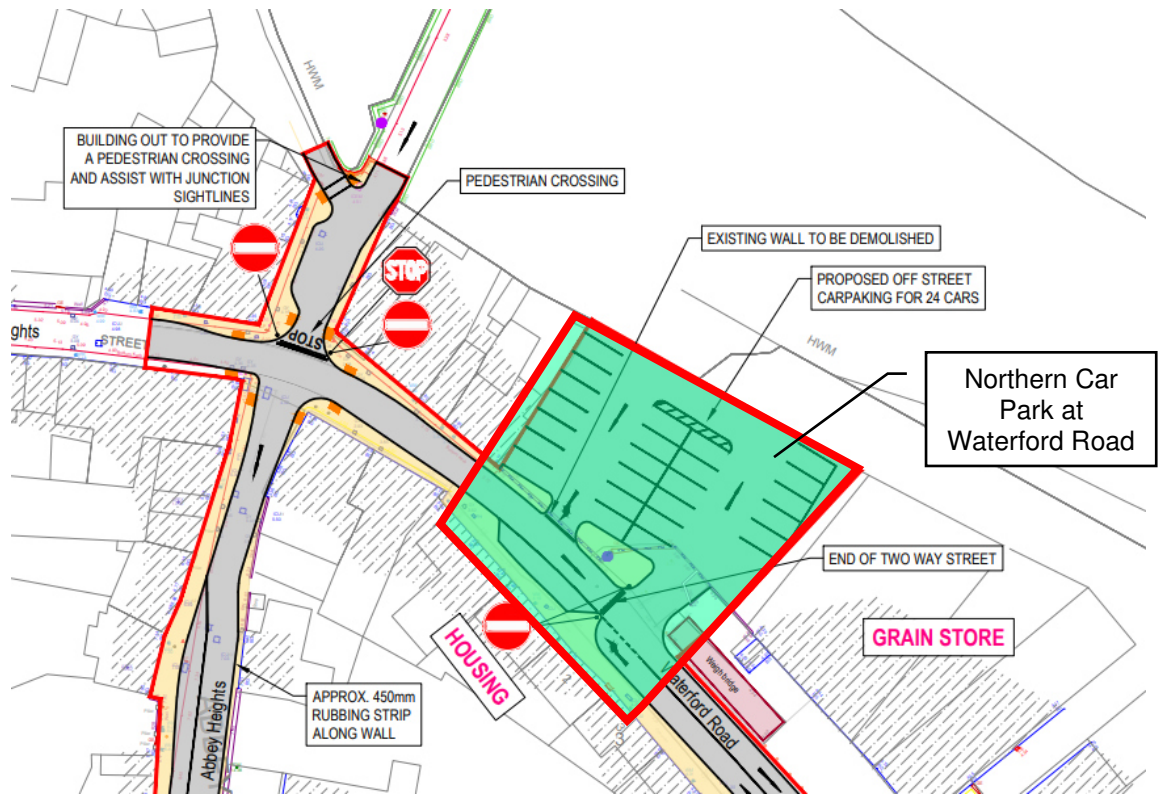
	Flood Zone A	Flood Zone B	Flood Zone C
Highly vulnerable development	Justification Test	Justification Test	Appropriate
Less vulnerable development	Justification Test	Appropriate	Appropriate
Water-compatible development	Appropriate	Appropriate	Appropriate

**Table 4: Matrix of Vulnerability versus Flood Zone to indicate Justification Requirement**

As the site has been designated as Flood Zone C, less vulnerable development proposed in Flood Zone C is considered appropriate as per Table 4 above.

## 5.3 Flood Mitigation Measures

The proposed development is located above the higher 0.1% AEP fluvial flood level, which is 3.34 AOD. The closest area of the development to the fluvial floodplain is a proposed car park located at the northern corner of the site on the Waterford Road. The lowest current ground level within this area is 3.58m AOD, with the proposed minimum level to be 3.67m AOD. This provides 330mm of freeboard above higher 0.1% AEP fluvial flood level. Consideration could be given to the raising the levels further to provide further protection against climate change. However, given that the development is less vulnerable development and the impact on the development on flooding would be minimal the current freeboard is deemed acceptable.



**Figure 8: Northern Car Park Location**

The proposed development will provide stormwater drainage in accordance with the Carrick on Suir Town Development Plan 2013. With the implementation of the above measures the site will be at low risk of flooding and will not increase the risk of flooding to any adjacent or nearby area.

## 6 Conclusions

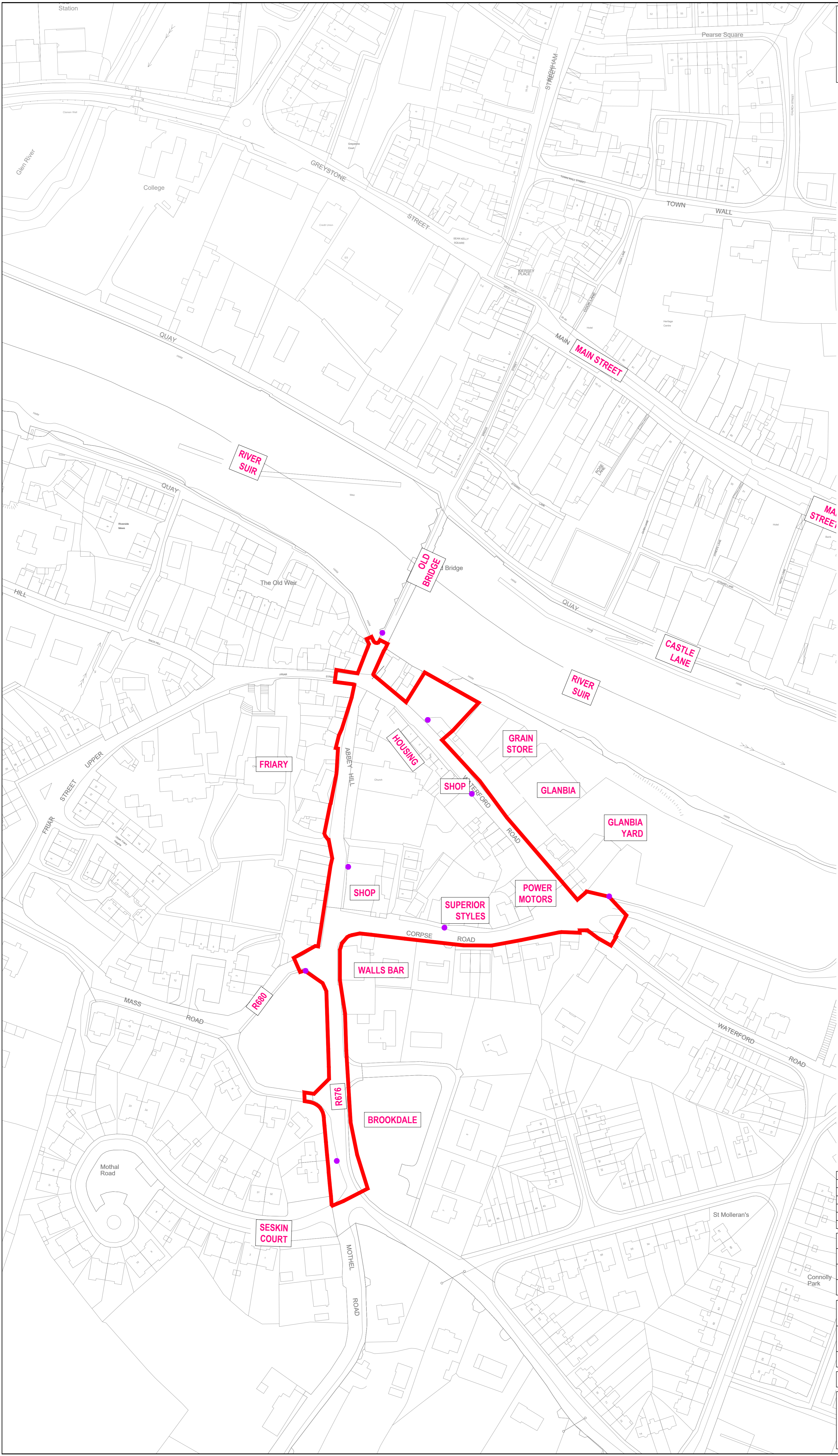
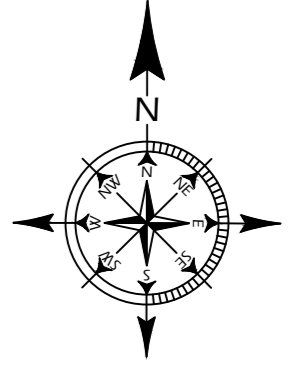
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A review of the flooding and flood risk in the area was carried out as the site is located near the River Suir. Flood Maps produced as part of the CFRAMS were consulted to establish the Flood Zone. The proposed development is found to be located within Flood Zone C for fluvial, pluvial and coastal flooding and in accordance with The Planning System & Flood Risk Management Guidelines the proposed development is deemed appropriate for this flood zone designation.

# Appendix A

## Drawings

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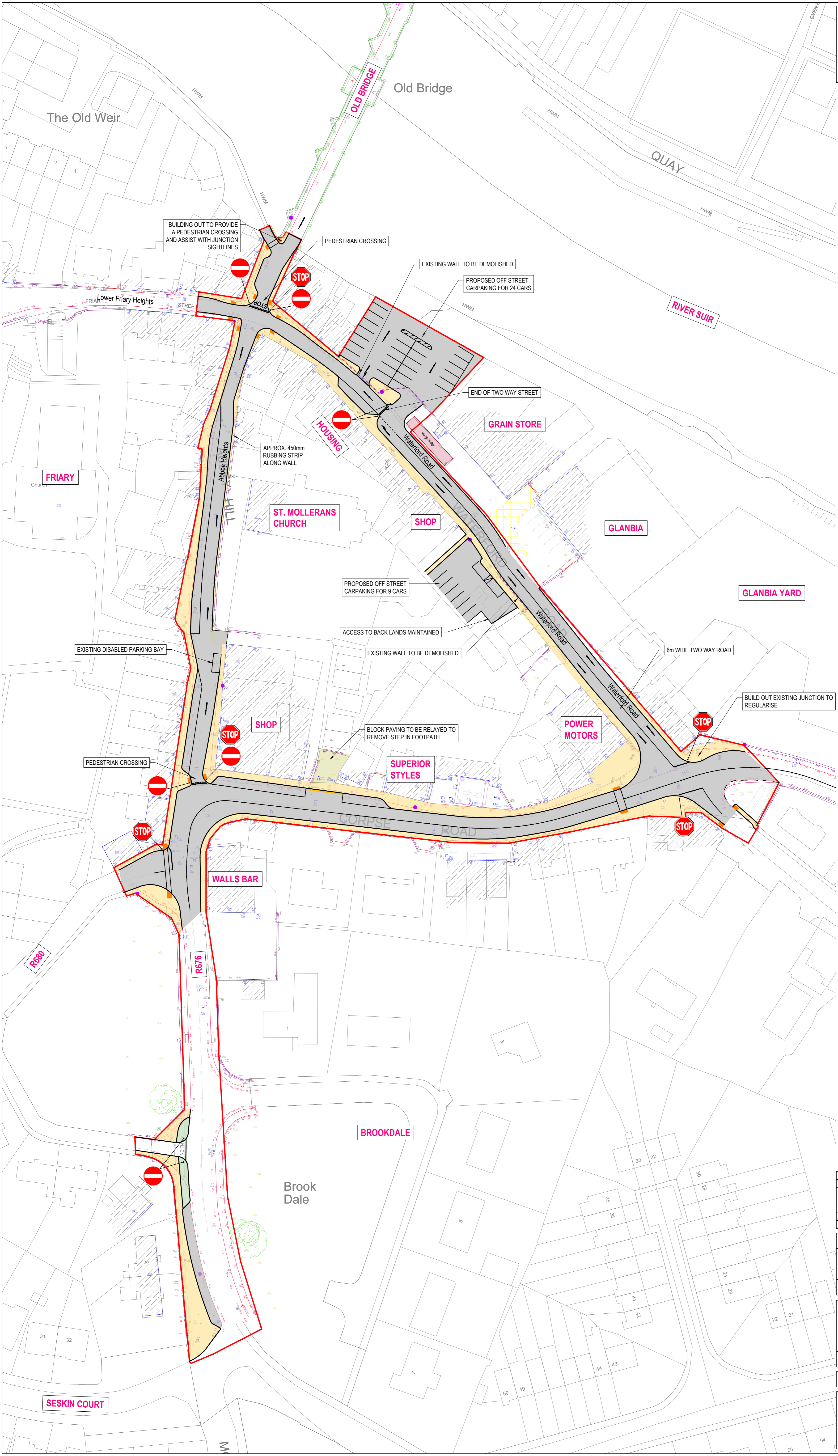
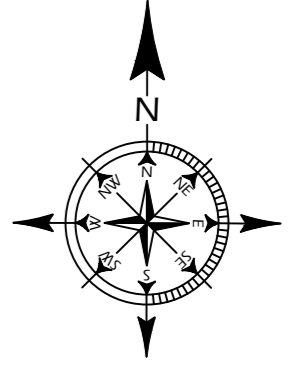
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- SITE NOTICE LOCATION

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DRAWING TITLE:	SITE LOCATION MAP		
CLIENT:	TIPPERARY CoCo		
DRAWING No:	121291-3400	REV:	P0

1, O'CONNELL ST.  
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 F91 W7YV  
 IRELAND  
 +353 71 919 4500  
 info@cstgroup.ie  
 www.cstgroup.ie

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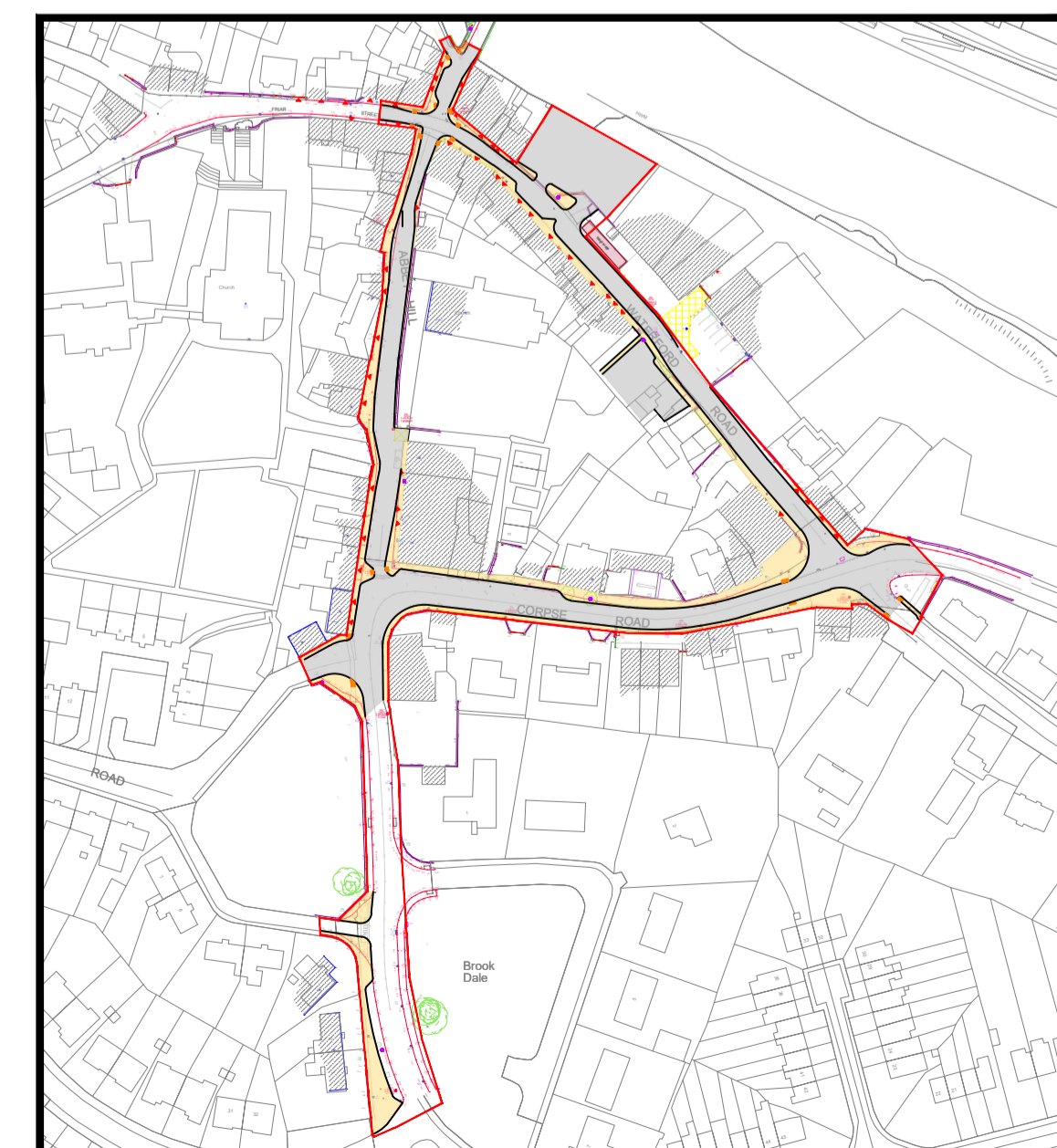
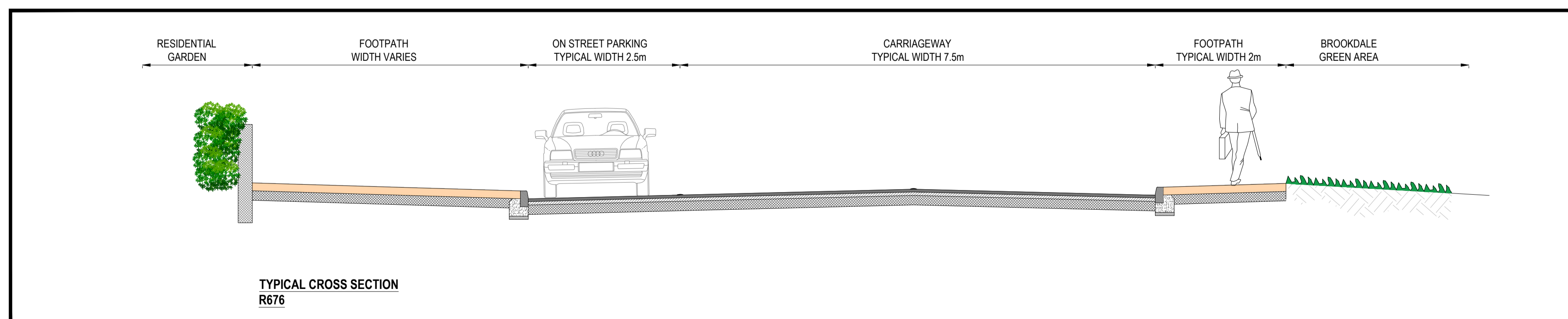
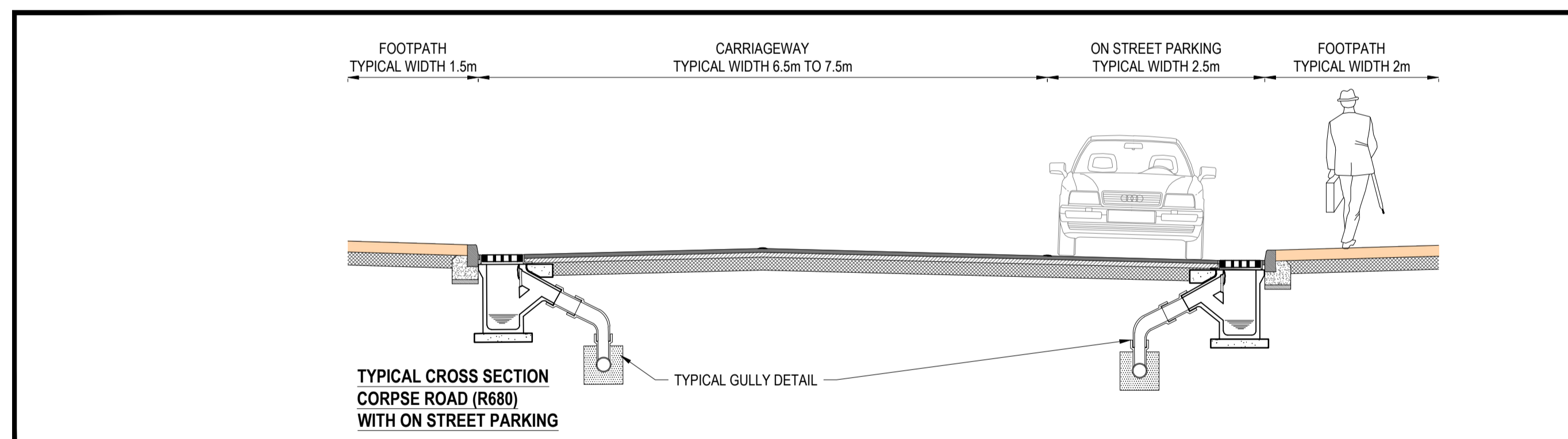
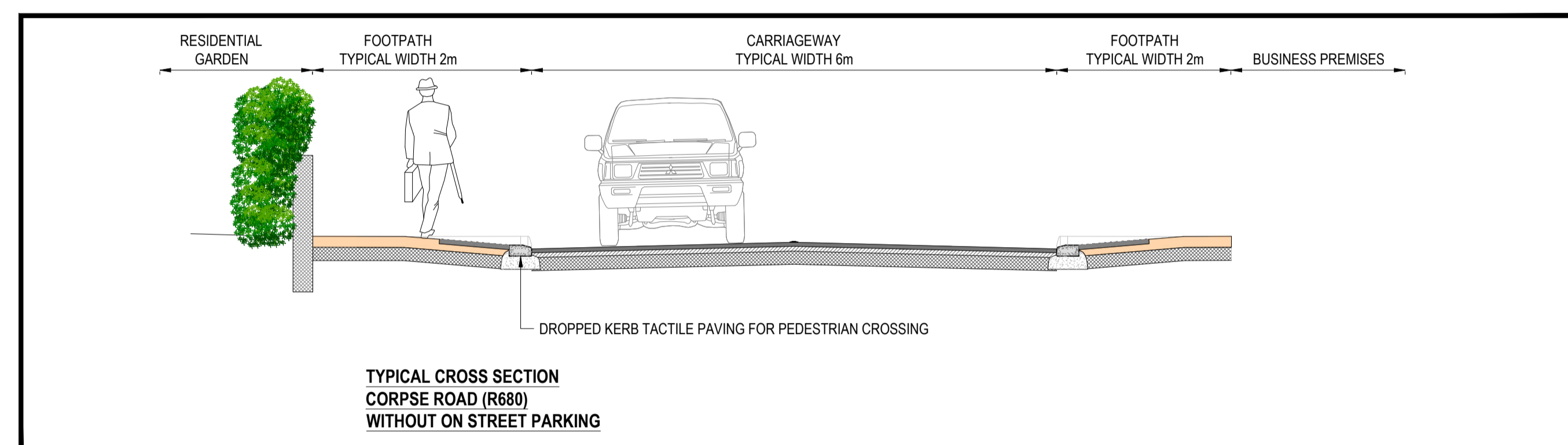
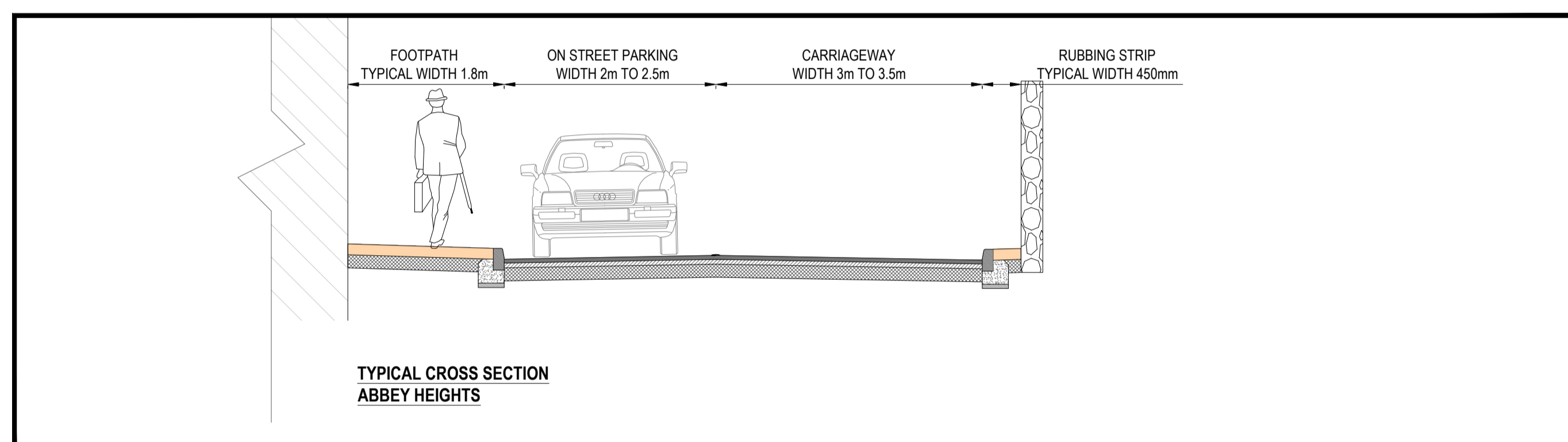
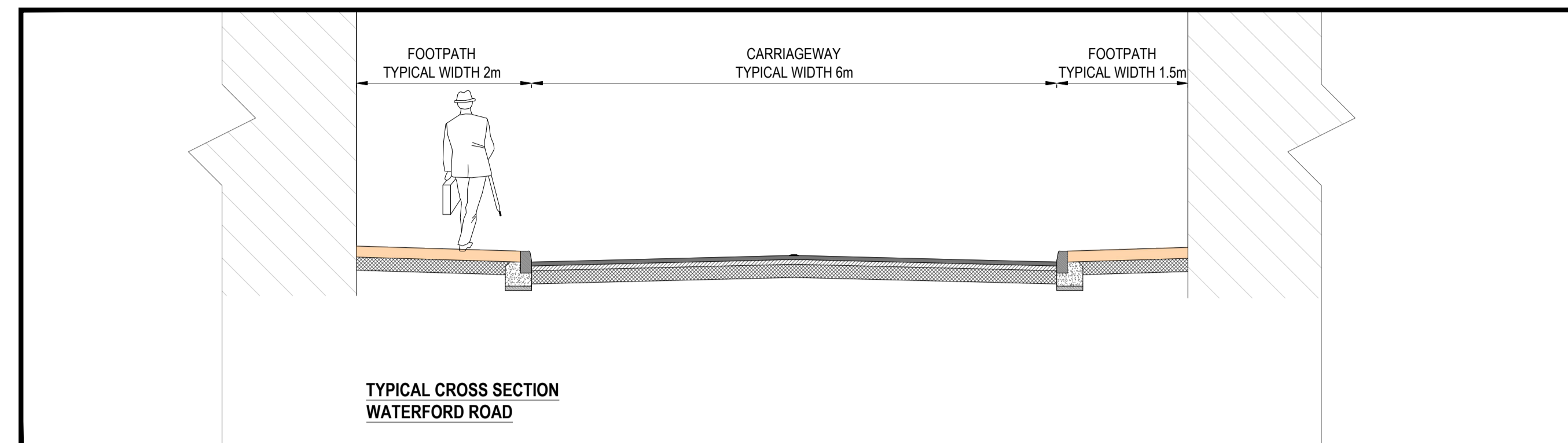
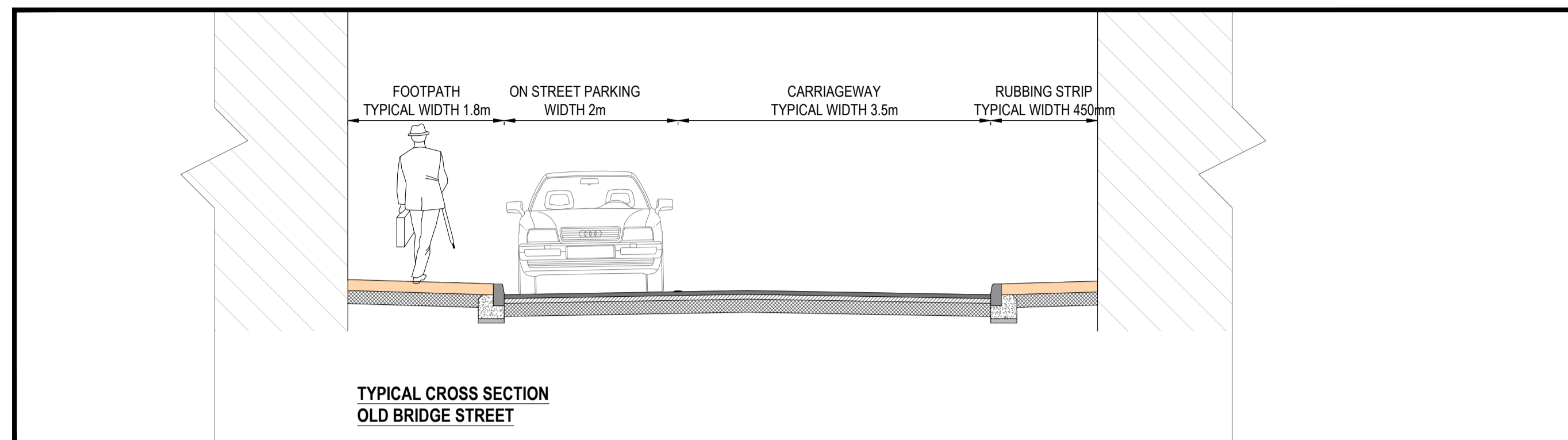


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	ROAD/PARKING - BLACKTOP FINISH
	PRIVATE PARKING
	PROPOSED LANDSCAPING
	TACTILE PAVING AT PEDESTRIAN CROSSING LOCATIONS
	PROPOSED KERB
	SITE NOTICE LOCATION

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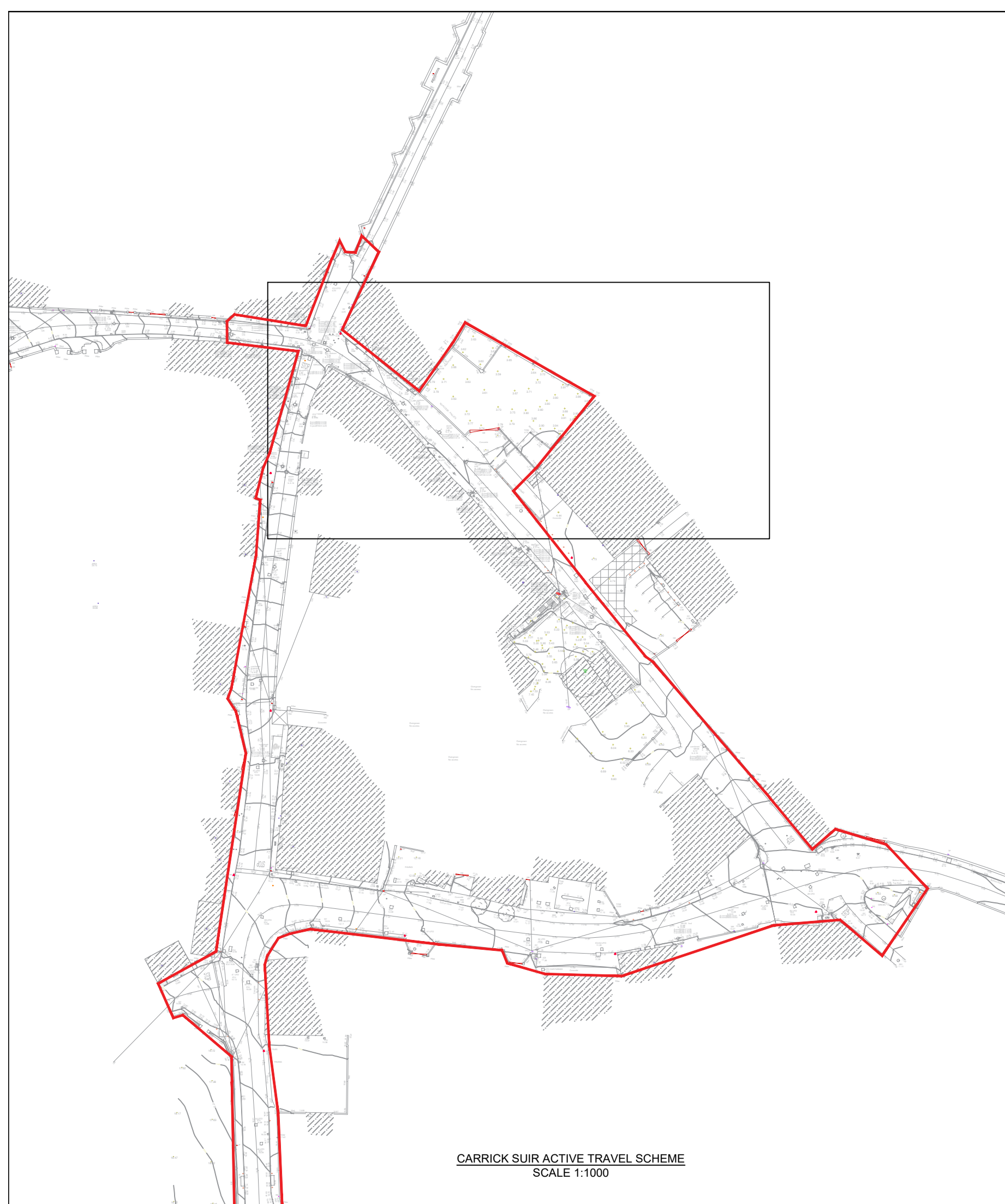
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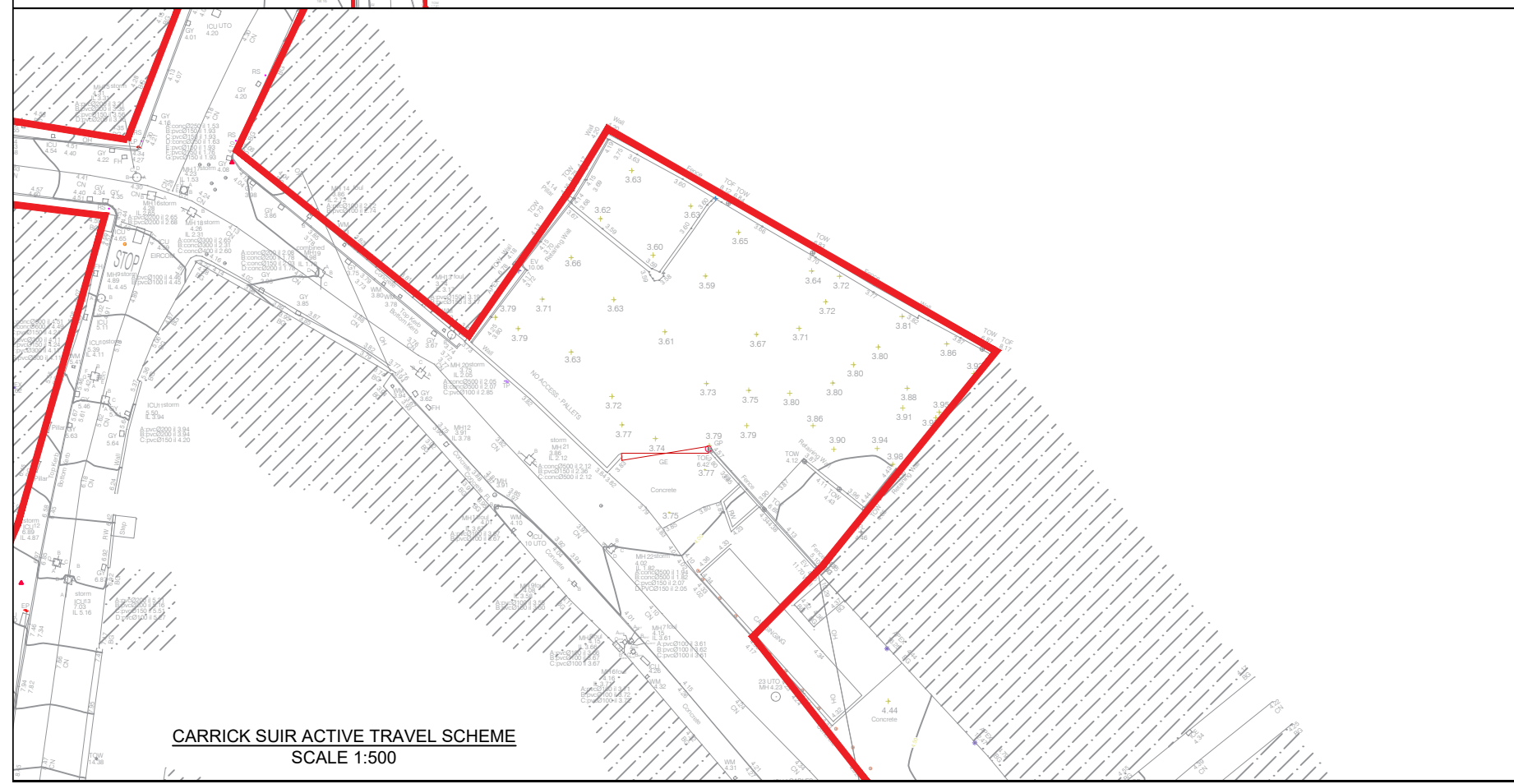
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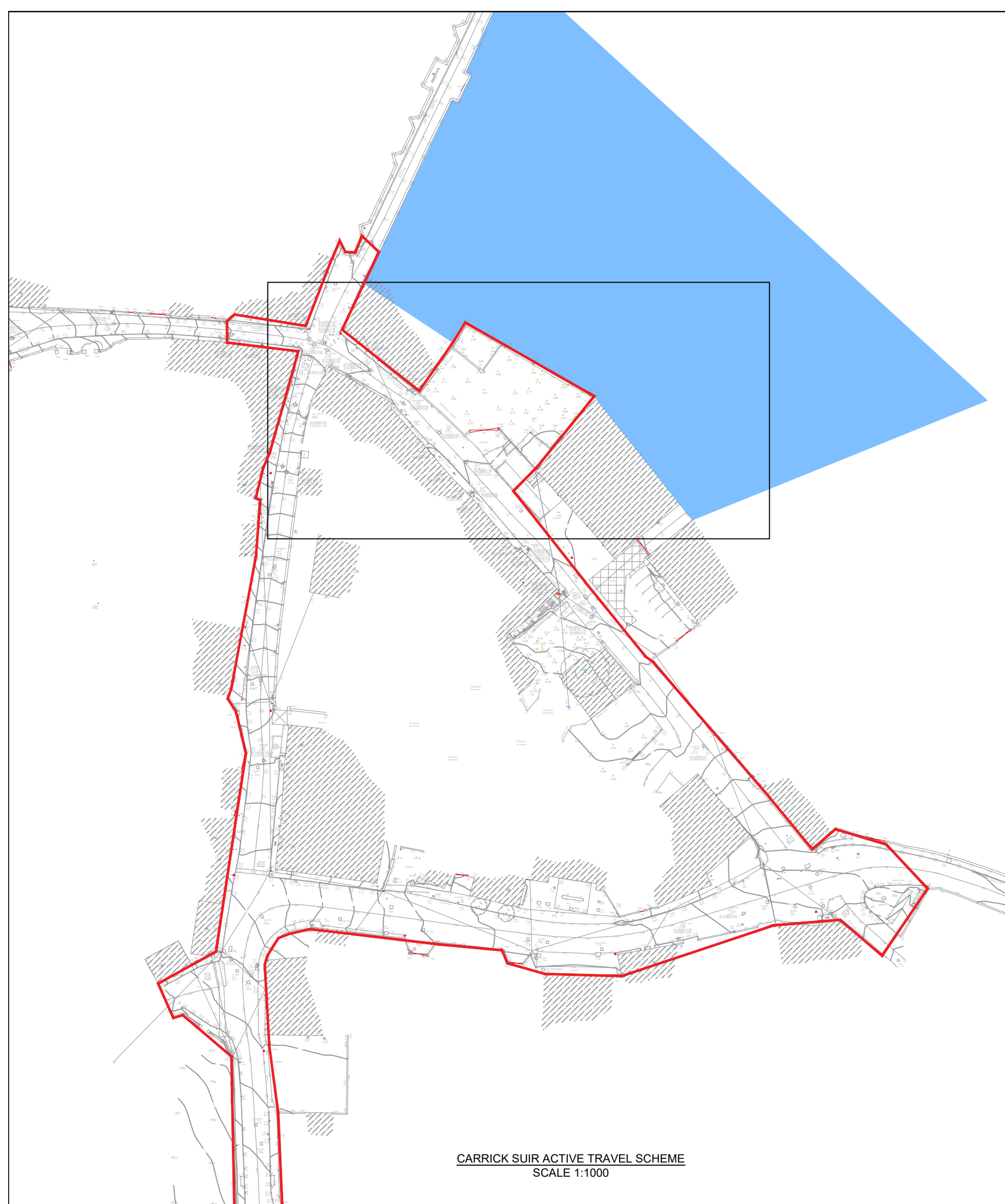


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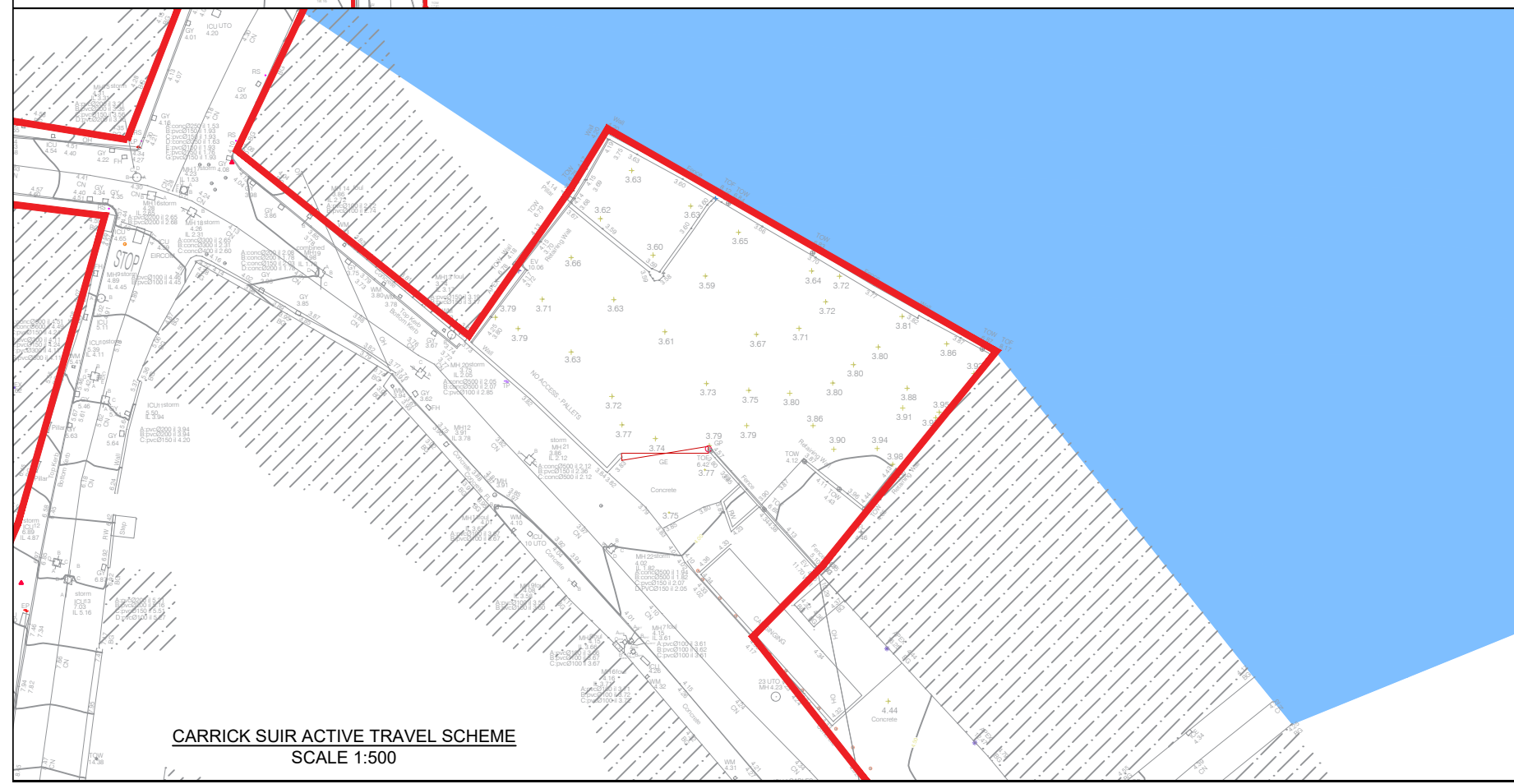
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JB	JB	AUG 22		
Project No.				
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Drawing Number	Rev			
001				

KEY

0.1% AEP FLUVIAL  
FLOOD LEVEL -  
3.34m AOD



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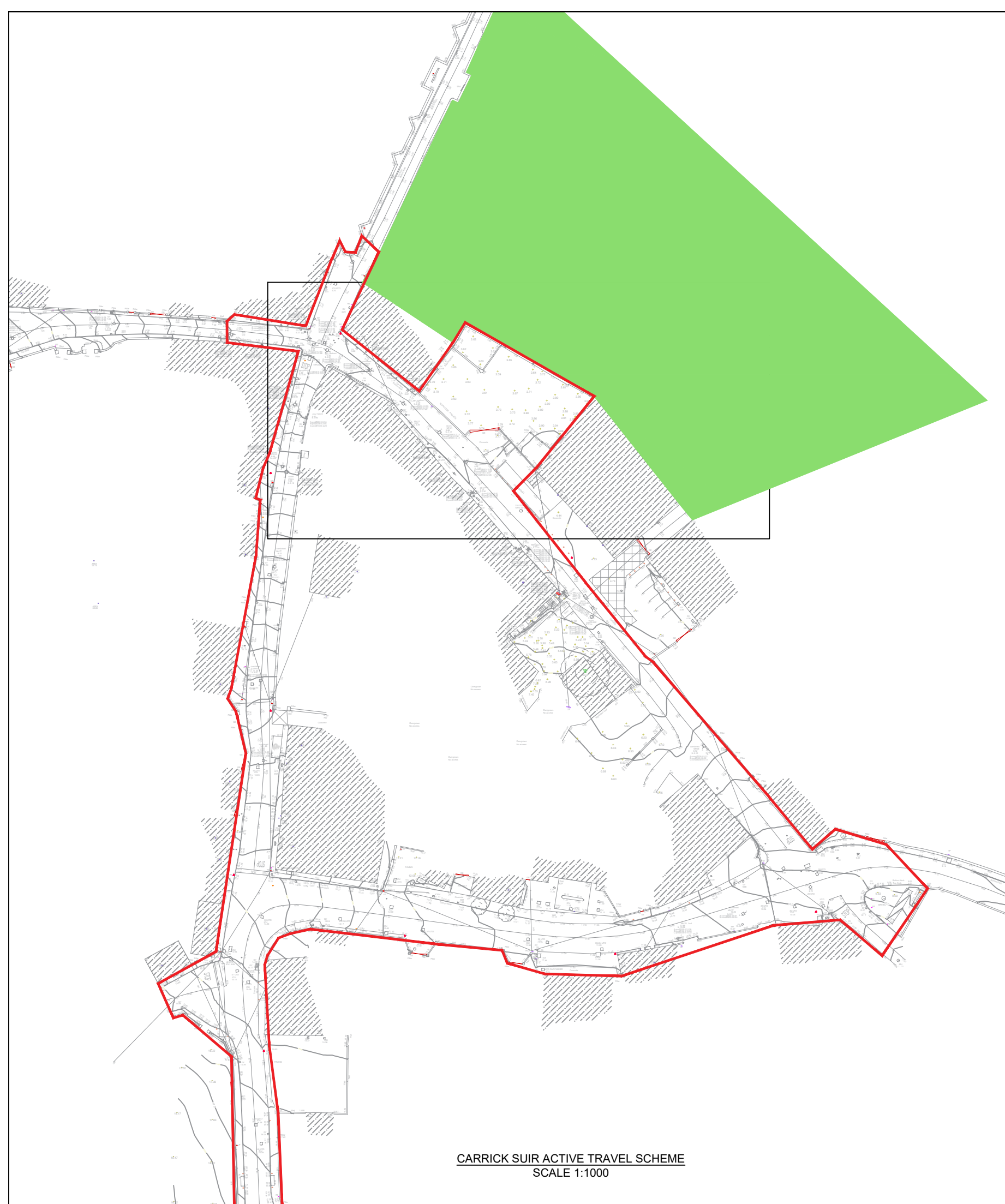


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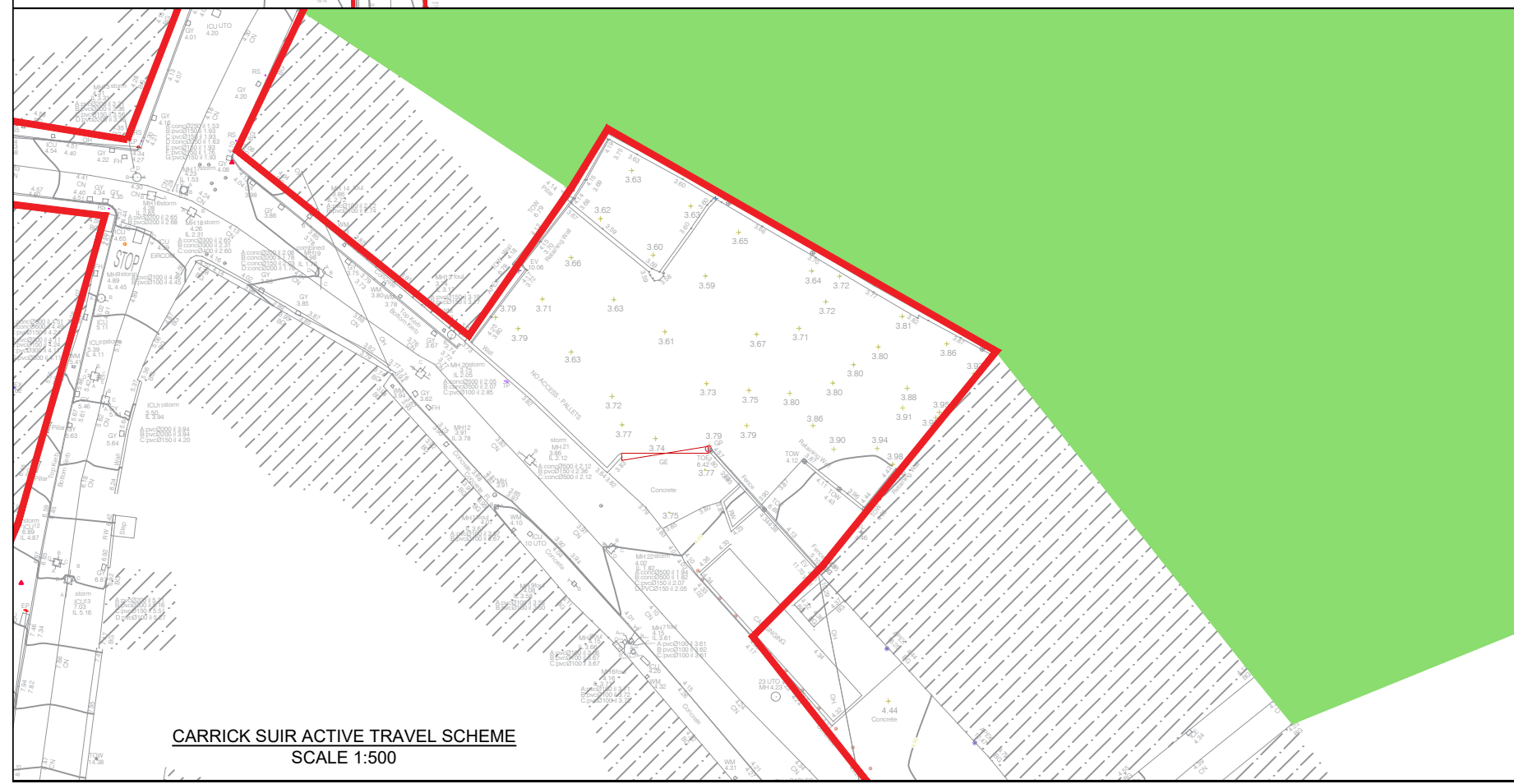
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Drawing Number	Rev		
002			

KEY

0.1% AEP COASTAL  
FLOOD LEVEL -  
3.24m AOD



CARRICK SUIR ACTIVE TRAVEL SCHEME  
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CARRICK SUIR ACTIVE TRAVEL SCHEME  
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## **Appendix B**

### OPW Past Flood Event Local Area Summary Report



Report Produced: 21/8/2022 13:57

This Past Flood Event Summary Report summarises all past flood events within 2.5 kilometres of the map centre.

This report has been downloaded from [www.floodinfo.ie](http://www.floodinfo.ie) (the "Website"). The users should take account of the restrictions and limitations relating to the content and use of the Website that are explained in the Terms and Conditions. It is a condition of use of the Website that you agree to be bound by the disclaimer and other terms and conditions set out on the Website and to the privacy policy on the Website.




## Map Legend

- Single Flood Event
- Recurring Flood Event
- Past Flood Event Extents
- Drainage Districts Benefited Lands\*
- Land Commission Benefited Lands\*
- Arterial Drainage Schemes Benefited Lands\*

\* Important: These maps do not indicate flood hazard or flood extent. Their purpose and scope is explained on Floodinfo.ie

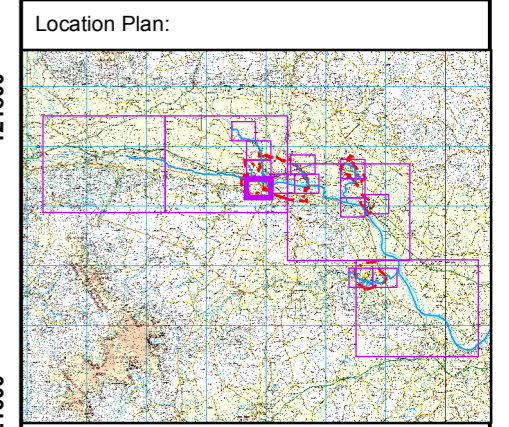
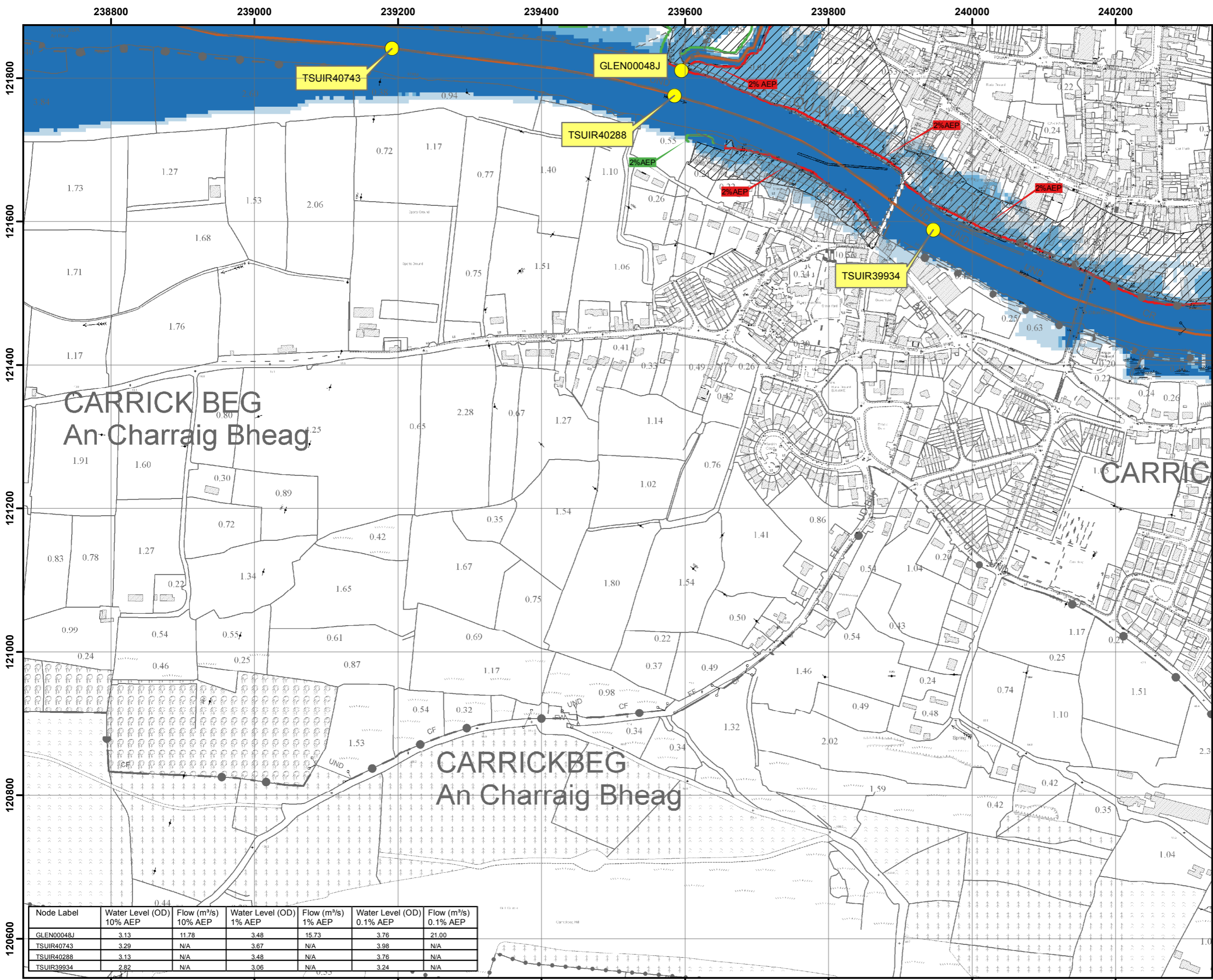
## 7 Results

	Name (Flood_ID)	Start Date	Event Location
1.	Suir Carrick On Suir Jan 1996 (ID-1425) Additional Information: <a href="#">Reports (5)</a> . <a href="#">Press Archive (0)</a> .	04/01/1996	Area
2.	Suir Carrick-on-Suir October 2004 (ID-2422) Additional Information: <a href="#">Reports (1)</a> . <a href="#">Press Archive (0)</a> .	26/10/2004	Approximate Point
3.	Suir Carrick-on-Suir Nov 2000 (ID-5060) Additional Information: <a href="#">Reports (4)</a> . <a href="#">Press Archive (1)</a> .	06/11/2000	Approximate Point
4.	Suir at Ballylynch Nov 2000 (ID-5092) Additional Information: <a href="#">Reports (1)</a> . <a href="#">Press Archive (0)</a> .	05/11/2000	Approximate Point
5.	Carrick-on-Suir Recurring (ID-4361) Additional Information: <a href="#">Reports (7)</a> . <a href="#">Press Archive (73)</a> .	n/a	Approximate Point
6.	Carrick on Suir Toberagattabrack recurring (ID-3920) Additional Information: <a href="#">Reports (2)</a> . <a href="#">Press Archive (0)</a> .	n/a	Approximate Point

	Name (Flood_ID)	Start Date	Event Location
7. 	Flooding at Carrick on Suir on 30/12/2015 (ID-13501)	30/12/2015	Approximate Point
<b>Additional Information:</b> <a href="#">Reports (0)</a> , <a href="#">Press Archive (0)</a>			

## Appendix C

### OPW CFRAM Map



- Legend**
- 10% Fluvial AEP Event
  - 1% Fluvial AEP Event
  - 0.1% Fluvial AEP Event
  - Modelled River Centreline
  - AFA Extents
  - Node Point
  - Defended Area
  - Flood Defence - Embankment
  - Flood Defence - Wall
  - 1% AEP Standard of Protection of Flood Defence (Walls / Embankments)
  - 1% AEP Standard of Protection of Flood Defence (Walls / Embankments)
  - Node ID Node Label

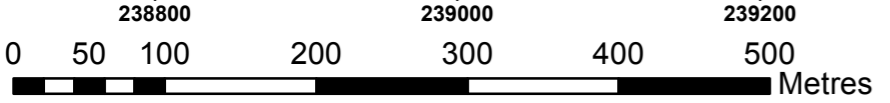
**IMPORTANT USER NOTE:**  
 THE VIEWER OF THIS MAP SHOULD REFER TO THE DISCLAIMER, GUIDANCE NOTES AND CONDITIONS OF USE THAT ACCOMPANY THIS MAP.



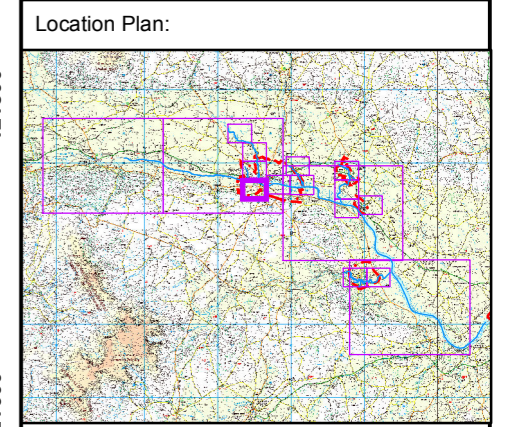
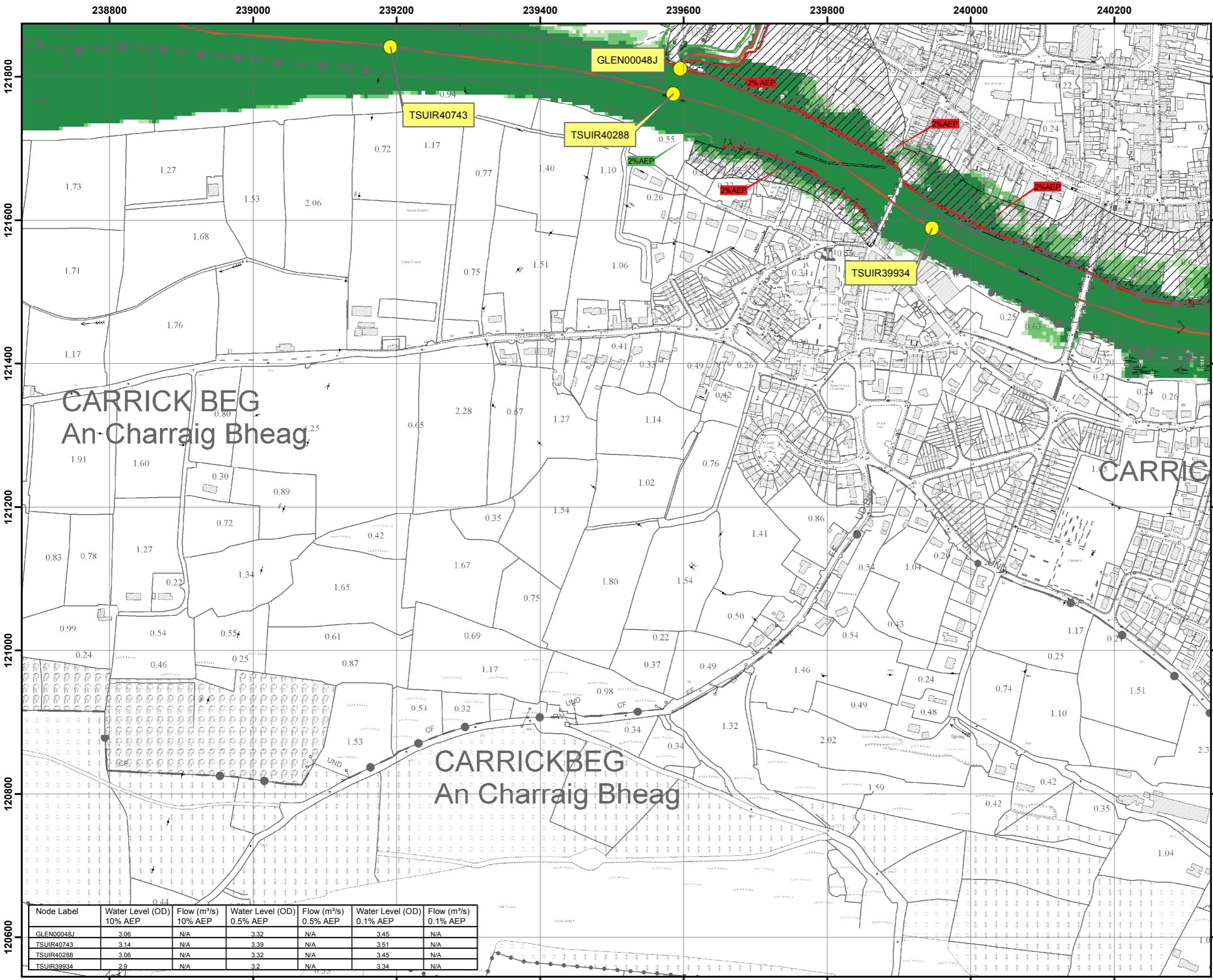
**The Office of Public Works**  
 Jonathan Swift Street  
 Trim  
 Co. Meath

Project:		SUIR CFRAM STUDY	
Map:		<b>CARRICK-ON-SUIR FLUVIAL FLOOD EXTENT MAP</b>	
Map Type:		EXTENT	
Source:		FLUVIAL	
Map Area:		HPW	
Scenario:		CURRENT	
Drawn By:	F.McCotter	Date :	21 September 2016
Checked By:	S. Patterson	Date :	21 September 2016
Approved By:	G.Gallagher	Date :	21 September 2016
Map No.:		O16COS_EXFCD_F0_06 <b>FINAL</b>	
Sheet:		Page 06 of 17	
Map Scale:		1: 5000	
Plot Scale:		1:1 @ A3	

Node Label	Water Level (OD) 10% AEP	Flow (m <sup>3</sup> /s) 10% AEP	Water Level (OD) 1% AEP	Flow (m <sup>3</sup> /s) 1% AEP	Water Level (OD) 0.1% AEP	Flow (m <sup>3</sup> /s) 0.1% AEP
GLEN00048J	3.13	11.78	3.48	15.73	3.76	21.00
TSUIR40743	3.29	N/A	3.67	N/A	3.98	N/A
TSUIR40288	3.13	N/A	3.48	N/A	3.76	N/A
TSUIR39934	2.82	N/A	3.06	N/A	3.24	N/A







**Legend**

- 10% Tidal AEP Event
- 0.5% Tidal AEP Event
- 0.1% Tidal AEP Event
- Modelled River Centreline
- AFA Extents
- Node Point
- Defended Area
- Flood Defence - Embankment
- Flood Defence - Wall
- 1% AEP Standard of Protection of Flood Defence (Walls / Embankments)
- 1% AEP
- Node ID Node Label

**IMPORTANT USER NOTE:**  
 THE VIEWER OF THIS MAP SHOULD REFER TO THE DISCLAIMER, GUIDANCE NOTES AND CONDITIONS OF USE THAT ACCOMPANY THIS MAP.



The Office of Public Works  
 Jonathan Swift Street  
 Trim  
 Co. Meath

Project:		SUIR CFRAM STUDY	
Map:		<b>CARRICK-ON-SUIR TIDAL FLOOD EXTENT MAP</b>	
Map Type:		EXTENT	
Source:		TIDAL	
Map Area:		COASTAL	
Scenario:		CURRENT	
Drawn By:	F.McCotter	Date:	21 September 2016
Checked By:	S. Patterson	Date:	21 September 2016
Approved By:	G.Gallagher	Date:	21 September 2016
Map No.:		O16COS_EXCCD_F0_06 <b>FINAL</b>	
Sheet:		Page 06 of 17	
Map Scale:		1: 5000	
Plot Scale:		1:1 @ A3	

Node Label	Water Level (OD) 10% AEP	Flow (m³/s) 10% AEP	Water Level (OD) 0.5% AEP	Flow (m³/s) 0.5% AEP	Water Level (OD) 0.1% AEP	Flow (m³/s) 0.1% AEP
GLEN00048J	3.06	N/A	3.32	N/A	3.45	N/A
TSUIR40743	3.14	N/A	3.39	N/A	3.51	N/A
TSUIR40288	3.06	N/A	3.32	N/A	3.45	N/A
TSUIR39934	2.9	N/A	3.2	N/A	3.34	N/A



## **Construction Environmental Plan**

### **New Street Layout for Carrickbeg, Carrick-on-Suir, Co. Tipperary**

On behalf of **Tipperary County Council**

Prepared by

**CST GROUP** Chartered Consulting Engineers  
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**September 2022**

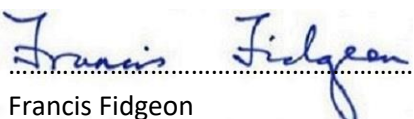
**Civil**  
**Structural**  
**Traffic**

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Report By:   
Stuart Summerfield

Date 2<sup>nd</sup> September 2022

Approved By:   
Francis Fidgeon  
Chartered Engineer

Date 2<sup>nd</sup> September 2022

## Document History

<b>Revision History:</b>	R0	R1							
<b>Purpose of Issue:</b> P=Preliminary C=Comment I=Information FC=Fire Cert PL=Planning T=Tender CT=Contract CN=Construction	PL	PL							
<b>Date:</b>	30 08 22	02 09 22							
<b>Originator:</b>	SS	SS							
<b>Checked By:</b>	FF	FF							
<b>Approved By:</b>	FF	FF							

## **1. Introduction**

The purpose of this Outline Construction Environmental Management Plan (CEMP) document is to briefly outline the general activities required for the implementation of the proposed Cycle paths, footpaths and associated works that form the proposed active travel proposals. Once appointed, it will be the responsibility of the Main Contractor to prepare and submit a detailed CEMP for the authority's approval. The CEMP will be a live document that will be updated throughout the project lifecycle by the Main Contractor as required.

Regardless of the form of contract, the Contractor will be contractually bound by any conditions arising from the site constraints identified and specified, all Statutory Regulations governing the works, and any additional measures or modifications that may be imposed on the proposed development by Tipperary County Council or An Bord Pleanála.

## **2. Description of the Works**

### **2.1 Project Background**

The proposed active travel project is located in Carrickbeg, south of the River Suir in Carrick on Suir. The project includes the provision of new/ widened footpaths, off-street parking and the conversion of Abbey Heights and part of Waterford Road to one-way. Tipperary County Council aim to provide a more attractive streetscape that improves mobility for all modes of transport within the project extents. The design will deliver continuous walking routes with safe crossing points at the desired locations.

The proposed works area includes Abbey Heights, Waterford Road from Abbey Heights to Corpse Road (Regional Road R676), Corpse Road from Waterford Road to Seskin Court and part of Bridge Street. The extent of this application is shown on Drawing No. 121291-3500.

The overarching objectives of the project are to:

- Encourage more sustainable modes of transport in Carrick on Suir Town.
- Provide safe routes for walking in the Carrickbeg area.

Figure 1 shows the site location of the active travel scheme for Carrick-on-Suir.

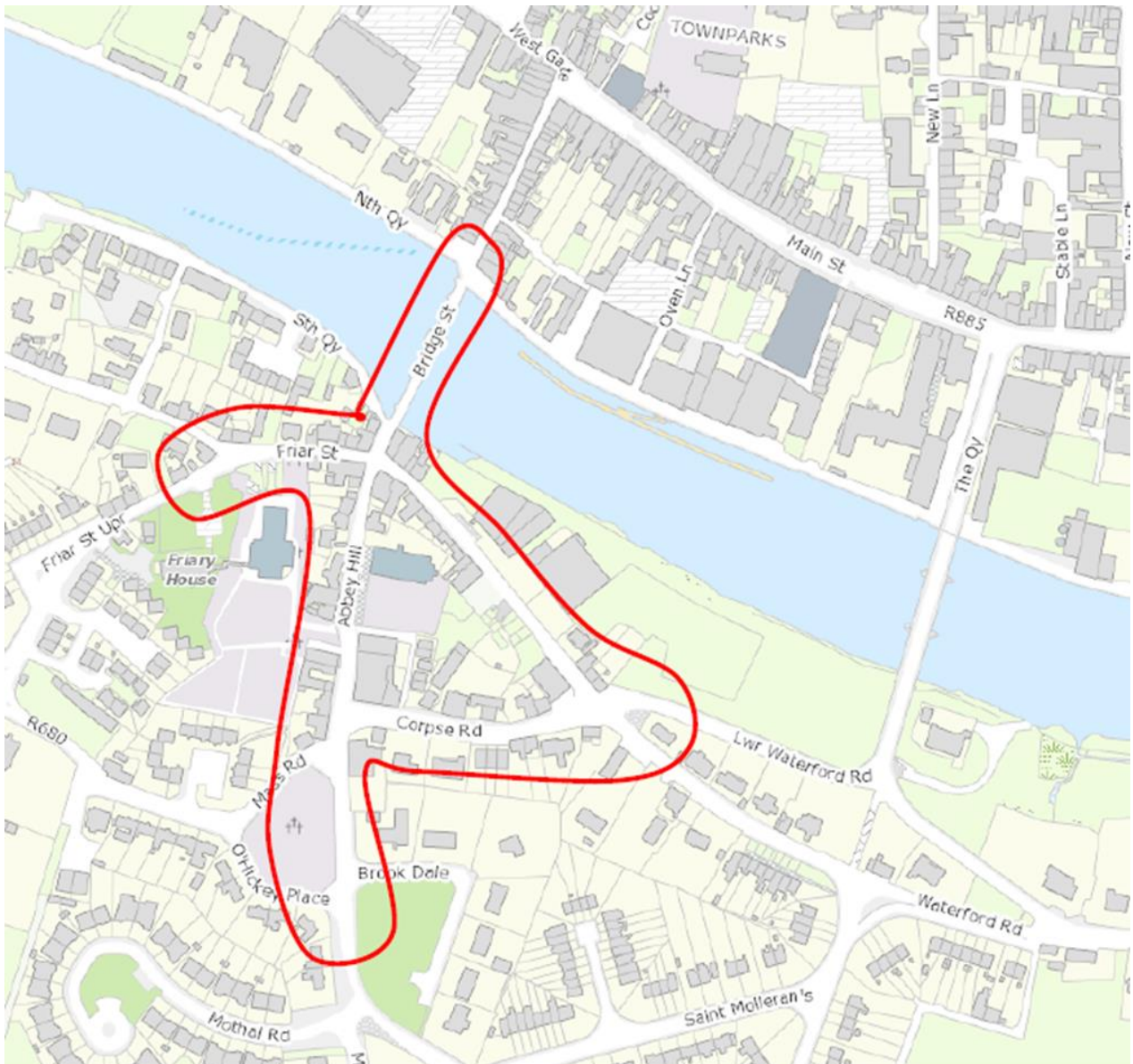


Figure 1: Location of scheme

## 2.2 Proposed Development

The proposed active travel project is located in Carrickbeg, south of the River Suir in Carrick on Suir. The works area includes Abbey Heights, Waterford Road from Abbey Heights to Corpse Road (Regional Road R676), Corpse Road from Waterford Road to Seskin Court and part of Bridge Street. The extent of this application is shown on Drawing No. 121291-3500. The project includes the provision of new/ widened footpaths, off-street parking and the conversion of Abbey Heights and part of Waterford Road to one-way.

### **Nature of the works**

The proposed works, as outlined on the accompanying drawings will involve:

- i. Breaking out of the existing footpaths and carriageway.
- ii. Excavation of acceptable/ unacceptable material and importation of subbase.
- iii. Construction of new bituminous carriageway and concrete footpaths to a new alignment within the boundaries of the existing streetscape.
- iv. Provision of defined car parking within the proposed works area.
- v. Installation of a macadam surface layer in the off-street carparks.
- vi. Minor alterations to existing surface water drainage features within the proposed works area. (The existing drainage system is being maintained with existing gullies relocated as necessary – the area contributing to drainage remains unaltered.)
- vii. Signage and road markings.
- viii. Public lighting
- ix. Provision of tree pits, planting of trees and other landscaping measures.

The extent of the proposed works is shown in Figure 2.





### **3. Indicative Construction Programme**

The construction programme for the works associated with the proposed works will be as set out in the Works Requirements.

It is envisaged that construction of the cycle paths and alterations to the existing road networks will be undertaken in a single phase. The Contractor will prepare a construction programme for the construction.

### **4. Site Set-Up and Security**

The Main Contractor will be required to submit a site layout plan that will detail the proposed location of their site compound. The compound should be located a minimum of 10m from any watercourse, with the storage of materials, fuels, chemicals & oils etc. greater than 10m from any surface water drain. Due to the nature of the works, it is envisaged that storage of construction material will be kept to a minimum, with the compound required for accommodating welfare facilities and overnight safe storage of machinery. Due to the confined nature of the works area it will not be possible to accommodate a contractor's compound directly adjacent to the works area. A suitable compound will be agreed on local authority lands remote from the works area. The Contractor will ensure that the site compound will be serviced as required and will be secured with appropriate fencing/hoarding. As Project Supervisor Construction Stage (PSCS), the Contractor will be responsible for site security, and they are to ensure that the site and site compound are adequately secured at all times.

As with the other construction activities that are being carried out within the Tipperary County Council area, activities associated with the construction compounds will be subject to restrictions to the nature and timing of operations so that they do not cause undue disturbance to neighbouring areas and communities.

### **5. Site Access**

Due to the nature of the works, the various locations of construction will be accessed directly off the adjacent public road. Construction traffic will access the area of that particular days operation at the start of the working day. Where works require possession of carriageway or footpaths temporary traffic management will be agreed in advance with Tipperary County Council.

Delivery of construction materials will be undertaken directly off the adjacent public road and also under the control of a banksman.

The Main Contractor will be responsible for all site access and works activity and must ensure the continued operation of all public road with minimal delay impacts from their operations.

The management of construction traffic on the public road network around the development is a critical part of the overall project and must be actively managed by the Contractor.

The Contractor must submit a CEMP to the Local Authority for approval. Haulage vehicle movements will be fully coordinated to comply with the requirements of the agreed plan:

- a) Construction vehicles must not stop or park along routes open to public traffic that result in delays / congestion at any time;
- b) Haulage vehicles must not travel in convoys greater than two vehicles at any time;
- c) Access to businesses and dwelling houses to remain free of parked or stationary vehicles at all times;
- d) All off-loading of deliveries will take place within the works area, remote from the public areas and will access via the agreed construction access point;
- f) Temporary car parking facilities for the construction workforce will be provided remote from the public road and will be agreed with either Tipperary County Council or other private landowners with suitable areas for parking of vehicles.
- g) Monitoring and control of construction traffic will be ongoing during construction works. Construction traffic will minimise movements during peak hours;
- h) Construction Traffic routes minimising traffic impact on surrounding residential development will be used by construction vehicles.

## **6. Material Storage and Delivery**

Although envisaged to be minimal, the Contractor will ensure that all materials are adequately stored and secured in their site compound with only materials required for the days ongoing operation stored within the various individual works areas. Storage of all materials should be located at least 10m from any surface water drains or open watercourse.

The Contractor will ensure the roads adjacent to the site are kept clean and free of debris.

## **7. Preliminary Construction Traffic Management Plan**

The following sets out the Preliminary Construction Traffic Management Plan (CTMP) for the proposed development.

This CTMP sets out how the works will be constructed ensuring minimal adverse impact on the external interfaces in the local environment. This plan will be issued to the successful contractor for the works for use as a basis for a construction stage plan.

This report does not assess the suitability of any proposed road alterations and junctions for capacity purposes. Any subsequent use or development of the plan shall be the responsibility of the Contractor alone.

### **7.1 Access Arrangements**

The proposed development is located to the South of the river Suir as shown in Figure 2 above. Refer section 5 above for access to the various element of the construction.

### **7.2 Construction Programme and Phasing**

#### **7.2.1 Programme**

It would be anticipated that the construction programme will have a duration as set out in the Works Requirements.

#### **7.2.2 Construction Phase**

The nature of the works that will be carried out are largely similar to those which would be anticipated with a project of this nature. Each phase of the construction of the development project will be largely broken down into four stages: Site clearance, drainage & foundation excavation, import of sub-base, laying of surfacing materials and road markings, installation of road signs and public lighting.

### **7.3 Construction Traffic**

#### **7.3.1 Site Access and Egress**

Refer to section 5 above for details of proposed site access.

All works required within the public road area to facilitate the above will have traffic management compliant with Chapter 8 of the Traffic Signs Manual. Road Opening Licences will also be sought by the Contractor as necessary.

### 7.3.2 Reduction of Traffic Movements

Construction traffic movements will be reduced and minimised by:

1. Consolidating loads.
2. Use of precast and prefabricated materials where possible.
3. Scheduling deliveries and removals to being outside normal traffic peaks.
4. Ensuring deliveries of large elements are done on a just in time basis to reduce the need for queuing of trucks awaiting offloading.

### 7.3.3 Reduction of Adverse Impact on the Local Roads

To reduce the amount of deleterious material being deposited on roads adjacent to the site road sweeping will be conducted as necessary. Wetting down facilities will be provided as required, to ensure that dust nuisance will not be an issue.

### 7.3.4 Road capacity

#### Works areas.

In order to undertake the work areas of public road will be closed for public access with local diversions implemented in agreement with Tipperary County Council. Delays / queuing of public traffic will be monitored by the contractor and if found to be unacceptable alternative arrangements will be implemented, again in agreement with Tipperary County Council.

#### Travel for Site Operatives

It is not anticipated that there will be significant adverse impact on the existing road network since the number of additional vehicles during construction will not be significant, and flows will be outside normal peak hours for the area.

The successful contractor will be required to form their own travel plan to inform workers of alternative means of transport to the site. It would also be anticipated that operatives who use car or van transport will share same which is the norm in the construction industry, however Covid 19 restrictions / advice will be implemented and reviewed throughout the construction process.

### 7.3.5 Potential Interface with Other Projects

No other construction projects are currently ongoing in the immediate vicinity of the site. If, during the construction of this development, other developments come on stream the appointed Contractor will need to coordinate with other Contractors as required to ensure a smooth interface between projects.

There may be a number of PSCS's operating in the locality at any one time on individual sites. It will be the responsibility of the appointed Contractor as PSCS to ensure that delivery and haul routes, site access and egress points and potential crossing points associated with the site are fully coordinated and agreed with other Contractors in advance of the works commencing.

### 7.3.6 Traffic Liaison Officer

The Contractor shall appoint a Traffic Liaison Officer who shall be responsible for the preparation, updating and monitoring of the CTMP.

## **8. Outline Construction Approach**

### **8.1 Construction Working Space**

Construction working space will be set out in the detailed construction management plan at construction stage.

Construction access routes, haul routes and delivery routes to the site are set out in Section 5 and will be agreed with Tipperary County Council in advance of works commencing onsite.

Short term road closures will be required by the construction works – see Section 7 above.

The Contractor will prepare Construction Method Statements for all activities. Monitoring of any hazardous materials stored on site will be addressed in the construction CEMP.

### **8.2 Outline Works Description**

#### **8.2.1 Fencing, Site Set-up and Formation of Site Access/Egress**

Each area of the works will be enclosed with hoarding/fencing details of which are to be agreed with Tipperary County Council. This will involve providing a hoarding/fencing around the proposed works perimeter, in line with the finished development extents. Upon completion of the works section, the fencing will be moved to the adjacent section of works and the completed area opened for public use.

The site compound will be secured to prevent public access.

The Contractor will be responsible for the security of the site. The Contractor will be required to:

1. Operate a Site Induction Process for all site staff;
2. Ensure all site staff shall have current 'Safe Pass' cards and appropriate PPE;
3. Install adequate site hoarding/fencing to the site boundary;
4. Maintain site security at all times;
5. Separate pedestrian access from construction vehicular traffic.

#### **8.2.2 Site Clearance and Demolition**

The existing site is primarily existing carriageway / footpath with undeveloped lands for the proposed car parks. The proposed works are at or about the same level as the existing ground. It is envisaged that minimal further earth moving activities will be required for the completion of this development.

#### **8.2.3 Construction Sequence**

The construction of the proposed car parks will involve excavation of topsoil, import of granular sub-base and surfacing materials. The construction methodology and programme of these activities will be dictated by the Contractor.

Construction of new footpaths and carriageway improvements will require minimal excavation of existing surfacing and placement of new surface materials / kerbs.

As noted, the construction methodology and therefore the programme of the construction activities will be dictated by the Contractor.

#### Excavation

Material arising from excavation of foundations for the car parks will be rearranged on site where possible. Material arising from other excavations will be transported to approved and licenced tip sites.

The Contractor must prepare a Construction and Demolition Waste Management Plan in accordance with the “Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects” (Department of Environment, Heritage and Local Government, 2006) and ensure that any surplus material is disposed of at an appropriately licensed land fill site. The Contractor must also outline detailed proposals within the Construction Management Plan to accommodate construction traffic.

#### 8.2.4 Construction Phasing

The development is to be constructed in a single phase.

## **9. Environmental Management**

Environmental impacts during construction will be mitigated or reduced in agreement with Tipperary County Council.

The Contractor will be required to produce a CEMP for Employer’s Representative/ Local authority approval prior to works commencement. This plan will develop further the elements as discussed in this report specifically for the site. The plan shall also incorporate:

- Construction Method Statements
- Pollution Protection Plan
- Species Protection Plan
- Biosecurity Management Plan
- Surface Water Management Plan

The main items to be allowed for within the CEMP are included below:

### **9.1 Flooding**

Data obtained from the OPW floodmaps indicate the proposed northern car park falls within the 0.1% AEP for flooding due to both tidall and fluvial flood events. (see Figures 3 and 4).

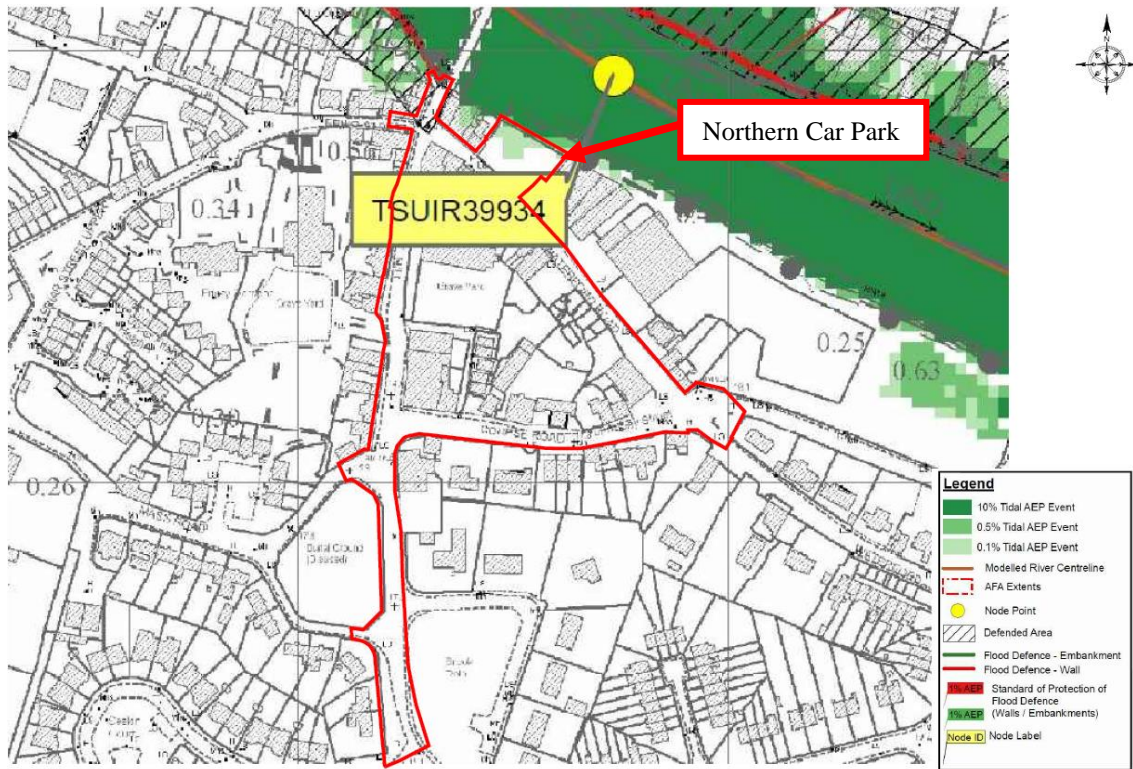


Figure 3 – Tidal Flooding

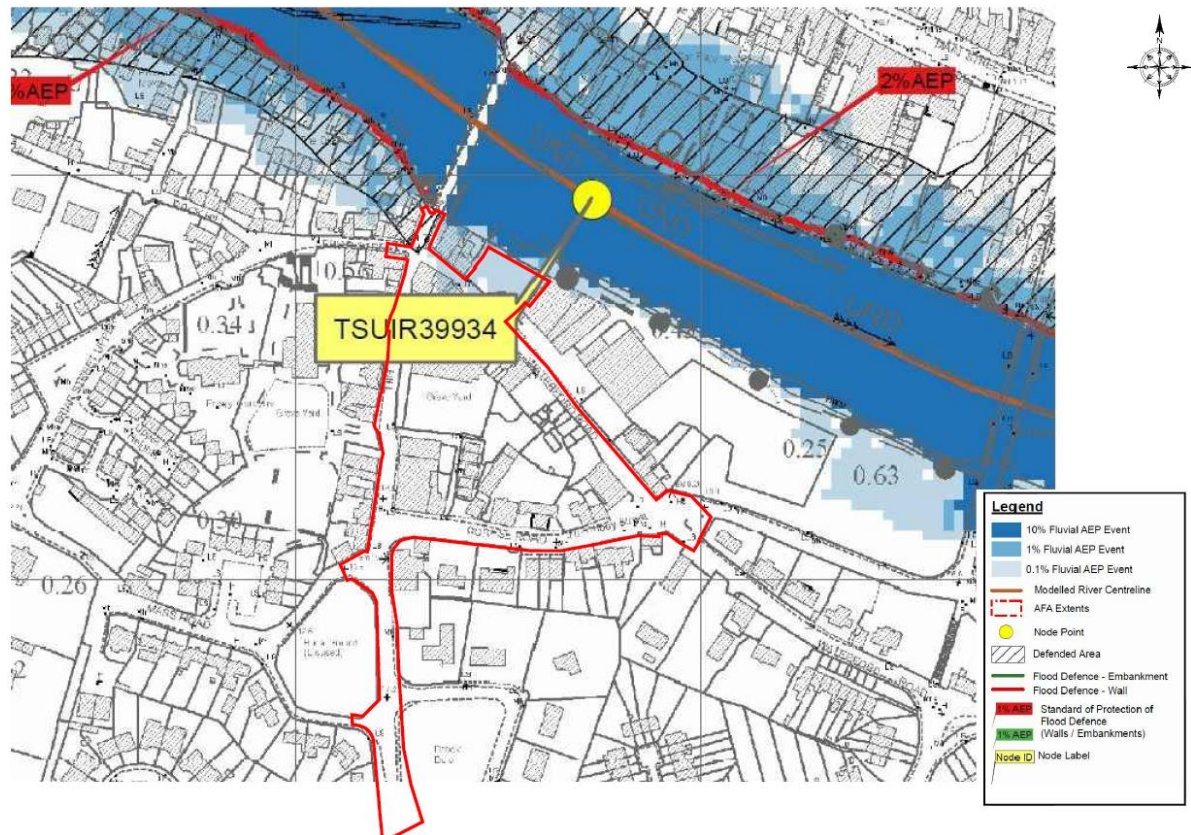


Figure 4 – Fluvial Flooding

The proposed car park drainage will be via road gullies connected to the existing combined sewer network. Tipperary County Council have advised the additional run-off from the two proposed car parks will have minimal impact on the capacity of the exiting sewer network.

There is no positive drainage provided at present for the areas of proposed car parks, therefore run-off from these lands either soaks to ground or runs off to the adjacent river. The provision of positive drainage to these areas is likely to result in a very small reduction of surface flows routing directly to the river during storm events in these areas.

- **Surface Water – Contamination**

- The proposed works generally do not alter the existing drainage networks. The two proposed new car park areas will provide for trapped road gullies. These are connected to the existing combined sewer adjacent. Class II by-pass interceptors will be installed prior to the sewer connection to ensure removal of hydrocarbon spillages.
- In order to mitigate risk of suspended solids and / or slits entering the Suir SAC during the construction phase , extent of excavation operations should be limited to no greater than two days of construction activities. No further excavations should be undertaken until such time as the excavated area has been backfilled and sealed. Detailed methodology for the protection of watercourses and surface water drainage by means of sediment silt traps, silt fencing, buffer zones etc. should be included in the final CEMP.

## **9.2 Ground Conditions**

The proposed works areas require an excavation to a depth of circa 250mm and the potential disposal off site of material. Ground conditions comprise of a thin layer of topsoil over typically brown clay. It is not anticipated that the site works, or excavation works will impact on the underlying bedrock geology.

## **9.3 Invasive Species**

The works include areas of construction known to include invasive species. There is a separate Biosecurity plan produced for these works. The final CEMP should include detailed methodology for the removal and disposal of these invasive species where required.

## **9.4 Material Storage**

Excavation to foundation level for works will involve the excavation of material. This excavated material will be removed from site as it is excavated unless it is used elsewhere on site. Any temporary stockpiling of material, if required, will take place within the temporary contractors site compound fence. All materials required for the construction of the works will be delivered to the site as required. There will be a requirement to temporarily store some materials on site and these will be kept inside the subject working area temporary fence. Volumes of material stored on site will be small and limited to no more that required to construct two working days of the works. All stockpiled material must be located at least 10m distance from any surface water drain or water course.



## 9.5 Waste Storage

Dedicated areas will be provided on site for the storage of waste and spoil. Individual skips are to be provided for all waste materials and all spoil is to be stored in heaps within the area. All waste receptacles are to be covered. Waste segregation will be implemented where practical across the site. Waste receptacles are to be removed from the site and emptied regularly by an approved waste contractor. All requirements regarding waste management are to be made clear to all workers on site.

## 9.6 Pollution Control

In the event temporary stockpiling is required it will be located within the red line boundary for the scheme.

Any fuel storage will be located within the site compound fence line, securely bunded and set back remote from the watercourses and located at least 50m from the river Suir SAC and greater than 10m from any surface water drain. Spill kits will be provided at all fuel storage areas and with all machinery.

Appropriate storage and settlement facilities will be provided on site. The construction company will locate the areas of high risk early in the process. Areas of high risk include

- Fuel and chemical storage
- Refuelling Areas
- Vehicle and Equipment washing areas
- Site Compound

Fuel, oils and chemicals will be stored on an impervious base with a bund. Concrete lorries will not be permitted to wash out on site apart from cleaning the chute into a container and then emptied into a skip.

Construction of the northernmost car park is within 50m of the river Suir. Prior to undertaking excavations within this car park, silt fencing will be installed in between the proposed excavation and the river. Additionally, a temporary sump will be excavated first. If and rainfall is encountered during flooding this will be pumped from this sump with the pumped water being treated via a filtration sock. Full detailed sediment management should be designed and included in the final CEMP.

Concrete will be delivered to the works via ready-mix wagons. The use of concrete and subsequent wash down of vehicles and storage / disposal of washdown water should be included in the final CEMP.

During the construction works there will be ongoing monitoring and auditing to be carried out on machinery & equipment, sediment management, storage of fuels & materials, noise and vibration etc. The final CEMP will include details of the inspection intervals and the measure to be implemented on audit findings.

The final CEMP should include details of the Emergency Response Procedure (ERP) in case of environmental emergency.

## **10. Waste Management Plan**

The Main Contractor will be required to prepare a detailed waste management plan for the project. This will be included in the overall construction management plan that will be submitted to the local authority.

## **11. Communications and Local Stakeholder Management**

The Contractor will, as required, liaise with owners of the local properties in advance of works commencing onsite. The Contractor will use a competent sign provider and all signage used will meet the requirements of the Safety, Health & Welfare at Work (General Applications) Regulations 2007 and Chapter 8 Traffic Signs Manual.

## **12. Construction Noise, Dust and Vibration**

The Contractor will be required to clearly indicate how they plan on monitoring noise, dust and vibration throughout the course of the project. This will be especially critical in relation to the excavation of materials in extended periods of dry weather. The Contractor will also be required to clearly outline the mitigation measures they plan on putting in place to ensure any breaches in the baselines are mitigated.

The Contractor shall arrange for maintaining site tidiness/cleanliness, including measures to minimise the movement of wind-blown material, building materials and dust.

Noise and vibration monitoring to be in accordance with the following standards:

- BS 5228
- ISO 4866
- BS 7385
- RE DIGEST 403

## **13. Working Hours**

The proposed hours of work on site will be 08:00 hrs to 19:00 hrs Monday to Friday and 08:00 hrs to 14:00 hrs Saturday unless otherwise specified. Any working hours outside the normal construction working hours will be agreed with Tipperary County Council. The planning of such works will take consideration of sensitive receptors, in particular any nearby residences.

## **14. Lighting**

There are a number of lighting poles which will need to be installed during the construction works. The installation of these will be agreed by the contractor with the local authority. Appropriate lighting will be provided as necessary at construction compounds. All lighting will be installed so as to minimise light spillage from the site.

## **15. Construction Employment**

Construction employment numbers will vary depending on the construction stage of the project and the actual approach adopted by the Contractor. However, it is anticipated that there will be a workforce varying in a range of approximately 5-10 people with a peak of 15 on site depending on phasing and stage of construction.

Initial stages of construction such as site clearance will be limited to specific disciplines which will not require large numbers of personnel. However, increased activity will be associated with laying of surface course materials.

## **16. Conclusion**

This document has provided an outline construction environmental management plan for the proposed development of active travel routes at Carrickbeg, Carrick-on-Suir, Co Tipperary.

The project includes the provision of new/ widened footpaths, off-street parking and the conversion of Abbey Heights and part of Waterford Road to one-way.

The proposed works area includes Abbey Heights, Waterford Road from Abbey Heights to Corpse Road (Regional Road R676), Corpse Road from Waterford Road to Seskin Court and part of Bridge Street.

The works include:

- (i) Breaking out of the existing footpaths and carriageway.
- (ii) Excavation of acceptable/ unacceptable material and importation of subbase.
- (iii) Construction of new bituminous carriageway and concrete footpaths to a new alignment within the boundaries of the existing streetscape.
- (iv) Provision of defined car parking within the proposed works area.
- (v) Installation of a macadam surface layer in the off-street carparks.
- (vi) Minor alterations to existing surface water drainage features within the proposed works area. (The existing drainage system is being maintained with existing gullies relocated as necessary – the area contributing to drainage remains unaltered.)

- (vii) Signage and road markings.
- (viii) Public lighting
- (ix) Provision of tree pits, planting of trees and other landscaping measures.

The proposed hours of work on site will be 08:00 hrs to 19:00 hrs Monday to Friday and 08:00 hrs to 14:00 hrs Saturday unless otherwise specified by approval conditions. Any working hours outside the normal construction working hours will be agreed with Tipperary County Council. It is anticipated that at the peak of construction there will be a workforce varying in a range of approximately 5-10 people employed with a peak of 15 depending on phasing and stage of construction.

The Main Contractor will be required to prepare a detailed CEMP for the project, taking into account this outline plan.



## **Biosecurity Plan**

### **New Street Layout for Carrickbeg, Carrick-on-Suir, Co. Tipperary**

On behalf of **Tipperary County Council**

Prepared by

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**Sept 2022**

**Civil**  
**Structural**  
**Traffic**

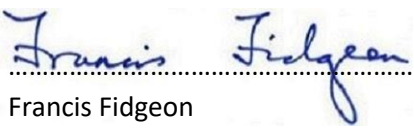
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### Appendix A: Location of Non-native Invasive Species

Report By:   
Stuart Summerfield

Date 7<sup>th</sup> September 2022

Approved By:   
Francis Fidgeon  
Chartered Engineer

Date 7<sup>th</sup> September 2022

## Document History

<b>Revision History:</b>	R0	R1	R2					
<b>Purpose of Issue:</b> P=Preliminary C=Comment I=Information FC=Fire Cert PL=Planning T=Tender CT=Contract CN=Construction	C	C	PL					
<b>Date:</b>	08 08 22	02 09 22	07 09 22					
<b>Originator:</b>	SS	SS	SS					
<b>Checked By:</b>	FF	FF	FF					
<b>Approved By:</b>	FF	FF	FF					

## **1. Introduction**

The purpose of this Outline Construction Environmental Management Plan (CEMP) document is to briefly outline the general activities required for the implementation of the proposed Cycle paths, footpaths and associated works that form the proposed active travel proposals. Once appointed, it will be the responsibility of the Main Contractor to prepare and submit a detailed CEMP for the authority's approval. The CEMP will be a live document that will be updated throughout the project lifecycle by the Main Contractor as required.

Regardless of the form of contract, the Contractor will be contractually bound by any conditions arising from the site constraints identified and specified, all Statutory Regulations governing the works, and any additional measures or modifications that may be imposed on the proposed development by Tipperary County Council or An Bord Pleanála.

## **2. Description of the Works**

### **2.1 Project Background**

The proposed active travel project is located in Carrickbeg, south of the River Suir in Carrick on Suir. The project includes the provision of new/ widened footpaths, off-street parking and the conversion of Abbey Heights and part of Waterford Road to one-way. Tipperary County Council aim to provide a more attractive streetscape that improves mobility for all modes of transport within the project extents. The design will deliver continuous walking routes with safe crossing points at the desired locations.

The proposed works area includes Abbey Heights, Waterford Road from Abbey Heights to Corpse Road (Regional Road R676), Corpse Road from Waterford Road to Seskin Court and part of Bridge Street. The extent of this application is shown on Drawing No. 121291-3500.

The overarching objectives of the project are to:

- Encourage more sustainable modes of transport in Carrick on Suir Town.
- Provide safe routes for walking in the Carrickbeg area.

Figure 1 shows the site location of the active travel scheme for Carrick-on-Suir.



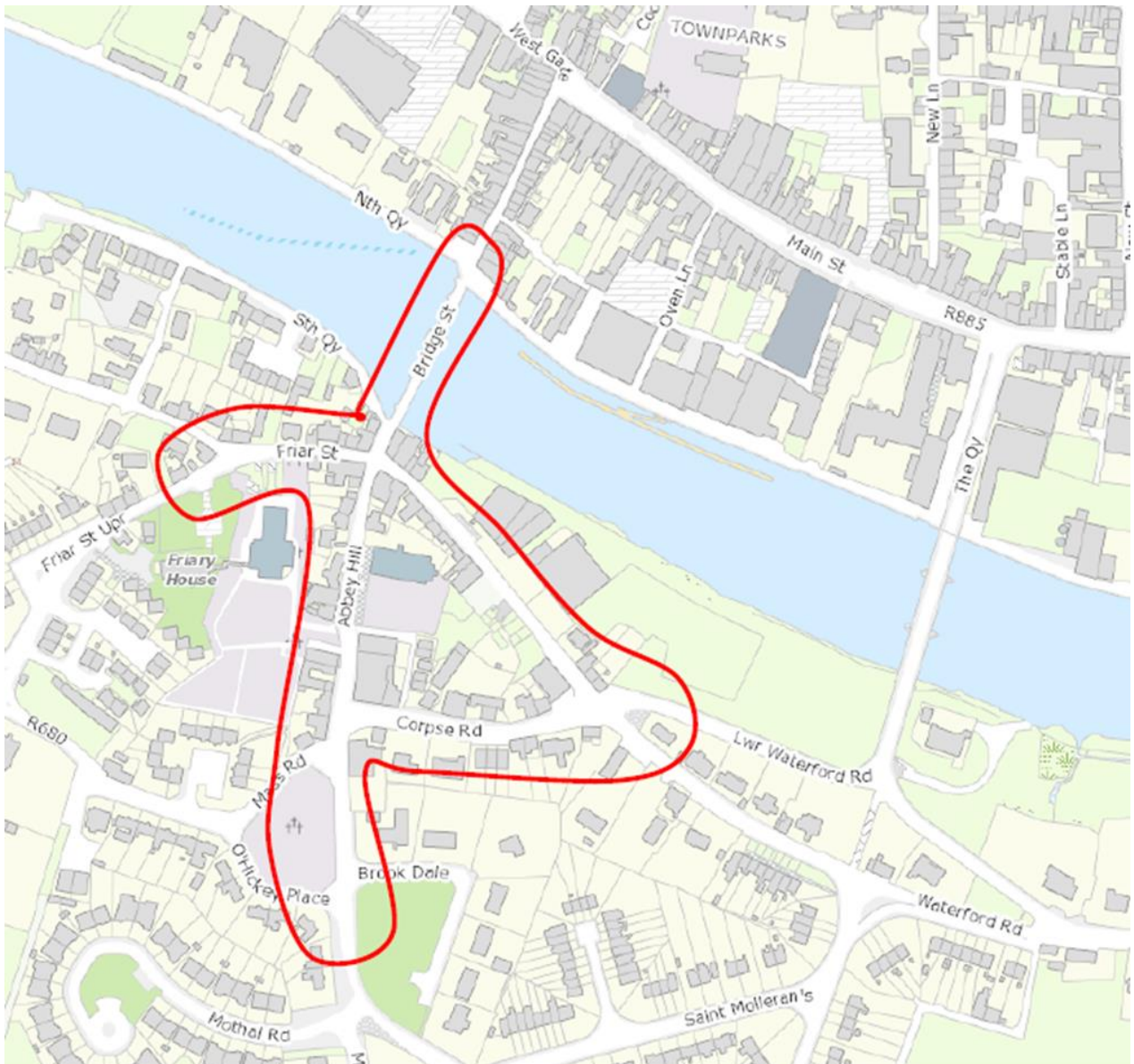


Figure 1: Location of scheme

## 2.2 Proposed Development

The proposed active travel project is located in Carrickbeg, south of the River Suir in Carrick on Suir. The works area includes Abbey Heights, Waterford Road from Abbey Heights to Corpse Road (Regional Road R676), Corpse Road from Waterford Road to Seskin Court and part of Bridge Street. The extent of this application is shown on Drawing No. 121291-3500. The project includes the provision of new/ widened footpaths, off-street parking and the conversion of Abbey Heights and part of Waterford Road to one-way.

### **Nature of the works**

The proposed works, as outlined on the accompanying drawings will involve:

- i. Breaking out of the existing footpaths and carriageway.
- ii. Excavation of acceptable/ unacceptable material and importation of subbase.
- iii. Construction of new bituminous carriageway and concrete footpaths to a new alignment within the boundaries of the existing streetscape.
- iv. Provision of defined car parking within the proposed works area.
- v. Installation of a macadam surface layer in the off-street carparks.
- vi. Minor alterations to existing surface water drainage features within the proposed works area. (The existing drainage system is being maintained with existing gullies relocated as necessary – the area contributing to drainage remains unaltered.)
- vii. Signage and road markings.
- viii. Public lighting.
- ix. Provision of tree pits, planting of trees and other landscaping measures.

The extent of the proposed works is shown in Figure 2.



### **3. Invasive Species**

#### **3.1 General**

Non-native invasive plant species have been identified and documented within proposed works areas that are included in the Scheme.

The purpose of this outline non-native invasive species management section is to present the strategy that will be adopted during the construction and operation of the proposed scheme in order to manage and prevent the spread of the invasive plant species.

This CEMP section is intended to be a working document and will be updated during both the construction and operational phases. During construction, it will be updated by the contractor to form the detailed invasive species management plan which will form part of the detailed Construction Environmental Management Plan (CEMP). Following construction, the plan will be updated for the operational phase, taking into account the results of the detailed construction invasive species management plan and operational maintenance requirements etc. Construction (and potentially operational maintenance works) could potentially disturb stands of invasive plants and/or soils contaminated with invasive plant material. In addition to lands within the proposed works areas, there is an identified risk of invasive plant species being spread onto neighbouring lands and onto public roads and other locations.

Invasive plant species which have been identified in the proposed works areas include Japanese knotweed and Buddleia.

This section outlines the strategy that will be adopted during the construction and operation of the active travel scheme in order to prevent the spread of invasive plant species. The main objective of the invasive species management strategy for the scheme will be to:

- Prevent the spread of invasive plant species during the construction phase;
- Manage the growth of invasive plant species adjacent to the scheme so as to protect the integrity of the structures from the impacts of these species.

#### **3.2 Methodology**

This report applies the most relevant and current guidance in relation to the treatment and management of non-native invasive plant species in construction projects. The following literature was referred to in preparation of this report.

- TII (NRA) Guidelines on The Management of Noxious Weeds and Non-Native Invasive Plant Species on National Roads (2008)
- Managing Japanese knotweed on development sites - The Knotweed Code of Practice produced by the Environmental Agency (2013)<sup>1</sup>

- Managing Invasive Non-native Plants in or near Freshwater, Environment Agency (2010)
- Best Practice Management Guidelines Japanese knotweed Fallopia japonica, Invasive Species Ireland (2015).

### **3.3 Legislation**

The control of invasive species in Ireland comes under the Wildlife (Amendment) Act 2000 where it states that ‘Any person who— [...] plants or otherwise causes to grow in a wild state in any place in the State any species of flora, or the flowers, roots, seeds or spores of flora, [‘refers only to exotic species thereof’][...] otherwise than under and in accordance with a licence granted in that behalf by the Minister shall be guilty of an offence.’ Under the European legislation, the Birds and Natural Habitats Regulations 2011 (SI 477 of 2011) , Section 49(2) prohibit the introduction and dispersal of species listed in the Third Schedule (including Japanese knotweed) whereby “any person who plants, disperses, allows or causes to disperse, spreads or otherwise causes to grow [...] shall be guilty of an offence.” The implementation of the management measures set out in this plan have been informed by the above legislation.

## **4. Non-Native Invasive Species in the Study Area**

### **4.1 General**

Non-native invasive plant species have been identified and documented within proposed works areas that are included in the Scheme.

The purpose of this outline non-native invasive species management section is to present the strategy that will be adopted during the construction and operation of the proposed scheme in order to manage and prevent the spread of the invasive plant species.

This CEMP section is intended to be a working document and will be updated during both the construction and operational phases. During construction, it will be updated by the contractor to form the detailed invasive species management plan which will form part of the detailed Construction Environmental Management Plan (CEMP). Following construction, the plan will be updated for the operational phase, taking into account the results of the detailed construction invasive species management plan and operational maintenance requirements etc. Construction (and potentially operational maintenance works) could potentially disturb stands of invasive plants and/or soils contaminated with invasive plant material. In addition to lands within the proposed works areas, there is an identified risk of invasive plant species being spread onto neighbouring lands and onto public roads and other locations.

Invasive plant species which have been identified in the proposed works areas include Japanese knotweed and Buddleia.

This section outlines the strategy that will be adopted during the construction and operation of the active travel scheme in order to prevent the spread of invasive plant species. The main objective of the invasive species management strategy for the scheme will be to:

- Prevent the spread of invasive plant species during the construction phase;
- Manage the growth of invasive plant species adjacent to the scheme so as to protect the integrity of the structures from the impacts of these species.

The drawing appended to the end of this report show the locations of just some of the non-native invasive species identified within the works area based on surveys carried out - refer to drawing presented in Appendix A.

### **4.2 Management Options**

The species noted above are highly invasive and can easily spread to new areas. They are particularly effective at colonising disturbed ground (e.g. construction sites). Some species spread by the re-growth of cut fragments or root material such as Japanese Knotweed, so if they are broken up during site clearance or other earthworks they can readily re-grow in new areas to which soil is moved. The unintentional spread of

invasive species during construction works is a significant issue, and if not managed in the correct manner, species like Japanese Knotweed could be spread to uninfested areas, which would increase the future cost and effort required to control the species and could pose further public health and safety risks (Knotweed species can cause damage to buildings and infrastructure).

The most common ways that these species can be spread are:

- Site and vegetation clearance, mowing, hedge-cutting or other landscaping activities.
- Spread of seeds or plant fragments during the movement or transport of soil.
- Spread of seeds or plant fragments through the local surface water and drainage network.
- Contamination of vehicles or equipment with seeds or plant fragments which are then transported to other areas.
- Importation of soil from off-site sources contaminated with invasive species plant material.

#### **4.3 Site Hygiene**

Maintaining site hygiene at all times in an area where invasive non-native species are present is essential to prevent further spread. It is also necessary on sites where invasive non-native species are not present but where there is risk of contaminated material being brought to site, for example, site machinery being used on multiple sites, construction staff travelling between infested and not infested sites.

Preventative measures must be taken. Construction equipment, vehicles and footwear may provide a vector for the spread of invasive non-native species.

The following site hygiene measures shall be taken for each site where applicable:

- In relation to knotweed plant species - understand the possible extent of the rhizome (root) system underground – up to 7m horizontally and 3 meters vertically.
- Fence off the infested areas prior to and during construction works where possible in order to avoid spreading seeds or plant fragments around or off the construction site. In relation to knotweed plant species, allow for a 7 meters buffer around the area and 5 meters for Buddleia plants.
- Clearly identify and mark out infested areas. Erect signs to inform Contractors of the risk.
- Avoid if possible using machinery with tracks in infested areas.
- Clearly identify and mark out areas where contaminated soil is to be stockpiled on site and cannot be within 50m of any watercourse or within a flood zone.
- Create designated entry and exit points for operators on foot and for small mobile equipment. A delineated access track to be maintained free of non-native invasive species to be established through the site to avoid the spread of Japanese knotweed by permitted vehicles accessing the site.

- Installation of a dedicated footwear and vehicular wheel wash down facility into a contained area within the site.
- Vehicles leaving the site to be inspected for any plant material and washed down into a contained area.
- An Ecological Clerk of Works (ECoW) should ensure all relevant construction staff are aware of measures to be taken and alert them to the presence of the Invasive Species Management Plan by way of a “toolbox talk”. The ECoW will also oversee the setup of all biosecurity measures on site.
- Erection of adequate site hygiene signage in relation to the management of non-native invasive material.

#### **4.4 Mitigation Methods**

By undertaking preventative measures the control of the spread of non-native invasive species can be undertaken within the confines of the works area and minimising the risk of species spread to remote areas.

The spread of roots of Japanese knotweed can be up to 7m from the visible plant foliage. The plant is easily spread by cutting and transportation of the Rhizomes. The most common method of buddleia spread is by transportation of the seed stock from the flower head.

The survey of the invasive species identified the location of Japanese Knotweed at greater than 10m from any proposed excavations and / or operation of machinery therefore works can be undertaken, in compliance with the measures outlined above without risk of further spread of this species.

Although the works are outside of the buffer zone for Japanese Knotweed, reference should be made to the Property Care Association (PCA) Code of practice – Management of Japanese Knotweed April 2018 in the development of the final biosecurity plan.

The survey of the invasive species identified the location of Buddleia within 5m from proposed excavations and / or operation of machinery, therefore works should be undertaken, in compliance with the measures outlined above and the updated Final Biosecurity Plan to ensure the risk of further spread of this species is prevented’

In the event the schedule of works requires works to be further expanded to be within the buffer zone of additional invasive species, the ECoW should be consulted and suitable management methods developed thereafter.

The contractor is required to undertake monitoring and maintain checklists for the duration of the contract to ensure biosecurity measures remain implemented to a satisfactory standard.



#### **4.5 Treatment Method**

Buddleia is listed as non-native invasive plant species in the Transport Infrastructure Ireland (incorporating the National Roads Authority) Guidelines on the Management of Noxious Weeds and Non-Native Invasive Plant Species on National Road Schemes (Revision 1, December 2010). The NRA Guidelines give recommendations on the control of Buddleia, including the following extracts:

*'As buddleia is a plant that favours disturbed sites, physical grubbing of plants can provide ideal conditions for the germination of seeds. Care needs to be taken to ensure revegetation of controlled areas is undertaken swiftly. The branches of Buddleia are capable of rooting as cuttings, so care should also be taken to ensure material is disposed of in a manner to avoid this risk. When it is cut, Buddleia grows back from the stump very vigorously. Mowing of young plants does not provide control as they re-sprout with vigour. Recommended practice for the application of herbicides requires cutting back of plants to a basal stump during active growth (late spring to early summer) which is then treated (brushed on) immediately with a systemic weed killer mix.'*

Depending on when individual works are carried out at Carrickbeg, individual flowering Buddleia plants will be present in or adjoining works areas. Plants within works areas should be cut back and roots grubbed up and placed in skips for safe disposal, and it is recommended that any branches overhanging works areas are cut back, with the agreement of the land owner or householder, to avoid branches being torn off by machinery movement, and also to minimise the risk of Buddleia seed dispersal. Seedling buddleia plants can be removed manually from newly grassed areas prior to mowing.

#### **4.6 Tree Pruning**

All tree felling and pruning work will need to be carried out by qualified and experienced tree surgeons before any construction work commences; all tree work should be in accordance with BS3998 (2010) Tree Work – Recommendations.

#### **4.7 Landscaping**

The existing ground levels within the root zone of the trees are to be retained and incorporated into the finished landscaped development. Where changes in levels occur, these are to be either graded into the finished levels starting outside the root zone or alternatively, retaining wall structures are to be used differentiating between the different levels. All surfaces within the root zone are to be porous to allow the free movement of air and moisture to the roots below. Recommendations of sections 8 of BS5837 2012 are to be adhered to during the landscaping within the root zone of these trees.

## 5. Conclusion

This document has provided an outline construction environmental management plan for the proposed development of active travel routes at Carrickbeg, Carrick-on-Suir, Co Tipperary.

The project includes the provision of new/ widened footpaths, off-street parking and the conversion of Abbey Heights and part of Waterford Road to one-way.

The proposed works area includes Abbey Heights, Waterford Road from Abbey Heights to Corpse Road (Regional Road R676), Corpse Road from Waterford Road to Seskin Court and part of Bridge Street.

The works include:

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- (vii) Signage and road markings.
- (viii) Public lighting.
- (ix) Provision of tree pits, planting of trees and other landscaping measures.

The proposed hours of work on site will be 08:00 hrs to 19:00 hrs Monday to Friday and 08:00 hrs to 14:00 hrs Saturday unless otherwise specified by approval conditions. Any working hours outside the normal construction working hours will be agreed with Tipperary County Council. It is anticipated that at the peak of construction there will be a workforce varying in a range of approximately 5-10 people employed with a peak of 15 depending on phasing and stage of construction.

A pre-construction survey of the development area should be undertaken by a suitably qualified Ecologist to provide an update on the presence of invasive species prior to undertaking works on site.

The Main Contractor will be required to prepare a detailed CEMP for the project, taking into account this outline Invasive Species Management Plan/ Biosecurity Plan and CEMP prior to commencing the works. This updated plan should incorporate all necessary biosecurity measures and management methods where required to be implemented at the site along with the results of the pre-construction invasive species survey.


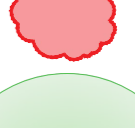

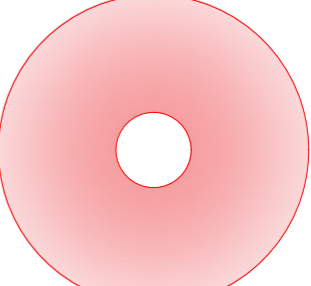
## **APPENDIX A**

### **Location of Non-native Invasive Species**

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**KEY:**

-  LOCATION OF INVASIVE SPECIES (BUDDLEIA)
-  LOCATION OF INVASIVE SPECIES (JAPANESE KNOTWEED)
-  EXTENT OF 5m BUFFER FROM BUDDLEIA
-  EXTENT OF 7m BUFFER FROM JAPANESE KNOTWEED

P2	Minor Amendments	KF	06.09.22
P1	5m & 7m buffer zones added	KF	02.09.22
REV.	AMENDMENT	BY	DATE

DRAWN:	KL	TECH. CHECK:	KF
SCALE @ A1:	1:500	ENG. CHECK:	FF
DATE:	10.06.2022	APPROVED:	SS
STAGE:	PLANNING		

JOB TITLE: NEW STREET LAYOUT FOR CARRICKBEG CARRICK-ON-SUIR, TIPPERARY

DRAWING TITLE: INVASIVE SPECIES LOCATION

CLIENT: TIPPERARY CoCo

DRAWING No: 121291-7500      REV: P2



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