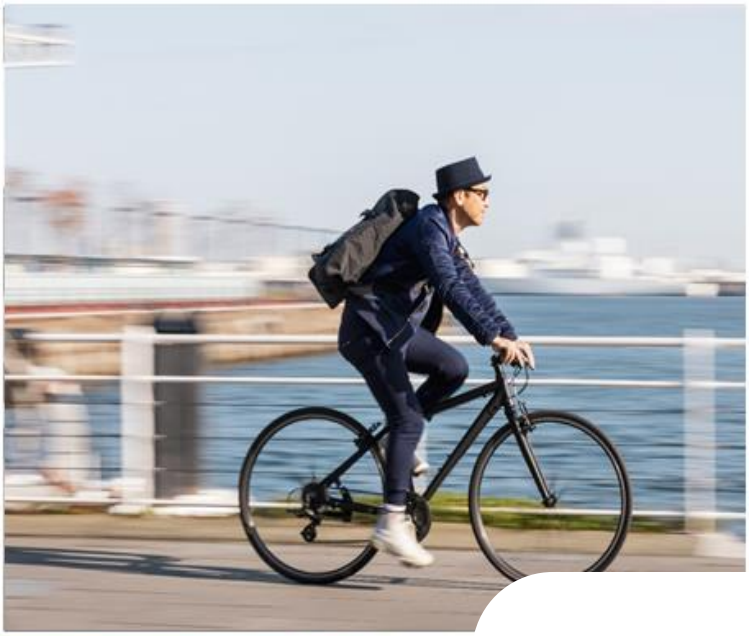
ARKLOW DECARBONISATION PLAN

Placemaking and Draft Active Travel Plan



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1 INTRODUCTION

The Arklow Decarbonisation Plan is a broad comprehensive plan to reduce carbon generation within the town. This report considers the role of transport and land use in the generation of carbon and more particularly identifies key steps in transport provision, behaviours and enhanced placemaking which shall reduce the generation of carbon.

Transport is the largest sectoral contributor to Ireland's greenhouse gas (GHG) emissions. Within Arklow 30% of baseline emissions arose from transport in 2018[1].

There is a clear relationship between spatial planning and carbon generation by the transport sector. As such, a place-based approach is necessary to deliver significantly reduced, and ultimately net zero transport emissions. Placemaking which delivers a reduced need for travel and delivers appropriate linkages to enable active travel and public transport is key to reducing transport generated carbon.

Set out herein is a tailored and integrated placemaking and active travel plan which implements a multi layered approach applying specifically to Arklow. Such a plan shall deliver:

- A town in which there is a reduced number of trips and trip lengths:
  - Replace the need to travel beyond your community.
    - Undertake activities online
    - Undertake activities locally
- Shift Modes:
  - Use low carbon transport modes based on enhanced public realm.
    - Walk
    - Cycle
    - Public transport
- Switch Fuels:
  - For any trips that must be made by car, ensure the vehicle is zero emission

This approach accords fully with the recently published *National Sustainable Mobility Policy*'s Avoid-Shift-Improve principle, as illustrated in **Figure 1-1**.

[1] Source: Baseline Emissions Inventory and SEDA Mapping

Figure 3: *Avoid-Shift-Improve Principle*

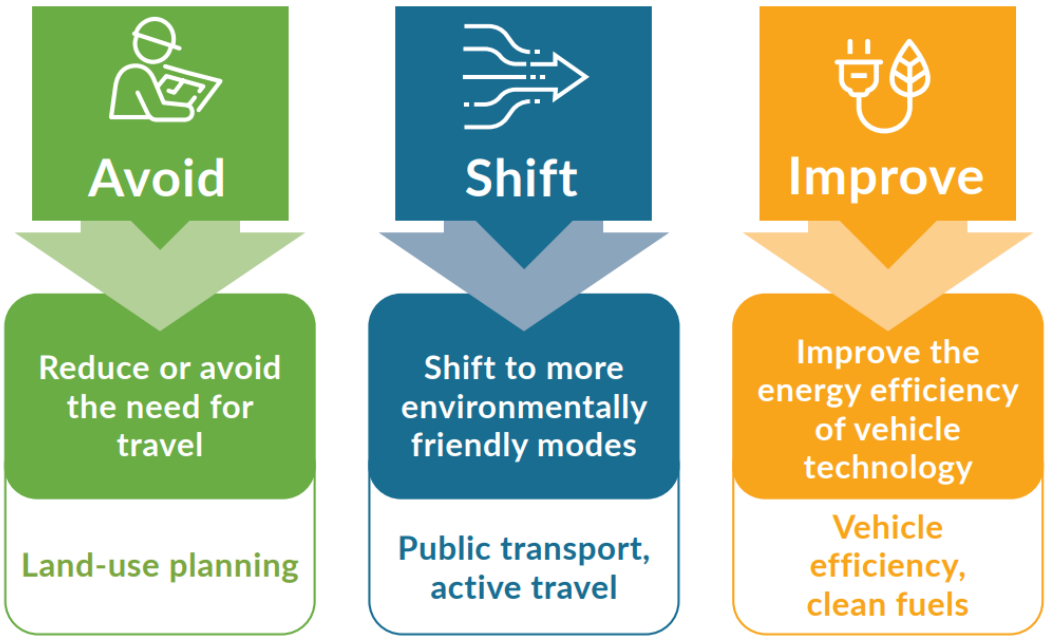

Figure 1-1: Avoid, Shift, Improve Transport Principles

Source: *National Sustainable Mobility Policy*

2 PLACEMAKING AND TRANSPORT SWOT ANALYSIS

2.1 Introduction

In the 2016 census, the population of Arklow was found to be 13,226 people. There is significant employment within Arklow with the census indicating 3,040 people employed in 2016. In addition there are a number of primary and secondary schools within the town.

The *Draft Wicklow County Development Plan 2022-2028 (*the *Draft Plan)* states that the population of the settlement is targeted to increase to 16,440 in 2031.

The *Draft Plan* identifies the quays and harbour area as a key location for growth:

> *"There is in excess of 20ha of brownfield land, a large portion of which is vacant or under-utilised. The area is suitable for a mix of employment, residential and leisure uses. It is estimated that there is potential in this area for in excess of 500 residential units and over 1,200 jobs"*

There is a need to ensure the existing and future population of Arklow can meet their transport needs within Arklow without the generation of carbon.

This section of the report provides an overview of ongoing and future transport and public realm initiatives that will contribute to reducing Arklow's carbon footprint and then analyses the Strengths, Weaknesses, Opportunities and Threats (SWOT) of the town with regard to carbon generating arising from the urban environment and transport infrastructure and services.

2.2 Existing Carbon Footprint

The existing carbon footprint for Arklow and that arising from the transport sector has been examined. The total carbon footprint for Arklow has been calculated and the methodology and results are reported in the *Draft Baseline Emissions Inventory and SEDA Mapping* report prepared by RPS.

It is highlighted that 30.1% of total carbon generated in Arklow is generated by transport, and carbon emissions in 2018 are estimated at t(CO2eq) 22,285. The proportion of carbon generated by transport is quite significant.

The reduction of the carbon footprint generated by carbon, in tandem with the planned considerable population growth shall be challenging.

2.3 Ongoing and Future Transport and Public Realm Infrastructure Projects

There are currently, at various stages of development, a number of projects which will alter the built environment and travel patterns within the town. Many of these are focussed on pedestrian, cycle and public transport movement and have the potential to contribute to a reduction in carbon generation.

These projects include:

- Arklow Public Realm Projects:
  - Parade Ground and potential extension of works to St. Mary's Park
  - Abbey Quarter
- Flood Relief Scheme;
- Arklow Quays Regeneration Project;
- Safe Routes to School – SS Michael and Peter and St. John's SNS and including 'Park and Stride' at Lidl);
- Arklow Pedestrian and Cycle Improvement Scheme;
- Arklow-Shillelagh Greenway; and
- A park and ride integrated with Wexford bus at the northern end of the town.

The locations of a number of these projects are shown in **Figure 2-1.**

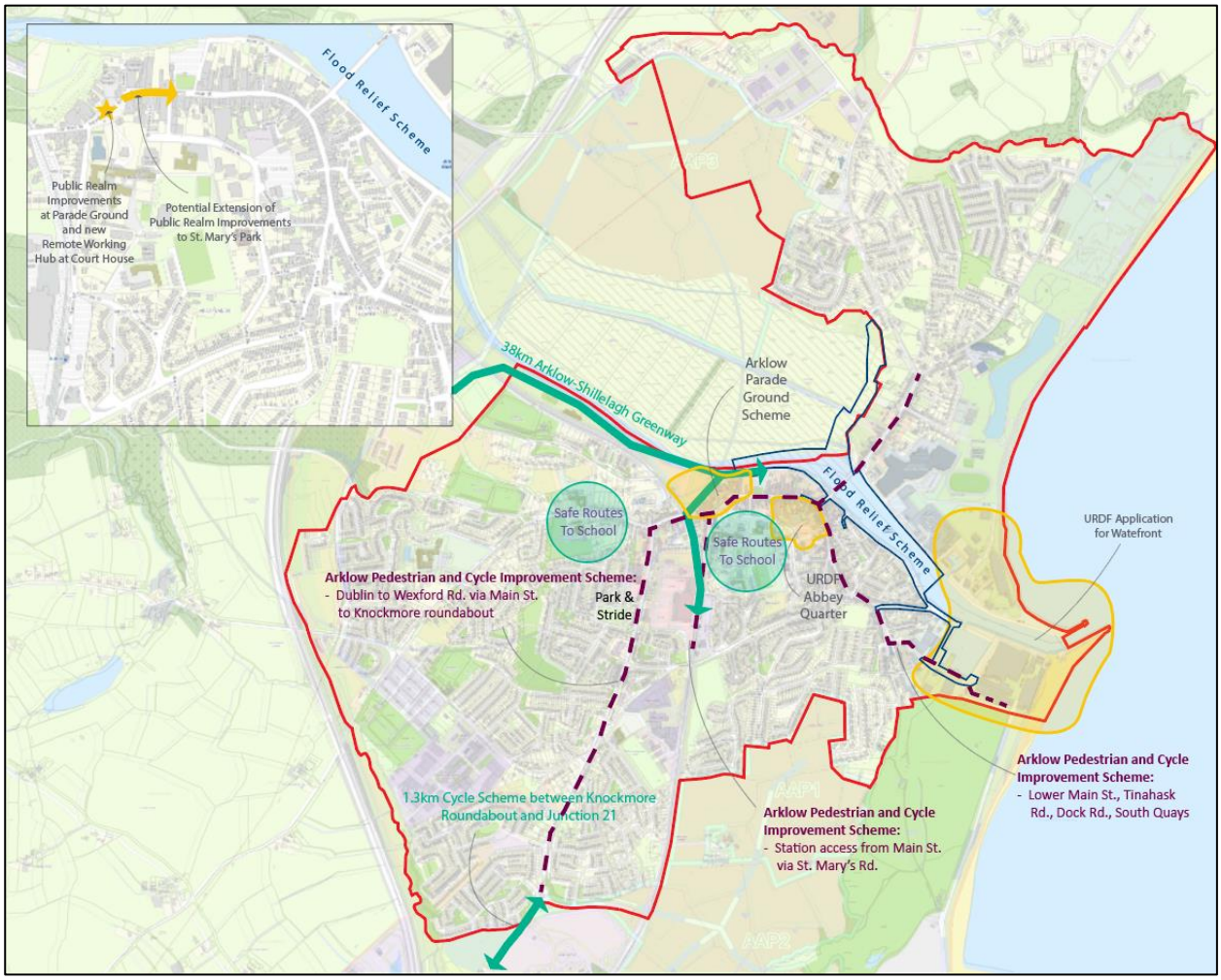

Figure 2-1: Enhancements of Transport Infrastructure and Public Realm Projects already underway or planned.

2.3.1 Public Realm Projects

There are currently a number of public realm projects focused on redeveloping Arklow's historic town centre, including improvements to the Parade Ground and St. Mary's Park (see **Figure 2-2** and **Figure 2-3**).

The Parade Ground Improvements, which are currently under construction, include provision of a public plaza to the front of the courthouse including public artwork, provision of interpretive signage associated with the historic town walls, revised bus stop set down area and car parking, provision of additional pedestrian crossings and traffic controls, resurfacing of roads and footpaths, provision of seating, bicycle parking, revised public lighting, raised planters and other landscaping.

The planned improvements to the western end of Main Street at St. Mary's Park include revised pedestrian access to St. Mary's Park, a revised bus stop and car parking provision, improved pedestrian crossings and traffic controls, resurfacing of roads and footpaths, provision of seating, bicycle parking, revised public lighting, raised planters and other landscaping.

Figure 2-2: Parade Ground Improvements – Preliminary Layout Plan (under construction)

Source: Arup, courtesy of WCC

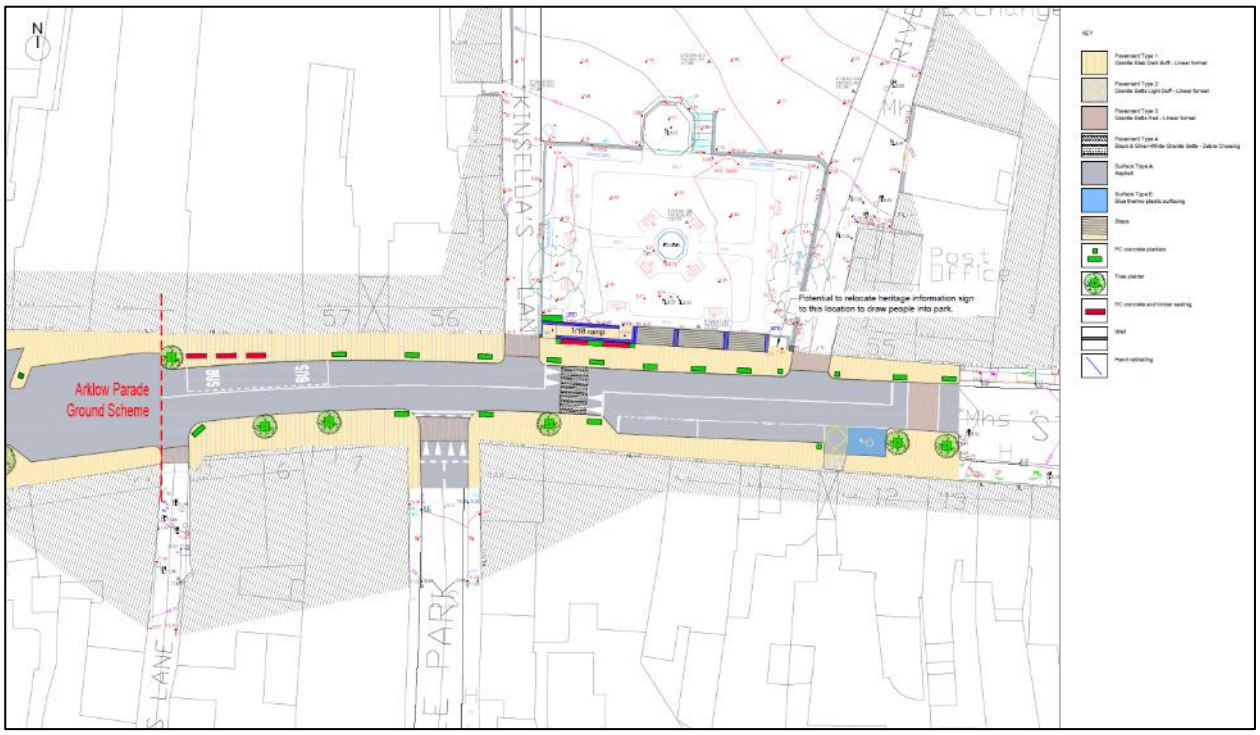

Figure 2-3: Improvements to Main Street at St. Mary's Park - Concept Plan

Source: Arup, courtesy of WCC

2.3.2 Arklow Flood Relief Scheme

The Arklow Flood Relief Scheme shall address flooding within the town, however t significant changes and enhancements to the public realm will be delivered as part of the scheme. The general extent of the works is shown in **Figure 2-4**.

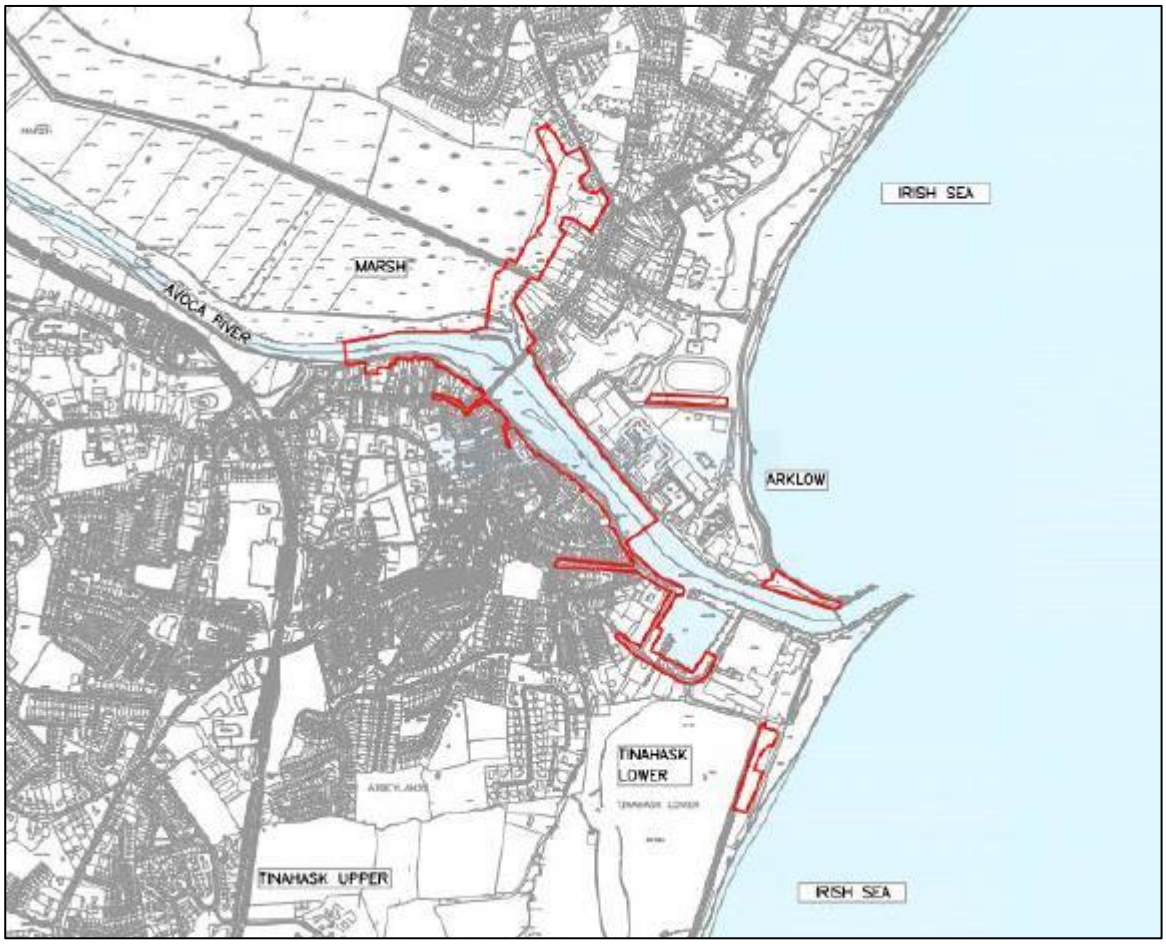

Figure 2-4: Extent of Arklow Flood Relief Scheme

The proposed flood defences and related works will include the following improvements to the public realm:

- Provision of new public realm at River Walk and South Quay, including parking spaces, footpaths, amenity/viewing area, public lighting, planters and floating pontoon;
- Provision of additional urban space approximately 6m into the river on South Quay immediately south of the Arklow Bridge for a length of approximately 260m; and
- Provision of additional urban space extending between approximately 0m and 6m into the river on River Walk for a length of approximately 100m.

2.3.3 Arklow Quays Regeneration Project

An application was previously submitted for public realm improvements to the waterfront area (Arklow Quays Regeneration Project) under the Urban Regeneration and Development Fund (URDF) in 2020. While this application was not successful, it is understood that WCC are currently preparing to submit a revised application. The previous application included the regeneration of the north and south quays as well as the provision of a new pottery museum in the town centre.

The application sought support for the undertaking of a detailed survey and analysis of the area and preparation of a planning scheme / masterplan and implementation plan for the quays, building on the existing Local Area Plan for Arklow. The URDF application also sought capital investment for the purchase of

a vacant site to be developed as a pottery museum and the development of a National Maritime Centre of Excellence.

The wider Arklow Quays Regeneration Project to which the URDF application relates, will include complementary projects funded from private sector investment to create physical and commercial links to the town centre to stimulate the redevelopment of underutilised sites. Projects would also include the enhancement of the tourism potential for the quays, harbour and beaches, as well as enhanced recreational and leisure facilities for the town.

To develop the concept for the future potential of this area, Wicklow County Council commissioned Emmet Duggan Architects to prepare plans and sketches of a possible future build out of the area (see **Figure 2-5 and Figure 2-6**).

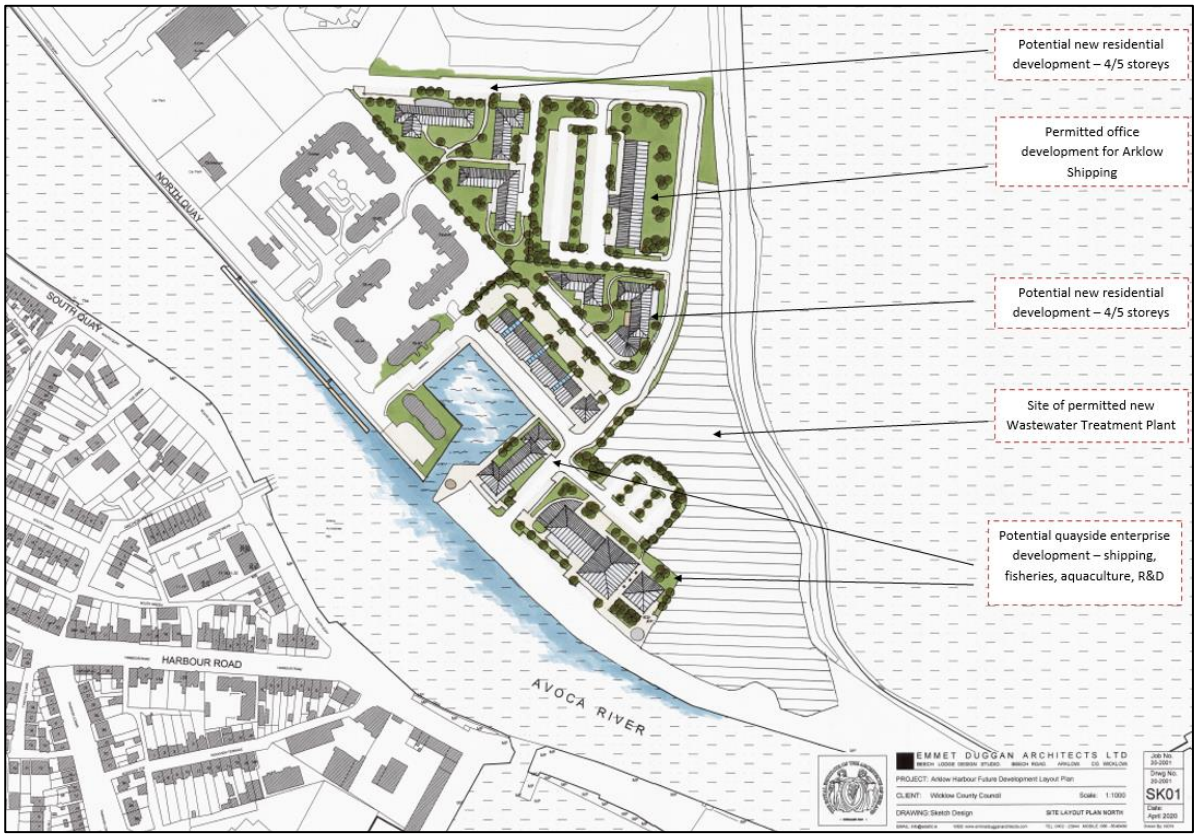

Figure 2-5: URDF Application Proposals for Arklow North Quay

Source: Emmet Duggan Architects Ltd.

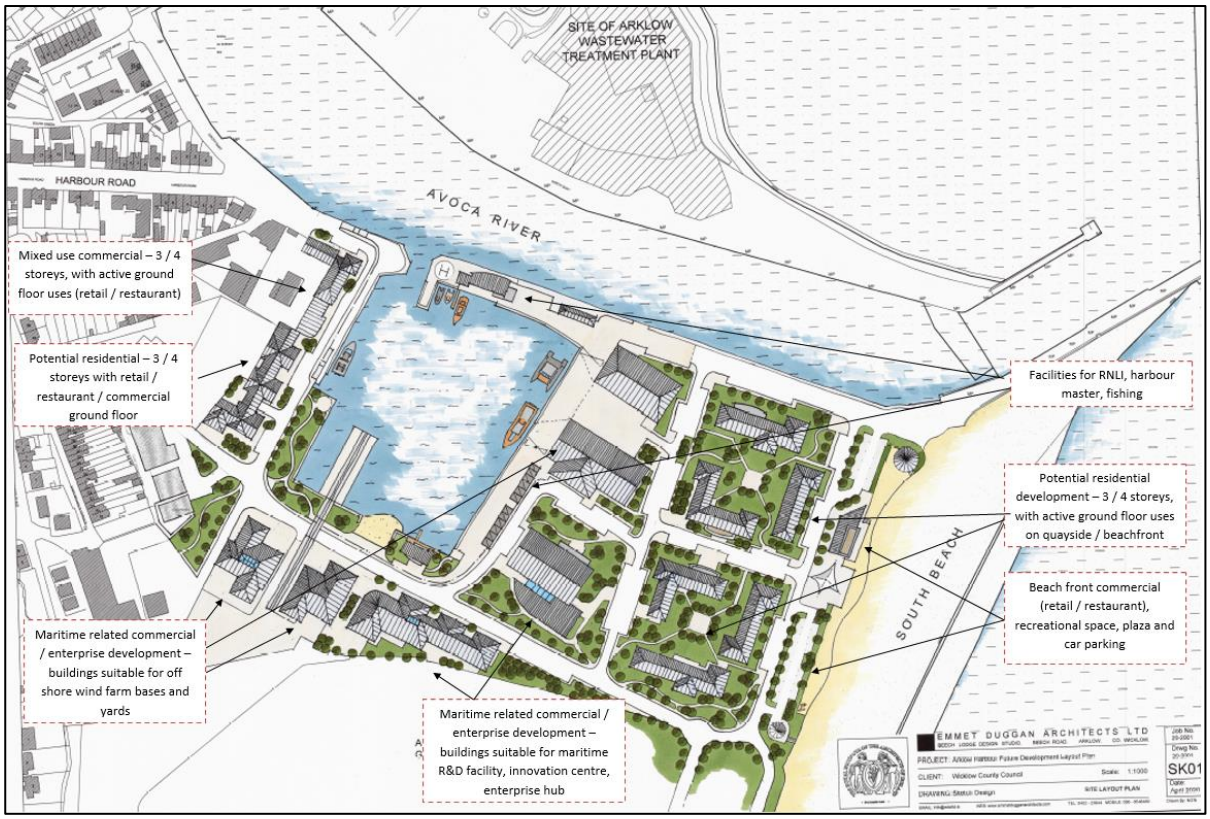

Figure 2-6: URDF Application Proposals for Arklow South Quay

Source: Emmet Duggan Architects Ltd.

2.3.4 Safe Routes to Schools

There are a number of primary and secondary schools located in Arklow as shown in **Figure 2-7**.

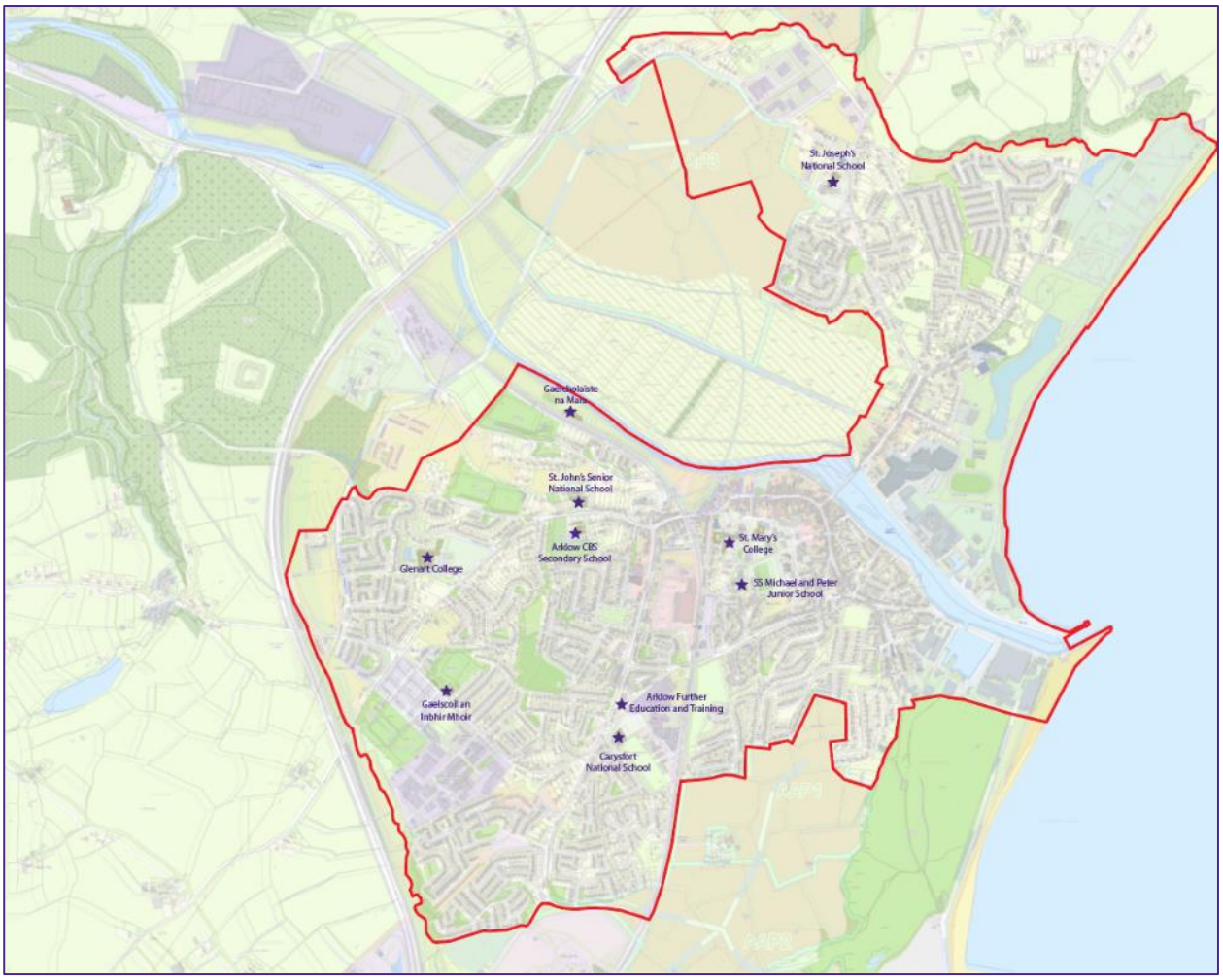

Figure 2-7: Location of Existing Schools

Enhanced walking and cycling routes to a number of schools within Arklow are currently being advanced.

SS Michael and Peter

A proposed School Zone on Castle Park and St Mary's Road shall create inviting and safe spaces for children to access the SS Michael and Peter school.

Permeability and pedestrian links are to be enhanced via removal of barriers, improvements to paving, including the upgrade of the surface and width and through improved pedestrian crossing facilities. The carparks on Castle Park and Station Road have been identified as potential 'Park N Stride' locations. Cycle links to the proposed wider cycling network will provide cycle access to the Castle Park entrance. Further details of the proposed upgrades and measures are provided in **Figure 2-8**.

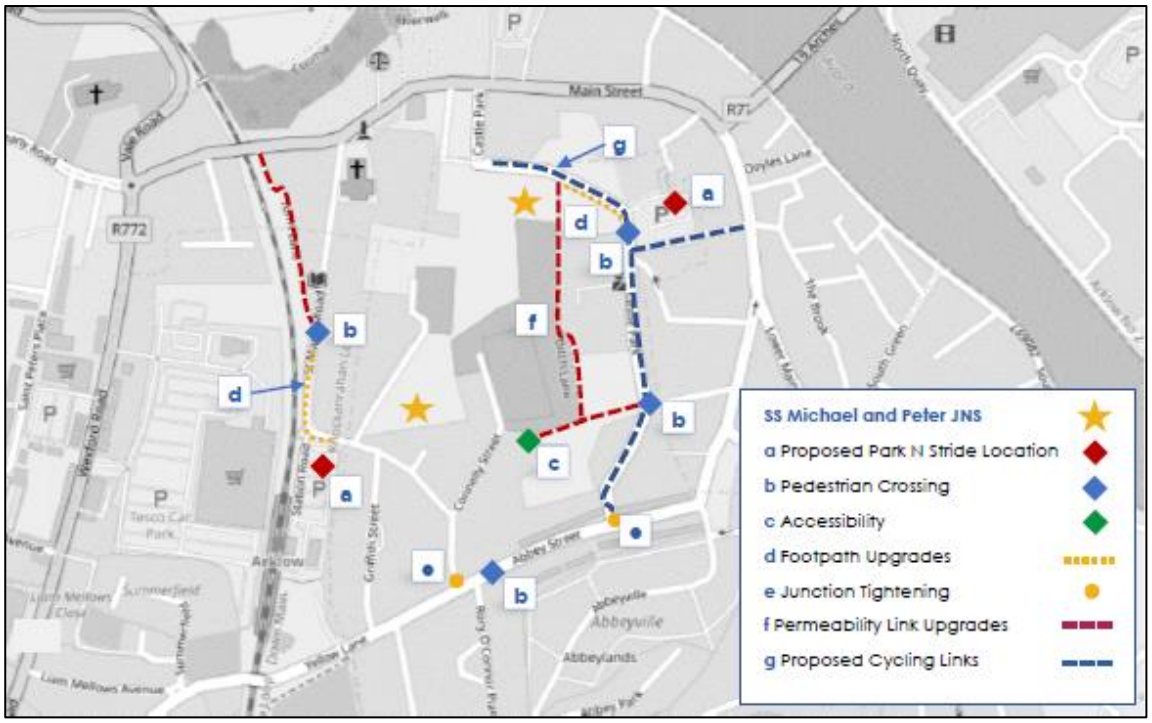

Figure 2-8: Planned Enhanced Accessibility SS Michael and Peter JNS

Source: SRTS Delivery Plan, courtesy of WCC

St. John's

A proposed School Zone on Coolgreaney Road will provide a safe space to access St John's senior national school and includes traffic calming measures and colourful elements highlighting the presence of children.

Creating a permeability link from Heatherside Estate is an opportunity to provide an additional pedestrian link to the school and may reduce vehicle congestion at the front of school. Permeability and pedestrian links can be further enhanced via improvements to paving in terms of surface and width and through improved access and pedestrian crossing facilities. The Lidl carpark on Wexford Road is a potential 'Park N Stride' location. Cycle links to the proposed wider cycling network can provide cycle access to the front of school. Further details of the proposed upgrades and measures are provided in **Figure 2-9**.

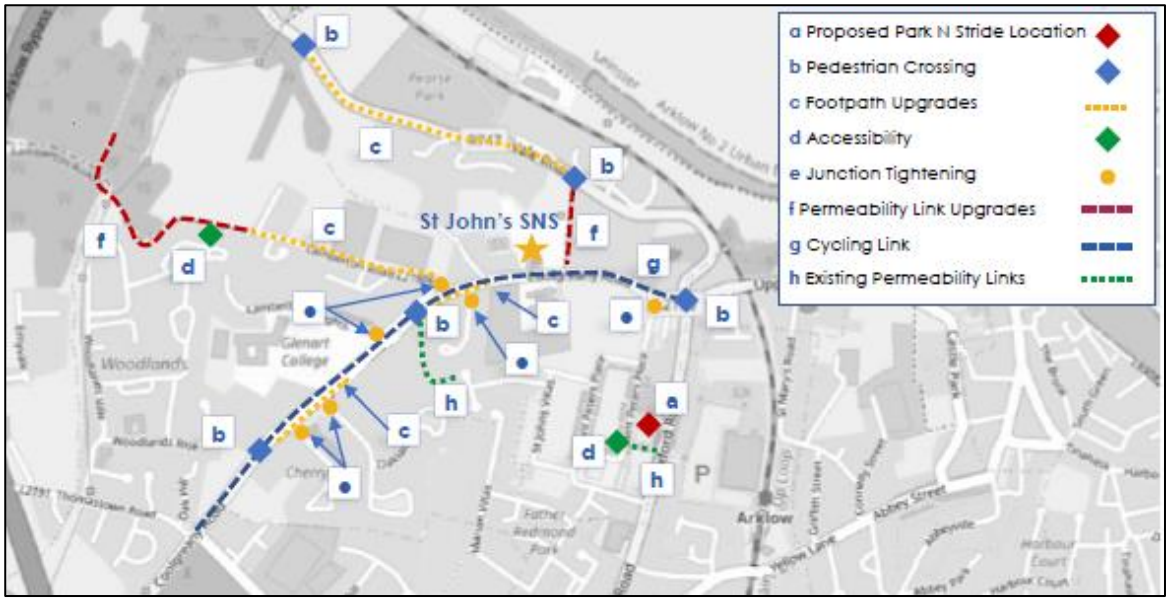

Figure 2-9: Planned Enhanced Accessibility St John's

Source: SRTS Delivery Plan, courtesy of WCC

Arklow Christian Brothers School (CBS)

Arklow CBS is planning a new building on their existing campus and this may provide opportunity through planning to provide better off road access for cycling and walking students to schools on the Coolgreany Road.

2.3.5 Arklow Pedestrian and Cycle Improvement Scheme

The Arklow Pedestrian and Cycle Improvement Scheme aims to provide safe, attractive, and high quality infrastructure to encourage greater use of sustainable travel modes for trips to work, education, and for recreation. It includes the following routes (see **Figure 2-10**):

- R772 Dublin Road to Wexford Road along Main Street to Knockmore Roundabout;
- Lower Main Street, Tinahask Road and Dock Road to South Quay; and
- Station access from Main Street along St. Mary's Road to train station.

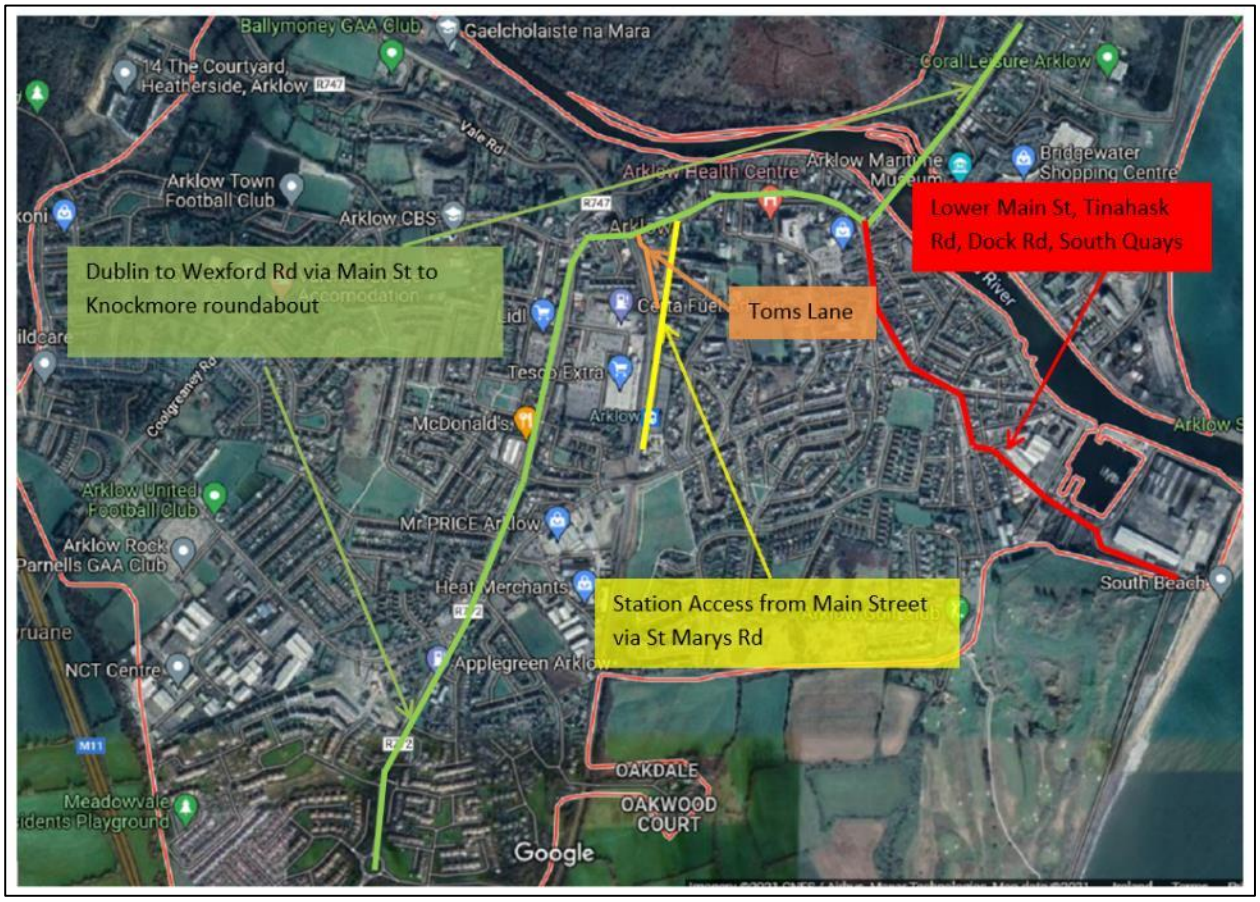

Figure 2-10: Arklow Pedestrian and Cycle Improvement Scheme

Source: WCC

The principal objectives of the scheme are:

- To provide cycle facilities to the appropriate level and quality along the proposed routes as outlined;
- To provide improved facilities for pedestrians and cyclists in Arklow connecting North and South of the town and connections to public transport links;
- To provide infrastructure that allows safe travel for all road users;

- To provide pedestrian and cycle linkages between public transport, the proposed greenway, retail, tourist and recreational areas;
- To promote and encourage healthy living and wellness through cycling; and
- That new infrastructure will be designed and constructed using best practices to ensure the best value for money.

It should be noted that as part of the *Draft Transport Strategy for the Greater Dublin Area 2022-2042* a cycle network plan has been published which includes plans for Arklow as shown in **Figure 2-11**.

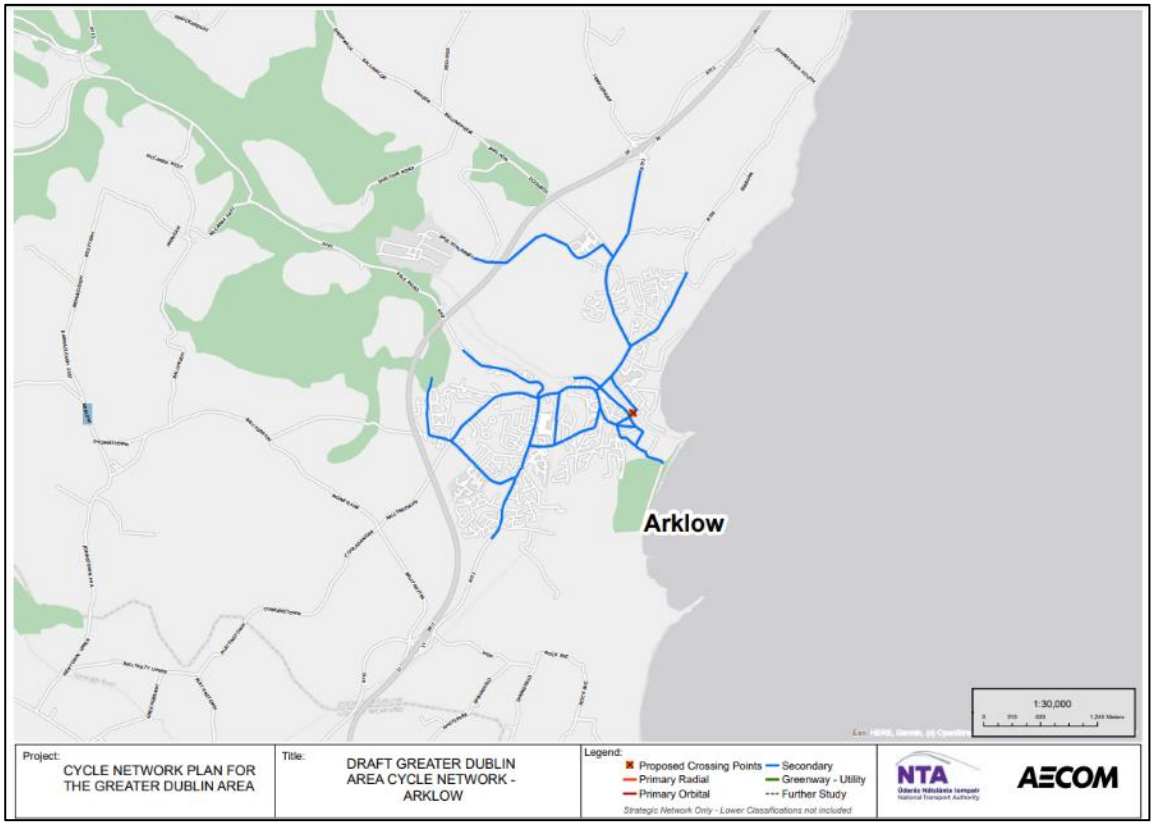

Figure 2-11: NTA Planned Cycle Network in Arklow[2]

The existing, under construction and planned cycle network are shown in **Figure 2-12.**

[2] Source: Draft 2021 Greater Dublin Area Cycle Network Plan - Arklow

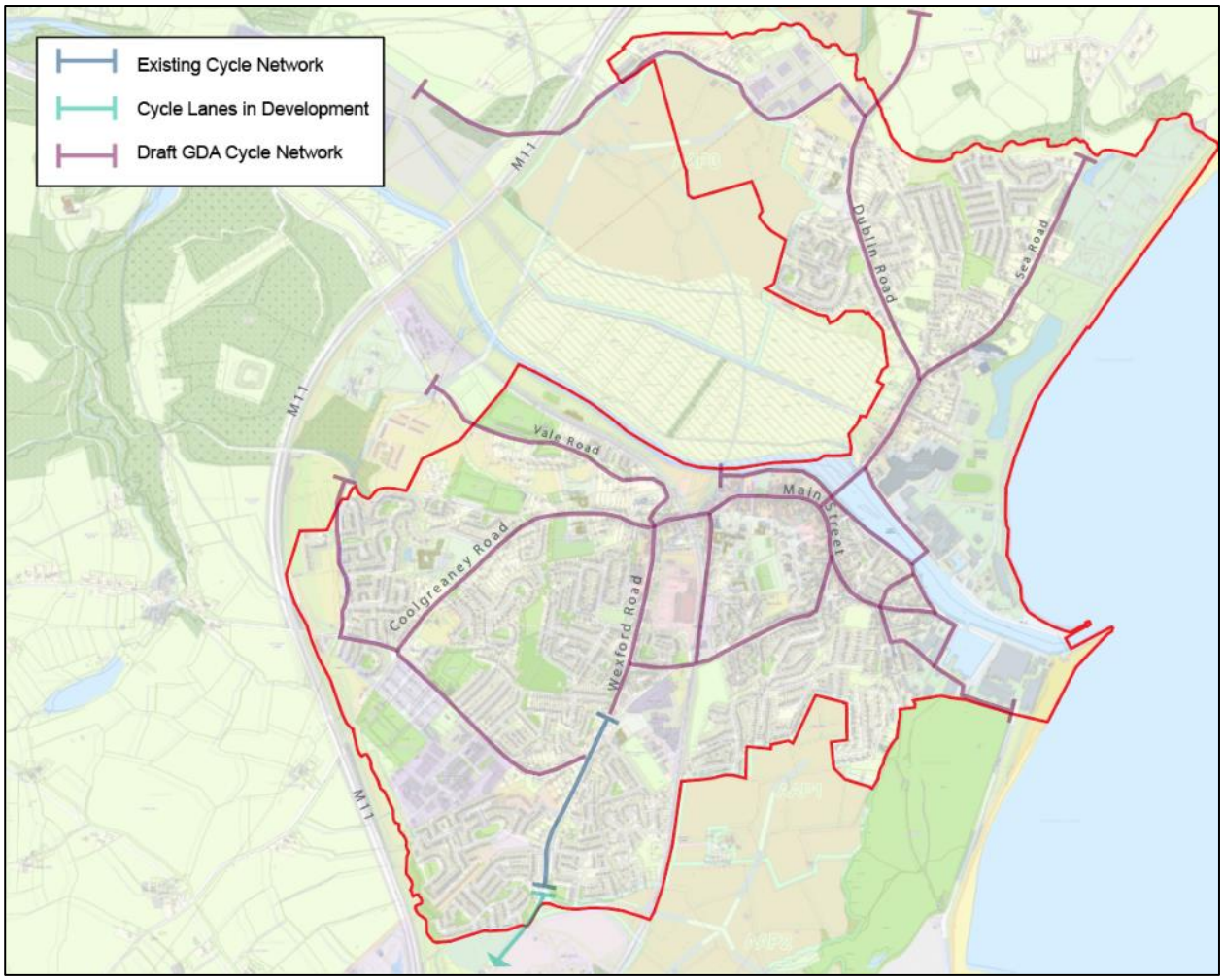

Figure 2-12: Arklow Future Cycle Network

2.3.6 Arklow - Shillelagh Greenway

A planning application is being prepared by WCC for the Arklow – Shillelagh Greenway. The Greenway will be a 38km walking trail between Arklow and Shillelagh, taking in some of the old railway track between Woodenbridge and Shillelagh. The route of the Greenway is shown in **Figure 2-13**.

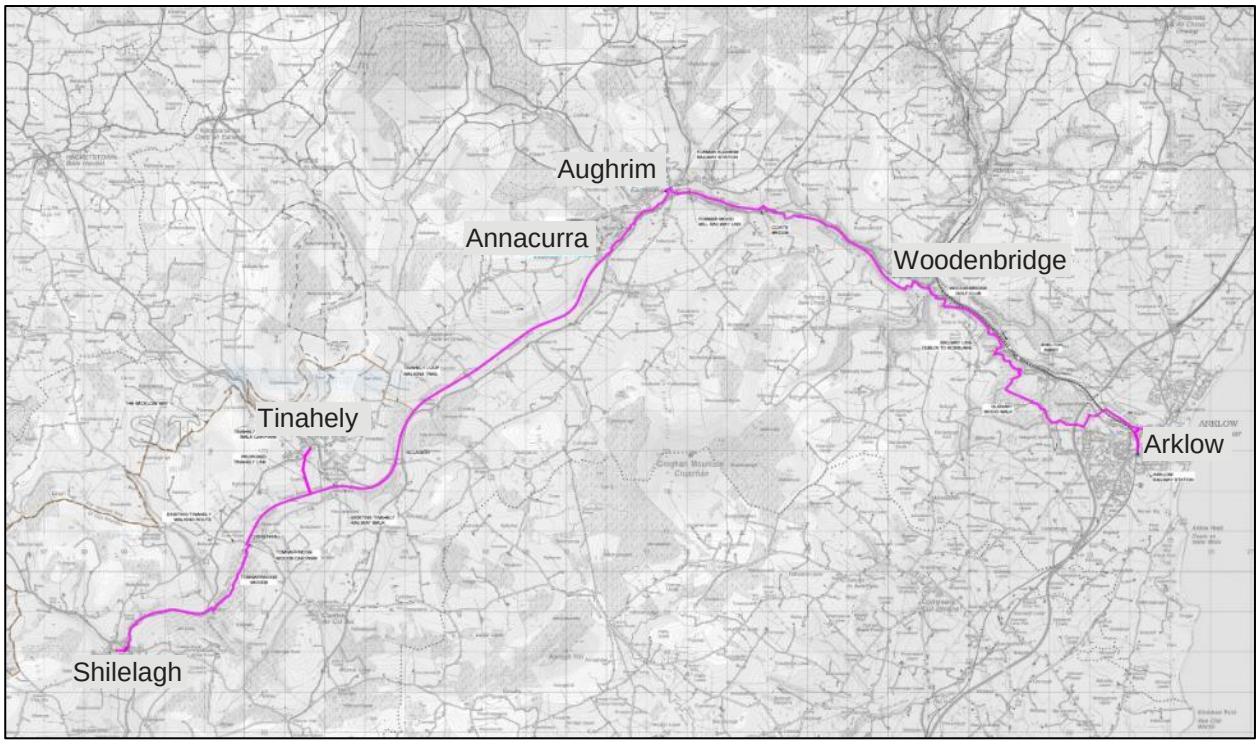

Figure 2-13: Route of Arklow - Shillelagh Greenway

2.3.7 Park and Ride

A park and ride facility in the north of Arklow linking with the Wexford Bus service from Wexford to Dublin is being progressed (18 services daily – further detailed in **Section 2.4.3** of this Report).

2.4 SWOT Analysis

Set out below is Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis of Arklow with regard to the urban environment and transport infrastructure and its contribution to carbon generation. The SWOT analysis has been considered under the following sub-headings:

- Walking;
- Cycling;
- Public Transport;
- Car Based Transport; and
- Placemaking.

2.4.1 Walking

Strengths

- There is a comprehensive dedicated walking network within Arklow connecting all areas of the town;
- Areas of the town enjoy a walking network of high quality (see **Figure 2-14**);

Figure 2-14: Recent Public Realm Improvements – Arklow Main Street

- Works are now proceeding on the:
  - Arklow-Shillelagh Greenway;
  - Pedestrian / cyclist facilities (Dublin to Wexford, Lower Main Street, link to south beach etc.); and
  - Safe Routes to School.
- The size of the town dictates that almost all built up areas within the urban boundary are within walking distance of the town centre and all services located there; and
- The fine urban grain and morphology of the town provides for a high level of connectivity.

Weaknesses

- Limited crossings of the Avoca River and the rail line curtail connectivity within the town;
- There are areas within the town where pedestrian provisions are compromised including Lower Main Street and other areas with narrow footpaths and associated safety issues. For example, queuing outside the post office on Main Street results in pedestrians stepping onto the vehicle carriageway. This is compounded by Covid-19 having necessitated people maintain social distancing (see **Figure 2-15**);

Figure 2-15: Limited Provision for Pedestrian Movement

- Inconsistent quality of materials and finishes; and
- Visual and physical clutter (excessive signage etc).

Opportunities

- Enhance the quality of pedestrian routes – improve legibility;
- Direct routes linking residential areas;
- Greater connectivity across Avoca River and the rail line; and
- Improve connections to the amenity areas in the town including the Marsh, North Beach and South Beach.

Threats

- Strength of car culture; and
- Lack of awareness / acceptance of social and economic benefits in facilitating bicycle and pedestrian access.

2.4.2 Cycling

Strengths

- There are dedicated cycle facilities including a cycle lane along part of the Wexford Road and cycle parking within the town;
- Works are now proceeding on the:
  - Arklow-Shillelagh Greenway;
  - Pedestrian / cyclist facilities (Dublin to Wexford, Lower Main Street, link to south beach etc.); and

  - Safe Routes to School.
- The size of the town dictates that all built up areas within the urban boundary are within walking distance of the town centre and all services located there.

Weaknesses

- There are limited dedicated cycle routes and infrastructure within the town;
- Limited crossings of the Avoca River and the rail line curtail connectivity within the town;
- There are no public bike share schemes operating in the town; and
- Some roads have limited widths and it may be difficult to retrofit cycle infrastructure (e.g. Main Street) while others are very well suited (e.g. Coolgreaney Road, Wexford Road and Dublin Road).

Opportunities

- The roll out of bike share schemes (and e-scooter schemes);
- Expanded dedicated cycling routes linking the network that is existing and under construction;
- Increasing funding available for cycle infrastructure -Town Centre First / NTA;
- E-bikes are increasing the range of cycling journeys, and enabling 'reluctant' cyclists to cycle further and more often; and
- Potential to test effectiveness of infrastructural upgrades before significant investment by utilising pop-up style cycle infrastructure (low cost / quick / easy).

Threats

- Businesses and the public can be opposed to redistribution of road space from motor vehicles to cyclists.

2.4.3 Public Transport

Strengths

- Arklow enjoys bus services as detailed in **Table 2-1**. The location of bus stops is shown in **Figure 2-16**

Table 2-1: Existing Arklow Bus Services

Route No.	Bus Route	Frequency	Provider
800	Carlow to Arklow	4 Daily	Local Link
1394	Tinahely to Arklow	1 Friday	Local Link
1379A	Laragh to Arklow	1 Friday	Local Link
1406	Redcross to Arklow	1 Thursday	Local Link
4975	Coolkenna to Arklow	1 Friday	Local Link
740	Wexford to Dublin City / Dublin Airport	18 Daily	Wexford Bus
133	Arklow to Dublin	1 Daily	Bus Eireann
2	Arklow to Dublin	14 Daily	Bus Eireann

- There is an existing operational rail station in the centre of the town;
- There are 5 no. rail services daily in each direction serving Arklow on the Dublin – Wexford / Rosslare rail line; and

- Taxis in the town operate informal pick up routes for shoppers.

Weaknesses

- There are currently no public bus services operating within the town only;
- Wexford bus services do not route through the town; and
- Rail services frequency is limited.

Opportunities

- Increase frequency of rail services;
- Increase range and frequency of local services;
- On demand / responsive public transport services / taxi services within the town; and
- Enhanced linkages with Wexford Bus Services.

Figure 2-16: Potential for On-demand Public Transport Services

Trials are underway in various locations with On-demand public transport services, such as the one pictured above in the town of Sauda, in Norway, which is a text-based flexible collection and drop-off service.

Threats

- Unless frequent and responsive, local bus services can attract low patronage;
- Costs associated with operation of public transport with limited patronage can be challenging; and
- Cultural shift needed to more fully engage local community in public transport.

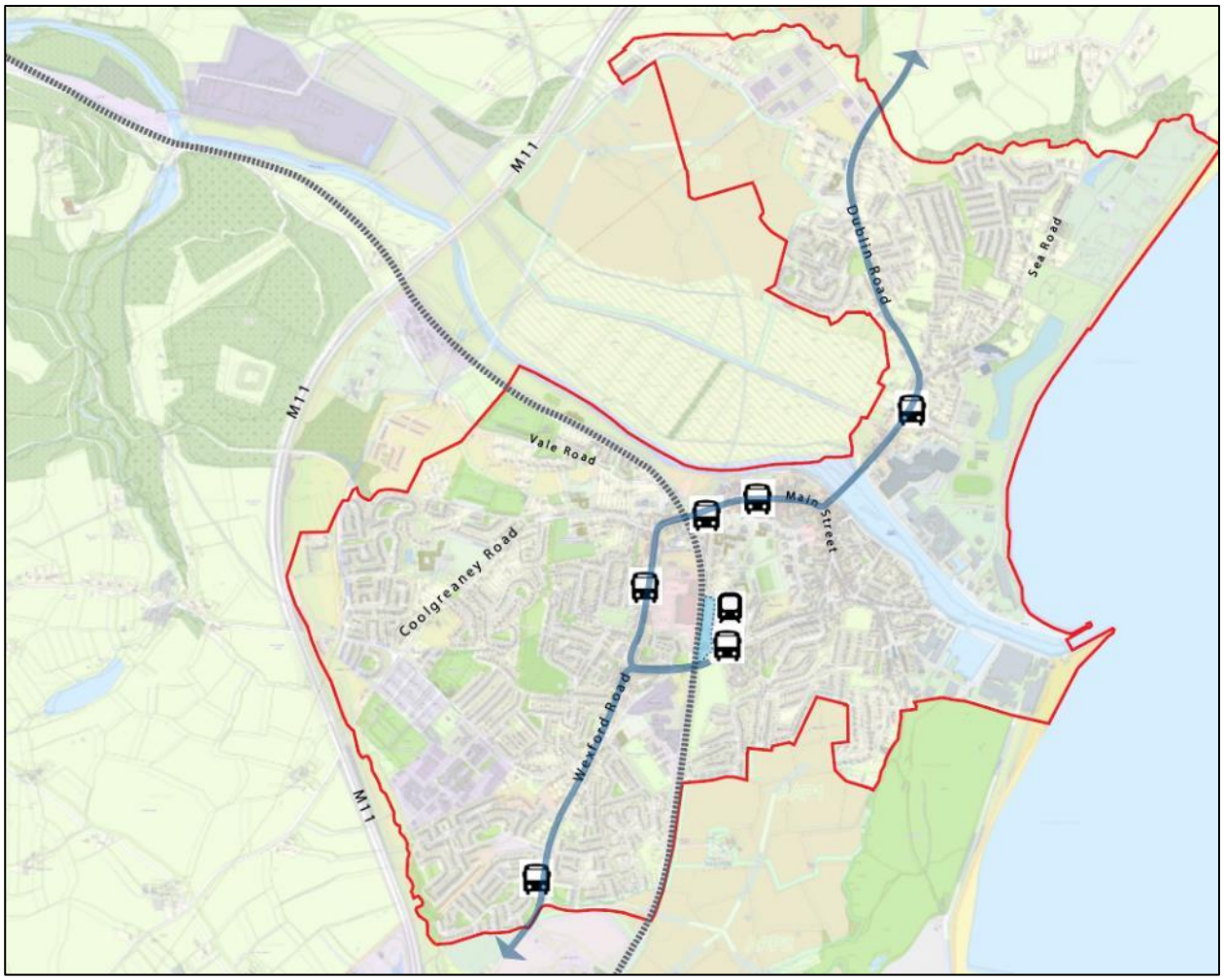

Figure 2-17: Existing Public Transport Services

2.4.4 Car Based Transport

Strengths

- Public EV charging points are located at a number of locations in Arklow as shown in **Figure 2-17;**
- There is an existing car parking control system (pay and display) operational in the town centre; and
- An existing car share (Go-Car) is located at Tesco.

Weaknesses

- The existing motorised vehicle fleet is predominantly powered by petrol and diesel.

Opportunities

- Further EV charging points;
- Reduction in car based trips through placemaking / integrated land use planning, and workplace active travel initiatives;
- Convert motor vehicle fleet to electricity; and
- Use of car parking control to incentivise electric cars.

Threats

- Strong ‘car culture’.

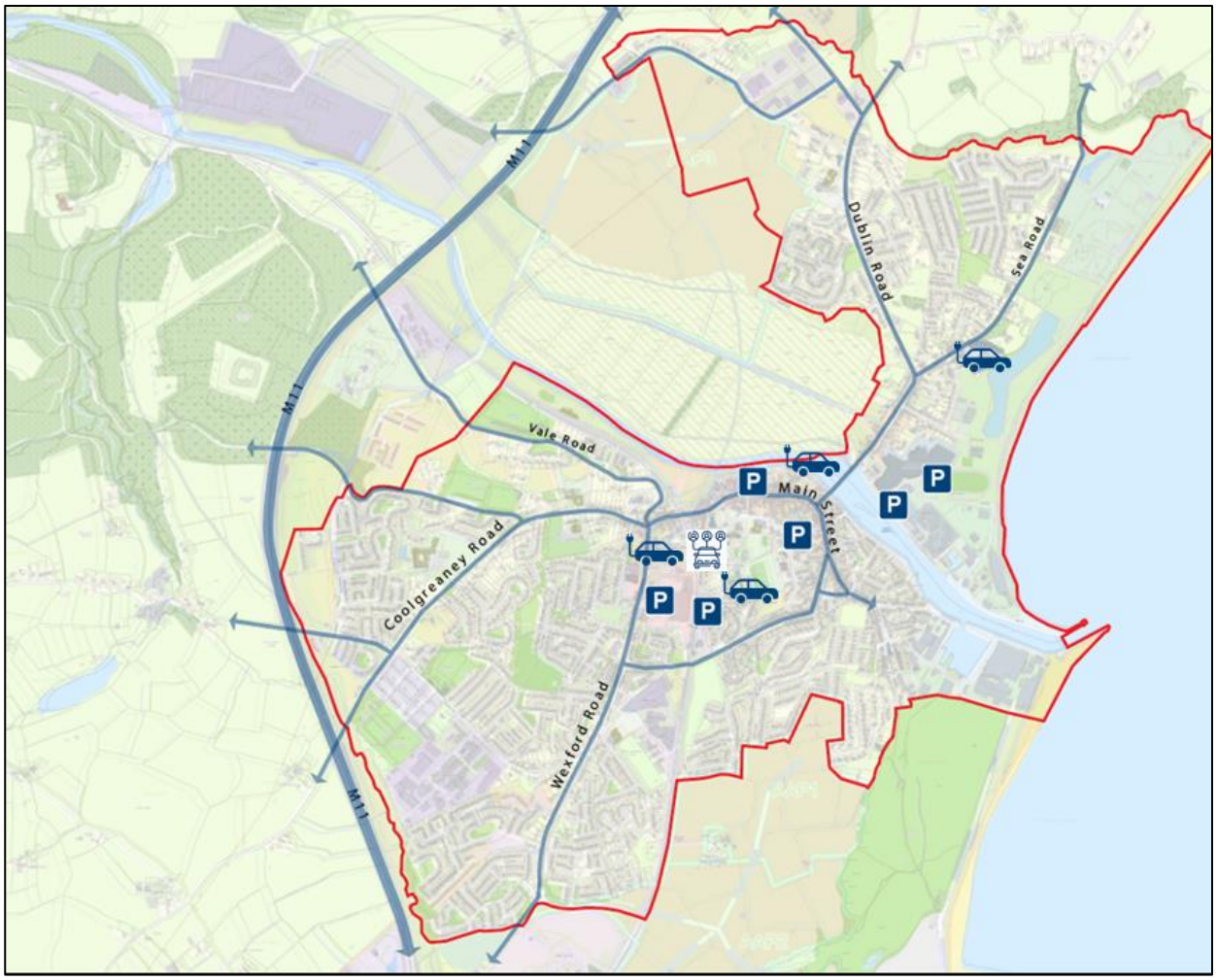

Figure 2-18: Location of Existing Car Parking and Car Charging Services

2.4.5 Placemaking

Strengths

- Key amenities are highlighted in **Figure 2-18;**
- Quality of the natural environment, including coastal location and Avoca River contribute significantly to the attractiveness of the town;
- The town enjoys a number of attractive and well used public spaces including Main Street, St. Mary's Park, the River Walk, North and South Quay and Kynoch Park / the Duck Pond on the northern side of the river;
- The Co-working space at Kilbride Industrial Estate increases employment and reduces commuting within the town; and
- Recent/ongoing improvements to Main Street.

Weaknesses

- Connectivity with the seafront is limited;
- Underutilised harbour area;
- Town centre core in need of further regeneration and investment;
- Lack of co-working space in the centre of the town;
- Vacancy within the town centre arising from evolving retail practises; and

- Limited residential population within the centre of the town.

Opportunities

- Better utilisation of Avoca River in recent years but more can be done;
- Opportunity sites identified in LAP – particularly St. Mary's Park;
- Improvements to Main Street;
- Innovative 'Pop-Up' adaptation or reuse of empty industrial buildings or brownfield sites;
- Evolving role of urban centres as places to live and socialise; and
- Increased public recognition of the importance of the public realm arising from the Covid-19 pandemic.

Threats

- Competing demands for limited space within town centres; and
- Projected continuing trend towards online retailing.

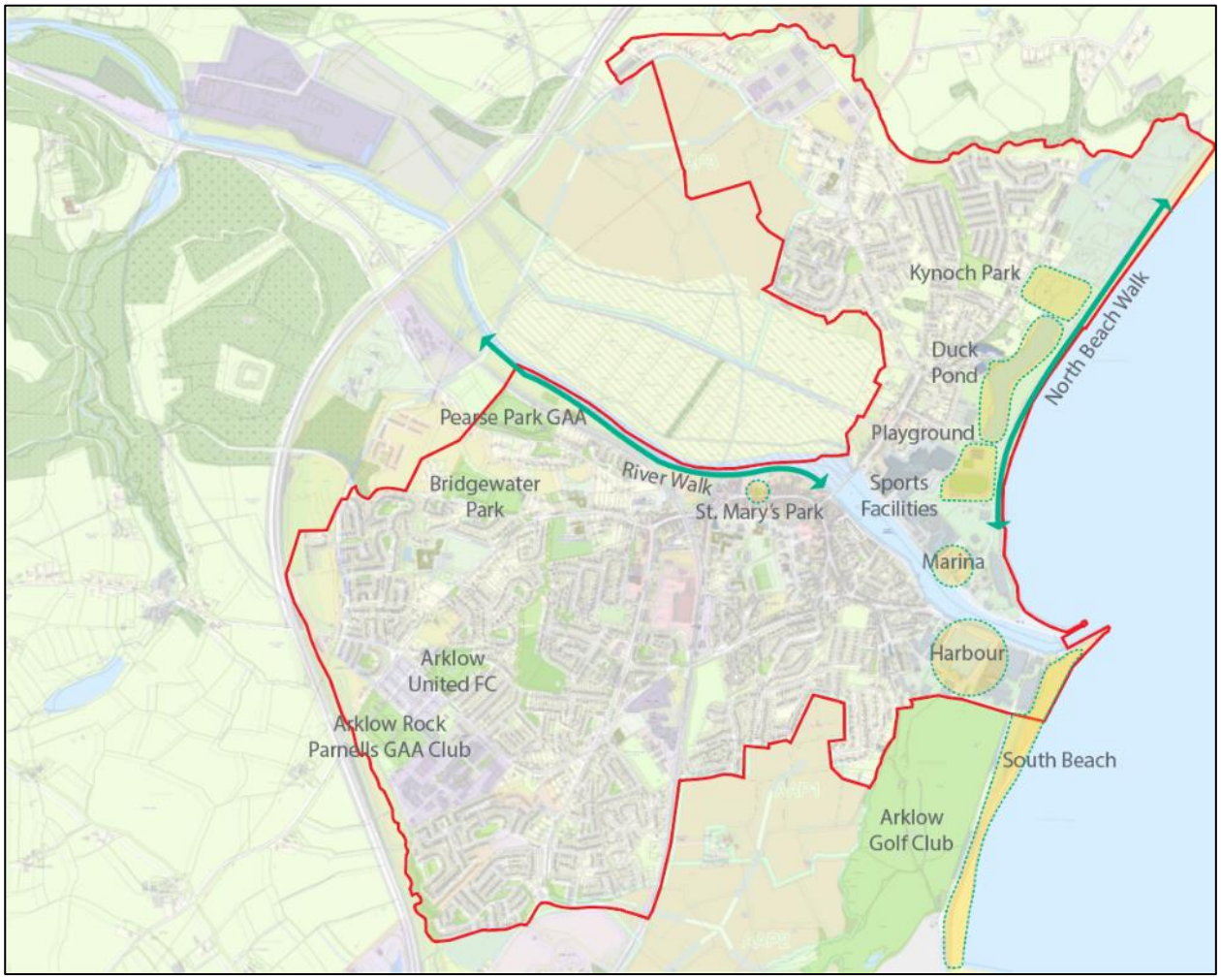

Figure 2-19: Key Existing Amenities within Arklow

3 RECOMMENDATIONS

3.1 Introduction

Evidence on links between walking and the physical environment provides clear guidance on the future development of Arklow. It suggests that people walk more in places with mixed land use (such as retail and housing), higher population densities and highly connected street layouts. These urban forms are associated with between 25% and 100% greater likelihood of walking.[3]

Within Arklow there is a need to ensure that the mix of uses, density of development and linkages is further addressed. There is a need to ensure the town is a safe, attractive and welcoming urban centre that people want to spend time in.

Set out below is an overarching vision of how Arklow may develop over the coming years in order to become a more attractive location with enhanced public transport and an increased level of walking and cycling.

Following on from this, specific recommendations are set out to underpin this vision and to reduce carbon generated by transport within Arklow.

3.2 The 15-minute neighbourhood

The '15 minute neighbourhood' (sometimes referred to as the 15-minute city or the 20-minute town) is one of the foundations upon which net zero transport networks can be built. The concept has become increasingly prominent since its inclusion in Melbourne's long term planning strategy in 2018, and its adoption by the Mayor of Paris, Anne Hidalgo, in February 2020.

The defining characteristic of the '15 minute neighbourhood' is that people are able to live locally and meet most of their daily needs within a 15 minute walk or cycle from their home. This includes, for example, access to places of work, schools, grocery shopping and places to socialise and exercise. The ability to live locally in this way reduces both the number and length of journeys made on a daily basis, resulting in significant carbon savings. It also creates the conditions for healthier, happier communities and delivers significant travel time and cost savings.

Walking and cycling become the natural choice for short trips, facilitated and encouraged by redesigned streets and public realm that prioritises community wellbeing and the movement of people over the movement and parking of private cars. Increased levels of walking and cycling contribute to better physical outcomes and improved mental health, while providing more opportunities to spend time in green space reduces the risk of anxiety and depression. The ability to access everyday needs within the local area also contributes to the creation of more equitable and inclusive communities by removing the transport barriers to jobs and services faced by people without access to a car, and who often live far from the services upon which they rely. The 15-minute neighbourhood accords with the road user hierarchy prioritising pedestrian and cycle movement set out in the *National Sustainable Mobility Policy* recently published by the Government of Ireland.

[3] Sinnett, D et al. (2012) Creating built environments that promote walking and health: A review of international evidence. Journal of Planning and Architecture 2012: 38.

Figure 8: *Hierarchy of Road Users model*

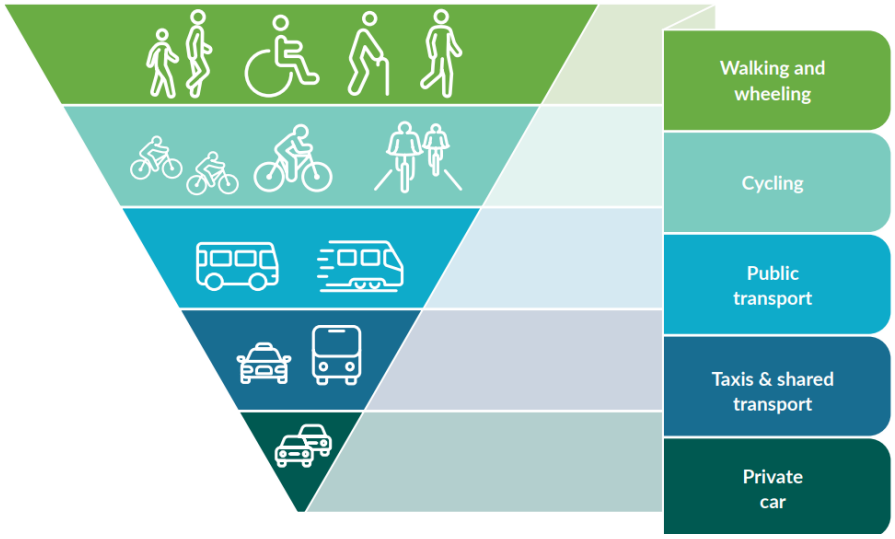

Figure 3-1: Hierarchy of Road Users

Source: *National Sustainable Mobility Policy*

While local living is the key tenet of the 15 minute neighbourhood, providing access to affordable, integrated public transport and new forms of shared mobility such as e-Bikes, e-Scooters and EV car clubs is also important. This ensures that sustainable modes are a viable and attractive option for the medium and longer distance journeys that are responsible for most surface transport emissions. Higher density mixed-use development supports the viability of these transport networks, but the form, scale and appearance of 15 minute neighbourhoods is not entirely prescriptive and there is the potential for a town such as Arklow to function largely as a 15 minute town.

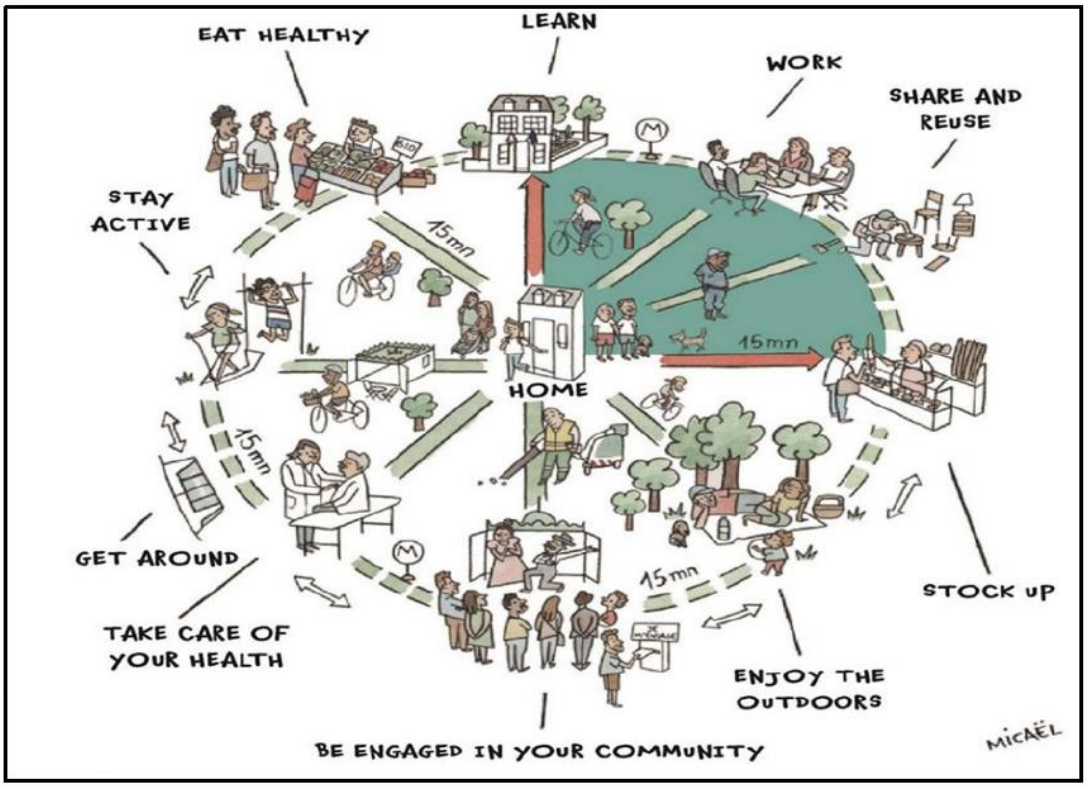

Figure 3-2: 15 Minute Town

Source: http://seattlegreenways.org/15minutecity/

The morphology and size of Arklow is such that the town centre and all the facilities located there are within a 15-minute cycle from all parts of the town. A significant portion of the population lives within a 15-minute walk of the town centre. **Figures 3-3 and 3-4** shown the relatively compact nature of Arklow.

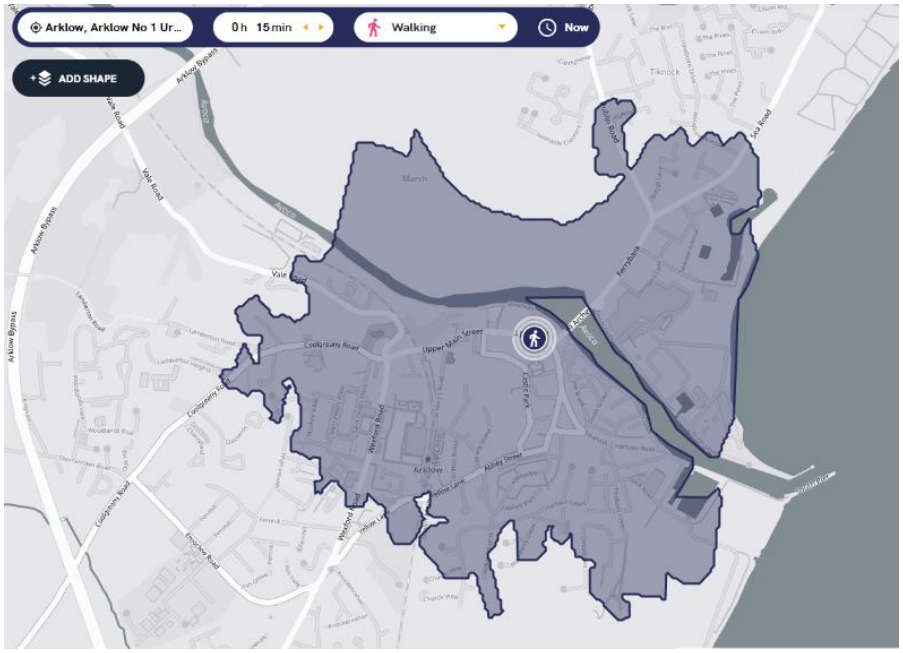

Figure 3-3: 15-Minute Walking Isochrone Arklow[4]

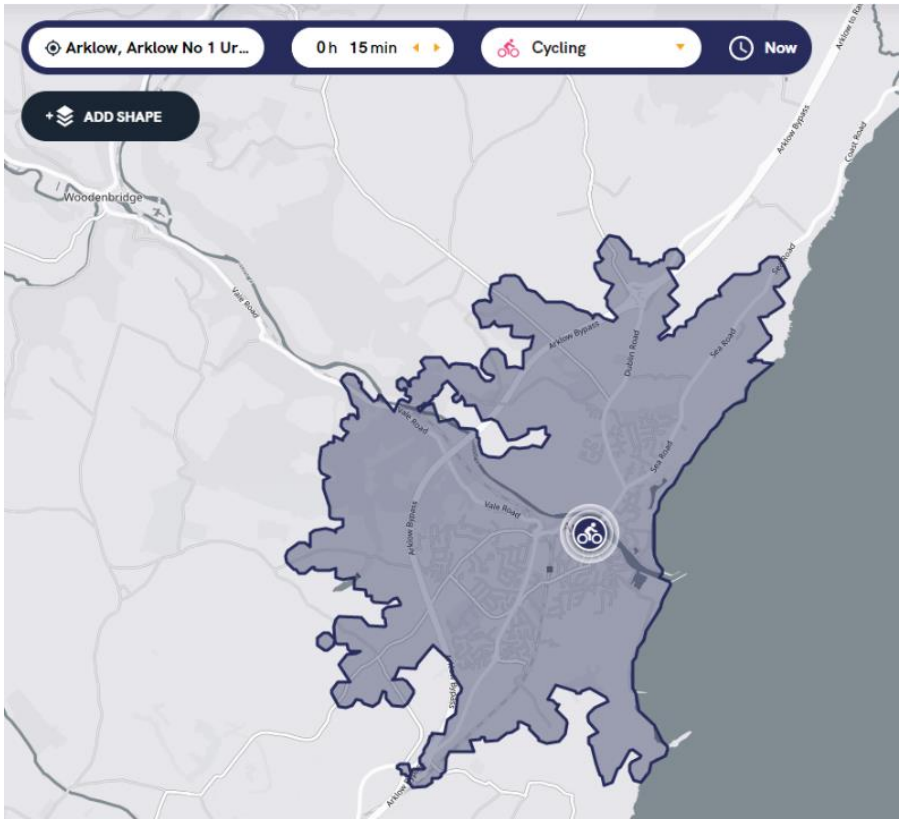

Figure 3-4: 15-Minute Cycling Isochrone Arklow[5]

[4] Source: www.traveltime.com

[5] Source: www.traveltime.com

In order to strengthen further the status of the town as a 15-minute neighbourhood the following principles should inform town growth and development:

- New development should focus on areas within 15-minutes of the town centre;
- Key trip attractors should, in so far is possible be located in the town centre;
- Targeted enhancements of the pedestrian and cycle network should be undertaken within the town which will reduce journey time;
- There is a need for the integration and enhancement of public transport; and
- Micromobility (bicycles, e-bikes and e-scooters) should be promoted.

3.3 Arklow Recommendations

3.3.1 Walking

The eastern portion of Main Street is currently being redeveloped (as identified in **Figure 2-1**) with the Court House being renovated and improvements to the public realm at Parade Ground – with a potential extension to St. Mary's Park. The remainder of Main Street (i.e. Lower Main Street) is to be redeveloped under the Arklow Pedestrian and Cycle Improvement Scheme. In this regard, the interventions in the Main Street and town centre are considered to be appropriate and no specific recommendations are proposed as part of this travel plan and placemaking study.

Improving existing links between Main Street and the surrounding streets may include upgrading Condren's Lane Upper, Paramount Arcade, the Coomie and the streets on either side of St. Mary's Park. These will all improve access to the riverfront and improve amenity. To the south, improvements may include upgrading Abbey Lane in particular.

Abbey Street has the potential to connect to Old Abbey park and, via this park, to the large main car park on Castle Park road / Laffin's Lane – providing a more direct link between this very important car park and the notional town centre. In all cases, these lanes are difficult to identify and can easily be passed without knowing they are there. Improving legibility is key.

Other routes that would benefit from and improved pedestrian experience include connections to the Train Station. While the Arklow Pedestrian and Cycle Improvement Scheme will improve St. Mary's Road/Station Road and Tom's Lane, there is potential to upgrade Griffith Street and Connolly Street.

There is also significant potential to improve the pedestrian link alongside St. Mary's College grounds to Castle Park where the current laneway lacks passive surveillance and does not feel safe to walk through at night.

Improvements to these key streets and connections may include:

- Footpath widening to improve the pedestrian experience and safety.
- Reduction of visual clutter (unnecessary signage) / improvement of directional signage.
- Improvement of directional signage (adopting a coordinated approach across the town).
- Improved seating opportunities.
- Improved public lighting.
- Consideration for removing some on-street parking spaces to repurpose for pocket parks / outdoor dining etc. ('parklets').
- Provision of water fountains.
- Landscaping to enhance biodiversity and improve visual amenity (consider providing planters in former on-street parking spaces).
- Improved public toilets.

Figure 3-5: Exemplars of low intervention public realm enhancements in Dún Laoghaire-Rathdown

3.3.2 Cycling

Cycle Lanes

All cycle lanes that have been identified in the Cycle Network Plan for the GDA should be implemented, with priority given to those identified under the Arklow Pedestrian and Cycle Improvement Scheme.

Cycle Infrastructure

The provision of secure bicycle parking proximate to key destinations is crucial to the promotion of cycling as this reduces journey time and addresses concerns regarding bicycle security. The following are recommended:

- Provision of additional cycle parking facilities at all key destinations;
- Provision of high profile cycle parking facility of increased visibility and attractiveness (see **Figure 3-6** as exemplar);

- Improvement of directional signage;
- Provision of a bicycle counter at location(s) of highest usage (provides data and promotes usage / visibility of cycling); and
- Public bicycle repair/maintenance stations (see **Figure 3-7)**

Figure 3-6: Innovative use of repurposed wind turbine blade to provide secure sheltered landmark bicycle parking

3.3.3 Bicycle / Micromobility Share

While cycle share schemes are associated with cities there are examples of such schemes working in smaller urban centres. The move towards stationless cycle share schemes has assisted this.

The use of e-scooters is burgeoning and as greater legislative certainty around their use is provided through the enactment of the Road Traffic and Roads Bill 2021 there is expected to be a significant role for shared e-scooters. The following are recommended:

- Investigate further the roll out of a bicycle share scheme in Arklow; and
- On completion of the legislative process investigate further the roll out of an e-scooter share scheme in Arklow.

Figure 3-7: Exemplar Bicycle Infrastructure

3.3.4 Public Transport

Enhancements to the frequency and integration of bus and rail services within Arklow have the potential to reduce car usage. The following are recommended:

- Investigate the provision of hackney / taxi / bus service operating within the town;
- Early delivery of planned park and ride facility (to include cycle parking) accessing Wexford bus;
- Enhance pedestrian routes to Arklow Train Station in line with the Arklow Pedestrian and Cycle Improvement Scheme;
- Enhance cycle parking facilities at Arklow Train Station; and
- WCC to engage with Irish Rail and other stakeholders regarding increasing the frequency of rail services

3.3.5 Car Based Transport

Cars shall continue to play an important part in meeting transport needs as we transition to zero carbon. Increasing the use of electric cars is key. It is recommended that

- EV charging points – Increase the provision of public car charging points. A recent report by Arup for SIMI recommends that one in 20 on-street parking bays be EV charging points, moving to one in 30 by the year 2030;
- EV charging points – Provide high profile (location / design) electric car charging to promote usage and switch to electric cars (see **Figure 3-8** for examples);
- Car Share – The use of car share has the potential to reduce car ownership and car travel. Promote the expansion of car share provision within Arklow;
- Car parking Control – Consider use of car parking control to incentivise electric vehicles (reduced tariff for electric vehicles); and
- EV - Convert Municipal vehicle fleet to electricity.

Figure 3-8: Exemplar Car Charging Points

3.3.6 Integration of Sustainable Travel / Placemaking Measures

The recommendations above can be delivered in a co-ordinated way to deliver very visible markers of the transition to zero carbon within Arklow. The provision of a mobility hub (See **Figure 3-9**) can integrate some or all of the following:

- Bicycle stands
- Bicycle repair/maintenance station
- Bicycle and/or e-scooter sharing
- Charging facility for e-scooters.
- Fast charging car station
- Car sharing
- Public space

The bundling of sustainable transport provisions has practical benefits in facilitating intermodal connectivity, cost benefits in delivery and raises visibility of the shift to more sustainable transport modes.

The provision of mobility hubs, initially in the town centre is recommended.

Figure 3-9: Mobility Hub Exemplar

3.3.7 Co-Working

Reducing the need to travel is central to the avoidance of carbon generation. A key part of placemaking is ensuring that places are animated.

The provision of a co-working facility at a suitable location in the centre of the town would further animate the town centre, support existing businesses in the town and reduce journeys.

- It is recommended that consideration be given to the provision of a co-working hub in the town centre, proximate to public transport provision.

3.4 Placemaking Key Projects

3.4.1 New growth and development

New growth and development in Arklow should be planned, designed and delivered on the basis of achieving 'Carbon Negative Growth'. This means development should not only deliver net zero transport outcomes from day one, but should contribute to carbon reduction on a wider scale through reducing travel demand, enabling mode shift and facilitating the switch to cleaner fuels on the existing network. While this research focuses on net zero transport, the principle of 'Carbon Negative Growth' should be extended to other aspects of development in support of the wider decarbonisation agenda.

For the future growth of Arklow this may mean:

- The primacy of walking, cycling and public transport in all new development as per the road user hierarchy set out in the *National Sustainable Mobility Policy;*
- Creation of genuinely "mixed" neighbourhoods; and
- Concentration of any new development within or directly contiguous with the existing town footprint.

3.4.2 Urban Renewal

Urban renewal will be essential to reduce existing travel demand and redesign existing streets and spaces around active and public transport. It will also be necessary to enable micro-consolidation and low carbon logistics. This change is unlikely to come about through ad hoc development in built up areas, and will instead require a coordinated approach to regeneration, redevelopment and the reorientation of transport networks around sustainable modes.

For the future growth of Arklow this may mean:

- Consolidation and densification of the existing built footprint;
- Reduce vacancy and tackle underuse of upper storeys within the town centre;

- Ensure renewal contributes to the creation of genuinely “mixed” neighbourhoods; and
- Re-enforce the primacy of walking, cycling and public transport in all urban renewal projects.

Three key placemaking projects are particularly recommended. These are:

1- Reimagining of St. Mary’s Park and the Bandstand Car Park;

2- Harbour Area; and

3- New Pedestrian / Cyclist Bridge.

3.4.3 St. Mary’s Park and Bandstand Car Park

There are a number of opportunity sites along Main Street identified in the *Arklow and Environs Local Area Plan 2018-2024*, including sites to the east and west of St. Mary’s Park and Bandstand Car Park. However, the historic significance of St. Mary’s Park, its established recognition by the community as an important civic space, and its central location within the town, warrant consideration for its redevelopment – with the car park to the rear representing a significant placemaking opportunity.

St Mary’s Park is already a key urban space in the centre of the town that people can easily identify. The laneways on either side of the park provide access to the riverfront which itself is developing as an active and vibrant amenity with new coffee shops and restaurants opening their doors onto the river walk.

However, given the strategic location of this site, the quantum of space utilised for car parking is considered to be a wasted opportunity. The quality of links on either side of the park are compromised by car movement and the car park itself is a large open space that has no social/amenity use. Furthermore, the link to the river is not particularly legible and there is little understanding, when walking along main street, that there is indeed a way of accessing the riverfront at this location.

While there are plans in place to improve the interface with Main Street (e.g. improved pedestrian crossing, bus stop and pedestrian steps/ramp up to the bandstand) the laneways on either side, and the car park to the rear of the park have potential to be further improved.

It is acknowledged that any improvements will need to address significant site constraints including the varying ground levels and tight vehicular entrances - both of which impact on pedestrian and cyclist accessibility. Another key constraint to consider when progressing proposals is the park’s location on the site of a medieval cemetery as this may limit the extent of any proposed excavation works. While these constraints represent significant challenges, it is considered that innovative design can address these issues.

Potential improvements to St. Mary’s Park may include:

- Consideration for removing parking spaces to create a larger pedestrianised public space connecting the river to Main Street and creating a more legible and enjoyable pedestrian connection between Main Street and the riverfront;
- Using this space for events such as concerts, exhibitions, farmer’s and Christmas markets;
- Provision of a Mobility Hub (see **Section 3-9**);
- Improvement of the existing public toilet facility;
- Resurfacing, signage and other measures to emphasis pedestrian priority on laneways (particularly the eastern laneway which connects directly to the river walk);
- Provision of cycle parking, information boards, water fountains etc.;
- Landscaping to enhance biodiversity and improve visual amenity; and
- Provision of a small community garden (for example, as per the top of Castle Park road).

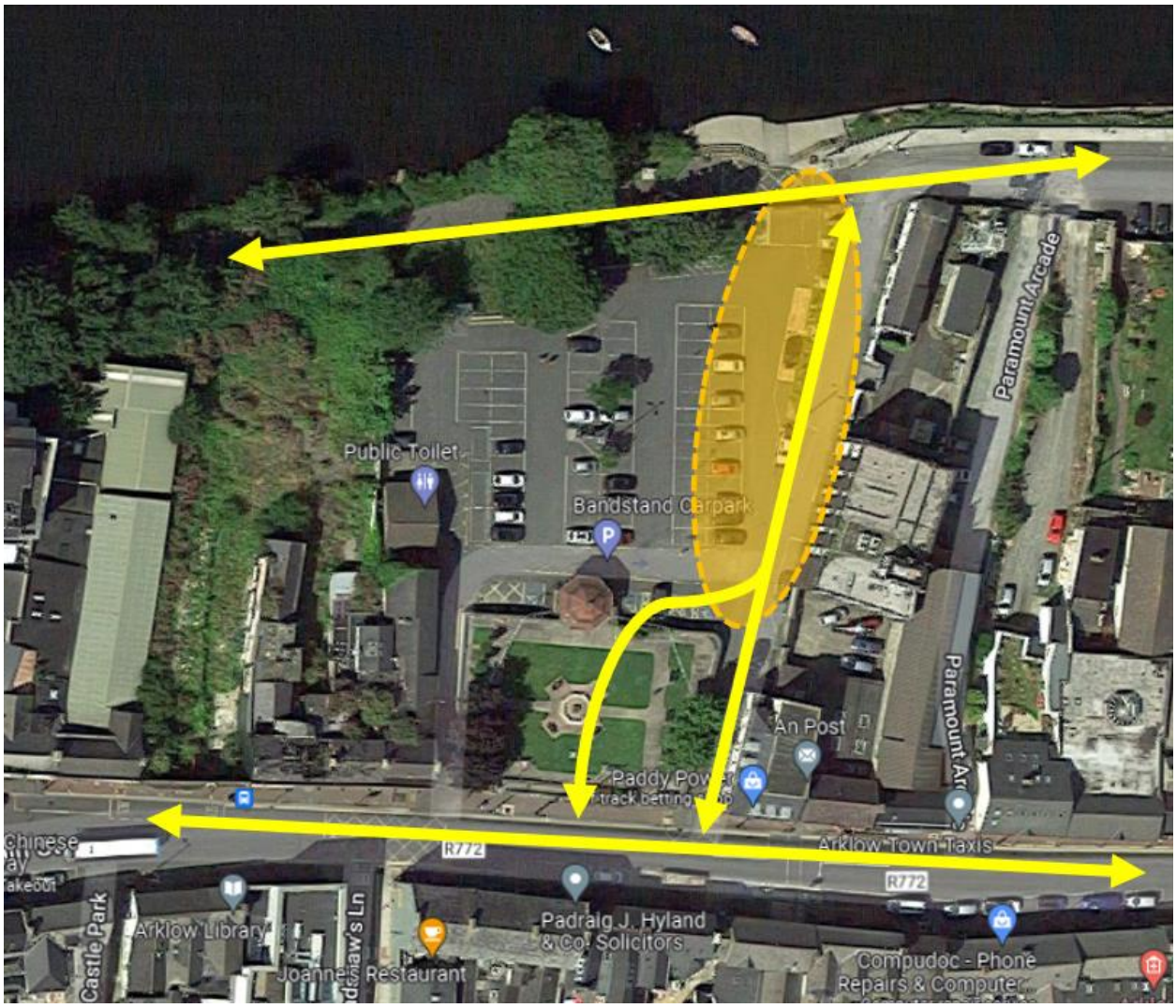

Figure 3-10: Potential Enhanced Pedestrian/Cyclist Links through St. Mary's Park and Bandstand Car Park

3.4.4 Harbour Area

From a placemaking perspective, Arklow's harbour area has significant potential. Its industrial character and maritime activity draw in people to this amenity area - to walk, run, cycle, exercise their dogs and simply enjoy the seafront. A pop-up style café operates at the harbour and is a further indicator of the attractiveness of this area. South beach is adjacent to the harbour with the dunes and links golf course alongside.

The area is zoned for waterfront development and will be the subject of a URDF application in the future as part of the Arklow Quays Regeneration Project (see **Section 2.3.3)**. Links to the harbour will also be improved under the Arklow Pedestrian and Cycle Improvement Scheme (see **Section 2.3.5**).

However, pending the wider redevelopment of the waterfront area, there is potential to undertake more discrete projects that will signal these future improvements and further enhance the planned pedestrian and cycle improvements along Tinahask Lower, Dock Road and South Quay. Such projects may include:

- Provision of a multi-purpose community space for concerts, exhibitions etc. (potentially an enclosed/covered space) with permanent or semi-permanent interpretive signage to highlight Arklow's maritime history and the heritage and significance of the harbour area;
- Development of an identifiable / waymarked looped route along the river to the harbour and South Beach and back via Tinahask and Lower Main Street;
- Provision of pop-up / semi-permanent recreational facilities and amenities – e.g. an 'urban beach', potentially including a seasonal, heated floating pool within the harbour using filtered seawater;

- Improvement of facilities for local clubs (in the short term providing additional storage facilities if required);
- General landscaping including raised planters to enhance biodiversity and improve visual amenity for low cost / high impact. There is also potential for provision of community gardens in this area, or even small allotments in raised beds;
- Provision of a Mobility Hub.

Figure 3-11: Amenities and Inherent Character of Arklow Harbour

Figure 3-12: 'Badeschiff' Seasonal Floating Swimming Pool in Berlin

3.4.5 Pedestrian/Cyclist Bridge

The 19 Arches Bridge is currently the only crossing of the River Avoca in Arklow. This stone arch bridge provides the only link between the southern (main) part of the town with Ferrybank to the north. While the bridge has pedestrian footpaths on both sides of the carriageway, there are no dedicated provisions for cyclists and the bridge is heavily trafficked at peak times.

Figure 3-13: The 19 Arches Bridge

There are significant future development areas located to the east of the bridge, on both sides of the river, on lands currently zoned for 'waterfront' development. While there are other lands identified for development within the *Arklow Local Area Plan*, the central location of the waterfront areas provides an opportunity to develop a more sustainable, compact urban form and should therefore be prioritised over lands zoned on the periphery of the town.

The provision of a pedestrian / cycle bridge to the east of the 19 Arches Bridge would link these development areas and also be a great benefit in linking the amenities on the northern coast with Arklow harbour and south beach. A crossing between these future development areas is also identified by the TTA in the *Draft Transport Strategy for the Greater Dublin Area 2022-2042* (as shown in **Figure 2-1**) which seeks to ensure a permeable cycle network.

It is considered that the initial steps in establishing the feasibility of a crossing for pedestrians and cyclists to the east of the 19 Arches Bridge should be progressed.

An innovative design would allow small boats and other pleasure craft to continue to pass and access the existing berths on the northern bank. There would also be an opportunity to use the new bridge to connect a biodiversity corridor through Arklow – linking the north and south beaches.

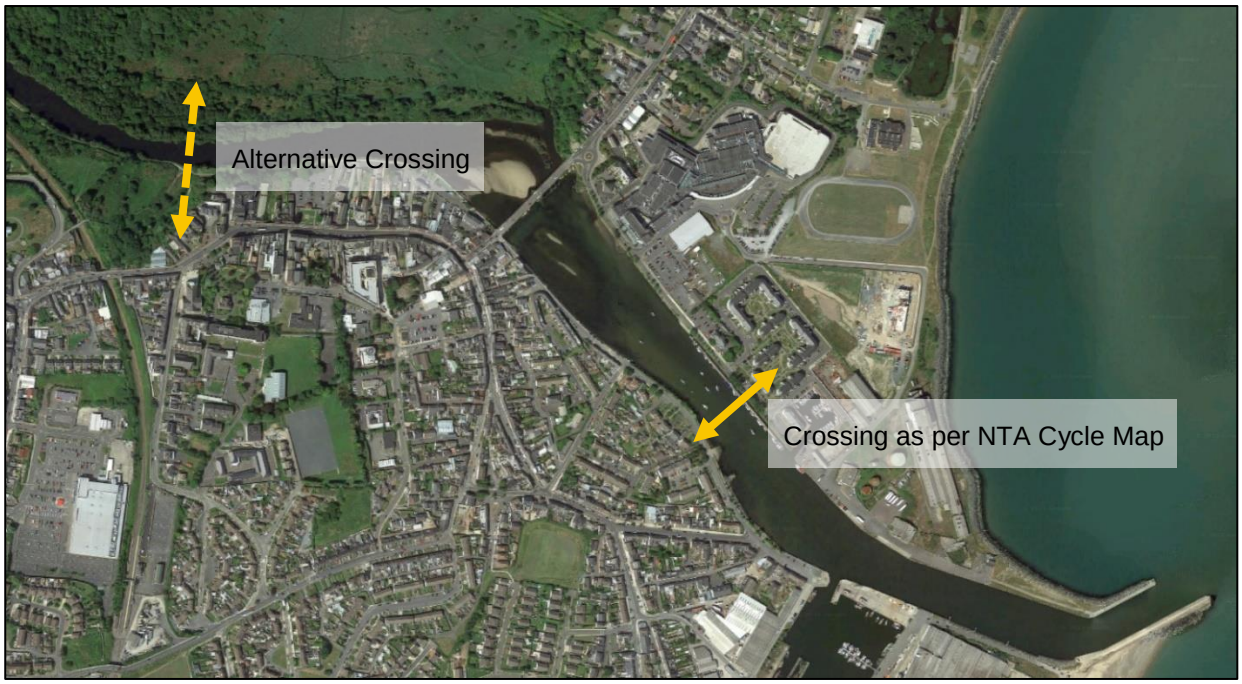

Figure 3-14: Potential Location for Pedestrian/Cyclist/Biodiversity Bridge

It is understood that there has also been some consideration within WCC for a potential crossing to the west of the 19 Arches Bridge. For example, a potential extension from St. Mary's Park or a link from designated opportunity sites such as the former cinema on Main Street to link to Arklow Marsh on the northern side of the river. These crossings would primarily serve as recreational links. Notwithstanding this, any additional crossing of the river would have significant benefits for the town.

3.5 Monitoring

The following key indicators are proposed to measure the success of the Active Travel Strategy and Placemaking.

- Mode share of walking and cycling for travel to work;
- Mode share of walking and cycling for travel to school;
- Pedestrian and cycle counts at selected locations;
- Increased population within the town centre;
- Infrastructural upgrades supporting pedestrian, cycle and public transport movement;
  - Kilometres of active travel infrastructure developed annually
  - Kilometres of bus lanes/bus priority developed annually
- Enhanced public transport service and patronage; and
- Animation within the town centre and public amenities.

Monitoring should be undertaken through:

- Data from cycle counters installed;
- Data from annual Rail Census;
- Annual school transport mode surveys;
- Undertaking of regular *Town Centre Health Checks;*
- Vehicular traffic surveying and modelling; and
- Logging of cycling / pedestrian / public transport upgrades

4 TARGET

Ireland has a commitment to a 51% reduction in our carbon emissions by 2030 and to reach net zero by 2050

The *Climate Action Plan 2021* sets a target of a 10% reduction in kilometres driven by fossil fuelled cars by 2030. It is noted that the *Climate Action Plan* will be further revised in 2022 taking account of carbon budgets and associated sectoral ceilings and targets may be refined.

It is considered that as an exemplar in decarbonisation and a relatively large town Arklow must seek to exceed the 10% reduction in kilometres driven by fossil fuelled cars target by 2030.

A target of a 15% reduction in kilometres driven by private cars by 2030 is proposed.

5 CONCLUSION

Arklow Decarbonisation Plan is a broad comprehensive plan to reduce carbon generation within the town. This report considers the role of transport and land use in the generation of carbon and more particularly identifies key steps in transport provision and behaviours and enhanced placemaking which are necessary to reduce the generation of carbon.

There are very significant infrastructural upgrades ongoing which will improve the pedestrian and cycle network and significantly enhance the public realm within the town.

The rich natural environment enjoyed by Arklow offers the opportunity for the town to develop as an exemplar of low / zero carbon generation.

General principles and a series of specific measures are identified in Section 3 of this report which will enable significant reductions in carbon generation be made and ultimately allow Arklow achieve a 15% reduction in kilometres driven by fossil fuelled cars by 2030.