ACEI Design Excellence Awards 2018
Nomination Form

Category (2) Other Civil Projects

Company Details

Contact Name: **Patrick Leyden**

Firm: **PUNCH CONSULTING ENGINEERS**

Address: **97 Henry Street, Limerick, V94 YC2H**

Tel: **+353 (0)61 221 200** **Email: limerick@punchconsulting.com**

Categories/Groups:

Project Category: Bridges ☐ **Other Civil Projects** ☒ **Innovation** ☐ **Overseas** ☐

Project Group:
SMALL Project (under €2.5m) ☐ **MEDIUM Project** (€2.5m - €10m) ☒ **LARGE Project** (over €10m) ☐

Project Information:

Name of Project: **Limerick Smarter Travel Route**

Location: **Limerick City**

Commencement date: 2013 **Completion Date: October 2016**

Client: **Limerick City & County Councils**

Contact: Vincent Murray Tel: +353 (0) 061 407 3489

Design Team:

Architect _____N/A_____

Contact Email: _____N/A_____ Tel: ___N/A_____

Contractor _____John Cradock & Sons Ltd_____

Contact Email: _____*victorsmyth@johncradock.ie*_____ Tel: 086 -2643014

Authorisation to contact above: Yes ☒ **No** ☐

ACEI ASSOCIATION OF CONSULTING ENGINEERS OF IRELAND

Project Details:

(1) Provide a brief outline of the project (Max 200 words):

(2) Provide a statement regarding why this project might be considered award winning: (Max 300 words):

(3) Provide further details of the project such as: design elements / procedures; complexities involved; innovation aspects; site management and supervision; health & safety issues; project cost controls and any other relevant information (Max 500 words):

Entries should highlight where possible the particular influence or benefit the project engineering design has on society and the wider environment.

Please confirm by electronic or written signature that:

(a) The supplied text may be used in any marketing material issued in connection with the awards.

(b) Agreement has been received from the client and other stakeholders that the project can be inspected by the adjudicator and provide contact details as requested above for the relevant person to be contacted in this regard.

Signed: 

Firm: PUNCH CONSULTING ENGINEERS

Entry details:

Note: Applicants are encouraged to review the Awards Regulations and Procedures before submitting nominations.

Send the completed entry form and supporting photos / images altogether in **one PDF document** (one pdf document per project nomination) by email to: info@acei.ie with a subject line:
ACEI Design Awards 2018.

Note: Closing date for receipt of nomination forms: **17:00, Friday 12th January 2018**

Enquiries: ACEI office info@acei.ie 01 6425588

PUNCH consulting engineers

wsp

Limerick Smarter Travel Route 2
Shared Walking & Cycling Facility

CITY CENTRE | CORBALLY | UNIVERSITY OF LIMERICK | RHEBOGUE

Limerick SmarterTravel

ASSOCIATION OF CONSULTING ENGINEERS OF IRELAND
EXCELLENCE AWARD

MEDIUM PROJECT - OTHER CIVIL PROJECTS AWARD | JANUARY 2018

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PROJECT OUTLINE

Project Outline

Limerick Smarter Travel's Route 2 Shared Walking and Cycling Facility is the flagship scheme of the Limerick Smarter Travel Project designed under a joint venture by PUNCH Consulting Engineers & WSP, which serves as a commuter link and as a multi-purpose amenity for the City, the densely populated residential areas of Castletroy, Rhebogue and Corbally and a link to UL from the City centre.

Route 2 is almost 6km in length; the path is located on the route of a historical towpath, the 'old' Limerick navigation scheme in existence for over 200 years, along the City Canal and the south bank of the River Shannon, while another section travels through the area of Shannon Fields creating the connection with Corbally.

The objective of this project was to achieve a balance between the delivery and implementation of sustainable transport objectives pursuant to the Smarter Travel hub designations of Limerick City, whilst at the same time, seeking to preserve the integrity and function of the ecological environment and maintaining the amenity character along the City Canal and this section of the River Shannon.

The primary aim of the project was to restore the route as a pedestrian and cyclist commuter link.

(199 WORDS)

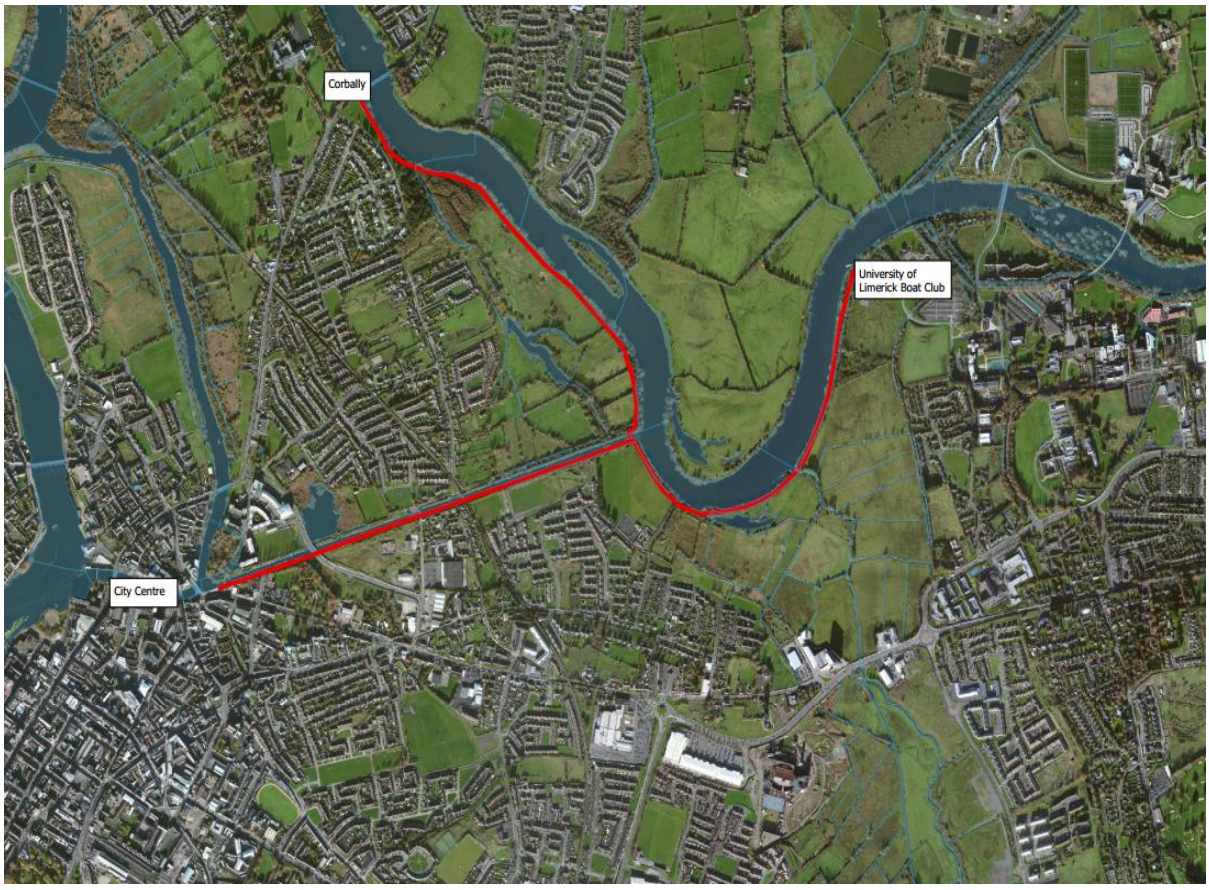

Figure 1: Limerick Smarter Travel Route 2 –Overview

SECTION 1
PROJECT STATEMENT

Project Statement

This project might be considered award winning as it was the flagship and unique scheme of Limerick Smarter Travel due to its proximity to the scenic vistas of the River Shannon, which aimed at connecting large residential areas of Castletroy, Rhebogue, and Corbally to the city centre and key educational campus of UL and surrounding workplaces.

Mobility within and between hubs is hugely dependent on the car as the primary mode of transport. The LST Initiative hoped to get people from these hubs travelling in a more sustainable manner, by encouraging modal shift, this was possible with investment in alternative modes of transport and supporting infrastructure developments bearing in mind that the majority of car journeys in these hubs are under 3kms. The initiative focused on both behavioural change and infrastructural change to encourage and promote sustainable travel planning.

With the completion of the route, a safe environment for pedestrians & cyclists has been provided and also created an accessible multi-purpose amenity for the city. In tandem, it has greatly improved the accessibility to the riverside for those who previously were restricted from using the exiting path due to due to reduced mobility.

Air Quality Benefits – through the reduction in car trips and the use of the route for shorter trips, can have a significant impact on improving local air quality. In addition congestion, which causes great amounts of carbon emissions, will reduce and improved journey time reliability, with businesses experiencing improved positive economic benefits as a result.

Health Benefits – The outdoor activity stations along the route are an opportunity for those who lack the funds to join gyms or sports clubs to keep active and healthy. Taking people out of the isolation of their own car and allows for social interaction has a positive impact on mental health.

(299 WORDS)

SECTION 2

PROJECT DETAILS ENGINEERING PRINCIPLES & PRACTICES

Project Details
Engineering
Principles & Practises

Design & Construction Complexities

The greatest engineering challenge for Route 2 was the design of the pathway through the highly sensitive area of the Lower River Shannon Special Area of Conservation (SAC), with particular attention to both the protected ecological status and industrial heritage of the area. Detailed ecological studies/ surveys, and full Appropriate Assessment and Natura Impact Statement accompanied the planning application, which was submitted directly to An Bord Pleanala for approval under section 177AE of the Planning and Development Act 2000.

Design Elements & Innovation

The Project included the construction of:

- Approximately 6 Km of 2-3m wide bitmac path
- Two new steel bridges
- The rehabilitation of 4 no. existing stone masonry heritage bridges.
- Provision of Public Lighting & CCTV
- Existing embankment stabilisation with rock-armour
- Installation of Outdoor Gym Equipment, seating at viewing areas and Route Way-Finding Signage

No level change in the existing footpath was possible following flood risk analysis and construction of the paved footpath surface had to be within the limits of the existing riverside embankment. To avoid the necessity for retaining structures and any diversion or encroachment on the existing drainage channel, a ground stabilising product FirmaWeb was utilised to reduce to the excavation depth.

Specification of recycled plastic material for the new bridge deck surfaces; an eco-plastic decking product, manufactured from recycled plastics, was utilised for appearance and its durability, additionally giving extremely high slip resistant rating for pedestrian and cyclists

Due to the narrow width of the Park Bridge, the design provided the installation of traffic signals at the bridge. The signals are controlled by two separate phases with a detection mechanism installed on the bridge to ensure that the subsequent traffic phase cannot be activated until all traffic from the previous traffic phase has cleared the bridge, reducing the risk to vulnerable road users who may be using the bridge. The introduction of the shared space concept on the bridge as well as static signage on approaches ensures that all road users are aware of the shared nature of the bridge.

Site Management & Supervision

A full-time Resident Engineer was provided for the duration of the construction works to ensure agreed works procedures were adhered to due to such an area of sensitivity and that the quality of the works was of the highest standard.

Health & Safety

A weight restriction of 10 Tonne was placed on construction plant working on the existing embankments along the route, due to safety concerns for the original construction. Workmen on the project were supplied with Buoyancy Aids at wall times due to the proximity of the works to the river.

Project Cost Controls

Route 2 was divided into four contracts for tendering and construction with an overall cost budget estimate of €3.8m. The final expenditure for Route 2 amount to €3.1m, giving a budget saving of almost 19%. Budget saving was achieved through diligent analysis, astute design, value engineering and through collaboration between Limerick City and County Council, Design Partners and Construction teams.

(498 WORDS)

APPENDICES

APPENDIX 1

PROJECT PHOTOGRAPHS

Limerick Smarter Travel Route 2 – National Bike Week 2017 Family Bike Parade approaching Structure 7

Limerick Smarter Travel Route 2 – Structure 6 Rhebogue to UL – New & Refurbished Existing

Limerick Smarter Travel Route 2 – Structure 5 Rhebogue to UL – New and Refurbished Existing

Limerick Smarter Travel Route 2 – Crossroads & Route Way-Finding Signage

Limerick Smarter Travel Route 2 – Shannon Fields Outdoor Gym Area

Limerick Smarter Travel Route 2 – Main Path on Route