

# LOW COST SAFETY SCHEMES

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**PART 8 REPORT**

**PROJECT NO. C910**

**APRIL 2020**



# OCSC

O'CONNOR | SUTTON | CRONIN

Multidisciplinary  
Consulting Engineers



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**ACCOMPANYING PLANNING  
STATEMENT**

**FOR**

**LOW COST SAFETY SCHEMES**

**BLACKROCK ROAD AND PARK AVENUE**



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## DOCUMENT CONTROL & HISTORY

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**ACCOMPANYING PLANNING STATEMENT FOR LOW COST SAFETY  
SCHEMES - BLACKROCK ROAD AND PARK AVENUE**

**APRIL 2020**

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## 1 INTRODUCTION

### 1.1 Project Background

This report supports the Part 8 planning application for the Low Cost Safety Schemes project in Blackrock Road and Park Avenue, Ballintemple, Cork City.

The junction of Blackrock Road and Park Avenue is a priority junction with a single lane configuration on all approaches.

Blackrock Road is the main transport artery through the local area and would be defined as a Link Road as per Table 3.1 of the Design Manual for Urban Roads and Streets (DMURS). It has footpaths of varying width (c. 1.5 – 2.2m) along both sides which are bordered directly by a mixture of commercial and residential properties, though these generally only have pedestrian access. Of particular note is the Ballintemple Post Office located on the northwest corner of the junction in question, which creates a specific desire line, often for more vulnerable road users such as the elderly pedestrians.

The need for the low cost safety scheme is due to the accident history at the junction. There was a fatal accident recorded in February 2018 involving a pedestrian and a vehicle. While there is also a record of a minor collision in 2008 involving a pedestrian and a vehicle. The current vehicular junction layout represents a risk for users as it is not in accordance with current road design best practice. Pedestrian connectivity in this area is poorly catered for under the current layout. The existing pedestrian crossing over Blackrock Road

immediately west of Park Avenue poses a risk for pedestrians as it lacks basic safety elements such as signage, road markings and tactile paving.

As part of the project, a multi-criteria analysis was undertaken in accordance with the Department of Transport Tourism and Sports (DTTaS). '*Appraisal Guidelines for Regional and Local Roads Capital Projects*'. The options developed were agreed with Cork City Council prior to the assessment being undertaken. The extent of the analysis fell under section 4.5 of the DTTAS appraisal guidelines, Stage 1 – Preliminary Appraisal. The analysis for this stage of design included:

- Completion of a Preliminary Appraisal Form
- Completion of the Preliminary Multi Criteria Analysis
- Total Project Budget Sheet

All documents listed above were included as part of the option assessment in an Options Selection Report.



## 1.2 Site Overview

The location of the site is shown in Figure 1 below.



*Figure 1 - Site Location*

## 2 PLANNING AND DEVELOPMENT CONTEXT

From a review of the Cork City Development Plan 2015-2021, the enhancement of the junction in Blackrock Road and Park Avenue is consistent with the planning and development objectives and policies of Cork City Council.

As per Volume One: Written Statement of Cork City Development Plan 2015-2021, the following Development Plan Objectives are relevant to this project:

### ***"Objective 5.1 Strategic Transport Objectives"***

*"c. To invest in transport infrastructure based on the transport user hierarchy: pedestrians, cyclists, public transport users, freight, delivery and waste vehicles; private vehicle users;*

*d. To encourage and facilitate cycling and walking for short/local trips by providing appropriate infrastructure, promoting "soft-measures" that influence change in transport behaviour, and by encouraging proximate, compact land uses;*

*i. To provide new local roads, streets, upgraded streets, and pathways where required to increase connectivity;*

*j. To actively manage capacity of the city's street system to reduce the negative impacts of congestion and to maximise the use of the existing street network;"*

### ***"Objective 5.16 Design Approach for Local Streets"***

*"Both the construction of new local streets as well as works to the existing local network shall be in accordance with principles, approaches, and standards set out in Design Manual for Urban Roads and Streets".*

### **"Objective 7.2 Sustainable Neighbourhoods"**

*"To support the creation of sustainable neighbourhoods which allow access to services and facilities for all users and to foster a sense of community and a sense of place."*

### **"Objective 9.29 Architectural Conservation Areas"**

*"To seek to preserve and enhance the designated Architectural Conservation Areas in the City".*

### **"Objective 9.32 Development in Architectural Conservation Areas"**

*"Development in ACAs should take account of the following:*

- Works that impact negatively upon features within the public realm such as paving, railings, street furniture, kerbing etc. shall not be generally permitted;*
- Acceptable design, scale, materials and finishes for new developments;*
- Original materials and methods of construction should be retained. For example, timber barge boards, windows and doors should not be replaced with PVC, original roofing material types should be retained along with original forms and locations of openings etc.;*
- Features of historic or architectural value should not be removed".*

### 3 ALTERNATIVES CONSIDERED

#### 3.1 Alternative Options

As part of the scope, a total of three options were assessed; a “do-nothing” option and two do something options.

- **Option 1 - “Do-nothing”**

This option would involve maintaining the same risks and problems that are present today, as they are; poor visibility from Park Avenue to Blackrock Road that does not meet the design recommendations of the Design Manual for Urban Roads and Streets (DMURS). Parking on a street that is becoming increasingly narrow brings more visibility problems. The existence of signs that confuse drivers. Dangerous crossing, as it is poorly designed and does not have the minimum safety elements for people with any kind of disabilities.

- **Option 2 - “Priority Junction Mitigation”**

This option would integrate measures to calm traffic such as the installation of a raised table across the junction as per Section 4.4.7 of DMURS. However, in this instance, kerb heights are as low as 40mm with instances where there is also a negligible fall on the footpath itself. The recommended table height is 75mm which would lead to issues with respect to adjacent 3rd party properties and drainage. An alternative, in accordance with Section 4.2.6 of DMURS, would be the use of different surface colouring in lieu of a raised table across the same footprint and with the appropriate road markings to give the impression of a change of environment and encourage lower speeds and more considerate vehicle movements;

- Reduction of speed limit to 30km/h. In accordance with Table 4.2 of DMURS, the appropriate stopping sightlines distance for 30km/h is 24m which is closer to that currently available;
- Relocate the disabled parking bay on Blackrock Road further back from the junction, an approximate 2m from its current location and introduce double yellow lines from this parking bay to the junction to allow the maximum sightlines possible to be maintained;
- Relocate the pedestrian crossing signal heads away from the Park Avenue arm and in line with the recently revised pedestrian crossing location, as outlined earlier. Consideration could also be given to installing louvers on the signals to avoid any confusion for motorists on Park Avenue;
- Increase the pedestrian crossing width to 2m in accordance with DMURS Section 4.3.2. This could be carried out in conjunction with all the above mentioned;
- Add "STOP" road markings and "STOP" signage to the junction to reinforce the existing controls in place.

- **Option 3 - "Signalised Junction"**

This option is, in some respects, relatively simpler but more cost intensive. Complete signalisation of the junction would allow full control of all vehicle and pedestrian movements through the junction thereby ensuring the safety of all road users.

The nature of a signalised junction would address effectively all the issues outlined previously with respect to the existing junction as stopping sightlines would no longer be a concern and all pedestrian desire lines could be adequately catered for safely through crossings on all arms which is recommended in Section 4.4.3 of DMURS.

The exact layout would be subject to detailed design but would involve signals for all approaches as well as the opportunity to provide a pedestrian crossing on all arms of the junction which would significantly improve safety for pedestrians. Given the constrained nature of the junction with respect to available space, it is expected that an all red pedestrian phase will be a requirement regardless, meaning the addition of crossings to all arms would have a negligible impact.

It is recommended that the viability of this option is confirmed through more detailed traffic modelling but, based on the traffic data available, there would be no capacity reduction expected.

**“Common Measures”** – Irrespective of the above, the following should also be considered:

- Consideration should be given to addressing the turning radius on northeast corner and the road width as a result of the flare. The value of a flare over such a short length is questionable for both the priority and signalised options and should be tested through more detailed modelling. If its benefit in terms of capacity is proven to be negligible, consideration should be given to narrowing this road width and reducing the effective turning radius while also

reducing pedestrian crossing distance and allowing for a more defined pedestrian crossing area;

- Tactile paving should be added to the pedestrian crossings at the junction to facilitate visually impaired road users.

### 3.2 Assessment of Options

There were ten main criteria under which the options were assessed and given a scoring. The main criteria are listed in Table 1 below.

Main criteria
Drainage
Flooding
Ecology
Cultural Heritage – Archaeology and Recorded Monuments
Cultural Heritage – Protected Structures and Architectural Conservation Areas
Geology
Arboriculture
Landscape and Visual
Traffic and Pedestrian Safety
Landownership

Table 1 – Main Criteria Table

A score value of between 1 and 5 was provided for each option against all of the criteria. The range of scoring was determined by the level of impact of the option under each criteria:

- Major negative impact – 1 point;
- Minor negative impact – 2 points;
- Neutral impact – 3 points;



- Minor positive impact – 4 points; and
- Major positive impact - 5 points.

### 3.3 Preferred Option

The Do-Nothing option compared unfavourably with Options 2 and 3. Options 2 and 3 scored significantly better than the Do-Nothing option. Doing nothing with respect to maintaining the same risks and the problems with the poor visibility on the road, has a negative impact on the community from an integration, economic and accessibility perspective, as is shown in the Results Table 2 below.

Main criteria	Option 1	Option 2	Option 3
Drainage	3	3	3
Flooding	3	3	3
Ecology	3	3	3
Cultural Heritage – Archaeology and Recorded Monuments	3	3	3
Cultural Heritage – Protected Structures and Architectural Conservation Areas	3	3	3
Geology	3	3	3
Arboriculture	3	3	3
Landscape and Visual	2	3	3
Traffic and Pedestrian Safety	1	4	5
Landownership	3	3	3
<b>Total</b>	<b>27</b>	<b>31</b>	<b>32</b>

Table 2 – Results Table



Overall, **Option 3 - Signalised Junction** scored the most points as a result of the following:

- This option would achieve the highest level of safety for vulnerable road users by providing dedicated pedestrian crossing facilities and full control of all vehicle movements.

Therefore, the option that was progressed and is part of this accompanying planning statement is the **Signalised Junction** Option.

## 4 CONSULTATION

### 4.1 Statutory Bodies

Regular meetings occurred with Cork City Council (the Client). These meetings consisted of progress updates, highlighting any issues that arose. There have been no issues in relation to the works to date.

As part of the planning process for this project, the project proposals including scheme drawings will be available for public inspection at City Hall, Cork for a period of not less than 4 weeks. The proposals will also be available on Cork City Council's Online Consultation Portal at [www.consult.corkcity.ie](http://www.consult.corkcity.ie). Residents and businesses in the immediate vicinity of the site who are likely to be affected by the works will also be directly notified of the proposals by means of a letter drop.

## 5 EXTENT OF PROPOSED WORKS

### 5.1 Existing Site Layout

Currently (as is shown in Appendix B) Blackrock Road has footpaths that vary from 1.5 m to 2.2 m wide on both sides. Of particular note is the Ballintemple Post Office located on the northwest corner of the junction in question, which creates a specific desire line, often for more vulnerable road users such as elderly pedestrians.

The carriageway on Park Avenue is generally 4.0m wide and has a 1.1 – 1.3m wide footpath along its west side only. The carriageway flares on its approach to the Blackrock Road junction to approximately 5.3m. However, there are incidences of this additional width being used for parking despite the presence of double yellow lines which would negate this additional width as well as reducing sightlines.

### 5.2 Proposed Works Extents

The proposal includes the upgrading of the existing Blackrock Road Junction with Park Avenue to a fully signalised junction which will include pedestrian phases on both the Blackrock road and Park Avenue incorporating the following infrastructure:

- Two signalised pedestrian crossings,
- Two signal heads provided at each along with new footpaths,
- Dropped kerbs & associated tactile paving,
- Upgrade of the existing line marking for the pedestrian crossings.

This proposed layout will also remove the existing flare at the end of the Park Avenue while maintaining a constant width of the road in order to facilitate pedestrians crossing and improve sightlines thus making for a safer flow of traffic through the junction.

The proposal includes the rehabilitation of approximately 295 m<sup>2</sup> of existing footpath, as well as the installation of two 'traffic signals ahead' advanced warning signs on each side of the junction approach of Blackrock Road. The works will be complete with the installation of new road markings.

It is proposed to retain the existing carriageway width on Blackrock Road and the existing disabled parking space.

All the aforementioned details are included on a drawing contained in Appendix C.

### **5.3 Construction Methodology**

All construction activities will be controlled within the construction site. Materials, waste handling and storage will be within confines of the site. Temporary traffic management will be put in place. Vehicles associated with the construction will rest on the worked lane of the road. This lane will be closed off to the public. Pedestrians will have a designated walkway provided. A stop-go system will be in place to direct traffic.

Adequate warning signs will be on display to illustrate the required personal protective equipment (PPE) and risks associated with the works.

#### **5.4 Access to Site**

The site can be easily accessed via the Cork City's extended infrastructure network with different variations possible and all leading to Blackrock Road. As the works are relatively minor in nature the construction traffic relating to this project is not going to cause any major disruption to Cork City and Ballintemple local traffic provided that appropriate temporary traffic management measures are implemented during the construction phase. All proposed traffic management measures will be agreed in advance with Cork City Council.

## 6 IMPACT OF PROPOSED WORKS

### 6.1 Environmental Assessment

An Appropriate Assessment Screening Report (AA) and Environmental Impact Assessment Screening Report (EIA) have been prepared. The AA Screening Report is included in Appendix D and the EIA Screening Report is included in Appendix E.

The AA screening concluded that implementation of the project was not likely to have any significant effects on any European site. Given the location and nature of the development, its scale, the localised and temporary nature of the construction effects, the project will not lead to any significant in-combination effect with any other plans or projects.

The EIA Screening Report concluded that the overall probability of any significant negative impacts on the receiving environment arising from the proposed development (during the construction or operational phases) is considered to be low.

## 7 CONCLUSION

Blackrock Road is the main transport artery through the Ballintemple area. From a road safety and local access perspective, it is necessary to make improvements at this junction. This is in line with Cork City Development Plan 2015-2021 objectives as outlined in Section 2 of this Report.

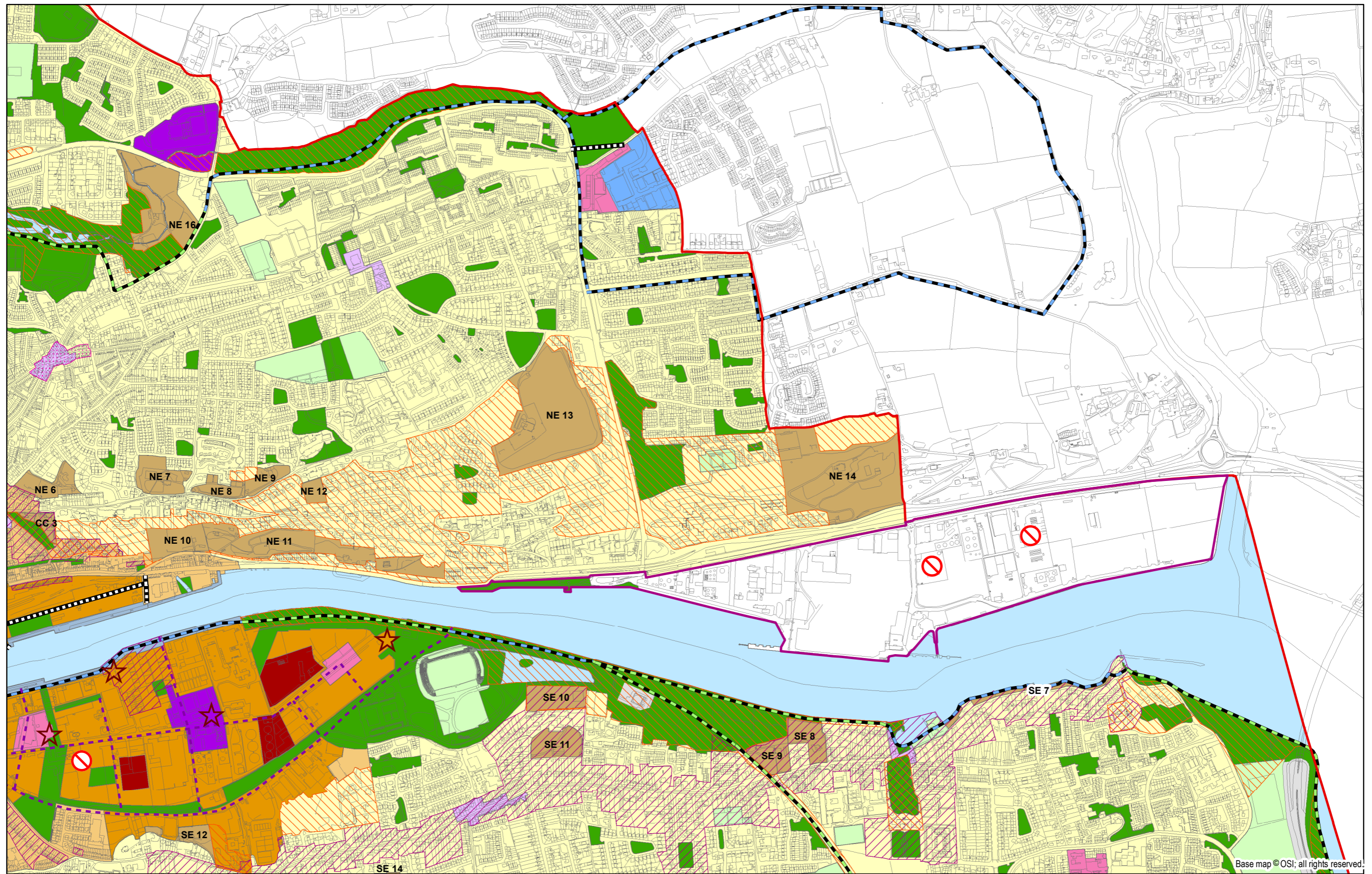
It is important that pedestrian desire lines are catered for at this junction as there are several shops, houses, local Post Office and the School of the Divine Child in close proximity to the junction. The proposals detailed in this report will improve road safety for all road users using this junction and will benefit pedestrians in particular.

The inclusion of clear signalling at the new pedestrian crossing on Park Avenue and the improvement of pedestrian crossing on Blackrock Road will serve to avoid confusion between drivers and pedestrians and comply with the Road Design Best Practice Guidance in DMURS.



## **APPENDIX A. CORK CITY COUNCIL DEVELOPMENT PLAN MAPS**

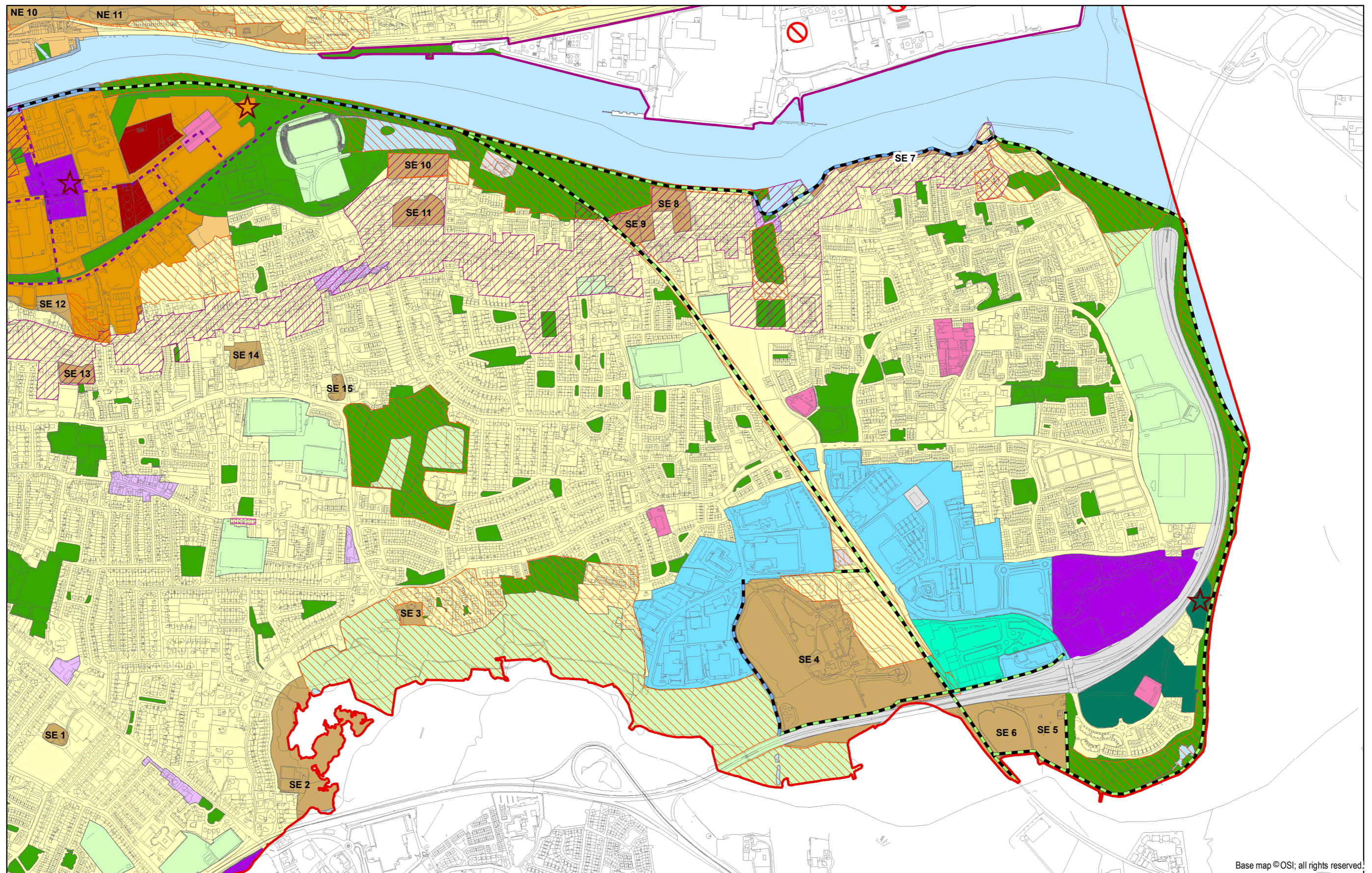




Zoomable map available on our website: [www.corkcitydevelopmentplan.ie](http://www.corkcitydevelopmentplan.ie)

- |  |  |                                 |  |                                   |                                      |
|--|--|---------------------------------|--|-----------------------------------|--------------------------------------|
| Areas of High Landscape Value          | 4-Residential, Local Services and Institutional Uses | 10-Local Centres                | 15-Public Infrastructure and Utilities | 19-Rivers/Water Bodies Protection | Indicative New Streets               |
| Architectural Conservation Areas       | 5-Light Industry and Related Uses                    | 12-Landscape Preservation Zones | 16-Mixed Use Development               | Local Area Plan to be Prepared    | Amenity Routes                       |
| Historic Street Character Areas        | 8-District Centres                                   | 13-Sports Grounds               | 17-Quayside Amenity                    | Proposed Tall Buildings Location  | Proposed New Amenity Routes/Upgrades |
| 3-Inner City Residential Neighbourhood | 9-Neighbourhood Centres                              | 14-Public Open Space            | 18-Schools                             | New or Realigned Streets          | SEVESO Site                          |





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Zoomable map available on our website: [www.corkcitydevelopmentplan.ie](http://www.corkcitydevelopmentplan.ie)

- |  |  |                                 |  |                                   |                                  |                                      |
|--|--|---------------------------------|--|-----------------------------------|----------------------------------|--------------------------------------|
| Areas of High Landscape Value          | 4-Residential, Local Services and Institutional Uses | 10-Local Centres                | 14-Public Open Space                   | 18-Schools                        | Proposed Tall Buildings Location | Indicative New Streets               |
| Architectural Conservation Areas       | 7-Business and Technology                            | 11-Retail Warehousing           | 15-Public Infrastructure and Utilities | 19-Rivers/Water Bodies Protection | Proposed Tall Buildings Location | SEVESO Site                          |
| Historic Street Character Areas        | 8-District Centres                                   | 12-Landscape Preservation Zones | 16-Mixed Use Development               | 20-Mixed Used Jacob's Island      | Proposed Tall Buildings Location | Amenity Routes                       |
| 3-Inner City Residential Neighbourhood | 9-Neighbourhood Centres                              | 13-Sports Grounds               | 17-Quayside Amenity Area               | Local Area Plan to be Prepared    | Proposed Tall Buildings Location | Proposed New Amenity Routes/Upgrades |





## **APPENDIX B. DRAWINGS SHOWING EXISTING CONDITIONS**



## **APPENDIX C. DRAWING SHOWING PROPOSED WORKS**



## **APPENDIX D. APPROPRIATE ASSESSMENT SCREENING REPORT**



**APPENDIX E. ENVIRONMENTAL IMPACT ASSESSMENT SCREENING  
REPORT**



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