DRAFT
CONCEPT DESIGN STAGE

Ballymun Core Bus Corridor Concept Design

Preliminary Safety & Health Plan

National Transport Authority

September 2017

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1. Project Description

1.1 Scope and Purpose of Preliminary Safety and Health Plan

For the purposes of this project (Ballymun CBC), this document shall constitute the Preliminary Safety and Health Plan as required by regulation 12 of the Safety, Health and Welfare at Work (Construction) Regulations, 2013 (hereinafter referred to as the Construction Regulations).

This document has been prepared for the purpose of providing information for the Project Supervisor Construction Process [PSDP] who will further develop it as the design progresses, as required by regulation 16 of the Construction Regulations.

1.2 Project Description

The Ballymun Core Bus Corridor will involve upgrading an existing Quality Bus Corridor and Cycle Ways over a length of approximately 8km from St Margarets Road (Ballymun) to Arran Quay, via the R108, Ballymun Road, Mobhi Road, Botanic Road, Phibsborough Road, Constitution Hill and Church Street. Works are likely to include, but not be limited to, the provision of new footways and cycleways, bus lanes, traffic lanes and all associated signage, traffic signals, services works and other ancillary works.

Specifically the Contract is proposed to include the following:

I. Modification of existing signalised junction to facilitate raised levels of pavement, new bus and turning lanes and provision of improved pedestrian and cyclist crossing facilities.

II. Removal of existing central islands.

III. Planning and replacement of the existing surface course along the route.

IV. Construction of new cycle lanes along the route.

V. Construction of new ramped pedestrian crossings at Ballymun Town Centre.

VI. Construction of tactile paving and dropped kerbs at new pedestrian road crossings.

VII. Introduction of new signage and road markings along the carriageway as well as proposed footpaths and cycle lanes.

VIII. Construction of dropped kerbs at vehicular accesses along the route.

IX. Provision of additional parking facilities along the route.

X. Provision of new ducting and drainage works.

XI. Provision of new bus lane including new bus shelters, passenger information (RTPI) signs etc.

XII. The removal and replacement of public lighting columns and lanterns.

XIII. Provision of new traffic signals and controllers along the route.

XIV. Installation of infrastructure for utility companies along parts of the route.

XV. The removal of vegetation and trees, and new planting.

XVI. The provision of hard and soft landscaping.

XVII. The provision of new boundary treatments where required.

1.3 Project Programme

The following planned construction dates have been determined based on experience of the time required to complete other similar works and taking into account local constraints.

Key Dates

Planned Start of Construction:	2019/20 (Estimated)

1.4 Details of Clients, PSDP, Designer(s) & Other Consultants

Client	Name: National Transport Authority Address: Dún Scéine, Harcourt Lane, Dublin 2, D02 WT20 Contact: David King Email: David.King@nationaltransport.ie
PSDP	Name: AECOM Ireland Ltd Address: Adelphi Plaza, Upper Georges Street, Dun Laoghaire, Co. Dublin, A96 T927. Contact: Colin Acton Email: colin.acton@aecom.com
Designer(s)	Name: AECOM Ltd Address: Adelphi Plaza, Upper Georges Street, Dun Laoghaire, Co. Dublin, A96 T927. Contact: Joe Seymour Email: joseph.seymour@aecom.com
PSCS	Name: To be appointed Address: Contact: Email:
Contractor	Name: To be appointed Address: Contact: Email:
Other Contractors	Name: To be appointed Address: Contact: Email:

1.5 Arrangements of Communications

All communication and liaison between the parties named above shall be via email to the nominated contact.

The project is of such a scale and duration that written notice (Form AF1) of the PSDP appointment was sent to the Health and Safety Authority [HSA] by the Client before the Design Process began, as required by Regulation 10 of the Construction Regulations.

The project is of such a scale and duration that written notice (Form AF2) is to be sent to the HSA by the PSCS before work begins as required by Regulation 22 of the Construction Regulations.

1.6 Existing Records & Plans

Some existing drawings for designs and utilities are available although they have not been provided as a full set and no reliance can be made at this stage of development for anything indicated on them.

2. Client Considerations & Management Requirements

2.1 Arrangements

To Be Updated as the Design Progresses.

3. Environmental Restrictions & Existing On-Site Risks

3.1 Safety Hazards

Boundaries & Access, including Temporary Access

Realignment and improvement works are proposed to the R108 (effectively from St Margarets Road, Ballymun to Arran Quay in the City Centre) for approximately 8,000m. Works to include, but not be limited to, the provision of new footways and cycleways, bus lanes, traffic lanes and all associated signage, traffic signals, services works and other ancillary works. During the works pedestrians, cyclists and vehicular traffic will continue to use all the public roads and private accesses on / off the public road.

In particular there are busy pedestrian routes around signalised junctions and bus stops as well as vehicular accesses to the various adjacent residential properties. The works will also be immediately adjacent to major destinations such as Ballymun and Phibsborough Town Centres, Ikea, Dublin Institute of Technology (DIT) Grangegorman, Botanic Gardens and Dublin City University (DCU).

The Works area crosses over on-street sections of the Luas Red Line (At Church Street) and Luas Cross City Route (at Western Way). In addition the works area will cross over two suburban rail lines at Whitworth Road.

Adjacent Land Uses

The land uses adjacent to the site are as follows:

- Private residences with individual private accesses are located throughout the length of the works area.
- Many Schools throughout the length of the scheme (more details required of each of these later).
- Petrol Stations on Ballymun Road in a number of locations.
- Various Sports Grounds (DCU, Na Fianna etc)
- Churches in a number of locations.
- Ikea on St Margaret's Road.
- Ballymun Town Centre.
- Dublin City University.
- Phibsborough Town Centre.
- Phibsborough Fire Station.
- Phibsborough Bus Depots (BAC and BE).
- Dublin Institute of Technology Grangegorman.
- Various Legal complexs on Church Street (including Bridewell Garda Station).

Activities on or Adjacent to the Site

The location will have many adjacent sites which will need to be assessed nearer the start of construction. Of particular note is that the Ballymun Road section of this corridor is also the identified route for New Metro North which is to start construction in 2020 (estimate) therefore works area could coincide.

Location of Existing Services – Water, Electricity, Gas etc

The location and status of existing overhead and buried services will need to be assessed at the next design stage.

Ground Conditions

Ground Conditions will need to be assessed at a later design stage.

3.2 Health Hazards

Asbestos, including Details of Surveys & Management Plans

To Be Assessed Later.

Existing Storage of Hazardous Materials

To Be Assessed Later.

Health Risks Arising from Client Activities

To Be Assessed Later.

3.3 Welfare Facilities

Contractors Compound

To Be Assessed Later.

Existing Services to Facilitate Welfare Facilities

To Be Assessed Later.

4. Significant Design & Construction Hazards

4.1 Design Assumptions & Suggested Control Measures

The design to date has been based on available topographical surveys and OS Mapping. These are an amalgamation of many surveys undertaken at different times over 10 years or more. Therefore the design will need significant refinement when a project specific topographical survey becomes available. It is recommended that no further design work is undertaken until a project specific Topographical Survey is available.

4.2 Co-ordination of On-going Design Work & Design Changes

Design is at Concept Stage only and significant additional design work will be undertaken prior to construction beginning.

4.3 Details of Design Elements and Activities that Involve Particular Risk and Measures to Reduce Risk

Particular Risks (as set out in Schedule 1 of the Safety, Health and Welfare at Work (Construction) Regulations, 2013	Specific Activity	Residual Hazard	Suggested Control
Work which puts persons at work at risk of falling from height, burial under earthfalls or engulfment in swampland, where the risk is particularly aggravated by the nature of the work or processes used or by the environment at the place of work or construction site.	All construction works	Falling from height	Contractor to ensure adequate traffic management and safe working practices implemented.
Work which puts persons at work at risk from chemical or biological substances constituting a particular danger to the safety and health of such persons or involving a statutory requirement for health monitoring.	None	None	N/A
Work with ionising radiation requiring the designation of controlled or supervised areas as defined in Directive 96/29/Euratom (OJ L159 29.06.1996, p.1)	None	None	N/A
Work near high voltage power lines.	Excavation in the existing carriageway or footway	Risk of striking buried high voltage power lines.	Designer to obtain existing record drawings and undertake slit trench surveys prior to tender. This information should be provided to contractor. The Contractor to take cognisance of these existing record drawings and slit trench survey information. Contractor to contact ESB and to take appropriate measures to identify precise location of all high voltage power lines prior to excavation commencing. **Note large substation located adjacent to Collins Avenue.**
Work near gas main.	Excavation in the existing carriageway or footway	Risk of striking buried gas main or gas transmission main.	Designer to obtain existing record drawings and undertake slit trench surveys prior to tender. This information should be provided to contractor. Contractor to take cognisance of existing record drawings and slit trench survey provided in the Information Pack. Contractor to contact Bord Gais and to take appropriate measures to identify precise location of all gas mains prior to excavation commencing. No work shall be undertaken within the vicinity of existing Bord Gáis pipelines without the prior

Particular Risks (as set out in Schedule 1 of the Safety, Health and Welfare at Work (Construction) Regulations, 2013	Specific Activity	Residual Hazard	Suggested Control
			formal consent of Bord Gáis/Gas Network Ireland
Work exposing persons at work to the risk of drowning.	None	None	NA
Work on wells, underground earthworks, and tunnels.	None	None	N/A
Work carried out by divers at work having a system of air supply.	None	None	N/A
Work carried out in a caisson with a compressed-air atmosphere.	None	None	N/A
Work involving the use of explosives.	None	None	N/A
Work involving the assembly or dismantling of heavy prefabricated components.	None	None	N/A

4.4 Information on Other Significant Residual Hazards Identified during Design

(A Significant Hazard is one that is either not obvious to a competent contractor, unusual, difficult to manage).

Other Significant Hazard	Specific Activity	Residual Hazard	Suggested Control
Working in close proximity to members of the public	All construction works	Working in close proximity to members of the public	The contractor shall ensure that adequate safety measures are in place to prevent any risk of injury to members of the public who are in close proximity to the construction site.
Striking overhead lines	All construction works	Risk of striking overhead power lines	All staff are to be given a site induction prior to working on site. Where vehicles/plant are operating in the vicinity of overhead electricity lines precautions are to be taken by the contractor to ensure the overhead lines are not struck and also applying safe working distances/exclusion zone in accordance with industry practice, to account for electrical arcing.
High number of HGV traffic in the area.	All construction works	Construction workers or members of the public hit by HGV	Contractor to ensure adequate safety measures are taken i.e. barriers, use of netting, hazard warning signs, lookout, pedestrian diversions.
Working adjacent to on-going live road works (say Metro North Works underway)	Erection and operation of temporary traffic management measures	Interaction of the temporary traffic management measures with similar measures in place under another contract	Client to ensure that PSCS for all projects along the route liaise to avoid any interaction of two sets of temporary traffic management measures
Working in close proximity to live traffic and large numbers of pedestrians (at retail outlets, schools, Churches, Playing Fields).	All construction works	Personal injury to members of the public or employees of the contractor.	Adequate traffic management and secure site to control movement of traffic and pedestrians. Lane closures when required to allow the works to be undertaken safely.
Works to existing footpaths	All construction works	Risk to public injury due to stepping onto road and being stuck by passing vehicle	Use appropriate traffic management measures as per Chapter 8 (2010) Traffic Signs Manual, Guidance for the Control and Management of Traffic at Road Works (2010) and Health, Safety and Welfare at Work Act, (Construction) (Regulations 2006). Maintain pedestrian route or provide adequate alternative safe pedestrian route.

4.5 Materials Requiring Particular Precautions

Other Significant Hazard	Specific Activity	Residual Hazard	Suggested Control
Works Near LUAS Lines and their Overhead Lines (OHL)	All construction works	Risk of striking overhead power lines	All staff are to be given a site induction prior to working on site. Contractor to obtain required permits for working near LUAS lines from TII and comply with any method statements they will provide.
Working on Bridge over live Railway Lines	All construction works	To be determined.	Liaise with Irish Rail prior o starting any works in the vicinity of the bridges.

5. Safety File

5.1 Purpose

In accordance with the SHW at Work (Construction Regulations) 2013 the PSDP must prepare a Safety File for this project and present it to the Client when the project is complete. The Safety File is a record of information for the end user, which focuses on safety and health. The information it contains will alert those who are responsible for the structure and services in it of the significant safety and health risks that will need to be addressed during subsequent maintenance, repair or refurbishment, extension or other construction work or, indeed, its demolition.

In order to prepare the Safety File, the PSDP needs to receive appropriate information from designers, Project Supervisor Construction Stage (PSCS), Contractors and other duty holders. The PSDP will need to obtain details from the PSCS in relation to details of services, plant and the project equipment, which compromise part of the structure from specialist supply and installation contractors, as well as from statutory bodies and local authorities, where appropriate.

5.2 Contents & Information Required

Procedures will be set up for obtaining and collating the information to be included in the Safety File. These procedures will detail what information is to be collected and how it is to be collected, presented and stored.

Information to be included in the Safety File is given below:

- Construction drawings, specifications and bills of quantities, used and produced throughout the construction process
- The general design criteria adopted and details of the equipment and maintenance facilities within the structure
- Maintenance procedures and requirements for structure
- Manuals and where appropriate certificates, produced by specialist contractors and suppliers which outline operating and maintenance procedures and schedules for plant and equipment installed as part of the structure (typically lifts, electrical and mechanical installations, pressure vessels, control and instrumentation systems, window cleaning facilities) and
- Details of the location and nature of utilities and services, including emergency and fire-fighting system

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