

14 Material Assets: Utilities

14.1 Introduction

This chapter describes the material assets in the form of utilities that could potentially be impacted by the Proposed Project. Material assets are defined in the *EPA Guidelines on Information to be contained in Environmental Impacts Statements* (EPA, 2002) as:

“Resources that are valued and that are intrinsic to specific places are called ‘material assets’. They may be of either human or natural origin and the value may arise for either economic or cultural reasons. Examples of natural resources of economic value include assimilative capacity of air and water, non-renewable resources (e.g. minerals, soils, quarries and mines), renewable resources (hydraulic head, wind exposure).”

The purpose of this chapter is to assess the impacts of the proposed utilities on the existing utility network which includes the following infrastructure:

- Electricity;
- Water;
- Drainage;
- Gas;
- Telecommunications (including broadband) and TV;

Other material assets of human origin are addressed in Chapter 15 *‘Material Assets: Land Use and Property’*.

Material assets of natural origin are addressed in other chapters of this EIS, namely, Chapter 10, *‘Archaeological, Architectural and Cultural Heritage’*, Chapter 12, *‘Soils, Geology, Hydrogeology and Hydrology’*, and Chapter 13, *‘Resource and Waste Management’*.

The Proposed Project is described in detail in Chapter 4, *‘Proposed Project Description’*, and indicative construction methodology is also outlined in Chapter 4.

14.2 Assessment Methodology

14.2.1 Study Area

The study area with regard to utilities for the Proposed Project comprises the main areas of proposed construction works- i.e. Foster Place and College Green.

A description of the existing environment of the study area is given in Chapter 4 *‘Proposed Project Description’*.

14.2.2 Identification of Utilities

TST Engineering were commissioned by Dublin City Council (DCC) to carry out a utilities investigation of the main proposed area of works.

14.3.1 Foster Place

Results of the no-dig survey confirmed the general information provided by the record drawings, adding details and specific referenced coordinates. Buried utilities and structures were identified as follows:

14.3.1.1 Electricity

There are a number of residential connections along the west side of Foster Place.

14.3.1.2 Water

There is one water line running in the roadway on Foster Place connecting from the mains running along College Green. There are multiple connections for fire hydrants as well as connections into buildings and residences.

14.3.1.3 Drainage/Sewerage

The drainage network in Foster Place consists of a Victorian drainage line with more modern pipes connecting to it. The Victorian drainage line (1400x800mm) runs along the centre of the road and exits the survey area in the north eastern side.

There are a number of gullies and connections along the western side of Foster Place which connect to a 300mm drainage line, this line has two drainage manholes and connects to the Victorian line in two locations.

14.3.1.4 Gas

In the northern side of Foster Place a gasmain is located with a number of connections. A number of these extend into cellars. Along the eastern wall at Foster Place a residential connection is found.

14.3.1.5 Telecommunications

A new Eir line runs along the road in Foster Place which originates at an Eir manhole at the south western edge of Foster Place. The line continues to the top of the road where it enters an Eir manhole. A residential connection runs out to the western side of the survey area.

14.3.2 College Green

Results of the no-dig survey confirmed the general information provided by the record drawings, adding details and specific referenced coordinates. Buried utilities were identified as follows:

14.3.2.1 Water

Two water lines run along both major roadways on College Green.

There are multiple connections into buildings and residences on southern and northern sides.

A number of changes to water lines has taken place on the eastern side of College Green as part of the Luas Cross City works.

14.3.2.2 Gas

A gas connection is located at the junction in front of Church Lane.

14.3.2.3 Electricity

A number of electricity lines run through College Green.

14.3.2.4 Drainage/Sewerage

A major Victorian drainage line enters the survey area at College Green through Church Lane. This line continues along the centre of the southern road and exits the survey area at the eastern boundary. A number of drainage gullies and residential connections to the Victorian line also exist.

14.3.2.5 Telecommunications

Three major Eir lines run through College Green: through the pavement along the northern side of College Green, along the north roadway and through the southern pavement and roadway.

A number of BT (British Telecommunications) manholes are located at College Green. The main BT lines run in both the north and south roadways in College Green, there are a number of residential connections.

There are two major areas in College Green which the traffic lines are isolated to, in the west side of College Green in front of Church Lane and to the east side of the survey boundary in beside the Luas Cross City works.

One Verizon line runs along the north roadway in College Green with one manhole and connection in the survey area.

Two Colt Telecoms lines enter the west boundary of the survey area, run along the south roadway of College Green and exit the survey area at the eastern boundary of College Green.

One NTL line runs along the north roadway at College Green with one manhole in the survey area.

14.4 Characteristics of the Proposed Project

During both the construction and operational phases of the Proposed Project, some realignment, upgrade or replacement of services and utilities may be required in conjunction with or to accommodate the proposed works. These are described below.

14.4.5 Telecommunications

It is anticipated that localised diversion of services will be required. Trenches may have to be excavated along the proposed tree lines so that existing fibre optic ducting can be realigned away from the tree pits without disruption to services.

New traffic ducting, incorporating power and traffic communications ducting will be required to facilitate the proposed signalised crossing installations. It is proposed to provide a signalised crossing to Trinity College from the plaza, and to provide for the possible future signalisation of the cycle track crossing in the southeastern corner of the plaza.

14.5 Predicted Impacts

14.5.1 Construction Phase

14.5.1.1 Electricity

As described in **Section 14.4**, some local diversions may be required to power supplies to accommodate the construction works. This is anticipated to result in a slight, negative and short term impact.

Power will be required for the construction activities, for temporary lighting and temporary signals required during construction works.

The power demands during the construction phase on the existing electricity network are considered to be a slight, negative and short term impact.

14.5.1.2 Water

The Contractor will require a separate water supply connection for the construction activities.

The water demands during the construction phase on the existing water supply network are considered to be a slight, negative and short term impact.

14.5.1.3 Drainage

As described in **Section 14.4**, construction works will involve the installation of SUDs, new gullies, and some new gully connections. These works are expected to result in a slight, negative and short term impact.

The Contractor's operations has the potential to result in the generation of effluent and sanitary waste from facilities provided for the work force on site.

Surface water run-off will occur from hardstanding during the construction period. Surface water run-off from construction activities has the potential to be contaminated.

Ingress of groundwater and overland flows into excavations during construction have the potential to cause impacts and will require appropriate mitigation.

Excess surface and waste water during the construction phase is expected to result in a slight, negative and short term impact on the existing drainage system.

