

Traffic Signal Upgrade

Appendix J – Health & Safety Information



For all your property needs, on budget, on time.



TORBAY COUNCIL



Property Services
Engineering Department
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1 Report History

1.1 Document Location

The source of the document can be found at: G:...\8-16-70 Torre Station Traffic Signal Upgrade

1.2 Revision History

Date of this revision: N/A

Date of next revision:

Revision Date	Previous Revision Date	Summary of Changes	Changes Marked

1.3 Approvals

This document requires the following approvals:

Name	Signature	Title	Date
Dave Stewart		Service Manager	15/11/21
Richard Salter		Engineer	15/11/21

1.4 Distribution

This document has been distributed to:

Name	Title	Date of Issue	Version
All Tenderers		17/11/21	001

2 Introduction

2.1 Construction (Design and Management) Regulations 2015

This contract is subject to the Construction (Design and Management) Regulations 2015. It is now a requirement that Tenders include for the reasonable costs necessitated by the Regulation Obligations.

On page 6 of this document there are details relevant to the tender submission of a Draft Construction Phase Health and Safety Plan, with the recommended framework commencing on page 13. Consideration of the Tender and the draft construction phase plans will enable the Engineer to make an initial recommendation as to the possible Contract award. The formal Contract award will be made when the Engineer can confirm that the intended Principal Contractor's Construction Phase Health and Safety Plan is assessed as acceptable for use on the project.

During the construction phase, unforeseen eventualities and conditions requiring modifications or additions to the Health and Safety Plan shall, when approved by the Principal Designer, be added to the Health and Safety Plan.

The Construction (Design and Management) Regulations 2015, Contract Form of Tender and the Specification are intended to be consistent in the Health and Safety obligations on, and requirements of, all parties to the Contract. Should there be a conflict on any Health and Safety matter, the conditions imposed by the Construction (Design and Management) Regulations 2015, shall prevail.

2.2 Location

The site is located to the north of Torquay on the A3022 Newton Road with its junctions with Avenue Road, St Michael's Road and Torre Station. The A3022 Newton Road is the main route into and out of Torquay, including the Harbour and Seafront areas.

There are several schools near to the junction, and therefore there are school children, during the mornings and afternoons, passing through this area going to and from school, especially via the Station.

2.3 Brief Description of Works

The works comprise of improvements to the existing pedestrian facilities and replacement of the existing traffic signal junction.

The signals contractor is expected to decommission and remove the existing Traffic Signals, Controller and all associated cabling and equipment replace them with a new ELV system. New poles, heads controller (including cabinet) and all new wiring are required. New loops will need to be cut into the carriageways and associated cabling and jointing work carried out.

The civils works consist of improvements to pedestrian facilities across the junction which include, lengthening of an existing island to accommodate an informal crossing point and the relocation of one the signalised crossing points. These civils works and all other civils works for the signals, including new ducting, chambers and pole housings etc, will be carried out by SWISCo, in advance of the installation of the new traffic signals.

3 Pre-Construction Information

3.1 Introduction

- 3.1.1 Construction (Design and Management) Regulations 2015, and all other relevant Health and Safety legislation will apply to this contract.
- 3.1.2 The following is the Pre-Construction Information for the overall project.
- 3.1.3 If this information contains any suggested solutions to specific risks the Principal Contractor is free to choose alternatives <u>provided</u> they can satisfy the client that it will meet Health and Safety requirements.
- 3.1.4 This Pre-Construction Information contains relevant information, such as background conditions and significant hazards associated with the project, to allow tenderers to plan for project-specific health and safety control measures, allocate adequate resources and cost them accurately.
- 3.1.5 Tenderers should note that there may be unidentified hazards either on site, in existing structures or which arise during the progress of the works, which will require suitable controls and management procedures.
- 3.1.6 A Tenderer is not expected to fully develop the Health and Safety Plan until they are appointed as Principal Contractor. They will, however, have to include with their tender return, answers to the following specific questions, in the form of a Draft Health and Safety Plan. This information will be used by the Client to help in their choice of Principal Contractor.
 - a) The Management of Health and Safety at Work Regulations 1999 place specific duties upon employers to identify hazards, assess risk and manage health and safety on site. Please advise how your company will fulfil these duties.
 - b) Provide a copy of the Health and Safety Policy that you will use together with the management organisation and arrangements called for by the Act.
 - c) Provide a schematic diagram with named personnel, of the management structure you will use <u>onsite</u> to supervise and enforce health and safety at the workplace.
 - d) The Construction (Design and Management) Regulations, call for co-operation and co-ordination between client and contractor. How does your company plan to comply with the regulations?
 - e) The quoted price must include financial provision to establish and maintain the necessary level of health and safety management throughout the contract. Please confirm that all necessary resources and financial provisions are included in the Tender price.
 - f) Please supply the name, address and telephone number of the Health and Safety Practitioner/Advisor who will act for your company on health and safety matters throughout the Contract. What Health and Safety and other relevant qualifications do they hold?
 - g) Please confirm the frequency of independent site health and safety inspections/audits that you will have on this project (with reports being issued to the Contract Administrator).
 - h) Please submit details of your RIDDOR submissions for the preceding two years.
 - i) Has your firm ever been prosecuted under the Health and Safety at Work Act? Has

- a HSE Inspector ever issued an Improvement Notice or a Prohibition Notice involving one of your sites, premises or methods of work?
- j) If yes to the above, please provide details.
- k) Please submit your proposed Programme of Works.
- Please provide your Risk Assessment in relation to the "significant" risks involved in this project.
- m) Please provide a Method Statement outlining how you propose dealing with risks outlined in Section 4, and any other hazards the Tenderer believes they might encounter during the Works.
- n) Explain how you will co-ordinate and supervise the work of sub-contractors to ensure that they abide by the Health and Safety at Work Act, relevant regulations, Codes of Practice, Industry Standard procedures and Safe Methods of Work applicable to the contract.

3.2 Nature of Project

3.2.1

- a) The Client is: Torbay Council
 - Correspondence should be directed to Ian Jones, Head of Highways, Fleet and Transport, Swisco, Aspen Way, Yalberton Industrial Estate, Paignton, TQ4 7QR.
- b) The Principal Designer is:
 - TDA, 3rd Floor Tor Hill House, Union St, Torquay, TQ2 5QW. Correspondence should be addressed to the Service Manager, Engineering.
- c) The Design Team is:
 - TDA, Engineering Services, Urban Design Section. Correspondence should be addressed to the Service Manager, Engineering, 3rd Floor, Tor Hill House, Union Street, Torquay TQ2 5QW.
- 3.2.2 The site is situated to the North of Torquay on the A3022 Newton Road, at the junction with Torre Station.
- 3.2.3 The Works will take the form of :
 - a) Signals Contractor Decommissioning and removal of existing traffic signals, controller and associated cabling.
 - b) Signals Contractor Installation of new poles, ELV heads, ELV controller and associated cabling and jointing.
 - c) Signals Contractor Cutting of new loops in the carriageway.
 - d) Civils Contractor Breaking out / Excavation of sections of existing carriageway, footway and pedestrian islands.
 - e) Civils Contractor New kerbing, tactile pavors and new bitmac surfacing of footway areas and pedestrian islands associated with pedestrian improvement works.
 - f) Civils Contractor Install new signal ducting, chambers and pole housings.
 - g) Civils Contractor Repositioning of stoplines.
- 3.2.4 It is currently proposed that the Principal Contractor should take occupation of the site in

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3.3 Existing Environment

- 3.3.1 All Tenderers should visit and familiarise themselves with the site prior to submitting their tender.
- 3.3.2 The site is the junction on the A3022, Newton Road with Torre Station, Avenue Road and St Michaels Road.
- 3.3.3 The Principal Contractor's attention is drawn to the requirement for ensuring traffic flow through the junction is maintained during the works.
- 3.3.3 The Principal Contractor will have the overall responsibility for maintaining the Health, Safety and Welfare of ANY operatives and the public. This obligation includes works associated with ALL other utility companies. The Principal Contractor will ensure that their site rules are adhered to by all personnel on their site, irrespective of their employer.
- 3.3.4 The Principal Contractor will hold induction seminars / toolbox talks for all site personnel.
- 3.3.5 The Principal Contractor shall provide signs on site to identify areas that are currently being or are due to be worked on.

3.4 Design and Construction

The following perceived significant risks cannot be designed out of the overall project. This is not necessarily exhaustive. Any further significant risks considered by the Contractor should be included in their expansion of the Pre-Construction Information into the Construction Phase Health and Safety Plan.

- a) Access, egress and site operations Site vehicles, plant and deliveries unintentionally colliding with persons and vehicles accessing, passing or within the site, subsequent blockage of the road to emergency vehicles; insecurely loaded vehicles; turning points, reversing vehicles; segregation of vehicles and pedestrians. The site is on a busy carriageway, and the Contractor should make sure that no vehicles have to reverse out on to the road into live traffic. The Contractor should also give thought as to how safe access through the site is maintained during the works.
- b) Pedestrian Routes There are several pedestrian routes through the site. Thought should be given as to how to segregate the site from pedestrians using these routes. Safe routes around the site should be explored, whilst the works are ongoing. Signing of any diversions should be clear and any alternative routes should be suitable to all persons.
- c) Traffic Management Whilst working in close proximity to the public Highway, thought should be given as to how pedestrians and traffic can safely pass through the works. Access through the site must be maintained at all times, with diversions around the works as required, with the necessary authorization from the Highway Authority.
- d) Safety signs and signals Confusion over routes site for any person on, adjacent to or passing by the site, should be avoided by the supply and fixing of suitable and sufficient warning signs and signals.
- e) Site security and segregation Unauthorized persons accessing the site the likelihood of trespass and minor vandalism to any unsecured stores and plant (including

any flammable substances); damage to boundary fencing, gaining access to works areas at height (ladders, scaffolding, incomplete floors); inadequate warning signs and barriering of all hazards on site; access routes in and around the site boundaries with the potential for plant, machinery, unstable fencing, flying objects, dust, etc. to come into contact with passing pedestrians, etc.

There will be large numbers of school children walking past the site so the site should be made secure to avoid children trespassing on the site.

- f) Skips / waste removal Skips: fly-tipping into; loose debris falling from; unauthorised persons gaining access.
- g) Spoil heaps stockpiling; heap inclination and location; collapse and burying; security from unauthorized persons.
- h) Existing services Services located during the works may be live or contain hazardous materials or substances.

Prevention of damage to existing services at and below formation level during excavation, trenching and associated operations.

There are Electric, Gas, Water and communications services on site. It is likely that existing live services that are not due to be diverted will be found during excavations on site. The Contractor should allow in the programme for excavating carefully around any live services found during the works, as well as protecting them once they are exposed.

- i) Dust and other site contaminants Production of considerable amounts of dust and other contaminants due to various processes (including grinding, cutting, drilling, welding and sanding); lack of clean air; accumulation of waste materials; reduced visibility; drifting waste materials falling on public, residential and commercial areas. There are residential properties very close to areas of excavation and measures should be taken to avoid dust or other construction materials blowing towards these properties. Measures should also be taken to protect anyone working on or walking close to site from breathing in dust or any possibly hazardous material that is generated by the works on site.
- j) Excavations The collapse of the sides; materials falling onto people working in the excavation; people and vehicles falling into the excavation; undermining nearby structures; damage to underground services; inadequate barriering/ edge protection / signage; the accumulation or collection of hazardous fumes; accumulated water - risk of drowning.
- k) Working at height Aspects of this project such as the fitting and connection of the traffic signal heads and sensors may be subject to the requirement to use a ladder. These types of work may involve working at height and thus falls of persons / objects is an existing hazard; unsecured or poor ladder footing and the prevention of nonauthorized access; operatives being knocked off ladders.
- I) Cranes and lifting plant Hazards and dangers associated with all types of lifting plant on site, including the manoeuvring of construction materials and demolition debris. Incorrect planning of lifting operations; incorrect sequencing of works; poorly maintained lifting equipment; lack of competent supervision on site; cranes overturning; gin wheels collapsing, materials falling from hoists. Some drainage materials may also require lifting into place.

With traffic passing close to the edge of site, measures should be taken to avoid any materials that are being lifted from swinging out into the live carriageway. The

Contractor should make sure that plant does not swing out into any live carriageways even if a banksman is being used. If operations require this then the lane should be closed in advance.

- m) Fire Carrying out hot works (i.e. welding, or cutting). Measures should be taken to avoid any chance of fire or explosion during site operations. There should be suitable emergency equipment on site in case of a fire, with operatives trained in their use.
 - Gas bottles used for activities such as welding should be stored and placed in such a way to avoid coming into contact with any hot materials, and also stored in a secure caged enclosure when not in use.
- n) Hazardous substances Breathing in fumes, vapours, dusts; direct contact with skin or eyes; swallowing or eating contaminated material; inadequate identification of all hazardous substances on site. Mixing of mortar for the brickwork using cement in particular, and measures should be put in place to prevent cement dust blowing around the site.
- Noise Short and long-term damage to the hearing of workers/public and other persons adjacent to the works. If breakers are to be used on site thought should be given to the noise created.
- p) Maintenance Safe methods for future maintenance of the installations / construction should be considered.
- q) Site Arrangement The contractor should give thought as to how the site will be managed due to the constrained nature of the works area. There will be very little room adjacent to the working areas for the storage of materials. Working practices will need to be put in place to allow spoil to be removed and materials brought into the works areas in an efficient manner to avoid the works areas becoming too cramped to carry out the works. The works areas should be kept tidy and free of rubbish. Emphasis should be placed on good site housekeeping.
- r) Effort should be made to minimise mud and waste being carried out on to the carriageway by vehicles exiting the site. Cleaning of vehicles leaving the site should be considered. If there is mud on the carriageway as a result of the works, it should be cleaned by means of a road sweeper.
- s) Fuel Storage Storage of fuel for plant on site should be located in an area away from any sources of ignition, watercourses and drinking water. It should also be stored away from any gullies to avoid any possible spillages entering any drainage systems.
- t) When operations require working within confined spaces, such as manholes or culverts, all operatives should have suitable confined space training and accreditation, and suitable gas monitoring and emergency breathing apparatus should be used.
- u) The site compound will be located close to site, but there is limited space, so thought should be given to providing welfare facilities that are appropriate for the space available.

3.5 Construction Materials

3.5.1 All industry standard materials, such as cement, hot bituminous materials etc., relating to this form of Civil Engineering Works have to, or may have to, be used for the works and are identified as possible hazards to the health and safety of operatives and will require appropriate control measures to be implemented. Any individual objects weighing in excess of 20Kg, such as kerbs to be lifted by mechanical means.

3.6 Site Wide Elements

- 3.6.1 Site access shall take account of the requirements of adjacent residential properties and commercial premises.
- 3.6.2 Site security is addressed within the tender documentation.
- 3.6.3 Materials storage, delivery and unloading areas shall be agreed with the Engineer prior to commencement. Materials are to be held securely to prevent misuse by vandals, including use as missiles, both during and outside working hours.
- 3.6.4 Site construction works areas must be segregated, barriered and adequately signed to prevent unauthorized access, while maintaining clear pedestrian and traffic access routes. Access routes for vehicles and pedestrians must be clear and obvious and shall be adequately signed, lit and guarded to current regulations including Chapter 8, etc., and shall be agreed with the Engineer. Site accesses should be closed off after site traffic has left, to avoid unauthorised use by passing vehicles.
- 3.6.5 Welfare facilities are to be provided to accommodate the requirements of the maximum number of personnel to be employed on the project. The site manager's office should have suitable signage so that it is easily recognised by anyone visiting the site. No separate Cabin is required for the Project Engineer/Contract Administrator/Clerk of Works.
- 3.6.6 Site vehicles, plant and delivery vehicles must be completely supervised ensuring that a competent person and banksman is available to carry out all necessary duties while the vehicles are gaining site entry, egress, manoeuvring and reversing, and to carry a warning siren/bell which should be clearly audible should there be any possibility of an accident.

3.7 Site Rules

- 3.7.1 Specific points identified for adoption within site rules include:
 - a) worker training / induction procedure
 - b) site security
 - c) first aid provision
 - d) on site permit-to-work / badging
 - e) levels of noise
 - f) access limited to specified routes which shall be clearly identified and fenced off
 - g) delivery arrangements / vehicles movement / bankspersons
 - h) parking arrangements
 - i) manual handling
 - j) head and body protection/personal protective equipment.
 - k) emergency procedures
 - working at height
 - m) use of hand-held tools
 - n) accident / near-miss reporting
 - o) work areas to be adequately fenced and signed to prevent unauthorised entry by the public both during and outside normal working hours.

3.8 Continuing Liaison

- 3.8.1 The Health and Safety implications of the Tenderer's package will be considered along with price, etc., when choosing the Principal Contractor and when awarding the Contract.
- 3.8.2 The Principal Contractor must submit to the Principal Designer appropriate information for inclusion in the Health and Safety File, no later than 14 days after the official handover of the project to the Client.
- 3.8.3 The Principal Contractor must provide the Engineer and Principal Designer with copies of records setting out the nature and location of any services which are live or contain any hazardous materials or substances, prior to agreement on a course of action.

3.9 Available Documents

Appendix B	Traffic Signals	s Installation Standards
Appendix C	8/16/70_02	Existing Traffic Signals
Appendix D	8/16/70_101	Proposed Signals and Loops – General Arrangement
Appendix E	8/16/70_102	Proposed Signals and Loops – Page 1 of 2
Appendix F	8/16/70_103	Proposed Signals and Loops – Page 2 of 2
Appendix G	8/16/70_104	Proposed Duct Runs and Draw Pits
Appendix H	Torre Station	MOVA Indicative
Appendix I	Torre Station	TR2500

4 Construction Phase Health & Safety Plan

A Construction phase Health & Safety Plan is to be prepared by tendering contractors in line with the following framework and approved by the Principal Designer prior to contract award. Headings considered by tendering Contractors to be not applicable to be so indicated.

4.1 Health & Safety Plan Framework

4.1.1 Description of the Project

- State health and safety principles and objectives for this project.
- Restrictions which may affect the work:
 - e.g. neighbouring buildings, services, traffic, pedestrians and client's activity etc..

4.1.2 <u>Management, Administration and Organisation</u>

- Structure and responsibilities of management team.
- Principal Contractor's arrangements to give direction to other contractors, and how co-ordination between the Principal Contractor and the Statutory Undertakers will be achieved and maintained.

4.1.3 <u>Safety Standards</u>

• e.g. in accordance with BS/EN? Regulation? Or to special requirements?

4.1.4 Information for Contractors

4.1.5 Selection Procedures

- Competency
- Adequate Health and Safety data sheets
- Plant and machinery maintenance; operator training and competency.

4.1.6 Communication and Cooperation (between the Principal Contractor and)

- Client
- Designers
- Principal Designer
- Sub-contractors and other contractors
- Consultants
- · Meeting and records of decisions
- Design work and nominations

4.1.7 <u>Activities with Risk to Health and Safety</u>

Management arrangements Vis a Vis ongoing hazard identification and risk assessments, e.g.:

- plans, procedures and records
- storage and destruction of materials
- · vehicle movements
- control and disposal of waste
- · access and egress for pedestrians and vehicles to the whole of the site throughout

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the Contract period

- mechanical plant joint user basis
- temporary services electricity water
- temporary structures and temporary fencing of working and storage areas
- permit to work system
- · overhead protection
- exclusion of unauthorised persons
- · protection of the public

4.1.8 Emergency Procedures

Arrangements to minimise the effects of injuries; fire, contamination and other dangerous occurrences.

4.1.9 <u>Accident Reporting Arrangements</u>

- informing the Principal Contractor
- Notification to HSE (RIDDOR)

4.1.10 Welfare

Provision and maintenance

4.1.11 Information and Training

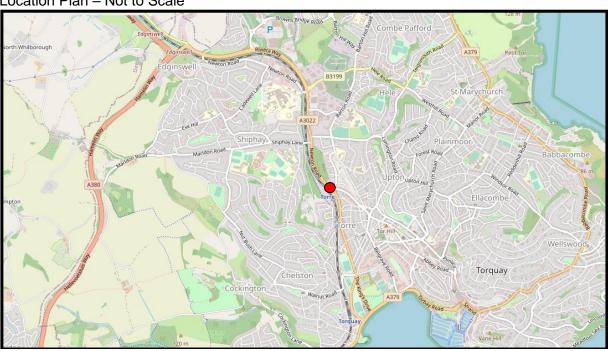
- Health and safety information
- Health and Safety training
- Information about the project including names of key persons, including site Information boards with telephone numbers to be used in case of emergencies
- Specific awareness training
- · Toolbox or task talks on HSAW
- Statutory Notices display arrangements.
- Site induction procedures

4.1.12 Construction on Site

• Safe methods of work..... for all aspects of the project

5 Location Plan

Location Plan - Not to Scale



Site Plan - Not to Scale

