

## Adoption of a Road-Related Structure

If your development involves building a roads related structure, which you intend to have adopted by the Council upon completion, you must obtain Technical Approval of the structure from Renfrewshire Council. It is recommended that Developers contact the Council to discuss proposed road-related structures at the earliest opportunity.

### What is a Road-Related Structure?

***A structure which is located over, under or adjacent to a road***

Examples include:

- road bridge / tunnel
- pedestrian or cycle bridge / tunnel
- retaining wall
- service tunnel
- sign or signal gantry
- basement extending below a footway or carriageway

The above list is not exhaustive.

### What does Technical Approval mean?

Due to the complexity of the design and construction activities required to create safe and resilient road structures for use on the UK public road network, a Technical Approval (TA) process exists to review proposed road structures. This process allows Renfrewshire Council to verify that:

- new or modified road-related structures have been designed using good technical practice; and
- finished structures will be durable, safe to use and economic to maintain.

Developers are strongly advised to contact the Council at the earliest possible stage of the structural design process. It should be noted that certain temporary works (e.g. deep excavations, complex structural false work) may require Technical Approval to be granted before proceeding. Construction work carried out by public utility undertakers may also require Technical Approval if the proposed works are located over under or adjacent to the public road and /or an existing road-related structure.

### How Do I Get Technical Approval For My New Structure?

The Technical Approval process used by Renfrewshire Council is that described in Section 3.8 of the National Roads Development Guide published by the Society of Chief Officers of Transport in Scotland (SCOTS). Paragraphs 1.8(a) and 2.4.2(b) of the National Roads Development Guide are also applicable. The National Roads Development Guide is downloadable in pdf format from the SCOTS website at:

<http://www.scotsnet.org.uk/phone/national-roads-development-guide.html>.

The National Roads Development Guide TA process in turn refers to that described in the current edition of Bridge Design Standard BD2 "Technical Approval of Highway Structures" to be found in Volume 1 of the Design Manual for Roads and Bridges.

Applicants for structural TA submission to Renfrewshire Council must ensure that all documents, drawings, certificates and other documents are produced in accordance with the requirements of the current edition of BD2.

Developers should note that in the context of the TA process the Designer is that organisation or individual (appointed by the Developer) whose business involves preparing or modifying designs for construction projects, or arranging for, or instructing, others to do this.

Developers should also note that all Approval in Principle (AIP) documents and certain design / check / compliance certificates submitted to Renfrewshire Council for approval and countersignature must be signed by an MICE and or MISE qualified engineer on behalf of the Designer.

Developers should also be aware of their responsibilities under Section 9 of the Construction (Design and Management) Regulations 2015 with regard to appointing qualified design and construction staff.

There are four stages in the Technical Approval process, all of which must be completed before Renfrewshire Council can accept a road-related structure for adoption. These four stages are briefly described below:

### **Stage 1 – Approval in Principal Stage**

An Approval in Principal package should be prepared by the structural Designer and submitted to the Council for review and comment. This stage is completed when the AIP document has been agreed and countersigned by Renfrewshire Council.

The following items should form part of the AIP package;

- a) AIP document based on BD2 model
- b) 1 No. General Arrangement Drawing
- c) Relevant extracts from Geotechnical Report
- d) Relevant correspondence and documents from any relevant consultations

Renfrewshire Council may request that the designer shall submit calculations for review at any time during the Technical Approval process.

### **Stage 2 – Design & Check Certification Stage**

On completion of the the detailed design phase, the designer and the checker must sign and submit 2 No. copies each of the Design and Check Certificates. These certificates must be in the form contained in the current edition of BD 2.

Upon receipt of the Design and Check Certificates, and if found acceptable, will be countersigned and returned by Renfrewshire Council.

### **Stage 3 – Construction Completion & Certification Stage**

Prior to commencement of works on site you should notify the Council in writing of your intentions. You are also required to advise the Council of the following:

- Site start date
- The name of the principal contractor
- Contact details for the site agent and resident engineer
- A construction programme

We expect your contractor to maintain a close working relationship with the Council to enable us to visit the site and inspect the works as they progress to verify the structure is being constructed in accordance with the agreed design for which Technical Approval has been granted. Developers should realise that they (as promoter) are entirely responsible for ensuring the required quality of the as built works is achieved by appointing a suitably qualified and experience individual, or organisation, independent of the Contractor with powers to:

- Inspect and examine the works; and
- Issue to the Contractor such instructions as are required to ensure the works are constructed in accordance with the agreed AIP document and the Specification. The Specification shall be taken to be *Specification for Highway Works – Volume 1 – Manual of Contract Documents for Highway Works*.

Upon Completion of the Construction Phase, 2 no. copies of a Construction Compliance Certificate with original signatures shall be produced and submitted to Renfrewshire Council.

- a) The signee for the Contractor must be qualified to CEng / MICE / MISE level
- b) The signee for the Works Examiner shall be a Principal of the Examining Organisation. Where the Works Examiner is also the Designer the signee shall be CEng / MICE / MISE. The Works Examiner shall mean the individual or organisation supervising the construction phase on behalf of the Developer

- c) The Compliance Certificate must be in the form contained in Annex A6 of BD 2.

#### **Stage 4 – Adoption Stage**

If the structure has been built in compliance with the requirements of the AIP and all snagging issues have been satisfactorily addressed, the Council will adopt the structure together with the non structural elements of the road (i.e. carriageways, footways, street lighting apparatus et al) after the maintenance period is complete.

A copy of the following documents must be submitted to Renfrewshire Council before the structural adoption process can be completed (.pdf format files are acceptable).

- a) Health & Safety File
- b) 1 No. set of as-built drawings
- c) 1 No. set of final (i.e. revised, amended and checked) structural design calculations
- d) 2 No. copies each of the completed and signed Design & Check & Construction Compliance Certificates
- e) 1 No set of as-built reinforcement bar bending schedules (if applicable)
- f) 1 No. copy each of Geotechnical Factual and Geotechnical Interpretative Reports (if applicable)
- g) Quality Assurance File
- h) Contractors Quality Plan

#### **Quality Assurance File**

As previously discussed the default Specification for Road and Bridge Works in the UK is the current edition of the *Specification for Highway Works – Volume 1 – Manual of Contract Documents for Highway Works*. The Developer's attention is drawn to this document which describes the relevant sampling, testing and certification required for workmanship, materials and goods used to construct the permanent works. Typically for a bridge these goods and materials would include waterproofing materials, proprietary vehicle restraint systems, concrete and mortar, expansion joints and sealants, protective coatings, steel reinforcement bars and tendons etc.

For the finished road-related structure to be adopted onto the register of publicly maintainable assets, the Developer must provide Renfrewshire Council with evidence that the as-built structure conforms to the requirements of both the agreed AIP document and the relevant parts of the MCDHW Specification.

This should be done by provision of a Quality Assurance File prepared by the Developer to be submitted to Renfrewshire Council prior to adoption.

The Quality Assurance File should contain the following;

- relevant correspondence (postal and email),
- drawings,
- test results from UKAS or equivalent accredited organisations,
- inspection reports,
- relevant extracts from the Contractors Quality Plan as required by Clause 104 (a) of the Specification,
- Declaration of Performance / compliance with relevant British Standard, British Adopted European Standard, European Technical Approvals or Assessments,
- Other certification e.g. relevant National Highway Sector Scheme Documents, British Board Agreement Road and Bridge Certificates, Statutory type approval, Statutory Authorisation, HAPAS Certificates, CARES certificates or equivalent.

The Quality Assurance File should be capable of providing Renfrewshire Council with the required degree of engineering assurance that the as built structure is of adoptable quality.