

**SOUTH DUBLIN COUNTY COUNCIL**  
Traffic Management Centre  
Roads (Traffic and Transportation) Department



**TECHNICAL SPECIFICATION 5**  
**SDCC-TS-05**  
**DESIGN AND INSTALLATION PROCEDURES**

**REQUIREMENTS FOR THE DESIGN AND INSTALLATION OF**  
**TRAFFIC CONTROL EQUIPMENT**  
**FOR SOUTH DUBLIN COUNTY COUNCIL**

Issue 5.0  
March 2014

TRAFFIC MANAGEMENT CENTRE  
ROADS (TRAFFIC AND TRANSPORTATION) DEPARTMENT  
SOUTH DUBLIN COUNTY COUNCIL  
COUNTY HALL  
TALLAGHT  
DUBLIN 24

## 1. GENERAL REQUIREMENTS

- 1.1 This Technical specification describes the procedures to be followed by designers and those responsible for the installation of traffic control equipment in the County of South Dublin. All those undertaking such works shall comply with these procedures.
- 1.2 The procedures have been grouped into four stages as defined in the Council document *Requirements for the Design and Installation of Traffic Control Equipment for South Dublin County Council (Issue 5.0, May 2014)*:
- a) operational strategy;
  - b) outline Design;
  - c) detail design; and
  - d) installation.
- 1.3 The Council may allow the stages to be combined or omitted as appropriate. The Council shall confirm this in writing.
- 1.4 Designers should allow sufficient time for completion of all design stages and possible iterations within the first three stages.
- 1.5 Submissions shall generally be made using email.
- 1.6 The Council shall agree or approve proposals and this shall be given in writing
- 1.7 Designers shall comply with the Council's requirements as defined in *Requirements for the Design and Installation of Traffic Control Equipment for South Dublin County Council (Issue 5.0, May 2014)* and other documents that may from time to time be issued.
- 1.8 The procedures defined relate specifically to traffic control issues. Requirements and guidance on other design and installation matters, including civil engineering works, environmental issues, health and safety etc, shall be with in accordance with the appropriate Council procedures.
- 1.9 If at any stage in the process, the proposals are considered by the Council to be unacceptable, the designer shall submit revised proposals to the Council.

## 2. OPERATIONAL STRATEGY

- 2.1 The operational strategy shall be discussed and confirmed with the Council prior to the commencement of the design process.
- 2.2 The operational strategy shall define, for new installations or existing installations that it is proposed to modify:
- a) design objectives taking account of the Council's requirements;
  - b) proposals to accommodate agreed design traffic flows. This shall include the number and use of traffic lanes and strategies to be used;
  - c) proposals for facilities for disabled and able-bodied pedestrians as well as cyclists;
  - d) proposals for facilities for public transport vehicles, e.g. bus, trams.

- 2.3** The procedure for confirmation of the operational strategy shall be as follows:
- a) the designers clarify their objectives and prepare preliminary proposals and submit one week prior to a meeting with TMC staff;
  - b) at a meeting with TMC staff, the objectives, existing and design flows etc, as well as modelling tools to be used, shall be agreed. The Council shall provide drawings for existing installations and detail requirements for remote monitoring and CCTV. Modelling tools/scenarios to be tested shall also be agreed; and
  - c) the designer refines the proposals as necessary and submits to the Council for confirmation.

**2.4** Designers should be noted that the Council has to take account of strategic and area wide as well as local needs. As a result traffic signals can be used as a mechanism to influence driver route choice as part of an overall management strategy.

### **3. OUTLINE DESIGN**

**3.1** The outline design shall be developed to support the agreed operational strategy and shall be agreed before detail design commences.

**3.2** The outline design shall indicate the general layout proposed at a scale not greater than 1:500, the anticipated control strategy and proposed operational facilities. It shall provide sufficient information to allow junction modelling using an agreed package.

**3.3** The estimated vehicular capacity based shall be assessed for the agreed scenarios using the agreed models.

**3.4** The modelling results plus outline proposals shall be submitted to the Council for discussion one week in advance of the meeting. Following preliminary confirmation of the outline design by the Council, a Stage 1 Safety Audit shall be undertaken. After taking account of the audit findings, a final outline design should be submitted to the Council for confirmation.

### **4. DETAIL DESIGN**

**4.1** Detail design, taking account of relevant Council requirements, shall be developed for the agreed outline design. The detailed design shall be submitted to the Council for discussion at a meeting and preliminary confirmation. A Stage 2 Safety Audit should then be undertaken and, after taking account of the audit findings, a final design should be submitted to the Council for confirmation.

**4.2** Detail design shall include:

- a) the proposed layout;

- b) ducting and other civil engineering works required;
- c) relevant civil engineering details;
- d) controller specification (the 'TR2500' forms); and
- e) completion of specified proformas.

#### *Proposed layout*

- 4.3** The proposed layout at 1:200 shall show all poles (numbered clockwise from the controller), heads, loop and above ground detection, push buttons, controller and road markings plus staging diagrams and a cabling schematic.

#### *Ducting and other civil engineering works*

- 4.4** The proposed ducting and other civil engineering works drawing shall show at 1:200 all ducts, chambers, pole housings and loop chambers as well as the controller position and loops. Dropped kerbs, tactile paving, maintenance lay by etc shall normally be shown on a separate drawing.

#### *Civil engineering details*

- 4.5** Civil engineering details shall include ducting and chambers and other details as required.

#### *Controller specifications*

- 4.6** Controller specifications shall be prepared using a Word based document format (copies are available from the Council). The specification shall take account of the Council's standard requirements.

#### *Proformas*

- 4.7** In addition the following proformas shall be completed and returned:
- a) Controller Build Schedule (SDCC/PF/01); and
  - b) Equipment Schedule (SDCC/PF/02).

### **5. INSTALLATION, SWITCH ON AND MAINTENANCE**

- 5.1** This section defines the procedures to be followed with regard to the installation of traffic control equipment, switch-on and maintenance.

#### *Installation*

- 5.2** Prior to any installation works commencing, the following shall be undertaken:
- a) agreement of programme including factory and acceptance testing;

- b) identification of utilities and agreement of measures to be taken;
- c) agreement of traffic management measures and temporary works including any necessary temporary traffic control works;
- d) agreement of all pole and traffic control equipment locations; and
- e) at existing installations, submission of a schedule (SDCC/PF/03) of equipment at the site indicating what equipment is to be returned to the Council.

**5.3** Before commencement of work at any site, the Contractor shall consult with the Council and if necessary the Garda concerning the proposed method of installation, and the hours of work. Specific approvals shall be obtained by the Contractor in respect of:

- a) the times for partial or complete road closures;
- b) other traffic management measures; and
- c) location of a works compound.

**5.4** Where items of equipment are to be supplied by the Council, the Contractor shall collect the equipment as directed. The Contractor shall be fully responsible for the safe keeping of such equipment until the installed.

#### ***Switch-on***

**5.5** The following shall be completed prior to switch on:

- a) the works shall be completed to an acceptable degree;
- b) the Stage 3 Safety Audit shall be satisfactorily completed;
- c) preliminary as-built drawings shall be provided to the Council;
- d) appropriate documentation placed in the controller;
- e) all required testing is completed and the necessary test paper work submitted to the Council

#### ***Maintenance***

**5.6** The Contractor shall maintain the traffic signal equipment in accordance with the Council's maintenance performance requirements after switch-on until:

- a) a 'Final Completion Certificate' is issued; and
- b) a continuous period of thirty fault free days has been achieved.

**5.7** After issue of the Final Completion Certificate, and when a thirty day fault free period has been achieved, the Council maintenance contractor shall immediately take over maintenance of the traffic control equipment. The installation contractor shall provide a download of the controller fault log showing the thirty day fault free period. The thirty day period is to be continuous and end on the day the download is accepted by the Council.

**5.8** The Contractor shall provide, from the time of switch-on for a period of one-year, a return to base warranty service.

## **6. ADDITIONAL INFORMATION**

### **6.1** Additional information or clarification may be obtained from:

Traffic Management Centre  
Land Use, Planning and Transportation Department  
South Dublin County Council  
County Hall,  
Town Centre,  
Tallaght,  
Dublin 24

Tel: +353 (0) 1 46 26 826

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