TTOC -03 Regional Special Conditions to P43

Tauranga Transport Operations Centre TTOC-03 Regional Special Conditions to the P43 Specifications for Traffic Signals

Document History and Status

Revision	Date	Prepared By	Authorised By	Description
A	May 2014	Haydn Wardley	Haydn Wardley	For Use
B	June 2015	Haydn Wardley	Haydn Wardley	2.3.2 added change over switch, Named changed for TTOC Traffic>Transport
C	August 2015	Haydn Wardley	Haydn Wardley	Change use of draft national specs TTOC 04 document to P43 Specification for Traffic Signals, therefore changed the heading numbers to suit 3.12 now 2.6.1, 2.7 now Appendix C Figure C02 Cycle loop details, 3.11.1 now 3.11.3; Added 2.3 "Tyco Eclipse". Deleted 2.3.2, 3.13, 3.15, 4.4.1, 5. Amended 2.5, 2.7
D	August 2015	Haydn Wardley	Haydn Wardley	Amended document name to P43, Amended 2.3, Added 2.3.2 Stand-by Generator connection facilities (switch socket)
E	July 2016	Haydn Wardley	James Wickham	Removed 2.3 Traffic Signals Controller and Cabinet; 2.5 removed supplier, removed repaint requirement from TTOC supply, allowed "other suppliers of retention sockets, notes on pre-approved system and guarantee period. Added galvanised poles only, no paint required; 3.11.3 removed single pair requirement. Loop Feeder added continuous feeder.
F	August 2017	James Wickham	James Wickham	Added reference to TTOC documents that are shown in Appendix of TTOC 04 (P43)
G	May 2018	James Wickham	James Wickham	Removed 2.6.1 requirement to have Vic roads approved push buttons, this is now optional.
H	Nov 2021	Duncan Wilson	Richard Eaton	Major revision of document content and format

Disclaimer

Every attempt was made to ensure that the information in this document was correct at the time of publication. Any errors should be reported as soon as possible so that corrections can be issued.

This is a live document and users must ascertain for themselves that they have the latest version of the document. It is recommended that this confirmation is sought from TTOC each time the document is used.

General

Purpose

This document, *TTOC-03 Regional Special Conditions to the P43 Specification for Traffic Signals*, has been written as a regional supplement to the current NZ Transport Agency P43 Specification for Traffic Signals 2020. The purpose of this document is to define the regional special requirements required by TTOC. These special conditions apply to any Electrical Traffic Management Infrastructure or Traffic Signals work being done at any intersection or site where the intention is to connect the intersection or site to the SCATS and or CCTV systems operated by TTOC.

The special conditions are recognised in 'Section 1.2 Objectives' of the NZTA P43 Specification. The requirements set out in this document supplement and override the NZTA document, however both documents need to be read in conjunction.

It is further recognised that some matters that influence the final infrastructure configuration at a site are design decisions rather than installation or specification ones. In recognition of this it is highlighted that the document *TTOC-02 Requirements of Traffic Signal Design,* should also be read in conjunction with *TTOC-03,* to ensure all matters that may overlap are captured. TTOC has endeavoured to separate *TTOC-02* and *TTOC-03* broadly on the basis that *TTOC-02* is intended as a guiding document for Traffic Engineers experienced in and undertaking the tasks of signalised intersection design, while *TTOC-03* is intended as a guiding document for Contractors experienced in and installing / maintaining equipment on the network.

Review Process

This document has been produced by TTOC staff and continues to be maintained and updated by TTOC. TTOC welcomes constructive input from all parties to continually improve this document.

Contact

Further assistance contact +64 7 5777000 Tauranga Transport Operations Centre
cctv@tauranga.govt.nz

Regional Special Conditions:

The numbering used below refers to the P43 section that best aligns with the amendment or additional requirement being identified.

2.2 Signal Equipment Compliance and approvals

Unless otherwise specified by TTOC, controllers are to be Extra Low Voltage (ELV) and shall be capable of supporting dimming by control wire as specified in RMS specification TSI-SP-045. All new sites shall operate as ELV sites.

2.3.5 New Controller Type

Unless otherwise specified by TTOC, VC6 controllers are to be installed at TTOC managed traffic signal sites. The controller shall be compatible with the latest version of the SCATS software protocol.

At all greenfield sites the Controller cabinet shall have an additional Top-hat cabinet for the installation of the communications equipment.

To enable remote (SCATS) control over the times the audio features of the pedestrian crossings operate, at all new controller installations connect the XDY (Special Output Group) of the detector card via a loom to the power supply switch for the audio-tactile of the pedestrian buttons.

2.5 Poles

Where a pole retention socket is specified in the design, prior approval from TTOC is required for the specific system proposed to be installed with appropriate documentation, installation manual and 5-year guarantee period shall commence from the date of installation.

2.7A Above Ground Vehicle Detectors (New Clause)

Where above ground vehicle detectors are specified in a design, these shall be of the Microwave Radar type or other detection methods approved by TTOC. Prior approval from TTOC is required for the specific brand and model proposed to be installed with appropriate fitness for purpose documentation, installation manual and agreed guarantee period, that shall commence from the date of installation. TTOC prefer to use a consistent brand of unit at all signalised sites.

2.10 Communication and Camera Equipment (New Clause)

All traffic signal sites in the TTOC monitored regions are required to be connect to the TTOC SCATS system via the VC6 network port. Legacy serial to ethernet converters may be used with the permission of the TTOC ITS Engineer. Please contact the TTOC ITS Engineer prior to installation for guidance.

All new traffic signal sites in the TTOC monitored regions are required to have CCTV camera(s) installed and connected to the centralised TTOC VMS. The camera make and model will be advised by the TTOC prior to installation. The communications path must be capable of at least 5mbs as agreed with the TTOC. Communications can take the path of VDSL, Fibre or Wi-Fi depending on the location.

To provide flexibility around where and when equipment such as cameras and AGDs is installed, at all new sites each Signal Pole shall have two Cat 5 UG network cable runs continuous from the cabinet to the pole top. These cables shall each be suitably labelled at both ends to enable their future identification and terminated with a T568A plug end. Where a “Top-hat” is installed on top of the controller cabinet, in all new installations, each Cat5 cable is to be terminated in a RJ45 outlet in a “T568A” configuration.

4.4.1.1 Pole Access Ducting

On every pole installation the contractor must provide the TTOC Traffic Signals Engineer the opportunity to inspect the pole to duct connection prior to backfilling / concreting the pole insitu.

For all pole to duct connections that are not inspected by a TTOC representative the TTOC, at its discretion, may allow detailed photographic evidence of each pole/ducting installation to be submitted showing the connection to confirm its compliance with P43 requirements.

Appendix J – New Intersection Commissioning Form

The Contractor is responsible for completing the *TTOC-07 Site Acceptance Form*, with the commissioning RCA/TTOC Traffic Signals Engineer. This form replaces the Appendix J form of P43.

Appendix K – RAMM Asset Data Form

The Contractor is responsible for completing the *TTOC-08 Site Asset Collection Sheet*. This form replaces the Appendix K form of P43.