

ROADS AND MARITIME SERVICES (RMS)

QA SPECIFICATION TS201

APPROVAL OF ITS FIELD EQUIPMENT

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REVISION REGISTER

Ed/Rev Number	Clause Number	Description of Revision	Authorised By	Date
Ed 1/Rev 0		First Release	A Mehaffey	12-Mar-2015
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CONTENTS

CLAUSE	PAGE
FOREWORD	ii
RMS Copyright and Use of this Document.....	ii
Revisions to Previous Version.....	ii
Project Specific Changes	ii
1 GENERAL	1
1.1 Scope	1
1.2 Structure of the Specification	1
1.3 Definitions and Abbreviations	2
2 WORKFLOW FLOWCHART.....	3
3 DEFINITION OF APPROVAL ELEMENTS	4
3.1 The Applicant.....	4
3.2 ITS Help Desk.....	4
3.3 Valid Specification	4
3.4 Self-Assessment.....	5
3.5 Receipt of Submission	6
3.6 Clarification Request	6
3.7 Early Termination of Review	6
3.8 Supplementary Testing	6
3.9 Samples.....	6
3.10 Approval Authority.....	6
3.11 Approval Register.....	7
3.12 Approved Device Configuration	7
3.13 Unsuccessful Applications	7
3.14 Appeals	7
3.15 Resubmission of Application.....	7
3.16 Management of Changes to Approved Devices	8
3.17 Alternate Suppliers of Approved Devices	8
4 SUPPLY REQUIREMENTS.....	9
4.1 Supply of ITS Field Equipment.....	9
ANNEXURES TS201/A TO TS201/B – (NOT USED).....	10
ANNEXURE TS201/C – SCHEDULE OF HOLD POINTS.....	10
C1 Schedule of Hold Points	10
ANNEXURES TS201/D TO TS201/L – (NOT USED).....	10
ANNEXURE TS201/M – REFERENCE DOCUMENTS	10
M1 RMS Specifications	10
LAST PAGE OF THIS DOCUMENT IS	10

FOREWORD

RMS COPYRIGHT AND USE OF THIS DOCUMENT

Copyright in this document belongs to the Roads and Maritime Services.

When this document forms part of a contract

This document should be read with all the documents forming the Contract.

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This copy is not a controlled document. Observe the Notice that appears on the first page of the copy controlled by RMS. A full copy of the latest version of the document is available on the RMS Internet website: www.rms.nsw.gov.au/doingbusinesswithus/specifications

REVISIONS TO PREVIOUS VERSION

All revisions to the previous version (other than minor editorial changes) are indicated by a vertical line in the margin as shown here, except when it is a new edition and the text has been extensively rewritten.

PROJECT SPECIFIC CHANGES

Project Specific changes are **not allowed** to this document.

This document shall only be changed by RMS (General Manager ITS or delegate).

Projects seeking to use ITS Field Equipment not already approved by this process shall follow process TS202.

Requests for clarifications, re-issue, or other questions regarding this document should be directed to the ITS Help desk : ITSHelpDesk@rms.nsw.gov.au

RMS QA SPECIFICATION TS201

APPROVAL OF ITS FIELD EQUIPMENT

1 GENERAL

1.1 SCOPE

Roads and Maritime Services (RMS) have deployed a large variety of ITS Field Equipment throughout the NSW road network to enable the operation of Intelligent Transport Systems (ITS).

Approval of ITS Field Equipment is required prior to deployment, and the approval authority is the RMS General Manager ITS or delegate.

This specification is intended to assist suppliers and manufacturers to apply for approval of their field equipment by specifying the process used to determine suitable technology and devices via the interface provided via the ITS Help Desk.

This process evaluates suitability for generic usage across multiple installations and projects, rather than being limited to a smaller set of requirements for a particular defined project.

For definitions of types/levels of approval categories that may potentially be granted, and the list of items already approved by RMS, refer to RMS QA TS200.

This document TS201 is not intended for direct use by a project applicant, as it is aimed at suppliers and manufacturers. Projects may either use approved items on the RMS QA TS200 ITS Register, under the conditions given there, or apply for project based approval of alternate field equipment, using RMS QA TS202.

1.2 STRUCTURE OF THE SPECIFICATION

This Specification includes a series of annexures that summarise reference information.

1.2.1 Project Specific Requirements

Project Specific changes to this specification for approval are **not allowed**.

1.2.2 (Not Used)

1.2.3 Schedule of HOLD POINTS

The schedule in Annexure TS201/C lists the **HOLD POINTS** that must be observed. Refer to Specification RMS Q for definition of **HOLD POINTS**.

1.2.4 Reference Documents

Standards, specifications and test methods are referred to in abbreviated form (e.g. AS 2350). For convenience, the full titles are given in Annexure TS201/M.

1.3 DEFINITIONS AND ABBREVIATIONS

1.3.1 Definitions

The terms “you” and “your” mean “the Contractor” and “the Contractor’s” respectively.

The following definitions are applicable to this Specification:

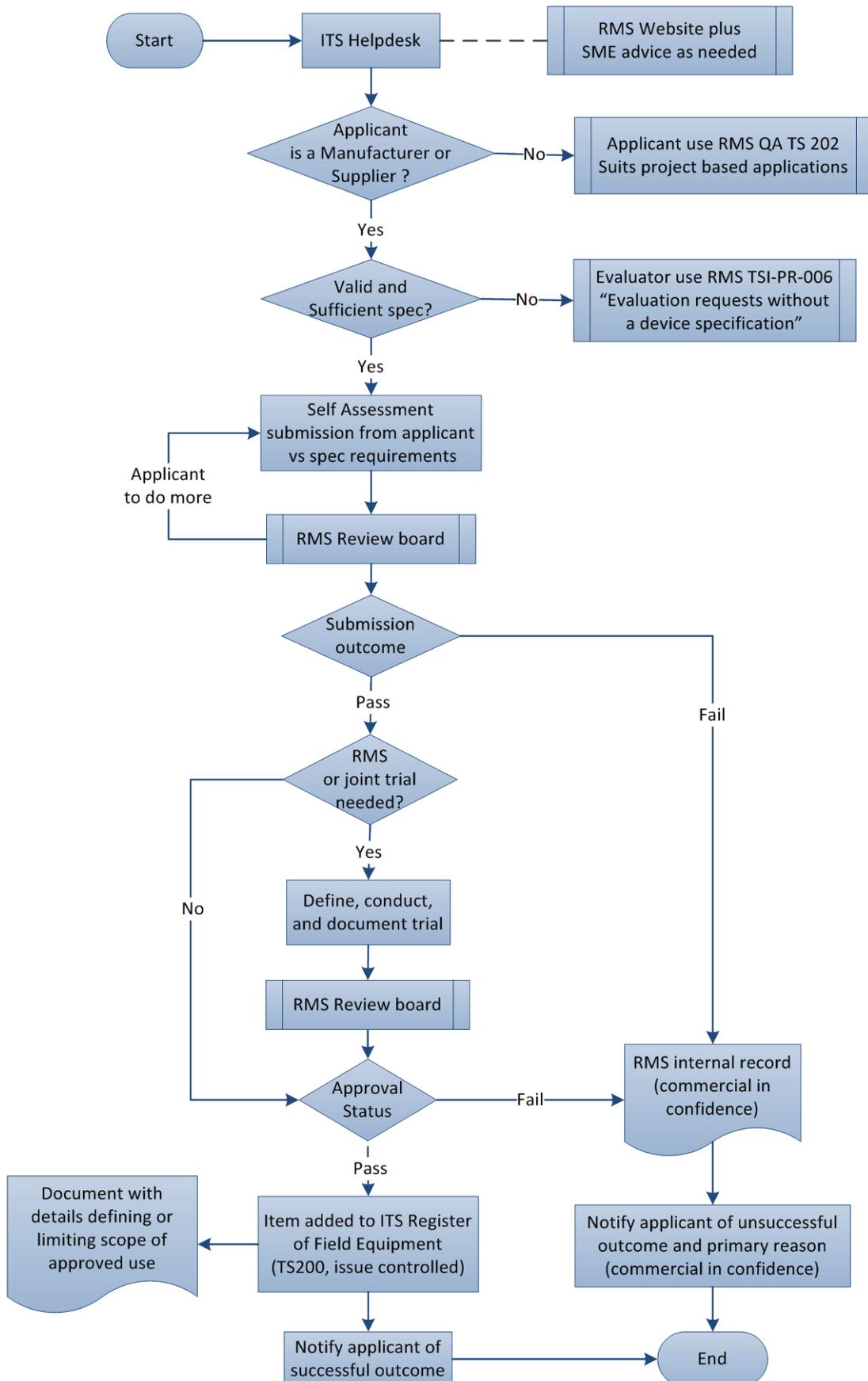
Intelligent Transport System (ITS)	An integrated technology solution using computer-based control systems which communicate with field devices (at one or more sites) to provide a functional outcome designed to improve journeys through the transport network.
ITS Field Equipment	Equipment needed to support the operation of Field Devices at an ITS Field Site (e.g. housing, off grid power supply, power conversion unit, cabling etc.).
ITS Field Device	An electronic device that provides a function at an ITS Field Site (e.g. camera, electronic sign, TSC communication module etc.)
ITS Field Site	Roadside location for ITS equipment.
General Manager ITS	Central RMS authority responsible for RMS ITS design approval, including approval/acceptance for supply of ITS Field Devices and Equipment and for ITS solutions. Leader of the RMS ITS group.
RMS Review Board	Group of persons within RMS supporting the General Manager ITS, to evaluate applications for ITS solutions, Field Equipment and Devices approval/acceptance.
ITS Register	The listing of ITS Field Equipment and Devices and the current classes of their suitability for supply to RMS by internal and external projects. This document is available to suppliers via the internet as RMS QA TS200.
Applicant	The individual submitting the application to RMS requesting approval (or enhanced approval) of an ITS Field Device, acting as the point of contact with RMS for the purpose of the submission.

1.3.2 Abbreviations

The following abbreviations apply to this Specification:

ITS	Intelligent Transport Systems
RMS	Roads and Maritime Services
TfNSW	Transport for New South Wales
SME	Subject Matter Expert

2 WORKFLOW FLOWCHART



3 DEFINITION OF APPROVAL ELEMENTS

The following items are provided to explain key aspects of the Approval Workflow.

3.1 THE APPLICANT

The Applicant for RMS TS201 approval may be:

An equipment manufacturer

An agent for an equipment manufacturer

A supplier of equipment

The applicant shall be the primary point of contact with RMS for the purpose of the approval process. Joint applicants are not acceptable.

If approval is granted, the approval applies to the ITS Field Device itself as provided by the applicant.

If the applicant is a project, the appropriate process to be followed is defined in TS202.

3.2 ITS HELP DESK

The applicant, or potential applicant, shall initially contact the ITS Help desk to determine which specifications and requirements apply, and how to access the applicable documents, commence and progress an application.

The ITS helpdesk is at the following email address: ITSHelpDesk@rms.nsw.gov.au

3.3 VALID SPECIFICATION

This specification currently identifies the process for approval of ITS Field Devices (and associated equipment) where RMS considers that a suitable specification, or a set of specifications, exists that sufficiently define the evaluation requirements.

Where no valid specification exists for the proposed ITS Device, the RMS internal procedure TSI-PR-006 "*Evaluation Requests without a Device Specification*" shall be used by RMS assessors to help evaluate the business value of the proposed ITS Device and determine the manner in which RMS shall respond to the applicant.

It should be noted by applicants that assessment of ITS Devices without a valid specification typically requires re-direction of RMS resources from their existing business priorities, and as a result RMS is not obliged to proceed with an ITS Device evaluation.

In addition, RMS primarily specifies and approves ITS Devices to ensure that they operate correctly with their associated RMS ITS control systems.

3.4 SELF-ASSESSMENT

The applicant shall provide a Submission document that details the applicant's assessment of why the equipment being considered meets the specification, with substantiation as appropriate. If the equipment does not meet a part of the specification, the applicant shall detail on the basis of underlying functional needs why they consider this may be admissible, with limitations and substantiation, as appropriate.

The table below lists items expected to be included in such a submission:

Statement of compliance	<p>This shall be at a minimum of clause by clause.</p> <p>Where the specification(s) have more than one requirement per clause, then a separate statement shall be made for each requirement.</p> <p>Level of compliance declaration: - Yes, no, partial yes – fully compliant to the letter of the clause, no – non compliant, reasoning if it is believed that the non-compliance is not relevant, partial – compliance is achieved through a means which is different to that required by the clause, or where the clause specifies a feature that does not completely apply to a novel method of achieving the clause, etc.</p> <p>Reference to the evidence which demonstrates that compliance is achieved.</p> <p>Where the equipment deviates from the specifications, those must be listed clause-by-clause in the statement of compliance.</p>
Evidence	<p>Example of evidence can be: Accredited test house report or certification. Self testing/demonstration where the quality system of the tester is sufficiently accredited. Visual, audio or combined files. Drawings.</p> <p>Calculations with annotations/working.</p> <p>Testimonials do not count as evidence but may be used to support partial compliance</p>
Configuration Statement	<p>Lists the primary item, and spare/replaceable parts of the device (those that RMS can purchase from the applicant), and their applicable model and version number, including version(s) of software/firmware installed on the part/item.</p>
Technical manual	<p>Required.</p>
Maintenance manual	<p>Required.</p>
Quality Plan	<p>This shall include main tests and controls from the manufacturer, and details of any additional controls conducted by the applicant, if separate, in supply of the items.</p>

All documentary submissions shall be treated as Commercial in Confidence between the applicant and RMS.

3.5 RECEIPT OF SUBMISSION

On RMS receipt of a documentary submission, an acknowledgement will be sent to the applicant.

3.6 CLARIFICATION REQUEST

The applicant shall assume that RMS will assess the submission “as is”. Accordingly the applicant shall provide a full and complete submission to minimise the risk of early rejection.

RMS may at their discretion seek a clarification on the submission document from the applicant, during the course of their review. This may include requests to conduct tests to provide supporting evidence. This provides the opportunity for the applicant to submit further evidence in support of a claim. However, applicants shall note that RMS is under no obligation to provide this opportunity.

3.7 EARLY TERMINATION OF REVIEW

RMS may at their discretion, either elect to review a submission in full, or only review a submission to the point that a failure outcome is obtained.

The following are examples of scenarios which may result in the termination of an RMS assessment:

- A compliance statement is found to be inadequate or false (applicant has incorrectly stated either “Compliant” or “Partially Compliant”).
- Systemic lack of sufficient evidence/justification in the submission to determine compliance.
- Non-compliance, without sufficient and credible reasoning supplied to explain why such non-compliance could potentially be acceptable to RMS.

3.8 SUPPLEMENTARY TESTING

Once the documentary submission is received and evaluated, a need may be identified for supplementary tests/trials. A test plan is to be documented (nominally by the applicant) to demonstrate the capability in question, and the plan must be acceptable to RMS.

All supplementary testing shall nominally be conducted, and funded, by the applicant.

Some tests/trials may be required that cannot be wholly conducted by the applicant, needing some degree of RMS involvement. An example would be to test for integration where the applicant’s equipment is required to communicate, or otherwise integrate, with RMS’ legacy systems.

3.9 SAMPLES

The applicant shall supply a sample of the Field Device/Equipment (or more if required) for RMS evaluation, if requested to do so, as needed to permit the defined evaluation plan to be conducted.

3.10 APPROVAL AUTHORITY

RMS Approval is granted by the General Manager ITS or delegate.

3.11 APPROVAL REGISTER

If RMS approval is granted, the approved ITS Device will be listed in the Approval Table contained within the RMS Register of ITS Field Equipment (RMS QA TS200), together with the associated applicant. Several classes of approval exist.

RMS QA TS200 is publically available via the RMS website.

3.12 APPROVED DEVICE CONFIGURATION

RMS Approval applies to the hardware/software version of the field device that has been evaluated, as identified in the ITS Device's Configuration Statement.

The applicant is required to notify RMS of any changes to the hardware/software version of the ITS Device after RMS Approval has been granted. The applicant is required to advise RMS of the nature of any changes, and their expected impacts to the ITS Device.

Any notification of ITS Device changes should be sent via email to RMS via the ITS helpdesk.

3.13 UNSUCCESSFUL APPLICATIONS

If an application for approval is unsuccessful, the applicant will be notified.

The RMS notification will identify at least one key item which initiated the rejection, but RMS does not undertake to identify all shortcomings potentially present in the application. This particularly applies in the case of an early rejection, where parts of the application information may not have been reviewed.

Information about unsuccessful applications are not made publicly available, however internal RMS records are kept of the failed application. The RMS records of prior applications will be consulted by RMS reviewers in the case of subsequent applications being made for the same device.

3.14 APPEALS

An applicant may appeal a failed approval if they believe that due process has not been followed, or that an error has made during evaluation. The process involved for the applicant is to detail the grounds for the appeal, and send the appeal to the ITS helpdesk.

Applicants should note that the RMS approval decision is based on the original submission made by the applicant. Presentation of new information omitted from the original application is nominally not accepted by RMS as a reason to reconsider a failed application.

3.15 RESUBMISSION OF APPLICATION

If an applicant has previously failed to be granted approval, they may re-submit a new improved application.

Applicants should note that re-submitted applications are added to the RMS "evaluation queue" that exists at that time, and may experience significant delay prior to a re-evaluation by RMS.

3.16 MANAGEMENT OF CHANGES TO APPROVED DEVICES

Change to approved devices may sometimes be necessary.

If a change to an approved field device is planned the applicant shall promptly notify RMS of the proposed change, and submit information to help RMS verify that the change will not adversely impact the RMS use of the approved ITS Device.

RMS must also be notified if an unplanned change is found to have occurred.

A changed field device is classed as unapproved until RMS has conducted an evaluation of the change and determined that it is acceptable.

However, minor changes where well supported by an appropriate level of submission will typically only require brief evaluation, followed by approval of the changed device.

Depending on the nature of changes, and traceability aspects, an approval may be managed either by confirming the original approval continues to be valid post-change, or in the case of a change to the model number of the field device, by separately approving the new model.

3.17 ALTERNATE SUPPLIERS OF APPROVED DEVICES

An approval relates to the field device, rather than the applicant. However, the original applicant will be listed in the approval table as “original”, against that device.

A project may seek to use a different supplier for a device that has already been approved, or an alternate supplier may seek such approval.

In such cases an application shall be made to the ITS helpdesk, either by the alternate supplier, or by the project.

This application shall contain information that shows that the device being supplied from the alternate source is the same as the approved device, and detailing quality controls and process relating to the supply, so it can be established whether the ITS Device is sufficient/equivalent compared to that of the original applicant.

The application will be handled in workflow under the same process as an original application, and if successful, the alternate supplier will be listed in the approval table.

If a company/supplier on the approval list changes name, an application is to be submitted by the renamed entity, as for the alternate supplier process.

4 SUPPLY REQUIREMENTS

4.1 SUPPLY OF ITS FIELD EQUIPMENT

Any ITS Field Equipment proposed for supply to RMS must be approved as being suitable by RMS.

HOLD POINT

Process Held: Supply of ITS Equipment for maintenance or project works.

Submission Details: Confirmation that proposed ITS Devices have been approved, via use of ITS Devices previously accepted by RMS (ref: RMS QA TS200), or by project based approval (ref: RMS QA TS202).

Release of Hold Point: The General Manager ITS or delegate will validate the information provided, prior to authorising the release of this Hold Point.

ANNEXURES TS201/A TO TS201/B – (NOT USED)

ANNEXURE TS201/C – SCHEDULE OF HOLD POINTS

Refer to Clause 4.1.

C1 SCHEDULE OF HOLD POINTS

Clause	Type	Description
4.1	Hold	Supply of ITS Equipment for maintenance or project works

ANNEXURES TS201/D TO TS201/L – (NOT USED)

ANNEXURE TS201/M – REFERENCE DOCUMENTS

M1 RMS SPECIFICATIONS

RMS Q	Quality Management System
RMS TS 200	Register of ITS Field Equipment
RMS TS 202	Approval of ITS Solutions for Projects
TSI-PR-006	Evaluation Requests without a Device Specification