





Austroads Safety Hardware Training Accreditation Scheme

Design, Installation, Maintenance and Repair of Road Safety Barrier Systems

Quality Management in Highway Works Scheme Requirements

Revision: 2.0

	Austrroads Safety Hardware Training Accreditation Scheme	 <i>Austrroads</i>
	Design, Installation, Maintenance and Repair of Road Safety Barrier Systems	

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Disclaimer:

It is the responsibility of the individual to ensure that all activities undertaken meet your employer's Safe System of Work [SSoW], as contained within the Works Package. The SSoW may include RAMS (Risk Assessment and Method Statements), Lift Plans and/or Site Rule as appropriate for the task.

Revision Control:

Date:	Revision:	Change Log:	Prepared:	Checked:
02/22	0.0	New	BC	SC
05/22	1.1	Amendment and clarification	SC	BC
06/22	2.0	Final draft	SC	

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Introduction:

The Austrroads Safety Hardware Training Accreditation Scheme – ASHTAS (i.e., Scheme) is designed by Austrroads, Austrroads members and Lantra to improve the quality and consistency of Road Safety Barrier Installation. All clients wishing contractors to comply with the Scheme should reference the need for those businesses to comply with the guidance set out in this Scheme document.

The Scheme Administrator, Lantra, will work with Austrroads to develop relevant training and keep that training up to date, as well as quality assure the delivery of training through approved training providers.

Both, Lantra and Austrroads, maintain websites related to the Scheme to provide useful information to clients and installation companies see:

www.austrroads.com.au



www.lantra.co.uk

All accredited individuals will have virtual cards which clearly set out the competences of each individual, in addition the Scheme Administrator can be contacted to validate any training undertaken by any individual.



The above websites will provide a list of approved training providers who support the delivery of the Scheme. These approved training providers will provide all the support and guidance needed by individuals to ensure that they can complete the training and logbooks to the best of their ability.

The detailed training requirements within the Scheme are set out in Appendix B.

1. This Accreditation Scheme Document (ASD) relates to the quality management system requirements for Austrroads Safety Hardware Training & Accreditation Scheme – ASHTAS for all Road Safety Barrier Systems (RSBS). It sets out the particular requirements for the Scheme, aligned with ISO 9001:2015 for Organisations engaged in the sector. The document can be read in conjunction with ISO 9004:2018 to support your existing quality management systems.
2. Austrroads (in consultation with Lantra) and through its review body, namely the ASHTAS Reference Committee and operational panel, namely the Austrroads Safety Barrier Assessment Panel (ASBAP), determine relevant particular requirements based on ISO 9001:2015 in relation to the requirements of their particular activity and comes to a consensus on the minimum levels of:



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- 2.1. Workmanship
 - 2.2. Services
 - 2.3. Training and competency of personnel
 - 2.4. An Organisation registered under the Accreditation Scheme.
3. The above Austrroads and Lantra arrangements provide a forum for discussion on the effectiveness of this Scheme and co-ordinates developments so that they can be uniformly taken forward.
4. This Scheme together with ISO 9001:2015 is designed to:
- 4.1. Provide specific particular requirements for the industry
 - 4.2. Identify risks and opportunity
 - 4.3. Provide an industry benchmark
 - 4.4. Ensure that all processes are planned
 - 4.5. Provide a basis for continued improvement
 - 4.6. Focus on quality as an objective
 - 4.7. Reduce costs for Client and Organisation
 - 4.8. Provide and maintain a properly trained and competent workforce
 - 4.9. Involve all sides of industry in Scheme ownership within a partnership framework
 - 4.10. Promote confidence in quality management systems through provision of a robust transparent system.
5. Scheme Feedback
- 5.1. Any observations or complaints relating to the operation of this document and the Scheme should be addressed using the procedures given in Appendix E. Appendix E is to be used for observations and general queries concerning the document and general feedback.
 - 5.2. Appendix E form will be responded to at the next (i.e., subsequent) meeting of Lantra and Austrroads. If the Appendix E form contains information that is critical, then exceptionally action can be taken prior to the meeting by the chairperson for instance by arranging an extraordinary meeting of Lantra and Austrroads. The secretary will normally advise the originator of receipt of the Appendix E form and when the next meeting is expected to be held.
6. Scheme Contact
- Observations or complaints regarding this Scheme should be sent to:
 The Scheme Manager
 Lantra
 E-mail ashtas@lantra.co.uk
7. This ASD is a live document with Lantra and Austrroads having a scheduled series of meetings to maintain the currency as appropriate.



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Particular requirements for the application of this Scheme

1. Scope



This ASD, together with the international standard ISO 9001:2015, describes the requirements of the quality management system to be established by Organisations for road safety barrier systems, which are installed or have been installed on a road or highway. The ASD shall be read and implemented to complement the international standard.

The document provides particular requirements additional to ISO 9004:2018. Organisations will only need to comply with the scope of activity(ies) that they provide under this accreditation Scheme as described in 4.3.

2. Normative reference

The following normative documents contain provisions which constitute provisions of ISO 9001:2015 Quality Management Systems – requirements:



- ISO 9000:2015 Quality Management Systems – fundamentals and vocabulary
- ISO 9001:2015 Quality Management Systems – requirements and normative references within it
- ISO 9004:2018 Quality Management Systems – managing for the sustained success of an Organisation. a quality management approach
- Austrroads Guide for Road Design
- Austrroads Glossary of Terms (2015 Edition).

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3. Terms, definitions and abbreviations

3.1 For the purpose of this quality management document the following terminology shall apply



(ASHTAS) Designer	<p style="text-align: center;">NOT YET CREATED</p> <p>A person who has undergone appropriate training as detailed in the ASHTAS documents.</p>
(ASHTAS) Experienced Installer	<p>A member of the RSBS crew who has undergone ASHTAS Installer training and completed the second stage of their logbook; the Experienced Installer will have a minimum of 36 months experience and will have refreshed the ASHTAS Installer training.</p>
(ASHTAS) Installer	<p>A member of the RSBS crew who has undergone ASHTAS Installer Module A training, has also undertaken Module B training on 1 or more public domain systems and/or 1 or more proprietary systems and has completed the stage 1 logbook.</p> <p>The RSBS Installer may undertake the sign-off activity for the designated (trained on) barrier product.</p>
(ASHTAS) Operative	<p>Member of the installation crew actively installing RSBS having met ASHTAS requirements for an Operative level qualification.</p>
(RSBS) Proprietary Installer	<p style="text-align: center;">See ASHTAS Installer above.</p>
Installation Designer	<p>The entity that designs the length, location and types of components of a system to be installed on a section of the road network. The Installation Designer designs the system to suit the particular conditions of the section of road network.</p> <p style="text-align: center;">Note: In the future this could require a RSBS Designer qualification.</p>
Leading Hand	<p>A Leading Hand is designated by the Employer. This may be given to either an ASHTAS Proprietary Installer or ASHTAS Experienced Installer.</p> <p>A Leading Hand (competent person) MUST sign-off/handover the installation.</p>
System Installer	<p>The entity that installs the system.</p> <p style="text-align: center;">See (ASHTAS) Installer above.</p>

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System Manufacturer	The entity that manufactures the system or device components.
System Owner	The entity that has the property rights or the intellectual control for the system or device through ownership.
Stage 1 logbook	The Initial logbook that includes activities from Module A Installer training and Module B training. A Stage 1 logbook must be approved by an RTO to achieve 'RSBS Installer' qualification.
Stage 2 logbook	An ongoing logbook that includes all installation activities. A Stage 2 logbook must be approved by an RTO to achieve 'RSBS Experienced Installer' qualification.
System Supplier	The entity that supplies the system or device.

3.2 For the purpose of this quality management document the following acronyms shall apply

AASHTO	American Association of State Highway and Transport Officials	
AGRD	Austrroads Guide for Road Design	To include the Road Authority interpretations.
ASHTAS	Austrroads Safety Hardware Training & Accreditation Scheme	
ASD	Accreditation Scheme Document	The Scheme specification document for ASHTAS (equivalent of UK's SSD).
EQA	External Quality Assurer	
IPV	Impact Protection Vehicle	A truck with a mobile crash cushion fitted, used for traffic management activities
ISO	International Organisation for Standardisation	
ISO 9001	Quality Management System	International Standard from the International Standards Organisation, current standard was issued in 2015

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MASH	Manual for Assessing Safety Hardware	
NCHRP	National Cooperative Highways Research Program	
NHSS	National Highway Sector Scheme	UK – industry driven standard for works carried out on roads based on ISO 9001, to promote quality and safety in highway works.
QA	Quality Assurance	The maintenance of a desired level of quality in a service or product, especially by means of attention to every stage of the process of delivery or production (passive activity).
QC	Quality Control	A system of maintaining standards in manufactured products by compliance with procedure to achieve an output that meets the specification, may include testing (active activity).
RSBS	Road Safety Barrier System	Used in conjunction with a worker, e.g. ASHTAS Designer or ASHTAS Operative.
RTA	Road Traffic Accident	
RTO	Regional Training Organisation	
SQEP	Suitably Qualified and Experienced Person	
SSoW or SWMS	Safety System of Work or Safe Working Method Statement	Document that provides instruction with regard to risk for the task being undertaken, this is not only safety risk, but the risk of failing to deliver the correct product quality, so specifications i.e. post pitch,

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		torque, etc. are contained in this document(s).
TRSBS	Temporary Road Safety Barrier System	Used to differentiate between temporary and permanent RSBS.
TTM	Temporary Traffic Management	

3.3 Other

Anchorages	The method by which a surface mounted vehicle restraint system is securely attached to a structure or suitable foundation of structure.
AS/NZS 3845-1	Road Safety Barrier Systems and Devices Part 1: Road Safety Barrier Systems
Certificate of Registration	A certificate issued by a UKAS accredited Certification Body certifying that the holder operates a Quality Management System complying with BS EN ISO 9001: 2015 and the ASD.
Components	All the necessary elements, including fastenings, which separately and together are necessary to create a road safety barrier system as required, all necessary elements, as produced under factory production control.
Contract	The agreement between the customer and the Organisation.
Contract Specification	The technical requirements of the contract agreement, for example the following may apply: AGRD contract specific appendices the contract drawings
Demolition of Foundations	An activity to be carried out as a specialist service. This activity is not covered by the scope of this document and the ASHTAS training and assessment does not cover removal of foundations.
Design and Development*	The process of converting the design specification requirements for RSB installation into a plan to deliver the output requirements of a contract.
Inspection*	An ongoing activity from start (design) to finish (end of life) to ensure that the product meets and continues to meet the required performance (see Appendix H).



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Installation	The process of assembling, placing in-situ and site testing the necessary RSB parts, fasteners and foundations in accordance with the manufacturer's instructions and the requirements of a contract.
Maintenance	The process of inspection, assessment and subsequent restoration of an installed RSB to keep it in good condition and working order, to continue to meet the requirements laid out in the manufacturer's documentation and relevant National Standard.
Quality*	The totality of features and characteristics of a product or service that bears its ability to satisfy stated or implied needs.
Quality Plan*	The document setting out the specific quality practices, resources and sequence of activities relevant to the project (See Appendix A).
Quality Management System*	The Organisation's structure, responsibilities, procedures, processes and resources for implementing Quality Management in accordance with the requirements of this document.
Repair*	The process of replacing broken, damaged, faulty, worn, sub-standard or failed components of a RSB to restore the system(s) to ensure the installed system(s) continue to meet the requirements laid out in the manufacturer's instructions and relevant National Standard, including the dismantling of the system but NOT including the removal of the foundation (specialist activity). The repair will include the reinstatement of the ground as necessary.
"Shall" *	The term "shall", indicates a requirement, strictly to be followed in order to conform to the standard and from which no deviation is permitted (See ISO Directives Part 3:1997, Annex E) (reference "guidance on terminology used in ISO 9001 and ISO 9004".)
"Should" *	The term "should" is used in this document to indicate recognised means of meeting the requirements of this standard. An Organisation can meet these in an equivalent way provided this can be demonstrated to a Conformity Assessment Body (CAB) (Certification Body).
RSBS Skills registration e-card	A card issued by Lantra, which denotes the types of RSBS the e-card holder can install.
Lantra	The appointed Administrator for services and training, competency assessment and registration as defined in this ASD. In addition, Lantra are an Awarding Body recognised

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	by Ofqual and able to develop regulated training and qualifications
Crew	A structured team of qualified individuals assigned to installing a safety barrier. The crew size and composition of the crew must be appropriate for the task. The Employer will set the crew structure, composition and size. However, the employer must ensure compliance with this document.

* The terms and definitions given in ISO 9000 remain applicable unless otherwise changed above.

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4 to 10 Quality Management System Requirements

Particular requirements of this Scheme

Introduction

This document has been designed to align and compliment the requirements of ISO 9001:2015.

Clause/paragraph numbers in this section reference appropriate paragraphs of ISO 9001:2015.

Where 'no specific particular requirements' are recorded the ISO 9001 clause stands.

4. Context of the Organisation

4.1 Understanding the Organisation and its context

The Organisation shall select the activities and services within its scope.



4.2 Understanding the needs and expectations of interested parties

Interested parties shall include the Customer, Client and other contractors, and those that interact with or use the Client's infrastructure, such as the public, emergency services, other organisations and associations. This includes the impact of RSBS activities on other works including congestion and traffic flow/s.

4.3 Determining the scope of the quality management system

The scope of the quality management system shall cover the range of specific services that the Organisation is competent to supply. Outsourced services shall be controlled in accordance with this Scheme.

For the purpose of clarity, it should be noted that this Accreditation Scheme Document applies to Organisations carrying out all types of road safety barrier system works; it is also applicable to deformable, non-deformable systems and gates within cast in-situ concrete sections i.e. concrete slip-form construction is excluded. Any demolition/removal of foundations is not covered by the scope of this document.

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4.4 Quality management system and its processes

4.4.1 No specific particular requirements

4.4.2 Not applicable to this Scheme.

5. Leadership

5.1 Leadership and commitment

5.1.1 General

The Organisation's policy document shall include top management support for this accreditation Scheme.

5.1.2 Customer focus

Processes for determining customer requirements shall consider the interaction with other works, the interests of the Client and the product and service end users, e.g. the general public and travelling public and other interested parties and shall be mindful of the Client's interaction with the end users. This will include processes to minimise disruption and inconveniences. Safe working methods shall be documented and any deviation from these methods shall be notified to the Client/Customer/interested parties as required.

A copy of all relevant safe systems of work and risk assessments for undertaking the works shall be submitted to the customer.

5.2 Policy



5.2.1 Establishing the quality policy

The Organisation's quality policy statement shall include a statement of commitment to this ASD.

5.2.2 Communicating the quality policy

No specific particular requirements.

5.3 Organisational roles, responsibilities and authorities

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Where required in the contract agreement such information as necessary shall be included in a contract specific quality plan (See Appendix C).

6. Planning

6.1 Actions to address risks and opportunities

- 6.1.1 The Organisation shall consider the risks and opportunities relating to this accreditation Scheme
- 6.1.2 The Organisation shall set quality objectives relating to sustainability and environmental performance. These shall include targets for minimising waste disposal and maximising recycling on site, improving the environmental performance of the Organisation, and use of recycled materials.

6.2 Quality objectives and planning to achieve them

- 6.2.1 No specific particular requirements
- 6.2.2 The organisation shall set quality objectives relating to sustainability and environmental performance. These shall include targets for minimising waste disposal and maximising recycling on site, improving the environmental performance of the organisation, and use of recycled materials.

6.3 Planning of changes

No specific particular requirements.

7. Support



7.1 Resource

7.1.1 General

7.1.2 People

The roles of persons necessary for the effective implementation of the QMS may include the following:

- Installation roles
- Supervisory roles

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- Managerial roles
- Inspection roles.

All roles shall be documented in the Organisations Quality Plan (see Appendix C).

Installation roles will include:

Labourers

Labourers are not permitted to work directly on the RSBS Installation.

ASHTAS Operatives

An Operative is permitted to work on a RSBS installation, but final sign-off of the installation must be undertaken by an ASHTAS Leading Hand (see below).

ASHTAS Installers

An Installer is able to work directly on RSBS installations and is deemed competent to complete sign-off activity (inspection and verification) of an installation or repair activity.

ASHTAS Experienced Installer

The experienced Installer has completed the Stage 2 Logbook (demonstration of 36 months experience). Renewed relevant Installer and/or Proprietary RSB Installer training; e.g., has maintained knowledge base and can undertake sign-off activities.

Note: failure to maintain installer level training will result in loss of designation and require retraining.

Leading Hand



A Leading Hand is designated by an installation company. This position must be assigned to either an Installer or Experienced Installer. A Leading Hand must sign off/handover barrier installations and as such must have completed Module B training for that product/grouping.

Crew size and composition:

Minimum 2	Maximum 8
1 x Leading Hand 1 x Installer or Operative	1 x Leading Hand 1 x Installer 6 x Installer or Operative

Crew ratios:

Maximum Installer/Operative ratio; 1 x ASHTAS Installer to 3 x ASHTAS Operatives.

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The ASHTAS Installer may have up to 3 Installers or Operatives directly under his/her control, if the task warrants more personnel; a second Installer may be included within the crew with an additional 3 Installers or Operatives under his/her control. This gives a maximum ratio of Installer to Operative of 1:3, again some operatives may be replaced by additional installers. The minimum number of personnel in a crew is 2; this is to prevent lone working and the associated risks.

Additional notes:

The crew can either be overseen by a supervisor who is overseeing several crews or activities; or the crew may contain a supervisor. This does not affect the crew ratios.

The Leading Hand is an ASHTAS Installer who is designated by their employer to have the responsibility of the RSBS handover (declaring it is fit for use, e.g., installed as per the designer’s requirements).

The Leading Hand and/or ASHTAS Installer will give work instructions to General Labourers (not part of the gang), Plant Operators, Banksmen etc. for associated non-installation activities.

Site Supervisory and Managerial roles:



It is the responsibility of the Organisation to appoint nominated representatives who have site supervisory and/or managerial responsibilities for RSBS installation.

Duties may include but are not limited to:

- Determining the plant and equipment required to carry out the works safely and effectively.
- Carry out Risk Assessments and complete Method Statements and ensure others know how to report back. Where applicable this will include any temporary traffic management arrangements and identification of underground and over ground services.
- Be present at the start of work to ensure datum point is established, supervise and monitor the installation to ensure work is in accordance with the Manufacturer’s Instructions.
- Liaise and collaborate with Clients and others involved with the works to ensure any issues arising are resolved to their satisfaction.
- Sign off completed works and hand over to the customer.

Inspection roles:

Duties may include but are not limited to: TBC.

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Service design and development:

- Validation and verification of the design
- Implementation of the design (including the quality plan)
- Inspection of the finished installed system(s) prior to handover.

Maintenance and repair activities during the life of the RSBS product:

- During serviceable life
- After replacement or repair.

7.1.3 Infrastructure

No specific particular requirement.

7.1.4 Environment for the operation of processes

No specific particular requirement

7.1.5 Monitoring and measuring resources

7.1.5.1 General

The Organisation shall maintain documented information to demonstrate the manner and frequency of the calibration of the measuring and test equipment (See Appendix D for guidance).

7.1.5.2 Measurement traceability



No specific particular requirement.

7.1.6 Organisational knowledge

The Organisation shall describe its knowledge by reference to Appendix A, Appendix B, and Appendix F.

Note: Reference and legal documents listed in Appendix A are the main documents relevant to this Scheme, however it should be noted that this list is not exhaustive and is only current at the time this version of the Scheme document is published.

The Organisation is responsible for providing access to all applicable documentation relating to the works being undertaken and that the appropriate versions are used.

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7.2 Competence

General

The training and assessment of competency of personnel required by this Scheme is aimed primarily at technical competence for this Scheme's personnel.

It is intended to enable/assist and support employees to carry out work in a safe manner however it remains the responsibility of the Organisation to determine and implement safe systems of work.

Assessment and qualifications

To assess competence within the Organisation the following criteria should be considered and evidenced.

- **S**kills
- **K**nowledge
- **A**ttitude
- **T**raining
- **E**xperience.

The competence of people shall be defined as follows:

Criteria for new Operatives and Installers

See Appendix B.

Designation criteria for a Supervisor



A person who has the appropriate skills to oversee the installation of the type of RSBS which they will be supervising (See terms and definitions for Supervisor).

Designation criteria for a Manager

It is recommended that the Manager undertakes the appropriate ASHTAS training course(s) for the type of RSBS being installed by their Organisation (See terms and definitions for Manager).

Designation criteria for a Senior Executive/Owner/Director

Where Directors/Owners (normally office based) have a direct involvement in the management of ASHTAS contracts, it is recommended that where appropriate they attend relevant ASHTAS training course(s) for the type of RSBS being installed by their Organisation.

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7.3 Awareness

No specific particular requirements.

Communication

The relevant quality plan and standard operating procedures shall be communicated to all relevant employees.

7.4 Documented information

7.4.1 General

Typical quality plan requirements are listed in Appendix C.

7.4.2 Creating and updating

No specific particular requirement.

7.4.3 Control of documented information

7.4.3.1 No specific particular requirement.

7.4.3.2 Control of documents

The Organisation shall have procedures in place to ensure that the latest versions of relevant Standards and Documents are always available (See Appendix A).



Control of records

The Organisation shall determine which documents shall be retained in order that they are available for inspection in any future investigations, for example, road traffic accidents.

8. Operation

8.1 Operational planning and control

- i. Where considered necessary by the Organisation, a project specific Quality Plan should be produced describing the processes that will be implemented in that project using Appendix C and associated contract documents.

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- ii. The quality plan should not be considered in isolation. An integrated approach should be taken which links the quality plan, Environmental Plan, Sustainability Plan, the Health and Safety Plan, Risk Management etc. together. Management of the service as a whole is reliant on quality and hence the contract and the quality element cannot be separated, as one cannot function without the other.

NOTE: The quality plan describes the management strategy that sets clear and sustainable performance objectives, delegates' responsibility and establishes lines of communication. The objective being to manage the various management schemes within an overall management scheme within an Organisation.

- iii. The Organisation shall, in order to reduce the need for waste disposal, minimise the generation and environmental impacts of wastes arising during the contracted works and shall maximise opportunities for the re-use and recovery of wastes. The Organisation shall document its arrangements for the identification, segregation, handling, storage and disposal of the different types of wastes arising from the contracted works.

8.2 Determination of requirements for products and services

8.2.1 Customer communication



In relation to RSBS, the information listed below shall be provided in English by the Organisation to the customer:

- i. Manufacturer's specification, Declaration of Performance (DoP)
- ii. Installation drawings
- iii. Manufacturer's installation instructions or installation manual, including foundation requirements and test methods to verify their performance
- iv. Manufacturer's repair and maintenance manual
- v. Where there are contract specific requirements, specify requirements for loads imposed by RSBS(s) on foundations or structures, the nominal loads (direct forces, moments and co-existent shears) that will be transferred from the RSB to the structure or foundation shall be provided.

8.2.2 Review of requirements related to products and services

8.2.2.1 Customer communication

No specific particular requirement.

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8.2.2.2 Customer communication

No specific particular requirement.

8.2.3 Changes to requirements for products and services

No specific particular requirement.

8.3 Design and developments of products and services

8.3.1 General

No specific particular requirement.

8.3.2 Design and development planning

No specific particular requirement.



8.3.3 Design and development inputs

Where applicable, the Organisation shall demonstrate how it conforms to the customer specification of works, for example:

Durability

Safety barriers, vehicle parapets, terminals, transitions and crash cushions shall conform to the following:

- i. All components shall be designed to achieve a serviceable life of not less than:
 - a. 20 years for metal safety barriers, terminals, transitions and crash cushions
 - b. 30 years for metal vehicle parapets and metal components of combined metal and concrete vehicle parapets; and
 - c. 120 years for concrete vehicle parapets and concrete components of combined metal and concrete vehicle parapets.
- ii. For metal vehicle parapets and metal components of combined metal and concrete parapets the serviceable life shall, except where stated in a contract specific document, be obtained without the requirement for any maintenance other than that resulting from accidental damage. In addition, metal components of combined metal and concrete parapets shall be capable of replacement without damage to the concrete components.

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8.3.4 Design and development controls

No specific particular requirements.

8.3.5 Design and development outputs

No specific particular requirements.

8.3.6 Design and development changes

No specific particular requirements.

8.4 Control of externally provided products and services

8.4.1 General

The Organisation shall establish procedures to ensure that RSBS(s) [and components] are purchased/obtained from a supplier meeting the contract and design requirements.

Procedures shall include details of the RSBS suppliers, installation instructions and essential information to facilitate the installation of the system where this is applicable.

Drilled in anchorages shall be installed in accordance with the manufacturer's installation instructions.



(NOTE: Personnel assembling and installing a RSBS must be able to demonstrate their compliance with Appendix B within this ASD and hold the relevant skills registration ecard). It is the responsibility of the Organisation to undertake due diligence of any external provider.

8.4.2 Type and extent of control of external provision

The Organisation shall establish, implement and record the inspection or other activities necessary for ensuring that purchased products meet specified purchase requirements, including installation of the product.

8.4.3 Information for external providers

No specific particular requirements.

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8.5 Production and service provision

8.5.1 Control of Production and service provision

No specific particular requirements.

8.5.2 Identification and traceability

Where there are legislative and/or contractual requirements, there must be an auditable process of document retention which can be clearly identified and traced.

Works orders, risk assessment and RSBS quality plans for the installation, maintenance and repair of the sector scheme activity shall be signed by the relevant designated personnel and retained for a period as specified by the contract requirements. They will also be submitted to the client if requested.

The organisation shall have a system in place which provides documented information to demonstrate the manner and frequency of the calibration of the measuring and test equipment (See Appendix D for guidance).

Documentation required as a minimum to demonstrate compliance with the contractual requirements will typically include:

- Calibration records
- System specified site test results (e.g., push/pull test)
- Anchorage test results.



8.5.3 Property belonging to customers or external providers

The quality management system shall include a procedure for materials which are supplied by the Customer or the Client. For example, RSBS components which may be pre-used.

The Organisation may accept un-damaged pre-used components (excluding fasteners), as specified by the manufacturer/promoter, as representing Customer Supplied Product in maintenance work, repair work or where specifically required in a contract.

8.5.4 Preservation

Systems shall be in place to inspect and maintain all goods returned from site before their subsequent use.

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8.5.5 Post-delivery activities

Information required to be provided by the supplier after installation

No specific particular requirement.

8.5.6 Release of products and services

No specific particular requirement.

8.6 Release of products and services

No specific particular requirement.

8.7 Control of nonconforming outputs

8.7.1 No specific particular requirement.

8.7.2 Documented information shall be retained in accordance with 7.5.

9. Performance evaluation

9.1 Monitoring, measurement, analysis and evaluation

9.1.1 General

No specific particular requirement.

9.1.2 Customer satisfaction



No specific particular requirement.

9.1.3 Analysis and evaluation

No specific particular requirement.

9.2 Internal audit

No specific particular requirement.

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9.2.1 No specific particular requirement.

9.2.2 No specific particular requirement.

9.3 Management review

9.3.1 Management review

No specific particular requirement.

9.3.2 Management review inputs

No specific particular requirement.

9.3.3 Management review outputs

No specific particular requirement.

10. Improvement

10.1 General

No specific particular requirements.



10.2 Nonconformity and corrective action

10.2.1 No specific particular requirement

10.2.2 No specific particular requirement

10.3 Continual improvement

The corrective actions and risk assessment processes shall include analysis of incidents and occurrences. Analysis and evaluation shall include accident statistics and near miss reporting.

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Appendix A: Reference and associated documents (bibliography)

The list of standards and documents below are date specific; however, the Organisation shall have procedures in place to ensure that the latest version is always available. Organisations should be aware that utilisation of internet search engines may result in out-of-date references being identified/called up.

Note: The listing is not comprehensive; other documents may be required to fulfil the requirements of the contract. Organisations shall ensure that they have a working knowledge of and access to all the documents including amendments unless stated otherwise in the specification.

1. Reference documents

The Organisation shall have access to all relevant reference documents to the context of their Organisation, including but not limited to;

- 10.4 Austrroads Guide for Road Design (AGRD) Part 6
- 10.5 Road Authority Interpretation of AGRD Part 6
- 10.6 Austrroads Glossary of Terms (2015 Edition)
- 10.7 Other contract specific documents
- 10.8 ISO 9000 – Quality Management Systems – Fundamentals and Vocabulary
- 10.9 ISO 9001 – Quality Management Systems – Requirements
- 10.10 ISO 9004 – Managing for the sustained success of an organisation – A Quality Management Approach
- 10.11 ISO 1005 – Quality Management – Guidelines for Quality Plans

2. Associated reference documents



2.1 Road Safety Barrier Systems manuals

2.2 Standards:

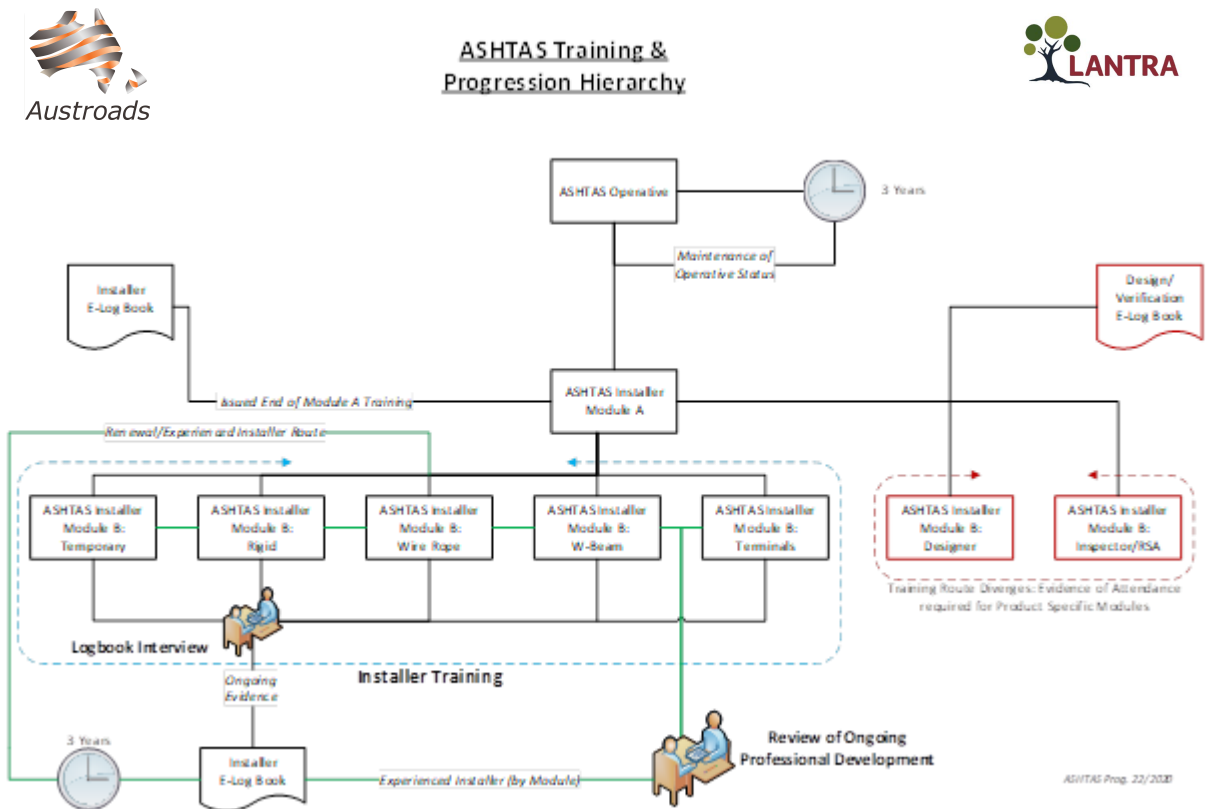
2.2.1 AS/NZS3845 Part 1 Road Safety Barrier Systems

2.2.2 AS/NZS1170 Part 2 Structural Design Actions (Wind Actions) [optional]

2.3 Other relevant documents, including structural, health and safety, environmental and legislative specification standards, as required by the activity

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Appendix B: Training and Assessment of Competence





1. Training and competency qualifications

The organisation shall ensure that their employees have undergone suitable training and competency assessment that will cover aspects of the work to be undertaken as follows:

ASHTAS Operative

- Hold a current Health and Safety White card (Australia) or ConstructSafe card (New Zealand)
- Successfully achieved the ASHTAS Operative training and assessment (1 day)
- Hold a current Lantra ASHTAS Operative skills registration card (e-card)
 - e-card renews every 3 years as an ASHTAS Operative
- Failure to maintain the skills registration e-card will result in all training being null and void.



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ASHTAS Installer

- Hold a current Health and Safety White (Australia) or ConstructSafe card (New Zealand)
- Successfully achieved the ASHTAS Operative training and assessment (1 day)
- Successfully achieved the ASHTAS Installer modular training and assessment
 - Module A: Installer theory delivered online or as classroom training and assessment (1 day)
 - Module B: Public Domain Systems, including variations, delivered as a classroom training and assessment event (1 day)
- Successfully completed the Lantra online logbook (evidence of competency via practical observations and verbal assessments, direct or remote interaction with Assessor)
- Hold a current ASHTAS Installer skills registration card (e-card)
 - e-card renewals every 3 years as an ASHTAS Installer
 - ASHTAS Operative renewal training is not required if Installer status is maintained
- Failure to maintain the skills registration e-card will result in all training being null and void.

ASHTAS Proprietary Installer

- Hold a current Australasian Health and Safety White or ConstructSafe card
- Hold a current ASHTAS Installer skills registration card (e-card)
- Successfully achieved the additional Proprietary System(s) training and assessment
- Successfully completed the Lantra online logbook (evidence of competency via practical observations and verbal assessments, direct or remote interaction with Assessor) for the Proprietary System(s) achieved
- Holder of the Lantra Installer skills registration card (e-card) with additional systems added
 - e-card renewals every 3 years for the listed Proprietary System(s) as an ASHTAS Installer
 - ASHTAS Operative renewal training is not required if Installer status is maintained

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- Failure to maintain the skills registration e-card for the listed Proprietary System(s) will result in this training being null and void.

ASHTAS Experienced Installer

- Hold a current Australasian Health and Safety White or ConstructSafe card
- Hold a current ASHTAS Installer skills registration card (e-card)
- Successfully maintain the Stage 2 Lantra online logbook as a record of continued Installer evidence from the successful completion of ASHTAS Installer training
 - Once Experienced Installer status is achieved this must be maintained through the use of the Stage 2 logbook and tri-annual assessment of skills maintenance
- Failure to maintain the skills registration e-card and Stage 2 online logbook will result in the loss of Experienced Installer status



2. Health and safety

Organisations are reminded of the legal requirements to provide health and safety training for all personnel.

The training and assessment of competency of personnel required by this Scheme is aimed primarily at technical competence in their field of work. It is intended to provide awareness to carry out work in a safe manner; however, it remains the responsibility of the Organisation to determine and implement safe systems of work.

3. Temporary traffic management

Highways Organisations are reminded of the requirements for temporary traffic management on all highways including high speed dual carriageways and motorways.

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Appendix C: Personal attainment records and Quality Plans

C1: Personal Attainment

The record shall contain as a minimum:

- Full name
- ASHTAS skills registration number
- Category(ies)
- Skills registration renewal date
- Date designated by the organisation
- Name and signature of the authorising manager

C2: Quality Plans

C2.1: Scope of RSB services provided by the Organisation

Forms to be added



C2.2: Competency of Organisation

Matrix to be added

C2.3: Quality Plans

All products must be inspected prior to handover. It is recommended that it is recorded through the use of a checklist which will include, but is not limited to:



- Where is it installed
- What has been installed
- Design reference
- 'As built' records/information
- Suitable records as required by Manufacturer's specifications
- Inspector's name
- Manufacturer's specification sign-off
- Signatures of:
 - Leading Hand
 - Representative of Client accepting the product

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Appendix D: Guidance for the control of monitoring and measuring equipment

Information only – under construction

Equipment Title	Purchase Specification	Calibration Control	Calibration Frequency
Steel Rule	BS 4372	Issue control and damage check by user	In use check
Steel Tape	EC Class 11	Issue control and damage check by user	In use check
Fibre Tape	EC Class 111	Issue control and damage check by user	In use check
Spirit Level	BS 3509	Issue control and damage check by user	In use check
Thermometers: Mercury/Alcohol		Traceable calibration <i>(Upon purchase only)</i>	In use check
Other		Traceable calibration	Annually
Torque Wrench		Traceable calibration	Annually



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Appendix E: Observations or feedback

Any observations or feedback relating to the content of this document, or the process described herein, should be emailed (using the form below) to:

The Scheme Manager
 Lantra
 E-mail ashtas@lantra.co.uk

Company name	
Company address	
Contact details	
Issue identified	
Suggested action	
Response	<p>Note: In many instances, Appendix E forms can be responded to without the need for them to be considered by the ASHTAS Reference Group or ASBAP Panel, those requiring a more detailed response will be dealt with at the next meeting of Lantra and Austrroads. If the Appendix E form contains information that is critical, then exceptionally action can be taken prior to the meeting by the secretary, for instance, by arranging an extraordinary meeting of the advisory committee. The secretary will normally advise the originator of receipt of the Appendix F form and when the next meeting is expected to be held.</p>

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Appendix F: Scheme Quality Management – Guidance for Clients

1 General

It is recommended that Clients acknowledge the requirements of this Scheme.

This guidance is primarily of relevance to Clients and their supervisory staff

2 Specific guidance

2.1 The Scheme was originally conceived as a document for use by Clients to specify the minimum standards for quality, training and competence of Organisations used by them to carry out RSB works.



2.2 The implementation of the Scheme and development of training and competency requirements is intended to provide:

- i. A competent workforce able to carry out RSB works
- ii. To establish a minimum quality level for the design, installation, maintenance and repair of RSBs
- iii. To provide a pathway for ongoing improvement of quality performance within the RBS sector
- iv. Requirements to evaluate risks and develop processes associated with RSB works and the production of an associated comprehensive quality plan for each contract

2.3 It is necessary for the Client to ensure that the works are carried out by SQEP. In order to achieve this aim, the training and assessment of competency as described in this ASD are provided to cater for the range of skills required within the overall process of the scope of this Scheme

2.4 For the Scheme to achieve its objectives it is essential that Clients, either directly or via agents and individuals they employ or contract, ensure that the requirements of this document are complied with. This includes ensuring that sub-contractors employed directly or indirectly, comply with the Scheme. Supervisory staff must be instructed to carry out spot checks of identification cards

2.5 Clients and customers should consider the need for independent inspection of the installed product, where applicable

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3. Road death investigations

In the advent of a collision or other road incident particularly one where there has been a fatality, the police may ask the relevant highway authority to provide information on the state of the road.

In respect of this Scheme information that is likely to be sought includes the following:

- i. High level general policy statements
- ii. Specific local maintenance policies and standards
- iii. Authority procedures
- iv. Works records including Quality Plans and the handover documents, including the results of any test carried out
- v. Any relevant information regarding traffic management or its' design
- vi. Any pertinent information regarding the highway, for example, skid resistant testing

The ASHTAS contractor will need to provide the relevant information.

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Appendix G: Maintenance and Repair of Road Safety Barrier Systems

Maintenance and repair activities may be undertaken during the serviceable life of the RSB product, including:

- i. Inspection
- ii. Repair, post incident
- iii. Upgrading due to specification change
- iv. Replacement due to end-of-life condition

These activities must be undertaken by ASHTAS compliant SQEPs, as required by this Scheme.

These specific activities must also comply with any and all manufacture's specifications.

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