



Australian
Industry and
Skills Committee

CONSTRUCTION WATERPROOFING DESIGN AND SURVEY

Case for Endorsement

Name of allocated IRC(s): Construction, Plumbing and Services (CPC)
Name of the SSO: Artibus Innovation

1. Administrative details of the Case for Endorsement

Refer to **Attachment A** for the title and code for each of the training package components that are submitted for approval, and an indication of whether these are updated (including equivalence or non-equivalence status), new or deleted products

1.1 Case for Change details

1. Artibus/TPD/2021-22/003 Activity Order.
2. Approval date: 12 November 2021.
3. AISC approval to develop one qualification and up to six units of competency for construction waterproofing design and survey to address identified skill needs.

1.2 Timeframes and delays

The Activity Order indicates a submission date of 12 October 2022.

To date, the Construction Waterproofing Design and Survey project has been successful in achieving its target submission date.

Development of the Training Package products – in terms of the working group and national consultation phases – was achieved rapidly and in under six months from January to June 2022.

While the impetus to achieve results originated from directives to complete the activity within the remit of the current Training Package product development system before its supersession in 2023, prompt development was significantly enabled through clear industry cooperation and support for the project.

At its 28 June 2022 meeting, the IRC agreed to endorse the new Diploma qualification, two skill sets and six units of competency. The qualification will be published on the National Register and form part of the CPC Construction, Plumbing and Services Training Package Release 9.0 – Construction Waterproofing Design and Survey Project.

2. Changes to training products and how these will meet the needs of industry

Refer to **Attachment B** for information on how the proposed updates to qualifications will better support job roles in industry.

This activity proposes the introduction of a new Diploma qualification, two skill sets and six new units of competency for the design and survey aspects of construction waterproofing.

Waterproofing defects and associated water ingress and moisture leading to mould and structural compromise are among the most prevalent contributor to building defects across Australia. According to the NSW Building Commissioner David Chandler OAM, "defects in basements, podiums, balconies, bathrooms, on roofs and through facades involving water and moisture management failures have cost consumers millions".

The need for a post-trade qualification focused on the skills and knowledge needed to be a waterproofing consultant was raised in 2018 during the review and update of the *Certificate III in Construction Waterproofing*. The Certificate III provides the hands-on skills and knowledge required by water proofers to apply membranes and special coatings to protect the structural integrity and content of simple builds. It does not provide the necessary skills for practitioners to understand all aspects of waterproofing.

To this end, the qualification *CPC50722 Diploma of Construction Waterproofing Design and Survey* reflects the role of construction waterproofing design and survey specialists who apply knowledge of construction methods, compliance requirements and materials to implement waterproofing services for professional and statutory requirements. The qualification contains the six newly developed units. While three of these involve the design aspect (i.e., *CPCWP5001 Design below ground waterproofing*; *CPCWP5002 Design external above ground waterproofing*; *CPCWP5003 Design waterproofing to internal wet area*), the other three contain the new units on the survey component (i.e., *CPCWP5004 Determine origin of water and moisture ingress into buildings*; *CPCWP5005 Prepare a scope of works for remedial waterproofing*; *CPCWP5006 Survey waterproofing systems*).

The first skill set *CPCSS00010 Design Waterproofing* describes the skills and knowledge required to design waterproofing for planned construction to comply with relevant codes and standards. It contains the three new design units listed above. The second skill set *CPCSS00011 Design and Survey Waterproofing* describes the skills and knowledge required to survey, report and design remedial solutions, as well as design waterproofing for planned construction, to comply with relevant codes and standards. It contains the three design units as well as the three new survey units.

Waterproofing specialists require an understanding of relevant compliance requirements as well as traditional, new and emerging construction methods and materials. They make a significant contribution to the development and construction of the built environment, often working in collaboration with other specialist consultants to assess and verify that proposed and actual building works are compliant and to ensure the safety of building occupants in support of principal designer and principal certifier.

3. Stakeholder consultation strategy

Refer to *Attachment C* for:

- *list of stakeholders that actively participated in consultation on the project*
- *summary feedback provided by stakeholder type and the IRCs response to this feedback*
- *summary of issues raised during stakeholder consultation and the IRCs response to these issues*

3.1 Identification of stakeholders

The construction waterproofing design and survey project was informed by research and consultation facilitated through the Australian Institute of Waterproofing (AIW), the peak body for the industry. Several of their committee members then represented the working group in the development of the Training Package products for the Diploma qualification.

Research shows that defects in waterproofing are highly correlated to structural defects and defects in building fabric and cladding, and roof and rainwater disposal. Overall, water ingress and moisture were identified as the most prevalent consequence and contributor to building defects.

In preparing the Case for Change, Artibus had email communication and/or conducted telephone discussions with 43 industry stakeholders with 16 stakeholders providing letters or emails in support of the proposed qualification.

Contacts identified at this stage were consolidated into the project itself via the formation of the working group. A custom contact list of close to 100 stakeholders aligned to the construction waterproofing industry was then formed.

Artibus utilised its communication channels, comprising newsletters and social media, to inform its stakeholder database in the construction and property services industries – consisting of over 4700 contacts – of the proposed project and to invite any feedback.

All these stakeholder databases were similarly activated for the consultation and validation rounds of the project.

3.2 Strategies for engaging stakeholders

Working Group and IRC

The IRC established a working group of recognised experts from Housing Industry Association (HIA), Victorian Building Authority (VBA), Construction Forestry Maritime Mining Energy Union (CFMMEU), industry and Registered Training Organisations (RTOs). This group met seven times throughout the project and three times as a smaller sub-committee to provide input on the development of the Training Package products.

Each group member, under their terms of reference, was encouraged to consult their own networks for input, which strengthened the technical robustness of the Training Package products. The qualification, skill sets, and units of competency were made available to the public and industry for two rounds known as consultation and validation.

Significant effort was made to broadcast awareness and to encourage and elicit feedback. Seven newsletter posts, tweets, and LinkedIn posts were made. Over the life of the project, there were 5,066 views on the Artibus Innovation webpage for construction waterproofing design and survey.

Consultation Strategy (4+ WEEKS: 10 March – 10 April 2022)

To commence draft 1 consultation, a custom contact list of around 100 stakeholders aligned to the construction waterproofing industries were contacted individually via email. Over 4,700 individuals, businesses and organisations were also invited to participate through the Artibus Innovation newsletter.

Direct email, utilisation of the working group and Industry Reference Committee (IRC) networks and social media broadcasts (e.g., LinkedIn, Twitter) were further actioned to promote awareness and encourage involvement in draft 1 consultation.

An extraordinary bulletin to the stakeholders was then carried out at the halfway mark of consultation.

For draft 1 consultation, 38 people participated in the survey process and half of these (19 respondents) provided completed survey responses. There was also one written submission received from the Association of Accredited Certifiers.

Validation Strategy (3+ WEEKS: 5 May 2022 – 31 May 2022)

Following the review and resolution of all the feedback from the draft 1 consultation round by the working group, the Training Package products were then presented again for comment over a three-week duration from 5 May 2022 to 31 May 2022.

Over 4800 individuals, businesses and organisations were invited on two separate occasions to provide feedback through the online portal. This included all active stakeholders identified during the consultation and others that had joined since.

An online briefing was held on 18 May 2022 in which 23 people registered and 17 industry stakeholders attended.

Response rates were monitored throughout the consultation process. Several rounds of prompting occurred to elicit responses through the various digital channels.

In the end, 19 respondents provided completed survey responses with an approval rating of 68 percent and above.

3.3 Participation by different types of stakeholders

1. Employer and industry with operations across Australia were represented on the working group. These members facilitated participation by consulting with their state and territory counterparts in major cities and regional areas.
2. Employers and industry were the strongest contributors to both consultation at 57.89 percent and validation at 73.68 percent, followed by RTOs at 21.05 percent and 26.31 percent, respectively.
3. In total, responses were received from every state and territory, except SA and the NT.

4. Evidence of industry support

4.1 Industry support

1. The IRC has overseen the Training Package product development and has approved progress at each stage.
2. At both consultation and validation, the majority view as well as dissenting views were considered and resolved by the working group and the IRC, resulting in Training Package products that have the support of industry.
3. Industry representatives volunteered a significant amount of their time to be involved on the working group (i.e., seven working group meetings and three as a sub-committee – at an average duration of two hours). Their willingness to participate reflected their shared commitment to creating nationally available Training Package products to address an industry need.
4. Working group members advised their wider networks to review the newly developed units of competency.
5. Experts in suppliers of waterproofing materials such as Sika Australia have indicated their support. Consultation with these experts contributed significantly to the development of the qualification, two skill sets and six new units of competency for the sector.

4.2 Engagement of States and Territories

1. All State and Territory Training Authorities (STAs) were kept abreast of the project's progression. An update webinar was held on 28 June 2022. STAs were also invited to participate in the webinars and a targeted online meeting at validation stage was held, at which the project manager provided an overview of the project and was available to answer questions.
2. Representatives from the Department of Training and Workforce Development, WA and Victoria's Curriculum Maintenance Manager participated in online consultation sessions.

The STAs were offered the opportunity to review the Case for Endorsement and agree to it progressing for endorsement by the AISC. Following are the comments received.

STA	Supported	Comment	Date	STA Officer
ACT	X	XXXX	X	André Diez de Aux
NSW	X	XXXX	X	Marilyn Ng
NT	X	XXXX	X	Nelson Browne
Qld	X	XXXX	X	Filippa Ross
SA	X	XXXX	X	Irina Ferouleva
TAS	X	XXXX	X	Michael McGee
VIC	X	XXXX	X	Jacqui Spencer

WA	X	XXXX	X	Frances Parnell
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4.3 Mitigation strategies

Further information was sought from the X and X to address their concerns. No further information has been received from X:

4.4 Letters of industry support

Letters of support can be found at Attachment G.

5. 5. Dissenting views

5.1 Dissenting views/issues raised

Need for a future Certificate IV in Construction Waterproofing Design and Survey

One recurring issue from the outset of the project at the working group level and echoed in consultation and validation was a desire to see development of a Certificate IV in Waterproofing Project Management and Systems Selection. Artibus staff explained that due to the imminent restructuring of the Training Package products development apparatus that this idea will need to be taken up in the new industry cluster model beginning in 2023.

The rationale presented by stakeholders for the future development of a Certificate IV in Waterproofing Project Management and Systems Selection was that it is a necessary pathway for people holding the Certificate III in Construction Waterproofing to the Diploma level qualification. The VBA noted in their consultation submission that they "... would like to see a Cert IV in Waterproofing for persons who are responsible for the supervision of site installation to compliance. The Diploma is really for the next level of practitioner and progression."

5.2 Rationale for approval

All stakeholders acknowledged the need to support skills development to address a deficit in the correct design and application of construction waterproofing systems. The issue is widely recognised as a nationally significant one.

The IRC supported development of the Training Package products to ensure that there is a nationally consistent training standard available and accessible to any RTO that wishes to add the units of competency to their scope and subsequently support accessibility to all learners.

6. Reports by exception

N/A

7. Mandatory Workplace Requirements

Refer to Attachment D for a list of the units of competency, the MWR, the rationale for this, and evidence of employer support for this requirement.

There are no mandatory workplace requirements in the qualification, skill sets and six units of competency that comprise the construction waterproofing design and survey project. Assessment of performance can be undertaken in either a workplace or a simulated workplace environment.

8. Implementation of the new training packages

8.1 Implementation issues

Throughout the development of the training package components no potential implementation issues were noted.

8.2 Potential for traineeship or apprenticeships

The addition of a Diploma of Construction Waterproofing Design and Survey can provide a pathway to upskill individuals who are already working in construction waterproofing. It is unlikely that this qualification will be used as the basis for a traineeship.

8.3 Occupational and licensing requirements

At the time of publication on the National VET Register, there will be no linkages between the proposed Training Package products and occupational and licensing requirements as the units of competency are new entries to the National Register on VET.

The VBA have indicated that they would incorporate a qualification in Construction Waterproofing Design and Survey into their regulatory arrangements.

NSW Fair Trading have also indicated that “a recognised design qualification could assist with any future regulatory considerations” to support the implementation of their recent *Design and Building Practitioners Act 2020 (the Act)* where waterproofing is one of five building elements considered a regulated design, that must be declared for compliance with the Building Code of Australia (BCA) and other relevant standards before building work can start. (The other building elements are fire safety systems, building structure, building enclosure and building services).

8.4 Extension to transition period

Where the need for an extension to the transition period is identified for training products that are the subject of this Case for Endorsement, the SSO will apply to the relevant regulator for an extension to transition, to mitigate the identified impact on other training products, particular student cohorts or industry business needs

N/A

9. Quality Assurance	
<i>The Case for Endorsement meets the following requirements:</i>	
1 <i>Standards for Training Packages 2012</i>	R
2 <i>Training Package Products Policy</i>	R
3 <i>Training Package Development and Endorsement Process Policy</i>	R
4 <i>Companion Volume Implementation Guide is available and quality assured.</i>	R
<i>Copies of quality assurance reports are included in Attachment F.</i>	
10. Implementation of the Minister's priorities in training packages	
<i>Refer to Attachment E for information on no enrolment and low enrolment qualifications reviewed as part of this project, and the outcomes of this review (i.e. product proposed for deletion or retention). Attachment D also includes the rationale for retaining no and/or low enrolment products when this is the proposal.</i>	
<i>Please include an explanation of how approval of the proposed training products will support the reform priorities for training packages agreed by skills ministers in November 2015 and October 2020:</i>	
<i>Streamlining/rationalisation of training products</i>	<p>The proposed new Diploma qualification, two skill sets and six new units of competency for the construction waterproofing design and survey project, once endorsed, are likely to have widespread applicability across a range of applicable qualifications in the CPC Construction, Plumbing and Services Training Package going forward.</p> <p>This project will add one qualification, two skill sets and six new units of competency to the CPC Construction, Plumbing and Services Training Package.</p>

<p><i>Ensure that more information about industry's expectations of training delivery is available to training providers to improve their delivery and to consumers to enable more informed course choices</i></p>	<p>The proposed Training Package products have been developed in close consultation with regulatory and industry stakeholders. The units of competency Elements and Performance Criteria have been written to better reflect current industry skills, knowledge and work practices. The Performance Evidence and Knowledge Evidence have similarly been articulated to align with work health and safety (WHS) legislation and current or successor Australian Standards. The assessment requirements reflect employer expectations of the skills and knowledge graduates would need to bring to the workplace to ensure safest industry practices are observed.</p>
<p><i>Ensure the training system better supports individuals to move more easily between related occupations</i></p>	<p>The introduction into the national training system of one qualification, two skill sets and six new units our units of competency on construction waterproofing design and survey with the intent of improving health and safety outcomes across the CPC Construction, Plumbing and Services Training Package will provide depth and breadth of choice supporting individuals move between related occupations and industry sectors as the units of competency support a range job levels and responsibilities in relation to approaches towards construction waterproofing. The units of competency provide an opportunity for individuals to expand their employment and career options from a pathway perspective into a higher level of responsibility in construction waterproofing design and survey.</p>
<p><i>Improve the efficiency of the training system by creating units that can be owned and used by multiple industry sectors</i></p> <p><i>Foster greater recognition of skill sets and work with industry to support their implementation</i></p>	<p>The project has developed one qualification, two skill sets and six new units of competency pitched at an AQF 5 standard with a construction focus that will be applicable across different industry sectors.</p>

11. A link to the full content of the proposed training package component(s)

The AISC should be provided with a link to the full, developed training package component(s) to be approved under the Case for Endorsement.

A link to the training package components proposed for endorsement is included here.

This Case for Endorsement was agreed to by the [name] IRC

Name of Chair

Stuart Maxwell

Signature of Chair



Date

XX XXXX XXXX

Attachment A: Training products submitted for approval

Please set out in the table below, the training products submitted for approval, including showing whether this is an updated, new or deleted product.

Training Product Name		Type	For existing products, equivalence/non-equivalence status	For updated products, rationale for equivalence/non-equivalence status
CPC50722 Diploma of Construction Waterproofing Survey and Design		New	N/A	N/A
<i>Units of competency</i>				
CPCCWP5001 Design below ground waterproofing		New	N/A	N/A
CPCCWP5002 Design external above ground waterproofing		New	N/A	N/A
CPCCWP5003 Design waterproofing to internal wet area		New	N/A	N/A
CPCCWP5004 Determine origin of water and moisture ingress into buildings		New	N/A	N/A
CPCCWP5005 Prepare a scope of works for remedial waterproofing		New	N/A	N/A

CPCWP5006 Survey waterproofing systems		New	N/A	N/A
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Attachment B: How qualification updates support job roles

Please use the table below to demonstrate how the proposed updates to qualifications will better support job roles

Job role	Qualification	Proposed updates and how these better support the job role
Design and Survey for Construction Waterproofing	CPC50722 Diploma of Construction Waterproofing Design and Survey	<p>This qualification reflects the role of construction waterproofing design and survey specialists who apply knowledge of construction methods, compliance requirements and materials to implement waterproofing services for professional and statutory requirements.</p> <p>The scope of work undertaken varies across jurisdictions and can include:</p> <ul style="list-style-type: none"> • conducting waterproofing inspections: <ul style="list-style-type: none"> • at point of construction • on existing building to identify issues and remediation requirements • designing waterproofing for new construction • designing remedial waterproofing solutions for existing buildings.

Attachment C: Stakeholder consultation

List of stakeholders that actively participated in stakeholder consultation for the project:

First Name	Last Name	Organisation	Title	State	Involvement
Adam	Profke	Master Builders Association QLD	Manager, Training & Licensing	QLD	Survey Respondent
Adam	Liddell	Jim's Building Inspections	Building Inspector	VIC	Survey Respondent
Andrew	Golle	Armont Rectification Builders and Consulting	Managing Director	TAS	Working Group Member Webinar Survey Respondent
Andy	Verri	Think Make Enjoy Canberra	Director	ACT	Survey Respondent
Anthony	Lucisano	Built	Quality Manager	VIC	Survey Respondent
Anthony	McGrath	The Resin Floor Co	Director	WA	Survey Respondent
Ashley	How	Fairview	Technical Manager	NSW	Survey Respondent
Baher	Zaghlool	Victorian Building Authority (VBA)	Principal Structural Engineer	VIC	Webinar

First Name	Last Name	Organisation	Title	State	Involvement
Barry	Tanner	Melbourne Building and Waterproofing Consultants	Building and Waterproofing Consultant	VIC	Survey Respondent
Brad	Williams	Cetco	Technical sales manager	NSW	Survey Respondent
Brendan	Byrne	Byrne Technical Services (BTS)	Remedial builder	NSW	Survey Respondent
Brian	Richards	Built	Design Director	VIC	Survey Respondent
Bruce	Visser	Sedgwick	Technical Manager, Repair Standards	QLD	Survey Respondent
Byron	Landeryou	Waterproof Awareness	Consultant	VIC	Survey Respondent
Cathy	Snelling	Government of South Australia		SA	Webinar
Chris	Barnes	Fortress Waterproofing	Managing Director	VIC	Survey Respondent
Chris	Donovan	The Local Group	Registered Certifier	NSW	Survey Respondent
Chris	Bulmer	Greenwitch Associates	Managing Partner	NSW	Survey Respondent
Chris	Anderson	Waterstop Solutions		QLD	Survey Respondent

First Name	Last Name	Organisation	Title	State	Involvement
Craig	Deakes	North Region TAFE NSW	Team Leader, Construction	NSW	Survey Respondent
Damon	Latta	Duram	Sales manager & technical support	NSW	Survey Respondent
Darin	Grace	Master Builders Association NSW	Employee	NSW	Webinar
David	Connors	Victorian Building Authority (VBA)	Practitioner Assessor	VIC	Webinar
David	Tatler	Multiplex Constructions Pty Ltd	QA Manager (Senior)	NSW	Survey Respondent
Donna	Quinn	Customer Service NSW	Senior Project Officer	NSW	Survey Respondent Phone Email
Dorje	Heavey	Holmesglen	Teacher / Trainer	VIC	Webinar
Eric	Byrne	Byrne Technical Services (BTS)	Waterproofing Consultant	NSW	Survey Respondent Webinar
Graham	Vile	Concrete Repair and Remedial Building Association (ACRA)	Board Member	TAS	Survey Respondent
Harvey	Welman	Ardex Australia Pty Ltd	General Construction and Remedial Specialist	NSW	Survey Respondent

First Name	Last Name	Organisation	Title	State	Involvement
Heath	Bussell	Queensland Building and Construction Commission (QBCC)	Building Inspector	QLD	Survey Respondent
Ibukun	Odu	Customer Service NSW	Project Officer Registry and Accreditation	NSW	Webinar
Jamie	Weston	Holmesglen	Head of Department - Building Construction and Trades	VIC	Survey Respondent
Jamie	Stone	Dryspace Solutions	Director	QLD	Survey Respondent
Jane	Clancy	Swinburne University of Technology	Senior Educator	VIC	Survey Respondent
Jo	Whitfield	Master Builders Association ACT	Training Director	ACT	Webinar
John	Davutovic	Baytech Plumbing & Property Services	Owner	VIC	Survey Respondent
John	Duncalfe		Builder	QLD	Survey Respondent
Jose	Suarez		Building Compliance and Quality Assurance Manager	NSW	Survey Respondent Webinar
Julie	Canal	The Design Mill	Lecture & Building Designer	WA	Survey Respondent

First Name	Last Name	Organisation	Title	State	Involvement
Julie	Stone	Dryspace Solutions	General Manager	QLD	Survey Respondent
Karl	Wootton	Australian Waterproofing Consultants and trainer	Senior technical consultant	VIC	Working Group Member Survey Respondent
Katherine	Jagger	TAFE NSW	Product Development Coordinator, General Constrction	NSW	Webinar
Kathleen	Drew	TAFE SA	Director, Future Industry and Trade	SA	Survey Respondent
Matt	Voller	Bunnings	BDM	QLD	Survey Respondent
Meredith	Burnet	Victorian Building Authority (VBA)		VIC	Webinar
Michael	O'Donnell	MKO Consulting Pty Ltd	Building consultant	NSW	Survey Respondent
Michael	Said	Customer Service NSW	Senior Building Inspector	NSW	Webinar
Mohamed	Asar	South Regional TAFE WA	Lecturer Building Design and Drafting	WA	Survey Respondent
Natalia	Reed	Customer Service NSW		NSW	Webinar

First Name	Last Name	Organisation	Title	State	Involvement
Nick	Soden	Hydraulic Consultants Association of Australasia		NSW	Survey Respondent
Nick	Collett	Sika	National Building Finishes Manager	QLD	Survey Respondent
Osama	Chehab	Quantity Surveyors Project Managers (QPC&C)		NSW	Survey Respondent Webinar
Paul	Buckley	Mapei Australia	National Ceramic Manager	VIC	Survey Respondent
Peter	Stephenson		VIC		Webinar
Robert	Booth	TasTAFE	Education Manager and Teacher	TAS	Survey Respondent
Robert	Rose	TAFE NSW	Trainer/course writer	NSW	Survey Respondent
Robert	Gerritse	Department of Education, Skills and Employment (DESE) (C'wealth)	Assistant Director	ACT	Webinar
Robert Whittaker	AM	Australian Institute of Building Advance Through Learning	Professor at: UoN, UC and WSU	NSW	Survey Respondent

First Name	Last Name	Organisation	Title	State	Involvement
Rodney	Shepherd	Alpha-Code Consulting Pty Ltd	Building Surveyor	NSW	Survey Respondent
Ronald	Caruana	Danrea Group	Founder & Project Manager	NSW	Survey Respondent
Russell	Brandon	TAFE Queensland	Educational Team Leader	QLD	Survey Respondent
Scarlet	Goddard	Australian Building Codes Board	Project Officer, Ncc Education and Awareness	ACT	Survey Respondent
Shane	Treen	Central Regional TAFE	Carpentry And Joinery Lecturer	WA	Survey Respondent
Simon	Butt	Manteena	Chief Executive Officer	ACT	Survey Respondent
Stan	Giaouris	The Construction Adviser	Principal Building Consultant	NSW	Survey Respondent
Stephen	Wise	Wise Choice Project Support Services	Business Owner	NSW	Survey Respondent
Stephen	Beaumont	Chisholm Institute	Development And Education	VIC	Survey Respondent
Suzanne (Sue)	Wells	Education and Training Victoria	Senior Program Officer Training Products Unit	VIC	Webinar

First Name	Last Name	Organisation	Title	State	Involvement
Terry	Walker	Permaform	Sales Manager	NSW	Webinar
Theresa	Hatton	Theresa L Hatton Building Design	Owner/Director	TAS	Survey Respondent
Tim	Webber	McNab Relationship Builders	Construction Site Manager	QLD	Survey Respondent
Tonja	Gibson	Strata Answers	Director	NSW	Survey Respondent
Wayne	Spiteri	Danrea Group	Waterproofing Specialist - Sales Director and Senior Estimator	NSW	Survey Respondent
William	Ward	Papworths Construction Testing Equipment	NSW Manager	NSW	Webinar

Summary of Feedback by Stakeholder type:

Stakeholder Type	Key Feedback Points	Actions Taken to Address Feedback
Industry Reference Committee (IRC)	Certificate IV vs Diploma-level qualification.	The initial proposal as presented by industry representative was for a Diploma-level qualification. This was overturned by the Construction IRC in the lead up to the Case for Change. With the formation of the working group, it again became an issue.
Peak Industry Bodies	<ul style="list-style-type: none"> Overwhelming support for the project from the Australian Institute of Waterproofing (AIW). 	Three representatives from the Australian Institute of Waterproofing (AIW) – the peak industry body – actively participated in the project as working group members.
Employers (Non-IRC)	<ul style="list-style-type: none"> Employers, who provided letters of support, welcomed the qualification, skill sets and units of competency and outlined their importance in ensuring learners understand construction waterproofing. 	Noted. Letters of support included in the Case for Endorsement. Including: <ul style="list-style-type: none"> Victorian Building Authority (VBA) SafeWork NSW & NSW Fair Trading
Regulators	<ul style="list-style-type: none"> Support for a higher-level construction waterproofing qualification. 	The VBA and the Office of the Building Commissioner, Department of Customer Service NSW were represented in the working group for the project. NSW Fair Trading were also represented. Queensland Building and Construction Commission (QBCC) submitted feedback at the validation stage confirming their support for the components.
Registered Training Organisations (RTOs)	<ul style="list-style-type: none"> Feedback from training providers range from ensuring the units of competency: 	Feedback from the consultation and validation stages was reported to the working group who advised on the nature of the changes required.

Stakeholder Type	Key Feedback Points	Actions Taken to Address Feedback
Industry Reference Committee (IRC)	Certificate IV vs Diploma-level qualification.	The initial proposal as presented by industry representative was for a Diploma-level qualification. This was overturned by the Construction IRC in the lead up to the Case for Change. With the formation of the working group, it again became an issue.
	<ul style="list-style-type: none"> ○ referenced current industry terminology ○ clearly outlined performance requirements ○ were written clearly and were consistent across the assessment requirements. 	
Training Boards/Other	<ul style="list-style-type: none"> ● Training Boards were provided the opportunity to provide feedback throughout the project. No comments were received. 	Not applicable.
State and Territory Training Authorities (STAs)	<ul style="list-style-type: none"> ● STAs were provided the opportunity to provide feedback throughout the project. No comments were received. The STAs were directly briefed on the project on 28 June 2022. 	Not applicable.
Unions	<ul style="list-style-type: none"> ● A CFMMEU representative participated in the technical working group for the project. 	Union representation was supportive of the project.

Summary of Issues raised during stakeholder consultation

Issue raised	Key Feedback Points	Actions Taken to Address Feedback
<p>Industry preference for a diploma-level qualification.</p>	<p>The initial pitch presented to Artibus Innovation from industry leading to the development of the Case for Change was for a diploma-level qualification. However, at the IRC level in 2021 this was overturned and pitched at a Certificate IV level.</p>	<p>Artibus Innovation staff followed policy frameworks around AQF to determine the qualification level.</p>
<p>Future industry desire for a Certificate IV level qualification.</p>	<p>While industry panellist asserted that a higher diploma-level qualification was needed in the first instance, they maintained the view throughout the project that there was a demand for an in-between Certificate IV level qualification to act as a bridge between the extant Certificate III in Construction Waterproofing and the newly developed Diploma of Construction Waterproofing Design and Survey.</p>	<p>Artibus Innovation noted to industry panellists in the working group that the development of a Certificate IV and a Diploma- qualification was outside the scope of the approved project.</p> <p>Expectations were managed by explaining that this industry need will be noted in the Case for Endorsement and in handover notes to the industry cluster system to commence in 2023.</p>

Attachment D: Mandatory Workplace Requirements in Training Products

Please set out in the table below training products which include a mandatory workplace requirement (i.e. which must be completed in a workplace)

Code/title	Description of the Requirement (e.g. work placement, assessment requirement)	Rationale for Inclusion	Evidence of employer support
N/A			

Attachment E: No enrolment and low enrolment training products

No Enrolment:

Please set out in the table below those training products that have had no enrolments over the past three years for which data is available

Units of Competency		
Name of Unit/Unit Code	Proposed for retention/deletion	Rationale for Retention
N/A		
Qualifications		
Name of Qualification/ Qualification Code	Proposed for retention/deletion	Rationale for Retention

Low Enrolment:

Please set out in the table below those training products that have had low enrolments over the past three years for which data is available¹

Units of Competency		
Name of Unit/Unit Code	Proposed for retention/deletion	Rationale for Retention
N/A		
Qualifications		
Name of Qualification/ Qualification Code	Proposed for retention/deletion	Rationale for Retention

¹ Low enrolment training products are qualifications or units of competency that have had less than 42 enrolments in each of the past three years (*this is the maximum no. of enrolments for the bottom 25% of qualifications based on average enrolments over 2016 - 2018*)

Attachment F: Quality assurance reports

Training Package Quality Assurance

Equity Report Template

Section 1 – Cover page

Information required	Detail												
Training Package title and code	CPC Construction, Plumbing and Services Training Package Release 9.0 (Waterproofing)												
Number of new qualifications and their titles ¹	One (1) new qualification: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">CPC50722</td> <td>Diploma of Construction Waterproofing Design and Survey</td> </tr> </table>	CPC50722	Diploma of Construction Waterproofing Design and Survey										
CPC50722	Diploma of Construction Waterproofing Design and Survey												
Number of revised qualifications and their titles	NA												
Number of new units of competency and their titles	Six (6) new units of competency: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">CPCWP5001</td> <td>Design below ground waterproofing</td> </tr> <tr> <td>CPCWP5002</td> <td>Design external above ground waterproofing</td> </tr> <tr> <td>CPCWP5003</td> <td>Design waterproofing to internal wet area</td> </tr> <tr> <td>CPCWP5004</td> <td>Determine origin of water and moisture ingress into buildings</td> </tr> <tr> <td>CPCWP5005</td> <td>Prepare a scope of works for remedial waterproofing</td> </tr> <tr> <td>CPCWP5006</td> <td>Survey waterproofing systems</td> </tr> </table>	CPCWP5001	Design below ground waterproofing	CPCWP5002	Design external above ground waterproofing	CPCWP5003	Design waterproofing to internal wet area	CPCWP5004	Determine origin of water and moisture ingress into buildings	CPCWP5005	Prepare a scope of works for remedial waterproofing	CPCWP5006	Survey waterproofing systems
CPCWP5001	Design below ground waterproofing												
CPCWP5002	Design external above ground waterproofing												
CPCWP5003	Design waterproofing to internal wet area												
CPCWP5004	Determine origin of water and moisture ingress into buildings												
CPCWP5005	Prepare a scope of works for remedial waterproofing												
CPCWP5006	Survey waterproofing systems												
Number of revised units of competency and their titles	NA												
Confirmation that the draft training package components meet the requirements in Section 2 <i>Equity checklist of draft training package components</i>	Draft Training Package components meet the requirements in Section 2 Equity checklist of draft Training Package components.												
Is the Equity Report prepared by a member of the Quality Assurance Panel? If 'yes' please provide the name.	Yes or No ² Yes, Trish Ganper												
Date of completion of the report	8 July 2022												

¹ When the number of training products is high the titles can be presented as an attached list.

² Person that is not a member of the Training Package Quality Assurance Panel is required to provide to the SSO information demonstrating experience in analysis of equity issues in the training or educational context; demonstrated understanding of vocational education and training; and details of relevant qualifications and/or professional memberships.

Training Package Quality Assurance

Equity requirements	Equity reviewer comments
<p>1. Does the Companion Volume Implementation Guide include advice about:</p> <ul style="list-style-type: none"> • Pathways • Access and equity • Foundation skills? <p>(see Training Package Standard 11)</p>	<p><i>The draft CPC Construction, Plumbing and Services Companion Volume Implementation Guide was reviewed and contains relevant advice on:</i></p> <ul style="list-style-type: none"> • <i>Pathways</i> • <i>Access and equity</i> • <i>Foundation skills</i>
<p>2. Are the foundation skills explicit and recognisable within the training package and do they reflect and not exceed the foundation skills required in the workplace?</p>	<p><i>Foundation skills are explicit and recognisable in units of competency. They reflect and do not exceed the foundation skills required at this level in the workplace.</i></p>

Training Package Quality Assurance

Equity requirements	Equity reviewer comments
	<i>Additional information is also contained in the CPC Construction, Plumbing and Services Companion Volume Implementation Guide.</i>
3. Have prerequisite units of competency been minimised where possible?	<i>The new units of competency for waterproofing do not contain any prerequisites.</i>
4. Are there other examples of evidence that demonstrate how the key features of the flexibility principle are being achieved?	<i>The Diploma of Construction Waterproofing Design and Survey can provide a pathway to upskill individuals who are already working in construction waterproofing. The development of the Diploma ensures that there is a nationally consistent training standard available and accessible to any training provider that wishes to add the units of competency to their scope and subsequently support accessibility to all learners.</i>

Quality Principle 5

Facilitate **recognition** of an individual's skills and knowledge and support movement between the school, vocational education and higher education sectors.

Key features

Support learner transition between education sectors.

Equity requirements	Equity reviewer comments
1. What evidence demonstrates pathways from entry and preparatory level as appropriate to facilitate movement between schools and VET, from entry level into work, and between VET and higher education qualifications?	<i>The Diploma of Construction Waterproofing Design and Survey provides a post-trade pathway to upskill individuals who are already working in construction waterproofing. Currently no credit arrangements exist between VET and higher education qualifications.</i>

Quality Principle 6

Support interpretation by training providers and others through the use of simple, concise language and clear articulation of assessment requirements.

Key features

Support implementation across a range of settings and support sound assessment practices.

Training Package Quality Assurance

Section 2 – Equity checklist of draft training package components

Equity requirements	Equity reviewer comments
Provide brief commentary on whether the draft endorsed components meet each of the equity requirements	
<p>The training package component(s) comply with Standard 2 of the <i>Standards for Training Packages 2012</i>. The standard requires compliance with the <i>Training Package Products Policy</i>, specifically with the access and equity requirements:</p> <ul style="list-style-type: none"> • Training Package developers must meet their obligations under Commonwealth anti-discrimination legislation and associated standards and regulations. • Training Package developers must ensure that Training Packages are flexible and that they provide guidance and recommendations to enable reasonable adjustments in implementation. 	<p><i>The draft CPC Construction, Plumbing and Services Training Package components meet the requirements of Standard 2 of the Standards for Training Packages 2012 and comply with the Training Package Products Policy.</i></p> <p><i>The CPC Construction, Plumbing and Services Training Package Companion Volume Implementation Guide provides information relating to access and equity considerations and reasonable adjustments.</i></p> <p><i>The draft CPC Construction, Plumbing and Services Training Package components provide sufficient flexibility and provides advice to enable reasonable adjustments to be made during implementation.</i></p>

Section 3 - Training Package Quality Principles

Quality Principle 4

Be **flexible** to meet the diversity of individual and employer needs, including the capacity to adapt to changing job roles and workplaces.

Key features

Do the units of competency meet the diversity of individual and employer needs and support equitable access and progression of learners?

What evidence demonstrates that the units of competency and their associated assessment requirements are clearly written and have consistent breadth and depth so that they support implementation across a range of settings?

Are there other examples that demonstrate how the key features of flexibility are being achieved?

Equity requirements	Equity reviewer comments
1. What evidence demonstrates that the draft components provide flexible qualifications/units of competency that enable application in different contexts?	<p><i>The CPC Construction, Plumbing and Services Training Package qualifications contains essential core units and flexible options for elective unit selection. This provides the option to select units that suit the industry sector and regulatory, enterprise, professional or individual requirements.</i></p> <p><i>The range of electives provide breadth and depth of choice supporting individuals who may wish to add to existing skills and move between related occupations and industry sectors.</i></p>
2. Is there evidence of multiple entry and exit points?	<i>There are no entry requirements for the listed qualification, allowing for multiple entry and exit points.</i>

Training Package Quality Assurance

Editorial Report Template



1. Cover page													
Information required	Detail												
Training Package title and code	CPC Construction, Plumbing and Services Training Package Release 9.0 (Waterproofing)												
Number of new qualifications and their titles ¹	One (1) new qualification: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">CPC50722</td> <td>Diploma of Construction Waterproofing Design and Survey</td> </tr> </table>	CPC50722	Diploma of Construction Waterproofing Design and Survey										
CPC50722	Diploma of Construction Waterproofing Design and Survey												
Number of revised qualifications and their titles	NA												
Number of new units of competency and their titles	Six (6) new units of competency: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">CPCCWP5001</td> <td>Design below ground waterproofing</td> </tr> <tr> <td>CPCCWP5002</td> <td>Design external above ground waterproofing</td> </tr> <tr> <td>CPCCWP5003</td> <td>Design waterproofing to internal wet area</td> </tr> <tr> <td>CPCCWP5004</td> <td>Determine origin of water and moisture ingress into buildings</td> </tr> <tr> <td>CPCCWP5005</td> <td>Prepare a scope of works for remedial waterproofing</td> </tr> <tr> <td>CPCCWP5006</td> <td>Survey waterproofing systems</td> </tr> </table>	CPCCWP5001	Design below ground waterproofing	CPCCWP5002	Design external above ground waterproofing	CPCCWP5003	Design waterproofing to internal wet area	CPCCWP5004	Determine origin of water and moisture ingress into buildings	CPCCWP5005	Prepare a scope of works for remedial waterproofing	CPCCWP5006	Survey waterproofing systems
CPCCWP5001	Design below ground waterproofing												
CPCCWP5002	Design external above ground waterproofing												
CPCCWP5003	Design waterproofing to internal wet area												
CPCCWP5004	Determine origin of water and moisture ingress into buildings												
CPCCWP5005	Prepare a scope of works for remedial waterproofing												
CPCCWP5006	Survey waterproofing systems												
Number of revised units of competency and their titles	NA												
Confirmation that the draft training package components are publication-ready	Draft components will be publication ready once uploaded onto training.gov.au												
Is the Editorial Report prepared by a member of the Quality Assurance Panel? If 'yes' please provide a name.	Yes or No ² Yes, Trish Gamper												
Date of completion of the report	8 July 2022												

2. Content and structure

¹ When the number of training products is high the titles can be presented as an attachment.

² Persons not a member of the panel are required to demonstrate relevant knowledge and experience in editing technical and industry publications, including details of relevant qualifications and/or professional membership(s).

Training Package Quality Assurance

Units of competency

Editorial requirements	Comments
Standard 5: <ul style="list-style-type: none"> The structure of units of competency complies with the unit of competency template. 	The structure of units of competency complies with the unit of competency template and contain all required components.
Standard 7: <ul style="list-style-type: none"> The structure of assessment requirements complies with the assessment requirements template. 	The structure of the assessment requirements complies with the assessment requirements template. Performance and knowledge evidence contain adequate frequency and/or volume of evidence required. The assessment conditions outline required conditions for assessment and details relevant equipment and resources required.

Qualifications

Editorial requirements	Comments by the editor
Standard 9: <ul style="list-style-type: none"> The structure of the information for qualifications complies with the qualification template. 	The structure of the information for the qualification complies with the qualification template.
Standard 10: <ul style="list-style-type: none"> Credit arrangements existing between Training Package qualifications and Higher Education qualifications are listed in a format that complies with the credit arrangements template. 	NA

Companion Volumes

Editorial requirements	Comments by the editor
Standard 11: <ul style="list-style-type: none"> A quality assured companion volume implementation guide is available and complies with the companion volume implementation guide template. 	A quality assured Companion Volume Implementation Guide was provided for editing and complies with the required template.

3. Proofreading

Editorial requirements	Comments by the editor
<ul style="list-style-type: none"> Unit codes and titles and qualification codes and titles are accurately cross-referenced throughout the training package product(s) including mapping information and packaging rules, and in the companion volume implementation guide. 	Unit codes and titles and qualification codes and titles were cross-referenced throughout the Training Package, mapping, packaging rules and the Companion Volume Implementation Guide.
<ul style="list-style-type: none"> Units of competency and their content are presented in full. 	All units of competency and content were provided in full for editing.

Training Package Quality Assurance

Editorial requirements	Comments by the editor
<ul style="list-style-type: none">• The author of the Editorial Report is satisfied with the quality of the training products, specifically with regard to:<ul style="list-style-type: none">○ absence of spelling, grammatical and typing mistakes○ consistency of language and formatting○ logical structure and presentation of the document.○ compliance with the required templates	<p>The editor is satisfied with the quality of the training products.</p> <ul style="list-style-type: none">• Spelling, grammatical and typing mistakes were corrected, as required• Language used and formatting is consistent throughout the Training Package• The Training Package components are logically structured and presented• All components comply with the required templates. <p>All suggested edits, corrections and queries were marked up using track changes and forwarded to Artibus Innovation for comment/review before a final edit of the Training Package components.</p>

Title

Training Package Quality Assurance

Quality Report

+ Section 1 – Cover page

Information required	Detail
Training Package title and code	CPC Construction, Plumbing and Services Training Package Release 9.0 Project – Construction Waterproofing Design and Survey
Number of new qualifications and their titles	1 new qualification <ul style="list-style-type: none"> • CPC50722 Diploma of Construction Waterproofing Design and Survey
Number of revised qualifications and their titles	<ul style="list-style-type: none"> • No revised qualifications
Number of new units of competency and their titles	Six new units of competency: <ul style="list-style-type: none"> • CPCCWP5001 Design below ground waterproofing • CPCCWP5002 Design external above ground waterproofing • CPCCWP5003 Design waterproofing to internal wet area • CPCCWP5004 Determine origin of water and moisture ingress into buildings • CPCCWP5005 Prepare a scope of works for remedial waterproofing • CPCCWP5006 Survey waterproofing systems
Number of revised units of competency and their titles	<ul style="list-style-type: none"> • No revised units of competency
Confirmation that the panel member is independent of: <ul style="list-style-type: none"> • the Training Package or Training Package components review ('Yes' or 'No') • development and/or validation activities associated with the Case for Endorsement ('Yes' or 'No') • undertaking the Equity and/or Editorial Reports for the training package products that are the subject of this quality report ('Yes' or 'No') 	Yes, I am independent of: <ul style="list-style-type: none"> • CPC Construction, Plumbing and Services Training Package • The development and validation activities • The Equity and Editorial reports.

Training Package Quality Assurance

Information required	Detail
Confirmation of the Training Packages or components thereof being compliant with the <i>Standards for Training Packages 2012</i>	Yes , the draft Training Package components are compliant with the <i>Standards for Training Packages 2012</i> .
Confirmation of the Training Packages or components thereof being compliant with the <i>Training Package Products Policy</i>	Yes , the draft Training Package components are compliant with the <i>Training Package Products Policy</i> .
Confirmation of the Training Packages or components thereof being compliant with the <i>Training Package Development and Endorsement Process Policy</i>	Yes , the draft Training Package components are compliant with the <i>Training Package Development and Endorsement Process Policy</i> .
Panel member's view about whether: <ul style="list-style-type: none"> • the evidence of consultation and validation process being fit for purpose and commensurate with the scope • estimated impact of the proposed changes is sufficient and convincing 	Yes
Name of panel member completing Quality Report	Anna Henderson
Date of completion of the updated Quality Report	15 th July 2022

Training Package Quality Assurance

Section 2 – Compliance with the Standards for Training Packages 2012

Standards for Training Packages	Standard met 'yes' or 'no'	Evidence supporting the statement of compliance or noncompliance (including evidence from equity and editorial reports)
<p>Standard 1</p> <p>Training Packages consist of the following:</p> <ol style="list-style-type: none"> 1. AISC endorsed components: <ul style="list-style-type: none"> • qualifications • units of competency • assessment requirements (associated with each unit of competency) • credit arrangements 2. One or more quality assured companion volumes 	Yes	<p>The Construction Waterproofing Design and Survey components of the CPC Construction, Plumbing and Services Training Package R9.0 submission consists of the following endorsed components:</p> <ul style="list-style-type: none"> • 1 revised qualification • 6 units of competency • credit arrangements are discussed in the CPC Construction, Plumbing and Services Training Package R9.0 Companion Volume Implementation Guide (CVIG). • a quality assured Companion Guide – CPC Construction, Plumbing and Services Training Package R9.0 (CVIG).
<p>Standard 2</p> <p>Training Package developers comply with the <i>Training Package Products Policy</i></p>	Yes	<p>The draft Training Package components comply with this Standard:</p> <ul style="list-style-type: none"> • Coding and titling –: the units of competency comply with the coding and titling policy. • Foundation Skills are explicit in the performance criteria of the CPC units in this submission. • Mapping - the Media tables are found in the CPC Construction, Plumbing and Services Training Package R9.0 CVIG. There is no equivalence status to report on the newly developed units of competency however the qualification has significantly changed from the previous version and has been deemed <u>non equivalent</u>. • Qualification packaging rules – Packaging rules are clearly articulated and contain essential core units and flexible elective unit options including imported units. There are no entry requirements allowing for multiple entry and exit points. • Qualification – occupational/pathway advice – occupational outcome advice is included in the CPC Construction, Plumbing and Services Training Package R9.0 CVIG

Training Package Quality Assurance

Standards for Training Packages	Standard met 'yes' or 'no'	Evidence supporting the statement of compliance or noncompliance (including evidence from equity and editorial reports)
<p>Standard 3</p> <p>Training Package developers comply with the AISC <i>Training Package Development and Endorsement Process Policy</i></p>	Yes	<p>The Case for Endorsement (CfE) provides information about the extensive industry consultation undertaken throughout the development stage of this project resulting in training components being developed to a high standard and responsive to industry's existing and future skill needs.</p> <p>The construction waterproofing design and survey project was informed by research and consultation facilitated through the Australian Institute of Waterproofing (AIW), the peak body for the industry. Several of their committee members then represented the working group in the development of the Training Package products for the Diploma qualification.</p> <p>Artibus utilised its communication channels, comprising newsletters and social media, to inform its stakeholder database in the construction and property services industries – consisting of over 4700 contacts – of the proposed project and to invite any feedback.</p> <p>Consultation and validation meetings support the training components in this submission. <i>See CfE for detail.</i></p>
<p>Standard 4</p> <p>Units of competency specify the standards of performance required in the workplace</p>	Yes	<p>The draft units of competency adequately specify standards of performance required in the workplace.</p>
<p>Standard 5</p> <p>The structure of units of competency complies with the unit of competency template</p>	Yes	<p>The structure of the draft units of competency complies with all aspects of the unit of competency template.</p>
<p>Standard 6</p> <p>Assessment requirements specify the evidence and required conditions for assessment</p>	Yes	<p>The draft units of competency specify the performance evidence (including references to volume or frequency), the assessment conditions and the knowledge evidence to be demonstrated for assessment. The assessment requirements cross-reference to the performance criteria requirements.</p>
<p>Standard 7</p> <p>Every unit of competency has associated assessment requirements. The structure of assessment requirements complies with the assessment requirements template</p>	Yes	<p>In all draft units of competency, the assessment requirements comply with the template requirements.</p>

Training Package Quality Assurance

Standards for Training Packages	Standard met 'yes' or 'no'	Evidence supporting the statement of compliance or noncompliance (including evidence from equity and editorial reports)
<p>Standard 8</p> <p>Qualifications comply with the Australian Qualifications Framework specification for that qualification type</p>	Yes	The draft qualification complies with the AQF specifications
<p>Standard 9</p> <p>The structure of the information for the Australian Qualifications Framework qualification complies with the qualification template</p>	Yes	The structure of the draft qualification complies with the template.
<p>Standard 10</p> <p>Credit arrangements existing between Training Package qualifications and Higher Education qualifications are listed in a format that complies with the credit arrangements template</p>	Yes	<p>Credit arrangements are discussed in the CPC Construction, Plumbing and Services Training Package R8.0 CVIG denoting:</p> <ul style="list-style-type: none"> There are currently no credit arrangements between qualifications in the CPC Construction, Plumbing and Services Training Package and higher education qualifications.
<p>Standard 11</p> <p>A quality assured companion volume implementation guide produced by the Training Package developer is available at the time of endorsement and complies with the companion volume implementation guide template.</p>	Yes	<p>The Training Package components in this submission are accompanied by the CPC Construction, Plumbing and Services Training Package R9.0 CVIG.</p> <p>The CVIG complies with the companion volume implementation guide template included in the 2012 Standards and has been quality assured in line with the Artibus editorial processes.</p> <p>The CVIG includes advice about pathways, access and equity (including reasonable adjustment for persons with disabilities) and foundation skills, as required by the template.</p>
<p>Standard 12</p> <p>Training Package developers produce other quality assured companion volumes to meet the needs of their stakeholders as required.</p>	Yes	CPC Construction, Plumbing and Services Training Package R9.0 includes information about typical occupation outcomes and pathways into and from CPC Construction, Plumbing and Services qualifications.

Training Package Quality Assurance

Section 3 – Compliance with the training package quality principles

Note: not all training package quality principles might be applicable to every training package or its components. Please provide a supporting statement/evidence of compliance or non-compliance against each principle.

Quality principle 1. Reflect identified workforce outcomes

Key features	Quality principle is met: Yes / No or N/A	Evidence demonstrating compliance/non compliance with the quality principle Please see examples of evidence in the <i>Training Package Development and Endorsement Process Policy</i>
Driven by industry's needs	Yes	<p>As outlined in the CfE, the key drivers for the development of the training components in this submission are:</p> <p>To develop nationally consistent training products around waterproofing design and survey in the construction industry.</p> <p>As outlined in the CfE, waterproofing defects and associated water ingress and moisture leading to mould and structural compromise are among the most prevalent contributor to building defects across Australia. According to the NSW Building Commissioner David Chandler OAM, "defects in basements, podiums, balconies, bathrooms, on roofs and through facades involving water and moisture management failures have cost consumers millions".</p> <p>The need for a post-trade qualification focused on the skills and knowledge needed to be a waterproofing consultant was raised in 2018 during the review and update of the Certificate III in Construction Waterproofing. The Certificate III provides the hands-on skills and knowledge required by water proofers to apply membranes and special coatings to protect the structural integrity and content of simple builds. It does not provide the necessary skills for practitioners to understand all aspects of waterproofing.</p> <p>All stakeholders consulted acknowledged the need to support skills development to address a deficit in the correct design and application of construction waterproofing systems. The issue is widely recognised as a nationally significant one.</p> <p>The IRC supported development of the Training Package products to ensure that there is a nationally consistent training standard available.</p>
Compliant and responds to government policy initiatives Training package component	Yes	<p>Compliance with Government policy initiatives</p> <p>The CVIG provides information on pathways, and advice on access and equity. This includes information on reasonable adjustment and useful information on identifying and supporting learners' foundation skills.</p>

Training Package Quality Assurance

<p>responds to the COAG Industry and Skills Council's (CISC) training package-related initiatives or directions, in particular the 2015 training package reforms. Please specify which of the following CISC reforms are relevant to the training product and identify supporting evidence:</p> <ul style="list-style-type: none"> • ensure obsolete and superfluous qualifications are removed from the system • ensure that more information about industry's expectations of training delivery is available to training providers to improve their delivery and to consumers to enable more informed course choices • ensure that the training system better supports individuals to move easily from one related occupation to another • improve the efficiency of the training system by creating units that can be owned and used by multiple industry sectors • foster greater recognition of skill sets 		<p>Training delivery/flexibility (supporting movement from related occupations)</p> <p>The new Diploma qualification has no entry requirements and all six units of competency allow for assessment in the workplace or a simulated environment.</p> <p>Mandatory workplace requirements</p> <p>No mandatory workplace requirements apply to the new Waterproofing units of competency.</p> <p>Improve efficiency of the training system</p> <p>Artibus Innovation note that the draft training package products in this submission have been developed with due consideration given to the need to reduce duplication within the national training system.</p> <p>RTOs have been involved and well represented throughout the consultation, both as members of the working groups and subject matter expert groups and in providing feedback during consultation periods.</p>
<p>Reflect contemporary work organisation and job profiles incorporating a future orientation</p>	<p>Yes</p>	<p>The newly developed units of competency reflect contemporary workplace requirements within the construction industry. These units have been written in such a way that they could quite easily be contextualised to apply to other industry sectors.</p>

Training Package Quality Assurance

Quality principle 2: Support portability of skills and competencies including reflecting licensing and regulatory requirements



Key features	Quality principle is met: Yes / No or N/A	Evidence demonstrating compliance with the quality principle Please see examples of evidence in the <i>Training Package Development and Endorsement Process Policy</i>
Support movement of skills within and across organisations and sectors	Yes	<p>The units of competency provide an opportunity for individuals to expand their employment and career options from a pathway perspective into a higher level of responsibility in construction waterproofing design and survey.</p> <p>The intent of the new qualification, two skill sets and six new units of competency is to provide depth and breadth of choice supporting individuals to move between related occupations and industry sectors as these units support a range job levels and responsibilities in relation to construction waterproofing.</p>
Promote national and international portability	Yes	The proposed new Diploma qualification, two skill sets and six new units of competency for the construction waterproofing design and survey project, once endorsed, are likely to have widespread applicability across a range of applicable qualifications in the CPC Construction, Plumbing and Services Training Package or indeed in any endorsed Training Package or Accredited course.
Reflect regulatory requirements and licensing	N/A	No occupational licensing, certification or specific legislative requirements apply to the Units of Competency in this submission.

Training Package Quality Assurance

Quality principle 3: Reflect national agreement about the core transferable skills and core job-specific skills required for job roles as identified by industry

Key features	Quality principle is met: Yes / No or N/A	Evidence demonstrating compliance with the quality principle Please see examples of evidence in the <i>Training Package Development and Endorsement Process Policy</i>
Reflect national consensus	Yes	As discussed in the CFE , the process allowed for extensive engagement with industry, regulators and other stakeholders throughout the life of the project to inform the drafts prior to submission of the final product. The draft training components reflect national consensus.
Recognise convergence and connectivity of skills	Yes	The draft components in this submission incorporate cross sector units of competency which supports convergence and connectivity of skills.

Training Package Quality Assurance

Quality principle 4: Be flexible to meet the diversity of individual and employer n needs including the capacity to adapt to changing job roles and workplaces

Key features	Quality principle is met: Yes / No or N/A	Evidence demonstrating compliance with the quality principle Please see examples of evidence in the <i>Training Package Development and Endorsement Process Policy</i>
Meet the diversity of individual and employer needs	Yes	The training components in this submission support the diversity of employer and individual needs. The range of electives provide breadth and depth of choice supporting individuals who may wish to add to existing skills and move between related occupations and industry sectors.
Support equitable access and progression of learners	Yes	The CVIG provides advice on access and equity considerations including reasonable adjustment for learners with disabilities. The draft units support equitable access and progression of learners.

Training Package Quality Assurance

Quality principle 5: Facilitate recognition of an individual's skills and knowledge and support movement between the school, vocational education and higher education sectors

Key features	Quality principle is met: Yes / No or N/A	Evidence demonstrating compliance with the quality principle Please see examples of evidence in the <i>Training Package Development and Endorsement Process Policy</i>
Support learner transition between education sectors	Yes	Artibus note in the CFE that the addition of a Diploma of Construction Waterproofing Design and Survey can provide a pathway to upskill individuals who are already working in construction waterproofing. However, it is noted that his qualification is unlikely to be used as the basis for a traineeship.

Quality principle 6: Support interpretation by training providers and others through the use of simple, concise language and clear articulation of assessment requirements



Key features	Quality principle is met: Yes / No or N/A	Evidence demonstrating compliance with the quality principle Please see examples of evidence in the <i>Training Package Development and Endorsement Process Policy</i>
Support implementation across a range of settings	Yes	The proposed training components have been developed in close consultation with industry stakeholders. The units of competency Elements and Performance Criteria have been written to reflect current industry skills, knowledge and work practices. The Performance Evidence and Knowledge Evidence have similarly been articulated to align with WHS, Building Code of Australia (BCA), National Construction Code (NCC), legislation and current or successor Australian Standards. The assessment requirements reflect employer expectations of the skills and knowledge graduates would need to bring to the workplace.
Support sound assessment practice	Yes	The construction waterproofing units submitted support sound assessment practices in line with industry requirements allowing for assessment to occur in the workplace or a simulated environment that reflects workplace conditions.

Training Package Quality Assurance

Key features	Quality principle is met: Yes / No or N/A	Evidence demonstrating compliance with the quality principle Please see examples of evidence in the <i>Training Package Development and Endorsement Process Policy</i>
Support Implementation	Yes	<p>The draft components in this submission are strongly supported by industry and Regulators with the view to providing a much-needed post trade qualification – <i>Diploma of Construction Waterproofing Design and Survey</i> which reflects the role of construction waterproofing design and survey specialists who apply knowledge of construction methods, compliance requirements and materials to implement waterproofing services for professional and statutory requirements.</p> <p>Artibus noted that throughout the development of these Training Package components, that no potential implementation issues were noted.</p>

Attachment G: Industry support

VBA: Letter of support for Construction Waterproofing Design and Survey

1 message

Jennifer Mason <Jennifer.Mason@vba.vic.gov.au>
To: Charles Donnelly <charles@artibus.com.au>

28 June 2022 at 17:17

Hi Chris,

VBA: Letter of support for Construction Waterproofing Design and Survey

The Victorian Building Authority (VBA) is the regulator for the Victorian Building and Construction Industry.

The VBA has identified that waterproofing design and installation is area of concern.

One of our responsibilities is to register suitably qualified building practitioners. The Victorian Building Regulations 2018 prescribes the required experience and education for each class of building registration. In addition, currently under consideration is to introduce formal Continuous Professional Development (CPD) scheme.

As such, we strongly support introducing this course and the new units of competency proposed with this course to meet current knowledge and skill gaps within the industry. The VBA sees that this course and / or the new units would be of benefit to the following Victorian classes of registration:

1. Building Surveyors
2. Building Inspectors
3. Draftspersons (Building Designers)
4. Commercial and Domestic Builders

Should you have any queries or require further feedback, please let me know.

Regards

Jennifer

Jennifer Mason
Senior Policy Advisor, Education & Training | Knowledge & Experience Assessment
Victorian Building Authority
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Dr Charles G.L. Donnelly
Senior Project Officer
Artibus Innovation

By email: charles@artibus.com.au

Re: CPC50722 Diploma of Construction Waterproofing Design and Survey

Dear Charles,

Thank you for the opportunity to provide a letter of support for the Case for Endorsement for the recently developed Diploma in Construction Waterproofing Design and Survey, its associated skill sets and units of competency.

In September 2021, I was approached by Artibus Innovation in my former capacity as the Director of the Office of the Building Commissioner, to provide a letter of support for the Construction Waterproofing Design and Survey project. This led to my direct involvement from January to June 2022 as a committee member in the technical working group for the project.

Waterproofing has been identified by numerous studies to be one of the largest contributors to defects in residential apartment buildings. In NSW, Fair Trading's audits of class 2 buildings under construction have identified waterproofing-related defects in around 40% of inspections conducted since September 2020.

In our view, a major cause of waterproofing-related defects in class 2 buildings is the use of approaches which manage water ingress primarily by the specification and installation of membranes and sealants (complimentary systems). Unfortunately, these approaches ignore the *fundamental design practices* necessary to produce resilient waterproofing outcomes – managing water through collection, redirection and drainage. There is a clear industry need to modernise the qualification that supports waterproofing contractors and consultants as the current Certificate III in Construction Waterproofing does not provide the skills and knowledge necessary in the modern construction workforce.

Establishing a Diploma of Construction Waterproofing Design and Survey qualification and providing two skill sets for a range of trades and professionals is a positive step forward in helping to upskill all practitioners tasked with analysing, scoping and implementing waterproofing-related building work. This type of qualification will be highly beneficial for new and established waterproofing contractors, helping to ensure Australia has a modern construction workforce that is equipped to produce trustworthy building outcomes.

We wish to highlight that if the new Diploma, skill sets and six new draft units of competency are endorsed, they could be considered suitable in a range of licensing applications going forward.

Kind regards,

A handwritten signature in black ink, appearing to read 'Matt Press'.

Matt Press
Executive Director, Compliance and Dispute Resolution
SafeWork NSW & NSW Fair Trading

29th June 2022

Construction Waterproofing Design and Survey - Letter of Support

Martin <MartinStockley@optusnet.com.au>
To: Charles Donnelly <charles@artibus.com.au>

30 June 2022 at 13:05

Hi Charles,

My position for the proposed Construction Waterproofing Design and Survey has not changes and I support this endeavour completely.

My activities which include consultancy on waterproofing design and installation show me that there is a real lack of understanding in all areas regarding correct and compliant design ,specification, and installation.

Until these issues are addressed proper training and evaluation, these matter will only get worse.

On the other end of the scales, installation of waterproofing, until a trade apprenticeship is introduced for 3 – 4 years with suitably qualified and experienced waterproofing installers training the new apprentices in all forms of both sheet and liquid membrane systems, installation will continue to be an issue and fail.

The training provided for Cert 3 qualifications falls well short of what is required and in fact a review of the Cert 3 trainers shows very few have any experience in waterproofing and are predominantly tilers who underwent the cert 3 training and then began to teach waterproofing. This needs to change also.

Kind Regards

Martin Stockley

Senior Consultant

Waterproofing Consultancy

0417 595 746

July 4, 2022

Artibus Innovation
P.O. Box 547
HOBART TASMANIA 7002

Attention: Charles Donnelly

Dear Charles,

Re: Construction Waterproofing Design and Survey Diploma

I am the principal Consultant and Director of Byrne Technical Services Pty Ltd (**BTS**) and have conducted waterproofing Consultancy for over 29 years. I am also a Trainer and Assessor for the Master Builders Association NSW.

During this time, I have witnessed hundreds of defective buildings with waterproofing issues affecting not only the amenity and safety of occupants, but including structural damage to the building fabric. This often involve the occupants to be relocated so that significant repairs can be undertaken involving significant time and costs. It has come to the point where waterproofing failures are far too common and is an embarrassment to the building industry.

Clearly, the extent of waterproofing failures points a number of issues within the Construction Industry including;

- Incorrect application not only involving the products and systems alone, but poorly prepared or installed substrates (inadequate falls, finish, incompatibility, etc.),
- Insufficient or inadequate installation (thickness, laps, detailing and drainage connections, etc),
- Inadequate design or specification of incorrect or unsuitable systems,
- Poor supervision, insufficient protection, lack of understanding by following trades, and
- Insufficient inspection, testing and measuring by inspectors and certifiers.

Whilst training and education has improved for installers, little education or training has been available for the other parts of the waterproofing industry, including inspection, certification, testing of installed waterproofing.

Waterproofing consultants, designers, sales and technical staff have no formal training on the design of waterproofing systems, leading to many poorly specified projects.



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EMAIL: etbyrne@bigpond.com

BTS fully support the proposed Design and Survey Waterproofing Diploma, which will be an important step in the training and education of waterproofing designers, inspectors, certifiers and consultants.

Additionally, this will piggy back into the NSW Design and Building Practitioners Act. At present there is no certification or training for designers of waterproofing or certifiers supposedly checking the installation of approved systems.

Well done Charles in getting it to this stage, and I look forward to working with you on this much needed training.

BYRNE TECHNICAL SERVICES

A handwritten signature in black ink, appearing to be 'EB', written in a cursive style.

ERIC BYRNE
Director

ATTACHMENT A - Eric Byrne – Curriculum Vitae

Byrne Technical Services (BTS) is owned and managed by Eric Byrne (the author).

BTS specializes in waterproofing consulting, specifications and training for the building industry. The author, Eric Byrne, has operated in the waterproofing industry since 1979.

BTS offer the following options:

- Inspections of new works, failed systems, and work in progress
- Provision of waterproofing design reviews and specifications
- Provision of on-site quality assurance programs
- Training of contractors, builders and inspectors
- Expert Witness and defect reports
- Accredited Building Consultant

Our service extends to new and existing projects and have been utilised by many clients, including Ove Arup, Tyrell's Property Services, Leighton's, Multiplex, Westfield's, State Rail Authority, Transfield-Bouygues Joint Venture, Taylors, Richard Crookes Constructions, Fugen Constructions, ~~Wideform~~ Constructions and other agencies such as TAFE NSW, Health Infrastructure and MBA NSW.

The author has been involved with many key projects including:

- | | |
|----------------------|---|
| Sydney Showground | - Condition report for bonded asbestos cement roofing |
| Airport Link Tunnel | - Quality Assurance of Waterproofing Installation |
| Westpac House | - Roofing Encapsulation and waterproofing |
| Rail Tunnels/Bridges | - Bridge and tunnel waterproofing |
| Sydney Temp. Casino | - Deck Waterproofing Leighton's |



Sydney Water	- Roof Re-waterproofing of various facilities
Dept of Defence	- Re-waterproofing defence buildings located (including Kuttabul, Waterhen, Garden Island, and Cockatoo.)
Paramount Pictures	- Re-waterproofing of Mission Impossible II film set.
Taylor Constructions	Atlas and 22B buildings, Norwest Adina Apartments, Mascot Figtree Units (54), Putney Jacarra apartments (70), Putney Palmera Apartments (91), Putney Garden Apartments (144), Putney Hammond Group – Aged Care Units, Miranda Sydney Opera House - Refurbishment
Build Corp	Urbanest Student Accommodation, City Road
Richard Crookes	Montefiore Aged Care Facility, Randwick Iglu Apartments, Redfern – Waterproofing Consultancy Harden Health Precinct – Waterproofing Consultancy
Health Infrastructure	Numerous Hospital projects, located at Liverpool, Bowral, and Gosford.
A W Edwards	Sydney Metro – Crows Nest station waterproofing

The author has been employed in the waterproofing industry for over 43 years and has completed training in the following areas:

Bachelor of Business

Bonded Asbestos Handling

Installation of Hot Pour Bitumen Sheet Membranes

Installation of Torch Applied Sheet Membrane Systems

Master Applicator Waterproofing Training PVC Liquid and Sheet Membranes

Waterproofing Skills Course at Building Industry Skills Centre

Crack Repair and Injection Techniques - California

Cert IV Workplace Trainer and Assessor – MBA

Cert III Construction Waterproofing – NSW TAFE

Registered Building Consultant- MBA

Licensed Waterproofing Technician - Supervisor

Achievements

The author was invited onto the founding Committee of the Master Builders Association – Waterproofing Technical Committee, which has recently been awarded the NSW State award for initiative in training in conjunction with TAFE NSW and CITAB.

Byrne Technical Services specialises in waterproofing consulting, training and defect reporting.

Construction Waterproofing Design Survey - Letter of Support

1 message

Alex Waldren <alex.waldren@masterbuilders.com.au>
To: "charles@artibus.com.au" <charles@artibus.com.au>
Cc: Jennifer Lawrence <Jennifer.Lawrence@masterbuilders.com.au>

19 July 2022 at 09:30

Good afternoon Charles

Thank you for your email to Denita Wawn, CEO, Master Builders Australia, regarding the Construction Waterproofing Design and Survey project.

Master Builders Australia supports this project and the qualification, skill sets and units of competency that have been developed.

Waterproofing is an area of considerable concern in residential and commercial building as defects can lead to serious structural damage. The incidence of waterproofing defects in new construction is unacceptably high and recent figures indicate that a significant proportion of defects relate to waterproofing design and construction.

The proposed Diploma of Structural Waterproofing Design and Survey, and related skill sets and units, will complement and build on the existing Certificate III in Waterproofing. Our industry needs building designers with specialist knowledge to design waterproofing systems and surveyors that can test and certify waterproof compliance.

The development of a specialised qualification and skills sets in structural waterproofing design and survey will address the current education and training gaps, thus enabling existing workers to upskill, providing a career pathway in waterproofing, and most importantly lifting the quality of waterproofing design and survey in the building and construction industry.

Yours sincerely

Alex