



**CIVIL CONTRACTORS
FEDERATION**

Consultant's Report to the
Civil Construction Industry
Tasmanian

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Acknowledgement

Skills Tasmania supported CCF to undertake a civil construction industry workforce plan. CCF commissioned Chameleon Network to prepare this advice to industry and to draft the Workforce Plan.

The report was edited for publication by Skills Tasmania.

The Workforce Plan has been published separately.

Disclaimer

The information contained in this document has been sourced from various consultations, publications and websites. Due to the lack of available statistical data some of the information provided within this document is provided on assumption only.

CCF (Tas) and its sub-contractors accept no responsibility for the accuracy or completeness of the information gained from these sources and recommends that readers exercise their own skill and care with respect to its use

Background

In order to provide the Tasmanian civil construction industry with the leadership and licence to drive innovative industry solutions, to address their workforce challenges, the Civil Construction Federation Tasmania (CCF(TAS)) proposed the formation of, “Civil Construction Industry Workforce Advisory Group (CHINWAG)”. CHINWAG provides the environment and support mechanism to facilitate and implement the civil constructions industry’s demand driven plan.

CHINWAG was formally established in November 2011 with membership comprising of the following stakeholders:

- Tasmanian and Commonwealth government agency representatives
- CCF (Tas)
 - A broad cross section from the civil contracting industry including representatives from small medium and large enterprises representing a diverse range of operations
 - gender and culturally diverse representatives, as appropriate; and
 - regional representatives.

CCF (Tas) on behalf of CHINWAG successfully sought support from Skills Tasmania to develop the “Civil Construction Industry Workforce Plan” 2013-2015.

The aims of the civil construction industry workforce plan are to:

- identify current and future workforce planning and skills priorities and issues
- increase engagement and ownership by the civil construction sector in workforce development
- identify current and potentially new innovative approaches to training and workforce development
- identify relevant training demand requirements from within the industry, and to inform relevant parties of this need
- ensure that training provided by Tasmania’s vocational education and training system is better targeted to the demands of the industry.

The civil construction Workforce Plan has been developed in accordance with industry terminology and methodology and provides a strategic and coordinated framework which covers the range of activities already happening, details what needs to be done and secures the necessary commitments and actions to do it.

Civil Construction

The Civil construction industry has considerable scope and underpins a number of other industries, such as the building industry. The civil construction industry plays a large part in Australia's economic life; it is an integral component in the infrastructure essential for our day to day living. Those working in the industry are primarily engaged in civil engineering work on infrastructure-related projects covering such diverse fields as roads, subdivisions, bridgeworks, railways, harbours, sewerage and drainage, electrical infrastructure, pipelines and recreation works.

To provide a succinct overview of what the civil construction industry does, you need only consider the following:

- Anytime you go anywhere by road, rail, plane or ship, you use infrastructure built by the civil construction Industry.
- Every time you drink a glass of water, turn on a light or use pipeline gas, you depend on projects constructed by the civil construction industry.
- Every time it rains, whenever you use the bathroom or whenever it floods, there are storm water drainage infrastructure and sewerage systems to ensure that streets, parklands and public areas are kept healthy and clean.

Whatever is required by the community to make life easier, the civil construction industry provides these resources.

However, there are no detailed figures available in relation to the size of the civil construction workforce as a separate and discrete workforce.¹ Data obtained indicates that the size of the industry nationally is in the range of 350,000. On very conservative estimates this suggests that civil construction makes up 30% to 40% or more of the building and construction workforce. Key areas of operation include bridge construction, road construction, pipe laying and the occupation of plant operators across all areas of activity. Additionally, plant hire and civil engineering project management are significant areas of activity. A significant factor is the CCF Board's indication that approximately 94% of enterprises operating in the civil construction sector employ 5 or fewer employees.

The civil construction industry lacks independent identity and recognition in relation to data collection. It is a subdivision hidden or misrepresented via statistical avenues, such as ABS and the Australian and New Zealand Standard Classification of Occupations (ANZSCO).

This in itself provides enormous challenges when attempting to identify and support "whole of industry" position on workforce planning and development.

The dynamics of Tasmanian civil construction businesses further exacerbate this issue, due to the majority of Tasmania's infrastructure projects, being small and combined with economic restraints, demand that civil construction businesses be multi-faceted and operate across sectors.

¹ SkillsDMC – Civil Constructors Federation Occupation Review, 2010

Whilst certain states and Territories in Australia have major infrastructure projects and works, which demands and supports the specialist “civil contractors” this is not the “norm” in Tasmania.

The Tasmanian Environment

The size of the civil construction workforce in Tasmania is also difficult to identify for the same reasons identified above. However, the CCF (Tas) conservatively estimates that there are approximately 260 civil construction businesses in Tasmania. (This does not include those businesses that are mainland based). Approximately 240 (94%) of these would employ 5 or fewer employees (including owner driver/operator). Many owner/driver operators do not employ however they are a major labour supply force for the industry.

These small business operators regularly miss opportunities to access advice and funding support for training and skills development due to their busy-ness. The multi-tasking required to run the business sees priorities placed in areas of legislative demand, maintaining current business and seeking new opportunities. The apparent disengagement or lack of access to skills development support is expressed as:

- “I didn’t know” or
- “it all seems too hard” or
- “unable to see return on investment” or
- “I don’t have the time”

Fundamentally it’s the case of “how do you know where to look if you don’t know what you’re looking for”.

It is often the industry association/member body who is seen as an advisory resource. Though many industry associations/member bodies do not have the internal resources and/or required knowledge to provide the advice or guidance being sought in relation to training and workforce planning. They are small businesses themselves often employing only the Executive Officer and/or a couple of support staff. As such being able to manage and communicate the overabundance of information regarding skills development and workplace planning activities and support from both national and state levels can be extremely challenging.

Importantly, Tasmanian civil construction enterprises are very diverse in their operations. This in itself provides certain challenges when considering workforce planning and development. There is a fundamental difference between Tasmanian operators and their mainland counterparts. The majority of civil contractors operating in Tasmania necessitate a skills eclectic workforce. They must have the capacity and capability to operate, effectively and efficiently if they are to continue to operate and employ.

Skilling issues in civil construction are complex. Some employers are highly active in planning and developing their workforces. This appears to be more predominant in the medium to large enterprises which appear to have dedicated internal resources, such as a HR divisions/ support staff.

However, even for the skilled operators in the training system, it is difficult to access information and, information when obtained is often contradictory. If this is the experience for skilled participants it raises serious questions as to how employers, especially those which are small who are not in the business of training could possibly interact with the system in a meaningful and cost effective way.

The challenge for businesses to be multi-skilled and to be able to up-skill is often met with frustration when dealing with the plethora of information and funding programs in relation to employment and training.

Workforce planning and development in the civil construction environment is impaired due to the lack of forward planning and budgeting in infrastructure, and procurement and procurement policies. The inconsistency and lack of rolling capital works programs impact negatively on training and employment in civil construction. Where there is no meaningful reward for training at the tender box and/or there is no certainty of forward works, employers see little incentive to train.

Lack of capital works or maintenance programs also mean that employers are unable to undertake the *long term* commitment and the more stringent and consistent job structure required to support apprenticeships/traineeships for new entrants.

The access to a skilled workforce, the planning approval system and reliance on government-funded projects are among key issues for the sector.² This has been recognised and considered in the Department of Economic and Development Tourism and the Arts Economic Development Plan.

The Economic Development Plan identifies priorities for the building and construction sector which include:

- planning reform and its integration with regional level economic development
- involvement in property development projects including closer government consultation with developers of major projects to facilitate their engagement with the planning system and provision of improved and timelier information on planning processes and requirements.

Consultation has identified a negative trend for recruitment and indeed forced reductions, such as redundancies. Unfortunately this includes apprentices/trainees and is very disturbing for the organisations and individuals alike. The industry's workforce capacity is further threatened in the area of retaining skilled workers. This is due to the perceived lack of security in their employment and therefore moving to the mines and interstate infrastructure projects of which, appear to offer better security and of course wages.

Some enterprises that have contracts and operations out of state are making every effort to redeploy. However, those who operate in specialist areas appear to be maintaining business.

An additional key problem for the civil construction industry in engaging in workforce planning is the lack of verifiable real time data. Traditional data collection methodologies such as ABS data

² Department of Economic Development Tourism and the Arts "Economic Development Plan"
http://www.development.tas.gov.au/economic/economic_development_plan/achieving_our_vision/sector_development/sector_strategies/building_and_construction

collection do not accurately paint the picture of the industry either in terms of what the industry does or more importantly where there are emerging or existing skills shortages. This is due to a range of factors from the fact that the industry is poorly described or absent in ANZSCO.

Workforce Planning and Development in Civil Construction

Effective workforce planning needs robust and comprehensive data on the current employment in the industry, demographic profile of the workforce and reliable projection of employees' and business intentions.

The data that is relevant to “whole-of-business” management is commonly disaggregated and not readily related to the civil construction industry.

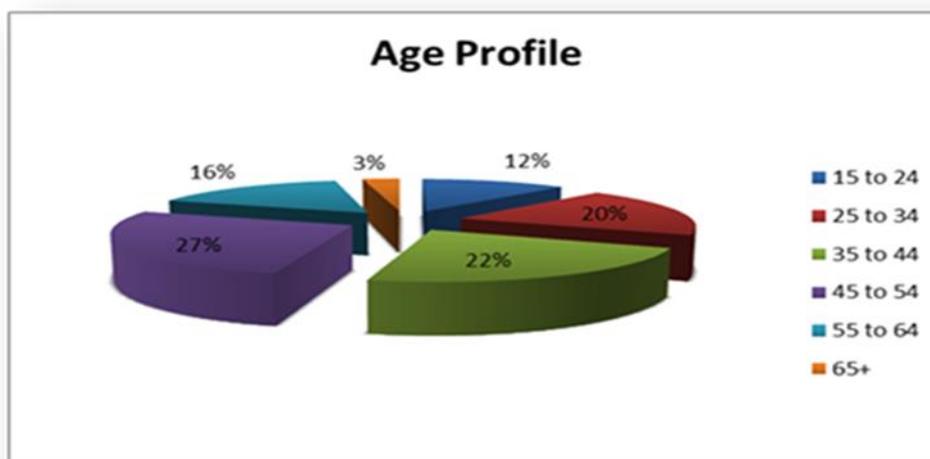
Additionally the availability of industry specific data related to the occupations within the civil construction sector is problematic.

The information provided in this report is provided by over 20 individual civil businesses, collectively employing approximately 1500 FTE's.

The information has been consolidated and presented in a collated format due to commercial in confidence.

Industry Workforce and Training Profile

The information provided estimates that, approximately 46% of the workforce is over 45 years of age with approximately 20% being over 55. This is of significant concern given the current and future economic forecast for the industry. The reduction in recruitment, increased attrition and forced redundancies are seeing those participants in the 25– 44, age bracket 44% leave the industry and move interstate for further employment opportunities (increased wages and longer term employment commitments).



This combined with the 20% (55+) who will be retiring over the next 5 years will result in a considerable number of skilled workers leaving the industry.

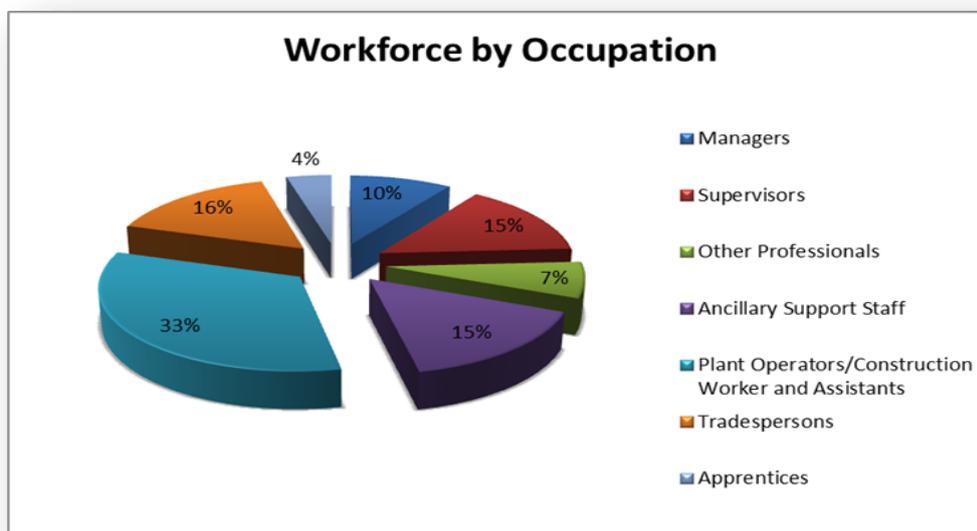
The industry's ability to replenish its workforce will be further challenged by those issues identified by the Tasmanian Demographic Change Council:

- Tasmania is ageing more rapidly than any other jurisdiction and has the oldest population of any jurisdiction.
- Tasmania already has the lowest labour force participation rate of any jurisdiction and so is more vulnerable to a future decline in participation due to ageing.
- Tasmania's labour productivity rate, which is a key driver of economic growth, has been below the national average in the long term, and
- Forecasting that every two people leaving the workforce only one young person will enter

Many of these are "family businesses" and for skilled employees who want to progress to business ownership they need to seek careers elsewhere as in small to medium firms there simply aren't opportunities for them. As the industry faces demographic challenges there is also the expectation that succession planning issues with the next generation of the family will become a significant concern.

This will have a predominant impact in relation to the key areas of occupation in the industry. (Attachment A Scope of Industry Occupations)

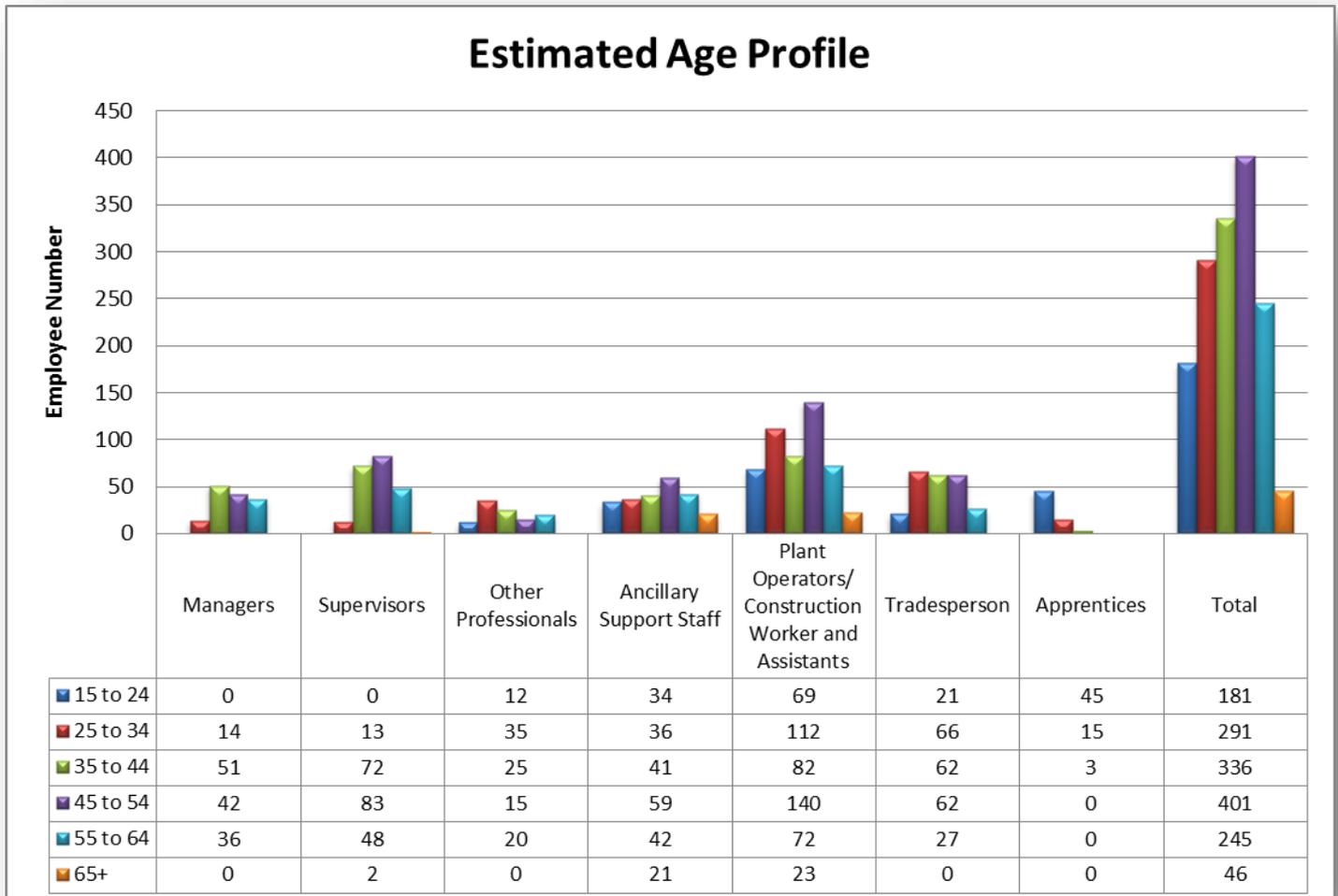
It is estimated that the occupations of Plant Operators/Construction Workers and Assistants and Supervisors make up almost half of the workforce.



Plant Operators/Construction Workers and Assistants represent 33% of the workforce, with 47% over 45 years of age. This is followed closely by Supervisors representing 15% of the occupational profile, with 9% over 45 years of age.

Compounding this issue is that the skill level of the operator is not determined by the plant and equipment that they use but by the complexity of the tasks they are required to perform, the level

of responsibility that is applicable to the role in the work environment. All of which take time to acquire the level of experience to evidence competence.



Whilst there is considerable variation between civil occupations as to what an employer regards as achieving competency, the industry places a premium on experience as an indicator of ability to perform tasks to a satisfactory standard.

It is essential to separate licensing ('the ticket') from the proficiency required by employers. The 'ticket' is the regulatory requirement to operate plant, which would be necessary prior to commencement of employment. It is not considered an appropriate level of experience on its own and is merely a prerequisite requirement for employment in this role. Regulatory requirements may differ between States / Territories but commonly apply to: Dozers, Excavators, Front End Loaders, Backhoes, Graders, Road Rollers, Skid Steer Loaders and Scrapers. Although the new Work, Health and Safety Act is expected to address the issue in relation to the regulatory inconsistencies between States/Territories this will not and cannot address the level of experience which is a mandatory requirement by the industry.

It is clear that these key occupations require forward planning if critical skills shortages are to be avoided.

Training Activity

Workforce planning and development is a critical component of an industry wide management approach. The training activity overview below shows that approximately 19% of the overall workforce (collectively estimated to be 1500 workers) have undertaken, or are undertaking formal qualifications in 2010 – 2012.

The estimated training activity clearly evidences the diversity of qualifications required within the businesses from an industry perspective. Not all workers have qualifications or are they undertaking training. Provided below is an estimate of training activity in relation to existing workers.

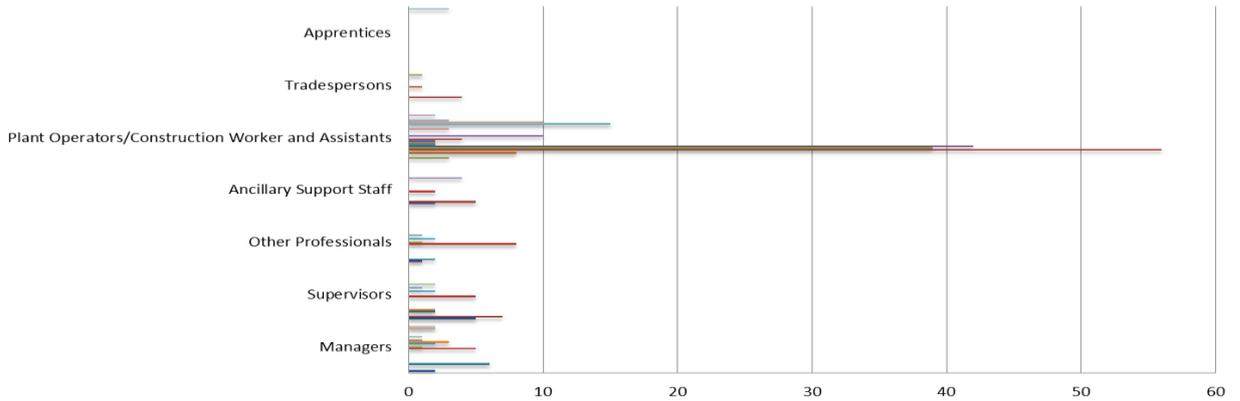
The qualifications range from Certificate III through to Advanced Diploma and are in relation to the existing workforce. The qualifications are across business and there are multiple occupations which require the additional industry/work specific units/course.

When these occupations are further defined to the level of business operations (actual job role) the list is expansive. For further guidance on occupation roles please refer to (Attachment A Scope of Industry Occupations)

[Recent changes in the Australian Apprenticeships Incentives Program may impact negatively on this activity in the future. Refer to Funding and Attachment C.]

The civil construction specific qualifications (RII09 Training Package) represent approximately 40% of this training activity. The majority of these are apportioned to Plant Operators/Construction Workers and Assistants, representing approximately 48% of the workforce, and the occupations within this scope may claim multiple qualifications and certificate levels.

Qualification - Occupation



	Managers	Supervisors	Other Professionals	Ancillary Support Staff	Plant Operators/Construction Worker and Assistants	Tradespersons	Apprentices
AUR30405 Certificate III in Automotive Mechanical Technology							3
PRM30504 Certificate III in Asset Maintenance (Waste Management)					2		
BSB50207 Diploma of Business	2						
BSB51107 Diploma of Management	2						
TLI31210 Certificate III in Driving Operations					3		
RII31109 Cert III Bridge Construction and Maintenance					10		
TLI30410 Cert III Transport and Distribution (Rail Infrastructure)					15		
BSB30407 Cert III Business Admin				4			
BSB41407 Certificate IV in Occupational Health and Safety	1	2				1	
TLI40410 Cert IV Transport and Distribution (Rail Infrastructure)					3		
BSB51407 Diploma Project Management	1	1	1				
BSB60607 Advanced Diploma in Occupational Health and Safety	3						
BSB51307 Diploma of Occupational Health and Safety	2	2	2				
PML40104 Certificate IV in Laboratory Techniques					10		
BSB41507 Certificate IV in Project Management	1		1				
BSB40807 Certificate IV in Frontline Management	5	5	8	2	4	1	
TLI30107 Certificate III in Transport and Logistics (Warehousing and Storage)					2		
RII31409 Certificate III in Road Construction and Maintenance					2		
RII31309 Certificate III in Pipelaying					2		
RII30909 Certificate III in Civil Construction					42		
RII30809 Certificate III in Civil Construction Plant Operations					39		
TLI30207 Certificate III in Transport and Logistics (Road Transport)				5	56	4	
PML30104 Certificate III in Laboratory Skills				2			
RII31009 Certificate III in Bituminous Surfacing		2			8		
TAA40104/TAE40110 Certificate IV in Training and Assessment	6	2	2				
BSB50407 Diploma of Business Administration			1				
CPC30208 Certificate III in Carpentry					3		
RII40609 Certificate IV in Civil Construction Operations		7					
RII40709 Certificate IV in Civil Construction Supervision	2	5					

Apprenticeships and Traineeships Certificate

This section provides an overview and summary of the Australian Apprenticeship participation activity in Tasmania in the RII09 Civil Construction Qualifications using the national and state data across the delivery system.

This data should be read and viewed in consideration that in March 2012 the following qualifications were superseded by RII30912 Certificate III Civil Construction:

- RII31009 - Certificate III in Bituminous Surfacing
- RII31109 - Certificate III in Bridge Construction and Maintenance
- RII31309 - Certificate III in Pipe Laying
- RII31409 - Certificate III in Road Construction and Maintenance
- RII31509 - Certificate III in Road Marking
- RII31709 - Certificate III in Tunnel Construction
- RII32109 - Certificate III in Timber Bridge Construction and Maintenance
- RII30909 - Certificate III in Civil Construction

The qualification RII30192 now incorporates specialist occupations in Bituminous Surfacing Bridge Construction and Maintenance, Pipe Laying, Road Construction and Maintenance, Road Marking, Tunnel Construction, Timber Bridge Construction and Maintenance and Civil Construction general occupations.

The available data relates to Australian Apprenticeship/Traineeships commencements, completions, cancellation/withdrawals and may not be a true reflection of overall activity. The availability of a qualification through an Australian Apprenticeship/Traineeship is determined by each State/Territory Training Authority and varies between jurisdictions.

The Civil construction qualifications approved in Tasmania are:³

Qualification Title	Code	Available from	Part time	School Based	User Choice
Civil Construction	RII30909	01/02/2010	No	Yes	Yes
Civil Construction	RII20712	14/06/2012	Yes	Yes	Yes
Civil Construction	RII20709	01/02/2010	No	Yes	Yes
Civil Construction	RII30912	14/06/2012	Yes	Yes	Yes
Civil Construction Design	RII50509	12/04/2011	Yes	No	Yes
Civil Construction Operations	RII40609	18/02/2011	Yes	No	No
Civil Construction Plant Operations	RII30809	01/02/2010	No	No	Yes
Civil Construction Supervision	RII40712	14/06/2012	Yes	No	No
Civil Construction Supervision	RII40709	18/02/2011	Yes	No	No

³ <http://laureldw.education.tas.gov.au/default.aspx>

Active Training Contracts in Specified Qualifications from the Resources and Infrastructure Industry Training Package RII09 as at 21 September 2012 ⁴

Qualifications		Total
Certificate II in Civil Construction	RII20709	1
Certificate III in Civil Construction	RII30909	40
Certificate III in Civil Construction	RII30912	14
Certificate III in Civil Construction Plant Operations	RII30809	32
Certificate III in Pipe Laying	RII31309	4
Certificate III in Bituminous Surfacing	RII31009	9
Certificate IV in Civil Construction Operations	RII40609	1
Certificate III in Road Construction and Maintenance	RII31409	14
Certificate IV in Civil Construction Supervision	RII40709	2
Total		90

It is suggested that the training activity for the period from January 2010 to March 2012 reflects the majority of the activity identified and, is directly attributable to that cohort of existing workforce in the Qualification - Occupations training profiles on page 11.⁵

Qualification		Commencements	Completions	Withdrawals Cancellations
Certificate III in Civil Construction	RII30909	56	2	6
Certificate III in Civil Construction Plant Operations	RII30809	42	4	10
Certificate III in Pipe Laying	RII31309	4	3	0
Certificate III in Bituminous Surfacing	RII31009	8	2	3
Certificate IV in Civil construction Operations	RII40609	1	0	0
Certificate III in Road Construction and Maintenance	RII31409	14	2	2
Certificate IV in Civil construction Supervision	RII40709	2	0	0
Certificate III in Road Marking	RII31509	6	1	3
Certificate III in Bridge Construction and Maintenance	RII31109	3	0	0
Certificate IV in Civil construction Supervision	RII40206	8	10	6
Diploma of Civil construction Design	RII50509	1	0	1
Total		145	24	31

⁴ Data Source: Skills Tasmania's Delta database from information available on 21 September 2012. Prepared by: Allana Morgan, Research, Payments and Data

⁵ Data source: NCVET VOCSTATS

Nominal hours for Certificates III and IV are 36 months; however, actual delivery time for the Certificate IV may be as low as 12 months⁶.

The civil construction industry rarely recruits new workers via apprenticeships/traineeships. The major restriction is the lack of continuity of work, forward planning for capital works programs, procurement and tendering practices. The apprenticeship system requires the trainee to achieve competency in the related units, this is reliant upon consistency of work. All of which contribute to negative participation in relation to accredited training by civil contractor employers for new workers.

The level and context of many infrastructure projects within Tasmania, public and private, big and/or small, require multi facets of work. This in turn requires considerable investment by Tasmanian civil contractors.

The economic dynamics of Tasmania (size and consistency of work) do not reflect the employment and training environments of those of their sector colleagues in the more buoyant larger scale states. In Tasmania, rarely is someone employed to *do one thing* such as a “Plant Operator”.

For example: a road maintenance contractor employee is required to clear a fallen log (chainsaw operator), undertake weed management (hazardous chemical handling) and traffic control. Conversely the occupation descriptor he is employed as is a “Construction Worker”. This is particularly relevant for small to be medium businesses, but does not preclude the larger operators. There are civil construction specialists in Tasmania such as asphaltting, bridge building and maintenance; however, they also require multiple skills, competencies and licences for their operators.

The expanse of training and skill development in the form of accredited and non-accredited units/skill sets, industry courses and licensing appear to be endless. Some of the additional training, courses and licences are provided below but are not limited to:

Skills Sets/Accredited and non-accredited/Courses	
Confined Space Training	White Card
Welding	Project Management
Computer Training	Air Con licence
Rigger / Dogging	Accountable Person
First Aid	Chainsaw
Manual Handling	Fork Lift / Tele handler
EWP	Slewing Crane
Dump Truck	Excavator Ticket
Heavy Rigid	Working at Heights
Time Management	Scaffolding
Fire Training	Supervisors Course
Word / Excel / Project	Dangerous Goods Handling
Finance 1	Frontline Management

⁶ Nominal hours are not a reliable indicator of duration of training programs. See <http://transformed.com.au/training/courses/certificate-iv-in-civil-construction-supervision.html>

Lead Auditor	Auto CAD
Communication Skills	Contract Administration
Concreting	Hydraulics
Estimation Course -	Power line awareness
Plant Inspection	Electrical Awareness & Conductor Identification
Worksite Traffic Management & Traffic Control Operator,	Prepare work zone traffic management plan Traffic Management Levels 1,2,3 & 4
Pruning in an Electrical Environment ("Tree Care for Electricity Workers" & "Ropes & Tackles in Electrical Environment")	Chainsaw Level 1
Basic Fallers Certificate - Chainsaw Level 2	Advanced Fallers Certificate - Chainsaw Level 3
Chipper Operation	Senior First Aid (First Aid Level 2)
Resuscitation (CPR)	Farm Chemical User Course
Basic Herbicide Applicators Course	Basic Tree ID
Intermediate Excel	Advanced Excel
Advanced Word	Microsoft Project
Emergency Response Plan	Fire Warden training
Fire Safety	Employee Safety Rep training
OH&S Responsible Officer	Hazardous Chemical Storage & Handling
Hazard Identification	Load Securing Course
Plan Reading	Survey and Set Out Industry/Project Specific inductions

The collective annual spend on training is approximately \$1,752 per employee. This does not include costs attributable to Australian Apprenticeship/Traineeship for the delivery of accredited training.

It is significant to note that the civil construction workforce of Tasmania is highly regarded and sought after due to the combination of skills, competencies and licences which they obtain via their Tasmanian employer.

Recruitment

The overall civil construction industry has an image of: low skilled, short term, physically demanding and environmentally challenging. Working in the rain, cold, windy, snowy and hot conditions can be difficult. This can be seen as very challenging especially for young people.

While civil construction requires skilled and qualified personnel to perform key roles, employers will often settle for underqualified and unsuitable candidates in order to 'get the job done'. This activity may also be a key contributor to the high attrition rates and instability in the workforce.

Due to the lack of planning of capital works or maintenance programs and the short term of certain projects, the industry lacks suitable lead time to plan efficiently and effectively for their workforce. In addition to this, the recruitment of skilled civil workers for short term projects is difficult. The demand of the workforce capacity in many instances is beyond the control of the industry and employers.

Recruitment methods used for filling vacancies are newspaper advertisement and by word of mouth. Rarely was Job agencies identified as being proactively approached or utilised by the enterprises, with the exception of the higher level roles, such as Engineer and Senior Management Personnel.

Gender

Nationally the Civil construction industry has approximately 10% female participation⁷, predominantly in traditional roles, such as administration and clerical. The research undertaken within the civil construction industry in Tasmania would support this.

There was no evidentiary activity identified within the Tasmanian civil operators regarding specific targeting this group. However, there have been, and currently are, successful strategies in other sectors (mining) and other states, for example,⁸The Women in Civil Construction Initiative. The Civil Contractors Federation (CCF), in collaboration with their funding partners Construction Skills Queensland, is delivering a flexible based program designed to deliver the entry level skills required to participants who wish to pursue a career in the civil infrastructure sector.

Another example is the Civil Contractors Federation (CCF) SA "Driving cultural change – Women in Civil", a support group for women in civil in Mount Gambier. This group was designed to recognise women in a mainly male dominated occupation. Whilst the first attendees were mainly from administrative positions within contractors it is hoped that overtime it will attract more women to plant operations and other roles.

Importantly, this is about cultural change and making women feel both relevant and valued as part of a civil construction workforce. The initiative is ongoing.

It is clear that with the aging workforce of the Civil sector combined with the aging profile of Tasmania that initiative's, such as those outlined above would be of value in expanding the civil construction profile in Tasmania. This is especially relevant in respect of previous evidence provided in this report regarding the aging profile of Tasmania and the industry itself.

Skilled Migration

CCF's most recent data shows that overall members did not use overseas recruitment to fill skilled labour shortages.⁹ However in analysing survey responses by State, Western Australia did have a significantly higher percentage of organisations that do recruit internationally (40.7%) compared to other states. The next significant percentage was Queensland, followed by South Australia, Tasmania, NSW and Victoria. This appears to be generally in line with the commentary in the Discussion Paper.

Also noted was, that where international recruitment was present this tended to be larger organisations. For example 47.6% of organisations with an annual turnover of \$50 million or higher who responded to the survey indicated that they recruited internationally which was a much higher percentage than all other turnover brackets.

⁷ SkillsDMC – Resources & Infrastructure Industry Skills Council – Environmental Scan 2012 Page 19

⁸ The Women in Civil Construction Initiative

⁹ Civil Contractors Federation Submission to "Resourcing the Future –National Resources Sector Employment Taskforce Discussion Paper" April 2010

Whilst CCF does not have data on the positions they recruited for, their view would be that it was likely to match the profile for 457 visas being highly skilled labour such as civil engineers and supervisors rather than plant operators who would not have fitted within the visa criteria.

Indigenous Employees

Tasmanian civil construction enterprises do not necessarily request nor record this information in relation to aboriginality, therefore the number of indigenous employees is unknown.

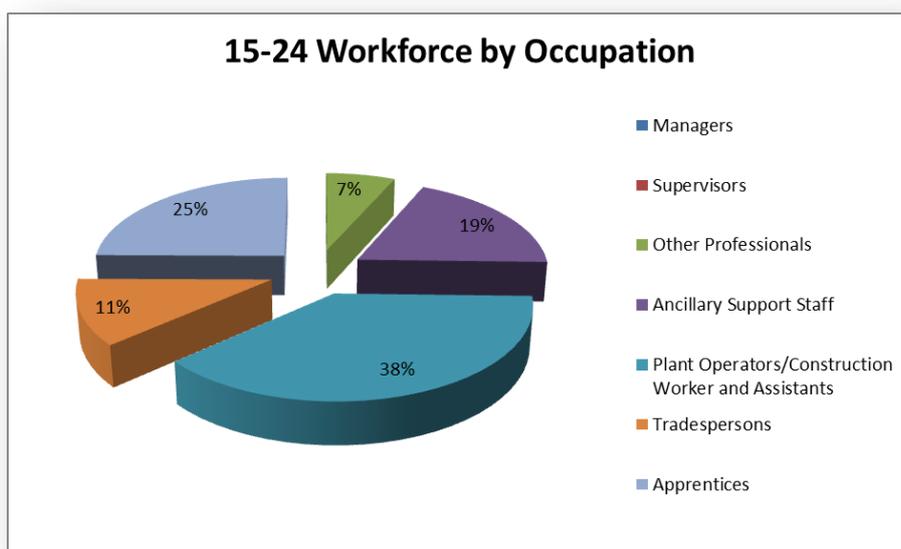
There were no specific civil construction indigenous recruitment strategies identified in Tasmania. However, this does not preclude the industry from including Indigenous Employment Strategies in the industry's Workforce Planning actions. Examples of successful indigenous programs within the civil construction industry are readily available through CCF and SkillsDMC.

Youth (Career Promotion)

Civil construction is anything to do with the earth, water or transport infrastructure. It is a \$10 billion a year Australian business that is crucial to Australia's economy and it needs youth. Jobs range from the plant operators who drive the earthmoving equipment on construction sites, to the engineers who design the structures and manage their implementation.

Unfortunately civil construction is seen by many including much of the industry itself to “digging a hole” and conducting traffic with stop and go bats. This is not a true reflection or representation of the expansive choice of careers available in the industry.

As per Page 7, 12% of the existing workforce profile is between 15-24 years of age. They represent 38% of Plant Operators /Construction Worker; however, the latter occupation of **Construction Worker** is a more accurate occupation descriptor for this group.



The civil construction industry age profiles suggest that employees come later to civil construction as an industry both because of civil construction not being a first choice career and due to operational requirements such as holding a driving licence as well as industry perceptions about maturity. There is a cultural predisposition within the industry that people below a certain age are too 'high risk'.

The pathways available to young people in the secondary education sector have not been available or unknown. Entry through vocational education pathways may address the engagement issues.

However, the industry career pathway tends to require young people to reach a point of 'productivity' and then 'hang in' for a period of time before the 'interesting roles' become available to them. This creates a retention issue.

There is clearly a need to provide a program of information and support to young people to promote the industry and encourage an understanding of career opportunities and pathways within the sector while providing enterprises with support to develop young people within the work environment.

An example of such a program is "Careers on the Move" it is an innovative initiative of the Tasmanian Transport Association working in partnership with over 30 different T&L enterprises and the Tasmanian Department of Education.

The key objective of this initiative is to develop Australian School-based Apprenticeship models for the transport and logistics industry that underpin enterprise workforce recruitment and development strategies.

The Tasmania Transport Association working in collaboration with Tasmanian transport and logistics enterprises are committed to rolling out the four stages of the Careers on the Move pilot program.

- Stage 1: Promotion of the industry and career pathway opportunities to young people.
- Stage 2: Recruitment and employment of Australian School-based Apprentices (ASbA). Supporting both vocational and university pathways
- Stage 3: Development of the transport and logistics ASbA community of practice
- Stage 4: Development and establishment of transport and logistics industry mentoring program.

**Refer to section "Other support programs for Apprenticeships" See pages 32 and 33 for additional support programs.

Skills Shortages

Civil Engineer

Civil engineering encompasses four main sub-divisions: geotechnical engineering; hydraulics (water) engineering; structural engineering; and transport engineering. They may also be required to manage staff, including other members of the engineering team and workers on the project site.

According to 2006 ABS Census data, 42 per cent of all civil engineering draftspersons and technicians have a diploma-level qualification. Another 20 per cent have a certificate-level

qualification. The remaining data indicates that around one-third of people working as civil engineering draftspersons and technicians *did not hold a formal qualification*.

The demand for civil engineering draftspersons and technicians is comparatively low in Tasmania in relation to other states/territories; however, when vacancies arise they are difficult to fill.

However, there is an expectation that the cumulative issues such as;

- the aging profile (retirement),
- resignations (35.7 year old) leaving the state to obtain employment in other fields (mining) or better paying employment interstate,
- lack of new entrants (Civil engineering not choice of career for youth),
- negative economic environment,
- lack of training providers offering Certificate IV and Diploma in Tasmania,
- the changing technology being developed and used within infrastructure projects (e.g. gas).are becoming increasingly more complex,

Will, significantly intensify the ¹⁰skill shortage currently being faced by the industry in Tasmania.

Estimator

Estimators estimate and monitor construction project costs. A large part of their job involves working with engineering drawings and specifications to prepare estimates of all project costs including equipment, materials and labour.

While some Estimators are responsible for managing costs for the whole life of the project, from the feasibility stage through to the completion of construction, some will specialize in a particular area such as preparing cost estimates for tender submissions.

Knowledge of civil construction techniques is essential for this occupation. While there are no formal educational requirements to become an Estimator, most do become qualified. There are various paths that can be undertaken to gain a formal qualification. One is to complete a traineeship/apprenticeship in Civil Construction then go on to complete a Diploma or Advanced Diploma in Civil Construction Management with cost estimation electives. Another path is to complete a Bachelor degree in Civil Engineering or Construction Management

Due to “Estimator” not being identified within the ANZSCO it has not been identified as a “skill shortage”, however this does not mean that skill shortage doesn’t exist. However, it should also be noted with Civil Engineering and is just as critical.

Further concerns also relate to the Diploma and Advanced Diploma **not being** on the National Skills Needs List (NSNL). This list identifies those occupations/qualifications which attract financial incentives under the Australian Apprenticeship Incentive Program. (See page 31 and Attachment B)

¹⁰ Skill Shortage - Civil Engineering Professionals Tasmania June 2012 - Labour Economics Office Tasmania Department of Education, Employment and Workplace Relations

Complexities of the Training Environment

Skilling issues in the civil construction industry are complex. This complexity is a combination of a number of contributory factors from within both industry and the training system, on both the supply and the demand side of training.

There are inherent industry cultural issues such as:

- The value of formal accredited training (qualifications) “versus” the legislated operation courses such as skills sets etc.” - *return on investment*;
- Tendency amongst employers to look only at the here and now for their labour force needs;
- “Poaching” of workers was revealed and that it was a significant feature of the industry “I train them and then some other business steals them”.
- Once trained, skilled employees would move elsewhere and the substantial investment in training would be lost.

The above reinforces a cultural view about training being a “cost” rather than an investment.

There are other business related issues and perceptions such as:

- High cost of training, particularly for those outside of urban areas
- Training delivery and assessment remote from the workplace
- Lack of suitable work for training
- Lack of familiarity with or understanding of the Australian Apprentice system and the process for hiring an apprentice/trainee
- Lack of qualified staff to be able to train/supervise an apprentice/trainee (related to the size of business)
- Concerns about the time required for apprentices/trainees to undertake on and off the job training
- Lack of understanding or familiarity with the role of RTOs, training programs and the training system (for example, training packages)
- Lack of recognition and acknowledgement from funding authorities regarding “overall cost’ of training

The continuity of work, forward planning for capital works programs, procurement and tendering practices all contribute to negative participation in relation to accredited training by civil contractor employers for new and existing employees alike.

Exacerbating this is the forecasted issues in the area of Verification of Competence (VOC) and the current lack of clear direction regarding the legislative regulatory requirements.

Verification of Competency - VOC

Under the 2011 National Work Health and Safety Legislation a range of conditions are required. Employers/Lead Contractors must take *reasonable* and *practical* steps to *ensure* the competency of their staff/contractors for the work they perform and the operation of workplace plant and equipment. In summary this is verification of competencies (VOC).

To achieve this, the employer/lead contractor must be able to *demonstrate* that steps have been taken by a *qualified person* who has *training qualifications* and relative *industry skills* to conduct a formal assessment. This may be a written test, a verbal knowledge test or a practical test.

The VOC process is seen to address the responsibilities for the employer/lead contractor and is sometimes used because of concerns relating to the issuing RTO who may have issued the initial competency statement.

Civil construction businesses do not see themselves as in the business of training. Priorities in relation to training needs are to:

- Safety
- Productivity – getting the job done
- Efficiency – minimise waste and downtime
- Effective use of plant and equipment – maximise capacity and productivity
- Compliance – demonstrate competency to ensure legislative, regulatory and contractual compliance and
- Recognition of employees.

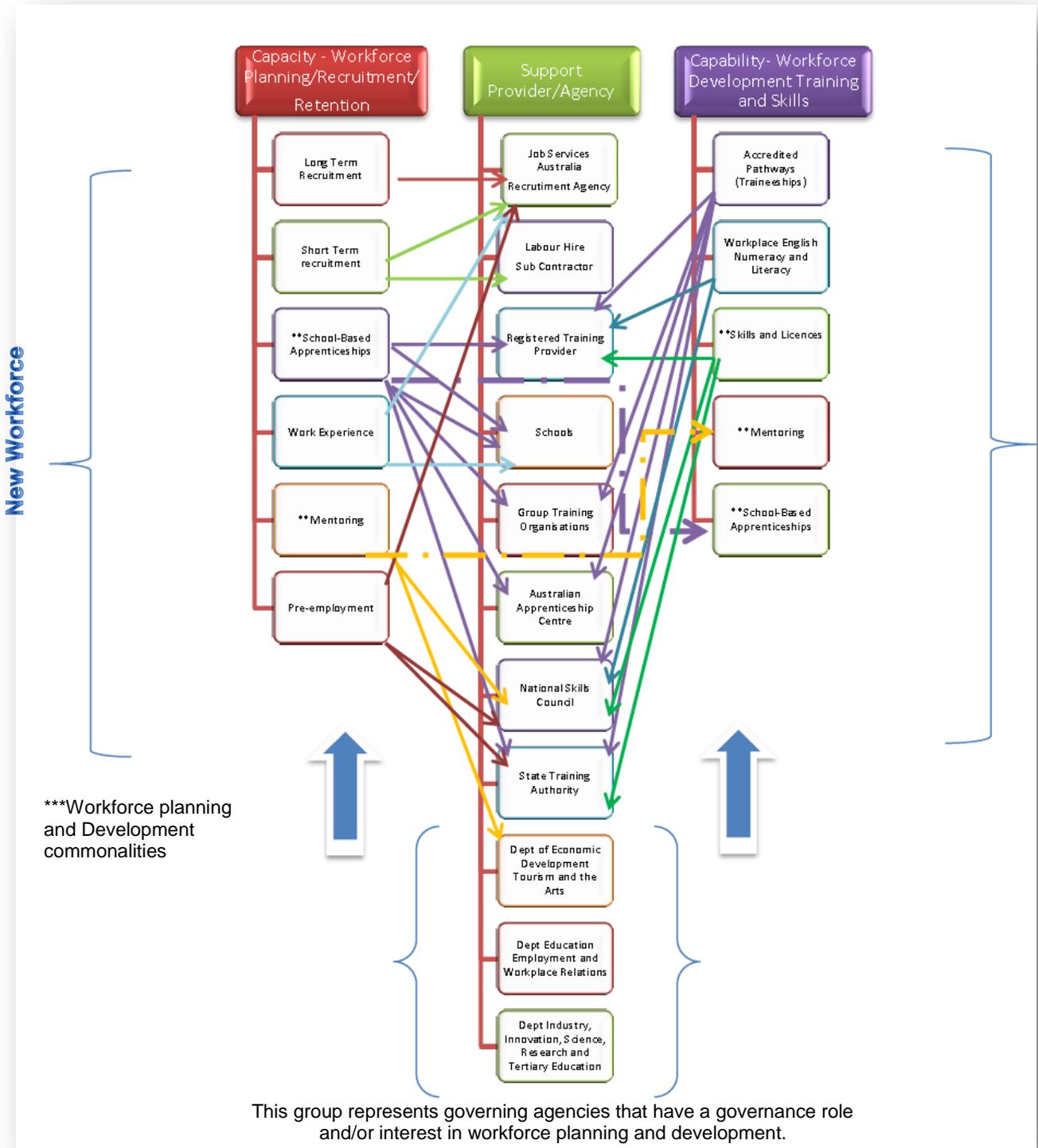
Participation in the Vocational Education Training (VET) system requires all of the above in order to meet industry standards. The purpose of undertaking training is to achieve these objectives and as such, the certificate is not the objective but is as an acknowledgement of this being met.

The level of understanding within the civil construction sector of the VET system including the network of stakeholders, plethora of training programs and overall requirements range from “knowledgeable” to “oblivious”. It would be reasonable to say that the majority of those individuals who are knowledgeable at a “whole-of-business” level are those employed within the larger operators, whose specific role is Training Advisors and/or HR specialists, although this is not always the case.

Considering that approximately 94% of civil contracting businesses in Tasmania employ 5 or fewer employees this would indicate that the collective knowledge about the VET system and its practical application and fiscal support in relation workforce planning and development within the civil sector is minimal.

Furthermore, the statement “civil construction businesses are not in the business of training” should not be interpreted as “they do not want to be involved”. Far too often it is this seen or heard by certain stakeholders that accredited training is not perceived to be of value, and that enterprises are too busy to be involved. The real message is “*why does it have to be so hard!*” The business position is “*you can’t manage what you can’t measure*”. There is a strong desire and willingness for industry to become educated about the system and how it can support the needs of the industry and its workforce.

The diagram below maps the involvement of stakeholders and interested parties in industry workforce development, workplace planning and development activities, programs, support and funding. This does not identify or represent all parties; however, it clearly demonstrates the amount of investment and involvement by governments and their agencies within the employment and training environment.



As depicted above the overabundance of stakeholders and the associated flyers and information regarding the services which they provide and the language they speak, becomes overwhelming

to the point of “it’s all too hard” for industry. It is clear that for the civil construction industry (94% small business) to truly invest time and resources into workforce planning and development a more efficient and effective communications method needs to be put in place. Furthermore, it should not be underestimated that industry seeks to benefit from these opportunities, many programs and/or stakeholders do not connect with each other and in some cases are counteractive.

This again causes frustrations and loss of productivity for enterprises, which are often referred to websites or sent brochures etc. for information. Additionally the services environment is often competitive with many providers having contractual and sometimes conflicting obligations to fulfil. An independent guide (such as their industry association/member body) could work on behalf of/with the enterprise to break down apparent systemic barriers to communication and to increase trust through negotiations regarding competitive objectives. Throughout this process the enterprise would become more informed and knowledgeable of the system, thus creating an informed purchaser and user of the workforce and planning system.

Industry Associations/member bodies would be best placed to facilitate this activity and connect their members with the system and providers, however they too are often a small business and do not have the internal resources nor knowledge to proactively support their members to the full extent to actively participate in workforce planning and development.

Funding

A number of attempts and requests for the provision of fiscal data were made to the relevant bodies in respect of the financial investment of state/commonwealth government programs/initiatives in the civil sector of Tasmania and its workforce planning and development activity and needs.

It is evident that this level of information is not easily identifiable, and that it may not be captured at all. As such the funding information provided below should be considered as a guide only.

State Government investment

User Choice funding arrangements and managed through Skills Tasmania to support the delivery of training for new workers; these are most commonly referred to as apprenticeships or traineeships. Funding is based on a fixed price contribution to the cost of training.

Access to this funding requires consultation with an Australian Apprenticeship Centre and the nominated Registered Training Organisation (RTO) has to be registered with Skills Tasmania with a funding agreement in place. Employers and apprentices/trainees must enter into a training contract.

¹¹The civil construction specific qualifications which are approved by the state of Tasmania and attract User Choice Funding are:

USER CHOICE FUNDING/Registered Pathways		Duration	P/T	School Based	User Choice \$	Restricted Funding	Funded Hours
Certificate II in Civil Construction	RII20709	18	No	Yes	\$5,076.00	No	518
Certificate II in Civil Construction	RII20712	18	Yes	Yes	\$5,076.00	No	
Certificate III in Civil Construction	RII30909	36	No	Yes	\$12,174.00	No	1165
Certificate III in Civil Construction	RII30912	36	Yes	Yes	\$12,174.00	No	
Certificate III in Civil Construction Plant Operations	RII30809	36	No	No	\$6,504.00	No	380
Diploma of Civil Construction Design	RII50509	36	Yes	No	\$7,350.00	No	875

***Certificate III in Civil construction RII30912 and Certificate II in Civil construction RII20712 (added 14/06/2012)*

User Choice funding arrangements for existing employees is only available to traditional trades and do not apply to the above qualifications.

The qualification RII30192 now incorporates specialist occupations in Bituminous Surfacing Bridge Construction and Maintenance, Pipe Laying, Road Construction and Maintenance, Road Marking, Tunnel Construction, Timber Bridge Construction and Maintenance and Civil Construction, general occupations.

¹¹ <http://laureldw.education.tas.gov.au/default.aspx>

In addition to User Choice the State's fiscal investment in the civil construction workforce development has been identified in two of the State's agencies.

- Skills Tasmania: contestable programs including Productivity Places Program (PPP) and
- *Tasmanian Building Construction Industry Training Board (TBICTB)*

PPP

PPP was jointly funded by the Commonwealth –and Tasmanian Governments and operated as a demand led program from 2009 to 2012. At the time of this report Skills Tasmania had released the "Skills Fund". This program supersedes PPP

In 2012 Skills Tasmania incorporated skill set training into PPP. Skill Set training had previously been supported competitive funding known as the Workplace Skills Program (2011), Tasmanian Skills Investment program –TasSkills (2006-2010) and Competitive Bids prior to 2006.

Under the above programs, all funds awarded to successful applications are provided directly to the RTO; therefore the funded contractual arrangements are between Skills Tasmania and the RTO/s.

Only payments made through Laurel for students who commenced after 1/1/2011 are included in the table below.¹²

Amount Paid* for Civil construction Qualifications		
Program	Calendar 2011	Calendar 2012**
PPP - Existing Worker		\$1,683.44
User Choice	\$4,790.80	\$48,726.69
Grand Total	\$4,790.80	\$50,410.13

Data was not readily in respect of other programs in the period of 2010 – 2012
Workplace Skills Program 2011

The Workplace Skills Program has now finished and no further funding will be made available through this program.

The Workplace Skills Program (formerly TasSkills) was a contestable program. It was designed to subsidise delivery of nationally-accredited units of training that met a specific need within an industry, occupation or enterprise, including training to assist in meeting licensing requirements.

The objective of the program was to support skill set based training in line with the priorities of the Tasmanian Skills Strategy, to fill the gaps in the training system and to meet needs not covered by other funding programs.

¹² **2012 figures are Year-to-date as at 30/10/12. It does not include any payments made through Daphne, our previous payments system. Source: Laurel payments system, Skills Tasmania. Prepared by Yiannis Dimitriou, Research, Payments and Data, Skills Tasmania

The program supported strong partnerships between RTOs and enterprises and/or industry associations.

In 2012 Workplace Skills merged with the Productivity Places Program to form PPP+.

At the time of this report Skills Tasmania had released the “Skills Fund”. This program supersedes the Workplace Skills Program and PPP+.

Tasmanian Building Construction Industry Training Board (TBCITB)

The ¹³TBCITB manages industry training levy funds to support training in the building and construction industry. All employers, sub-contractors and self-employed contractors in the building and construction industry can apply for funding for training programs. The TBCITB training plan for 2012/2013 has been approved. Under the plan, the Board has allocated \$2.5 million for training 7900 eligible industry participants.

The plan includes programs that provide incentives to employers taking on apprentices/trainees. It also covers the following priorities:

- Up skilling and multiskilling program - \$360,000
- Occupational, health and safety training program - \$400,000
- Industry innovation and information technology training program - \$120,000
- Vocational and tertiary training program - \$1.5 million.

The TBCITB estimates that the financial contribution from 2010 to mid-2012, provided by the TBCITB to the civil construction industry is between, \$500,000 to \$750,000. It was also presumed that the majority of this was applied for by the larger employers.

**All incentives are paid directly to the enterprise.

Whilst this program was relatively well known, further marketing would benefit the civil construction industry especially the small to medium sized cohort and in light of the recent changes to the Australian Apprenticeship Incentive Program (Refer Attachment C).

The support is considered to contribute positively in responding to the needs of those participating enterprises. Nevertheless certain responses identified the following:

- It would be better to know in advance what the reimbursement could be. This was referred to in the context of projecting and managing workforce development budgets
- The timeframes in respect of lodging claims
- The timeframe (24 months) for participant to complete contract training is not conducive to civil construction operations**

**The nominal duration of Certificate III and IV Civil Construction qualifications is 36 months and due to the diversity of some job roles, project based work and interim changes to activities certain competencies maybe delayed in being achieved.

¹³ <http://www.tbctb.com.au/TbctbLists.php?t=courses>

Consideration to flexibility could benefit both employer and trainee especially in times of slow economic conditions.

Federal Government programs and incentives

National Workforce Development Fund

The Federal Governments have funded numerous training initiatives. These initiatives include but are not limited to:

- 2010 – Enterprise Based Productivity Placement Program (EBPPP)
- 2011-2012 Critical Skills Investment Program (CSIF) and
- the current National Workforce Development Fund (NWDF)

These programs are managed through the National Industry Skills Councils on behalf of the Department of Industry, Innovation, Research, Science and Tertiary Education (DIIRSTE). SkillsDMC is the civil construction industry's national skills council. Requests were made to SkillsDMC regarding the information sought concerning these programs, however the information requested has not been received.

The EBPPP and CSIF have now been absorbed into the NWDF

****Note:** The information provided in this report has not been provided by nor has it been endorsed by SkillsDMC. Therefore the following information in relation to these programs and the funding attributable is an approximation only. This approximation is based on the information provided by enterprises and RTOs.

****The following information relates to funding for existing workers. The programs require enterprise contribution and these have been identified as per the following:**

EBPPP and CSIF

Employer's Workforce (Full Time Equivalent)	Australian Government Contribution	Participating Employer Contribution
1 -99 (small)	90%	10%
100 – 199 (medium)	75%	25%
200 and above (large)	50%	50%

NWDF

Employer's Workforce (Full Time Equivalent)	Australian Government Contribution	Participating Employer Contribution
1 -99 (small)	67%	33%
100 – 199 (medium)	50%	50%
200 and above (large)	34%	66%

****The Australian Government contribution is claimed by and paid directly to the employer (lead Organisation). The enterprise has contractual arrangements and obligations with the managing Skills Council.**

The approximate financial contribution by the Australian Government and participating enterprises is \$1,684,550.00

Estimate of Federal Government investment – Civil construction Enterprises Tasmania 2010-2012		
Program	Australian Govt	Enterprise
EBPPP/CSIF/NWDF	\$1,066,740	\$617,810
Grand Total investment in Training		\$1,684,550

- Approximate number of enterprises participating in programs - 10
- Size breakdown:
 - 7 x 1 -99 (small)
 - 2 x 100 – 199 (medium)
 - 1 x 200 and above (large)
- Approximate number of qualifications – 250 (whole-of-business)
 - Certificate III - 163
 - Certificate IV - 82
 - Diploma/Advanced Diploma 5

Whilst this program/s could be viewed as being successful in relation to increasing the uptake of accredited training/qualifications within the civil industry in Tasmania, it should also be noted that considerable concerns have been raised. The following issues identified by enterprises and RTOs included but are not limited to:

- Lack of flexibility in respect of changing workforce demands
- Onerous reporting requirements (paperwork)
- No acknowledgement of the time and cost to manage the requirements
- Non supportive of continuous workforce development
- Application process foreign
- Administratively expensive
- Too many layers of bureaucratic demands
- Payment delays

It is imperative that on the formation and management of programs such as these, that due consideration be given to the following:

- Enterprises participate in these programs to provide the industry with workers who not only meet the standard required for national accreditation but who are skilled to meet the enterprise standard. This standard is seen as being above the national requirements to meet competence by the enterprises.
- Many of the programs are specifically targeted at, and promoted to small-medium business. The intent and purpose of the programs are to assist them with the cost of training. However, the additional administrative demands which require additional resources, additional time, incurs additional costs. It could be suggested that these

programs are therefore contradictory of the initial intent. Additionally, these costs incurred appear not to be acknowledged, nor recognized through such programs.

- Programs such as these are intended to support the “workforce planning and development” directions of the enterprise. However, due to the contractual timeframes of programs regarding enrolments, commencements and completions etc. It would appear that the programs and the application process encourage, or even demand, short sightedness.

Whilst these programs have been developed and managed with good intent it would appear that there is room for improvement if the industry is to stay engaged.

Investing in Experience

¹⁴Investing in Experience (Skills Recognition & Training) (IIE-SRT) is an Australian Government program commencing on 1 July 2012. The program will provide \$20 million over two years to support up to 5,000 mature age workers (aged 50 years and over) to gain nationally recognised qualifications. It is designed to provide an opportunity for mature age workers to have their current capabilities recognised and to receive training to fill any knowledge or skills gaps. They can then obtain a nationally recognised qualification at the Certificate III to Advanced Diploma level.

Under the IIE–SRT program, employers can apply for grants of up to \$4,400 (incl. GST) to assist their mature age workers to undertake a skills assessment and obtain gap training if the skills assessment identifies a need. Funding is payable as follows:

- \$3,300 (incl. GST) is payable on completion of a skills assessment and commencement of any identified gap training.
- A further \$1,100 (incl. GST) is payable on completion of any identified gap training.

Where mature age workers already have formal qualifications at the Certificate III or above level, they may be eligible to receive further funding to complete an approved Skill Set from within a Nationally Endorsed Training Package.

IIE-SRT will effectively replace the More Help for Mature Age Workers program which ended on 30 June 2012.

No data is currently available for this program.

Australian Apprenticeships Incentives Program

The objective of the Program is to contribute to the development of a highly skilled and relevant Australian workforce that supports economic sustainability and competitiveness.

This is achieved by:

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<http://www.innovation.gov.au/Skills/SkillsTrainingAndWorkforceDevelopment/InvestingInExperienceSkillsRecognitionAndTraining/Pages/AboutTheIIESRT.aspx>

- providing genuine opportunities for skills-based training and development of employees by providing incentives to employers who employ eligible Australian Apprentices; and
- encouraging people to enter into skills-based training through an Australian Apprenticeship by providing personal benefits.

The Australian Apprenticeships Incentives Program contains a range of employer incentives and personal benefits.

Payment of incentives and/or personal benefits is subject to employers and Australian Apprentices satisfying eligibility criteria as set out in the Australian Apprenticeships Incentives Program Guidelines.

****National Skills Needs List (Attachment B)**

The National Skills Needs List identifies trades that are deemed to be in national skill shortage. It is used to determine eligibility for the employer incentives and personal benefits available under the Australian Apprenticeships Incentives Program:

- Rural and Regional Skills Shortage incentive;
- Tools For Your Trade payment initiative; and
- Support for Adult Australian Apprentices

The amount of funding provided to the civil construction industry in relation to the Australian Apprenticeships Incentives Program is not known. Enterprises who undertook EBPPP/CSIF/NWDF may have also utilised this program for those employees who met the eligibility criteria.

****Important Note** changes have been made to the program. A summary of the Australian Government Australian Apprenticeships Incentives Program from 23 October 2012 (Attachment C)

It is expected that the changes made to Australian Apprenticeships Incentives Program will have a considerable and detrimental effect on civil construction industry's workforce planning and development strategies into the future. Incentive funding is limited to Certificate III and IV as from 23rd October 2012.

****The information below should be viewed in conjunction with (Attachment C).**

Employer Incentive (paid to employer)	Certificate II	Certificate III/IV	Diploma /Advances Diploma
Commencement Incentive	Nil	Nil	Nil
• New worker Australian Apprentices			
• Existing worker' Australian Apprentices	Nil	Nil	Nil
Recommencement Incentive	Nil	Nil	Nil
Completion Incentive	Nil	Nil	Nil
• New worker Australian Apprentices			

<ul style="list-style-type: none"> Existing worker Australian Apprentices who are undertaking an Australian Apprenticeship 	Nil	\$3,000	Nil
Mature Aged Workers Incentives (45 and over) <ul style="list-style-type: none"> Commencement Incentive Completion Incentive 		\$750 \$750	
Australian School-based Apprenticeship Incentives <ul style="list-style-type: none"> Commencement Incentive Retention Incentive 		\$750 \$750	

Changes to programs such as this, impact on **whole of business** training activities. Bearing in mind the current economic environment the withdrawal of funding support relative to workforce training has the capacity to further intensify the likelihood of more skills shortages. Consideration should be given to monitoring and evaluating the outcomes of this action.

Other support programs for Apprenticeships

Mentoring Package

The Mentoring Package comprises two grants programs, the Mentoring Program (approximately \$80 million, 2011-12 until 2014-15) and the Australian Apprenticeships Advisers Program (around \$21 million, 2011-12 until 2012-13).

- Mentoring Program*

The Mentoring Program seeks to improve Australian Apprenticeship retention rates through the provision of approximately \$80 million over four years to support targeted mentoring and assistance to Australian Apprentices. The Mentoring Program is targeted at industries and occupations with current or emerging skills need and Australian Apprentices who may face barriers to participation (e.g. Indigenous Apprentices or Apprentices in remote locations). It is anticipated that Mentoring Projects will target support to the first year of training when Australian Apprentices are most at risk of withdrawing.

Industry led partnerships are encouraged under the Mentoring Program.

Organisations eligible to apply for funding include:

- Professional associations, industry bodies and other lead agents representing a consortia of employers
- Enterprises
- Employment-related service providers such as Australian Apprenticeships Centres

There was no evidence or identification of the civil construction industry participating or accessing this program.

- Adviser Program*

The Advisers Program focuses on, but is not be restricted to, providing information to school leavers who are considering a career in a skilled occupation currently experiencing skills shortage, and who would like to know more about an Australian Apprenticeship in that occupation. It is expected Australian Apprenticeships Advisers will form linkages with career advisers and/or VET co-ordinators in local schools to support the delivery of the Australian Apprenticeships information.

The Program supports potential Australian Apprenticeship candidates through the provision of occupation and industry specific information to assist them to make an informed decision. The Program provides the opportunity for potential Australian Apprenticeship candidates to ask industry professionals questions about their chosen occupation/industry and learn about the benefits and challenges associated with that career path. It is anticipated that advisory support will be available nationally, for example, through the use of telephone hotlines, online chat rooms and web-based information resources, along with targeted face to face advice.

*** A number of projects to deliver the Australian Apprenticeships Advisers Program have been approved by the Minister resulting in the full appropriation for the 2011-12 and 2012-13 financial years being fully committed.*

No further projects will be funded under the Australian Apprenticeships Advisers Program.

Training Delivery

The civil construction industry operates within a “thin” market environment when it comes to the number of RTOs operating in Tasmania, which in turn reflects the comparatively low demand for training. The numbers of RTOs who are based in Tasmania and who are registered to deliver the Civil Construction RII09 qualifications are shown below.

National Qualification	Code	Number of RTOs
Certificate II in Civil Construction	RII20712 -	1
Certificate III in Civil Construction Plant Operations	RII30809 -	3
Certificate III in Civil Construction	RII30912 -	3
Certificate IV in Civil Construction Operations	RII40609 -	3
Certificate IV in Civil Construction Supervision	RII40712 -	1
Diploma of Civil Construction Design	RII50509 -	1

There is a high demand for skilled operators and higher level technical skills in the civil construction sector. The RTOs capacity is most deficient in specialist and technical roles.

The limited capacity at the Diploma and Advanced Diploma level for the civil sector is of grave concern in an industry that has invested time and effort in establishing a competency framework to meet its needs. Additional concerns relate to the recent changes in the Australian Apprenticeship Incentives Program.

The National Skills Needs List (NSNL) identifies trades that are deemed to be in national skill shortage. It is used to determine eligibility for the employer incentives and personal benefits available under the Australian Apprenticeships Incentives Program. The Diploma and Advanced Diploma are not on the NSNL, and therefore do not attract commencement or completion incentives for new worker or existing worker. **Refer to page 31 and Attachment C Australian Government Australian Apprenticeships Incentives Program from 23 October 2012.

Some of the challenges for RTOs in the Resources and Infrastructure Industry are outlined below.

- a) Work Environment – industry requires that all Resources and Infrastructure Industry Training Package (RII09) assessment occurs in the work environment or a duplicate of the work environment. RTOs do not have the capacity to effectively duplicate all of the conditions of the work environment, especially in areas of technical competence.

-
- b) Trainers and Assessors – attracting and retaining trainers and assessors with current industry experience can be extremely difficult as the RTOs cannot match the remuneration offered by industry.
- c) Resource materials – as the RII09 competency framework is relatively new and the “continuous improvement” activity (e.g. amendments/changes) there are very few resources available to support the implementation of quality training methodologies. It is a continual cost and compliance issue confronting RTOs and hence restricting consistency in delivery to industry
- d) Actual training cost – most funding models do not take into consideration the real cost of training for the RTO which restricts their ability to provide effective training solutions. Funding models are based on an allocation of hours for instruction but do not consider essential factors such as:
- Developing infrastructure;
 - Plant and equipment access and maintenance requirements;
 - Travel to remote locations;
 - Consumables;
 - Compliance requirements ;
 - Environmental management requirements ;
 - Resource development;
 - Supervised practice and consolidation of skills; and
 - Flexible delivery options
 - Funding reporting and timeframe requirements negates the standard/quality of training
- e) Enterprise knowledge and/or understanding of the accredited training system- often results in additional frustrations and costs for both parties. This is exacerbated when multiple funding and support programs are being accessed. The timeframes for implementation and reporting obligations commonly demanded by the funding programs are often disconnected and detrimental rather than being supportive.
- f) When the training demands of the enterprise change – due to lack work, change in employees job role etc., these all impact on the original training deliverables. There is no fiscal recognition within the funding arrangements and/or bodies of this, and therefore RTOs often “run the gauntlet” and bear the cost.

It is expected that further issues and cost implications will result upon the implementation of “Licensing Persons Performing High Risk Work” covered under Regulation 87(2), Work Health and Safety Regulations commencing 1 January 2013.

Licensing Persons Performing High Risk Work

The Model Work Health and Safety (WHS) Regulations will ensure a nationally uniform, Competency-based licensing system for persons performing certain types of high risk work (HRW). The mandated Assessment Instruments provide the framework for assessing candidates against the Units of Competency which are listed below and in Schedule 4 of the model WHS Regulations.

Licence Class	VET Course
Basic scaffolding	Licence to erect, alter and dismantle scaffolding basic level
Intermediate scaffolding	Licence to erect, alter and dismantle scaffolding basic level; and
Advanced scaffolding	Licence to erect, alter and dismantle scaffolding intermediate level
	Licence to erect, alter and dismantle scaffolding basic level; and
	Licence to erect, alter and dismantle scaffolding intermediate level; and
	Licence to erect, alter and dismantle scaffolding advanced level
Dogging	Licence to perform dogging
Basic rigging	Licence to perform dogging; and
	Licence to perform rigging basic level
Intermediate rigging	Licence to perform dogging; and Licence to perform rigging basic level; and
	Licence to perform rigging intermediate level
Advanced rigging	Licence to perform dogging; and Licence to perform rigging basic level; and
	Licence to perform rigging intermediate level; and
	Licence to perform rigging advanced level
Tower crane	Licence to operate a tower crane
Self-erecting tower crane	Licence to operate a self-erecting tower crane
Derrick crane	Licence to operate a derrick crane
Portal boom crane	Licence to operate a portal boom crane
Bridge and gantry crane	Licence to operate a bridge and gantry crane
Vehicle loading crane	Licence to operate a vehicle loading crane (capacity 10 metre tonnes and above)
Non-slewing mobile crane	Licence to operate a non-slewing mobile crane (greater than 3 tonnes capacity)
Slewing mobile crane—with a capacity up to 20 tonnes	Licence to operate a slewing mobile crane (up to 20 tonnes)
Slewing mobile crane—with a capacity up to 60 tonnes	Licence to operate a slewing mobile crane (up to 60 tonnes)
Slewing mobile crane—with a capacity up to 100 tonnes	Licence to operate a slewing mobile crane (up to 100 tonnes)

Slewing mobile crane—with a capacity over 100 tonnes	Licence to operate a slewing mobile crane (over 100 tonnes)
Materials hoist	Licence to operate a materials hoist
Personnel and materials hoist	Licence to operate a personnel and materials hoist
Boom-type elevating work platform	Licence to operate a boom-type elevating work platform (boom length 11 metres or more)
Concrete placing boom	Licence to conduct concrete boom delivery operations
Reach stacker	Licence to operate a reach stacker of greater than 3 tonnes capacity
Forklift truck	Licence to operate a forklift truck
Order-picking forklift truck	Licence to operate an order picking forklift truck
Standard boiler operation	Licence to operate a standard boiler
Advanced boiler operation	Licence to operate a standard boiler; and Licence to operate an advanced boiler
Turbine operation	Licence to operate a turbine
Reciprocating steam engine operation	Licence to operate a reciprocating steam engine

The challenges that confront RTOs and industry include:

A. Assessor Requirements

¹⁵Management of RTO assessors may occur either as part of the licensing authority's involvement in compliance activities under the AQTF or as part of a separate licensing authority process.

Assessments must be conducted by a person who:

- a) has the workplace assessor competencies required under the AQTF Standards for RTOs
- b) holds a valid licence for the type of high risk work that is being assessed
- c) has relevant and current industry experience and vocational competencies as required under the AQTF Standards for RTOs, and
- d) is approved by a licensing authority or satisfies the criteria that have been agreed between the licensing authority and the relevant state/territory training authority.

Due to the above the ability of RTOs to recruit and retain suitably qualified and accredited Trainers and Assessors will be further challenged. In order to alleviate some of these pressures, the opportunities for the formation of enterprise/RTO partnerships maybe developed. However a considerable amount of consideration will need to be given to the business acumen of these arrangements.

B. Specific resources required. Example Licence to operate a Forklift Truck

The assessor must provide, or have access to, the following:

- A working zone for the forklift assessment laid out as per the template contained in the Assessment Instrument and be no less than 400 metres squared. If the working zone is located at a 'live' site, the assessment should continue in all weather conditions unless the safety of the candidate or others could be compromised.

¹⁵ National Standards For Licensing Persons Performing High Risk Work

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- A forklift truck that meets the requirements of the state or territory regulator and which has at least, a capacity of 1000 Kg.
 - The forklift truck may be electric, petrol, diesel or LP gas powered.
 - The manufacturer's operation manual
 - The forklift logbook.
 - Site and task specific hazard control measures such as barriers to create pedestrian zones, signage and the like.
 - Whistles
 - Fixed channel two way radio, where the assessment is undertaken at a 'live' worksite.
 - Shelving and/or racking which will allow the candidate to demonstrate the following lifts:
 - Low level lift (ground level)
 - Medium level lift (not less than 25% of the mast extension)
 - High level lift (not less than 75% of the mast extension).
 - Obstacles that will allow the candidate to manoeuvre through a chicane.
 - Three different loads, suitable for the forklift, but not more than 500 Kg each.
 - Note: the assessor is to confirm that the candidate has the appropriate PPE when making arrangements to conduct the assessment, if the candidate does not have, or cannot obtain the appropriate equipment, the assessment must not be undertaken.

This along with the uncertainties and probable processes and activities in relation to VOC (page 20) congregate to increase reservations of the RTOs ability to meet the demands of the industry at the legislative level

The civil construction industry is considered “a thin market” particularly in relation to national qualification activity and RTO availability. Therefore strong consideration in relation to RTOs business capacity, capability and desire to deliver in accordance with the requirements outlined above is of high concern.

RTOs are a crucial element of the training system and they need to be able to operate as a business. If the investment required to operate far exceeds any prospect of return they will not engage with the sector or offer a limited service. This will further reduce the choice of providers to the industry in what is already a thin market. This in turn will result in a reduction of the industry's skilled workforce.

There is no apparent desire from those RTOs currently delivering within the Tasmanian civil construction industry to increase their capacity or capability. This is regardless of the industry demand or needs now or into the future. This relates to those RTOs who do not wish to increase their business operations. **Identified at the civil construction RTO forum conducted for the purposes of this plan.

One of the most significant causes of frustration by industry in respect of the training environment is when the RTO does not deliver training services. The RTO provides assessment and/or assessment validation services in partnership with industry. However the cost provided and charged by the RTO may/does not reflect this arrangement.

There appears to be common issues regarding both parties. The consistent lack of understanding and mutual recognition regarding each party's expectations and obligations provides grounds for frustration and disillusionment in relation to the accredited training environment.

Whilst many partnerships between RTOs and industry/enterprises maybe successful, there are many which fail. The lack of clarity of roles, responsibilities, costs and expectations of each partner is often the instigator for angst.

The possible impact on the civil construction industry in relation to the State Governments decision,¹⁶ (reform of Tasmania's Vocational Education and Training system) to establish a single new VET provider in the State – TasTAFE is largely unknown. This coupled with the official start date of 1st July 2013 and the civil constructions position of being in a thin training market demands attention.

It could be considered negligent of the industry, unto itself and its workforce planning and development issues if it doesn't invest in the establishment of a communications strategy with the appropriate appointed bodies.

With change comes uncertainty and to minimize this, strong considerations should be given to addressing the proposed formal communication strategy as soon as possible. .

There is willingness and more importantly a strong need from the RTOs to work collaboratively with industry in formalizing training delivering expectations, outside of those regulatory obligations of the VET system and more related to business acumen. It was stated that the RTOs operate in what could be isolation in a thin market, and that there is support to investigate with industry how better efficiencies could be achieved.

¹⁶ Public –implementation –plan-31-July-2012

Attachments

Attachment A: Scope of Industry Occupations

Attachment B: National Skills Needs List

Attachment C: Summary of the Australian Government Australian Apprenticeships
Incentives Program from 23 October 2012