Job Demand Analysis

Placement/Job Title:	Grader Operator
Division/Branch:	Infrastructure and Operations / Infrastructure Delivery
Date of Assessment:	28 November 2012
Assessment Completed By:	Human Resources Advisor 2 Works Supervisor
Standard Hours:	7am to 4pm (8½ hours per day), 9 day fortnight
Variable Hours:	X Overtime ❒ On Call X Call Outs
Breaks / Rest Periods:	15 minute morning tea 30 minute lunch

Environmental/Psychosocial Factors

- Grader operators coordinate and work as part of a gang. 80% of their time is spent operating the grader with the remaining 20% of their time coordinating resources and supervising the gangs operations.
- They are responsible for ensuring tasks such as road patching are completed within the allocated time frame to allow minimum disruption to traffic flow.
- Concentration and care needs to be taken when operating plant in relation to the surrounding areas to avoid tipping the machine.
- May be required to perform general labouring duties within the gang and as a result are in regular contact with traffic throughout the day.
- May be required to perform overtime, and may be called out for emergency situations. However, this is only required on an intermittent basis.
- May have to deal with complaints from members of the public and deal with these in an effective and time efficient manner.

Job Descriptions

Works Grader Operators coordinate the on site day to day resource requirements in order to ensure efficient project /programme delivery.
Please see relevant position description for further information.

Physical Demands	Rarely 1-5%	Occasional 6-33%	Frequent 34-66%	Continuous 67-100%	Comments
Standing		X			Required when performing labouring tasks.
Walking		X			Required when performing labouring tasks and may

Physical Demands	Rarely 1-5%	Occasional 6-33%	Frequent 34-66%	Continuous 67-100%	Comments
					include rough and/or inclined ground surfaces.
Sitting				**X**	Prolonged sitting is required to operate foot and hand controls - includes levers, joy sticks, switches, steering wheel and pedals. The seat is adjustable in height and the backrest can be altered for added support. Air suspension is available in the seat. However, some jarring and vibration may be experienced, depending on the road surface.
Climbing ladders, stairs or scaffolding			**X**		Access to the cabin is gained by three steps (commencing at knee level) and a handle located at head level. Climbing is also required when greasing the machine.
Bending / Stooping		**X**			May be required for labouring tasks and when replacing cutting edges on the machine. The worker also has to bend forward to rotate the seat and to separate the foot pedals for extra control of the machine at times.
Squatting / Crouching		**X**			May be required for labouring tasks and when replacing parts on the machine.
Kneeling		**X**			May be required for labouring tasks and when replacing parts on the machine.
Reaching overhead		**X**			Overhead reach is required when using the handle to assist with transfers into the cabin. The two way radio is also located at shoulder height within the cabin.
Reaching at waist level or below				**X**	Repetitive bilateral shoulder flexion and upper limb reach is required to hold and manoeuvre the steering wheel. Repetitive bilateral upper limb flexion, abduction and external rotation are also required to access and operate the controls.
Trunk Rotation				**X**	Repetitive trunk and neck rotation is required to assist with visibility and two exterior mirrors are also available for use by the worker. No swivel on seat.

Physical Demands	Rarely 1-5%	Occasional 6-33%	Frequent 34-66%	Continuous 67-100%	Comments
Repetitive Forearm, hand and finger movement				**X**	Bilateral fine motor actions are required to conduct the pre-check of the Plant and to operate the numerous controls within the cabin (located to each side of the worker). The worker uses a cylindrical grip on the joy stick, along with repetitive finger and thumb movements.
Manual dexterity and handling				**X**	Bilateral upper and lower limb actions are required to operate the machine. Lower limb force is also required through the pedals at times to stop the machine veering to one side.

Manual Handling			
	Weight:	**Frequency:**	**Comments:**
Lifting	15-20kg	Occasional	Lifting of cement bags and tools/equipment may be required on an intermittent basis when performing labouring tasks.
	30-40kg	Rarely	Change cutting blade and teeth on Grader.
	50 – 60kg	Occasional	Removal or Replacement of GPS Pole. **Shared Lift**
Carrying	15-20kg	Occasional	Carrying of cement bags and tools/equipment over short distances may be required on an intermittent basis when performing labouring tasks.
Pushing/Pulling	15-20kg	Occasional	On an intermittent basis when performing labouring tasks.

Tools Used		
Tool:	**Weight:**	**Comments:**
Cement	15kg	May be lifted and carried over short distances.
Chains	15kg	May be lifted and carried over short distances. However, a labourer usually performs this task.
Shovel	2kg	May be used to move a variety of substances such as dirt and gravel.
Broom	2kg	Used to clear the road and gutters as required.
Stop/go sign	2-3kg	Cylindrical grip and static holding of the sign is required.
Hand tools	< 1kg	An assortment of hand tools may be used.
Sledge Hammer	10-15kg	Used for replacing Grader teeth and blade.
Power Tools	2-3kg	Used during labouring tasks
Chainsaw	15kg	Used during labouring tasks
GPS Device	< 1kg	Handheld GPS device

Balance

	Exposure to:	Comments:
Level ground	Yes	When walking on prepared road surfaces.
Uneven ground	Yes	When walking on unprepared road surfaces and when performing labouring tasks.
Unprotected heights or high levels	Yes	Includes access to/from the Plant cabin.

Environmental Conditions		
	Exposure to:	**Comments:**
Inside work	Yes	The worker performs the majority of tasks whilst sitting in the Plant cabin.
Outside work	Yes	The worker may be required to perform labouring tasks with the crew when not operating Plant.
Night Work	Yes	Occasionally
Extreme heat	Yes	The worker may be exposed to the environment when performing labouring tasks.
Extreme cold	Yes	The worker may be exposed to the environment when performing labouring tasks.
Humid or wet	Yes	The worker may be exposed to the environment when performing labouring tasks.
Noise	Yes	Noise is reported to be minimal within the Plant cabin.
Vibration	Yes	Some vibration is experienced when travelling over rough surfaces.
Mechanical hazards	Yes	The worker has to be aware of surrounding traffic and plant machinery.
Electrical hazards	Yes	The worker has to be aware of overhead lines, underground power and water lines and other electrical hazards.
Risk of burns	Yes	When checking engine, hot exhaust, engine
Radiant energy	Yes	
Poor ventilation	Yes	Trench work
Moving objects	Yes	Includes other plant machinery and general traffic flow. The worker must also be aware of the position of the bucket and boom at all times.
Sharp tools	Yes	Chainsaw
Cluttered or slippery floors	Yes	The steps into the cabin may be slippery at times, especially if working in a muddy area.
Elevated surfaces	Yes	Access to/from the Plant cabin and when performing pre-start checks of the machine.
Lighting	Yes	When required, sufficiently supplied
Exposure to fumes/odours/ dusts/mists/gases	Yes	The worker may be exposed to traffic fumes when driving and labouring.
Exposure to biological hazards	Yes	Sharps, sewage

Sensory/Communication

	Required:	Comments:
Vision	Yes	High levels of visual perception are required when operating the machine so that the operator is aware of other traffic and hazards. This may involve twisting the neck on a repetitive basis to gain visual information.
Hearing	Yes	General liaison with other workers.
Speech	Yes	General liaison with other workers.
Reading	Yes	Completion of paperwork as required.
Writing	Yes	Completion of paperwork as required.
Numerical ability	Yes	The worker needs to be aware of depth when digging holes.

This Job Demand Analysis has been assessed and approved by the relevant Supervisor and corresponding Manager within Dubbo Regional Council. This Job Demand Analysis will be implemented on 8 April 2013.