**PART CH10

CONSTRUCTION - GENERAL PROVISIONS**

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ATTACHMENT CH10.A “EXAMPLE CONSTRUCTION DAILY DIARY FORM”

### GENERAL

* + 1. This Part specifies the general requirements for undertaking the construction of roadworks and/or bridgeworks.
		2. Unless specified otherwise, the definitions in the Austroads Publication No. AP-C87-15”Glossary of Terms” (available from: <https://www.onlinepublications.austroads.com.au/items/AP-C87-15>) apply to any term used in the Contract which is related to road or traffic engineering,
		3. The plant classifications in the Civil Contractors Federation publication “Earthmover & Civil Contractor - Plant Specs” (available from: <http://www.plant-specs.com.au/>) apply to this Contract.
		4. The following definitions apply to this Contract:

**“MDD”** means Maximum Dry Density.

**“OMC”** means Optimum Moisture Content.

**“Percentage Compaction”** means the Dry Density Ratio (RD) as defined in TP 320 and refers to modified compaction.

* + 1. The following abbreviations may be used in this Contract:

ASTM American Society for Testing and Materials

NATA National Association of Testing Authorities

SA Water SA Water Corporation

Telstra Telstra Corporation Ltd

TP DPTI Test Procedure, available from: <http://www.dpti.sa.gov.au/contractor_documents>.

### WORKING DAYS AND HOURS OF WORK

* + 1. For the purpose of administration of the Contract, ordinary working days and customary working hours will be those nominated on Schedule titled “Working Time".
		2. The Contractor must not work more than one shift per day exceeding 10 hours duration and must not work on Sundays or public holidays without the prior approval of the Principal.
		3. When adjusting a date pursuant to extension of time, account will be taken of non-working days (as determined from Schedule “Working Time”) that would normally fall in the extended period such that the number of ordinary working days in the extended period equals the number of days extension granted.
		4. If Schedule “Working Time” is not included in this Contract, Sundays, Public Holidays, Rostered Days Off and the Christmas/New Year annual leave break are deemed to be non-working days.

### PREQUALIFICATION AND CERTIFICATION / ACCREDITATION

* + 1. Where the work listed in Table 3 forms part of the Contract, that work must carried out by a company that meets the requirement specified in Table 3.

|  |
| --- |
| **Table 3.** |
| **Prequalification with DPTI** |
| Arboriculture (tree trimming / removal) | AB2 |
| Asphalt | A2 |
| Landscaping | L2 for the appropriate class of work |
| Pavement Materials | Appropriate category for the material specified |
| Sprayed Bituminous Surfacing | S2 |
| Supply of Signs | Category 1 |
| Workzone Traffic Management \* | Category 1 |
| **Certification / Accreditation** |
| Minor fabricated steel products, including noise barrier components, sign gantries, grids, grates, pit covers and fabricated posts / poles / mast arms | Certified to Construction Category 2 in accordance with the National Structural Steelwork Compliance Scheme (refer <http://www.scacompliance.com.au>), unless a higher category has been specified in the design. |
| Major Structural steel fabrication in accordance with Part S30 “Fabrication of Structural Steelwork” | Certified to Construction Category 3 in accordance with the National Structural Steelwork Compliance Scheme (refer <http://www.scacompliance.com.au>). |
| Pavement Marking | Painting Contractors Certification Program accreditation appropriate for the type of pavement marking (refer [www.apas.gov.au/pccp](http://www.apas.gov.au/pccp)). |

Notes:

1. Subject to compliance with Part G20 “Provision for Traffic”, prequalification for Workzone Traffic Management is not required if the Contractor self performs the traffic control.
	* 1. A list of companies who are prequalified with DPTI may be obtained from the following internet site:

<http://www.dpti.sa.gov.au/documents/contractsandtenders/prequalification>.

### RECORDING OF ACTIVITIES

* + 1. The Contractor must record its activities on a daily diary form or electronic information management system, which at a minimum includes:
			- 1. plant and labour used on each Lot;
				2. Lot number and location (including string Number and chainage where appropriate); and
				3. any other relevant information which is included in Attachment CH10.A “Example Construction Daily Diary Form”.
		2. Each day’s records must be signed by the Contractor or otherwise confirmed in an electronic information management system and submitted to the Principal prior to the end of the following day
		3. At any time the Principal may check the records compiled by the Contractor. In the event that in the Principal’s reasonable opinion the records do not reflect the actual activities undertaken, the Principal may record the discrepancy on the Daily Diary Form.
		4. The purpose of these records is to assist in the valuation of variations and determination of any extension of time which may arise during the course of the Contract.

### CONTRACTOR'S COMPOUND AND PRINCIPAL'S REQUIREMENTS

* + 1. The contractor must provide the facilities specified in the **Contract Specific Requirements** (if any) for the use of the Principal when administering the Contract
		2. If "Establishment Charges" is included in a payment schedule, this payment item is deemed to include establishment of site buildings, transport of major items of plant to the site, demobilisation and site cleanup.
		3. The operation and maintenance of site buildings and associated costs are deemed to be included in on site overheads.
		4. If the Principal makes any land available to the Contractor, the Contractor acknowledges that this land may not be sufficient for all site facilities and it is the Contractor’s responsibility to source additional land if required.
		5. All electrical installations and alterations must be carried out by an electrical worker who is licensed in South Australia to perform any electrical works. The installations must comply with AS 3000 and the Service Rules and Conditions of Supply of SA Power Networks.
		6. The Contractor must arrange for Certificates of Compliance of all electrical work and must submit copies of certification to the Principal.
		7. Provision of the Certificates of Compliance of electrical work shall consitute a **HOLD POINT**.
		8. The WHS Management Plan must include a plan of the site compound and any associated facilities showing how the Contractor will comply with:
			- 1. Section 40 – Duty in Relation to General Workplace Facilities of the Work Health and Safety Regulations 2012 (SA); and
				2. Safework Australia Code of Practice for Managing the Work Environment and Facilities (available from: <http://www.safework.sa.gov.au/show_page.jsp?id=113704#.VyABAIciNaS>).
		9. At a minimum, the plan must show the general layout, buildings, emergency exits, egress and access points, fences, gates, power cables, paths (including surface treatment and delineation / separation of pedestrians / plant / vehicles), plant / vehicle parking, storage facilities and refuelling facilities in the site compound and any associated areas such as hazardous materials storage facilities.

### PROPRIETARY PRODUCTS

* + 1. Where a proprietary product is specified in the Contract, that product must be used in accordance with the manufacturer's instructions unless specified otherwise.
		2. Where work is specified to be carried out “in accordance with the manufacturer’s instructions", at least 2 working days prior to the use of the product, the Contractor must provide 2 copies of all relevant instructions and performance criteria provided by the manufacturer. Provision of the instructions shall constitute a **HOLD POINT**.
		3. Advertising markings and proprietary names of a permanent nature must not be applied to any component where these markings will be visible in the completed Works.
		4. Alternatives to specified products (if any) will be considered provided that sufficient information is submitted to the Principal. The Principal may approve or reject any proposed alternative product at its descretion and is under no obligation to approve any such proposal for the convenience of, or to assist, the Contractor.
		5. Provision of a proposal to use an alternative product shall constitute a **HOLD POINT.**

### FLOODS AND WATERWAYS

* + 1. The Contractor:
			- 1. unless specified otherwise, must not obstruct any waterway;
				2. must take all necessary precautions to prevent heading up of floodwaters and / or damage to the Works or Site from the effects of water; and
				3. assumes responsibility for the repair of any damage to the Works due to surface water and bears the cost of any such repair.

### PROTECTION OF THE WORKS AND REINSTATEMENT OF DAMAGE

* + 1. The Contractor must construct the works so to ensure that materials (including subgrade) do not become unsuitable or damaged by the Contractor’s work methods or insufficient protective measures. This includes:
			- 1. constructing the works so as to be free draining; and
				2. maintaining the works so as to prevent deterioration in material properties between testing or acceptance of the work and subsequent work commencing.
		2. Additional payment will not be made where any additional work or additional materials are required:
			- 1. to comply with this Clause, or
				2. as a result of the Contractor’s work methods.
		3. Over-excavation (i.e. the Contractor excavates deeper or wider than the dimensions specified) is deemed to be included in sub-clause 6.2 (b).

### FIRE PREVENTION

* + 1. The Contractor must comply with the *Fire and Emergency Services Act 2005* (SA). If any of the work under Contract takes place during the Fire Danger Season, the Contractor’s Quality Plan, Environmental Management Plan or Work Health and Safety Management Plan must include procedures / instructions which address the following at a minimum:
			- 1. training of personnel;
				2. monitoring the declaration of Total Fire Ban days;
				3. liaising with the Country Fire Service, Metropolitan Fire Service and / or local council;
				4. applying for Schedule 10 permits if appropriate;
				5. implementing measures to identify and mitigate fire hazards;
				6. working on Total Fire Ban days;
				7. ensuring grinders, welders, chainsaws, grass trimmers, lawn mowers, slashers or similar equipment are only used in accordance with the requirements the Fire and Emergency Services Act;
				8. emergency response in the event of a fire; and
				9. all other relevant requirements the *Fire and Emergency Services Act*,
		2. The Contractor must:
			- 1. ensure that any vehicle driven off road has a compliant exhaust system;
				2. provide each work crew with appropriate extinguishers and fire fighting equipment on Site;
				3. notify the Principal if it intends to work on days of high fire danger;
				4. provide the Principal with a copy of any Schedule 10 permit obtained for the work under the Contract;
				5. ensure that any fire (where permitted under the Contract) complies with the requirements the Fire and Emergency Services Act; and
				6. immediately notify the Principal in the event of any unplanned fire initiated at the Site.

### EXPLOSIVES

* + 1. Unless specified otherwise in the **Contract Specific Requirements**, the use of explosives is not permitted.
		2. If the use of explosives is permitted in the **Contract Specific Requirements**, the Contractor must:
			- 1. obtain the necessary licences from the appropriate authority;
				2. conform to all Government regulations relating to the transport, handling, storage and use of explosives;
				3. comply with the requirements and precautions set out in AS 2187, "Explosives - Storage, transport and use”;
				4. be liable for any accident, damage or injury to any person or thing resulting from the use of explosives;
				5. adjust blasting operations in accordance with the characteristics and structure of the rock formation so as to obtain the specified slopes with a minimum disturbance and over-breakage;
				6. ensure that over cutting of batters due to blasting operations is not be more than 1.0 m outside the specified line of the batter and the completed batter has a regular shape;
				7. ensure that when blasting operations are being carried out, traffic is stopped at a safe distance from the site of blasting, the sign "Blasting - Stop Await Signal" shown in AS 1742, Part 3, is erected at all approaches to traffic routes and a person is stationed at each sign to ensure that traffic is stopped;
				8. sound a warning prior to each firing; and
				9. give occupiers of adjoining properties at least 24 hours notice of the intention to blast.

### VIBRATING COMPACTION EQUIPMENT

* + 1. Unless stated otherwise in the **Contract Specific Requirements, t**he use of vibrating compaction equipment must comply with Table 11.

|  |
| --- |
| **TABLE 11Maximum Permitted Centrifugal Force of Compaction Equipment** |
| Asphalt on bridge decks: | 30 kN |
| Asphalt not on bridge decks: | No maximum |
| Work other than asphalt: | 30 kN |

### CONTROL OF FENCES AND GATES

* + 1. The Contractor must maintain all fences affected by the Works in a condition equivalent to that existing at the Date of Acceptance of Tender for the duration of the Contract. Any temporary fences, gates and grids must be removed upon completion of the Works.

### CLEARANCES FROM LANDHOLDERS

* + 1. If any of the Contractor’s work is undertaken on adjoining private land, or affects private land, the Contractor must use its best endeavours to obtain a written statement that the landholder’s property has been left in a satisfactory condition from each affected landholder.

### MATERIALS

#### Materials Supplied by the Principal

* + 1. If materials are to be supplied by the Principal, the Contractor must, in the presence of the Principal, inspect for conformance all items supplied by the Principal.
		2. The Contractor must issue the Principal with a receipt for these items and shall thereafter be responsible for their care. All other materials must be supplied by the Contractor.

#### Road Making Materials

* + 1. Any material listed in the Contract with a prefix of SP, RB, PM, SPM and Sa must comply with Part R15 "Supply of Pavement Materials".
		2. Road making materials from two or more sources must not be mixed on site. Where road making materials from two or more sources are to be used on site the different materials must be used in clearly definable separate sections of work to allow material testing to be carried out for each material.

#### Water

* + 1. Water for construction, when not sourced from a SA Water pipeline, must comply with any requirements in the **Contract Specific Requirements** and the following requirements:
			- 1. Unless specified otherwise in the **Contract Specific Requirements**, water for pavement construction must not contain more than 10 000 ppm total dissolved salts for base and 20 000 ppm for other pavement layers. The salt content must be determined using TP 751. The testing frequency must be one test immediately prior to commencement of construction and thereafter every 2 weeks until completion of pavement construction.
				2. Water for concrete production must not contain more than:
1. 3 000 mg/l total dissolved salts;
2. 1 000 mg/l chlorides; and
3. 500 mg/l sulphates.

### WEIGHING OF MATERIAL

* + 1. This Clause 15 only applies if separate payment is to be made per ton for materials.

#### Weighing of Materials

* + 1. The Contractor must weigh all materials that are to be paid for separately at either a licensed weighbridge or on a weighing device supplied by the Contractor.

#### Method of Measurement

* + 1. The Contractor must provide standard forms for each load that is weighed and advise the Principal of the format of the proposed forms prior to the commencement of weighing. Vehicles using the weighing devices must be tared daily.
		2. Should the weighbridge or weighing device become inoperative or is recording incorrectly, the Contractor must immediately propose an alternative method of weight measurement and must not proceed until the method has been accepted by the Principal.

#### Payment by Dry Mass

* + 1. Payment will be made on the basis of the dry mass of material delivered. The adjustment for moisture content must be made daily in accordance with the following formula:

Corrected (dry) mass   = A x 100
 B + 100

where A   = number of tonnes of wet material for the day as measured by the weighbridge.

B   = average moisture content for the same day.

* + 1. The Contractor must supply NATA certified test results for moisture content determined in accordance with AS 1289 2.1.1 from 5 samples taken from delivery vehicles at a regular time interval over a normal working day. For delivery of materials over periods of less than a normal working day the Contractor must take moisture samples at intervals of no greater than one hour for the determination of moisture content.

#### Weighing Device Supplied by the Contractor

* + 1. Should the Contractor elect to install a weighing device, prior acceptance of the device and its operation must be obtained from the Principal before its use.
		2. As part of the Contractor’s Quality Plan the following must be addressed:
			- 1. evidence that the accuracy of the device is within ± 3% of a total vehicle mass weighed; and
				2. procedures for operation, calibration and continuing monitoring of accuracy of the device.
		3. The machine must be capable of producing automatically printed dockets for each vehicle weighed and cumulative masses of each product weighed. The Contractor must calibrate this device weekly by comparison of the mass of a loaded truck at a licensed weighbridge. The Contractor must provide a loaded truck for this purpose at no cost to the Principal.

### HAULAGE OF MATERIALS

* + 1. This Clause 16 only applies if separate payment is to be made for haulage of materials.
		2. Where the Principal is to pay for haulage of material at rates per cubic metre/kilometre, the following conditions shall apply:
			- 1. Truck volumes will be measured and checked by the Principal prior to any haulage and loads must be water levelled prior to the signing of any cartnotes;
				2. The rate for haulage must include loading;
				3. Payment will only be made on cartnotes / weighnotes signed by the Principal;
				4. The haulage of fractional cubic metres of material will not be allowed and tray bodies must be marked with a solid painted white line to indicate water levels;
				5. Payment will be made for the loaded trip only and not for the round trip; and
				6. Where the length of the haul is not a whole number of kilometres payment will be made on the basis of the rate of the next whole number of kilometres.
		3. Where the Principal is to pay for haulage of material at rates per ton/kilometre, conditions (c), (e) and (f) above shall apply.

### TESTING

#### General

* + 1. The Contractor must use the Test Procedures listed in the Clause "Test Procedures" in each Part to verify conformance with the Specification. The procedures must be those current at the date 14 days prior to the date of submission of tender. Test Procedures are available from: <http://www.dpti.sa.gov.au/contractor_documents>.

#### Compaction

* + 1. Culvert bedding, all backfill and earthworks compaction acceptance must be considered on an absolute basis (and no single result shall be less than that specified).
		2. For compaction acceptance on small pavement lots, acceptance shall be on an absolute basis.

#### Clarification of Test Procedures

* + - * 1. Notwithstanding AS 1289.5.2.1 the following minimum curing time shall apply:

|  |  |
| --- | --- |
| Sand | 2 hours. |
| Sand clays, clay sands, primary scalpings and crushed rock | 6 hours. |
| Clays | 24 hours. |

* + - * 1. For granular pavement courses, bulk samples for MDD determination must be taken prior to compaction.
				2. Notwithstanding TP 166 the following shall apply:
1. The assigned MDD must be updated for each thousand tonnes of material produced.
2. The technique and stage of construction selected for sampling the material for each pavement layer must not change during the course of the Contract.
3. Results must be displayed in graphical form.
	* + - 1. Notwithstanding AS 1289.1.4.2, random number generation methods, other than the Table of Random Numbers, may be used provided they are acceptable to the Principal.
				2. Notwithstanding TP 226, one bulk sample must be taken per lot and the bulk sample must consist of five increments except where the lot is terminated unexpectedly.
				3. Notwithstanding TP 320 and TP 166, the MDD determined by the three point method (TP 164) may be used to determine Dry Density Ratios in stabilised or earthworks materials.

### MAINTENANCE OF EXISTING TRAFFICKED PAVEMENT

* + 1. This clause applies if there is an existing trafficked pavement within the Site.

#### Definitions

* + 1. **"Maintenance Provider"** means an agent of the Principal who undertakes maintenance of an existing road.

#### Monitoring and Repair of Defects in the Existing Pavement

* + 1. The Contractor must:
			- 1. regularly monitor the condition of any existing trafficked pavement and identify any defect that exceeds the DPTI intervention levels, as defined in the **Contract Specific Requirements**"; and
				2. regularly monitor the condition of any footpaths or walkways and identify any hazard to pedestrians.
		2. In the event that the Contractor identifies any such defect or hazard, the Contractor must:
			- 1. repair the defect or hazard or defect immediately if the hazard or defect is a result of the Contractor’s activities; or
				2. notify the Principal immediately in writing if the hazard or defect is not a result of the Contractor’s activities.
		3. If the hazard or defect is not a result of the Contractor’s activities, the Principal may arrange for the defect to be repaired by the Maintenance Provider. Except in emergency situations, the Principal will provide the Contractor with 2 days notice of the Maintenance Provider entering the site to undertake the repair(s).
		4. Prior to commencement of the repair, the Contractor must liaise with the Maintenance Provider to ensure that any traffic control devices proposed by the Maintenance Provider do not conflict with the Contractor’s Traffic Control Plan.

### MEASUREMENT

* + 1. If any payment is to be made by a Schedule of Rates, the method of measurement for items in the Schedule of Rates which have been defined by Lots must be determined by the aggregation of all conforming Lots.
		2. Unless otherwise specified all measurements shall be net, any custom to the contrary notwithstanding.

### HOLD POINTS

* + 1. The following is a summary of Hold Points referenced in this Part:

|  |  |  |
| --- | --- | --- |
| **CLAUSE REF.** | **HOLD POINT** | **RESPONSE TIME** |
| 7. | Manufacturer’s instructions | 1 working day |

### VERIFICATION REQUIREMENTS AND RECORDS

* + 1. The Contractor must supply the following documentation to demonstrate that the requirements of this Part have been complied with and where appropriate, supply the documentation with the lot package.

| **CLAUSE REF.** | **SUBJECT** | **RECORD TO BE PROVIDED** |
| --- | --- | --- |
| 4. | Recording of Activities | Daily Diary Form |
| 5.7 | Contractor's Compound and Principal's Requirements | Certificate of Compliance for electrical work in site office(s) |
| 7.5 | Proprietary products | Proposal to use an alternative product |
| 13. | Clearance from Landowners | Statement of clearance from Landowners |
| 14.1 | Materials Supplied by the Principal | Receipt for materials |
| 14.3 | Water not sourced from a SA Water pipelines | Dissolved Salt Content |
| 15.2 | Materials paid for by weight | Standard Forms / Cartnotes |
| 15.3 | Materials paid for by weight | Moisture Content Records |
| 15.4 | Weighing Device | Evidence of Accuracy / Calibration Records |

**ATTACHMENT CH10.A**

**EXAMPLE CONSTRUCTION DAILY DIARY FORM**

|  |  |  |
| --- | --- | --- |
| **CONTRACT NO: ................................................................................** | **CONTRACTOR: ..............................................................................................** | **DOCUMENT NO.: ............** |
|  |  | Page: .....of . |
| **SECTION: .............................................................................** |  | Date: ...../..../........ |
|  |  |  |
| **DATA****ENTRY****No.** | **LOCATION** | **LABOUR** | **PLANT** | **HOURS****WORKED** | **IDLE** | **CHAINAGE** | **LOT NO.** | **HAUL****FROM** | **SUB****ACT.****NO.** | **REMARKS** |
|  |  | **TYPE** | **NO.** | **TYPE** | **NO.** |  | **HOURS** | **STATUS** | **FROM** | **TO** | **ACT.** | **UNIQ.** | **SCHED.****ITEM OR****VO NO.** |  |  |  |
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**The details shown above are an accurate record of the days activities on site.**

**Contractor's Representative……………………………………………………**

**Acknowledged by DPTI’s Representative……………………………………………….**