



# PRELIMINARIES 00A

MUNICIPAL  
INFRASTRUCTURE  
TECHNICAL  
SPECIFICATION  
**00 - PRELIMINARIES**

Transport Canberra and  
City Services

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# 1 GENERAL REQUIREMENTS

## 1.1 General

### 1.1.1 Responsibilities

#### 1.1.1.1 General

Requirement: Provide labour, materials, plant and equipment to construct the Works as documented.

### 1.1.2 Precedence

#### 1.1.2.1 General

Specifications and standards:

- > The technical requirements of other Specifications override conflicting requirements of this Specification.
- > The technical requirements of the Specifications override conflicting requirements of their referenced documents.
- > The requirements of referenced documents are minimum requirements.

### 1.1.3 Cross references

General: The following documents are related to this Specification.

#### 1.1.3.1 Commonwealth Legislation

Environment Protection and Biodiversity Conservation Act

#### 1.1.3.2 ACT Legislation

Dangerous Goods Act

Dangerous Goods Regulations

Environment Protection Act

Occupational Health and Safety (Certification of Plant Users & Operators) Regulations

Scaffolding and Lifts Regulations

Work Health and Safety Act

### **1.1.3.3 Specifications**

MITS 00	Preliminaries
MITS 01	Traffic Management
MITS 02	Earthworks
MITS 03	Underground services
MITS 04	Flexible pavement construction
MITS 06	Concrete kerbs, footpaths and minor works
MITS 07	Segmental paving
MITS 08	Incidental works
MITS 09	Landscape
MITS 10	Concrete works
MITS 11	Pavement marking
MITS 12	Street lighting
MITS 13	Traffic signals
MITS 14	Road signs
MITS 15	Road furniture

### **1.1.4 Referenced documents**

#### **1.1.4.1 Standards**

General: The following documents are incorporated into this Specification by reference:

#### **Australian standards**

AS 1319	Safety signs for the occupational environment
AS 1348	Glossary of terms - Roads and traffic engineering
AS/NZS 1680	Interior lighting
AS/NZS 1680.2.4	Industrial tasks and processes
AS 2670	Evaluation of human exposure to whole body vibration
AS 2670.1	General requirements (ISO 2631-1)
AS 4687	Temporary fencing and hoardings
AS 5488	Classification of subsurface utility information (SUI)

#### **Austroads**

AP-C87	Austroads glossary of terms
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#### **Intergovernmental Committee on Surveying & Mapping**

ICSM QA Specification G71	Road construction surveys
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## 1.1.5 Interpretation

### 1.1.5.1 Abbreviations

General: For the purposes of this Specification the following abbreviations apply:

<b>AS:</b>	Australian Standard
<b>BCA:</b>	Building Code of Australia
<b>CAD:</b>	Computer Aided Design
<b>DTM:</b>	Digital Terrain Model
<b>ICSM:</b>	Intergovernmental Committee on Surveying & Mapping
<b>MNES:</b>	Matters of National Environmental Significance
<b>NATA:</b>	National Association of Testing Authorities
<b>NZS:</b>	New Zealand Standard
<b>RMS:</b>	Roads and Maritime Services, NSW Government, and its successors
<b>TCCS:</b>	Transport Canberra and City Services, ACT Government, and its successors
<b>TBS:</b>	To Be Supplied
<b>WHS:</b>	Work Health and Safety

### 1.1.5.2 Definitions

General: For the purposes of this contract the definitions given in *AS 1348*, *AP-C87* and the following apply:

**Authorised Person:** Authorised Person has the same meaning as Contract Administrator or Principal's representative. The Authorised Person may be party to the contract or appointed by the Principal to administer the contract. The powers, duties and authorities of the Authorised Person are covered in the contract.

**Authorities:** Includes Agencies.

**Documented:** Documented, as documented and similar terms mean contained in the contract documents.

**Drawings:** The drawings that form part of the contract.

**Geotechnical site investigation:** The process of evaluating the geotechnical characteristics of the site in the context of existing or proposed construction.

**Give notice:** Give notice, submit, advise, inform and similar expressions mean give notice (submit, advise, inform) in writing to the Authorised Person.

**Limit of Works:** The area required to undertake the Works, including the site and any interface areas such as connections to existing infrastructure or battering to existing surfaces as applicable.

**Manufacturers' and suppliers' recommendations:** Recommendations, instructions, requirements, specifications (and similar expressions) provided in written or other form by the manufacturer relating to the suitability, use, installation, storage and/or handling of a product.

**Obtain:** Obtain, seek and similar expressions mean obtain (seek) in writing from the Authorised Person.

**Permanent marks:** Survey control marks that are permanent by nature and are uniquely defined in the state control survey. Also known as State survey marks (SSM) or Bench marks (BM).

**Principal:** Principal has the same meaning as Owner, Client and Proprietor and is the party to whom the Contractor is legally bound to construct the Works. The primary obligation of the Principal is to make payments to the Contractor.

**Professional engineer:** A person who is listed or eligible for listing on the National Professional Engineers Register (NPER) and has appropriate experience and competence in the relevant discipline at the relevant time.

**Proprietary:** Identifiable by naming manufacturer, supplier, installer, trade name, brand name, catalogue or reference number.

**Provide:** Provide and similar expressions mean supply and install and include development of design beyond that documented.

**Registered testing authority:**

- > An organisation registered by NATA or State Road Authority to test in the relevant field; or
- > An organisation outside Australia registered by an authority recognised by NATA through a mutual recognition agreement; or
- > An organisation recognised as being a Registered Testing Authority under legislation at the time the test was undertaken.

**Required:** Required by the documents, the ACT Government or statutory Authorities.

**If required:** A conditional specification term for work which may be shown in the documents or be a legislative requirement.

**Site:** The lands and other places to be made available by the Principal to the Contractor for the purpose of executing the Works, and including any existing buildings, services or other improvements, as specified in Contract.

**Supply:** Supply, furnish and similar expressions mean supply only.

**Tests:**

**Completion tests:** Tests carried out on completed installations or systems and fully resolved before the date for practical completion, to demonstrate that the installation or system, including components, controls and equipment, operates correctly, safely and efficiently, and meets performance and other requirements. The Authorised Person may direct that completion tests be carried out after the date for practical completion.

**Pre-completion tests:** Tests carried out before completion tests.

**Production tests:** Tests carried out on a purchased item, before delivery to the site.

**Site tests:** Tests carried out on site.

**Type tests:** Tests carried out on an item identical with a production item, before delivery to the site.

**Tolerance:** The permitted difference between the specified value and the upper limit and the lower limit of dimension, value or quantity.

**Verification:** Provision of evidence or proof that a performance requirement has been met or a default exists.

**Works:** The scope of works as defined under the Contract.

## **1.1.6 Submissions**

### **1.1.6.1 Approval**

Submissions: To the Authorised Person's approval.

### **1.1.6.2 Alternative construction**

Substitution: If alternatives to the documented products, methods or systems are proposed, submit sufficient information to permit evaluation of the proposed alternatives, including the following:

- > Reasons for the proposed substitutions.
- > Reference, if applicable, to the TCCS Products previously considered for use list.
- > Statement of the extent of revisions to the contract documents.
- > Statement of the extent of revisions to the construction program.
- > Statement of consequent alterations to other parts of the Works.
- > Statement of cost implications including costs outside the contract.
- > Evidence that the performance is equal to or greater than that specified.
- > Evidence of conformity to a referenced document.
- > Essential technical information, in English.
- > Samples.

Availability: If the documented products or systems are unavailable within the time constraints of the construction program, submit evidence.

Criteria: If the substitution is for any reason other than unavailability, submit evidence that the substitution:

- > Is of net enhanced value to the Principal.
- > Is not prohibited by the Contract documents and is as effectual as the identified item, detail or method.

### **1.1.6.3 Execution details**

Construction management: Prepare the following for submission:

- > Construction program
- > Project Quality Plan to *MIT'S OOB Quality construction*
- > Environmental Management Plan to *MIT'S OOC Control of Erosion and Sedimentation*
- > Project WHS Management Plan
- > All safety and project signs
- > Evidence of plant registration and insurance, where appropriate for use on public roads
- > Any changes to key personnel from Tender.



#### **1.1.6.4 Construction Program**

Construction program: Show the following:

- > A time based program to conform to contract constraints.
- > Sequence of work.
- > Critical paths of activities related to the work.
- > Activity inter-relationships.
- > External dependencies including access, approvals and work by others.
- > A list of activities requiring approvals or notification of local authorities, statutory bodies, and local residents.
- > Site availability, assumptions on weather, plant and materials.
- > Allowance for holidays.
- > Identification of float.
- > Identification of any interruption or obstruction to existing roads, paths, services or other infrastructure.
- > Allocation of key personnel for the contract period.
- > A drawn sectional plan showing lots and sequence/staging.

Time scale: Working days.

Updated program: Identify changes since the previous issue, and show the estimated percentage of completion for each item of work.

Program chart: Display in the contractor's site office an up-to-date bar chart and network diagram based on the construction program.

#### **1.1.6.5 Environmental Management Plan**

The Contractor's Construction Environmental Plan shall contain the following components, as required by the nature of the works:

- > Erosion and sediment control plan (ESCP).
- > Soil and water management.
- > Dust management.
- > Weed management.

Specification: To *MITS OOC Control of Erosion and Sedimentation*

Objectives:

- > Provide a Construction Environmental Management Plan (CEMP). Preclude any potential hazard to persons or property. Protect trees and other vegetation, landscape, heritage and other items elements that are identified to be protected.
- > Regulated and Registered trees that do not have Tree Damaging Activity approval are to be fully protected. Regulated and Registered trees with approval for Tree Damaging Activity as approved by ACTPLA or the ACT Tree Protection Unit are to be treated in accordance with the approval conditions. If no approvals and conditions have been provided they are to be protected in accordance with the *ACT Tree protection Act*.
- > MNES to be protected as per the approvals and conditions set by the approval agency.

#### 1.1.6.6 Materials

Product certification: Submit evidence of product conformance with relevant product certification schemes.

Product data: For proprietary equipment, submit the manufacturer's product data as follows:

- > Technical specifications and drawings.
- > Type-test reports.
- > Performance and rating tables.
- > Recommendations for installation and maintenance.

WHS: Hazardous materials storage and procedure to counteract spillages.

To be supplied: Nominated TBS items program.

#### 1.1.6.7 Type tests

Requirement: Provide all test results and survey records promptly if requested.

#### 1.1.6.8 Work-as-executed drawings

Submission: Provide marked up and certified work as executed drawings for the Works in accordance with the relevant asset owners requirements and in accordance with *MITS 00B Quality Construction*.

### 1.1.7 Inspection

#### 1.1.7.1 Notice

General: Give written notice to the Authorised person so that inspection may be made of the following:

**Table 0A-1 Hold point table**

Item	Clause Title	Requirement	Notice For Inspection	Release by
<b>Construction requirements</b>				
<b>0A.1</b>	Signage - General	Submit details	1 week before purchase	Authorised Person
<b>0A.2</b>	Survey control – Supplied setting out information	Survey method and results including any discrepancies. Authorised Person may undertake check survey prior to releasing Hold Point.	Within 10 working days of possession of site and at least 3 working days prior to commencement of earthworks in any given area	Authorised Person
<b>0A.3</b>	Utilities and Authorities – Existing services	Locate existing services on site	1 working day before new work	Authorised Person
<b>0A.4</b>	Site facilities – Temporary fencing	Removal of temporary fencing	1 working day before removal	Authorised Person

**Table 0A-2 Witness point Table**

Item	Clause title	Requirement	Notice for inspection
<b>Construction requirements</b>			
<b>0A.1</b>	Work not in contract - Items to be supplied (TBS) by the Principal	Notice of time of delivery	2 working days
<b>0A.2</b>	Survey control - Supplied survey setting out information	Notify of the intention to set out a portion of the Works	2 working days
<b>0A.3</b>	Environmental planning - Storage of fuels and chemicals	Approval for toxic chemicals	1 week
<b>0A.4</b>	Utilities and Authorities – Programming utility adjustments	Notice of date of completion of associated work	3 weeks

## 1.2 Construction requirements

### 1.2.1 General

#### 1.2.1.1 Current editions

General: Use referenced documents (including test methods) which are the editions, with amendments, current before the closing date for tenders, except where other editions or amendments are documented.

#### 1.2.1.2 Drawings

General: Layouts of service lines, plant and equipment shown on the drawings are diagrammatic only, except where dimensions are provided.

Before commencing work:

- > Confirm measurements and other necessary information.
- > Coordinate the design and installation in conjunction with all trades, including temporary works.

Spot levels: Unless noted otherwise, documented spot levels take precedence over documented contour lines and ground profile lines.

#### 1.2.1.3 Inspections

Concealment: If notice of inspection is required for parts of the Works that will be concealed, advise when the inspection can be made before concealment.

Light level requirements: To *AS/NZS 1680.2.4*.

#### 1.2.1.4 Adjoining works

Adjoining works: Make sure that there are smooth junctions with the existing or adjoining work.

Adjoining property owners: Give notice to all adjoining property owners of the commencement of the Works.

#### **1.2.1.5 Materials**

Manufacturers' or suppliers' recommendations: Provide, including select, if no selection is given, transport, deliver, store, handle, protect, finish, adjust and prepare for use, manufactured items in conformance with the current written recommendations and instructions of the manufacturer or supplier.

Proprietary items/systems/assemblies: Assemble, install or fix in conformance with the current manufacturers' or suppliers' recommendations

Project modifications: Advise of activities that supplement, or are contrary to, manufacturers' or suppliers' recommendations.

Sealed containers: If materials or products are supplied by the manufacturer in closed or sealed containers or packages, bring the materials or products to point of use in the original containers or packages.

#### **1.2.1.6 Rectification**

Accesses and services: Rectify immediately any unplanned obstruction or damage to roadways and footpaths, drains and watercourses and other existing services within or adjacent to the site. Provide temporary services whilst repairs are carried out. Document and minimise the duration of any planned obstructions.

Property: Rectify immediately any interference or damage to property which is to remain on or adjacent to the site, including adjoining property encroaching onto the site, and trees.

### **1.2.2 Project specific requirements**

#### **1.2.2.1 Working area**

Working areas: Restrict construction working areas and areas for temporary site facilities such as the storing of materials, use of plant and erection of sheds, to areas documented on the Contractor's approved TMP and ESCP and in accordance with the staging of the works. Do not work or occupy areas outside of the areas designated in the drawings, or as otherwise approved by the Authorised Person.

Staging of the works: Where the Contract requires separable portions for staging of the works, ensure that areas for temporary site facilities are relocated before the date of practical completion for that stage.

Security: Take security measures for the safe-keeping of any plant, equipment, tools, materials or other property.

#### **1.2.2.2 Liaison**

Liaison and Co-ordination with adjoining works Contractors: The Contractor shall liaise and coordinate with adjoining works contractors for the duration of this Contract. This shall include any programming and coordination of works due to work being undertaken by the other contractors. The Contractor shall notify the Superintendent in a timely manner if the adjoining works contractor does not co-operate or that their adjoining works are deficient in some way.

Liaison and Co-ordination with Principal's Registered Surveyor for Block Pegging: The Contractor shall liaise and coordinate with the Principal's appointed Registered Surveyor to undertake block pegging activities.

Liaison and Co-ordination with Principal's Geotechnical Engineer for Block Classification: The Contractor shall liaise and coordinate with the Principal's appointed Geotechnical Engineer to undertake block classification activities.

Liaison and Co-ordination with Principal's Cultural Heritage Consultant: The Contractor shall liaise and coordinate with the Principal's appointed Cultural Heritage Consultant to work in accordance with the approved CEMP.

#### **1.2.2.3 Additional work required for staging of the works**

General: The Contractor shall undertake activities necessary to ensure that the works can be staged in accordance with the Contract. The contractor shall plan material movements in accordance with the staging of the works.

### **1.2.3 Work not in contract**

#### **1.2.3.1 Items to be supplied (TBS) by the principal**

TBS by Principal: To **Annexure A, Items to be supplied by Principal schedule**. TBS Items are supplied, delivered and unloaded by the Principal free of cost to the Contractor at nominated points.

Time of delivery: Give notice of the required time of delivery for TBS items.

This is a **WITNESS POINT**.

Damaged or defective: Give notice of any TBS item found damaged or defective within 2 days of taking delivery of such item. If the Contractor does not report damage or defect it is deemed that the TBS item was free from damage or defect when received and the Contractor is responsible for any replacement or making good as directed by the Authorised Person.

Storage: Store, protect and insure all TBS Items received.

#### **1.2.3.2 Additional works**

Reinstatement works not associated with the Contract: Unpaved areas disturbed by work not associated with the Contract shall be reinstated by spreading topsoil to a depth of 100mm, cultivation, grassing, bitumen straw mulching and consolidation, in accordance with *MITS 09 Landscape*.

Additional Work: The Contractor shall undertake additional work not covered by other items in the Contract as directed by the Authorised Person in writing.

### **1.2.4 Signage**

#### **1.2.4.1 General**

All signs: Submit all safety and project signs for approval before sign manufacture or purchase.

This is a **HOLD POINT**.

#### **1.2.4.2 Safety signs**

Requirement: Provide appropriate regulatory, hazard, emergency information and fire signs to *AS 1319*.

Location: Display safety signs at prominent locations around the working areas and temporary site facilities including:

- > Mandatory signs for personal protective equipment such as eye, head and foot protection.
- > DANGER signs such as 'DANGER, Construction Site. No Unauthorised Access'.

#### **1.2.4.3 Advertising signs**

Advertising: No advertising is permitted on the site other than the following:

- > Approved project signs.
- > Manufacturer's name or names of owner on items of construction plant.
- > Contractor's mail box.

#### **1.2.4.4 Project work signs**

Requirement: Supply, install, maintain and remove all project work signs as directed by the Authorised Person and in accordance with ACT Government Capital Works Signage requirements.

Site possession: Install all project works signs as soon as practicable after receiving the notice of possession of site.

Removal of signs after Practical Completion: no earlier than 4 weeks and no later than 6 weeks after practical completion.

### **1.2.5 Survey control**

#### **1.2.5.1 General**

Road construction survey: To *ICSM QA Specification G71 Road construction surveys*.

Definition: 'Survey mark' means a survey peg, ACT Survey Office permanent bench marks, reference mark, signal, alignment, level mark or any other mark used or intended to be used for the purpose of setting out, checking or measuring the work.

Datum: The Drawings are based on the Canberra Metric Grid and the Australian Height Datum, unless noted otherwise.

#### **1.2.5.2 Supplied survey setting out information**

Certification: Before commencing the Works, check the digital design model provided for discrepancies between the digital design model and the drawings.

Verification: The Contractor may verify the accuracy of the natural surface model by field surveys.

Acceptance: If the Contractor elects not to undertake a verification survey prior to commencement of earthworks then the natural surface model supplied by the Principal/Authorised Person will be deemed to be accepted as correct.

Discrepancies: If the Contractor considers any areas of the model not to be representative, or submitted plans to be inaccurate, give not less than 7 days notice, prior to commencement of Works to allow checking. Submit survey verifying existing ground profile and benchmarks.

Submission: Submit details of the Contractor's verification base survey within 10 working days of possession of site being granted and at least 3 days prior to commencement of earthworks.

This is a **HOLD POINT**.

Costs: If the subsequent check survey reveals the ground model and plans to be correct, then the Contractor is to bear the cost of the check survey.

#### **1.2.5.3 Survey set out**

General: Notify the Authorised Person in advance of the intention to set out a portion of the works.

This is a **WITNESS POINT**.

Site surveillance: Provide all necessary labour, materials and equipment to assist the Authorised Person in overseeing the set out or verifying completed works.

Provision of marks: The Authorised Person will provide permanent marks as shown on the drawings and for establishing bench marks related to the level datum.

Transfer of marks: Transfer permanent survey marks clear of the operations before any of the given survey marks on the base lines or the various control lines are affected by the Works.

Relocation of survey control: Submit request for relocation of survey control, establishment of recovery pegs, or setting out or levelling. If no notice is provided and a control mark is disturbed or destroyed, then the cost of re-establishing the control is borne by the Contractor.

Protection: Protect all supplied survey marks. The Contractor is responsible for any costs associated with re-establishing marks.

#### **1.2.5.4 Set out pegs**

Recovery pegs: Provide and fix adequate recovery pegs in suitable locations adjacent to the elements of work.

Removal: Unless otherwise directed, remove all pegs and profiles at practical completion.

#### **1.2.5.5 Survey equipment**

Requirement: Use electronic total stations and ancillary equipment for survey tasks in conformance with the following:

- > Electromagnetic distance measuring device (EDM): Standard deviation for error < 5 mm + 5 ppm.
- > Horizontal and vertical circles: Angular measurement standard deviation for error < 3 seconds of arc.
- > One second of arc minimum count.
- > Diametrical vertical circle reading and automatic tilt compensator.
- > Capability to electronically record and store field data such as horizontal and vertical angles, distances, point notation, target and instrument heights.
- > Calibration procedure and calibrated at all times.
- > Calibrate immediately after any repairs.

### **1.2.6 Site communications**

#### **1.2.6.1 Site meetings**

Representation: Provide representation, including any Subcontractors that may be required to attend regular site meetings.

Meeting agenda: Include performance measures, coordination of program and work under the contract and resolution of any questions regarding the intent or interpretation of the documents.

Minutes: Site meetings will be chaired and minuted by the Authorised Person. Copies of the minutes will be issued to all present at the meeting and others concerned with the matters discussed. Within 3 working days.

## **1.2.7 Environmental planning**

### **1.2.7.1 Protection of the environment**

Environment protection and biodiversity conservation: MNES areas are to be protected as per the approvals and conditions set by the Commonwealth or the ACT Government.

Erosion and sedimentation control: To *MITS 00C Control of Erosion and Sedimentation*.

Landscape management and protection: To *MITS 02A Clearing and grubbing*.

### **1.2.7.2 Drainage of Works**

Stormwater control: To *MITS 03A Trenching for underground services* and *MITS 00C Control of Erosion and Sedimentation*.

Stormwater diversion: Provide effectual diversion of surface water and proper flushing for storm and subsoil water across and beyond the works at all times. Do not interrupt the flow of stormwater and drainage along existing gutters and water tables.

Pumping: Keep trenches and excavations dewatered at all times during construction, including maintaining any pumping equipment.

Timing: Complete all permanent retention basins, and temporary erosion and sedimentation control measures before commencing earthworks.

### **1.2.7.3 Blasting**

Blasting: If required, submit for approval to conform with *MITS 02C Stabilisation*.

### **1.2.7.4 Storage of fuels and chemicals**

Storage: Safely store all fuel and chemicals and conform to the following:

- > Minimise fuels and chemicals stored on site.
- > Install bunds and take other precautions to reduce the risk of spills.
- > Implement a contingency plan to handle spills.

Toxic chemicals: Do not use herbicides and other toxic chemicals without written approval.

This is a **WITNESS POINT**.



## 1.2.8 Noise and vibration controls

### 1.2.8.1 Limits on noise

Working hours: Operational hours of plant, including the entry and/or departure of heavy vehicles, is restricted to 7am to 6pm Monday to Friday, 8am to 1pm on Saturdays and at no times on Sundays or Public Holidays. Work outside of the hours specified is not permitted without approval.

Maximum noise levels: Avoid excessive noise and long periods of elevated noise that is reasonably anticipated to annoy or adversely affect the adjacent community.

Sound pressure threshold: Less than L10 sound pressure level threshold, when measured at noise sensitive locations such as residential premises.

Noise suppression: Minimise noise nuisance including the following:

- > Enclose noisy equipment.
- > Provide noise attenuation screens.
- > Maintain plant in good working order.
- > Fit effective residential class silencers to all engine exhausts.
- > Fit engine covers to all plant.

### 1.2.8.2 Damage

Responsibility for damage: Any damage and compensation payments resulting from non observance of the above requirements are the responsibility of the Contractor.

### 1.2.8.3 Limits on ground vibration

Levels: Make sure ground vibration levels transmitted from operating items of plant in the vicinity of residential premises do not exceed levels that are close to the lower level of human perception inside the premise or cause structural damage to the building vibration limits.

Vibration limits: To AS 2670.1.

Responsibility for damage: Responsible for any damage and compensation payments as a result of non-observance of the above requirements, no claims will be considered by the Principal.

## 1.2.9 Utilities and authorities

### 1.2.9.1 Existing services

Drawings: The location of all existing utilities and services shown on the drawings are indicative only.

Utility services: Contact 'Dial before you dig' to identify location of underground utility services pipes and cables. Meet with each service authority on site to locate all existing services and obtain clearances for potholing and construction.

Location: Before starting earthworks, locate and mark existing underground services in the areas which will be affected by the works including clearing, excavating and trenching. Expose all existing service crossings and connection points.

This is a **HOLD POINT**.

Excavation adjacent to utility services: Use only utility authority approved methods of excavation.

Notify: If there is any conflict between the actual location or elevation of any item and the location or elevation of any item shown on the drawings, notify the Authorised Person.

Existing overhead power lines: Where construction activity passes under power lines take care to avoid damage to persons and/or property. A Work Method Statement shall be prepared prior to commencing work adjacent to the power lines. The Contractor shall be responsible for making all arrangements with ActewAGL and ACT Work Cover.

#### **1.2.9.2 Protection of services and utilities**

Precautions: Secure and protect existing gas, water or drainage pipes, sewers, electric conduits or other existing works both underground and overhead.

WHS: Comply with statutory requirements for maintaining safe working clearance to overhead electrical services.

Repair to existing: Repair any damage caused to existing water, gas or drainage pipes, sewers, electric conduit or other existing works or services to the satisfaction of the Authorised Person and the relevant Authority.

Costs: If repairs are not acceptable, the Authorised Person may arrange repairs and charge the Contractor.

Notice to divert services: Give notice if it is required to remove, divert or cut into any existing sewer, drainage pipe, gas or water main, service pipes, electric conduits or other existing works. Obtain direction for alterations to existing works.

Protection responsibility: The Contractor is responsible for the protection of any facilities and structures during the Contract period.

#### **1.2.9.3 Liaison**

Contractor responsibilities: Liaise with the service Authorities contractors as follows:

- > Make appropriate allowances in the program for coordination with service Authorities.
- > Make appropriate allowances in the program for the provision of installation by service Authorities during the works.
- > Reinstatement, make good and backfill service trenches to the requirements of the service Authorities.
- > Do not stop work due to operations by service Authorities without written notice.
- > Do not interfere with the operations of service Authorities or their contractors on or near the site.
- > Allow service Authorities to work on or near the site.

Limitations to work methods: Confirm, and include within work method procedures, any limitations with the relevant Authority, such as vibrations in the vicinity of underground and overhead facilities.

#### **1.2.9.4 Relocation of services**

Relocations of services by the Contractor: Arrange all relocations or alterations as required in the Drawings.

Maintenance responsibility: The Contractor is not responsible for the maintenance of any facilities installed or constructed by the various Authorities or structures and other facilities constructed by others except where such structures and facilities form part of the Contract.

Utility relocation: Do not move utilities due to equipment or method of operation without approval from the relevant Authority.

Programming and duration of utility adjustments: Coordinate with utility authorities to carry out work which affects or is in conjunction with works of this Contract including temporary works or staging of the

works. Give notice of the expected date of completion of each of the necessary parts of the Utility Authority works.

This is a **WITNESS POINT**.

## **1.2.10 Site facilities**

### **1.2.10.1 General**

Requirement: Provide and maintain temporary site facilities for personnel as documented, including an office for the Authorised Person, and the necessary temporary utility services. Remove or restore at practical completion.

Facilities required: Provide, equip and maintain temporary ablution facilities, dressing rooms, tool houses and other facilities required by any Industrial Ordinance, Award or Agreement for use of workers employed by the Contractor, or the Contractor's sub-contractors. Remove them at practical completion.

### **1.2.10.2 Office for Authorised Person**

Requirement: Where nominated within the contract, provide, equip, maintain and remove at practical completion, an office, including toilet facilities, for the sole use of the Authorised Person and staff. Conform with the following:

<b>Prefabricated building</b>	Minimum inside dimensions: 6 × 3 x 2.4m high exclusive of toilet facilities. Weatherproof, adequately insulated and well ventilated. Provide two opening type windows fitted with insect-proof screens and an external door fitted with a cylinder night lock with two keys. Floor area: Approved vinyl flooring. Walls and ceiling: Painted to the approval of the Authorised Person.
<b>Furniture and fittings</b>	One reference table of minimum size 1.5 × 0.9m. One desk, with lockable drawers, of minimum size 1.5 x 0.9m. Three office chairs. One 0.75kW reverse cycle air conditioner.
<b>Prefabricated toilet facilities</b>	Weatherproof and well ventilated, and connected to the temporary sewerage system. Minimum of one partitioned w.c. cubicle with door and latch. Wash area with minimum of one wash basin connected with running water. Lockable external door with two keys.
<b>Electricity</b>	Lighting to the office and toilet facilities. Two double power points to the office.

Charges: Pay all charges resulting from the supply, erection, installation, maintenance, cleaning and removal of the office, toilet facilities, and electricity. and telephone services.

Alternative site facilities: Submit proposal with full details for the use of alternative site facilities in existing buildings adjacent to, or in close proximity to, the Works.

#### **1.2.10.3 Water supply**

Temporary water supply: Provide temporary water supply for site facilities and for carrying out the Works.

Approvals: Obtain all approvals from the appropriate Authority for temporary water supply.

Removal: Remove on completion of the contract the temporary water supply service, except that to the Authorised Person's office.

#### **1.2.10.4 Electrical service**

Temporary electricity supply: Provide any temporary electricity supply required for site facilities and for carrying out the work under the contract.

Approvals: Obtain all approvals from the appropriate Authority for temporary electricity supply.

Removal: Remove on completion of the contract the temporary electricity supply service, reticulation and lighting except that to the Authorised Person's office.

#### **1.2.10.5 First aid**

Requirement: Provide, equip and maintain an adequate First Aid Treatment Centre on the site with an experienced First Aid person available at all times when work is in progress.

Signage and location: Clearly mark the First Aid facilities and make accessible to all personnel at all times.

Minimum provisions: To the current statutory requirements.

#### **1.2.10.6 Fencing**

Standard: To AS 4687.

Security fencing: The Contractor shall construct a suitable 1.8m high fence located around the entire Site and should follow as near as possible the Limit of Works boundary shown on the drawings. The fence shall have adequate gates and be maintained for the duration of the contract. Security fencing shall not to be removed until approval is received from the Authorised Person and streetlights are activated.

This is a **HOLD POINT**.

Staging of the works: The Contractor shall relocate fencing as necessary to allow the works to be undertaken. This includes for interface works of adjacent stages.

Public exclusion: Comply with ACT Work Cover requirements.

Safety barriers: Temporary site perimeter fencing (ATF) shall not be used as a form of safety barrier between workers and traffic and shall not be installed adjacent to traffic lanes. All ATF fencing shall be installed and secured a minimum of 2m away from paths. The contractor should undertake an onsite risk assessment prior to installation of any ATF fencing.

Existing fencing: Reinstate the existing fencing as documented before the date of practical completion.

## 2 MEASUREMENT AND PAYMENT

### 2.1 General

#### 2.1.1.1 Introduction

Scope: The following scope applies to the entire Specification.

Rates: The Contractor must provide a reasonable market rate against all pay items.

Exclusions: Measurement for payment will include all works shown on the plans or as specified but will not include material lost in transit, overlaps, wastage, works not shown on the plans and variations in quantities due to variations in actual thickness or length exceeding the specified tolerances.

Allowances: The Contractor shall allow, in the pay items, for all costs associated with profit, financing costs, risks, legal and contractual responsibilities, effecting of insurances and providing the securities required and other costs and other obligations which are not specifically measured for payment under any other items of payment.

Provisional Sum prices: Payment of the sum, or part thereof, shall be on delivery of invoices and include percentage for overhead and profit as defined in the Contract. If any of the Provisional Sum item or part thereof is not expended, the Contractor shall not be entitled to overhead and profit on the deducted amount.

Deductions for non-conforming work: Where deductions for nonconforming work are given in the Specifications, the nominated deductions will be applied to the rates given in the Pay Items for that item of work.

Lump Sum items: Not acceptable except where the unit of measurement is lump sum. Unless otherwise specified progress payments for lump sum items shall be made on a pro-rata basis of work performed having the regard for the proportion of completion of permanent works.

Unpriced items: If any pay item for which a quantity of work is listed in the Contract has not been priced by the Contractor, it shall be understood that due allowance has been made in the prices of other pay items for the cost of the activity which has not been priced.

Trench excavation: No Additional payment will be made for excavation in rock, overbreak or over excavation of trenches due to ground conditions.

### 2.2 Measurement

#### 2.2.1.1 General

Payments made to the Bill of Quantities: To this Specification, the drawings and **Pay items**.

#### 2.2.1.2 Methodology

The following methodology will be applied for measurement and payment:

- > Allow for all work, materials, testing and quality assurance requirements in each Pay Item.
- > Payment for undertaking the block pegging activities will be made directly by the Principal.
- > Payment for undertaking the block classification activities will be made directly by the Principal.
- > Payment for undertaking the Cultural Heritage Consultant activities will be made directly by the Principal.

## 2.3 Pay items

**Table 0A-3 Pay Items table**

Item No	Pay Items	Unit of measurement	Schedule of rates scope
<b>0A.1</b>	Site Establishment	Lump sum	<p>All activities associated with site establishment and construction staging.</p> <p>This pay item includes all costs associated with the location of compounds or materials storage areas required for the works. This includes provision and construction of the Contractor's site office, temporary buildings and amenities, including associated fit out and cleaning, power, water and other charges.</p> <p>This pay item includes the connection and installation of temporary services, construction of temporary roads and hard stand areas, 1.8m high temporary fencing around site facilities and removal of the same on completion and the reinstatement and restoration of the areas involved, including landscape consolidation.</p> <p>This pay item shall also include all site safety works and provision of verge and off site management works.</p> <p>This pay item shall also include all general site and office overheads, profit, financing costs, risks, legal and Contractual responsibilities, effecting of insurances and providing the securities required and other costs and obligations of a preliminary or general nature which are not specifically measured for payment under any other items of payment.</p>
<b>0A.2</b>	Office for Authorised Person	Lump sum	All activities associated with the provision of the documented facilities, including associated fit out and cleaning, power, water and other charges.
<b>0A.3</b>	Items from Principal	Each	<p>All activities associated with receiving, storing and handling items to be supplied from the Principal.</p> <p>A separate pay item shall be included for each type and quantity of each type of item/material.</p>
<b>0A.4</b>	Temporary Site Perimeter Security Fence	Linear Metre of fence erected excluding stays or bends for stabilisation	All activities associated with the supply and erection of temporary fences and gates as documented, including maintenance during construction, relocation of fencing during construction period and removal at practical completion.
<b>0A.5</b>	Project Signs	Number of project signs erected	All activities associated with the supply, erection, maintenance and removal of each project sign.

Item No	Pay Items	Unit of measurement	Schedule of rates scope
<b>0A.6</b>	Coordination with Utility Authorities	Lump sum	All activities associated with liaison, negotiation, coordination and programming of work schedules between the Contractor and all required service authorities associated with the works.
<b>0A.7</b>	Liaison and coordination with Adjoining Works Contractors	Lump sum	All activities associated with liaison, negotiation, coordination and programming of work schedules.
<b>0A.8</b>	Liaison and coordination with Principal's Registered Surveyor for Block Pegging	Lump sum	All activities associated with liaison, negotiation, coordination and programming of work schedules.
<b>0A.9</b>	Liaison and coordination with Principal's Geotechnical Engineer for Block Classification	Lump sum	All activities associated with liaison, negotiation, coordination and programming of work schedules.
<b>0A.10</b>	Liaison and coordination with Principal's Cultural Heritage Consultant	Lump sum	All activities associated with liaison, negotiation, coordination and programming of work schedules.
<b>0A.11</b>	Additional work required for staging of the works	Lump sum	<p>All activities associated with additional work required to be undertaken by the Contractor associated with staging of the works into Separable Portions. This pay item includes all costs associated with relocating and re-connecting services for site compounds and storage areas due to staging of the works.</p> <p>This pay item also covers any liaison, negotiation, coordination and programming of work schedules with authorities.</p>
<b>0A.12</b>	Survey Set Out and Control	Lump sum	The activities associated with setting out the works and establishing and maintaining survey control, care of survey marks, verifying electronic data against the Drawings and the checking of dimensional tolerances.
<b>0A.13</b>	Relocation/adjustment to existing services		<p>All activities associated with works necessary to relocate/adjust existing services.</p> <p>A separate pay item shall be included for each type of service.</p>

Item No	Pay Items	Unit of measurement	Schedule of rates scope
<b>0A.13.1</b>	Works by the Contractor	Provisional Sum	All activities associated with works by the Contractor to the existing services including liaison, negotiation, coordination and programming of work schedules with the Service Authorities. This pay item also includes excavation for exposing existing services, backfilling of the work, surface restoration and the provision of any items required by the Service Authorities for performing the work.
<b>0A.13.2</b>	Works by the Service Authority	Provisional Sum	All activities associated with works by the Service Authority to the existing services.
<b>0A.14</b>	Additional Work	Provisional Sum	All activities associated with additional work not covered by other items in the Contract where directed by the Authorised Person in writing.
<b>0A.15</b>	Removal of existing services and structures		All activities associated with works by the Contractor to remove existing services and structures including liaison and coordination with the Service Authorities, saw cut, excavation, disconnection, removal and disposal of services and structures, backfilling of the work including sub base material where required, surface restoration and the provision of any items required by the Service Authorities for performing the work. A separate pay item shall be included for each type of service.
<b>0A.15.1</b>	Stormwater sewer and water supply pipes (various diameters)	Linear meters of pipes to be removed	
<b>0A.15.2</b>	Utilities (various size)	Linear meters of service to be removed	
<b>0A.15.3</b>	Structures (various structures)	Number of structures to be removed	
<b>0A.15.4</b>	Kerb (various sizes and types)	Linear meter of kerb to be removed	
<b>0A.15.5</b>	Path or concrete paving (various thickness)	Square meter of concrete to be removed	



Item No	Pay Items	Unit of measurement	Schedule of rates scope
<b>0A.16</b>	Existing service location	Each service type/provider	<p>This pay item shall include locating existing services, organising clearances to existing services with service authorities, excavating to expose existing service at crossing points or connection points, surveying the level of the service and backfilling the hole.</p> <p>A separate pay item shall be included for each service provider. For example;</p> <p>0A15.1      Sewer</p> <p>0A15.2      Stormwater</p> <p>0A15.3      Water</p> <p>0A15.4      Gas</p> <p>0A15.5      Electricity</p> <p>0A15.6      Telstra</p> <p>0A15.7      NBN</p> <p>Etc...</p>

## 3 ANNEXURE A

### 3.1 Items to be supplied by the principal

**Table 0A-4 Items to be supplied by the Principal schedule**

Purpose in works	Material type	Location	Approx. quantity available	Cost as a rate (excl. GST)	When available	Specification clause
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### 3.2 Relocation/alteration to services (by the contractor)

**Table 0A-5 Relocation/alteration to services (by the Contractor) schedule**

Type of utility or service	Owner	Location	Requirement
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### 3.3 Relocation/alteration to services (by the principal)

**Table 0A-6 Relocation/alteration to services (by the Principal) schedule**

Type of utility or service	Owner	Location	Requirement	Timing
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## 3.4 Contacts

Table 0A-7 Contacts schedule

Authority	Name/ Position	Email	Phone number
<b>ActewAGL: Electrical Services</b>			
<b>Zinfra: Gas Services</b>			
<b>Telstra: Telecommunications Services</b>			
<b>Optus: Telecommunications Services</b>			
<b>TPG: Telecommunications Services</b>			
<b>ICON Water: Water and Sewerage</b>			
<b>Parks and City Services: Irrigation Systems, Playgrounds, Shopping Centres</b>			
<b>Sport and Recreation: Playing Fields</b>			
<b>Education and Training</b>			
<b>ICON: Intra Australian Government Communications Network</b>			
<b>InTACT: Intra ACT Government Communications Network</b>			
<b>NBN Co: National Broadband Network</b>			
<b>Roads ACT: Stormwater</b>			
<b>Transport Canberra: Capital Metro Agency</b>			



Transport Canberra and  
City Services

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