



WESTERN AUSTRALIA SPECIFICATION

101

GENERAL

Amendment Record for this Specification Part

This Specification is Council's edition of the AUS-SPEC generic specification part and includes Council's primary Amendments.

Details are provided below outlining the clauses ammended from the Council edition of this AUS-SPEC Specification Part. The clause numbering and context of each clause are preserved. New clauses are added towards the rear of the specification part as special requirements clauses. Project specific additional script is shown in the specification as italic font.

The Amendment code indicated below is 'A' for additional script 'M' for modification to script and 'O' for omission of script. An additional code 'P' is included when the Amendment is project specific.

Amendment Sequence No.	Key Topic addressed in Amendment	Clause No.	Amendment Code	Author Initials	Amendment Date
1	Roadworks	101.02.1 (b)	M	SR	08/03/01

SPECIFICATION 101 - GENERAL

CLAUSE	CONTENTS	PAGE
PROJECT SPECIFIC INFORMATION		3
101.01	LOCATION AND DESCRIPTION OF PROJECT	3
101.02	EXTENT OF WORK.....	3
101.03	WORK BY OTHERS	4
101.04	CONSTRUCTION SEQUENCE AND STAGING.....	4
101.05	SUBSURFACE CONDITIONS.....	4
101.06	OTHER PROJECT SPECIFIC ITEMS	5
GENERAL REQUIREMENTS		5
101.07	DRAWINGS	5
101.08	STANDARDS AND TEST METHODS.....	5
101.09	TESTING AND SURVEY	5
101.10	WORKING AREAS	6
101.11	SMOOTH JUNCTIONS.....	6
101.12	SETTING OUT THE WORKS	6
101.13	SITE MEETINGS	6
101.14	ALTERNATIVE CONSTRUCTION	7
101.15	WORKING DRAWINGS.....	7
101.16	WORK-AS-EXECUTED DRAWINGS	8
101.17	ITEMS TO BE SUPPLIED BY THE PRINCIPAL	8
ENVIRONMENTAL REQUIREMENTS.....		9
101.18	PROTECTION OF THE ENVIRONMENT	9
101.19	DRAINAGE OF WORKS.....	9
101.20	BLASTING	10
101.21	LIMITS ON NOISE	10
101.22	LIMITS ON GROUND VIBRATION.....	10

GENERAL

101.23 JARRAH DIEBACK CONTROL11

UTILITIES AND AUTHORITIES.....11

101.24 GENERAL11

101.25 RELATIONS WITH UTILITY AUTHORITIES AND OTHER AGENCIES.....11

101.26 LOCATION AND PROTECTION OF SERVICES AND UTILITIES13

101.27 PROGRAMMING AND DURATION OF UTILITY ADJUSTMENTS14

101.28 STREET LIGHTING14

101.29 UTILITY RELOCATIONS14

SITE FACILITIES14

101.30 GENERAL14

101.31 WORKERS' FACILITIES.....14

101.32 OFFICE FOR SUPERINTENDENT15

101.33 ALTERNATIVE SITE FACILITIES16

101.34 WATER SUPPLY16

101.35 ELECTRICAL SERVICE16

101.36 TELEPHONE16

101.37 FIRST AID16

101.38 CHAIN WIRE FENCE17

SPECIAL REQUIREMENTS17

101.39 RESERVED17

101.40 RESERVED17

101.41 RESERVED17

MEASUREMENT AND PAYMENT17

101.42 DEDUCTIONS FOR NONCONFORMING WORK17

101.43 PAY ITEMS17

ANNEXURES

101A SCHEDULE OF ITEMS TO BE SUPPLIED BY PRINCIPAL

SPECIFICATION 101 : GENERAL

PROJECT SPECIFIC INFORMATION

101.01 LOCATION AND DESCRIPTION OF PROJECT

EXAMPLE (TO BE COMPLETED BY COMPILER)

- | | | |
|----|---|--------------------|
| 1. | <i>The Works are located</i> | Location |
| 2. | <i>The Works comprise of the construction of</i> | Description |
| 3. | <i>Access to site shall be from (Contractor's and Public)</i> | Site Access |
| 4. | <i>Possession of site shall be given</i> | Possession |

101.02 EXTENT OF WORK

1. Works under this Contract comprise the supply of labour, materials and plant to construct the Works. It includes but is not limited to the following items of construction which shall be carried out in their entirety in strict accordance with and to the true intent and purpose of, the Conditions of Contract, these Technical Specifications, the Drawings listed herein, and under the supervision of the Superintendent.

EXAMPLE (TO BE COMPLETED BY COMPILER)

(a) General

- *Provision for control, protection and safety of traffic during construction including notifications to and obtaining approvals from Authorities.*
- *Notification of all appropriate property owners adjoining the works.*
- *Setting out the Works.*
- *Erosion and sedimentation control of the Works, including stockpile areas.*
- *Site clearing and grubbing. Topsoil to stockpile.*
- *Topsoil and hydromulch to disturbed areas.*

(b) Roadworks

- *Provide provisions for traffic in accordance with approved Traffic Management Plan in specification for CONTROL OF TRAFFIC.*
- *Clearing and grubbing sufficient to allow Works to be undertaken.*
- *Stripping of topsoil.*
- *Excavation to windrow.*
- *Construction of embankment from excavated material and borrow stockpiles.*

GENERAL

- *Construction of flexible base and subbase.*
- *Construction of sprayed bituminous seal.*
- *Backfill and topsoiling.*
- *Hydromulching restored areas.*
- *Disposal of any excess material remaining in borrow stockpiles.*

101.03 WORK BY OTHERS

1. The excluded work will be the responsibility of the Principal and Utility Authorities. Attention is drawn to the Conditions of Contract regarding the obligation of the Contractor to co-ordinate the Works with any simultaneous and/or adjacent work by others. The Contractor shall liaise with these Contractors and Authorities to avoid disruption, delays and possible conflict.

Liaison

EXAMPLE (TO BE COMPLETED BY COMPILER)

2. *The borrow material required to complete the Works will be stockpiled by others prior to commencement of this Contract.*

Borrow

3. *The construction of the bridge within this Contract length will be undertaken concurrently by others. This includes the construction of bridge approach slabs and completion of the guardrail over the length of the approach slabs to join to the bridge.*

**Bridge
Construction**

4. *Utility adjustments and relocations by Water and Electricity Authorities.*

Utilities

101.04 CONSTRUCTION SEQUENCE AND STAGING

EXAMPLE (TO BE COMPLETED BY COMPILER)

1. *The Contractor's programme shall allow to complete Separable Parts of the Works by the times stated in Annexure Part A to the General Conditions of Contract, taking into account and clearly indicating the restrictions imposed by utility relocation.*

**Separable
Parts**

2. *Refer to the Specification Part for UTILITIES AND AUTHORITIES for timing of utility works.*

101.05 SUBSURFACE CONDITIONS

EXAMPLE (TO BE COMPLETED BY COMPILER)

1. *No geotechnical investigations have been carried out.*

2. *The Contractor's attention is drawn to the General Conditions of Contract Clause "Site Conditions". The Contractor should make an assessment of the in-situ moisture content likely to be encountered at the actual time work is to be carried out.*

**Contractor to
Make
Assessment**

101.06 OTHER PROJECT SPECIFIC ITEMS**EXAMPLE (TO BE COMPLETED BY COMPILER)**

- Historic Buildings
- Archaeological Sites (Aboriginal and European)
- Provision for Public Transport must be made during the course of works
- Local Water/Material Sources at the discretion of the contractor.

GENERAL REQUIREMENTS**101.07 DRAWINGS**

1. The Drawings which form part of the Contract Documents are bound in a separate volume.

101.08 STANDARDS AND TEST METHODS

1. Unless otherwise specified in the Contract, and where applicable, materials, workmanship and test methods shall be in accordance with the relevant standard of the Standards Association of Australia.

Australian Standards

2. A standard applicable to the Works shall be the edition last published 14 days prior to the closing date for tenders unless otherwise specified.

Applicable Edition

3. Overseas standards and other standard documents named in the Specification shall be applicable in the same manner as Australian Standards to relevant materials and workmanship.

Overseas Standards

4. Copies of any standards quoted or referred to in the Specification shall be kept on the site if so specified.

Copies to be kept on Site

5. Test Methods, other than Australian Standards, specified in the Technical Specifications shall refer to the issue dates current at 14 days prior to the closing date for tenders unless otherwise specified.

Test Methods other than AS**101.09 TESTING AND SURVEY**

1. All testing and survey as required by the Technical Specifications shall be arranged and carried out by the Contractor after approval to proceed with testing and survey is obtained from the Superintendent.

Test Results

2. All test results and survey records shall be made available to the Superintendent if requested to do so. The cost of all such testing and survey shall be borne by the Contractor.

Contractor's Cost

3. The minimum frequency of testing and survey shall be in accordance with either the Specification for QUALITY SYSTEM REQUIREMENTS or QUALITY CONTROL REQUIREMENTS as appropriate for quality assurance or quality control contracts respectively. The appropriate requirements for this Contract are cited on the Form of Tender.

Minimum Frequency

GENERAL

101.10 WORKING AREAS

1. Where the Drawings indicate construction working areas and areas for temporary site facilities such as the storing of materials, use of plant and erection of sheds, work shall not be performed nor the site occupied outside of these areas. **Designated Sites**
2. The Principal will not be responsible for the safe-keeping of any of the Contractor's plant, equipment, tools, materials or other property. The Contractor may provide, and pay for, any security fencing considered necessary around any office, workshop or storage area, subject to the Superintendent's approval. **Security**
3. If existing fencing on the Principal's property is cut, or if there is no existing site fencing, or altered by the Contractor, the Contractor shall provide and maintain temporary fencing to the satisfaction of the Superintendent during the Contract to prevent unauthorised entry into the Principal's property, and shall reinstate the fencing and remove temporary fencing on completion of the work. **Temporary Fencing**
4. For fencing of temporary site facilities, refer to Clause 101.38.
5. The Contractor shall erect appropriate regulatory, hazard, emergency information and fire signs, in accordance with AS1319 Safety signs for the occupational environment, at prominent locations around the working areas and temporary site facilities. Signs shall include, but are not limited to: mandatory signs for personal protective equipment such as eye, head and foot protection, and DANGER signs such as "DANGER, Construction Site. No Unauthorised Access". All words on word-message signs shall be approved by the Superintendent prior to sign manufacture or purchase. **Safety Signs**

101.11 SMOOTH JUNCTIONS

1. Construction work carried out under this Contract adjacent to or adjoining existing works shall make smooth junctions with the existing work.

101.12 SETTING OUT THE WORKS

1. The Superintendent will provide Permanent Marks as shown on the Drawings. The Superintendent will also establish bench marks related to the level datum. **Provision of Marks**
2. Before any of the given survey marks on the base lines or the various control lines are affected by the works, the Contractor shall transfer such survey marks to side positions clear of operations and shall note, and inform the Superintendent in writing, of the extent of such movement. **Transfer of Marks**
3. The Contractor shall give the Superintendent not less than two full working days' notice of the intention to perform any portion of the relocation of survey control, establishment of recovery pegs, or setting out or levelling, so that suitable arrangements can be made for checking of the work by the Superintendent. If no such notification is given and a control mark is disturbed or destroyed, then the cost of re-establishing the control shall be borne by the Contractor. **Notice for Relocation**
Contractor's Cost
4. The Contractor shall provide and fix adequate recovery pegs in suitable locations adjacent to the elements of work to enable location and construction to be checked. **Recovery Pegs**
5. All pegs and profiles placed by the Contractor shall be removed on completion of work unless otherwise directed by the Superintendent. **Removal**

101.13 SITE MEETINGS

1. Regular site meetings will be held for the purpose of discussion of the progress **Representation**

and co-ordination of the work under the Contract and any matters of doubt regarding the intent or interpretation of the Drawings or the Specification. The Contractor shall arrange for relevant sub-contractors or their responsible representatives to be present at these meetings. The meetings will be held at a time nominated by the Superintendent.

2. The Superintendent or Superintendent's Representative shall chair site meetings, keep minutes of the proceedings and shall provide copies of the minutes for the Contractor, all present at the meeting and others concerned with the matters discussed.

101.14 ALTERNATIVE CONSTRUCTION

1. Should a tender based on the use of alternative material, design or method of construction be accepted, the Contractor shall prepare and submit detailed Working Drawings, design calculations and specifications for the alternative, together with details of necessary alterations to this Specification.

***Detailed
Working
Drawings***

2. The design and construction documents required shall be prepared under the supervision of, and be certified by a Professional Engineer experienced in that type of design. Documents shall be submitted to the Superintendent at least four weeks before construction of the relevant part of the work is scheduled to commence and no work shall commence on that part until written authority to proceed has been issued by the Superintendent.

***Preparation
and
Submission***

3. All costs incurred in the preparation of Working Drawings, design calculations, specifications and any variations or supplementary submissions required by the Superintendent shall be borne by the Contractor.

***Contractor's
Cost***

101.15 WORKING DRAWINGS

1. Where the Contractor is required to provide Working Drawings, two sets of such drawings, together with two sets of supporting calculations, shall be prepared and submitted to the Superintendent not less than the minimum time specified prior to scheduled commencement of the work concerned.

***Submission to
Superintendent***

2. Drawings submitted shall be of a standard of draftsmanship and legibility acceptable to the Superintendent. The Working Drawings and calculations shall be altered or supplemented promptly if so required by the Superintendent and the aforesaid number of sets of revised drawings and calculations shall be resubmitted.

Standards

3. The work concerned shall not be initiated until a set of Working Drawings has been returned to the Contractor together with written authorisation to proceed. Upon receipt of this authorisation the Contractor shall revise the Working Drawings to incorporate any conditions attached to such authorisation and shall forward to the Superintendent four additional sets of such revised Working Drawings.

***Approval to
Proceed***

4. The Superintendent's written authorisation to proceed shall not relieve the Contractor of the responsibilities for the design (where applicable) and construction of the Works in accordance with the Contract.

***Contractor's
Responsibility***

5. After the Superintendent's authorisation to proceed has been issued, variations to the Working Drawings shall be made only after obtaining a specific written authorisation for the variation from the Superintendent. Four sets of such revised Working Drawings shall then be submitted to the Superintendent.

***Authorised
Variations***

6. Costs incurred in the preparation and supply of Working Drawings, supporting calculations and other documents and any variations or supplementary submissions required by the Superintendent shall be borne by the Contractor and shall be considered as incidental to the relevant items of work.

***Contractor's
Cost***

101.16 WORK-AS-EXECUTED DRAWINGS

1. The Contractor shall supply the Superintendent with fully marked-up and certified Work-as-Executed Drawings for the whole of the Contract prior to issue of the Final Certificate. Prints or reproducibles of the Contract Drawings will be supplied by the Principal free of charge for this purpose.

Submission

2. Work-as-Executed Drawings for Roadworks shall show in red ink all changes to the Contract Drawings and actual values of all levels shown on the Drawings. The Drawings shall be signed by a Surveyor and certified by the Contractor.

Roadworks

3. Work-as-Executed Drawings for Bridgeworks shall show in red ink all changes to the Contract Drawings, including variations to levels, dimensions, concrete, reinforcement, prestressing and other materials, all non-conformances accepted without rectification, suppliers and model numbers of bearings and proprietary joints and type of barrier railings installed where both steel and aluminium alternatives are detailed. The Drawings shall be certified by the Contractor.

101.17 ITEMS TO BE SUPPLIED BY THE PRINCIPAL

1. Items listed in Annexure 101A - Schedule of Items to be supplied by the Principal (TBS Items) will be supplied, delivered and loaded by the Principal free of cost to the Contractor at points to be nominated. The Contractor shall give the Superintendent notice of the time delivery of TBS Items are required in accordance with the Requirements of the Technical Specification or as specified below.

Delivered Free of Cost

2. If any TBS Item is found to be damaged or defective the Contractor shall so inform the Superintendent within 2 days of taking delivery of such item. If the Contractor does not report damage or defect, it shall be deemed that the TBS Item was free from damage or defect when received. The Contractor shall then be responsible for any replacement or making good as may be directed by the Superintendent in the case of a Quality Control Contract or in accordance with the Disposition of Nonconformance requirements in the Specification for QUALITY SYSTEM REQUIREMENTS in the case of a Quality Assured Contract.

Damaged or Defective

3. The Contractor shall be responsible for the storage, protection and insurance of all TBS Items received.

4. In the case of pipe culverts the Contractor shall give the Superintendent 30 days notice of the time delivery is required.

5. The Principal shall supply the pipe culverts at no cost to the Contractor for the actual length laid of pipe culvert required under the contract.

6. Any pipe culverts in addition to the above quantity shall be the responsibility of the Contractor to supply at no cost to the Principal.

ENVIRONMENTAL REQUIREMENTS

101.18 PROTECTION OF THE ENVIRONMENT

1. All work shall be carried out in such a manner as to avoid nuisance and/or damage to the environment. The Contractor shall comply with the requirements of any Environmental Impact Statement and Assessment Report or Review of Environmental Factors for the project, the conditions of approval imposed by the Department of Environmental Protection (DEP), the Environmental Protection Act, the Water and Rivers Act, the Bush Fires Act, the Noise Abatement Regulations and any other Local Council requirements and environmental Act relevant to the project. No variation in costs or extensions of time will be considered due to these requirements. **Conformance to Acts**
2. The Contractor shall plan and carry out the Works to avoid erosion, contamination and sedimentation of the site and its surroundings in accordance with the Specification for CONTROL OF EROSION AND SEDIMENTATION. **Erosion Control**
3. Herbicides and other toxic chemicals shall not be used on the site without the prior written approval of the Superintendent. **No Toxic Chemicals**
4. No noise or smoke or other nuisance, which in the opinion of the Superintendent is unnecessary or excessive shall be permitted by the Contractor in the performance of the Works under this Contract. Should work outside customary working hours be approved, the Contractor shall not use, during such period, any plant, machinery or equipment which in the opinion of the Superintendent is causing or is likely to cause a nuisance to the public. No noisy works and/or works likely to disturb nearby residents shall be undertaken during the hours precluding such activity as specified in Clause 101.21. **Noise and Smoke**
5. The Contractor shall take all necessary measures to prevent dust and sand from being lifted by the wind particularly if carried onto land outside the site of the works. Necessary measures shall include those outlined in the Department of Environmental Protection, Perth WA publication "Land development sites and impacts on air quality - A Guideline for the Prevention of Dust and Smoke Pollution from Land Development Sites in Western Australia (Nov 1996)" for the site classification as shown on the Drawings. Such measures shall include, but are not limited to, the operation of sufficient watering carts to keep wet all disturbed areas and all access tracks. Water carts are to be available for a minimum of 8 hours per day, including Saturdays and Sundays. **Dust Control**

101.19 DRAINAGE OF WORKS

1. The control and management of stormwater drainage through the site will be important during construction of the Works. **Stormwater Control**
2. The Contractor shall provide for the effectual diversion of surface water from the Works and provide and ensure proper flushing for storm and subsoil water across and beyond the Works at all times. The flow of stormwater and drainage along existing gutters and water tables shall not be interrupted. **Stormwater Diversion**
3. The Contractor shall keep trenches and excavations dewatered at all times during construction, and if directed by the Superintendent, shall maintain efficient pumping equipment on site. **Pumping**
4. All permanent retention basins, and temporary erosion and sedimentation control to be completed prior to commencement of earthworks.

GENERAL

101.20 BLASTING

1. Blasting shall not be permitted, unless otherwise approved by the Superintendent. If such approval is given then blasting shall be carried out in accordance with the Specification for EARTHWORKS.

101.21 LIMITS ON NOISE

1. The Contractor shall only use plant that have effective residential class silencers fitted to all engine exhausts, have engine covers fitted, and are maintained in good order.

Plant with Silencers

2. Operational hours of plant, including the entry and/or departure of heavy vehicles, shall be restricted to 7am to 5pm Monday to Saturday and at no times on Sundays or public holidays. Work outside of the hours specified shall not be undertaken without the prior approval of the Superintendent.

Working Hours

3. Noise emanating from the construction site when measured at any noise sensitive location (such as a residential premise), as determined by the Department of Environmental Protection shall not exceed an L10 sound pressure level (noise level exceeded for 10 per cent of the sample time) the greater of:

Maximum Noise Levels

- (a) Short term (period of up to 1 month) 65dBA or 20dBA above ambient
- (b) Medium term (period of 1 month up to 6 months) 55dBA or 10dBA above ambient
- (c) Long term (any period of more than 6 months) 50dBA or 5dBA above ambient

4. The monitoring positions and time period for monitoring purposes shall be set by the DEP with the time period generally based on a series of 10 to 15 minute measurements which shall be averaged over the entire daily working period for the activity concerned.

Monitoring

5. The Contractor will be responsible for any damage and compensation payments as a result of non observance of the above requirements. No claim by the Contractor arising out of these requirements will be considered by the Principal.

Responsibility for Damage

101.22 LIMITS ON GROUND VIBRATION

1. It is the intent of this Specification that ground vibration levels, transmitted from operating items of plant in the vicinity of residential premises, shall not exceed levels that are close to the lower level of human perception inside the premise nor will cause structural damage to the building. Practices and vibration thresholds acceptable shall be determined in accordance with current Statutory Regulations. Where such regulation is not available, or jurisdiction is disputed, the criteria given in paragraphs 2 and 3 shall apply.

Levels

2. Vibration (RMS Z-Axis) generated by construction works shall not exceed

Curve 4 - for the period of 1 month or less
Curve 2 - for the period of more than 1 month

Limits

as defined in British Standard BS6472 "Evaluation of Human Exposure to Vibration in Buildings (1 HZ to 80 HZ)" when measured inside nearby residential premises.

3. Ground vibrations generated by construction works shall not exceed a peak particle velocity (V_R max) limit of 5 mm/sec when measured within one metre of any residential premise. **Peak Particle Velocity**
4. The Contractor shall be responsible for any damage and compensation payments as a result of non-observance of the above requirements. No claim by the Contractor will be considered by the Principal. **Responsibility for Damage**
- 101.23 JARRAH DIEBACK CONTROL**
1. The Contractor shall take all necessary measures to prevent the spread of jarrah dieback disease (Phytophthora) as a result of the Contractor's operations. Necessary measures shall include those outlined in the Department of Conservation and Land Management's "Dieback Disease Hygiene Manual" (Revised 1 July, 1992). **Preventative Measures**
2. Where dieback infection is present, or suspected to be present, the Works shall be carried out under strict hygiene controls to prevent any further spreading of the disease. The Contractor shall observe the requirements of MRWA's "Dieback Management Guidelines". **Hygiene Controls**
3. Prior to the establishment of any dieback cleandown site, the Contractor shall nominate the location of such site to the Superintendent for approval. **Site**
4. A cleandown facility shall be established at the Works site on a hard clean area, which can be kept free of mud. Washdown facilities shall be provided in accordance with the MRWA's Dieback Management Guidelines. **Facilities**
5. Except for dry weather conditions as described below, cleandown procedures for plant shall comprise washing and brushing down with scheme water or saline water to remove all traces of soil. **Procedures**
6. Under dry weather conditions, compressed air may be used for removing dry soil, brooms may be used for sweeping loose soil from truck bodies, and compacted soil may be removed from dozer tracks with steel crowbars or similar. **Dry Weather Procedures**

UTILITIES AND AUTHORITIES

101.24 GENERAL

1. This section includes the location and protection of utilities and services, programming of the work by other Authorities and the Contractor, and an outline of utility adjustments required during the construction of the Works

101.25 RELATIONS WITH UTILITY AUTHORITIES AND OTHER AGENCIES

1. The Superintendent will arrange for all necessary adjustments to utilities required to conform to the Drawings unless specified otherwise or noted on the Drawings. The Superintendent will make every endeavour to arrange for such adjustments to be performed expeditiously and with a minimum of inconvenience to the Contractor. Work shall comply with the Streets Opening Conference's Information Bulletin on Codes and Practices. **Principal to Adjust**
2. Before proceeding with excavation or other work in any area, the Contractor shall liaise with the utility authorities to ascertain the presence of any utility services and check that all necessary utility relocations have been completed. **Check on Presence**
3. The utility authorities contact person/position, telephone and facsimile numbers,

GENERAL

(correct at time of advertising of tender) are listed below: *(TO BE COMPLETED BY THE COMPILER)*

(a) Water and Sewerage

Name..... PH:..... FAX:.....

Position.....

(b) Electricity

Name..... PH:..... FAX:.....

Position.....

(c) Gas

Name..... PH:..... FAX:.....

Position.....

(d) Telephone

i) Telstra

Name..... PH:..... FAX:.....

Position.....

ii) Optus

Name..... PH:..... FAX:.....

Position.....

(e) Other (as required)

Name..... PH:..... FAX:.....

Position.....

4. For works located in the Perth Metropolitan Area, the Perth One Call System (Dial-Before-You-Dig), telephone 1100, may be contacted to obtain locations of water, sewer, stormwater, gas, electricity and telephone services.

5. Where the Contractor's method of working results in additional adjustments to their plant being deemed necessary by any other Authority the Contractor will arrange for and bear all costs relevant to those additional adjustments. This applies regardless of any approval to the method of working by the Superintendent.

Additional Adjustments

6. The Contractor shall conduct the operations so as to interfere as little as possible with the operations of other Authorities or their contractors on or near the site of the works. The Principal reserves the right to permit other Authorities and others to work on or near the works being constructed under the Contract.

Minimum Interference

7. The Contractor will not be 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), but will be responsible for the protection of such facilities and structures during the Contract period.

***Responsibility
for Protection***

8. In certain instances the Contractor may be required to provide the various Authorities the opportunity to remove, relocate, or work on their facilities before the Contractor proceeds with succeeding construction operations. Should the Contractor suffer any delay in excess of the times set out in this Specification owing to the moving of any such services, or the operations of any Authority controlling such services, the Contractor may apply to the Superintendent for an extension of time in accordance with the Conditions of Contract.

Delays

9. The Contractor shall have no right to monetary compensation or to any claim for damages because of any loss owing to such delays, nor shall the Contractor stop the Works without the express permission in writing of the Superintendent because of any operation by other Authorities.

***No
Compensation***

101.26 LOCATION AND PROTECTION OF SERVICES AND UTILITIES

1. Prior to the commencement of any excavation the Contractor shall verify the location and depth of all Public Utility Mains and Consumer Services and shall be responsible for any damage caused, the repair of the damage, and payment of all charges associated therewith.

***Contractor to
Verify
Locations***

2. During the excavation of works, the Contractor shall take every precaution that is necessary, in the opinion of the Superintendent, to secure existing gas, water or drainage pipes, sewers, electric conduits or other existing works, wherever met with both underground and overhead, or that are adjacent to these works, from injury and shall maintain the same until in the opinion of the Superintendent, the backfilling of excavation and the general progress of the works render further precautions unnecessary. The Contractor shall comply with the Statutory Requirements for maintaining safe working clearance to overhead electrical services.

***Statutory
Requirements***

3. Damage to existing water, gas or drainage pipes, sewers, electric conduit or other existing works or services, shall be repaired by the Contractor to the satisfaction of the Superintendent and the relevant Authority at the Contractor's cost.

***Repairs
Contractor's
Cost***

4. Where it is found necessary to remove, divert or cut into any existing sewer, drainage pipe, gas or water main, service pipes, electric conduits or other existing works, the Contractor shall give at least 3 days notice of the Contractor's requirements to the Superintendent, who will advise what arrangements should be made for the alteration of such existing works.

Notice

5. Where the installation of service mains, pits and consumer service connections is to be carried out by the various Utility Authorities the Contractor shall liaise and co-ordinate with the relevant Authorities for the installation to coincide with the construction work of this Contract. The Contractor shall be responsible to programme the installation such that all work is completed by the relevant Authorities so as not to hinder or delay the progress of the construction work of this Contract.

Liaison

GENERAL

6. Attention is directed to the possible existence of vibration and other working limitations in the vicinity of underground and overhead facilities. The extent of these limitations are liable to the absolute discretion of the Authority concerned. The Contractor shall be deemed to have included consideration of these potential limitations in the method of construction as proposed for approval by the Superintendent in accordance with the provisions of this Specification. The cost of such limitations on working methods shall be determined in accordance with the Conditions of Contract.

Limitations

7. Information shown on the Drawings concerning utility services has been compiled from information obtained from various Utility Authorities and is not guaranteed correct or complete. Services may exist which are not shown on the Drawings, or which are at locations or elevations different than those shown on the Drawings.

Disclaimer

101.27 PROGRAMMING AND DURATION OF UTILITY ADJUSTMENTS

1. The Contractor shall give the Superintendent 21 days' notice in writing of the expected date of completion of each of the necessary parts of the works required before each of the utility services listed in this Specification can be relocated. No final trimming or subsequent parts of the work shall proceed in any area of the work until the adjustment of all utilities within that area is complete.

Notice

2. The Contractor shall allow in the programming of the Works for the utility adjustments specified in the following clauses. The finish dates given are approximate only. The Contractor shall be entitled to extensions of time if the utilities have not been relocated by these dates and this causes delay to the contract. The Contractor shall have no right to monetary compensation or to any claim for damages because of any loss attributable to such delays.

Allowance for Adjustments

101.28 STREET LIGHTING

1. *SITE SPECIFIC(TO BE COMPLETED BY COMPILER)*

101.29 UTILITY RELOCATIONS

1. *SITE SPECIFIC(TO BE COMPLETED BY COMPILER)*

SITE FACILITIES

101.30 GENERAL

1. This section includes the provision, maintenance and removal or restoration on completion of the work of temporary site facilities for personnel, including the office for the Superintendent, and the necessary temporary utility services required on the site.

101.31 WORKERS' FACILITIES

1. The Contractor shall provide, equip and maintain temporary ablution facilities, dressing rooms, tool houses and the like required by any Industrial Ordinance, Award or Agreement for use of workers employed by the Contractor, or the Contractor's sub-contractors, and shall remove them on completion of the Contract.

Facilities Provided

2. The Contractor shall provide temporary latrine accommodation for use of the workers which shall be suitably enclosed and screened and in accordance with the requirements of the Local Authority, making a temporary connection to an existing sewer where one is available. The Contractor shall maintain such accommodation in a clean condition, pay all relevant fees and remove it on completion of the work, capping off any

Latrines

temporary sewer connection.

101.32 OFFICE FOR SUPERINTENDENT

1. The Contractor shall provide, equip, maintain and remove at the completion of the works an office, including toilet facilities, for the sole use of the Superintendent and Superintendent's staff.

The office shall be comprised of:

(a) Building

1. A structure of prefabricated construction with minimum inside dimensions of 6m x 3m x 2.4m high exclusive of toilet facilities, weatherproof, adequately insulated and well ventilated.

2. The office shall contain 2 opening type windows fitted with insect-proof screens and an external door fitted with a cylinder night lock with 2 keys.

3. The floor area shall be covered with an approved vinyl flooring and the walls and ceiling painted to the approval of the Superintendent.

(b) Furniture and Fittings

1. The office shall contain:

- i) One reference table of minimum size 1.5m x 0.9m.
- ii) One desk, with lockable drawers, of minimum size 1.5m x 0.9m.
- iii) Three office chairs and one stool all with padded seats, swivel base and adjustable height.
- iv) Two 1.2m square pin boards fixed to the walls.
- v) One 0.75 kw reverse cycle air conditioner.

(c) Toilet Facilities

1. The toilet facilities shall consist of a prefabricated structure, weatherproof and well ventilated, and connected to the temporary sewerage system and containing:

- i) One, minimum, partitioned w.c. cubicle with door and latch.
- ii) Separate wash area with one, minimum, wash basin connected with hot and cold running water.
- iii) Lockable external door with 2 keys.

(d) Electricity

1. The office, including toilet facilities, shall be supplied with adequate electric lighting and the office with 2 double power points.

(e) Telephone

1. Two telephone lines shall be connected to the office with one line fitted with a telephone hand set. The second line shall be for a facsimile machine supplied by the Superintendent.

GENERAL

(f) Charges

1. The Contractor shall pay all charges resulting from the supply, erection, installation, maintenance, cleaning and removal of the office, toilet facilities, electricity and telephone services.

101.33 ALTERNATIVE SITE FACILITIES

1. The Contractor may propose alternative site facilities in existing buildings adjacent to, or in close proximity to, the site of the Works.

2. Full details of such alternative facilities shall be submitted for consideration by the Superintendent, however, the requirements detailed in Clause 101.32 shall be taken as the minimum acceptable.

101.34 WATER SUPPLY

1. The Contractor shall provide any temporary water supply required for site facilities and for carrying out the work under the Contract.

Water Supply

2. The Contractor shall pay all fees and obtain all approvals in respect of the temporary service and shall pay any charges for the water used. On completion of the Contract the temporary water supply service, except that to the Superintendent's office, shall be removed by the Contractor.

Fees and Charges

101.35 ELECTRICAL SERVICE

1. The Contractor shall provide any temporary electricity supply required for site facilities and for carrying out the work under the contract.

Electricity Supply

2. The Contractor shall pay all fees and charges and shall obtain all approvals in respect of the temporary electricity supply. The temporary electrical installation and the electrical reticulation shall fully comply with and conform to the Service Rules, Regulations and Requirements of the Statutory Authority having jurisdiction. The Contractor shall pay for all electricity consumed.

Fees and Charges

3. The temporary electricity service, reticulation and lighting, except that to the Superintendent's office, shall be removed by the Contractor on completion of the Contract.

Removal

101.36 TELEPHONE

1. The Contractor shall arrange for installation of a temporary site telephone for the Contractor's and Sub-contractor's use and shall maintain the installation for the period of the Contract.

Provision

2. All charges for installation, rental, calls and removal on completion shall be borne by the Contractor.

Charges

101.37 FIRST AID

1. The Contractor shall provide, equip and maintain an adequate First Aid Treatment Centre on the site and shall have an experienced First Aid person available at all times when work is in progress. The minimum provisions under this Clause shall satisfy the current statutory requirements. The First Aid facilities shall be clearly marked and readily accessible to all personnel at all times.

First Aid Room

101.38 CHAIN WIRE FENCE

1. The Contractor shall provide a 1.83m high galvanised chain wire mesh perimeter fence, in accordance with the requirements of the Specification BOUNDARY FENCING, together with a galvanised tubular steel vehicular access gate, for the temporary site facilities as shown on the Drawings or as directed by the Superintendent. **Standard**
2. The mesh fence shall be covered with a suitable hessian or shade cloth screen for its full height. **Hessian Covering**
3. The galvanised fence, screen material and gate shall be removed by the Contractor on completion of the Contract. **Removal**
4. If a fence, in accordance with Paragraphs 1, 2, and 3 above, is not required, the working area including the site facilities shall be fenced off from the public to the satisfaction of the Superintendent and in accordance with any relevant regulations.

SPECIAL REQUIREMENTS**101.39 RESERVED****101.40 RESERVED****101.41 RESERVED****MEASUREMENT AND PAYMENT****101.42 DEDUCTIONS FOR NONCONFORMING WORK**

1. Where deductions for nonconforming work are given in the Technical Specifications, the nominated deductions shall be applied to the rates given in the Pay Items for that item of work.

101.43 PAY ITEMS

1. No separate measurement and payment shall be made for compliance with the requirements of this General Specification except as specified in the pay item below.

Pay Item 101 (a) OFFICE FOR SUPERINTENDENT

1. The unit of measurement shall be lump sum and shall include provision of all facilities detailed in Clause 101.32.

ANNEXURE 101A

SCHEDULE OF ITEMS TO BE SUPPLIED BY PRINCIPAL