



# SPECIFICATION 0136

## GENERAL REQUIREMENTS (CONSTRUCTION)

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**Hornsby Shire Council**

ABN 20 706 996 972

PO Box 37, Hornsby NSW 1630

**Phone** 02 9847 6666

**Email** [hsc@hornsby.nsw.gov.au](mailto:hsc@hornsby.nsw.gov.au)

296 Peats Ferry Rd, Hornsby 2077

**Fax** 02 9847 6999

**Web** [hornsby.nsw.gov.au](http://hornsby.nsw.gov.au)

**SPECIFICATION 0136 – GENERAL REQUIREMENTS (CONSTRUCTION)**

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**1 GENERAL**

**1.1 RESPONSIBILITIES**

**Objectives**

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

**Location and description**

Further details are given in the project specific information.

**Type of contract**

Quality system: Further details are given in the project specific information.

**Performance**

Requirements: The Contractor shall perform all operations and provide all materials, plant, tools, supervision, labour and other services, (except as otherwise stated in the Contract Document), necessary for the construction, testing and maintenance of the Works as described by this Scope of Work in the Contract Document.

**1.2 PRECEDENCE**

**General**

**Worksections and Standards:**

- **Requirements of other worksections of the specification override conflicting requirements of this worksection**
- **The technical requirements of worksections override conflicting requirements of their referenced standards.**
- **The requirements of cited standards are minimum requirements.**
- **Any amendments to AUS-SPEC carried out or recommended by NATSPEC shall not be adopted by Council unless the subsequent revisions are authorised by Council.**
- **Reference documents are listed in each Specification part for the contractor's guidance only and are not intended to be an all inclusive list. Other documents may also need to be referred to in order to achieve compliance with the Specification.**

**1.3 EXTENT OF WORK**

**Scope of work**

The scope of work shall be defined by all of the Contract Document and not necessarily by any one part alone and all distinct parts of the Contract Document shall be used in conjunction with each other.

Other items of work may be requested of the Contractor and payment will be subject to the requirements the General Conditions of Contract.

Specification requirements that are not covered by a distinct Pay Item given in the Bill of Quantities or Schedule of Rates shall be deemed to be included in the Scope of work as applicable to each work item that is covered by a distinct Pay Item. Such requirements may include but are not limited to Quality Assurance, Work Health and Safety, provision of site amenities, insurances, environmental controls, traffic control, location and protection of utility services, disposal of Spoil, etc.

For Lump Sum Contracts, any item of work that is shown on the Drawings or the Bill of Quantities but is not described herein shall still be deemed to be included in the Scope of Work.

The Principal is not bound to accept the lowest or any Tender.

The estimated quantities given in the Scope of Works and/or Bill of Quantities as applicable are for the guidance of Tenderers only. The Principal cannot guarantee the accuracy of the quantities shown, and the Contractor shall not be entitled to any variation in rates or quantities as a result of inaccuracies.

## 1.4 CROSS REFERENCES

### General

Requirement: Each worksection may require that work is carried out in accordance with other related worksections included in the contract document.

### Cross referencing

Within the text:

- Worksection titles are indicated by *Italicised* text.
- Clause titles are indicated by **BOLD** text.

## 1.5 REFERENCED DOCUMENTS

### Standards

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

#### *Australian standards*

AS 1319-1994	Safety signs for the occupational environment
AS 1348-2002	Glossary of terms - Roads and traffic engineering
AS/NZS 1680	Interior lighting
AS/NZS 1680.2.4-1997	Industrial tasks and processes
AS 2670	Evaluation of human exposure to whole body vibration
AS 2670.1-2001	General requirements (ISO 2631-1:1985)
AS 2670.2-1990	Evaluation of human exposure to whole-body vibration - Continuous and shock-induced vibration in buildings (1 to 80 Hz)

#### *Austrroads*

AP-C87-2010 Glossary of Austrroads terms.

#### *Intergovernmental Committee on Surveying & Mapping*

ICSM QA Specification G71 Road construction surveys

## 1.6 INTERPRETATION

### Abbreviations

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

- AS: Australian Standard.
- BCA: Building Code of Australia.
- CAD: Computer Aided Design.
- ICSM: Intergovernmental Committee on Surveying & Mapping
- NATA: National Association of Testing Authorities.
- NZS: New Zealand Standard.
- TBS: To Be Supplied.

### Definitions

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

- Authorities: Includes Agencies.
- Documented: Documented, as documented and similar terms mean contained in the contract documents.
- 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 Superintendent.

- 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/ handing of a product.
- 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.
- Registered testing authority:
  - . An organisation registered by NATA 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.
- Superintendent: Superintendent has the same meaning as Contract Administrator or Principal's representative. The Superintendent may be party to the contract or appointed by the Principal to administer the contract. The powers, duties and authorities of the Superintendent are covered in the contract. These can be changed in writing at any time during the 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 Superintendent 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.

## 1.7 SUBMISSIONS

### Acceptance criteria

General: All submissions will be subject to the approval of the Superintendent.

### Alternative construction

Detailed working drawings: If a tender based on the use of alternative material, design or method of construction is accepted, prepare and submit detailed working drawings, design calculations and specifications for the alternative, together with details of necessary alterations to this worksection.

Certification: Prepare and certify design and construction documents by a Professional Engineer experienced in that type of design.

Submission: Submit documents at least four weeks before construction of the relevant part of the work is scheduled to commence. Do not commence work on that part without approval. This is a **HOLD POINT**.

Costs: Pay the cost of submissions and evaluations and tests of proposed alternatives, whether subsequently accepted as a variation or not. The costs will be calculated at the current charge-out rates of the relevant consultant(s).

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.
- 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.

**Construction sequence and staging**  
**Refer to Special Conditions of Contract**

**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 by Principal: Refer to Project Specific Information for nominated TBS items program.

**Type tests**

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

**Working drawings**

Working documentation: Where the Contractor is required to provide Working Drawings, provide 2 sets of CAD working drawings and any supporting calculations before the scheduled commencement of the work concerned.

Approval to proceed: Do not commence work until a set of working drawings has been returned with written authorisation to proceed. The Superintendent's written authorisation to proceed does not relieve the Contractor of the responsibilities for the design (where applicable) and construction of the Works in conformance with the Contract.

Revisions: Promptly attend to any required revisions to drawings or calculations and resubmit 4 sets of the revised drawings and calculations.

Authorised variations: Obtain written authorisation for the variation from the Superintendent to proceed. Submit 2 sets of revised working drawings.

**Work-as-executed drawings**

Submission: **Where the Contractor is required to submit work-as-executed drawings**, provide marked up and certified work-as-executed drawings for the whole of the Contract before issue of the Final Certificate.

Contract drawings: Digital contract drawings supplied by Superintendent at no cost for mark up.

Roadworks: Mark up in red and certify all changes to the contract drawings and actual values of all levels, signed by the surveyor.

Bridgeworks: Mark up in red and certify 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.

Public utilities: Record as required by the specifications.

## 1.8 INSPECTION

### Notice

General: Give notice so that inspection may be made of the following:

#### Summary of HOLD POINTS

Clause title/Item	Requirement	Notice for inspection	Release by
Submissions	Alternative construction details	4 weeks before work commences	Superintendent
Survey control	Submit relocation	1 week	Superintendent
Survey control	Procedure to protect pegs	1 week before site work	Superintendent
Environmental planning	Dust control details	1 week before site work	Superintendent
Utilities and Authorities	Confirmation of relocation	3 working days before new work	Superintendent
Site facilities	Positioning of services	1 week before installing services	Superintendent

#### Summary of WITNESS POINTS – Off-site activities

Clause title/Item	Requirement	Notice for inspection
Items to be supplied (TBS) by the Principal	Notice of time of delivery	2 working days

#### Summary of WITNESS POINTS – On-site activities

Clause title/Item	Requirement	Notice for inspection
Storage of fuels and chemicals	Approval for toxic chemicals	1 week
Utilities and Authorities	Conflict with drawings	1 week
Protection of services	Notice to divert	3 working days
Programming utility adjustments	Notice of date of completion of associated work	3 weeks
Adjoining works	Notice of commencement of works	1 week

## 2 PRE-CONSTRUCTION PLANNING

### 2.1 CONTRACT ADMINISTRATION

#### Insurance

Requirement: Provide evidence of currency for Workers Compensation Insurance, Insurance of the Works, Public Liability Insurance and Motor Vehicle Insurance. Refer Special Conditions of Contract for further information.

## 3 CONSTRUCTION REQUIREMENTS

### 3.1 GENERAL

#### Contractual relationships

Contractual responsibilities: Responsibilities and duties of the Principal, Contractor and Superintendent are not altered by requirements in the referenced documents.

Directions: All instructions are directed to the Contractor unless noted otherwise.



Approvals: Obtain all approvals from the Superintendent unless noted otherwise.

**Current editions**

General: Use referenced documents (including test methods) which are the editions, with amendments, current 3 months before the closing date for tenders, except where other editions or amendments are required by statutory Authorities.

**Drawings**

Contract documents: The issued drawings which form part of the Contract documents are bound in a separate volume.

**Contract documents**

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

Before commencing work:

- Obtain measurements and other necessary information.
- Coordinate the design and installation in conjunction with all trades.

Spot levels: Documented spot levels take precedence over documented contour lines and ground profile lines.

**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.

**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.

**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.

**3.2 PROJECT SPECIFIC REQUIREMENTS**

**Site access**

Contractor's access to site: Refer to Project Specific Specification for further details.

**Working area**

Working areas: The Contract Work Site or Working Area shall be defined as that area that is affected by all of the work as shown on the Drawings or as directed by the Superintendent at the initial Work Site meeting. This area may include land types such as, but not limited to, roads, road reserves, nature strips or footpaths, park areas, watercourses and private property. Do not work or occupy areas outside of the designated areas. In the case of private property, the contractor must not enter the property until given a written direction to enter by the Superintendent.

Warning signs: Where necessary, in the opinion of the Superintendent, the Contractor shall erect the appropriate warning and safety signs prominent locations around the Work Site. Such signs shall include, but are not limited to: " Danger, Construction Site, No Unauthorised Access" and personal protective equipment signs as necessary, (eg, safety boots, hard hats, safety vests, glasses etc). These signs shall be in accordance with AS1319-1994.

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

Temporary fencing: Provide and maintain temporary fencing during the contract to prevent unauthorised entry into the property.

Existing fencing: Reinstate the existing fencing and remove temporary fencing before the date of practical completion.

Cleaning up: The work area must be left in a condition to the satisfaction of the Superintendent and in accordance with the Contract documents. This shall include, but is not limited to, any restoration work required to the works area such as removal of spoil and rubbish and revegetation of grounds. Any disturbance or damage to the existing vegetation or property that is not authorised by the Superintendent in writing or not shown on the Drawings, shall be made good as required by the Superintendent at the Contractor's cost.

Storage: Contractors shall store materials and equipment on Work Site in a manner so as to prevent damage to the Work Site and minimise hazards to persons, property, materials and equipment. The Contractor shall keep storage areas neat and tidy.

Date for possession of the site: Refer to General Conditions of Contract for further details.

### Site restraints

Special site conditions: Refer to Project Specific Specification for further details.

Status: Reports supplied for information only cannot be relied upon as contractual.

### 3.3 WORK NOT IN CONTRACT

#### Work by others

Program precautions: Coordinate the Works with simultaneous and/or adjacent work by others and liaise with other Contractors and Authorities to avoid disruption, delays and possible conflict.

Access: If required, by the Superintendent, allow free access for completion of any work by others.

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

TBS: Items listed in **Annexure A** are supplied, delivered and unloaded by the Principal free of cost to the Contractor at nominated points. Receiving, storing and handling of all TBS items will be the responsibility of the Contractor.

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 Superintendent.

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

Program: Complete works by the programmed dates listed in **Annexure A to Relocation/alteration to services (by Principal) Schedule**.

### 3.4 SITE INVESTIGATION

#### Geotechnical and environmental reports

General: The geotechnical and environmental site investigation report provided is for information only. The provided geotechnical information, including information on contaminants, is information on the nature of the ground at each tested part. It is not a complete description of conditions existing at or below ground level.

Geotechnical information: **Refer to Project Specific Specification for further details.**

Contractors responsibility: Examine and assess the following:

- Geotechnical information and the site to determine the impact on the construction of the Works.
- The in situ moisture content likely at the actual time the work is carried out.

### 3.5 SIGNAGE

#### General

All signs: Submit all safety and project signs for approval before sign manufacture or purchase. This is a **HOLD POINT**.

#### 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'.

#### 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.

#### Project work signs

Requirement: Supply, install and maintain all project work signs.

Project works signs: Refer to Project Specific Specification for further details

Acceptable sign layouts: Refer to Project Specific Specification for further details

Site possession: Install all project works signs no later than one week from receiving the notice of possession of site.

#### Removal of signs

Remove all signs after practical completion unless instructed otherwise by the Superintendent.

### 3.6 SURVEY CONTROL

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

#### 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.

Provision of marks: The Superintendent will provide permanent marks as shown on the drawings and establish 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. This is a **WITNESS POINT**.

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. This is a **HOLD POINT**.

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

#### 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.

#### 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.

#### **Laser and global positioning construction control systems**

Horizontal and longitudinal alignment control requirements:

- Offset pegs on one side of the road formation.
- Offset pegs 500 mm from the surface design edge of subgrade.
- Clearly mark chainages on the pegs.
- Spacing between pegs < 50 m on the straights and < 20 m on curves including all curve tangent points.
- Place pegs vertically.
- Tolerance:  $\pm 25$  mm to the exact horizontal location.
- Protect from disturbance. Submit procedure. This is a **HOLD POINT**.

Removal: Remove all pegs at practical completion.

### **3.7 SITE COMMUNICATIONS**

#### **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.

Meeting time: **As advised by the Superintendent.**

Minutes: Site meetings will be chaired and minuted by the Superintendent **or by his representative**. Copies of the minutes will be issued to all present at the meeting and others concerned with the matters discussed.

### **3.8 ENVIRONMENTAL PLANNING**

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

General: All work shall be carried out in such a manner as to avoid nuisance and/or damage to the environment.

Environmental assessment and planning: 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 Environment Protection Authority, the Protection of the Environment Operations Act, the Rural Fires Act and any other Local Council requirements and Environmental Act **and Statutory Act** relevant to the project. No variation in costs or extensions of time will be considered due to these requirements.

Project specific environmental requirements: Refer to Project Specific Specification for further details.

Erosion and sedimentation control: To *1102 Control of erosion and sedimentation*.

Work outside working hours: Submit for approval any works required outside of normal working hours. Do not use any plant, machinery or equipment that would cause or is likely to cause a nuisance to the public.

Dust control: Minimise dust from disturbed areas. Submit dust control strategy before commencing excavation/earthworks operations. This is a **HOLD POINT**.

Removal of material: Dispose of material off-site to the requirements of the relevant Authorities.

Keep roads clean of soil: If required, keep roads clean of soil, provide the following:

- Wheel washes and rumble grids at all main road crossings.
- Sweep roads at least once a day where construction vehicles are travelling off the site.
- Cover all loads of soil being taken off site for disposal.

### Drainage of Works

Stormwater control: To 1351 Stormwater drainage (Construction).

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.

**Requirement: The Contractor shall be responsible for the protection of the works against damage or delay caused by any water, including ground water during the Contract and maintenance periods.**

**If, in the opinion of the Superintendent, the Contractor's protective measures are inadequate and the work is damaged or delayed by water, the Superintendent may refuse to grant an extension of time for the delay or for the repair or replacement of the damaged portions of the Works.**

### Blasting

Blasting is not permitted: If required, submit for approval to conform with 1112 Earthworks (Roadways).

### Air quality

Exhaust gases: Ensure there is no health risk or loss of amenity due to the emission of exhaust gases to the environment.

### 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**.

## 3.9 NOISE AND VIBRATION CONTROLS

### Limits on noise

Working hours: Working hours including the entry and/or departure of heavy vehicles shall be in accordance with the Special Conditions of Contract or Council's Conditions of Development Consent.

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

Sound pressure threshold: Less than L<sub>10</sub> 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.

### Damage

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

### 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: To AS 2670.1 and AS 2670.2.

Preferred and maximum weighted RMS values for continuous and impulsive vibration acceleration (m/s<sup>2</sup>) 1-80 Hz

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.

### 3.10 UTILITIES AND AUTHORITIES

#### Location

**General: Utility services include all public and private utility services in any location on the Work Site, whether they may be overhead, above ground, on ground and below ground. Such services include, but are definitely not limited to electricity, water, sewerage, communications cables, gas and stormwater services.**

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

Verify: Before the commencing any excavation, ascertain and verify the location and depth of all Public Utility Mains and Consumer Services.

Contact: DIAL 1100 BEFORE YOU DIG is a free service, from anywhere in Australia, of locating underground pipe and cables. See [www.dialbeforeyoudig.com.au](http://www.dialbeforeyoudig.com.au).

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 Superintendent. This is a **WITNESS POINT**.

#### 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 Superintendent and the relevant Authority. **The Contractor shall bear the cost of the repairs.** If repairs are not acceptable, the Superintendent 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. This is a **WITNESS POINT**.

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

#### 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.

#### Relocation of services

Relocations of services by the Contractor: Arrange all relocations or alterations to the **Relocation/alteration to services (by Contractor) schedule in Annexure A.**

Timing of Contractor relocations of services: Make appropriate allowance in the program

Relocations of services by the Principal: Relocations and expected program to **Relocation/alteration to services (by Principal) schedule.** Confirm relocation/alteration to services before commencement of works. This is a **HOLD POINT**.

Additional adjustments: If required by an Authority, provide additional adjustment to plant.

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**

Notice of date of completion: Give notice 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 worksection can be relocated. This is a **WITNESS POINT**.

Timing: Do not proceed with final trimming or subsequent parts of the work in any area of the work until the adjustment of all utilities within that area is complete.

Delays due to work by Authorities: If required, allow Authorities to remove, relocate, or work on their facilities before continuing the Works.

Allowance for utility adjustments: Program for utility adjustments shown in **Relocation/alteration to services (by Contractor) schedule**.

Extension of time: The Contractor is entitled to extensions of time if the utilities have not been relocated by **the specified** dates and this causes delay to the Contract. The Contractor has no right to monetary compensation or to any claim for damages because of any loss attributable to such delays.

**3.11 SITE FACILITIES**

**General**

Requirement: Provide and maintain temporary site facilities for personnel, including the office for the Superintendent, 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.

Latrines: Provide temporary latrine accommodation for use of the workers, suitably enclosed and screened and in conformance with the requirements of the Local Authority.

Sewer: Make a temporary connection to an existing sewer where one is available. Cap temporary sewer connection at practical completion.

Site facility design: Before erecting site facilities, submit a proposal for positioning of all units, services including septic or sewer, rubbish collection and storage areas for approval. Obtain approval from the local Authorities prior to submission. This is a **HOLD POINT**.

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

**Water supply**

Temporary water supply: **Unless otherwise authorised by Superintendent**, 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 Superintendent's office.

**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 Superintendent's office.

**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.

**Chain wire fence**

Fence: ***If shown on the drawings or included in any other part of the Contract***, provide a 1.83 m high galvanized chain wire mesh perimeter fence to 1195 Boundary fences for road reserves.

Gate: Provide a galvanized tubular steel vehicular access gate, for the temporary site facilities as documented or as directed.

Hessian covering: Cover the mesh fence with a suitable hessian or shade cloth screen for its full height.

Removal: Remove all galvanized fence, screen material and gate at practical completion.

Requirement: If a fence is not shown in drawings or in any other part of the contract, the Work Site including the Work Site compound shall be fenced off from the public to the satisfaction of the Superintendent and in accordance with any relevant regulations and removed at practical completion.

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**4 SPECIAL REQUIREMENTS**

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**4.1 DISPOSAL OF SPOIL**

***General: Spoil is surplus material from excavations, milling, brooming, sweeping, filling and other works under the Contract which is not required to complete the works as specified or material from excavations under the Contract whose quality the Superintendent deems to be unacceptable for incorporation in the Works.***

***Excess Material: Any excess materials that have originated from materials supplied by the Contractor shall be disposed of by the Contractor at his expense and shall not be treated as Spoil in accordance with this Clause.***

***Disposal: Disposal of Spoil shall be in accordance with the Project Specific Information as contained in the Contract Documents.***

**4.2 WORK HEALTH AND SAFETY**

***Requirement: The Contractor shall abide with all requirements of the Work Health and Safety (WH&S) Act 2011 and WH&S Regulations 2011.***

***Contractor's responsibility: Under the WH&S Act 2011, the Contractor is totally responsible to ensure the health, safety and welfare of his employees and others in the vicinity of the works. The Contractor is required to observe all statutory/regulatory safety requirements and to provide for the protection of persons and property as part of the Contract. While working on Hornsby Shire Council's premises and /or work sites the Contractor shall also comply with all of Hornsby Council's Work Health and Safety requirements and procedures. In addition to this the Contractor must comply with instructions and directions given by the Principal/Superintendent.***

***Reasonable precautions: The Contractor shall at all times exercise any other necessary and reasonable precautions appropriate to the nature of the work and conditions under which the Contract is to be performed for the safety of all persons involved in or affected by that work.***

***Tender Submission: An overview of the tenderer's WH&S Management System including sample risk assessment and safe work method statements which identify potential hazards and risk minimisation controls of a typical project must be submitted with the tender. (Refer Section C, Returnable Schedules)***

***Risk Assessment: The Contractor shall prepare and submit a well documented risk assessment and safe work method statement ("The Statement"), for review and formal***



**acceptance by the Principal/Superintendent prior to the commencement of work on any Hornsby Shire Council work site or public space under the control of Hornsby Shire Council.**

**Implementation: The Contractor shall implement The Statement and carry out frequent work place inspections to ensure that WH&S systems are implemented, controls are in place and risks are identified and promptly addressed. The Contractor shall take reasonable steps to accommodate the safe work of any other persons or contractors on the site.**

**Revisions to Documentation: The Contractor shall submit to the Principal/Superintendent any revisions to The Statement and shall ensure that the Contractor's employees and subcontractors follow the requirements of The Statement.**

**Minimum requirements: As a minimum requirement, Safe Work Method Statements (SWMS) must be established to ensure compliance with Council's Occupational Health and Safety Management System. These requirements include;**

- **The wording "Safe Work Method Statement" in its title.**
- **A clearly marked document reference number.**
- **A description of the work the SWMS is written for.**
- **The date the SWMS was completed.**
- **The name of the person/s completing the SWMS.**
- **The signature of the person/s completing the SWMS.**
- **The name of the person/s responsible for ensuring the SWMS is followed and/or the appropriate control strategies implemented.**
- **The step by step sequence to be followed to complete the work task.**
- **Whether the SWMS requires review. If the SWMS does require review a date for review must be indicated.**

**Reporting accidents: The Contractor shall report all accidents and incidents to the Superintendent within 24 hours of the incident occurring. Each report shall clearly outline and analyse the causes of the accident or incident and propose ways of avoiding the recurrence of similar problems. The Contractor shall keep an up to date register of all accidents and incidents and keep record of all lost time due to injuries of any kind. The Contractor shall be responsible for notifications of accidents and/or incidents to the Workcover Authority of NSW.**

**Personal protective equipment: The Contractor shall provide and maintain for its employees and sub-contractors appropriate protective clothing and personal protective equipment (PPE) for protection against exposure to weather, ground conditions, attack by fauna, hazardous substances, noise and other identified hazards relevant to the work. Red, Yellow or Green Fluorescent safety vests shall be worn at all times. For night work, safety vests shall have retroreflective silver tape front and back to the satisfaction of the Superintendent. Minimum requirement of PPE is shown in "Hornsby Shire Council Personal Protective Equipment Policy" table (attached as an annexure to Section G).**

**Safety audits: At the start of the project and also on a weekly basis, the Contractor shall conduct a weekly WH&S Audit for the Work Site. Minimum requirement of safety audits are shown in "Hornsby Shire Council Weekly Audit Safty Checklist" (attached as an annexure to Section G**

**Work near overhead powerlines: Regulation 64e, (OH&S Regulation 2001), of WorkCover's construction safety regulations and Clause 3.12.2 of the WorkCover's Code of Practice for Excavation 2001, requires persons at work, their plant, tools or other equipment and any materials used in or arising from the work do not come into close proximity with overhead electrical power lines (except if the work is done in accordance with a written risk assessment and safe system of work and the requirements of the relevant electricity supply authority).**

**A thorough examination of the approaches and surroundings of the site must be carried out before taking an appliance to the site or setting it up. This examination is to determine whether precautions need to be taken to prevent any part of the appliance, any load carried on it and any person on it coming into contact with or being within the following distances to overhead power lines:**

<b>Voltage</b>	<b>Distance</b>
<b>Up to 132 000</b>	<b>3 meters</b>
<b>More than 132 000 but not more than 330 000</b>	<b>6 metres</b>
<b>More than 330 000</b>	<b>8 meters</b>

**As a result, all contractors and their respective subcontractors as applicable who perform work under the contract that requires plant and personnel to encroach upon the distances described above, are required to set in place work practices to ensure strict compliance with the OH&S Act, Regulation and Code of Practice, as discussed.**

#### **4.3 EMERGENCY CONTACTS**

##### **General**

**Before commencement of construction, the Contractor shall provide the Superintendent with a list of at least three persons who have authority to act on behalf of the Contractor in times of emergency. At least one of the persons on the list shall be available at all times beyond normal working hours.**

#### **4.4 PERMITS**

##### **General**

**The Contractor shall be responsible for making all applications to all authorities concerned, for obtaining all necessary permits, paying all fees and exhibiting all notices and making such other arrangements as may be required by the regulations of such authorities for all purposes in connection with the carrying out of the work under the Contract.**

**This includes, but is not limited to the following:-**

- Approval from the Roads and Traffic Authority with regards to traffic control if applicable.**
- Road Opening Permit from Council if applicable.**

#### **4.5 NOTIFICATION TO RESIDENTS AND BUSINESSES**

##### **General**

**Before construction of footpath or any form or road sealing works commence, the Contractor shall give a minimum of one (1) working days written notice to all residents and businesses affected by the work. The Contractor shall use the proforma provided by the Superintendent for this purpose. The Contractor shall provide the Superintendent with a copy of the letter of notification. This shall constitute a HOLD POINT. The Superintendent's and Council's approval is required prior to release of the HOLD POINT.**

## **5 MEASUREMENT AND PAYMENT**

### **5.1 GENERAL**

**Payment shall be made for all the activities associated with completing the work detailed in this worksection and shown on the drawings, in accordance with provisions made in Contract Document.**

## 6 ANNEXURE A

## 6.1 ITEMS TO BE SUPPLIED BY PRINCIPAL

## Items to be supplied by Principal schedule

Purpose in works	Material type	Location	Approx. quantity available	Cost as a rate excl GST	When available	Worksection clause

## 6.2 RELOCATION/ALTERATION TO SERVICES (BY CONTRACTOR)

## Relocation /alteration to services (by Contractor) schedule

Type of utility or service	Owner	Location	Requirement

## 6.3 RELOCATION /ALTERATION TO SERVICES (BY PRINCIPAL)

## Relocation /alteration to services (by Principal) schedule

Type of utility or service	Owner	Location	Requirement	Timing

## 6.4 CONTACTS

## Contacts schedule

Authority	Name	Position	Phone number	Fax number
Water and sewerage				
Electricity				
Gas				
Telephone				
Telstra				
Optus				