Transport for NSW

PROFESSIONAL SERVICES CONTRACT

No. PSC 1953

NSRU Technical Advisor – Detailed Design and Construction Support

North Strathfield Rail Underpass

Between

Transport for NSW

[PRINCIPAL]

ABN 18 804 239 602

and

Sinclair Knight Merz Pty Limited, ABN 37 001 024 095

and

Parsons Brinckerhoff Australia Pty Limited, ABN 80 078 004 798

trading jointly as

NSRU Design Joint Venture

[PROFESSIONAL SERVICES CONTRACTOR]
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Professional Services Contract

This Agreement is between the Principal and the Professional Services Contractor set out in the Contract Particulars.

1 DEFINITIONS AND INTERPRETATION

1.1 Definitions

In this Agreement:

"Agreement" means the contractual relationship between the Principal and the Professional Services Contractor constituted by:
(a) these Conditions of Contract;
(b) the Contract Particulars attached to these Conditions of Contract; and
(c) the other documents (if any) referred to in the Contract Particulars.

"Authority" includes any governmental or semi-governmental or local government authority, administrative or judicial body or tribunal, department, commission, public authority, agency, Minister, statutory corporation or instrumentality (and includes RailCorp and the Principal insofar as the Principal is exercising any of the functions of the Transport for NSW described in the Contract Particulars), and any private electricity, telecommunications, gas or other utility company having statutory rights in relation to the Services.

"Business Day" means any day other than:
(a) a Saturday, Sunday or public holiday, or
(b) 27, 28, 29, 30 or 31 December.

"Certificate of Construction Compliance" means the certificate in the form set out in Schedule 7.

"Certificate of Design Compliance" means the certificate in the form set out in Schedule 6.

"Commencement Date" means the date stated in the Contract Particulars.

"Competence Records" means, with respect to any Rail Safety Worker engaged in connection with the Services (including those engaged by subcontractors), the following information:
(a) the rail safety training undertaken by the Rail Safety Worker, including when, and for how long, the training was undertaken;
(b) the qualifications of the Rail Safety Worker, including (if applicable):
   (i) the units of competence undertaken to achieve the qualification;
   (ii) the level of qualification attained;
   (iii) if, and when, a re-assessment of competence is to be conducted;
   (iv) if, and when, any re-training is due and was undertaken; and
   (v) the name of any organisation conducting training or re-training;
(c) the name and qualifications of any person who assessed the competence of the worker; and
(d) any further information requested by the Principal with respect to the competence of the Rail Safety Worker.

"Confidential Information" includes, but is not limited to, the following:
(a) the documents specified in the Contract Particulars;
(b) any material produced by the Professional Services Contractor under this Agreement; and
(c) any other information or data that the Professional Services Contractor is given or which comes to the Professional Services Contractor's knowledge during the course of the consultancy that:

(i) the Professional Services Contractor is told is confidential; or
(ii) a reasonable person would expect to be confidential from its nature and content,

but does not include:

(d) information which, at the time of disclosure, was already in the public domain;

(e) information which, subsequent to disclosure, enters the public domain except through breach of this Agreement, through breach of the Confidentiality Deed Poll in Schedule 1 by a recipient of disclosed information, or through breach of any other obligation of confidence; or

(f) information which the Professional Services Contractor or a recipient of disclosed information (who has signed a Confidentiality Deed Poll in Schedule 1) is required to disclose by law or the listing rules of the Australian Stock Exchange.

"Construction Contractor" means the contractor or contractors that will be engaged by TfNSW pursuant to the Project Deed for the purposes of completing the design and construction of the Project.

"Contract Material" means those documents (including, but not limited to, information stored by electronic and other means) and materials created or required to be created under the Agreement by the Professional Services Contractor, which includes the Design Documentation.

"Deed of Novation" means the deed in Schedule 4.

"Design Documentation" means all design documentation (including design standards, design reports, durability reports, construction descriptions, specifications, models, samples, prototypes, calculations, drawings, digital records, computer software and all other relevant data) in computer readable and written forms, or stored by any means, required by this Agreement or necessary to be produced by the Professional Services Contractor to carry out the Services.

"Event of Insolvency" means if:

(a) a party informs the other party in writing or creditors generally that the party is insolvent or is financially unable to proceed with the Agreement;

(b) execution is levied against a party by a creditor;

(c) a party is an individual person or a partnership including an individual person, and if that person:

(i) commits an act of bankruptcy;

(ii) has a bankruptcy petition presented against him or her or presents his or her own petition;

(iii) is made bankrupt;

(iv) makes a proposal for a scheme of arrangement or a composition; or

(v) has a deed of assignment or deed of arrangement made, accepts a composition, is required to present a debtor's petition, or has a sequestration order made, under Part X of the Bankruptcy Act 1966 (Cth); or

(d) in relation to a party being a corporation:

(i) notice is given of a meeting of creditors with a view to the corporation entering a deed of company arrangement;

(ii) the party enters a deed of company arrangement with creditors;

(iii) a controller or administrator is appointed;

(iv) an application is made to a court for the winding-up of the party and not stayed within 14 days;

(v) a winding-up order is made in respect of the party;
1.2 Interpretation

In this Agreement unless the context otherwise requires:

(a) references to a person include an individual, a body politic, the estate of an individual, a firm, a corporation, an authority, an association or joint venture (whether incorporated or unincorporated), or a partnership;

(vi) resolves by special resolution that the party be wound up voluntarily (other than for a members' voluntary winding-up); or

(vii) a mortgagee of any property of the party takes possession of that property.

"Fee" means the fee set out in the Contract Particulars.

"Intellectual Property Right" means any patent, registered design, trademark or name, copyright or other protected right.

"Other Contractor" means any consultant, contractor, supplier or other person engaged by the Principal in relation to the Project other than the Professional Services Contractor and its subconsultants and includes the Construction Contractor.

"Personal Information" means information or an opinion (including information or an opinion forming part of a database) whether true or not and whether recorded in a material form or not, about an individual whose identity is apparent or can reasonably be ascertained from the information or opinion.

"Principal's Representative" means the person nominated in the Contract Particulars or any other person appointed from time to time by the Principal under clause 11.2.

"Project" means the project or projects in respect of which the Services are provided.

"Project Deed" means the agreement to be entered into between TfNSW and the Construction Contractor in respect of the Project.

"Provisional Sum Work" means the part of the Services detailed in the Contract Particulars.

"Rail Safety Work" has the meaning given in section 7 of the Rail Safety Act 2008 (NSW).

"Rail Safety Worker" has the meaning given in section 4 of the Rail Safety Act 2008 (NSW).

"Safety Report" means the report required to be prepared by a designer of a structure by regulation 295 of the Work Health and Safety Regulations 2011 (NSW).

"Services" means the services described in the Contract Particulars.


"Statutory Requirements" include:

(a) Acts, Ordinances, regulations, by-laws, orders, awards and proclamations of the Commonwealth and the State of New South Wales;

(b) certificates, licences, consent, permits, approvals and requirements of organisations having jurisdiction applicable to the Services; and

(c) relevant Australian Standards applicable to the Services.

"TfNSW" means Transport for NSW (ABN 18 804 239 602), a NSW Government Agency constituted under the Transport Administration Act 1988 (NSW).

"WHS Legislation" means the following as it may apply from time to time:

(a) the Work Health and Safety Act 2011 (NSW) and the Work Health and Safety Regulations 2011 (NSW); and

(b) all other Acts, Regulations and Codes of Practice relating to work health and safety which apply in the State in which the Services are being executed.

"Works" means the physical works to be constructed pursuant to the Project Deed and upon completion handed over to TfNSW.
(b) the words "including", "includes" and "include" will be read as if followed by the words "without limitation";

(c) a reference to any party to this Agreement includes that party's executors, administrators, successors, and permitted substitutes and assigns, including any person taking part by way of novation;

(d) a reference to any Authority, institute, association or body is:

(i) if that Authority, institute, association or body is reconstituted, renamed or replaced or if the powers or functions of that Authority, institute, association or body are transferred to another organisation, deemed to refer to the reconstituted, renamed or replaced organisation or the organisation to which the powers or functions are transferred, as the case may be; and

(ii) if that Authority, institute, association or body ceases to exist, deemed to refer to the organisation which serves substantially the same purposes or objects as that Authority, institute, association or body;

(e) a reference to this Agreement or to any other deed, agreement, document or instrument is deemed to include a reference to this Agreement or such other deed, agreement, document or instrument as amended, novated, supplemented, varied or replaced from time to time;

(f) a reference to any legislation or to any section or provision of it includes:

(i) any statutory modification or re-enactment of, or any statutory provision substituted for, that legislation, section or provision; and

(ii) ordinances, by-laws, regulations of and other statutory instruments issued under that legislation, section or provision;

(g) words in the singular include the plural (and vice versa) and words denoting any gender include all genders;

(h) headings are for convenience only and do not affect the interpretation of this Agreement;

(i) a reference to:

(i) a party, clause, Schedule or Exhibit is a reference to a party, clause, Schedule or Exhibit of or to this Agreement; and

(ii) a paragraph or a sub-paragraph is a reference to a paragraph or sub-paragraph in the clause in which the reference appears;

(j) a reference to this Agreement includes all Schedules and Exhibits.

(k) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning;

(l) for all purposes (other than where otherwise designated as a Business Day), "day" means calendar day;

(m) a reference to $ is to Australian currency;

(n) no rule of construction applies to the disadvantage of a party on the basis that the party put forward or drafted this Agreement or any part;

(o) any reference to "information" will be read as including information, representations, statements, data, samples, calculations, assumptions, deductions, determinations, drawings, design, specifications, models, plans and other documents in all forms including the electronic form in which it was generated; and

(p) any reference in this Agreement to "the Contract" or "this Contract" will be taken to be a reference to this Agreement.

1.3 Authorities

(a) This Agreement will not in any way unlawfully restrict or otherwise unlawfully affect the unfettered discretion of RailCorp or the Principal to exercise any of their respective functions and powers pursuant to any legislation.
3.1 The Professional Services Contractor:

(i) waives any claims that it may have against the Principal as a result of the exercise by RailCorp or the Principal of their respective functions and powers under any legislation; and

(ii) acknowledges and agrees that:

(A) there are many Authorities with jurisdiction over aspects of the Services;

(B) such Authorities may from time to time exercise their statutory functions and powers in such a way as to disrupt, interfere with or otherwise affect the Services (including, the exercise by persons (including individuals) acting on behalf of such Authorities in compliance with their statutory functions and powers); and

(C) it bears the full risk of all occurrences of the kind referred to in clause 1.3(c)(ii)(B) and will not be entitled to make, and the Principal will not be liable upon, any claim arising out of or in any way in connection with such occurrences.

2 TERMS OF ENGAGEMENT

The Principal engages the Professional Services Contractor to perform the Services in accordance with this Agreement.

3 PROFESSIONAL SERVICES CONTRACTOR'S OBLIGATIONS

3.1 General

The Professional Services Contractor must:

(a) perform the Services in accordance with the Agreement in consideration of the payments to be made by the Principal under clause 17;

(b) perform the Services to that standard of skill, care and diligence to be expected of a professional services contractor who regularly acts in the capacity in which the Professional Services Contractor is engaged and who possesses the knowledge, skill and experience of a professional services contractor qualified to act in that capacity;

(c) use all reasonable efforts to inform itself of the requirements of the Principal and regularly consult with the Principal during the performance of the Services;

(d) liaise, co-operate and confer with others as directed by the Principal;

(e) employ the person or persons specified in the Contract Particulars in the performance of the Services ("Key People");

(f) immediately take steps to replace any Key People specified in the Contract Particulars who are unable to work or are requested by the Principal, acting reasonably, to be removed from the Services with a replacement of equivalent expertise and experience, and obtain the written approval of the Principal, which will not be unreasonably withheld, to the replacement prior to engaging the replacement;

(g) commence and progress the Services expeditiously, without delay and in accordance with any program provided to the Professional Services Contractor by the Principal and the directions of the Principal and, if a date for completion is included in the Contract Particulars, complete the Services by that date provided that such date will be extended by a reasonable time for any delay to the Services caused by an event which is beyond the reasonable control of the Professional Services Contractor;
(h) without limiting clause 12.2, promptly give written notice to the Principal if and to the extent the Professional Services Contractor becomes aware that any document or other information provided by the Principal is ambiguous or inaccurate or is otherwise insufficient to enable the Professional Services Contractor to carry out the Services;

(i) make reasonable enquiries to ascertain the requirements of the Principal regarding the Services, including in respect of any hazards and risks at the site upon which the Project is to be constructed of which the Principal is aware;

(j) regularly consult the Principal regarding the carrying out of the Services;

(k) as soon as practicable after becoming aware of any matter or circumstances which may adversely affect or has adversely affected the scope, timing or carrying out of the Services, give written notice to the Principal detailing the matter or circumstances and its anticipated effect on the Services;

(l) ensure that any person employed or engaged by the Professional Services Contractor and its subcontractors who undertakes any work in connection with the Services complies with all Statutory Requirements, including the WHS Legislation;

(m) without limiting any other provision of this Agreement, consult with the Principal as required to enable the Principal to discharge its obligations under regulation 294 of the Work Health and Safety Regulation 2011 (NSW);

(n) after the Agreement has been novated to the Construction Contractor pursuant to clause 5(c), when the Professional Services Contractor submits Design Documentation to the Principal in accordance with this Agreement, such Design Documentation must be accompanied by the Certificates of Design Compliance;

(o) after the Agreement has been novated to the Construction Contractor pursuant to clause 5(c), at monthly intervals during the construction of the Works and at the completion of the Works or each portion (if applicable), the Professional Services Contractor must submit to the Principal a Certificate of Construction Compliance identifying the work covered. For the purposes of this paragraph (m), the Principal will notify the Professional Services Contractor when a portion is complete;

(p) whilst performing the Services, require all persons to:

(i) report for work and whilst working be free from the influence of alcohol (have less than 0.02 grams of alcohol in 210 litres of breath or 100 millilitres of blood) and free from the influence of any other drugs (below the cut off level stipulated by the Australian Standard AS/NZS 4308:2008); and

(ii) undergo random and targeted alcohol and drug testing in accordance with the TfNSW standard Alcohol and Other Drugs Standard 60-ST-010-1 and TfNSW procedure Testing for Alcohol and Other Drugs 60-PR-085;

(q) ensure that any person employed or engaged by the Professional Services Contractor and its subcontractors who undertakes any Rail Safety Work in connection with the Services complies with all Statutory Requirements, including:

(i) the provisions of the Rail Safety (Drug and Alcohol Testing) Regulation 2008 (NSW);

(ii) holding and maintaining Rail Safety Worker ("RSW") certification; and

(iii) the WHS Legislation;

(r) prior to any Rail Safety Worker carrying out any Rail Safety Work in connection with the Services, provide the Principal with the Competence Records in the form directed by the Principal (which may be electronic);

(s) ensure that any Rail Safety Worker who carries out Rail Safety Work in connection with the Principal's railway operations has the competence to carry out that work;

(t) ensure that each Rail Safety Worker used in connection with the Services has a form of identification that is sufficient to enable the type of competence and training undertaken by that Rail Safety Worker to be checked by a rail safety officer; and.
(u) without limiting any other provision of this Agreement, consult with the Principal as required to enable the Principal to discharge its obligations under regulation 294 of the Work Health and Safety Regulation 2011 (NSW).

3.2 Complying with Statutory Requirements
The Professional Services Contractor must comply with:
(a) all Statutory Requirements including the WHS Legislation;
(b) the requirements of the Building Code of Australia; and
(c) the requirements of any other standards or codes,
which apply to the Services.
Without limiting the above the Professional Services Contractor must prepare the Safety Report in accordance with the requirements of, and otherwise discharge its obligations under, the provisions of the WHS Legislation. The Professional Services Contractor must give a copy of the Safety Report to the Principal within the time specified in the Contract Particulars.

3.3 Non-Complying Services
If the Principal discovers or believes that any Services have not been performed in accordance with the Agreement (including any Contract Material not complying with the requirements of the Agreement), the Principal may give the Professional Services Contractor a direction specifying the non-complying Services and doing one or more of the following:
(a) requiring the Professional Services Contractor to:
   (i) re-perform the non-complying Services (including by amending the Contract Material) within a specified time period; and
   (ii) take all such steps as are reasonably necessary to:
        (A) mitigate the effect on the Principal of the failure to perform the Services in accordance with the Agreement; and
        (B) put the Principal (as closely as possible) in the position in which it would have been if the Professional Services Contractor had performed the Services in accordance with the Agreement; and
(b) advising the Professional Services Contractor that the Principal will accept the non-complying Services despite the non-compliance, in which event the Principal will be entitled to recover from the Professional Services Contractor any additional costs which will be incurred by the Principal as a result of the non-compliance, including any costs incurred by the principal in having the non-complying Services re-performed by an Other Contractor

3.4 Re-performance of the Non-complying Services
If a direction is given under clause 3.3(a), the Professional Services Contractor must, at its cost, re-perform the non-complying Services:
(a) within the time specified in the Principal's instruction; and
(b) so as to minimise the delay and disruption to the performance of the Services.

3.5 Safety and Environment
(a) The Professional Services Contractor must:
   (i) prior to appointing any subcontractor, assess the work health and safety management capability of such subcontractor and institute systems to obtain regular written assurances from all subcontractors about their ongoing compliance with the WHS Legislation including the due diligence obligation contained therein;
   (ii) prior to commencing to perform the Services on the site of the Project ensure that all Professional Services Contractor staff have undertaken any induction required by the Principal;
in the provision of the Services comply with and procure that any subcontractor and its employees comply with all the requirements of the WHS Legislation and any other requirements of this Agreement for work health, safety and rehabilitation management;

(iv) comply with, and procure that any subcontractor complies with, any reasonable directions issued by the Principal's Representative in relation to work, health, safety or the environment including where the direction is given because Key People are not complying with their obligations under this clause 3.5;

(v) immediately inform the Principal's Representative verbally of all work health, safety and environment matters arising out of, or in any way connected with the Services or the Project;

(vi) provide written assurances obtained pursuant to paragraph (a)(i), together with written assurances from the Consultant about the Consultant's ongoing compliance with the WHS Legislation, to the Principal;

(vii) comply with its obligation under the WHS Legislation to consult, cooperate and coordinate activities with all other persons who have a work health and safety duty in relation to the same matter including co-operate with the Principal's Representative and any contractor engaged by the Principal with respect to the Project and co-ordinate the Services with the work of the Principal's Representative and any contractor engaged by the Principal with respect to the Project;

(viii) exercise a duty of utmost good faith to the Principal in carrying out the Services to enable the Principal to discharge the Principal's duties under the WHS Legislation; and

(ix) ensure its subcontracts include provisions equivalent to the obligations of the Professional Services Contractor in this clause 3.5 and any other provisions of the Agreement concerning work health and safety matters.

(b) The Professional Services Contractor's design (if any) must:

(i) take into account best work health and safety practice applicable to the construction, utilisation, operation, safety and/or maintenance of the Project; and

(ii) be subject to a health, safety and environment review by a suitably qualified person at appropriate stages of the design development process (if any) to verify the design's compliance with the WHS Legislation.

3.6 Licensing and Authorisation

The Professional Services Contractor must:

(a) ensure that if any Statutory Requirement (including the WHS Legislation) requires that:

(i) a person:

(A) be authorised or licensed (in accordance with the WHS Legislation) to carry out any part of the Services at that workplace, that person is so authorised or licensed, and complies with any conditions of such authorisation or licence; and/or

(B) has prescribed qualifications or experience to carry out any part of the Services or, if not, is to be supervised by a person who has prescribed qualifications or experience (as defined in the WHS Legislation), that person has the required qualifications or experience or is so supervised; or

(ii) a workplace, plant or substance (or design), or work (or class of work) be authorised or licensed, that workplace, plant or substance, or work is so authorised or licensed;

(b) not direct or allow a person to carry out work or use plant or substance at a workplace unless the requirements of paragraph (a) are met (including any requirement to be authorised, licensed, qualified or supervised); and
(c) if requested by the Principal, the Principal's Representative or required by the WHS Legislation, produce evidence of any approvals, certificates, authorisations, licences, prescribed qualifications or experience, or any other information relevant to work health and safety (as the case may be) to the satisfaction of the Principal before the Professional Services Contractor commences such work.

3.7 Duties under WHS Legislation
Without limiting the Professional Services Contractor's obligations under any other clause of this Agreement, insofar as the Professional Services Contractor, in carrying out the Services, is a person conducting a business or undertaking that designs plant, substances or structures to whom section 22 of the Work Health and Safety Act 2011 (NSW) applies, then to the extent that the obligations under that section apply to the Services the Professional Services Contractor must comply with the applicable obligations under the WHS Legislation.

4 JOINT AND SEVERAL LIABILITY
If the Professional Services Contractor comprises more than one person, those persons are jointly and severally liable for the performance and obligations of the Professional Services Contractor.

5 SUBCONTRACTING AND NOVATION
(a) The Professional Services Contractor must not subcontract any part of the Services without the prior written approval of the Principal except to a subconsultant named in the Contract Particulars.

(b) An approval given by the Principal permitting the Professional Services Contractor to subcontract any portion of the Services does not relieve the Professional Services Contractor from its obligations and liabilities pursuant to the Agreement and the Professional Services Contractor will be vicariously liable for the acts and omissions of its subcontractors and consultants.

(c) The Principal may at any time, without the consent of the Professional Services Contractor, novate this Agreement by assigning its rights and obligations under the Agreement to a Construction Contractor. If the Principal elects to novate the Agreement it will notify the Professional Services Contractor, and the Professional Services Contractor must promptly execute and provide to the Principal three copies of the duly executed Deed of Novation within 5 Business Days of receipt of the Principal's notice.

6 CONTRACTOR PERFORMANCE REPORTING
The Professional Services Contractor acknowledges that the Principal has in place processes for assessing the performance of its Professional Services Contractors and that these processes will apply to the Agreement. The Professional Services Contractor agrees to participate in the Principal's Contractor Performance Reporting process. Without limiting the previous paragraph, the Professional Services Contractor authorises the Principal, its employees and agents to make information concerning the Professional Services Contractor available to NSW government departments or agencies. Such information may include, but need not be limited to, any information provided by the Professional Services Contractor to the Principal and any information relating to the Professional Services Contractor's performance under the Agreement.

The Professional Services Contractor acknowledges that:

(a) any information about the Professional Services Contractor from any source, including but not limited to substantiated reports of unsatisfactory performance, may be taken into account by the Principal and NSW government departments and agencies in considering whether to offer the Professional Services Contractor future opportunities for NSW government work; and
7 INTELLECTUAL PROPERTY

7.1 Ownership

The Intellectual Property Rights in or relating to the Contract Material will vest in the Principal.

The Principal grants to the Professional Services Contractor an irrevocable licence to use those Intellectual Property Rights for the purpose of carrying out the Services. The Professional Services Contractor will retain the Intellectual Property Rights in any original ideas, equipment processes or systems created outside the terms of the Agreement and used in carrying out the Services.

The Professional Services Contractor must grant or cause to be granted to the Principal an irrevocable royalty-free licence (which includes the right to sublicense third parties) to use such Intellectual Property Rights for any purpose the Services are provided for including, but limited to, any subsequent repairs to, maintenance or servicing of (including the supply of replacement parts) or additions or alterations to, the Project and the copying of any document for such purposes.

7.2 Warranty and Indemnity

The Professional Services Contractor warrants that in providing the Services the Professional Services Contractor owns or is licensed to use the Intellectual Property Rights in the Contract Material and the Professional Services Contractor must indemnify the Principal against any action, claim, demand, liability, loss or damage suffered or incurred by the Principal arising out of or in connection with any alleged or actual infringement of the Intellectual Property Rights of a third party in the performance of the Services or the use by the Principal of the Contract Material.

The Principal warrants that documents and materials provided by the Principal to the Professional Services Contractor for the Services will not infringe the Intellectual Property Rights of a third party.

7.3 Moral Rights

If the Professional Services Contractor in performing the Services includes or makes use of any work or other subject matter in which copyright subsists, the Professional Services Contractor must procure from every person (whether a subcontractor or an officer, employee or consultant of the Professional Services Contractor or of a subcontractor) who is an author of that work or subject matter a written consent signed by that person for the benefit of the Principal and the Professional Services Contractor, under which (to the maximum extent permitted by law) that person irrevocably and unconditionally:

(a) consents to the Principal and the Professional Services Contractor:

(i) using, disclosing, reproducing, transmitting, exhibiting, communicating, adapting, publishing or otherwise exercising its rights in relation to that work or subject matter anywhere in the world in whatever form the Principal and the Professional Services Contractor thinks fit (including, but not limited to, the making of any distortions, additions, or alterations to that work or subject matter or any adaptation thereof, or to any part of that work or subject matter or of any such adaptation in a manner which but for the consent, infringes or may infringe that person's moral rights in the work or other subject matter) as so used, disclosed, reproduced, transmitted, exhibited, communicated, adapted or published; and

(ii) using, disclosing, reproducing, transmitting, exhibiting, communicating, adapting, publishing or otherwise exercising its rights in relation to that work or subject matter or any adaptation thereof (or any part of that work or subject matter or of any such adaptation) anywhere in the world without making any identification of that person in relation thereto; and
(b) waives, to the extent permitted by law, all and any moral rights to which that person may be entitled anywhere in the world in relation to any Contract Material.

8 CONFLICT OF INTEREST

The Professional Services Contractor warrants that no conflict of interest exists in relation to the Services at the date of the Agreement.

The Professional Services Contractor must immediately provide the Principal written notice upon becoming aware of the existence, or possibility, of a conflict of interest in the performance of the Services.

On receipt of a notice under clause 8, the Principal may:

(a) approve the Professional Services Contractor continuing to perform the Services, which approval may be subject to conditions specified by the Principal (including requirements relating to separation arrangements) to ensure appropriate management of the conflict; or

(b) where in the Principal’s view the conflict of interest cannot be appropriately managed and without limiting clause 21, terminate this Agreement by notice in writing to the Professional Services Contractor effective from the date specified in the notice.

The Principal may, at its sole discretion and at any time, require the Professional Services Contractor to sign and procure that each of its officers, employees, subcontractors or agents involved in the performance of the Services signs and delivers to the Principal a Statement of Interests and Associations in the form attached in Schedule 3.

9 INDEMNITY BY PROFESSIONAL SERVICES CONTRACTOR

Subject to clause 26, the Professional Services Contractor must indemnify the Principal against:

(a) loss of or damage to property of the Principal including, but not limited to, the Contract Material; and

(b) claims by any person against the Principal in respect of personal injury or death or loss of or damage to any other property,

arising out of or in consequence of carrying out the Services but the Professional Services Contractor's liability to indemnify the Principal will be reduced proportionally to the extent that the act or omission of the Principal or the employees, agents or other contractors of the Principal contributed to the loss, damage, injury or death.

10 INSURANCE

10.1 Professional Indemnity Insurance

Before the Professional Services Contractor commences carrying out the Services, the Professional Services Contractor must effect a professional indemnity insurance policy for the Services with a total aggregate cover of not less than the sum stated in the Contract Particulars.

The policy must include provisions for loss of documents. The policy and such level of cover must be maintained until the Professional Services Contractor completes carrying out the Services and thereafter for a period as stated in the Contract Particulars.

The Professional Services Contractor must ensure that its subcontractors and consultants have professional indemnity insurance to a level approved by the Principal.

10.2 Public Liability Insurance

The Professional Services Contractor must maintain a public liability policy for an amount in respect of any one claim or series of claims arising from one original cause of not less than the sum stated in the Contract Particulars. The policy must be maintained until the Professional Services Contractor completes carrying out the Services.
The policy must cover the Professional Services Contractor in respect of liability to the Principal and third parties in respect of any claim arising from the acts or omissions of the Professional Services Contractor, its employees, subcontractors and consultants in the course of carrying out the Services and must extend to indemnify the Principal as one of the class of persons constituting the Insured or note the Principal as an interested party but not in respect of liability to the extent that the liability is due to or results from the negligence of the Principal.

10.3 Insurance of Employees
Before the Professional Services Contractor commences carrying out the Services, the Professional Services Contractor must insure against liability for death or injury to persons employed by the Professional Services Contractor including, but not limited to, liability, statute and at common law. The insurance cover must be maintained until the Professional Services Contractor completes carrying out the Services.

Where permitted by law, the insurance cover must be extended to indemnify the Principal for the Principal's statutory liability for persons employed by the Professional Services Contractor. The Professional Services Contractor must ensure that employees of the Professional Services Contractor's subcontractors and consultants are similarly insured.

10.4 Professional Services Contractor's Insurance Obligations
The Professional Services Contractor must:
(a) provide the Principal's Representative with a copy of, or certificate of currency for, any insurance policies required by this clause 10 prior to commencement of the Services and evidence satisfactory to the Principal's Representative that the policy is current as required by the Principal's Representative from time to time; and
(b) ensure that it:
(i) does not do anything which prejudices the insurance;
(ii) if necessary, rectifies anything which might prejudice any insurance;
(iii) reinstates any insurance policy if it lapses;
(iv) does not cancel, vary or allow an insurance policy to lapse without providing prior written notification to the Principal's Representative. Such notification will not constitute a waiver of the Principal's rights under this Agreement;
(v) immediately notifies the Principal's Representative of any event which may result in an insurance policy lapsing or being cancelled; and
(vi) gives full, true and particular information to the insurer of all matters and things the non-disclosure of which might in any way prejudice or affect any such policy or the payment of all or any benefits under the insurance.

11 REPRESENTATIVES

11.1 Professional Services Contractor's Representative
The person nominated in the Contract Particulars is the Professional Services Contractor's Representative for this Agreement and has the legal power to bind the Professional Services Contractor in respect of any matter arising in connection with the Services. Any substitute representative must be notified promptly in writing to the Principal.

11.2 Principal's Representative
The person nominated in the Contract Particulars is the Principal's Representative for this Agreement and has the legal power to bind the Principal in respect of any matter arising in connection with the Services. Any substitute representative must be notified promptly in writing to the Professional Services Contractor.

The Principal's Representative may by notice in writing to the Professional Services Contractor delegate any or all of its functions to another person.
12 DIRECTIONS AND PROGRAMMING

12.1 Directions

The Professional Services Contractor must comply with the directions of the Principal or the Principal's Representative. Except where the Agreement otherwise provides, a direction may be given orally.

If the Professional Services Contractor in writing requests the Principal to confirm an oral direction, the Principal must as soon as practicable confirm the oral direction in writing.

12.2 Programming

The Professional Services Contractor must give the Principal reasonable advance notice of when the Professional Services Contractor needs other information, materials, documents or instructions from the Principal.

The Principal shall not be obliged to give any information, materials, documents or instructions earlier than the Principal should reasonably have anticipated at the date of the Agreement and in any event no earlier than 10 Business Days after the request for the information, materials, document or instruction was made by the Professional Services Contractor.

The Principal may direct in what order and at what time the various stages or portions of the Services must be carried out and the Professional Services Contractor must comply with any such direction.

If compliance with any such direction under this clause, except where the direction is given due to the Professional Services Contractor's default, causes the Professional Services Contractor to incur more cost than otherwise would have been incurred had the Professional Services Contractor not been given the direction, the Professional Services Contractor will be entitled to an adjustment to the Fee for the additional costs reasonably incurred in complying with the direction.

13 RECORD KEEPING AND PROGRAM REPORTING

The Professional Services Contractor must:

(a) keep and ensure its subcontractors keep, accurate records of the performance of the Services;
(b) ensure that all persons engaged in the performance of the Services produce and maintain:
   (i) a daily diary record of tasks performed; and
   (ii) where the Fee is time based, a daily timesheet accurately recording the time spent in the performance of the Services;
(c) at the Principal's request, provide, and ensure that its subcontractors provide, the records referred to in this clause 13 for their inspection and copying by the Principal;
(d) if required, provide the Principal's Representative with periodic program reports on the engagement as required by the Agreement;
(e) ensure that all records required to be kept by the Agreement, including the Competence Records, are current and accurate; and
(f) whenever requested by the Principal's Representative provide the Principal's Representative with a written report containing details on all work health and safety matters arising out of the Services, including in respect of any matters concerning or arising out of clause 3.2 and clauses 3.5 to 3.7.

The records referred to in this clause 13 must be retained for seven (7) years after completion of the Services.
14 COLLABORATIVE AUDITING PROCESS

The Professional Services Contractor and the Principal will, on a collaborative basis, develop, agree and implement, a scope and program for the Principal's Representative to undertake audits of the Professional Services Contractor's compliance with the requirements of the Professional Services Contractor's quality management system (if applicable) as these may apply to the Services and obligations under the Agreement and:

(a) the Professional Services Contractor agrees to participate and assist in the development and completion of these audits; and

(b) the Professional Services Contractor and the Principal's Representative shall when requested share the results of any self verification by the Professional Services Contractor and/or the outcome of any audits completed.

15 ACCESS TO PROFESSIONAL SERVICE CONTRACTOR'S PREMISES

The Professional Services Contractor must, at all reasonable times and upon reasonable notice, permit the Principal access to the Professional Services Contractor premises in order for the Principal to inspect, discuss and assess the Contract Material and any other material obtained by the Professional Services Contractor from any person in connection with the Agreement.

16 VARIATIONS

16.1 Proposal

(a) The Principal may direct in writing that the Professional Services Contractor vary the Services (including, but not limited to, omitting or deleting a part of the Services), or the timing, including, but not limited to, the time for completion, of the Services or both ("variation").

(b) If a variation the subject of a Direction by the Principal omits or deletes any part of the Services, the Principal may thereafter carry out the omitted or deleted Services either itself or by engaging an Other Contractor to do so.

(c) If the Principal gives such a direction where the need for the variation is in order to overcome any deficiency, error, omission or defect in or from the Services any costs or losses suffered or incurred by the Principal in having the Services which have been deleted or omitted carried out by an Other Contractor will be a debt due and payable by the Professional Services Contractor to the Principal which may be deducted from the Fee.

(d) Nothing in this clause 16.1(b) limits the Principal's rights under clause 3.3(b).

(e) If the Principal proposes a variation, the Principal will specify in the direction a reasonable time by which the Professional Services Contractor must provide a written estimate of the time, cost and programming effects of the proposed variation. If no time is specified, the Professional Services Contractor must provide the estimate within 14 days.

16.2 Variation Instruction

Whether or not the Professional Services Contractor provides a written estimate under clause 16.1(a) the Principal may instruct in writing the Professional Services Contractor to carry out a variation, and the Professional Services Contractor must comply with such instruction.

16.3 Valuation

The value of a variation instructed under clause 16.1 will be determined by the Principal's Representative as follows:

(a) by agreement between the Principal's Representative and the Professional Services Contractor including, but not limited to, where the Professional Services Contractor has provided a written estimate pursuant to clause 16.1(c) which the Principal has accepted, the amount in that written estimate;
(b) by using the hourly rates and other prices set out in the Contract Particulars where included and where these are reasonable to use; or

(c) on the basis of reasonable prices and rates determined by the Principal's Representative.

The Fee will be adjusted by the value of each variation as determined in accordance with this clause 16.3.

16.4 Variation due to a Change in a Statutory Requirement

If a new Statutory Requirement or a change in a Statutory Requirement after the date of the Agreement necessitates:

(a) a change to the Services;

(b) has effect after the date of the Agreement; and

(c) could not reasonably have been anticipated at that date,

then the extent to which the Services are changed by the Statutory Requirement this shall be deemed to be a variation and will be valued pursuant to clause 16.3.

17 PAYMENT OF FEE

17.1 Payment Claim

Subject to clause 17.5 and the Professional Services Contractor performing the Services, the Principal must pay the Professional Services Contractor the Fee and any disbursements referred to in the Contract Particulars for which it is entitled to payment, in accordance with this clause 17.

The Professional Services Contractor must prepare and submit to the Principal claims for payment of the amount representing the value of the Services completed in accordance with the Agreement at the times set out in the Contract Particulars and containing the details required by the Principal. All invoices must be addressed to the Principal and must refer to the Professional Services Contract No. on the cover page of this Agreement.

Invoices for payment on a time basis must be for the period up to the last calendar day of the month prior to the issue of the payment claim and accompanied by timesheets and a summary of the Services performed in the time period of the claim.

It is a condition precedent to the Professional Services Contractor's right to submit a payment claim under this clause 17.1 that the Professional Services Contractor must, in respect of each payment claim, provide the Principal with:

(a) a duly completed and signed statutory declaration and subcontractor's statement in the form contained in Schedule 2 (or in any other form requested and/or approved by the Principal's Representative);

(b) a Certificate of Design Compliance;

(c) a Certificate of Construction Compliance;

(d) where clause 17.6(i) applies, the statement and the evidence (if any) required to be provided by the Professional Services Contractor pursuant to that clause; and

(e) a certificate of currency in respect of its workers compensation insurance.

17.2 Payment Statement

If the Principal intends making a payment that is less than the amount claimed by the Professional Services Contractor, the Principal must, within 10 Business Days following receipt of a payment claim give the Professional Services Contractor a payment statement which sets out:

(a) the value of the Services completed in accordance with the Agreement;

(b) the amount already paid to the Professional Services Contractor;

(c) the amount that the Principal is entitled to retain, deduct, withhold or set-off under the Agreement;
(d) the amount (if any) which the Principal proposes to pay to the Professional Services Contractor;

(e) the reason why the amount in paragraph (d) is less than the amount claimed in the payment claim; and

(f) if the reason for the difference is that the Principal is retaining, deducting, withholding or setting-off payment for any reason, the reason for the Principal retaining, deducting, withholding or setting-off payment.

The failure of the Principal to set out in a payment statement an amount which it is entitled to retain, deduct, withhold or set off under this Agreement will not prejudice its right to subsequently exercise such right.

17.3 Payments
The Principal must:

(a) where a payment statement is issued pursuant to clause 17.2, within the latter of:
   (i) 15 Business Days of the issue of the payment statement; or
   (ii) 25 Business Days following receipt of the payment claim,

(b) otherwise, within 25 Business Days following receipt of a payment claim,

pay the amount stated in the payment statement or the amount claimed by the Professional Services Contractor in its payment claim (as the case may be).

The making of a payment by the Principal under this clause 17.3 is not evidence of the value of the Services performed and does not constitute an admission by the Principal that any Services provided by the Professional Services Contractor conform with the requirements of this Agreement but is a payment on account only.

17.4 Fee Adjustment for Time Based Fees
To the extent that any part of the Fee is to be calculated on a time basis the hourly rates referred to in the Contract Particulars will be increased or decreased (as the case may be) on each 1 July occurring after the Commencement Date by the relevant percentage set out in the Contract Particulars applicable to the relevant period.

17.5 Set Off
The Principal may at any time withhold, set-off or deduct from amounts otherwise payable to the Professional Services Contractor:

(a) any debt or other moneys due from the Professional Services Contractor to the Principal (including any due debt from the Professional Services Contractor to the Principal pursuant to section 26C of the SOP Act; or

(b) any amount that is less than or equal to the amount claimed to be owed under a payment withholding request served on the Principal pursuant to Division 2A of the SOP Act,

under this Agreement or in respect of the Services.

17.6 Security of Payment Act

(a) This clause applies if the SOP Act applies to the Services.

(b) The Professional Services Contractor agrees with the Principal that the date prescribed in clause 17.1 as the date on which the Professional Services Contractor must make a payment claim is, for the purposes of section 8 of the SOP Act, the “reference date”.

(c) For the purposes of section 17(3)(b) of the SOP Act the Professional Services Contractor irrevocably chooses the Institute of Arbitrators and Mediators Australia as the authorised nominating authority (as that term is defined in the SOP Act) for any adjudication application it may make under the SOP Act in respect of the subject matter of the Agreement.
(d) When an adjudication occurs under the SOP Act, and the Principal has paid an adjudicated amount to the Professional Services Contractor:

(i) the amount will be taken into account by the Principal's Representative in issuing a payment statement under clause 16.2; and

(ii) if it is subsequently determined pursuant to the Contract that the Professional Services Contractor was not entitled under the Contract to payment of some or all of the adjudicated amount that was paid by the Principal ("overpayment"), the overpayment will be a debt due and payable by the Professional Services Contractor to the Principal which the Professional Services Contractor must pay to the Principal upon demand and in respect of which the Professional Services Contractor is not entitled to claim or exercise any set-off, counterclaim, deduction or similar right of defence.

(e) Without limiting clause 17.5, the Principal may withhold any amount that is less than or equal to the amount claimed to be owed under a payment withholding request served on the Principal pursuant to Division 2A of the SOP Act.

(f) If the Principal withholds from money otherwise due to the Professional Services Contractor any amount that is less than or equal to the amount claimed to be owed under a payment withholding request served on the Principal pursuant to Division 2A of the SOP Act, then:

(i) the Principal may plead and rely upon Division 2A of the SOP Act as a defence to any claim for the money by the Professional Services Contractor from the Principal; and

(ii) the period during which the Principal retains money due to the Professional Services Contractor pursuant to an obligation under Division 2A of the SOP Act will not be taken into account for the purpose of determining:

(A) any period for which money owed by the Principal to the Professional Services Contractor has been unpaid; and

(B) the date by which payment of money owed by the Principal to the Professional Services Contractor must be made.

(g) The Professional Services Contractor agrees not to commence proceedings to recover any amount withheld by the Principal pursuant to a payment withholding request served on the Principal in accordance with Division 2A of the SOP Act.

(h) Any amount paid by the Principal pursuant to section 26C of the SOP Act will be a debt due from the Professional Services Contractor to the Principal.

(i) If the Principal withholds money pursuant to a payment withholding request served on the Principal pursuant to Division 2A of the SOP Act and the Professional Services Contractor:

(i) pays the amount claimed to be due under the adjudication application to which the payment withholding claim relates; or

(ii) becomes aware that the adjudication application to which the payment withholding claim relates has been withdrawn,

then the Professional Services Contractor must so notify the Principal within 5 days of the occurrence of the event in sub-paragraph (i) or (ii) above (as applicable) by providing to the Principal a statement in writing in the form of a statutory declaration together with such other evidence as the Principal may require evidencing that the amount has been paid or the adjudication application has been withdrawn (as the case may be).

17.7 Provisional Sum Work

For each item of Provisional Sum Work, the Principal will give the Professional Services Contractor a direction either requiring the Professional Services Contractor to proceed with the item of Provisional Sum Work or deleting the item of Provisional Sum Work from the Services.
Where the Principal gives the Professional Services Contractor a notice requiring the Professional Services Contractor to proceed with an item of Provisional Sum Work, the Principal may define the method of proceeding with the Provisional Sum Work including the method by which it will be valued.

The Fee will be adjusted for the item of Provisional Sum Work by the difference between:
(a) the amount allowed for the item of Provisional Sum Work in the Contract Particulars; and
(b) either:
   (i) an amount agreed between the Professional Services Contractor and the Principal; or
   (ii) if they fail to agree, an amount determined by the Principal under clause 16.3 as if the item of Provisional Sum Work were a variation.

Where the Principal's Representative gives the Contractor a direction deleting an item of Provisional Sum Work:
(c) the Fee will be reduced by the amount allowed for the item of Provisional Sum Work in Contract Particulars;
(d) the Principal may engage an Other Contractor to carry out the item of Provisional Sum Work; and
(e) the Principal will not be liable upon any claim by the Professional Services Contractor arising out of the deletion of the item of Provisional Sum Work.

18 SUSPENSION FOR CONVENIENCE

The Principal, may at any time by prior written notice to the Professional Services Contractor, suspend the carrying out of the Services or any part thereof.

The Principal must pay the Professional Services Contractor any costs and expenses reasonably incurred by the Professional Services Contractor by reason of the suspension. The Principal may at any time after giving such a notice, give the Professional Services Contractor reasonable notice to recommence carrying out those Services so suspended.

19 DISPUTE RESOLUTION

19.1 Notice of dispute
If a difference or dispute (together called a “dispute”) between the parties arises in connection with the subject matter of the Agreement then either party will give the other party written notice of a dispute by hand or by registered post which adequately identifies the details of the dispute (“Dispute Notice”).

19.2 Negotiation
The Professional Services Contractor and the Principal must endeavour to resolve any dispute expeditiously by negotiation within 20 Business Days (or any other time period agreed by the parties in writing) after receipt of the Dispute Notice. At such negotiations each party must be represented by a person who has the authority to agree to such resolution. All aspects of the negotiation (except the fact that the negotiations took place) will be privileged.

19.3 Expert Determination
If a dispute between the Professional Services Contractor and the Principal is not resolved by negotiation within 20 Business Days (or any other time period agreed by the parties in writing) after receipt of the Dispute Notice (“Negotiation Period”), then, subject to the parties' right to seek injunctive or urgent declaratory relief, and before either party has recourse to litigation, the parties must submit the dispute to expert determination by an independent expert.

If the Professional Services Contractor and the Principal do not agree upon an independent expert within 10 Business Days of the end of the Negotiation Period then either party may request the President of the Institute of Arbitrators & Mediators Australia to nominate an expert.
The parties must enter into an agreement with the agreed or nominated expert on the terms of the agreement in Schedule 5 or such other terms as the parties and the expert may agree.

Except where the parties otherwise agree in writing:

(a) each party must bear its own costs and pay one half of the expert's fees and expenses;
(b) the expert must not act as an arbitrator;
(c) the determination of the expert will be final and binding on the parties except where a party gives notice of appeal to the other party within 15 Business Days of the determination being given; and
(d) the determination is to be given effect to by the parties unless and until it is reversed, overturned or otherwise changed under the procedure in clause 19.4 below.

19.4 Litigation
If the determination of the expert is not final and binding, but without limiting clause 19.3(d), either party may commence litigation in relation to the dispute. To the extent permitted by law the determination of the expert will be admissible as evidence in these proceedings.

19.5 Continuation
Each party must continue to perform its obligations under this Agreement notwithstanding the existence of a dispute.

20 NOTICE OF BREACH
If the Professional Services Contractor is in breach of the Agreement, then the Principal may give a written notice to the Professional Services Contractor stating:

(a) that it is a notice under this clause 20;
(b) the breach relied upon; and
(c) that the Agreement will be terminated unless the breach is remedied within the period set out in the notice, which must be no less than 10 Business Days.

21 TERMINATION
21.1 Termination for Breach or Financial Difficulty
The Principal may, without prejudice to any other right, terminate the Agreement by notice in writing to the Professional Services Contractor from the date stated in the notice if:

(a) the Professional Services Contractor fails to remedy a breach of the Agreement within the time stated in a notice under clause 20; or
(b) an Event of Insolvency occurs to the Professional Services Contractor whether or not there has been a breach of contract by the Professional Services Contractor.

If the Agreement is terminated pursuant to clause 21 the parties' remedies, rights and liabilities will be the same as they would have been under the law governing the Agreement had the Professional Services Contractor repudiated the Agreement and the Principal elected to treat the Agreement as at an end and recover damages.

21.2 Termination for Any Reason

(a) The Principal may terminate the Agreement at any time for any reason, by written notice to the Professional Services Contractor.

(b) If the Principal terminates the Agreement pursuant to this clause 21.2, the Principal:

(i) may in its absolute discretion, complete the uncompleted part of the Services itself or by engaging any third party; and
must reimburse the Professional Services Contractor for the cost of Services performed to the date of termination plus the direct costs reasonably incurred by the Professional Services Contractor as a result of the termination. Such payment will be a limitation upon the Principal's liability to the Professional Services Contractor in connection with the termination of the Agreement.

(c) If the Principal terminates the Agreement pursuant to this clause 21.2, the Professional Services Contractor must immediately hand over to the Principal all copies of any documents provided by the Principal to the Professional Services Contractor and all Contract Material (whether complete or not).

(d) This clause 21.2 survives the termination of the Agreement by the Principal under this clause 21.2.

22 CONFIDENTIALITY

22.1 Acknowledgement

The Professional Services Contractor acknowledges that all of the Confidential Information is and will be the sole and exclusive property of the Principal.

22.2 Warranty and Covenant

The Professional Services Contractor warrants and covenants that it will treat and keep the Confidential Information in the strictest of confidentiality and expressly acknowledges and agrees that the Confidential Information is of a confidential nature.

The Professional Services Contractor warrants and covenants that it will do everything reasonably necessary to protect and maintain the confidentiality of the Confidential Information.

The Professional Services Contractor may not disclose to any person other than:

(a) the Principal; or

(b) a person who has signed a Confidentiality Deed Poll in the form of Schedule 1 in favour of the Principal,

that the Confidential Information has been made available to the Professional Services Contractor or that discussions or negotiations are taking place concerning the Agreement, and undertakes:

(c) to protect and safeguard Confidential Information against unauthorised publication or disclosure; and

(d) not to use Confidential Information for any reason or purpose except as directed by the Principal; and

(e) to comply with any security measures in connection with Confidential Information that may be required by the Principal.

22.3 Personal Information

Without limiting any obligation that the Professional Services Contractor has under any applicable privacy laws, where the Professional Services Contractor has access to Personal Information in order to fulfil its obligations under this Agreement, it must where collecting personal information on behalf of the Principal, comply with the Privacy and Personal Information Protection Act 1998 as if it were the Principal.

22.4 Authorised Disclosure

If the Principal's Representative approves in writing the disclosure of Confidential Information, the Professional Services Contractor may disclose that Confidential Information in accordance with the terms of that approval.
22.5 Return of Confidential Information

If the Principal requests it, the Professional Services Contractor must:

(a) promptly return to the Principal all documents and other physical records of Confidential Information in its possession, custody, power or control;

(b) if any Confidential Information in the possession, custody, power or control of the Professional Services Contractor is in a form that cannot be detached from valuable equipment (including, but not limited to, Confidential Information stored by electronic, electromagnetic or other means), the Professional Services Contractor must erase the Confidential Information; and

(c) provide a statutory declaration to the Principal confirming that all those records and any copies have been returned or erased, as appropriate.

Notwithstanding this clause 22.5 or any other provision of this Agreement, the Principal authorises the Professional Services Contractor to retain for record purposes one copy of material provided to the Professional Services Contractor by the Principal and one copy of the Contract Material. The Professional Services Contractor must treat all material retained under this provision as Confidential Information.

22.6 Confidentiality Deed Poll

Unless otherwise agreed, the Professional Services Contractor must procure each officer, employee, subcontractor, or agent of the Professional Services Contractor involved in the performance of the Services to sign and deliver to the Principal a Confidentiality Deed Poll in the form of Schedule 1.

22.7 Obligations To Continue

The obligations of the Professional Services Contractor under this clause 22 survive completion of the Services or termination of the Agreement and are enforceable at any time at law or in equity and continue to the benefit of and are enforceable by the Principal.

22.8 Injunctive Relief

In the event of a breach by the Professional Services Contractor of the Professional Services Contractor's obligations under this clause 22, then in addition to, and without prejudice to, any other remedy that the Principal may have, the Principal will be entitled to seek and obtain injunctive relief in any court of competent jurisdiction.

22.9 Further Assurances

The Professional Services Contractor must do all things and execute all documents, including, but not limited to, executing any agreements of assignment, or agreements under hand or seal, which may reasonably be required by the Principal, to give effect to the provisions of the Agreement.

23 DISCLOSURE OF CONTRACT INFORMATION

The Professional Services Contractor acknowledges that the Principal may disclose this Agreement (and information concerning the terms of this Agreement) under or in accordance with any one or more of the following:

(a) the Government Information (Public Access) Act 2009 (NSW);

(b) the Ombudsman Act 1974 (NSW); and

(c) to satisfy the disclosure requirements of the New South Wales Auditor General or to satisfy the requirements of Parliamentary accountability.

24 GOVERNING LAW

The Agreement is subject to the laws of the State of New South Wales.
25 GST

The Principal and the Professional Services Contractor agree:

(a) unless otherwise stated all dollar amounts referred to in this Agreement are GST exclusive;

(b) except where an amount is stated to be GST inclusive, if either party ("supplier") is or becomes liable to pay GST arising out of or in connection with any supplies under or in connection with the Agreement or the Services, the supplier will, in addition to any amount it may be entitled to recover for the relevant supply ("consideration"), also be entitled to recover the amount of any GST liability incurred as a result of the supply;

(c) where under the Agreement a party is entitled to any adjustment to the Fee or otherwise to the payment of money and such adjustment is based on the reasonable or actual cost to the party of performing any work, any input tax credits available to the party in relation to performing such work will be deemed to reduce the cost of such work;

(d) the supplier must as a condition precedent to the obligation to make a payment under paragraph (b) provide the other party with a valid tax invoice in respect of the supply;

(e) the Professional Services Contractor must ensure that each insurance policy referred to in clause 10 covers any liability to GST such that the proceeds of any claim under the policy (after payment of GST) are sufficient to fully indemnify the party who suffers the loss that is claimed; and

(f) in this clause 25:

(i) GST means the tax payable on taxable supplies under GST Law;

(ii) GST Law means the A New Tax System (Goods & Services Tax) Act 1999 (Cth) and any related Act imposing such tax or legislation that is enacted to validate, recapture or recoup such tax; and

(iii) terms which are defined in GST Law have the meaning provided by GST Law.

Subject to paragraphs (a) to (f) (inclusive), the Professional Services Contractor must pay all taxes, duties, levies, imposts and charges which may be payable arising out of or in any way in connection with the Services.

27 NO WAIVER

Failure by the Principal to enforce or compel performance of any term or condition of this Agreement does not constitute a waiver of that term or condition and does not impair the right of the Principal to enforce it at a later time or to pursue remedies it may have for any subsequent breach of that term or condition.
28 RETURN OF DOCUMENTS
On completion of the Services or upon the termination of the Agreement, the Professional Services Contractor must deliver to the Principal:

(a) all Contract Material produced by the Professional Services Contractor regardless of its stage of completion; and

(b) the Principal’s documents, samples, patterns, moulds and other information provided to the Professional Services Contractor in carrying out those Services.

29 ENTIRE AGREEMENT
To the extent permitted by law, in relation to its subject matter, this Agreement:

(a) embodies the entire understanding of the parties, and constitutes the entire terms agreed by the parties; and

(b) supersedes any prior written or other agreement of the parties.

30 PROPORTIONATE LIABILITY

(a) To the extent permitted by law, Part 4 of the Civil Liability Act 2002 (NSW) (and any equivalent statutory provision in any other state or territory) is excluded in relation to all and any rights, obligations or liabilities of either party under this Agreement whether such rights, obligations or liabilities are sought to be enforced in contract, tort or otherwise.

(b) Without limiting the above, the rights, obligations and liabilities of the Professional Services Contractor and the Principal under this Agreement with respect to proportionate liability are as specified in this Agreement and not otherwise, whether such rights, obligations or liabilities are sought to be enforced by a claim in contract, in tort or otherwise.

(c) To the extent permitted by law:

(i) the Professional Services Contractor must not seek to apply the provisions of Part 4 of the Civil Liability Act 2002 (NSW) in relation to any claim by the Principal against the Professional Services Contractor (whether in contract, tort or otherwise); and

(ii) if any of the provisions of Part 4 of the Civil Liability Act 2002 (NSW) are applied to any claim by the Principal against the Professional Services Contractor (whether in contract, tort or otherwise), the Professional Services Contractor will indemnify the Principal against any loss, damage, cost or expense which the Principal is not able to recover from the Professional Services Contractor because of the operation of Part 4 of the Civil Liability Act 2002 (NSW).

31 SEVERABILITY
If at any time a provision of this Agreement is or becomes illegal, invalid or unenforceable in any respect under the law of any jurisdiction, that will not affect or impair:

(a) the legality, validity or enforceability in that jurisdiction of any other provision of this Agreement; or

(b) the legality, validity or enforceability under the law of any other jurisdiction of that or any other provision of this Agreement.

32 NATIONAL CODE OF PRACTICE

(b) Compliance with the Code and Guidelines shall not relieve the Professional Services Contractor from responsibility to perform the Services, or from liability for any defect in the works arising from compliance with the Code and Guidelines.

(c) Where a change in the Agreement is proposed and that change would affect compliance with the Code and Guidelines, the Professional Services Contractor must submit a report to the Commonwealth specifying the extent to which the Professional Services Contractor's compliance with the Code and Guidelines will be affected.

(d) The Professional Services Contractor must maintain adequate records of the compliance with the Code and Guidelines by:
   (i) the Professional Services Contractor;
   (ii) its Subcontractors;
   (iii) consultants; and
   (iv) its Related Entities (see Guidelines for meaning including Section 3.5 of the Guidelines).

(e) If the Professional Services Contractor does not comply with the requirements of the Code or the Guidelines in the performance of this Agreement such that a sanction is applied by the Minister for Employment and Workplace Relations, the Code Monitoring Group or the Commonwealth, without prejudice to any rights that would otherwise accrue, those parties shall be entitled to record that non-compliance and take it, or require it to be taken, into account in the evaluation of any future tenders that may be lodged by the Professional Services Contractor or a related entity in respect of work funded by the Commonwealth or its agencies.

(f) The Professional Services Contractor must not appoint a subcontractor or consultant in relation to the Project where:
   (i) the appointment would breach a sanction imposed by the Minister for Employment and Workplace Relations; or
   (ii) the subcontractor or consultant has had a judicial decision against them relating to employee entitlements, not including decisions under appeal, and has not paid the claim.

(g) The Professional Services Contractor agrees to require that it and its subcontractors or consultants and its related entities provide the Commonwealth or any person authorised by the Commonwealth, including a person occupying a position in the Office of the Australian Building and Construction Commissioner, with access to:
   (i) inspect any work, material, machinery, appliance, article or facility;
   (ii) inspect and copy any record relevant to the Project the subject of this Agreement; and
   (iii) interview any person as is necessary to demonstrate its compliance with the Code and Guidelines.

(h) Additionally, the Professional Services Contractor agrees that the Professional Services Contractor and its related entities will agree to a request from the Commonwealth or any person authorised by the Commonwealth, including a person occupying a position in the Office of the Australian Building and Construction Commissioner, to produce a specified document within a specified period, in person, by fax or by post.

(i) The Professional Services Contractor must ensure that all subcontracts impose obligations on subcontractors' equivalent to the obligations under these Agreement clauses.
CONTRACT PARTICULARS

Principal:
Transport for NSW
ABN 18 804 239 602
Address: Level 5, Tower A, Zenith Centre
821-823 Pacific Highway
Chatswood NSW 2067
Tel: 02 9200 0200 Fax: 02 9200 0290

Professional Services Contractor:
Sinclair Knight Merz Pty Limited
(ABN 37 001 024 095)
and
Parsons Brinckerhoff Australia Pty Limited
(ABN 80 078 004 798)
trading jointly as
NSRU Design Joint Venture
Address: 100 Christie Street
St Leonards, NSW 2065
Tel: 02 9928 2489 Fax: 02 9928 2444

Authority functions of TfNSW:
Rail Transport Operator under Rail Safety Act 2008
(Clause 1)

Commencement Date: (Clause 1)
5 July 2012

Confidential Information: (Clause 1)

Other documents: (Clause 1, "Agreement" paragraph (c))
Schedule 1 – Confidentiality Deed Poll
Schedule 2 - Form of Statutory Declaration and Subcontractor’s Statement
Schedule 3 - Form of Statement of Interests and Associations
Schedule 4 - Deed of Novation
Schedule 5 - Expert Determination Agreement
Schedule 6 - Certificate of Design Compliance
Schedule 7 - Certificate of Construction Compliance
Schedule 8 - Schedule 9 - Temporary Works List
Attachment A - 'NSRU Technical Advisor – Detail Design and Construction Support’ Services Brief, reference 1767244_5, dated 2 July 2012, including appendices
**Fee: (Clause 1)**

The fee comprises:

(a) for performing the whole of the Services, except for the alliance procurement support and the construction support services

(b) the amount determined by application of the rates in Schedule 8 to the actual hours expended in the provision of alliance procurement support services during the procurement process for the North Strathfield Rail Underpass Alliance, in accordance with Services Brief Clause 2.1.

(c) the amount determined by application of the rates in Schedule 8 to the actual hours expended in the provision of construction support during the construction of the Works for the North Strathfield Rail Underpass by the Alliance, in accordance with Services Brief Clause 2.3. The total amount expended must not exceed the upper limiting fee without the prior approval of the Principal. The upper limiting fee will be negotiated and agreed with the alliance prior to commencement of construction support and become a variation to this contract.

**Provisional Sum Work: (Clause 1)**

Nil

**Services: (Clause 1)**


**Key People: (Clause 3.1(e))**

As listed in Schedule 8
Date for Completion: (Clause 3.1(g))  
Completion of design – 30 June 2013  
Completion of construction support services – 30 November 2015  
Completion of works-as-executed drawings – 30 May 2016

Time period for provision of the Safety Report: (Clause 3.2)  
As required by section 295 of the Regulations or when requested by the Principal. [See note to clause 3.2]

Approved Subconsultants: (Clause 5(a))  
Mott MacDonald Pty Ltd  
HBO+EMTB Pty Ltd  
Performance Electrics Pty Ltd  
Scott Lister Pty Ltd  
Matt Shuter & Associates  
Defire Pty Ltd  
Halcrow Pty Ltd  
CSI Pty Ltd  
W.M.A Pty Ltd  
Rose Atkins Rimmer Pty Ltd

Minimum Level of Professional Indemnity Insurance: (Clause 10)  
$20,000,000

Time for maintaining Professional Indemnity Insurance: (Clause 10)  
6 years

Minimum Level of Public Liability Insurance: (Clause 10.2)  
$10,000,000

Professional Services Contractor's Representative: (Clause 11.1)  
Ben Hyde  
Tel: 02 9928 2489  
Fax: 9928 2444

Principal's Representative: (Clause 11.2)  
David Dalton  
Tel: 02 9200 0200  
Fax: 02 9200 0290

Hourly rates for the valuation of variations: (Clause 16.3)  
As per Schedule 8.

Disbursements for which the Professional Services Contractor is entitled to be paid: (Clause 17.1)  
Nil.
<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Times for Payment Claims: (Clause 17.1)</td>
<td>Claims to cover period up to last calendar day of the previous month and to be submitted by the fifth Business Day of the month</td>
</tr>
<tr>
<td>Time for submission of review of rates (Clause 17.4)</td>
<td>As per Schedule 8.</td>
</tr>
<tr>
<td>Limit of Professional Services Contractor's Liability: (Clause 26)</td>
<td>$20,000,000</td>
</tr>
</tbody>
</table>

Transport for NSW

Professional Services Contract 1953

SIGNED as an agreement.

DATED 16 day of July 2012

SIGNED for and on behalf of the Principal: 

(Signature of Authorised Signatory)

CHRISTOPHER DECCAN LOCK

(Name of Authorised Signatory)

in the presence of:

(Signature of Witness)

(Name of Witness)

SIGNED for and on behalf of Sinclair Knight Merz Pty Limited, (ABN 37001 024 095):

(Timothy James Boyle)

(Name of Authorised Signatory)

KERRIE ANNE FORRESTER

(Name of Witness)

SIGNED for and on behalf of Parsons Brinckerhoff Australia Pty Limited, (ABN 80 078 004 798):

(Donna Siewert)

(Name of Authorised Signatory)

Name of Witness)

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SCHEDULE 1

CONFIDENTIALITY DEED POLL

Professional Services Contract Number: 

Professional Services Contractor: 

("Professional Services Contractor")

Confidentiality Deed Poll made at __________________________ on: ___/___/___

By:

Name: 

Address: 

("Recipient")

In favour of:

Transport for NSW

("Principal")

Background

The Principal and the Professional Services Contractor entered into the Professional Services Contract numbered above ("Professional Services Contract"), in which the Professional Services Contractor agreed to perform certain services.

It is a requirement of the Professional Services Contract that the Professional Services Contractor procures such of its officers, employees, subcontractors and agents as are required by the Principal to sign an individual confidentiality deed poll.

The Professional Services Contractor has requested and the Recipient has agreed, to execute this deed poll.

Confidential Information

1. Confidential Information is:

   (a) any information (including, without limitation, information contained in proposals, designs, tenders, reports, advices, minutes of meetings or correspondence) in any form which has come to the knowledge of the Recipient by any means and which has been or will be given to the Recipient either directly or indirectly by the Principal or by a person on behalf of the Principal or by a proponent or tenderer,

   (b) any material produced by the Professional Services Contractor or the Recipient under the Professional Services Contract,

   but does not include:

   (c) information which, at the time of disclosure, was already in the public domain;

   (d) information which, subsequent to disclosure, enters the public domain except through breach of this deed poll or any other obligation of confidence; or
(e) information which the Recipient is required to disclose by law or the listing rules of the Australian Stock Exchange.

In the event of uncertainty as to whether:

(a) any information is Confidential Information; or
(b) any information is lawfully within the public domain,

that information is taken to be Confidential Information and the Confidential Information is taken to be not within the public domain, unless the Recipient is informed by the Principal in writing to the contrary.

Warranty and covenant

2. The Recipient warrants and covenants that it will treat and keep the Confidential Information in the strictest of secrecy and confidentiality and expressly acknowledges and agrees that the Confidential Information is of a secret and confidential nature.

3. The Recipient warrants and covenants that it will do everything reasonably necessary to protect and maintain the confidentiality of the Confidential Information.

4. The Recipient may not disclose to any person other than:

(a) the Principal;
(b) a person who has signed a Confidentiality Deed Poll in favour of the Principal,

that the Confidential Information has been made available to the Recipient or that discussions or negotiations are taking place concerning the Professional Services Contract, and undertakes:

(c) to protect and safeguard Confidential Information against unauthorised publication or disclosure; and
(d) not to use Confidential Information for any reason or purpose except as directed by the Principal; and
(e) to comply with any security measures in connection with Confidential Information that may be required by the Principal.

Authorised disclosure

5. If the Principal's Representative approves in writing the disclosure of Confidential Information, the Recipient may disclose that Confidential Information in accordance with the terms of that approval.

Return of Confidential Information

6. If the Principal requests it, the Recipient must:

(a) except as allowed under Clause 22 of the Professional Services Contract, promptly return to the Principal all documents and other physical records of Confidential Information in its possession, custody, power or control;
(b) if any Confidential Information in the possession, custody, power or control of the Recipient is in a form that cannot be detached from valuable equipment (including, but not limited to, Confidential Information stored by electronic, electromagnetic or other means), the Recipient must erase the Confidential Information; and
(c) provide a statutory declaration to the Principal confirming that all those records and any copies have been returned or erased, as appropriate.

Continuing obligation

7. The obligations of the Recipient under this deed poll continue after the completion or termination of any employment, engagement or assignment.

Injunctive relief

8. In the event of a breach by the Recipient of the Recipient's obligations under this deed poll, then in addition to, and without prejudice to, any other remedy that the Principal may have, the Principal will be entitled to seek and obtain injunctive relief in any court of competent jurisdiction.
Further assurances
9. The Recipient must do all things and execute all documents, including but not limited to executing any agreements of assignment, or agreements under hand or seal, which may be required by the Principal to give effect to the provisions of this Confidentiality Deed Poll at a later date.

Non-waiver
10. The failure of the Principal to enforce any of the provisions of this deed poll or the granting at any time of any other indulgence is not to be construed as a waiver of that provision or of the right of the Principal to enforce that or any other provision at a later date.

Jurisdiction
11. This deed poll is governed by and subject to the laws of New South Wales.

No revocation
12. This deed poll may not be revoked or otherwise modified without the prior written consent of the Principal.

Executed as a Deed Poll
by the Recipient: in the presence of:

Recipient Witness

Name (please print) Name (please print)
**SCHEDULE 2**

**FORM OF STATUTORY DECLARATION**

<table>
<thead>
<tr>
<th>Statutory Declaration</th>
<th>Oaths Act (NSW) Ninth Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>I, ..................................................</td>
<td>Insert full name of Declarant</td>
</tr>
<tr>
<td>Of ..................................................</td>
<td>Insert address</td>
</tr>
</tbody>
</table>

do solemnly and sincerely declare that:

1. I am the representative of:

   (*the Contractor*)

   in the Office Bearer capacity of:

   ..................................................

2. The Contractor has a contract with the: [ ]

   (*the Contract*)

3. I personally know the facts which I have set out in this declaration.

4. All employees who have at any time been engaged by the Contractor for work done under the Contract:

   a) have been paid all remuneration and benefits to the date of this declaration payable to them by the Contractor in respect of their employment on work under the Contract, and

   b) have otherwise had accrued to their account all benefits to which they are entitled from the Contractor as at the date of this declaration in respect of their employment on work under the Contract pursuant to any award, enterprise agreement, act or regulation,

   with the exception of the employees and respective amounts unpaid or not accrued for each employee listed below:

   **Employee:**

   **Amount unpaid or not accrued:**

   ..................................................

5. All subcontractors and suppliers to the Contractor have been paid all moneys which as at the date of this declaration have been claimed by them to the Contractor for the performance of work under the Contract (as applicable) and the supply of materials for use in work under the Contract, with the exception of the subcontractors and suppliers and the respective unpaid amounts listed below:

   **Subcontractor or supplier:**

   **Amount unpaid:**

   ..................................................

6. In all cases where a subcontractor or supplier to the Contractor has provided services and/or materials in respect of the Contract and has submitted a claim to the Contractor for these services or materials which as at the date of this statutory declaration would have been due and payable but which the Contractor disputes, the reasons for such dispute have been notified in writing to the subcontractor or supplier by the Contractor prior to the date of this statutory declaration. Where such dispute relates to part only of the subcontractor or supplier’s claim, that part of the claim not in dispute has been paid by the Contractor to the subcontractor or supplier as at the date of this statutory declaration except for the amounts listed in 5 above.

7. The provisions of the Contract relating to the payment of employees, subcontractors and suppliers of the Contractor have been complied with by the Contractor.
8. The Contractor has been informed by each subcontractor to the Contractor (except for subcontracts not exceeding $25,000 at their commencement) by statutory declaration in equivalent terms to this declaration (made no earlier than the date 14 days before the date of this declaration):
   a) that their subcontracts with their subcontractors and suppliers comply with the requirements of the Contract relating to payment of employees and subcontractors, and
   b) that all their employees and subcontractors, as at the date of the making of such a declaration:
      i) have been paid all remuneration and benefits due and payable to them by; or
      ii) had accrued to their account all benefits to which they are entitled from;
         the subcontractor of the Contractor or from any other subcontractor (except for subcontracts not exceeding $25,000 at their commencement) in respect of any work under the Contract, and
   c) of details of any amounts due and payable or benefits due to be received or accrued described in 8(b) above which have not been paid, received or accrued, except for the following subcontractors to the Contractor who have failed to provide such a declaration:

Subcontractor:

Due amount unpaid:


9. Where a subcontractor to the Contractor has provided a declaration as in 8 above, and it includes unpaid amounts or benefits either not received or not accrued, details of the subcontractor, details of the affected employees, suppliers and subcontractors of the subcontractor, and the respective amounts or benefits either unpaid or not accrued are as follows:

Employee, subcontractor or supplier:

Amount unpaid or not accrued:


10. In relation to the statutory declaration provided by each subcontractor to the Contractor, I am not aware of anything to the contrary of what is contained therein, and on the basis of the contents of those statutory declarations, I believe that information to be true.

11. Attached to and forming part of this declaration is a "Subcontractor's Statement" given by the Contractor in its capacity as 'subcontractor' (as that term is defined in the Workers Compensation Act 1987, Payroll Tax Act 2007 and Industrial Relations Act 1996) which is a written statement:
   a) under section 1758 of the Workers Compensation Act 1987 in the form and providing the detail required by that legislation;
   b) under Schedule 2 Part 5 of the Payroll Tax Act 2007 in the form and providing the detail required by that legislation; and
   c) under section 127 of the Industrial Relations Act 1996 in the form and providing the detail required by that legislation.

12. I personally know the truth of the matters which are contained in this declaration and the attached Subcontractor's Statement.

13. All statutory declarations and Subcontractor's Statements received by the Contractor from subcontractors were:
   a) given to the Contractor in its capacity as 'principal contractor' as defined in the Workers Compensation Act 1987, the Payroll Tax Act 2007 and the Industrial Relations Act 1996 ("Acts"); and
   b) given by the subcontractors in their capacity as 'subcontractors' as defined in the Acts.

14. I am not aware of anything which would contradict the statements made in the statutory declarations or written statements provided to the Contractor by its subcontractors, as referred to in this declaration.
I make this solemn declaration conscientiously believing the same to be true and by virtue of the Oaths Act 1900 (NSW). I am aware that I may be subject to punishment by law if I wilfully make a false statement in this declaration.

Declared at: ________________________________ on ________________________________

(place) (day) (month) (year)

(Signature of Declarant)

In the presence of an authorised witness, who states:

I, ________________________________

(Name of authorised witness)

(* Please cross out any text that does not apply)

1. * I saw the face of the person.

   OR

   * I did not see the face of the person because the person was wearing a face covering, but I am satisfied that the person had a special justification for not removing the covering.

2. * I have known the person for at least 12 months.

   OR

   * I have not known the person for at least 12 months, but I have confirmed the person's identity using an identification document and the document I relied on was: ________________________________

   (describe identification document relied on)

   ________________________________

   (signature of authorised witness) (date)
SUBCONTRACTOR’S STATEMENT

REGARDING WORKERS COMPENSATION, PAYROLL TAX AND REMUNERATION (Note 1 - see back of form)

For the purposes of this Statement a “subcontractor” is a person (or other legal entity) that has entered into a contract with a “principal contractor” to carry out work.

This Statement must be signed by a “subcontractor” (or by a person who is authorised, or held out as being authorised, to sign the statement by the subcontractor) referred to in any of s175B Workers Compensation Act 1987, Schedule 2 Part 5 Payroll Tax Act 2007, and s127 Industrial Relations Act 1996 where the “subcontractor” has employed or engaged workers or subcontractors during the period of the contract to which the form applies under the relevant Act(s). The signed Statement is to be submitted to the relevant principal contractor.

SUBCONTRACTOR’S STATEMENT (Refer to the back of this form for Notes, period of Statement retention, and Offences under various Acts).

Subcontractor: .......................................................... ABN: ..........................................................

(Business name)

(Address of subcontractor)

has entered into a contract with: ................................................................................ ABN: ..........................................................

(Business name of principal contractor) (Note 2)

Contract number/identifier: ................................................................................ (Note 3)

This Statement applies for work between: ........../......... and ........../......... inclusive, (Note 4)

subject of the payment claim dated: ........../........./.....

(Note 5)

I, .................................................................................................................. a Director or a person authorised by the Subcontractor on whose behalf this declaration is made, hereby declare that I am in a position to know the truth of the matters which are contained in this Subcontractor’s Statement and declare the following to the best of my knowledge and belief:

(a) The abovementioned Subcontractor has either employed or engaged workers or subcontractors during the above period of this contract. Tick [ ] if true and comply with (b) to (g) below, as applicable. If it is not the case that workers or subcontractors are involved or you are an exempt employer for workers compensation purposes tick [ ] and only complete (f) and (g) below. You must tick one box. (Note 6)

(b) All workers compensation insurance premiums payable by the Subcontractor in respect of the work done under the contract have been paid. The Certificate of Currency for that insurance is attached and is dated ........../........./..... (Note 7)

(c) All remuneration payable to relevant employees for work under the contract for the above period has been paid. (Note 8)

(d) Where the Subcontractor is required to be registered as an employer under the Payroll Tax Act 2007, the Subcontractor has paid all payroll tax due in respect of employees who performed work under the contract, as required at the date of this Subcontractor’s Statement. (Note 9)

(e) Where the Subcontractor is also a principal contractor in connection with the work, the Subcontractor has in its capacity of principal contractor been given a written Subcontractor’s Statement by its subcontractor(s) in connection with that work for the period stated above. (Note 10)

(f) Signature: .......................................................... Full Name: ..........................................................

(g) Position/Title .......................................................... Date ........../........./.....

NOTE: Where required above, this Statement must be accompanied by the relevant Certificate of Currency to comply with section 175B of the Workers Compensation Act 1987.
Notes

1. This form is prepared for the purpose of section 175B of the Workers Compensation Act 1987, Schedule 2 Part 5 Payroll Tax Act 2007 and section 127 of the Industrial Relations Act 1996. If this form is completed in accordance with these provisions, a principal contractor is relieved of liability for workers compensation premiums, payroll tax and remuneration payable by the subcontractor.

A principal contractor can be generally defined to include any person who has entered into a contract for the carrying out of work by another person (or other legal entity called the subcontractor) and where employees of the subcontractor are engaged in carrying out the work which is in connection with the principal contractor's business.

2. For the purpose of this Subcontractor's Statement, a principal contractor is a person (or other legal entity), who has entered into a contract with another person (or other legal entity) referred to as the subcontractor, and employees/workers of that subcontractor will perform the work under contract. The work must be connected to the business undertaking of the principal contractor.

3. Provide the unique contract number, title, or other information that identifies the contract.

4. In order to meet the requirements of s127 Industrial Relations Act 1996, a statement in relation to remuneration must state the period to which the statement relates. For sequential Statements ensure that the dates provide continuous coverage.

Section 127(6) of the Industrial Relations Act 1996 defines remuneration 'as remuneration or other amounts payable to relevant employees by legislation, or under an industrial instrument, in connection with work done by the employees.'

Section 127(11) of the Industrial Relations Act 1996 states 'to avoid doubt, this section extends to a principal contractor who is the owner or occupier of a building for the carrying out of work in connection with the building so long as the building is owned or occupied by the principal contractor in connection with a business undertaking of the principal contractor.'

5. Provide the date of the most recent payment claim.

6. For Workers Compensation purposes an exempt employer is an employer who pays less than $7500 annually, who does not employ an apprentice or trainee and is not a member of a group.

7. In completing the Subcontractor's Statement, a subcontractor declares that workers compensation insurance premiums payable up to and including the date(s) on the Statement have been paid, and all premiums owing during the term of the contract will be paid.

8. In completing the Subcontractor's Statement, a subcontractor declares that all remuneration payable to relevant employees for work under the contract has been paid.

9. In completing the Subcontractor's Statement, a subcontractor declares that all payroll tax payable relating to the work undertaken has been paid.

10. It is important to note that a business could be both a subcontractor and a principal contractor, if a business 'in turn' engages subcontractors to carry out the work. If your business engages a subcontractor you are to also obtain Subcontractor's Statements from your subcontractors.

Statement Retention

The principal contractor receiving a Subcontractor's Statement must keep a copy of the Statement for the periods stated in the respective legislation. This is currently up to seven years.

Offences in respect of a false Statement

In terms of s127(8) of the Industrial Relations Act 1996, a person who gives the principal contractor a written statement knowing it to be false is guilty of an offence if:

(a) the person is the subcontractor;

(b) the person is authorised by the subcontractor to give the statement on behalf of the subcontractor; or

(c) the person holds out or represents that the person is authorised by the subcontractor to give the statement on behalf of the subcontractor.

In terms of s175B of the Workers Compensation Act and clause 18 of Schedule 2 of the Payroll Tax Act 2007 a person who gives the principal contractor a written statement knowing it to be false is guilty of an offence.

Further Information

SCHEDULE 3 – FORM OF STATEMENT OF INTERESTS AND ASSOCIATIONS

This form is completed by the Professional Services Contractor when directed by the Principal as per clause 8.

Date: ..........................................................................................................................................................

Name: .......................................................................................................................................................$

Organisation: ................................................................................................................................................

To: Transport for NSW.......................................................................................................................................

[Principal]

In relation to: [name of project in full] ..............................................................................................................$

Declaration

I ....................................................................................................................................................................... [insert full name] of

.................................................................................................................................................................... [insert business address]

agree and acknowledge that, except for the matters disclosed below:

1. To the best of my knowledge, I do not have:

(a) any financial or other interest, either directly or indirectly in;

(b) any immediate family members (spouse, children, parents or siblings) or close friends with any financial or other interest in;

(c) any other interest or association, either directly or indirectly with, the entities listed below.

Disclosure

(a) ...............................................................................................................................................................$

(b) ...............................................................................................................................................................$

(c) ...............................................................................................................................................................$

(d) ...............................................................................................................................................................$

(e) ...............................................................................................................................................................$

(f) ...............................................................................................................................................................$

(g) ...............................................................................................................................................................$

(if further space is required please attach a signed separate letter)
I undertake to:

1. notify the Principal as soon as possible after I become aware of any matter which could affect the accuracy or completeness of the statements made in this deed or which would make them incorrect if this deed was given again; and

2. make a further updated declaration as soon as practicable.

I confirm that the statements set out in this deed are true and correct as at the date indicated below.

Executed as a Deed Poll
by the Recipient: in the presence of:

Recipient

Name (please print)

Date

Witness

Name (please print)

Date
SCHEDULE 4 – DEED OF NOVATION

Deed of Novation

[                                 ]
ABN [                                 ]

[                                 ]
ABN [                                 ]

[                                 ]
ABN [                                 ]
Deed of Novation made at [insert date] on [insert location].

Parties

[insert name] ABN [insert] of [insert] (Retiring Party)
[insert name] ABN [insert] of [insert] (Continuing Party)
[insert name] ABN [insert] of [insert] (Substitute Party)

Recitals

The Retiring Party and the Continuing Party are parties to the Contract.
The Retiring Party and the Substitute Party have asked the Continuing Party to agree to the novation of the Contract on the terms and conditions of this deed.
The Continuing Party has agreed to the novation of the Contract on the terms and conditions of this deed.

This deed provides

1. Definitions and interpretation

1.1 Definitions

Defined terms in the Contract have the same meanings in this deed, unless the contrary intention appears.

In this deed:

"Claim" means any claim, notice, demand, action, proceeding, litigation, investigation or judgment whether based in contract, tort, statute or otherwise.

"Contract" means the agreement between the Retiring Party and the Continuing Party described in the Schedule.

"Effective Date" means [insert date].

"GST" means the Goods and Services Tax as defined in the A New Tax System (Goods and Services) Act 1999 (Cth.).

"Liability" means all liabilities, losses, Claims, damages, outgoings, costs and expenses of whatever description.

"Related Entity" has the meaning ascribed to that term in section 9 of the Corporations Act 2001 (Cth.).

1.2 Interpretation

In this deed:

(a) headings are for convenience only and do not affect interpretation;

and unless the context indicates a contrary intention:

(b) an obligation or a liability assumed by, or a right conferred on, 2 or more persons binds or benefits them jointly and severally;

(c) person includes an individual, the estate of an individual, a corporation, an authority, an association or a joint venture (whether incorporated or unincorporated), a partnership and a trust;
2. **Condition Precedent to Novation**

Clause 3 of this deed will have no force and effect until the Effective Date.

3. **Novation**

3.1 **Novation**

(a) The parties novate the Contract so that the Substitute Party and the Continuing Party are parties to a new agreement on the same terms as the Contract.

(b) Any reference in the Contract to the Retiring Party will be read as a reference to the Substitute Party.

3.2 **Assumptions of rights and obligations**

(a) The Substitute Party:

(i) will be bound by and must comply with the terms of the Contract and will enjoy the rights and benefits conferred on the Retiring Party under the Contract; and

(ii) will assume the obligations and Liability of the Retiring Party under the Contract,

in all respects as if the Substitute Party had originally been named in the Contract as a party instead of the Retiring Party.

(b) The Continuing Party will comply with the terms of the Contract on the basis that the Substitute Party has replaced the Retiring Party under the Contract in accordance with this deed.

3.3 **Release by Continuing Party**

(a) The Continuing Party releases the Retiring Party from:
any obligation or Liability under or in respect of the Contract; and

(ii) any action, claim and demand it has against the Retiring Party under or in respect of the Contract.

(b) This release does not affect any rights the Continuing Party may have against the Substitute Party as a result of the assumption by the Substitute Party under the terms of this deed of the obligations and Liability of the Retiring Party under the Contract.

3.3A

3.4 Insurance

As from the Effective Date:

(a) the Substitute Party must replace any insurances effected and maintained by the Retiring Party under the terms of the Contract; and

(b) the Continuing Party will take the necessary steps to ensure that, for all insurances required to be effected by the Continuing Party under the terms of the Contract, the Substitute Party is named in place of the Retiring Party as required by the Contract.

4. Ongoing Rights of Retiring Party

4.1 Direct Enquiries

In addition to any other rights which the Retiring Party may have, the Continuing Party and the Substitute Party each agree that the Retiring Party may make enquiries directly of the Continuing Party for the purpose of establishing whether the Continuing Party is complying with its obligations under the Contract.

4.2 Retiring Party to have benefit of Promises

(a) The Continuing Party warrants in favour of the Retiring Party that in performing the Services it will comply with its obligations under the Contract and that the Retiring Party will continue to have the benefit of all promises, undertakings, covenants and warranties made or given by the Continuing Party under the Agreement as if the Retiring Party remained a party to the Contract.

(b) Without limiting the above, the Continuing Party undertakes to the Retiring Party that it will exercise all reasonable skill, care and diligence in performing the Services including in issuing any certificates it is required to issue under clauses 3(l) or 3(m) of the Contract and further acknowledges that the Retiring Party will be relying upon the skill and judgment of the Continuing Party in issuing the certificates referred to in clauses 3(l) and 3(m) and acknowledges that:

(i) in performing the Services it will owe a duty of care to the Retiring Party; and

(ii) it is aware that the Retiring Party will be relying upon the skill and judgment of the Continuing Party in performing the Services and the warranties given by the Continuing Party in this deed.
4.3 **Report by Continuing Party**
The Continuing Party undertakes to the Retiring Party that it will exercise all reasonable skill, care and diligence to ensure that the design intent of the Works as contained in the Design Documentation existence at the date of execution of this Deed, is reflected in the completion of the Design Documentation and in the execution of the Works.

Without limiting the above, the Continuing Party must conduct such inspections of the Works at such times and in such detail as may reasonably be expected of a consultant engaged in a project of the size and complexity of the Works.

The Continuing Party must act in good faith towards the Retiring Party and promptly advise the Retiring Party about any matter in which the Continuing Party has been instructed by the Substitute Party to provide the Services in a manner which is, or may result in an outcome which is, not in accordance with the requirements of the Contract, including:

(a) any instruction or direction which it receives, or any work or services it becomes aware of, which in the reasonable opinion of the Continuing Party, is not in accordance with any provision of the Contract including where the Substitute Party’s instructions:

   (i) in relation to design are not consistent with the Contract or may result in the Works to be constructed not being fit for their intended purpose; or

   (ii) require the Continuing Party to issue a certificate under clauses 3(l) or 3(m) of the Contract where the conditions for the issue of that certificate under the Contract have not been satisfied; and

(b) any non-conformity of any Design Documentation produced pursuant to the Contract, or to the Design Documentation in existence at the date of this deed, upon becoming aware of the non-conformity.

5. **Overriding effect**
The parties agree that the execution and operation of this deed will for all purposes be regarded as due and complete compliance with the terms of the Contract relating to any requirement for consent to assignment of the Contract so far as any such provisions would apply with respect to the novation of the Contract to the Substitute Party.

6. **Representations and warranties**

6.1 **Authority**
Each party represents and warrants to each other party that it has full power and authority to enter into and perform its obligations under this deed.

6.2 **Authorisations**
Each party represents and warrants to each other party that it has taken all necessary action to authorise the execution, delivery and performance of this deed in accordance with its terms.

6.3 **Binding obligations**
Each party represents and warrants to each other party that this deed constitutes its legal, valid and binding obligations and is enforceable in accordance with its terms.

7. **Duties, costs and expenses**

7.1 **Stamp duty**
The Substitute Party must pay all stamp duty, duties or other taxes of a similar nature (including but not limited to any fines, penalties and interest) in connection with this deed or any transaction contemplated by this deed (except to the extent the terms of the Contract provide otherwise).
7.2 Costs
Each Party must pay its own legal costs and expenses in negotiating, preparing and executing this deed.

7.3 GST
The parties agree that:

(a) with any payment of amounts payable under or in connection with this deed including without limitation, by way of indemnity, reimbursement or otherwise, the party paying the amount must also pay any GST in respect of the taxable supply to which the amount relates;

(b) the party receiving the payment will provide a tax invoice; and

(c) the payment of any amount referred to in paragraph (a) which is a reimbursement or indemnification of a cost, expense, loss or liability will exclude any part of the amount for which the other party can claim an input tax credit.

8. General

8.1 Governing law
This deed is governed by and must be construed according to the laws of the State or Territory stated in Schedule 1.

8.2 Jurisdiction
Each party irrevocably:

(a) submits to the non-exclusive jurisdiction of the courts of the State or Territory stated in Schedule 1, and the courts competent to determine appeals from those courts, with respect to any proceedings which may be brought at any time relating to this deed; and

(b) waives any objection it may now or in the future have to the venue of any proceedings, and any claim it may now or in the future have that any proceedings have been brought in an inconvenient forum, if that venue falls within clause 8.2(a).

8.3 Amendments
This deed may only be varied by a document signed by or on behalf of each party.

8.4 Waiver

(a) Failure to exercise or enforce, or a delay in exercising or enforcing, or the partial exercise or enforcement of, a right, power or remedy provided by law or under this deed by a party does not preclude, or operate as a waiver of, the exercise or enforcement, or further exercise or enforcement, of that or any other right, power or remedy provided by law or under this deed.

(b) A waiver or consent given by a party under this deed is only effective and binding on that party if it is given or confirmed in writing by that party.

(c) No waiver of a breach of a term of this deed operates as a waiver of any other breach of that term or of a breach of any other term of this deed.

8.5 Counterparts
This deed may be executed in any number of counterparts and by the parties on separate counterparts. Each counterpart constitutes the deed of each party who has executed and delivered that counterpart.
8.6 Severance
If at any time a provision of this deed is or becomes illegal, invalid or unenforceable in any respect under the law of any jurisdiction, that will not affect or impair:

(a) the legality, validity or enforceability in that jurisdiction of any other provision of this deed; or

(b) the legality, validity or enforceability under the law of any other jurisdiction of that or any other provision of this deed.

8.7 Further acts and documents
Each party must promptly do all further acts and execute and deliver all further documents (in form and content reasonably satisfactory to that party) required by law or reasonably requested by another party to give effect to this deed.

8.8 Assignment
A party cannot assign, novate or otherwise transfer any of its rights or obligations under this deed without the prior consent of each other party.
### Schedule

<table>
<thead>
<tr>
<th>Contract (clause 1.1)</th>
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</table>
Executed as a deed.

Executed by [Retiring Party and ABN] by or in the presence of:

Signature of Director
Name of Director in full

Signature of Secretary/other Director
Name of Secretary/other Director in full

Executed by [Continuing Party and ABN] by or in the presence of:

Signature of Director
Name of Director in full

Signature of Secretary/other Director
Name of Secretary/other Director in full
Executed by [Substitute Party and ABN] by or in the presence of:

_______________________________  ________________________________
Signature of Director            Signature of Secretary/other Director

_______________________________  ________________________________
Name of Director in full          Name of Secretary/other Director in full
SCHEDULE 5

Expert Determination Agreement

[Insert name of Principal]
Principal

[Insert name of Contractor]
Contractor

[Insert name of Expert]
Expert
Expert Determination Agreement made at [Insert name and address of Principal] ("Principal") on [Insert name and address of Professional Services Contractor] ("Professional Services Contractor")

[Insert name and address of Expert agreed between the Parties or appointed pursuant to clause [to be inserted] of the PSC Contract] ("Expert")

Recitals

A. The Principal and the Professional Services Contractor (together "the Parties" and each "a Party") are parties to a contract (the "PSC Contract") for [to be inserted].

B. By written notice dated [to be inserted], the [insert Principal or Professional Services Contractor as applicable] has required that the matter described in Schedule 1, being a matter that the PSC Contract requires or permits to be referred to an Expert for determination, be determined by an Expert appointed under clause 19.3 of the PSC Contract (the "Matter").

C. Pursuant to clause 19.3 of the PSC Contract, the Expert has been appointed to determine the Matter in accordance with the process set out in this Agreement.

Operative part

APPOINTMENT OF EXPERT

(a) The Parties appoint the Expert to determine the Matter in the manner and within the times set out in this Agreement and the Expert accepts the appointment on the basis set out in this Agreement.

(b) The Parties agree that:

(i) the Expert will act as an expert and not as an arbitrator;

(ii) neither the determination of the Matter, nor the process required by this Agreement is an arbitration and any conference conducted during the determination is not a hearing conducted under any legislation or rules relating to any form of arbitration;

(iii) the rules of evidence and natural justice do not apply to the determination; and

(iv) the Expert must conduct the determination of the Matter in accordance with the Rules for Expert Determination Process set out in Schedule 2.

(c) If, at any time during the determination, the Expert becomes aware of circumstances that might reasonably be considered to adversely affect the Expert's capacity to act independently or impartially, the Expert must inform the Parties immediately and, unless the Parties agree otherwise, terminate this Agreement.

CONFIDENTIALITY

All proceedings and submissions relating to the determination (including the fact that any step in the determination is occurring), and all documents prepared for the purposes of the determination (including the Expert's determination), must be kept confidential between the Parties and the Expert. No such proceedings, submissions or documents, nor any other information relating to or arising out of the determination, may be divulged to any other person, except with the prior written consent of both Parties or as may be required by law or to the extent necessary to give effect to or enforce the Expert's determination.
2. **COSTS AND FEES**

(a) As between the Parties and the Expert, the Parties are jointly and severally liable for the payment of the Expert's fees and disbursements, calculated in accordance with the Schedule of Fees and Disbursements set out in Schedule 3. The Parties agree to comply with any direction from the Expert as to the provision of security deposits in respect of his or her fees and disbursements.

(b) The Parties agree as between themselves that:

(i) they will each pay one half of the Expert's fees and disbursements, calculated in accordance with the Schedule of Fees and Disbursements set out in Schedule 3; and

(ii) they will each bear their own costs of and incidental to the preparation of this Agreement and their participation in the determination.

3. **EXCLUSION OF LIABILITY AND INDEMNITY**

3.1 Except in the case of fraud, the Expert will not be liable to either Party for any act or omission by the Expert in the performance or purported performance of this Agreement. The Parties jointly and severally indemnify the Expert against all claims arising out of or in any way referable to any act or omission by the Expert (except fraud) in the performance or purported performance by the Expert of the terms of this Agreement.

4. **CO-OPERATION OF THE PARTIES**

4.1 Each Party agrees to take part in the determination in good faith and to comply with the reasonable requests and directions of the Expert in relation to the conduct of the determination.

5. **GOVERNING LAW**

5.1 This Agreement is governed by and is to be construed in accordance with the laws in force in the State of New South Wales.

6. **JURISDICTION**

(a) The Parties and the Expert irrevocably submit to the non-exclusive jurisdiction of the courts of the State of New South Wales and the courts to which the appeals from those courts may be made.

(b) The Parties and the Expert irrevocably waive any objection they may now or in the future have to the venue of any proceedings, and any claim they may now or in the future have that any proceeding has been brought in an inconvenient forum, where that venue falls within clause 6(a).
Schedule 1 - The Matter

[To be inserted when it comes time for expert determination]
Schedule 2 - Rules for Expert Determination Process

1. Commencement

1.1 Except as provided in clause 4.3 of these Rules, the expert determination process begins when the Expert accepts an appointment to determine the Matter in accordance with these Rules and the Code of Conduct appended to these Rules.

2. Written Submissions

2.1 Within 7 days after the date this process begins, Party A (ie the Party who gave notice of dispute under clause 19.1 of the PSC Contract) must, in addition to any particulars provided by Party A under clause 19.1 of the PSC Contract, give the other Party and the Expert a written statement of the Matter referred for Expert determination, any agreed statement of facts and a written submission on the Matter in support of Party A's contentions.

2.2 Within 7 days after the statement in clause 2.1 is served, the other Party must give Party A and the Expert a written response to Party A's submissions.

2.3 If the Expert considers it appropriate, Party A may reply in writing to the other Party's response in clause 2.2 within the time allowed by the Expert.

2.4 If the Expert decides further information or documentation is required for the determination of the Matter, the Expert may direct one or more Parties to provide such further submissions, information or documents as the Expert may require.

3. Conference

3.1 The Expert may, if he or she thinks appropriate, call a conference of the Parties. Unless the Parties agree otherwise, the conference will be held in Sydney.

3.2 At least 14 days before the conference, the Expert must inform the Parties of the date, venue and agenda for the conference.

3.3 The Parties must appear at the conference and may make submissions on the subject matter of the conference. If a Party fails to appear at a conference of which that Party had been notified under clause 3.2, the Expert and the other Party may nevertheless proceed with the conference and the absence of that Party will not terminate or discontinue the Expert determination process.

3.4 The Parties:

(a) may be accompanied at a conference by legal or other advisers; and

(b) will be bound by any procedural directions as may be given by the Expert in relation to the conference both before and during the course of the conference.

3.5 The conference must be held in private.

3.6 If required by any Party, transcripts of the conference proceedings must be taken and made available to the Expert and the Parties.

4. General

4.1 In making a determination or calling or holding a conference, the Expert must proceed in accordance with the PSC Contract.
4.2 All proceedings and submissions relating to the Expert determination process must be kept confidential except:

(a) with the prior consent of the Parties;
(b) as may be required by law; or
(c) as may be required in order to enforce the determination of the Expert.

4.3 The Expert must:

(a) inform the Parties of:
   (i) any relationship or interest with the Parties or their respective officers, employees, contractors, consultants or agents;
   (ii) any interest the Expert has in the matters in dispute; and
   (iii) any circumstance which might reasonably be considered to adversely affect the expert's capacity to act independently or impartially, immediately upon becoming aware of any such circumstances; and

(b) upon making any disclosure under this clause 4.3, unless and until the Parties agree otherwise terminate the proceedings.

5. The Determination

5.1 As soon as possible after receipt of the submissions or after any conference and, in any event not later than 90 days after the Expert's acceptance of appointment, the Expert must:

(a) determine the Matter between the Parties; and
(b) notify the Parties of that determination.

5.2 The determination of the Expert must:

(a) be in writing stating the Expert's determination and giving reasons;
(b) be made on the basis of the submissions (if any) of the parties, the conference (if any) and the Expert's own expertise; and
(c) meet the requirements of the PSC Contract.

5.3 Subject to clause 5.4, to the extent permitted by law, the Expert's determination will be final and binding on the Parties, unless a Party gives a written notice of appeal to the other Party in accordance with clause 19.3(c) of the PSC Contract.

5.4 If the Expert's determination contains a clerical mistake, an error arising from an accidental slip or omission, a material miscalculation of figures, a mistake in the description of any person, matter or thing, or a defect of form, then the Expert must correct the determination.

6. Costs

6.1 Security for costs must be deposited by both Parties at the commencement of the Expert determination process in accordance with any direction of the Expert.

7. Modification

7.1 These rules may be modified only by agreement of the Parties and, if the Expert has been appointed, the Expert.
APPENDIX 1 TO RULES FOR EXPERT DETERMINATION PROCESS

Code of Conduct for an Expert

1. The function of the Expert is to make a determination of the Matter in accordance with the PSC Contract and the Expert Determination Agreement, including the Rules and this Code of Conduct.

2. The Expert must receive the written submissions and responses of the Parties in accordance with the procedures specified in the Rules and may require further information or documentation from the Parties which is reasonably necessary to determine the Matter.

3. The Expert must decide whether a conference is necessary to receive further information. The Expert must inform the Parties of the subject matter of any conference and may hear representations only on those matters during any such conference.

4. The Expert must disclose to both Parties all information and documents received.

5. If a Party fails to make a written submission, the Expert may continue with the process.

6. Subject to clause 3.3 of the Rules in relation to conferences, meetings and discussions with the Expert must only take place in the presence of both Parties.
Schedule 3 - The Expert's Fees and Disbursements

[To be inserted when it comes time for expert determination]
Signed as an agreement.

Signed for and on behalf of the Principal by [insert name] in the presence of:

[Signature]

[Name of witness]

[Signature of witness]

Signed for and on behalf of the Professional Services Contractor by [insert name] in the presence of:

[Signature]

[Name of witness]

[Signature of witness]
Signed by the Expert [insert name] in the presence of:

[Signature]

[Name of witness]

[Signature of witness]
## SCHEDULE 6

### CERTIFICATE OF DESIGN COMPLIANCE

<table>
<thead>
<tr>
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</tr>
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<tbody>
<tr>
<td>PROFESSIONAL SERVICES CONTRACTOR:</td>
</tr>
<tr>
<td>PROFESSIONAL SERVICES CONTRACTOR AGREEMENT:</td>
</tr>
<tr>
<td>DESIGN PACKAGE (limit of 1 per certificate) DESCRIPTION:</td>
</tr>
</tbody>
</table>

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I certify that the [(delete one)](Design Documentation for the package / Design Documentation for the design discipline of [*] for the package) or part thereof described above has been completed to the extent indicated above in accordance with the requirements of the Agreement described above, and complies with the requirements of that Agreement and all Statutory Requirements and deals adequately with safety (subject to the register of outstanding minor design non-conformances and unresolved issues attached).

I further certify that the attached compliance records as required by the Agreement described above reflect the true status of the design package.

<table>
<thead>
<tr>
<th>NAME:</th>
<th>SIGNATURE:</th>
<th>DATE:</th>
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<tbody>
<tr>
<td>[(Design Manager)]</td>
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</table>
SCHEDULE 7

CERTIFICATE OF CONSTRUCTION COMPLIANCE

| PROFESSIONAL SERVICES CONTRACTOR: |
| PROFESSIONAL SERVICES CONTRACTOR AGREEMENT: |
| PORTION: |
| WORK PACKAGE (limit of 1 per certificate)  | DESCRIPTION: |

I certify that the procurement and construction of [(delete one) the work package / that part of the work package relevant to the design discipline of [*] or part thereof described above have been completed to the extent indicated above in accordance with the Design Documentation relevant to that work package and complies with all Statutory Requirements and deals adequately with safety (subject to the register of outstanding minor design non-conformances and unresolved issues attached).

I further certify that the attached compliance records as required by the Agreement described above reflect the true status of the work package.

NAME: ___________________ SIGNATURE: ___________________ DATE: / /

[(Project Manager)]
SCHEDULE 8
SCHEDULE 9

TEMPORARY WORKS LIST

The lump sum price includes the following temporary works.
### Temporary Works

- **Design Package**
  - Site Investigation & Monitoring Plans
  - Geotechnical Intersperse Report
  - Hydrology and Drainage Report
  - Existing Building Survey
  - Rail Underpass Settlement Report
  - Rail Underpass Monitoring Plan

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<th>Sub-Package</th>
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<td>DP07.2 Environmental Assessment</td>
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<td>DP07.5 Demarcation Fence</td>
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<td>DP07.6 Signage, Fencing, Gates</td>
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### Temporary Works

- **Design Package**
  - Site Investigation & Monitoring Plans
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- **Design Package**
  - Site Investigation & Monitoring Plans
  - Geotechnical Intersperse Report
  - Hydrology and Drainage Report
  - Existing Building Survey
  - Rail Underpass Settlement Report
  - Rail Underpass Monitoring Plan
<table>
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<td>DP20.1.3 Temporary shotcrete at walls and tunnel face</td>
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<td>DP20.1.4 Temporary rock bolts or dowels (e.g. face dowels</td>
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<td>DP20.1.5 Specifications for excavation, temporary support, probing, grouting, water management, monitoring (including plan and design as necessary developed in collaboration with the Alliance)</td>
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<td></td>
<td>DP20.1.6 Shotcrete, rock bolts, dowels to support tunnel portals</td>
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<td>DP20.1.7 Blinding layer concrete on tunnel invert and water pressure relief drain holes (if required)</td>
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<td>DP20.1.8 Temporary fixture anchorage to perimeter of driven tunnel whether to rock or shotcrete (as this could impact on permanent shotcrete lining and water proofing membrane)</td>
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<td>DP20.2 Dive Structures</td>
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<td>DP20.2.2</td>
<td>Temporary shoring (sheet piling or equivalent) for construction of dive structure walls.</td>
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<td>DP22.1.1</td>
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<td>DP22.2.1</td>
<td>OHW connection to Concord West Station (temporary to enable staged removal of existing OHWS from platforms).</td>
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ATTACHMENT A

NSRU TECHNICAL ADVISOR - DETAIL DESIGN AND CONSTRUCTION SUPPORT - SERVICES BRIEF, REFERENCE 1767244_5, DATED 2 JULY 2012
Services Brief
NSRU Technical Advisor – Detail Design and Construction Support

Northern Sydney Freight Corridor

Document #: 1767244_5
Version: 2.0
Status: Final
Date of Issue: 2 July 2012

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INTRODUCTION

1.1 GENERAL

Transport for New South Wales (TfNSW) is working with the Australian Rail Track Corporation (ARTC), RailCorp and the Commonwealth Department of Infrastructure and Transport (DoIT) to develop and implement the Northern Sydney Freight Corridor (NSFC) program. The NSFC program is part of the Commonwealth Government's Nation Building Program. Feasibility studies undertaken for the NSFC program have recommended a staged series of projects along the main north corridor. Funding has been provided for Stage 1 of the Program (only) which includes the North Strathfield Rail Underpass (NSRU) project.

This Services Brief describes the Services required from the Technical Advisor (TA) for the NSRU project. It sets out the scope, performance and technical requirements of these Services.

1.2 DEFINITIONS

<table>
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<tr>
<th>Term</th>
<th>Definition</th>
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<tr>
<td>Enabling Works</td>
<td>Enabling Works is the temporary or permanent relocation or protection of existing infrastructure or services to enable the Permanent Works to be undertaken</td>
</tr>
<tr>
<td>Permanent Works</td>
<td>Permanent Works are the final permanent works</td>
</tr>
<tr>
<td>Services</td>
<td>The activities to be undertaken as defined in this document.</td>
</tr>
<tr>
<td>Temporary Works</td>
<td>Temporary Works includes the installation of temporary walkways, erection of hoardings, signage and other works to enable the existing infrastructure to remain operational and the Permanent Works to be undertaken concurrently</td>
</tr>
<tr>
<td>Principal</td>
<td>Transport for New South Wales (TfNSW)</td>
</tr>
<tr>
<td>Works</td>
<td>The Works are defined as all infrastructure and systems which are designed by the TA and its team of specialist technical advisors, including the Permanent Works and the Enabling Works.</td>
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1.3 ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>AFC</td>
<td>Approved for Construction</td>
</tr>
<tr>
<td>ATP</td>
<td>Automatic Train Protection</td>
</tr>
<tr>
<td>BMS</td>
<td>Building Management Systems</td>
</tr>
<tr>
<td>BRS</td>
<td>Business Requirements Specification</td>
</tr>
<tr>
<td>CCR</td>
<td>Configuration Change Review</td>
</tr>
<tr>
<td>CCTV</td>
<td>Closed Circuit Television</td>
</tr>
<tr>
<td>CDR</td>
<td>Critical Design Review</td>
</tr>
<tr>
<td>CONO</td>
<td>Certificate of No Objection</td>
</tr>
<tr>
<td>CSR</td>
<td>Combined Services Route</td>
</tr>
<tr>
<td>CWIP</td>
<td>Certificate of Works in Progress</td>
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<tr>
<td>DCD</td>
<td>Design Co-ordination Drawing(s)</td>
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<tr>
<td>DCM</td>
<td>Design Co-ordination Manager</td>
</tr>
<tr>
<td>Term</td>
<td>Description</td>
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<tr>
<td>DMS</td>
<td>Document Management System</td>
</tr>
<tr>
<td>DSRP</td>
<td>Design and Sustainability Review Panel</td>
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<tr>
<td>DSS</td>
<td>Detail Services Search</td>
</tr>
<tr>
<td>DTRS</td>
<td>Digital Train Radio System</td>
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<tr>
<td>EACS</td>
<td>Electronic Access Control System</td>
</tr>
<tr>
<td>EBS</td>
<td>Existing Buildings and Structures</td>
</tr>
<tr>
<td>ESD</td>
<td>Environmentally Sustainable Design</td>
</tr>
<tr>
<td>ETS</td>
<td>Electronic Ticketing System</td>
</tr>
<tr>
<td>EWIS</td>
<td>Emergency Warning &amp; Intercommunication System</td>
</tr>
<tr>
<td>FER</td>
<td>Fire Engineering Report</td>
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<tr>
<td>FLS</td>
<td>Fire &amp; Life Safety</td>
</tr>
<tr>
<td>GPO</td>
<td>General Power Outlet</td>
</tr>
<tr>
<td>GRN</td>
<td>Government Radio Network</td>
</tr>
<tr>
<td>GSN</td>
<td>Goal Structured Notation</td>
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<tr>
<td>GST</td>
<td>Galvanised Steel Troughing</td>
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<tr>
<td>HMI</td>
<td>Human Machine Interface</td>
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<tr>
<td>HV</td>
<td>High Voltage</td>
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<tr>
<td>ITSR</td>
<td>Independent Transport Safety Regulator</td>
</tr>
<tr>
<td>KPI</td>
<td>Key Performance Indicators</td>
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<td>LAN</td>
<td>Local Area Network</td>
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<td>LLPA</td>
<td>Long Line Public Address</td>
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<td>LV</td>
<td>Low Voltage</td>
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<td>MEW</td>
<td>Major External Works</td>
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<td>NSFC</td>
<td>Northern Sydney Freight Corridor</td>
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<td>NSRU</td>
<td>North Strathfield Rail Underpass</td>
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<td>OHW</td>
<td>Overhead Wiring</td>
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<td>PA</td>
<td>Public Address</td>
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<td>PDR</td>
<td>Preliminary Design Review</td>
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<td>Pit and Pipe</td>
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<td>RAATM</td>
<td>Requirements Analysis Allocation Traceability Matrix</td>
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<td>RFI</td>
<td>Request(s) for Information</td>
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<td>SAD</td>
<td>Safety Assurance Demonstration</td>
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<td>SAP</td>
<td>Safety Assurance Plan</td>
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<td>SAR</td>
<td>Safety Assurance Report</td>
</tr>
<tr>
<td>SCADA</td>
<td>Systems Control and Data Acquisition</td>
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<tr>
<td>SCR</td>
<td>System Concept Review</td>
</tr>
<tr>
<td>SDR</td>
<td>System Definition Review</td>
</tr>
<tr>
<td>SFAIRP</td>
<td>So Far as is Reasonably Practicable</td>
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<tr>
<td>SFS</td>
<td>Signalling Functional Specification</td>
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</table>
1.4 **OVERVIEW OF THE NSFC PROGRAM**

The 155 kilometre Sydney to Newcastle rail line is part of Australia's busiest rail corridor - the east coast rail network - servicing Melbourne, Sydney and Brisbane. It is also the most serious bottleneck on the east coast interstate rail network.

The key challenges for freight rail services between Sydney and Newcastle are:

- a lack of passing loops;
- several steep inclines;
- junctions causing critical delays; and
- passenger trains having priority over freight trains in urban Sydney.

The NSFC program includes a number of proposed projects to increase freight capacity on the Main North Line between Sydney and Newcastle. Table 1 shows the proposed projects and stages. The stage 1 projects are scheduled to be completed by the end of 2016.
Table 1: NSFC program – proposed projects and stages (subject to funding)

<table>
<thead>
<tr>
<th>Stage</th>
<th>Project</th>
<th>Scope</th>
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<tbody>
<tr>
<td>STAGE 1</td>
<td>North Strathfield</td>
<td>Rail underpass</td>
</tr>
<tr>
<td>1</td>
<td>Hexham</td>
<td>Passing loop (1)</td>
</tr>
<tr>
<td>2</td>
<td>Epping to Thornleigh</td>
<td>3rd Track (uphill)</td>
</tr>
<tr>
<td>3</td>
<td>Gosford North</td>
<td>Passing loops (2)</td>
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<td>STAGE 2 (subject to funding) – TBA</td>
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<tr>
<td>STAGE 3 (subject to funding) – TBA</td>
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1.5 NSFC PROGRAM OBJECTIVES AND PERFORMANCE CRITERIA

The NSFC program will address freight rail availability, capacity and reliability. It has been designed to:

- improve freight train access through northern Sydney to the metropolitan freight network, Port Botany and intermodal (container) terminals;
- relieve the most serious bottleneck on the east coast interstate rail network;
- create a more efficient freight rail network connecting Australia’s three largest cities;
- reduce freight transport operating costs;
- improve passenger services on the Main North Line; and
- ease peak hour restrictions on freight services.

1.6 NORTH STRATHFIELD RAIL UNDERPASS PROJECT

The North Strathfield Rail Underpass (NSRU) project is one of the four Stage 1 projects under the NSFC Program. The primary operational objective of the NSRU project is to enable additional paths for freight trains, reduce waiting times for freight trains and increase the reliability of both freight and passenger trains.

As shown in Figure 1, the NSRU will remove the current crossing operation at Concord West and will enable a 1,500m freight train to stand clear of the Main North Line before entering the single track section towards Flemington.

Figure 1: Indicative North Strathfield Rail Underpass
1.6.1 Construction Contracting Strategy

The contracting strategy chosen for the delivery of the NSRU project is a combination of a construct-only contract and an Alliance contract as set out below:

- a contract with RailCorp to relocate the North Strathfield RailCorp Maintenance Facility;
- a construct-only contract for the nine (9) under track crossings (ULX) included in stage 1 of the Signalling Enabling Works Strategy – Including Final Works; and
- an Alliance contract for the remaining enabling, temporary and permanent Works.

The Principal has commenced on a 3 stage “Dual TOC” Alliance procurement process. Stage 3 of this process is the Project Definition Phase (PDP) which will culminate in the execution of a Project Alliance Agreement with TfNSW as the “Owner Participant” and the firms from the successful proponent consortium as the “Non-Owner Participants” or “NOPs”. The TA’s role in supporting TfNSW during the PDP is described in more detail in Clause 2.1.

1.6.2 Principal’s Service Providers

The development of the detail design of the NSRU project will be split between three separate engineering service providers as described below:

- The technical advisor engaged by the Principal to develop the Final Concept Design and the Reference Design has been retained by the Principal to complete the detail design for the nine (9) ULXs. The detail design of these elements of the Works does not form part of this Services Brief;
- A “Signalling Technical Advisor” or “STA” will be contracted by the Principal. The STA will be responsible for the delivery of the signalling design including, but not limited to, the signalling plan, control tables, track insulation plan, interlocking data and circuit books and any revisions to the Signalling Functional Specification (SFS); and
- The TA to be engaged under this Services Brief is responsible for developing the detail design of all other components that form the overall scope of the Works to be delivered by the Alliance contract. References to the “Technical Advisor” or “TA” throughout this Services Brief should be interpreted as a reference to the NSRU Detail Design Technical Advisor.

The Principal has also engaged a Planning Approval Contractor which is tasked with preparing the Project’s Review of Environmental Factors (REF).

1.6.3 Current Status of NSRU Design

The following phases of design have been completed for the NSRU project:

- the “Final Concept Design” was completed in December 2011 and is included in Appendix 1 of this Services Brief;
- the Final Concept Design has been reviewed and comments have been received from the Principal and RailCorp. Copies of the Final Concept Design review comments schedules, responses and revised documents are included in Appendix 2 of this Services Brief;
the Signalling Functional Specification (SFS) is being developed and has been reviewed and comments have been received from the Principal and RailCorp, the latest version is included in Appendix 3 of this Services Brief;

- the Final Signalling Enabling Works Strategy is included in Appendix 4 of this Services Brief; and

- The draft NSRU Signalling Plan is under development, the latest version is included in Appendix 5 of this Services Brief.

The draft REF was submitted by the Planning Approval Contractor to the Principal for review in February 2012.

The Principal is currently managing the process of converting the Final Concept Design to "Reference Design" status. Reference Design status refers to the point at which the Final Concept Design is accepted by RailCorp as representing a scope of work which satisfies RailCorp's operational and maintenance requirements and is an acceptable change or addition to the RailCorp's asset configuration.

The Principal anticipates that Reference Design status will be achieved prior to Contract Award. The TA will adopt the Reference Design as the technical basis for the detail design development.

The TA will provide, in writing, notification to the Principal of any proposed departures from the Reference Design during the delivery of the Services. This notice will be used by the Principal to register potential impacts to scope. No departures from the Reference Design shall be accepted without prior written consent from the Principal.

The Principal does not warrant, guarantee, represent or assume any duty of care to the TA that the Reference Design is accurate, adequate, suitable or complete, or is the most effective design solution or will meet the requirements of the Contract.

The NSFC Program Safety Master Plan and the NSRU Safety Assurance Plan are included in Appendix 6 and Appendix 7 respectively.

1.7 PLANNING APPROVAL

Under the provisions of Part 5 of the Environmental Planning and Assessment Act 1979 (EP&A Act), TfNSW is preparing a review of environmental factors. The REF will outline the project scope, identify potential environmental impacts, and identify mitigation measures to minimise environmental impacts. The REF will be publicly exhibited for 4 weeks to allow the community to review the proposal and make submissions to TfNSW.

The anticipated key dates for the Planning Approval are:

- public exhibition period (four weeks) commencing mid-May 2012; and
- determination of the REF July 2012.

A schedule copy of indicative mitigation measures is included in Appendix 8 of this Services Brief.

1.8 DESCRIPTION OF THE WORKS AND TEMPORARY WORKS

A summary of the main deliverables for the NSRU project is provided below.
The scope of the rail underpass structure and North Strathfield Station includes:

- enabling works to relocate HV power and signalling and communications cabling into a new permanent service route away from the proposed works;
- protection or concrete encasement of existing public utility services;
- dive structures for the new underpass consisting of a mixture of bored piles with a shotcrete lining and post and panel walls, insitu concrete floor and precast capping beam;
- underpass section under the existing main lines, consisting of a shallow driven tunnel constructed using sacrificial canopy tubes and a shotcrete lining;
- provision of direct fix track through dive structures and underpass;
- provision of new ballasted track between the southern dive structure to existing Goods Loop, including the provision of a new crossover in place of an existing turnout;
- removal of two sets of existing catch points;
- provision of new multiple track Overhead Wiring (OHW) structures and OHW to extend over the existing and new track work;
- replacement of the existing pedestrian footbridge eastern end support structure at North Strathfield Station;
- provision of new services overbridge gantry across the rail corridor at Beronga Street;
- demolition of the remaining sections of the existing Beronga Street overbridge including construction of associated retaining walls;
- relocation of existing Jemena Gas and Sydney Water sewage rising mains services to new services overbridge;
- provision of new sewer main in Queen Street;
- provision of new stormwater main and drainage culverts from the rail corridor to the existing open drainage channel (Powells Creek) via Railway Street;
- provision of a new pump station and filtration plant to treat and dispose of ground water seepage and stormwater in the dives and underpass tunnel;
- modifications to the signalling and communications systems to suit the new works;
- extension to the eastern end of Pomeroy Street overbridge including the construction of a new abutment, new deck sections and new impact protection walls;
- construction of new maintenance access hi-rail vehicle access ramp north of Pomeroy Street overbridge;
- construction of impact protection walls to the existing M4 flyover; and
- installation of new HV distribution substation at North Strathfield.

The scope of the replacement / upgrade of Up Relief and balance of works to Homebush Bay Drive overbridge includes:
enabling works to relocate signalling and communications cabling into a new permanent service route away from the proposed works;

- protection or concrete encasement of existing public utility services;

- provision of safe walking access, track drainage and construction of new embankment retaining wall on the up side of the alignment north of Pomeroy Street Overbridge to Homebush Bay Drive;

- provision of new ballasted track between approx. 13.550km and 15.875km, including replacement of existing decommissioned Up Relief track and the installation of a new connection turnout onto the Up Main at Homebush Bay Drive;

- provision of protection slab over various existing public utility services and direct fix track at Victoria Avenue;

- construction of new, mid-platform, aerial concourse with provision of four lifts, six sets of stairs, new platform canopies and new station services;

- associated station upgrade works including platform gap reduction, level access, tactile tile indicators and improved station systems;

- demolition of existing aerial concourse and associated works at Concord West Station;

- demolition of the existing buildings and council car park adjacent to Concord West Station and provision of new car park;

- realignment of Queen Street at Concord West including removal of on-street parking;

- construction of new car park to replace losses;

- landscaping at Concord West Station;

- provision of new Overhead Wiring (OHW) structures and OHW to extend over the new track work;

- modifications to the signalling and communications systems to suit the new works. Including the construction of a new signalling bungalow;

- construction of two minor bridges spanning an existing drainage pipe and a drainage culvert north of Concord West Station;

- construction of impact protection walls to the existing buildings north of Concord West Station;

- construction of new maintenance access ramp south of Homebush Bay Drive; and

- commissioning of the works.

1.9 **STANDARDS, REGULATIONS, AND CODES**

The Works and the Temporary Works must, as a minimum, be designed to comply with the standards, regulations and codes required by the Services Brief including the standards, regulations and codes which are identified and listed in Clause 5.

References in the Services Brief to a standard, regulation or code including a RailCorp or Standards Australia publication, must, unless stated otherwise, be read as a reference to the
version of the particular standard, regulation or code current at the time at which the relevant part of the Works is designed.

Where specific standards, regulations and codes are nominated in the Services Brief in relation to particular areas of the Works, these are minimum requirements and do not relieve the TA's obligation to comply with all other standards, regulations and technical notes (issued by RailCorp).

In the event of any inconsistency, ambiguity or discrepancy between a requirement of the Services Brief and any Standards, regulations and codes or among any standards, regulations and codes, the following order of precedence will apply:

1. TfNSW Standard Requirements;
2. specific provisions of the Services Brief;
3. RailCorp Standards and guidelines;
4. RMS Standards and guidelines;
5. Australian Standards and guidelines; and
6. any international codes, standards or specifications not listed in Clause 5.

In the event of any inconsistency, ambiguity or discrepancy, between any standards, regulations and codes listed in the Services Brief, the standard, regulation or code which specifies the greatest level of service or gives the highest standard will apply.
2 OUTLINE SCOPE OF SERVICES

The TA will be responsible for providing the following services:

- support the Principal during the Project Development Phase of the Alliance procurement process (see Clause 2.1);
- progress the approved Reference Design for the NSRU project and develop a detail design in accordance with the requirements of TSR T1 including the development of "Approved for Construction" or "AFC" design documents and specifications (see Clause 2.2);
- interface with the Principal’s Planning Approval Contractor;
- lead and be responsible for coordinating the design of the Works required to support the signalling design developed by the STA. A Signalling Interface Schedule is included in Appendix 13 of this Services Brief;
- provide support to the Alliance during the construction phase of the project (see Clause 2.3); and
- production of Works-As-Executed documentation in accordance with the information provided by the Alliance on completion of the construction phase of the project (see Clause 2.4).

The TA’s scope of Services is described in further detail in the sub-clauses below and in Clauses 4 and 5.

2.1 ALLIANCE PROCUREMENT SUPPORT

The procurement process for the North Strathfield Rail Underpass Alliance is proceeding in parallel with the detail design work that is the subject of this Services Brief. The TA will fulfil the role of technical support for TfNSW during that procurement process.

TfNSW is procuring the Alliance partner through a competitive selection process where a shortlist of two proponent teams will each be developing a Project Proposal with a Target Outturn Cost (TOC). Each of the proponent teams will be provided with the Reference Design for the project in order to develop the TOC and both teams will have design questions and clarifications about that design.

The TA will be required to answer the design questions on behalf of TfNSW. As this will be in the context of a price competitive process, the contact between the TA and the proponent teams will be carefully managed to ensure that all contact is consistent, fair and equitable and meets probity requirements.

TfNSW has therefore proposed a series of structured meetings relating to design discussions during the Project Development Phase (PDP):

- Guidance meetings – opportunity for the Alliance proponent teams to ask questions and seek clarification. Proponent teams will be asked to send questions to TfNSW 5 days prior to each session. TfNSW will then forward the questions to the TA to provide advice to enable TfNSW to respond at the meeting with the proponent team. Over the course of the PDP, these meetings will tend to become more focussed on the proponent teams presenting proposed approaches to the project...
for guidance from TfNSW – primarily to ensure that each proponent team presents a compliant proposal. The TA will not attend any of these sessions.

Note that each Alliance proponent team will meet separately with TfNSW and will generate its own list of questions and the TA must be prepared to respond to both lists. The questions will be deidentified with documents marked with a random title generated by TfNSW (e.g. ‘Proponent A’). TfNSW expects there to be some overlap between the issues and questions raised by the two proponent teams.

- **Alignment meeting** – session for each proponent team to separately meet with the TA team and confirm the scope of work proposed once the TA is novated to the Alliance partner and the nature of the risks and opportunities that are present in that relationship. The same members of the TA will be required to attend both meetings.

The full scope of work (and therefore TA resources) required to answer the questions and clarifications from the Alliance proponent teams will not be known until those requests are received. TfNSW suggests that managing the responses to these requests may require input from the following members of the TA’s team:

- Project Manager
- Design Manager
- Interface Manager
- Administrative support
- Track design lead plus potentially 2 designers
- Civil design lead plus potentially 4 designers (includes hydrology and geotech)
- Structural design lead plus potentially 4 designers (includes tunnelling)
- Rail Systems design lead plus potentially 4 designers (includes LV, HV, OHW and C&CS)
- Lead Architect plus potentially 1 additional Architect
- CAD support (potentially 2)

The proposed schedule of meetings relevant to the TA is:

<table>
<thead>
<tr>
<th>Week beginning</th>
<th>Proposed meeting</th>
<th>Subject/purpose</th>
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<tbody>
<tr>
<td>18 June</td>
<td>Guidance meeting 1 &amp; Design scope</td>
<td>Confirm design scope/details; Compare TPD and proponent R&amp;O assessments; Proponent questions</td>
</tr>
<tr>
<td>2 July</td>
<td>Guidance meeting 2</td>
<td>Opportunity for the Proponent Team to ask questions/seek clarification from TPD</td>
</tr>
<tr>
<td>16 July</td>
<td>Guidance meeting 3</td>
<td>Opportunity for the Proponent Team to ask questions/seek clarification from TPD</td>
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</tbody>
</table>
Opportunity for the Proponent team to table key issues and concerns re emerging solutions / key questions of compliance; and seek input from TPD re both ‘conforming’ and ‘alternative’ proposals

Proponent team to align with TA on risks and opportunities in design management

Opportunity for presentation / discussion by the proponent of the broad approach to the job; opportunity for comment from TPD re remaining issues of compliance etc.

TfNSW expects that the detail design work will continue in parallel with the support for the Alliance proponent teams. It is expected that the workload in responding to the requests from Alliance proponent teams will be greatest in the first four weeks of this period and will decline towards the end of the proposal submission period. Submissions are due from the Alliance proponents on Monday, 3 September, 2012.

TfNSW expects to announce the successful Alliance proponent in early November and the Alliance would be established and commence work at that date. It is also expected that the TA would be novated to the Alliance partner on the establishment of the Alliance.

2.2 DETAIL DESIGN DEVELOPMENT

The TA must develop the detail design of the Works set out in Clauses 4 and 5 in accordance with the requirements of TSR T1 (see Appendix 9).

2.3 CONSTRUCTION SUPPORT

During the construction of the Works, the TA will be required to provide technical support to the Alliance, including, but not limited to the following:

- responding to RFI’s;
- finalisation of Safety Assurance documentation;
- reviewing suggested changes to the AFC design;
- revising and verifying agreed changes to the AFC design;
- surveillance of construction works (incl. attending Witness Points and/or Hold Points as required);
- certification that the works have been constructed in accordance with the approved AFC design documentation; and
- assisting with testing and commissioning.
The TA's responsibilities to provide construction phase support to the Alliance are further set out in the TfNSW Standard Requirement (TSR) document templates included in Appendix 10 that will form part of the Project Alliance Agreement. The TA must review these TSR templates and make itself aware of the full extent of its obligations for construction phase support under the Project Alliance Agreement.

2.4 WORKS-AS-EXECUTED DOCUMENTATION

Further to completion of the Works, the TA in liaison with the Alliance must produce a full technical record of what was constructed by preparing and submitting Works-As-Executed drawings in accordance with the requirements of TSR T1 Annexure A.
3 TECHNICAL ADVISOR’S OBLIGATIONS

3.1 DOCUMENT MANAGEMENT SYSTEM

The TA must use a proprietary electronic Document Management System (DMS) to track and store all documents and drawings produced for the project. The Principal is in the process of procuring a new document management system that will be used on all future projects. It is anticipated that the Principal’s DMS will be implemented by early June 2012 and the TA must use the Principal’s DMS once it has been made available to the TA. Prior to this date, the TA must use its own DMS.

The TA’s DMS should provide capabilities such as, but not limited to, the following:

- establishing and implementing a document register for the documents received from and sent to the Principal’s Representative, other Principal’s advisors, authorities and other stakeholders;
- receipt, management and distribution of documents, and the responses to these documents, including Requests For Information (RFIs);
- establishment and maintenance of an issue register/database for management of all key issues, including receipt, response, follow up and close out;
- storage;
- versioning;
- metadata;
- security;
- indexing; and
- retrieval.

3.2 COLLABORATIVE AUDIT PROCESS

The TA and the Principal will, on a collaborative basis, develop, agree and implement, a scope and program for the Principal’s Representative to undertake audits of the TA’s compliance with the requirements of the TA’s quality management system as these may apply to the Services and obligations under the Agreement and:

a) the TA agrees to participate and assist in the development and completion of these audits; and

b) the TA and the Principal’s Representative shall when requested share the results of any self verification by the TA and/or any of the audits completed.

3.3 COMPLIANCE WITH RAIL SAFETY ACT

The Rail Safety Act 2008 requires that all who own or operate a railway in NSW must be accredited to do so. "Owners" are broadly defined to include designers and constructors. The Principal is accredited for its role in managing the design and construction of rail works.
The TA will operate under the Principal's accreditation for the NSRU project in accordance with the Principal's accreditation requirements.

A 'Rail Safety Worker' is broadly defined as anyone involved in the design, management or construction of a rail related project. The Principal's policies on Drug and Alcohol Testing and Fatigue Management are applicable to all TA personnel classified as 'Rail Safety Workers' employed under this Agreement.

The TA is required to ensure that all persons classified as 'Rail Safety Workers' hold appropriate Certificates of Competency as required under the Rail Safety Act 2008 and associated Rail Safety Regulations.

The Independent Transport Safety Regulator (ITSR) may impose certain design or design process requirements that must be implemented by the TA as part of the Services. It may also wish to audit the design or the design processes. The TA must support the Principal and provide it with any information or access that the ITSR may require.

3.4 **MILESTONE DATES**

The key milestone dates are as follows:

<table>
<thead>
<tr>
<th>Design Package</th>
<th>Services Brief or TSR T1 Reference</th>
<th>Provisional Key Milestones</th>
<th>Provisional AFC Milestones</th>
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</thead>
<tbody>
<tr>
<td>Award TA Contract</td>
<td></td>
<td>May 2012</td>
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<tr>
<td>Project Inception</td>
<td></td>
<td>June 2012</td>
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<tr>
<td>Design Management Plan (including design program)</td>
<td>TSR T1 – 2.6.1</td>
<td>20 business days prior to commencement of design</td>
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<tr>
<td>Interface Management Plan</td>
<td>TSR T1 – 2.6.2</td>
<td>20 business days prior to commencement of design</td>
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<tr>
<td>Safety Assurance Plan</td>
<td>TSR T1 – 2.6.3</td>
<td>20 business days prior to commencement of design</td>
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<tr>
<td>RAMS Management Plan</td>
<td>TSR T1 – 2.6.4</td>
<td>Initially at SDR and the progressively updated at each design stage</td>
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<tr>
<td>Interface Schedule</td>
<td>TSR T1 – 2.6.3</td>
<td>20 business days prior to commencement of design then updated on a monthly basis</td>
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<tr>
<td>Competence for Design</td>
<td>TSR T1 – 2.4</td>
<td>10 business days after award</td>
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<tr>
<td>Monthly Report</td>
<td>Services Brief – Clause 3.4</td>
<td>28th day of each month or the next consecutive working day</td>
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<tr>
<td>Weekly Resource Report and Cost Update</td>
<td>Services Brief – Clause 3.4</td>
<td>Issued weekly</td>
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<tr>
<td>Sustainability in Design</td>
<td>TSR T1 – 2.5</td>
<td>Progressively updated at each design stage</td>
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<tr>
<td>Design Drawings and Reports</td>
<td>TSR T1 – 3.1</td>
<td>Issued with every detail design package</td>
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<tr>
<td>Design Package</td>
<td>Services Brief or TSR T1 Reference</td>
<td>Provisional Key Milestones</td>
<td>Provisional AFC Milestones</td>
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<tr>
<td>Durability Assessment Report</td>
<td>TSR T1 - 3.1.3</td>
<td>Progressively updated at each design stage</td>
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<tr>
<td>Safety Assurance Report(s)</td>
<td>TSR T1 - 3.5</td>
<td>Progressively updated at each design stage</td>
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<tr>
<td>Design Briefing Post-Submission minutes</td>
<td>TSR T1 - 5.9</td>
<td>3 business days after the briefing session</td>
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<tr>
<td>COREAM meeting minutes</td>
<td>TSR T1 Annexure A Clause A7</td>
<td>3 business days after the meeting</td>
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<tr>
<td>Design Co-ordination Drawings</td>
<td>TSR T1 Annexure A Clause A4</td>
<td>Updated throughout stages</td>
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<tr>
<td>Fire Engineering Report for Concord West Station</td>
<td>Services Brief – Clause 5.14.1</td>
<td>Progressively updated at each design stage</td>
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<tr>
<td>Rail Underpass Fire Engineering Report</td>
<td>Services Brief – Clause 5.15.1.3</td>
<td>Progressively updated at each design stage</td>
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<tr>
<td>Geotechnical Interpretive Report</td>
<td>Services Brief – Clause 5.7.1.1</td>
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<tr>
<td>Contamination Remediation Plan</td>
<td>Services Brief – Clause 5.7.1.1</td>
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<td>Hydrology and Drainage Report</td>
<td>Services Brief – Clause 5.7.1.2</td>
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<td>Existing Building and Structures Plan</td>
<td>Services Brief – Clause 5.7.1.3</td>
<td>Progressively updated at each design stage</td>
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<td>Rail Underpass Settlement Report</td>
<td>Services Brief – Clause 5.7.1.4</td>
<td>Progressively updated at each design stage</td>
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<td>Rail Underpass Monitoring Plan</td>
<td>Services Brief – Clause 5.7.1.5</td>
<td>Progressively updated at each design stage</td>
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<td>AFC drawings grouped for Construction Packaging</td>
<td>TSR T1 Annexure A Clause A3</td>
<td>On completion of AFC design</td>
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<tr>
<td>BCA Design Certificate</td>
<td>TSR T1 Annexure A Clause A8</td>
<td>At submission of relevant CDR design packages</td>
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<tr>
<td>DDA Design Certificate/Statement</td>
<td>TSR T1 Annexure A Clause A8</td>
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<td>DP02.1 Sydney Water – Watermains</td>
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<td>To suit delivery of relevant Design Package(s) AFC</td>
<td>Nov 12</td>
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<td>DP02.2 Sydney Water – Sewer</td>
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<td>DP02.3 Ausgrid</td>
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<td>DP02.4 Telstra</td>
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<td>DP02.5 Optus</td>
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<td>DP02.6 Uecomm</td>
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<td>DP02.7 Jemena</td>
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<td>DP03 Signalling and CSR Relocations (excl. 9 under track crossings (ULX) included in stage 1)</td>
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<tr>
<td>DP04.1 RailCorp HV Electrical Network</td>
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</table>

**Notes:**
- AFC drawings are grouped for construction packaging.
- BCA and DDA certificates are submitted at the relevant CDR design package stages.
- Design packages are progressively updated at each design stage.
- References to milestones and updates are provided for each package.

**Dates:**
- Nov 12
- Apr 13
<table>
<thead>
<tr>
<th>Design Package</th>
<th>Services Brief or TSR T1 Reference</th>
<th>Provisional Key Milestones</th>
<th>Provisional AFC Milestones</th>
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<td>DP04.2 RailCorp Communication Network</td>
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<td>DP05 Demolition Strategy</td>
<td>To suit delivery of relevant Design Package(s) AFC</td>
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<td>DP06 Property</td>
<td>To suit delivery of relevant Design Package(s) AFC</td>
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<td>DP07.1 Harrison Avenue Worksite</td>
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<td>DP07.2 Concord West Worksite</td>
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<td>DP07.3 North Strathfield Worksite</td>
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<td>Nov 12</td>
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<tr>
<td>DP07.4 Georges Lane Worksite</td>
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<td>DP07.5 Demarcation Fence for Safe Working along length of Rail Corridor</td>
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<td>Jan 13</td>
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<td>DP12.1 Earthworks</td>
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<td>Jun 13</td>
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<td>DP12.2 Maintenance Access Roads</td>
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<td>DP12.3 Fences &amp; Gates</td>
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<td>DP13 Retaining Walls</td>
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<td>DP14.1 Drainage Underpass Station Avenue</td>
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<tr>
<td>DP14.2 Drainage Underpass 15.270km</td>
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<td>DP14.3 Pomeroy Street Overbridge</td>
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<td>DP14.4 M4 Overbridge Pier Protection</td>
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<td>DP14.5 Beronga Street Services Bridge</td>
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<td>DP15 Drainage</td>
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<td>DP17 Urban Design and Landscaping</td>
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<td>Jun 13</td>
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<td>DP18 North Strathfield Station Footbridge</td>
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<td>DP19.1 Concord West Station – Architectural</td>
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<td>Apr 13</td>
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<tr>
<td>DP19.2 Concord West Station – Structural</td>
<td></td>
<td>Jan 13</td>
<td></td>
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<tr>
<td>DP19.3 Concord West Station – Building Services</td>
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<td>Jun 13</td>
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<tr>
<td>DP19.4 Concord West Station – Station Systems</td>
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<td>Jun 13</td>
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<td>DP19.6 Concord West Station – Civil Works</td>
<td></td>
<td>Jan 13</td>
<td></td>
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<tr>
<td>DP20.1 Tunnel Structure</td>
<td></td>
<td>Jun 13</td>
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</tr>
<tr>
<td>DP20.2 Dive Structures</td>
<td></td>
<td>Feb 13</td>
<td></td>
</tr>
<tr>
<td>DP20.3 Rail Underpass Fire Engineering Report</td>
<td></td>
<td>Jun 13</td>
<td></td>
</tr>
<tr>
<td>DP20.4 Rail Underpass Tunnel Services</td>
<td></td>
<td>Jun 13</td>
<td></td>
</tr>
</tbody>
</table>
3.5 **PROGRESS REPORTING**

For the Detail Design Services, the TA must prepare and submit to the Principal's Representative a concise and succinct monthly progress report on the 28th day of each month or the next consecutive working day. The monthly report should be no greater than ten (10) pages plus appendices and must address the following aspects of the Services:

- **safety statistics including:**
  - lost time injuries/diseases, time lost, WorkCover notices/fines and injuries to the public;
  - details of safety audits (type, outcomes and non-conformances raised/closed), preventative action, accidents, occurrences and hazards; and
  - results of drug and alcohol tests

- **the status at the end of the previous month of the Detail Design development (stated on a percentage complete basis for each design package) as compared to the TA's design development program (see TSR T1);**

- **key dates for the anticipated submission of design packages at SDR, PDR, CDR, and AFC stages for the Principal's review;**

- **Key activities for the next month;**

- **issues affecting or likely to affect the Services, including the forecast effects on the work and progress; and**

- **decisions made/required affecting or likely to affect progress.**

The monthly progress report must include a section on the total project costs including:

- **The actual costs incurred under the Alliance Procurement Support Services (see Clause 3.6); and**

- **The total payment claims and payments received to date under the lump sum elements of the TA's Services (Detailed Design and Works-As-Executed Drawings)**
and the forecast total costs (base lump sum fee plus the cost of any approved variations).

The TA will also provide other reports on particular matters and issues as required by the Principal's Representative and in support of particular design matters for resolution at the time.

For the Alliance Procurement Support Services, the TA must, on Tuesday of each week, prepare and present a weekly resource report to the Principal's Representative mapping the actual resources and costs incurred against the target upper limit fee (see Clause 3.6). The weekly report must address, as a minimum, the following aspects of the Services:

- Total cost incurred to date by discipline (refer to Clause 3.6);
- Progress made in the week;
- Meetings Held;
- Top Project Risks;
- Outstanding Issues;
- Weekly Look Ahead;
- Monthly Look Ahead; and
- Other Issues.

The exact format and layout of the weekly report will be agreed with the Principal upon commencement of the Services.

### 3.6 COST MANAGEMENT

The TA shall prepare a Cost Plan for the Alliance Procurement Support Services to enable the Principal to monitor and review the performance of the TA's Services against the target upper limiting fee on a weekly basis.

The TA must prepare the Cost Plan during the project inception stage based on the program for the Alliance Procurement (see Clause 2.1) and the work breakdown structure included in ITT Schedule 9.A - Upper Limiting Fee. The TA must develop a baseline resource expenditure table based on the resources, rates and forecast expenditure of hours contained in ITT Schedule 9.A distributed over the timeline for this element of the TA's Services.

The TA must update the resource expenditure table on a weekly basis to show the actual resources and costs incurred against the baseline resources expenditure table and the upper limiting fee. This will provide early notice of any divergences between incurred fee and work delivered, so that corrective actions may be agreed with the TA before work proceeds further. The updated resource expenditure table must be included in the weekly progress report (see Clause 3.5).

Changes to the upper limiting fee may only be made by written instruction from the Principal's Representative, in the form of a Services Request Form (SRF). Each SRF will detail changes in scope and the associated change in the upper limiting fee.

Following the procurement of the Alliance, the Principal and the TA will agree a cost reporting procedure for the Construction Support element of the TA's Services.
3.7 **DESIGN CONSTRUCTABILITY AND PLANNING**

The TA must on a fortnightly basis co-ordinate with the Principal on issues relating to design constructability, design co-ordination and the integration of new works into the previously constructed works. Through such co-ordination, the TA and the Principal will review topics including but not limited to:

- the staging of construction;
- production of designs for possession dependant activities; and
- general programming of the design.

The form, duration and location of the above mentioned constructability and planning co-ordination is to be agreed between the TA and the Principal. In the event that agreement on the form, duration and location cannot be reached it will be at the sole discretion of the Principal. No reasonable offer or proposal made by the TA as to the form, duration and location of the constructability and planning co-ordination will be refused by the Principal.
4 DESIGN AND PERFORMANCE CRITERIA

The TA must satisfy and comply with the general design and specification criteria set out in this section in addition to specific technical criteria described in this Section of the Services Brief.

4.1 DESIGN LIFE

The design life is the period within which an element of the Works must continue to meet the performance and technical requirements and the specified limits of reliability, availability and maintainability described within this Services Brief.

The design life for the various elements must be as follows:

<table>
<thead>
<tr>
<th>No.</th>
<th>Element</th>
<th>Design Life (years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Inaccessible permanent structural elements including bridges, retaining and deflection walls, platforms, aerial concourses, pedestrian bridges and substructures #1</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>Permanent ground anchors and rockbolts #1</td>
<td>100</td>
</tr>
<tr>
<td>3</td>
<td>Maintenance buildings (offices and stores) #1</td>
<td>100</td>
</tr>
<tr>
<td>4</td>
<td>Other structural elements #1</td>
<td>50</td>
</tr>
<tr>
<td>5</td>
<td>Non-structural elements #1</td>
<td>50</td>
</tr>
<tr>
<td>6</td>
<td>Sign support structures and other roadside furniture</td>
<td>50</td>
</tr>
<tr>
<td>7</td>
<td>Road pavements (asphalt)</td>
<td>20</td>
</tr>
<tr>
<td>8</td>
<td>Road pavements (concrete)</td>
<td>50</td>
</tr>
<tr>
<td>9</td>
<td>Drainage structures and inaccessible pipe systems #1</td>
<td>100</td>
</tr>
<tr>
<td>10</td>
<td>Drainage culverts (and other drainage under tracks) #1</td>
<td>100</td>
</tr>
<tr>
<td>11</td>
<td>Rotating equipment, gullies, accessible pipe systems, tanks and valves</td>
<td>25</td>
</tr>
<tr>
<td>12</td>
<td>Pump systems and associated electrical equipment</td>
<td>30</td>
</tr>
<tr>
<td>13</td>
<td>Pumps</td>
<td>20</td>
</tr>
<tr>
<td>14</td>
<td>Track support and fastening systems (including noise and vibration mitigation measures)</td>
<td>50</td>
</tr>
<tr>
<td>15</td>
<td>Overhead wiring structures (OHWS)</td>
<td>50</td>
</tr>
<tr>
<td>16</td>
<td>Overhead wiring</td>
<td>30</td>
</tr>
<tr>
<td>17</td>
<td>Signalling structures</td>
<td>50</td>
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<tr>
<td>18</td>
<td>Signalling system</td>
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<tr>
<td>19</td>
<td>C&amp;CS</td>
<td>20</td>
</tr>
<tr>
<td>20</td>
<td>CCTV</td>
<td>20</td>
</tr>
<tr>
<td>21</td>
<td>Fire systems</td>
<td>20</td>
</tr>
<tr>
<td>22</td>
<td>HV switchboards, transformers</td>
<td>30</td>
</tr>
<tr>
<td>23</td>
<td>LV switchboards, lighting and electrical systems</td>
<td>25</td>
</tr>
<tr>
<td>24</td>
<td>Cabling and support systems</td>
<td>25</td>
</tr>
<tr>
<td>25</td>
<td>All other systems and elements</td>
<td>25</td>
</tr>
</tbody>
</table>

#1 The Works must be designed so that they can be maintained effectively, safely, with minimum whole of life cycle costs and without adversely affecting the operation of the railway and station.

All activities involving the repair of failed items must not impact on train services. The Works must be designed so that all planned maintenance can be carried out outside of the normal operating period of the railway. All inaccessible permanent works that cannot be maintained, repaired or replaced outside of the normal railway and station operation must have a design life of 100 years.
5 SCOPE OF DESIGN PACKAGES

5.1 DESIGN PACKAGE 2 – PUBLIC UTILITIES AND SERVICES

In accordance with TSR T1, the TA and if required any specialist sub-consultant for Public Utilities and Services will carry out the detail design and document the Works based on the scope of services described below.

5.1.1 Scope of Services

Review the Reference Design, identify any design review comments that need to be closed out and develop the final Public Utilities and Services design, including but not limited to:

- where required, temporary works including but not limited to hoardings, fences, catch nets, scaffold, signage etc to protect the public and maintain use of local roads and footpaths during construction of the Works
- the relocation, protection, diversion or replacement of:
  - Sydney Water Corporation – Watermains
  - Sydney Water Corporation (SWC) – Sewer
  - Ausgrid - Electrical
  - Telstra - Communications
  - Optus - Communications
  - Uecomm - Communications
  - Jemena – Gas

The TA must:

- engage services co-ordinators (where required) and liaise with public utility owners to develop the detail design
- submit and receive approval from the public utility owners to the detail designs, including identification of any conditions
- update through detail design the Public Utilities and Services Schedule, the current status as at concept design is included in Appendix 11 of this Services Brief
- interface with RailCorp projects including but not limited to
  - Traction Supply Upgrade (TSU)
  - Signalling Power Supply Upgrade (SPSU)
  - Digital Train Radio System (DTRS)
  - Automatic Train Protection (ATP)
Incorporate, for both existing and new infrastructure, rail systems spatial and other requirements (including those of the STA), maintenance access provisions, property boundaries, rail corridor width etc.

5.1.2 Deliverables

The scope of services shall be split into a number of phases and deliverables, namely:

- Alliance Procurement Support
- Detail Design, including:
  - CDR only
  - AFC Design
- Construction Support, including Commissioning and Operational Readiness
- Works-As-Executed drawings
5.2 DESIGN PACKAGE 3 – SIGNALLING & COMBINED SERVICES ROUTE (CSR) RELOCATIONS

In accordance with TSR T1, the TA and if required any specialist sub-consultant for Signalling and Combined Services Route (CSR) will carry out the detail design and document the Works based on the scope of services described below.

5.2.1 Scope of Services

Review the Reference Design, identify any design review comments that need to be closed out and develop the final Signalling and CSR design, including but not limited to:

- lead and be responsible for coordinating the new main CSR design with the STA
- relocation of the existing main CSR to be clear of the new infrastructure including cable containment (conduits or Galvanised Steel Troughing (GST)), pits, Under Line Crossings (ULX) and under bores
- provision of additional trays to existing GST, where it does not conflict with the Works and can be utilised
- relocation of the existing or provision of new local signalling route(s)
- provision of additional communication and signalling conduit(s) or use of GST along the length of the NSRU project, for the future installation of the Automatic Train Protection (ATP) system by RailCorp
- where required, provision of additional communication conduit for Optus fibre optic cable
- pit and duct cable routes, pole and overhead line cable routes, cable containment, including spatial provision and support systems for local and system wide cabling
- footings, bases, supports, brackets and fixings for new GST

The TA must:

- interface with RailCorp projects including but not limited to TSU, SPSU, DTRS and ATP
- incorporate, for both existing and new infrastructure, rail systems spatial and other requirements (including those of the STA), maintenance access provisions, property boundaries, rail corridor width etc

5.2.2 Deliverables

The scope of services shall be split into a number of phases and deliverables, namely:

- Alliance Procurement Support
- Detail Design, including:
- SDR, PDR and CDR
- AFC Design

- Construction Support, including Commissioning and Operational Readiness
- Works-As-Executed drawings
5.3 **DESIGN PACKAGE 4 – RAILCORP ELECTRICAL AND COMMUNICATIONS NETWORKS**

In accordance with TSR T1, the TA and if required any specialist sub-consultant for RailCorp Electrical and Communications Networks will carry out the detail design and document the Works based on the scope of services described below.

### 5.3.1 Scope of Services

#### 5.3.1.1 HV Electrical

Review the Reference Design, identify any design review comments that need to be closed out and develop the final HV Electrical arrangements design, including but not limited to:

- production of final HV single line diagram for RailCorp 11kV (Feeder 532)
- provision of a diverse supply (in addition to Ausgrid) from the RailCorp 11kV (Feeder 532) supply to the new North Strathfield Distribution Substation
- re-routing of a section of the RailCorp 11kV (Feeder 532) that is running in GST near the eastern abutment of the Pomeroy Street Overbridge, to the western side of the rail corridor

The TA must:

- interface with RailCorp projects including but not limited to TSU, SPSU, DTRS and ATP
- incorporate, for both existing and new infrastructure, rail systems spatial and other requirements (including those of the STA), maintenance access provisions, property boundaries, rail corridor width etc

RailCorp are currently completing a TSU in the area of the NSRU project.

The TSU includes decommissioning of the existing RailCorp 2kV (NS14 Feeder) supply on the eastern side of the rail corridor along the length of the NSRU project

Whilst the TA will not carry out the detail design with regard to the TSU they will be required to liaise with RailCorp and include any interfaces into the NSRU detail design.

#### 5.3.1.2 Communications and Control Systems (C&CS)

Review the Reference Design, identify any design review comments that need to be closed out and develop the final C&CS design, including but not limited to:

- replace the existing 54 pair copper cables currently running in the corridor with a single 100 pair cable between the Homebush MSB building in the south, to the Rhodes Communications Room in the north
replace the existing 96 SMOF cable currently running in the corridor with a new 96 SMOF between M4 motorway flyover to an existing joining pit beyond Rhodes Station

new cabling for all existing and new signal post telephones in co-ordination with the STA

The TA must:

interface with RailCorp projects including but not limited to TSU, SPSU, DTRS and ATP

incorporate, for both existing and new infrastructure, rail systems spatial and other requirements (including those of the STA), maintenance access provisions, property boundaries, rail corridor width etc

5.3.2 Deliverables

The scope of services shall be split into a number of phases and deliverables, namely:

- Alliance Procurement Support
- Detail Design, including:
  - SDR, PDR and CDR
  - AFC Design
- Construction Support, including Commissioning and Operational Readiness
- Works-As-Executed drawings
5.4 **DESIGN PACKAGE 5 – DEMOLITION**

In accordance with TSR T1, the TA and if required any specialist sub-consultant for Demolition will carry out the detail design and document the Works based on the scope of services described below.

5.4.1 **Scope of Services**

Review the Reference Design, identify any design review comments that need to be closed out and develop the final Demolition design, including but not limited to:

- the overhanging awning structure from south-eastern corner of the Bakehouse Quarter (previous Arnott’s Biscuit Factory)
- the Concord West shops at 43-47 Victoria Avenue, which are on the north-western corner of Victoria Avenue and Queen Street
- where required, temporary works including but not limited to hoardings, fences, catch nets, scaffold, signage etc to protect the public and maintain use of local roads and footpaths during construction of the Works

The TA must:

- interface with RailCorp projects including but not limited to TSU, SPSU, DTRS and ATP
- incorporate, for both existing and new infrastructure, rail systems spatial and other requirements (including those of the STA), maintenance access provisions, property boundaries, rail corridor width etc

The above demolitions are properties/buildings that are either:

- owned by RailCorp but do not affect that operation of the Main North Line
- privately owned and are located outside of the rail corridor

The demolition of any RailCorp infrastructure asset or properties/buildings that affect the operation of the Main North Line, are included within the description of the relevant design package.

5.4.2 **Deliverables**

The scope of services shall be split into a number of phases and deliverables, namely:

- Alliance Procurement Support
- Detail Design, including:
  - CDR only
  - Demolition plans
- AFC Design
- Construction Support
- Works-As-Executed drawings
5.5 DESIGN PACKAGE 6 – PROPERTY

In accordance with TSR T1, the TA and if required any specialist sub-consultant for Property will carry out the detail design and document the Works based on the scope of services described below.

5.5.1 Scope of Services

During the concept design a set of property drawings were produced identifying the requirements for:

- property acquisition
- permanent land acquisition
- temporary land leases
- easements

These property drawings depict the cadastral details, identifying the lot number(s) affected, boundary information, dimensions of the area required, width and length of the easement required and an estimate of the area required in square metres.

Further to the completion of the detail design for each design package, the TA is to review the design against these property drawings for correctness. In the event that the Works do not fit, the TA is to produce revised property drawing(s), depicting the same information.

5.5.2 Deliverables

The scope of services shall be split into a number of phases and deliverables, namely:

- Alliance Procurement Support
- Detail Design, including:
  - CDR only
- Works-As-Executed drawings
5.6 DESIGN PACKAGE 7 – TEMPORARY WORKS

In accordance with TSR T1, the TA and if required any specialist sub-consultant for Temporary Worksites will carry out the detail design and document the Works based on the scope of services described below.

5.6.1 Scope of Services

Review the Reference Design, identify any design review comments that need to be closed out and develop the final Temporary Worksite designs, including but not limited to:

- Harrison Avenue Worksite:
  - site office facilities such as an ablution block, canteen and provisions for lockable container storage
  - temporary hardstand areas for workforce parking and material deliveries
  - reinforce existing vehicular access ramp (and tyre retaining) for use during construction of the Works
  - signage, fencing, gates, temporary connections to Public Utilities etc

- Concord West Worksite:
  - site office facilities such as an ablution block, canteen and provisions for lockable container storage
  - temporary hardstand areas for workforce parking and material deliveries
  - signage, fencing, gates, temporary connections to Public Utilities etc

- North Strathfield Worksite:
  - site office facilities such as an ablution block, canteen and provisions for lockable container storage
  - temporary hardstand areas for storage of plant and materials
  - temporary hardstand for workforce parking
  - temporary stockpile sites associated with spoil excavated from the underpass and dive structures
  - tunnel and dive structure dewatering pumps and water treatment facility during construction
  - signage, fencing, gates, temporary connections to Public or RailCorp Utilities etc

- Georges Lane Worksite:
  - site office facilities such as an ablution block, canteen and provisions for lockable container storage
• temporary hardstand areas for storage of plant and materials
• temporary hardstand for workforce parking
• temporary stockpile sites associated with spoil excavated from the underpass and dive structures
• tunnel and dive structure dewatering pumps and water treatment facility during construction
• signage, fencing, gates, temporary connections to Public Utilities etc

• Demarcation Fence for Safe Working:
  • demarcation fence required:
    - between Down Relief and Southern Dive
    - between Up Main and new drainage route
    - between Up Main and Northern Dive
    - between Up Main and Up Relief (Pomeroy Street Overbridge to Homebush Bay Drive)
  • include refuges every twenty (20) metres
  • include access for maintenance opposite operationally critical equipment (signals, tuning units etc...)
  • include insulated panels for two (2) metres either side of existing OHWS

The TA must:

• interface with RailCorp projects including but not limited to TSU, SPSU, DTRS and ATP
• incorporate, for both existing and new infrastructure, rail systems spatial and other requirements (including those of the STA), maintenance access provisions, property boundaries, rail corridor width etc

5.6.2 Deliverables

The scope of services shall be split into a number of phases and deliverables, namely:

• Alliance Procurement Support
• Detail Design, including:
  • CDR only
  • AFC Design
5.7 DESIGN PACKAGE 11 – SITE INVESTIGATION AND MONITORING PLANS

In accordance with TSR T1, the TA and if required any specialist sub-consultant for Site Investigation and Monitoring Plans will carry out the detail design and document the Works based on the scope of services described below.

5.7.1 Scope of Services

5.7.1.1 Geotechnical/Contamination

The TA must to review the following:

- Geotechnical Factual Report (completed by Golder Associates Pty Ltd) included in Volume 4 of the Concept Design
- Geotechnical Interpretative Report (completed by Douglas Partners Pty Ltd) included in Volume 2 of the Concept Design
- Stage 2 Contamination Assessment Report (completed by Golder Associates Pty Ltd) included in Volume 4 of the Concept Design
- Groundwater Level Monitoring Reports (completed by Golder Associates Pty Ltd) included in Appendix 12 of this Services Brief

and:

- identify any additional investigation work requirements for input into the detail design of the civil and structural works. It should be noted that any additional investigation work shall not be undertaken by the TA but by the Principal
- provide technical input during the investigation works
- further to reviewing the bore logs and Geotechnical Factual Report prepare a Geotechnical Interpretive Report (GIR), which will cover but not be limited to:
  - review existing data and incorporation of existing information into the final Geotechnical model
  - development and graphical presentation of a Geological and Geotechnical model including long and cross sections as appropriate to adequately define constraints at critical locations
  - interpretation of relevant Geotechnical design parameters
  - recommendations relating to sub-grade preparation for fill embankments
  - recommendations relating to cut batter designs, ease of excavation and support/retention
  - recommendations for foundations types, founding strata and relevant design parameters
  - advice regarding unsuitable material
recommendations regarding sub-grade preparation beneath track formation

- recommendations for construction control testing and monitoring to confirm that parameters assumed in the design have been achieved during construction

- advice regarding local hydrogeological regime

- advice regarding any other geotechnical constraints identified

- advice regarding areas of specific geotechnical risk and recommendations for further investigation or mitigation measures as appropriate

- further to reviewing the Stage 2 Contamination Assessment Report and the outputs from any additional testing prepare a contamination remediation plan

5.7.1.2 Hydrology and Drainage

The TA must review the following:

- Hydrology Report (completed by Golder Associates Pty Ltd) included in Volume 4 of the Concept Design

- Groundwater Level Monitoring Reports (completed by Golder Associates Pty Ltd) included in Appendix 12 of this Services Brief

and:

- identify any additional investigation work requirements for input into the design of the civil and structural works

- provide technical input during the investigation works

- further to reviewing the outcome of the investigation works produce a Hydrology and Drainage Report, which will cover but not be limited to:

  - undertake data collection and review existing reports against proposed route alignment, hydrological modelling, drainage impact assessments, flood and flood risk management studies and mitigation assessments as required

  - identify critical areas and possible impacts on the existing hydrological regimes, existing water courses and external connecting drainage, particularly where these may be inadequate

  - identify upstream and downstream impacts to the existing catchments

  - identify critical flood areas

  - identify and confirm overland flow paths and drainage discharge point;

  - collect pre-construction baseline data sufficient for the design and monitoring of the impact of the Works (permanent and temporary) on the existing hydrological regimes
5.7.1.3 Existing Buildings and Structures

The TA must identify any potential for the Works to damage or have any adverse impact on the condition or performance of any infrastructure on, in, or adjacent to or in the vicinity of the site, remote site or any other land (including but not limited to structures, roads, railways, retaining walls, bridges, services and buildings) or any existing properties adjacent to or in the vicinity of the site, remote site or any other land including any adverse impact on:

(i) amenity;
(ii) aesthetics;
(iii) durability;
(iv) structural integrity;
(v) function;
(vi) user benefits;
(vii) safety during construction and operation;
(viii) environmental performance; and
(ix) access to such infrastructure or existing properties.

The TA must analyse and predict the effects of the Works on existing ground conditions and infrastructure including but not limited to structures, roads, railways, retaining walls, bridges, services and buildings. This analysis must be documented in the detail design documentation and include the influence of:

(x) excavation and earthworks construction
(xi) geological variations
(xii) the impact on groundwater
(xiii) the effects over time
(xiv) stray currents (including any existing or new), including any electrolysis and touch potential issues
(xv) vibration from construction and compaction equipment
(xvi) noise or vibration from the Works construction plant, equipment or facilities to be used by or constructed or installed in completing the Works
The TA must finalise an Existing Buildings and Structures (EBS) plan to assess the condition of existing buildings and structures, prior to construction works commencing, including but not limited to:

- Bakehouse Quarter (previous Arnott's Biscuit Factory) – heritage brick structure in close proximity to the southern dive structure
- North Strathfield Station & Platform Structure – close proximity to the northern dive structure
- Concord West residential apartment block at 47A Queen Street, which is situated towards the rear of the block and which is adjacent to the new section of Up Relief
- Rail corridor drainage underpass structure located to the north of Concord West Station at Station Avenue (14.745km)
- Rail corridor drainage underpass structure and opposite the Liberty Grove Development (15.270km)
- Identify and include any additional buildings, structures, roads, utilities, natural slopes, cuttings and embankments that could be impacted by the proposed Works during construction, operation and maintenance
- Design of any remedial/strengthening works

The TA must liaise with the Principal with regard to the format and content for the EBS plan. At each of the subsequent detail design stages the EBS plan shall be submitted and progressively updated.

It should be noted that detailed condition surveys shall not be undertaken by the TA and access to private land will not be available to the TA. After obtaining and reviewing all available information and making appropriate site visits to publically accessible areas and the rail corridor, the TA shall evaluate the adequacy of the available information and if necessary make recommendations for additional detailed field investigations.

5.7.1.4 Ground Movements Assessment

The TA will be required to review and finalise the Ground Movements Report based on a shallow driven tunnel using canopy tubes, to confirm that:

- The predicted settlements expected during the construction of the shallow driven tunnel will remain within the normal limits specified in RailCorp specification SPC 207 – Track Monitoring Requirements for Undertrack Excavation
- Speed restrictions are not expected to be required to be put in place during construction of the tunnel

The theoretical effects of these movements due to the preferred construction methods or other influences shall be assessed together with the impacts on adjacent EBS for input in to the EBS plan and design of any remedial/strengthening works.

The TA must liaise with the Principal with regard to the format and content for the Ground Movements Report. At each of the subsequent detail design stages the Ground Movements Report shall be submitted and progressively updated.
5.7.1.5 Instrumentation and Monitoring

The TA must review and finalise the monitoring and testing procedures and plan for construction of the rail underpass associated with the following key issues:

- monitoring of key parameters during construction to validate and verify the design assumptions including ground surface and existing track deformation, groundwater levels and flows
- construction monitoring and testing to ensure the correct thickness of shotcrete is achieved including strength requirements
- geological face mapping and tunnel face stability assessment reports
- recording and reporting protocols
- requirements for pre-construction baseline monitoring of EBS, ground water levels and quality, water course levels and quality etc

The TA must liaise with the Principal with regard to the format and content for the monitoring and testing procedures and plan. At each of the subsequent detail design stages the monitoring and testing procedures and plan shall be submitted and progressively updated.

5.7.2 Deliverables

The scope of services shall be split into a number of phases and deliverables, namely:

- Alliance Procurement Support
- Detail Design, including:
  - SDR, PDR and CDR
  - AFC Design
- Construction Support, including Commissioning and Operational Readiness
- Works-As-Executed drawings

5.8 DESIGN PACKAGE 12 – EARTHWORKS, MAINTENANCE ACCESS ROADS AND FENCES & GATES

In accordance with TSR T1, the TA and if required any specialist sub-consultant for Earthworks, Maintenance Access Roads and Fences & Gates will carry out the detail design and document the Works based on the scope of services described below.
5.8.1 Scope of Services

5.8.1.1 Earthworks

Review the Reference Design, identify any design review comments that need to be closed out and develop the final Earthworks design, including but not limited to:

- cutting and embankments to provide the earthworks formation for incorporating the new section of Up Relief from Concord West Station to Homebush Bay Drive, including provision of:
  - a capping layer graded to prevent runoff flowing through multiple tracks
  - inter-track drainage to collect stormwater
  - cess drain to collect stormwater
- modification of the existing decommissioned section of Up Relief between Pomeroy Street Overbridge and Concord West Station, including:
  - reconditioning the existing track formation and regrade the capping layer to ensure runoff does not flow through multiple tracks
  - widening the existing formation to provide for a maintenance walkway
  - upgraded inter-track drainage to collect stormwater
  - upgraded cess drain to collect stormwater

The TA must:

- interface with RailCorp projects including but not limited to TSU, SPSU, DTRS and ATP
- incorporate, for both existing and new infrastructure, rail systems spatial and other requirements (including those of the STA), maintenance access provisions, property boundaries, rail corridor width etc

5.8.1.2 Maintenance Access Roads

Review the Reference Design, identify any design review comments that need to be closed out and develop the final Maintenance Access design, including but not limited to:

- Harrison Avenue:
  - reinforce existing vehicular access ramp (and tyre retaining) for use during construction of the Works
  - modify existing vehicular access ramp to allow a walking access at track level on completion of the Works
  - new vehicular access ramp to provide permanent maintenance access to the Up Relief/Up Main turnout at CH 15.820 km
provision of an all weather access road from Harrison Avenue to the new vehicular access ramp, including drainage

if required, any re-alignment to the existing Homebush Bay Drive noise walls

Queen Street/Pomeroy Street (Northern Dive Structure):

- new vehicular access ramp off Queen Street (immediately north of Pomeroy Street), to provide for maintenance access to the future Up Relief turnout
- new hi-rail vehicle access pad to the Up Relief (only) to align with the end of the access ramp
- modifications to Queens Street, verge and existing drainage

Southern Dive Structure:

- new access road off Railway Lane and hi-rail vehicular access pad to the southern dive structure

North Strathfield:

- area north of station entrance for access during the construction of the Works and new permanent access/egress arrangements for the new Maintenance Facility and material lay down areas on completion of the Works, including modifications to Queens Street, footpath, bus zone, kiss & ride and existing drainage
- area south of station entrance fencing and gates for access during construction of the Works and a new permanent access/egress arrangement to the northern tunnel portal and tunnel services buildings (Distribution Substation and Water Treatment Facility) and vehicular maintenance access into the rail corridor

Signal Bungalow:

- new access road off Concord Avenue (western side of the rail corridor) to new signal bungalow located on the down side of the rail corridor at approx. 14.945 km

Safe Walking Route:

- provision of a new safe walking route on the up side of the rail corridor from Pomeroy Street Overbridge to Homebush Bay Drive, excluding Concord West Station

where required, temporary works including but not limited to hoardings, fences, catch nets, scaffold, signage etc to protect the public and maintain use of local roads and footpaths during construction of the Works

The TA must:

Interface with RailCorp projects including but not limited to TSU, SPSU, DTRS and ATP
in incorporate, for both existing and new infrastructure, rail systems spatial and other requirements (including those of the STA), maintenance access provisions, property boundaries, rail corridor width etc

5.8.1.3 Fences and Gates

Review the Reference Design, identify any design review comments that need to be closed out and develop the final Fences and Gates design, including but not limited to:

• review and update as necessary the security risk assessment in coordination with the RailCorp Security and Station Operations representatives

• along the length of rail corridor, where:
  o new access roads/ramps are provided
  o new safe walking routes are provided
  o existing access roads/ramps are modified
  o existing fencing is currently not on the rail corridor boundary and is required to be relocated back the rail corridor boundary to accommodate the project Works
  o fencing is required to delineate land acquired and now forms part of a revised rail corridor boundary
  o either side of new Beronga Street Services Bridge
  o either side of new Span 3 of Pomeroy Street Overbridge
  o either side of the drainage underpass at Station Ave at 14.745 km
  o either side of the drainage underpass adjacent to Liberty Grove at 15.270 km

• Concord West Station:

• North Strathfield:
  o area north of station entrance additional fencing and gates installed to separation during the construction of the Works and new permanent access/egress arrangements for the new Maintenance Facility and material lay down areas on completion of the Works
  o area south of station entrance fencing and gates consolidated to provide one (1) new permanent access/egress arrangement to the northern tunnel portal and tunnel services buildings (Distribution Substation and Water Treatment Facility) and maintain vehicular maintenance access into the rail corridor

• where required, temporary works including but not limited to hoardings, fences, catch nets, scaffold, signage etc to protect the public and maintain use of local roads and footpaths during construction of the Works
The TA must:

- interface with RailCorp projects including but not limited to TSU, SPSU, DTRS and ATP
- incorporate, for both existing and new infrastructure, rail systems spatial and other requirements (including those of the STA), maintenance access provisions, property boundaries, rail corridor width etc

5.8.2 Deliverables

The scope of services shall be split into a number of phases and deliverables, namely:

- Alliance Procurement Support
- Detail Design, including:
  - SDR, PDR and CDR
  - AFC Design
- Construction Support, including Commissioning and Operational Readiness
- Works-As-Executed drawings
5.9 **DESIGN PACKAGE 13 – RETAINING WALLS**

In accordance with TSR T1, the TA and if required any specialist sub-consultant for Retaining Walls will carry out the detail design and document the Works based on the scope of services described below.

5.9.1 **Scope of Services**

Review the Reference Design, identify any design review comments that need to be closed out and develop the final Retaining Walls design, including but not limited to:

- **Retaining wall and traffic barrier south of Pomeroy Street Overbridge:**
  - retaining wall between 13.480 km and 13.530 km to provide access during the construction of the Works
  - retaining wall between 13.410 km and 13.490 km to provide screening and a traffic barrier to protect the rail corridor from errant construction vehicles during the construction of the Works and maintenance vehicles post construction of the Works

- **Widen cutting to north of Pomeroy Street Overbridge:**
  - retaining walls to retain Queen Street and the properties that back onto the rail corridor
  - provision for new vehicular access ramp off Queen Street (immediately north of Pomeroy Street), to provide for maintenance access to the future Up Relief turnout
    - this will require temporary works including but not limited to hoardings, fences, catch nets, scaffold etc to protect the public and maintain local road and footpath during construction of the Works

- **Retaining wall and traffic barrier south of Concord West Station:**
  - retaining wall between 14.380 km and 14.630 km to provide screening and a traffic barrier to protect the rail corridor from errant road vehicles on Queen Street at the roundabout intersection with Stuart Street
    - this will require temporary works including but not limited to hoardings, fences, catch nets, scaffold etc to protect the public and maintain local road and footpath during construction of the Works
  - accommodate the extension of the Up Relief track by retaining the elevated park in front of Concord West Station
    - this will require temporary works including but not limited to hoardings, fences, catch nets, scaffold etc to protect the public and maintain footpath during construction of the Works
Impact wall to the north of Concord West Station:
  - deflection (impact) wall between 14.670 km and 14.715 km to provide protection to the units north of Concord West Station from train derailment

Embankment Retaining Walls either side of the existing Drainage Underpasses:
  - retaining walls to retain the embankment either side of the Station Avenue drainage underpass 14.745 km
  - retaining walls to retain the embankment either side of the drainage underpass adjacent to Liberty Grove at 15.270 km

Cut retaining walls between Concord West Station and Homebush Bay Drive:
  - retaining walls between 14.920 km to 15.180 km and 15.430 km to 15.640 km to retain the properties that back onto the rail corridor

Maintenance access ramp to the Up Main/Up Relief turnout:
  - a retaining wall is required between Ch. 15.750 km and Ch. 15.840 km to retain the new vehicular access ramp to provide permanent maintenance access to the Up Relief/Up Main turnout at CH 15.820 km

- where required, temporary works including but not limited to hoardings, fences, catch nets, scaffold, signage etc to protect the public and maintain use of local roads and footpaths during construction of the Works

The TA must:
- interface with RailCorp projects including but not limited to TSU, SPSU, DTRS and ATP
- incorporate, for both existing and new infrastructure, rail systems spatial and other requirements (including those of the STA), maintenance access provisions, property boundaries, rail corridor width etc

5.9.2 Deliverables

The scope of services shall be split into a number of phases and deliverables, namely:
- Alliance Procurement Support
- Detail Design, including:
  - SDR, PDR and CDR
  - AFC Design
- Construction Support, including Commissioning and Operational Readiness
- Works-As-Executed drawings
5.10 **DESIGN PACKAGE 14 – RAIL CORRIDOR STRUCTURES**

In accordance with TSR T1, the TA and if required any specialist sub-consultant for Rail Corridor Structures will carry out the detail design and document the Works based on the scope of services described below.

**5.10.1 Scope of Services**

Review the Reference Design, identify any design review comments that need to be closed out and develop the final Rail Corridor Structures design, including but not limited to:

- **Drainage Underpasses at Station Ave at 14.745 km:**
  - bridging structure over the existing drainage underpass structure to avoid any additional loading onto the existing structure

- **Drainage Underpasses adjacent to Liberty Grove at 15.270 km:**
  - bridging structure over the existing drainage underpass structure to avoid any additional loading onto the existing structure

- **Pomeroy Street Overbridge:**
  - impact protection to existing piers located between Up Relief and Up Main to withstand the design collision loads specified in AS5100
  - demolish existing and construction of new eastern abutment
  - demolish existing and replacement of Span 3 with a new longer span
  - provision of anti throw screens and vehicle crash barriers to both the existing and new spans of the bridge

- **M4 Flyover (M4 Motorway):**
  - impact protection to existing piers located between on the western rail corridor boundary to withstand the design collision loads specified in AS5100
  - assess the requirement for the provision of anti throw screens to the M4 Flyover and design if required

- **Beronga Street Services Bridge:**
  - demolish existing and construction of new eastern abutment
  - new services bridge including access stairs, fencing and gates
  - provision of vertical safety screens

- **footings, bases, supports, brackets and fixings for:**
  - C&CS systems and associated infrastructure
  - CCTV cameras and associated infrastructure
LV power supplies, LV lighting and associated infrastructure

- HV power supplies
  - concrete base for new padmount substation
  - footings for new power poles

- signage

- fencing and gates

- signals and associated infrastructure including:
  - footings, bases, supports, brackets and fixings for:
    - signals
    - signal access ladders
    - signal gantries
  - concrete bases for new location cases
  - signal bungalow at approx. 14.945 km and associated infrastructure, including but not limited to:
    - building
    - concrete base
    - handrails

- where required, temporary works including but not limited to hoardings, fences, catch nets, scaffold, signage etc to protect the public and maintain use of local roads and footpaths during construction of the Works

The TA must:

- interface with RailCorp projects including but not limited to TSU, SPSU, DTRS and ATP
- incorporate, for both existing and new infrastructure, rail systems spatial and other requirements (including those of the STA), maintenance access provisions, property boundaries, rail corridor width etc

5.10.2 Deliverables

The scope of services shall be split into a number of phases and deliverables, namely:

- Alliance Procurement Support
- Detail Design, including:
  - SDP, PDR and CDR
  - AFC Design
- Construction Support, including Commissioning and Operational Readiness
- Works-As-Executed drawings
5.11 **DESIGN PACKAGE 15 – DRAINAGE**

In accordance with TSR the TA and if required any specialist sub-consultant for Drainage will carry out the detail design and document the Works based on the scope of services described below.

5.11.1 **Scope of Services**

Review the Reference Design, identify any design review comments that need to be closed out and develop the final Drainage design, including but not limited to:

- **Inter-Track Drainage:**
  - inter-track drainage to accommodate the new Up Relief between Concord West Station and Homebush Bay Drive
  - modify the existing inter-track drainage between Pomeroy Street Overbridge and Concord West Station
  - modify the existing Down Relief inter-track drainage adjacent to the rail underpass southern dive structure
  - modify the existing Up Relief inter-track drainage adjacent to the rail underpass northern dive structure
  - incorporate, for both existing and new infrastructure, rail systems spatial and other requirements (including those of the STA), maintenance access provisions, property boundaries, rail corridor width etc

- **Rail Underpass and Dive Structures Drainage:**
  - upgrade drainage network by:
    - intercepting overland flows on the eastern side of the rail corridor
    - conveying the flows along the eastern side of the rail corridor via pipes and culverts parallel to the northern dive structure and Up Relief
    - conveying the flows across the rail corridor via a culvert beneath the existing tracks and southern dive structure
    - conveying the flows outside of the rail corridor via pipes through Georges Lane, across George Street and through private land
    - discharging the flows into Powell’s Creek
  - the rail underpass is required to be protected from a 100 year Annual Recurrence Interval (ARI) storm event

- where required, temporary works including but not limited to hoardings, fences, catch nets, scaffold, signage etc to protect the public and maintain use of local roads and footpaths during construction of the Works
The TA must:

- interface with RailCorp projects including but not limited to TSU, SPSU, DTRS and ATP
- incorporate, for both existing and new infrastructure, rail systems spatial and other requirements (including those of the STA), maintenance access provisions, property boundaries, rail corridor width etc

### 5.11.2 Deliverables

The scope of services shall be split into a number of phases and deliverables, namely:

- Alliance Procurement Support
- Detail Design, including:
  - SDR, PDR and CDR
  - AFC Design
- Construction Support, including Commissioning and Operational Readiness
- Works-As-Executed drawings
5.12 DESIGN PACKAGE 17 – URBAN DESIGN AND LANDSCAPING

In accordance with TSR T1, the TA and if required any specialist sub-consultant for Urban Design and Landscaping will carry out the detail design and document the Works based on the scope of services described below.

5.12.1 Scope of Services

Review the Reference Design, identify any design review comments that need to be closed out and develop the final Urban Design and Landscaping design, including but not limited to:

- Rail Corridor:
  - landscaping to earthworks batters for the new section Up Relief between Concord West Station and Homebush Bay Drive
  - urban design treatments to retaining wall between 14.380 km and 14.630 km to provide screening and a traffic barrier to protect the rail corridor from errant road vehicles on Queen Street at the roundabout intersection with Stuart Street
  - urban design treatments to deflection (impact) wall between 14.670 km and 14.715 km to provide protection to the units north of Concord West Station from train derailment

- Concord West Station:
  - urban design and landscaping treatments to address the relocation and rebuilding of Concord West Station on the eastern side of the rail corridor, including mitigating the impacts to areas including but not limited to:
    - existing landscaped areas
    - memorial park
    - pavement mosaics
  - urban design and landscaping treatment to address the relocation and rebuilding of Concord West Station on the western side of the corridor
  - way finding, statutory and other signage requirements
  - cycle facilities (shared path and parking/storage)
  - public art or interpretation incorporated into architecture and or structure
  - Water Sensitive Urban Design (WSUD) to the new council car park

- Pomeroy Street Overbridge and Beronga Street Services Bridge:
  - urban design treatments to new traffic barriers and anti throw screens

- Beronga Street Services Bridge:
  - urban design treatment to new vertical safety screens
• Northern and Southern Dive Structures:
  o urban design treatments to post and panel sections of dive structures with consideration to equal panel sizing for painting over graffiti

• North Strathfield Station Footbridge:
  o urban design treatment to anti-climb screens

• North Strathfield:
  o urban design and landscaping treatment to address areas around the new maintenance facility office, north of North Strathfield Station
  o urban design and WSUD considerations for the new maintenance facility staff car park, north of North Strathfield Station
  o urban design and landscaping treatment to address areas around the new Distribution Substation and Water Treatment Plant, south of North Strathfield Station

• where required, temporary works including but not limited to hoardings, fences, catch nets, scaffold, signage etc to protect the public and maintain use of local roads and footpaths during construction of the Works

The TA must:

• interface with RailCorp projects including but not limited to TSU, SPSU, DTRS and ATP

• incorporate, for both existing and new infrastructure, rail systems spatial and other requirements (including those of the STA), maintenance access provisions, property boundaries, rail corridor width etc

5.12.2 Deliverables

The scope of services shall be split into a number of phases and deliverables, namely:

• Alliance Procurement Support

• Detail Design, including:
  o SDR, PDR and CDR
  o AFC Design

• Construction Support, including Commissioning and Operational Readiness

• Works-As-Executed drawings
5.13 **DESIGN PACKAGE 18 – NORTH STRATHFIELD STATION FOOTBRIDGE**

In accordance with TSR T1, the TA and if required any specialist sub-consultant for the modifications to North Strathfield Station Footbridge will carry out the detail design and document the Works based on the scope of services described below.

5.13.1 **Scope of Services**

Review the Reference Design, identify any design review comments that need to be closed out and develop the final North Strathfield Station Footbridge design, including but not limited to:

- modifications to the existing structural support
- new cantilever structural support and footings
- anti climb screens to new cantilever structural support
- demolition/removal of the existing column and pad footing
- relocation of the existing padmount substation including associated cabling works
- where required, temporary works including but not limited to hoardings, fences, catch nets, scaffold, signage etc to protect the public and maintain use of local roads and footpaths during construction of the Works

The TA must:

- interface with RailCorp projects including but not limited to TSU, SPSU, DTRS and ATP
- incorporate, for both existing and new infrastructure, rail systems spatial and other requirements (including those of the STA), maintenance access provisions, property boundaries, rail corridor width etc

5.13.2 **Deliverables**

The scope of services shall be split into a number of phases and deliverables, namely:

- Alliance Procurement Support
- Detail Design, including:
  - SDR, PDR and CDR
  - AFC Design
- Construction Support, including Commissioning and Operational Readiness
- Works-As-Executed drawings
5.14 **DESIGN PACKAGE 19 – CONCORD WEST STATION**

In accordance with TSR T1, the TA and if required any specialist sub-consultant for Concord West Station will carry out the detail design and document the Works based on the scope of services described below.

5.14.1 **Scope of Services**

Review the Reference Design, identify any design review comments that need to be closed out and develop the final Concord West Station design, including but not limited to:

- temporary works including but not limited to hoardings, fences, catch nets, scaffold etc to protect the public and maintain rail and station operations during construction of the Works

- architectural design of the station building in coordination with the building services and station systems design, including but not limited to:
  - the form and finishes to the station
  - set out of public spaces, lifts and station operational areas
  - floor plan layouts
  - elevations
  - cross sections
  - room data sheets
  - station and platform canopies
  - drainage
  - way finding, statutory and other signage requirements

- structural design, including but not limited to:
  - train impact loads
  - fire rating requirements
  - foundations
  - substructure
  - superstructure
  - four (4) lift shafts to suit the RailCorp standardised seventeen (17) person lift specification
  - six (6) access/egress staircases
  - footings, bases, supports, brackets and fixings for:
    - C&CS systems and associated infrastructure
- CCTV cameras and associated infrastructure
- LV power supplies, LV lighting and associated infrastructure
- signage
- fencing

• platform design, including but not limited to:
  - reconstruction of platform two
  - additional fourth platform (this will be non-operational)
  - platform gap reduction to the three (3) existing platforms
  - level access upgrade to the three (3) existing platforms
  - train impact loads
  - white coping edge tiles to all platforms
  - yellow line tiles to all platforms
  - tactile tile indicators to all platforms
  - fencing to fourth platform – to maintain non-operational face
  - centre drainage
  - car markers
  - way finding, statutory and other signage requirements

• low voltage power system and installations, including but not limited to:
  - cabling
  - GPO(s)
  - lighting
  - vertical transportation
  - station systems
  - mechanical and fire systems

• station systems, including but not limited to:
  - production of final schematic layouts
  - lift emergency phones
  - help points
  - SPI and VMS systems
  - PA and LLPA systems
- station management systems
- staff amenities security panel
- EACS for site entry
- precise clock
- ETS system
- interface with the DTRS project

- CCTV, including but not limited to:
  - review the security assessment completed as part of the concept design and if required complete an additional security assessment with RailCorp
  - vehicular and pedestrian entrances and exits, including emergency exits
  - coverage of parking spaces and pedestrian route
  - staircases and landings, with cameras looking both up and down each flight of stairs
  - inside each lift car
  - each lift landing/lobby area

- the TA must review the Fire Engineering Brief (FEB - completed by Defire Pty Ltd and included in Volume 2 of the Concept Design), develop and finalise the Fire Engineering Report (FER), including but not limited to:
  - description of the station and all aspects that impact on fire safety, including numbers of tracks, station dimensions, type of rolling stock, adjacent infrastructure, environmental constraints and access
  - statement of all assumptions, limitations and of the fire safety objectives
  - review of all fire hazards and mitigation and control measures
  - review of fire resistance of all materials to be used in the construction of the station and station systems
  - review of fire rating of the station and station systems
  - establishment of clear and agreed fire scenarios and design fires proposed for evaluation and a trial design concept on fire safety strategy for the station
  - summary of all proposed construction, materials, components, fire safety systems and fire protection equipment and their proposed test methods and Standards for design, installation and commissioning
  - results of fire engineering analysis carried out for modelling and system evaluation including station smoke development and completion of normal operation and emergency pedestrian modelling, and all assumptions, inputs, factors of safety and sensitivity analysis
fire risk assessment, the tenability criteria and fire risk assessment criteria against which the overall level of fire safety is to be evaluated and judged to be acceptable

statement as to how the fire safety objectives are to be met

- mechanical and fire systems, including but not limited to:
  - fire detection and protection system
  - fire hydrant and hose reel systems
  - ventilation
  - air conditioning

- vertical transportation, including but not limited to:
  - four lifts - based on the use of RailCorp standardised seventeen (17) person lift specification

- modifications to Queen Street and Victoria Avenue; including where necessary:
  - roads
  - pavements
  - way finding, statutory and other signage requirements
  - lighting
  - line marking
  - drainage

- new council car park to replace lost timed and un-timed parking in Queen Street and Victoria Avenue approximately eighteen (18) spaces, including but not limited to:
  - roads
  - pavements
  - way finding, statutory and other signage requirements
  - lighting
  - line marking
  - drainage
  - WSUD

- demolition/removal of existing:
  - aerial concourse including concrete footings
  - staircases including concrete footings
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- steel framed platform extensions including concrete footings
- platform 2

- relocation of the original heritage listed Station Ticket Office, located of platform 1
- pit and duct cable routes, pole and overhead line cable routes, cable containment, including spatial provision and support systems for local and system wide cabling

The TA must:

- provide specifications that enable the Contractor to construct sample panels for the review and acceptance of station elements, including but not limited to:
  - stair nosing's
  - platform edge including white coping tile, yellow line tile and tactile tile indicators
  - perforated metal panels
- interface with RailCorp projects including but not limited to TSU, SPSU, DTRS and ATP
- incorporate, for both existing and new infrastructure, rail systems spatial and other requirements (including those of the STA), maintenance access provisions, property boundaries, rail corridor width etc

5.14.2 Deliverables

The scope of services shall be split into a number of phases and deliverables, namely:

- Alliance Procurement Support
- Detail Design, including:
  - SDR, PDR and CDR
  - AFC Design
- Construction Support, including Commissioning and Operational Readiness
- Works-As-Executed drawings
5.15 **DESIGN PACKAGE 20 – RAIL UNDERPASS**

In accordance with TSR T1, the TA and if required any specialist sub-consultant for Rail Underpass will carry out the detail design and document the Works based on the scope of services described below.

5.15.1 **Scope of Services**

5.15.1.1 **Rail Underpass Tunnel**

Review the Reference Design, identify any design review comments that need to be closed out and develop the final Rail Underpass Tunnel design, including but not limited to:

- structural form of the tunnel
- access/egress paths
- strip drains, sub-surface drainage and sumps
- footings, bases, supports, brackets and fixings for:
  - signals
  - overhead wiring
  - C&CS systems and associated infrastructure
  - CCTV cameras and associated infrastructure
  - LV power supplies, LV lighting and associated infrastructure
  - signage
  - hand held devices
- geological long section and cross-sectional profiles along the tunnel
- determination of geotechnical parameters
- effects of ground movements, track settlements, excavated face stability and groundwater and flooding
- fire engineering implications related to structural fire resistance
- construction methodology including but not limited to:
  - rates of progress
  - construction monitoring

The TA must:

- interface with RailCorp projects including but not limited to TSU, SPSU, DTRS and ATP
incorporate, for both existing and new infrastructure, rail systems spatial and other requirements (including those of the STA), maintenance access provisions, property boundaries, rail corridor width etc

5.15.1.2 Rail Underpass Dive Structures

Review the Reference Design, identify any design review comments that need to be closed out and develop the final Rail Underpass Dive Structures design, including but not limited to:

- structural form of the dive structures
- access/egress paths
- emergency staircases
- surface drainage, stormwater and de-watering wells
- vertical protection screens
- handrails
- footings, bases, supports, brackets and fixings for:
  - signals
  - overhead wiring
  - C&CS systems and associated infrastructure
  - CCTV cameras and associated infrastructure
  - LV power supplies, LV lighting and associated infrastructure
  - signage
  - hand held devices
  - vertical protection screens
  - handrails
- supports to the old and new (two (2) number) Ausgrid 132kV cable routes above the northern dive structure
- geological long section and cross-sectional profiles along the dive structures
- determination of geotechnical parameters
- effects of ground movements, track settlements and groundwater and flooding
- fire engineering implications related to structural fire resistance
- construction methodology including but not limited to:
  - rates of progress
  - construction monitoring
future proofing the reconstruction of the Up Freight past the Northern Dive Structure
future proofing the construction of the future new Down Freight past the Southern Dive Structure

The TA must:

- interface with RailCorp projects including but not limited to TSU, SPSU, DTRS and ATP
- incorporate, for both existing and new infrastructure, rail systems spatial and other requirements (including those of the STA), maintenance access provisions, property boundaries, rail corridor width etc

5.15.1.3 Rail Underpass Fire Engineering Report

The TA must review the FEB and FER both completed by Mott MacDonald Pty Ltd and included in Volume 2 of the Concept Design, develop and finalise the FER, including but not limited to:

- description of the underpass and all aspects that impact on fire safety, including numbers of tracks, underpass dimensions, type of rolling stock, adjacent infrastructure, underpass gradients, environmental constraints and access
- statement of all assumptions, limitations and of the fire safety objectives
- review of all fire hazards and mitigation and control measures
- review of fire resistance of all materials to be used in the construction of the tunnel and tunnel services
- review of fire rating of the tunnel and tunnel services
- establishment of clear and agreed fire scenarios and design fires proposed for evaluation and a trial design concept on fire safety strategy for the underpass
- summary of all proposed construction, materials, components, fire safety systems and fire protection equipment and their proposed test methods and Standards for design, installation and commissioning
- results of fire engineering analysis carried out for modelling and system evaluation including underpass smoke development and egress models, and all assumptions, inputs, factors of safety and sensitivity analysis
- fire risk assessment, the tenability criteria and fire risk assessment criteria against which the overall level of fire safety is to be evaluated and judged to be acceptable
- statement as to how the fire safety objectives are to be met

5.15.1.4 Tunnel Services

Review the Reference Design, identify any design review comments that need to be closed out and develop the final Tunnel Services design, including but not limited to:
low voltage power system and installations, including but not limited to:
  o cabling
  o GPO(s)
  o lighting
  o C&CS
  o mechanical and fire systems
  o pit and duct cable routes, pole and overhead line cable routes, cable containment, including spatial provision and support systems for local and system wide cabling

C&CS, including but not limited to:
  o production of final schematic layouts
  o emergency phones
  o mobile phone system
  o train radio systems, including DTRS provisions
  o pit and duct cable routes, pole and overhead line cable routes, cable containment, including spatial provision and support systems for local and system wide cabling

mechanical systems, including but not limited to:
  o fire detection and protection system, if required
  o fire hydrant and hose reel systems
  o ventilation, if required
  o hydro carbon sensors
  o rainwater and groundwater systems including pumping and treatment systems, including alarms and telemetry
  o Motor Control Centres, local control systems and final sub-circuits to serve the mechanical plant and equipment

CCTV and intruder detection, including but not limited to:
  o review the security assessment completed as part of the concept design and if required complete an additional security assessment with RailCorp
  o rail underpass tunnel portals
  o dive structures

way finding, statutory and other signage requirements
• pit and duct cable routes, pole and overhead line cable routes, cable containment, including spatial provision and support systems for local and system wide cabling

The TA must:
• interface with RailCorp projects including but not limited to TSU, SPSU, DTRS and ATP
• incorporate, for both existing and new infrastructure, rail systems spatial and other requirements (including those of the STA), maintenance access provisions, property boundaries, rail corridor width etc

5.15.1.5 Tunnel Water Treatment Plant

Review the Reference Design, identify any design review comments that need to be closed out and develop the final Tunnel Water Treatment Plant design, including but not limited to:
• Water treatment plant building in coordination with the building services and systems design, including but not limited to:
  o the form and finishes
  o floor plan layouts
  o elevations
  o cross sections
  o separate chemical storage room(s)
  o room data sheets
  o drainage
  o way finding, statutory and other signage requirements
• structural design, including but not limited to:
  o fire rating requirements
  o foundations
  o substructure
  o superstructure
  o footings, bases, supports, brackets and fixings for:
    ▪ C&CS and associated infrastructure
    ▪ CCTV cameras and associated infrastructure
    ▪ LV power supplies, LV lighting and associated infrastructure
    ▪ signage
    ▪ fencing
- low voltage power system and installations, including but not limited to:
  o cabling
  o GPO(s)
  o lighting
  o C&CS
  o mechanical and fire systems
- C&CS, including but not limited to:
  o production of final schematic layouts
  o staff amenities security panel
  o EACS for site entry
- CCTV, including but not limited to:
  o review the security assessment completed as part of the Concept Design and if required complete an additional security assessment with RailCorp
  o vehicular and pedestrian entrances and exits, including emergency exits
  o coverage of parking spaces and pedestrian route
- mechanical and fire systems, including but not limited to:
  o fire detection and protection system
  o fire hydrant and hose reel systems
  o ventilation
  o air conditioning
- pit and duct cable routes, pole and overhead line cable routes, cable containment, including spatial provision and support systems for local and system wide cabling

The TA must:
- interface with RailCorp projects including but not limited to TSU, SPSU, DTRS and ATP
- incorporate, for both existing and new infrastructure, rail systems spatial and other requirements (including those of the STA), maintenance access provisions, property boundaries, rail corridor width etc

5.15.2 Deliverables

The scope of services shall be split into a number of phases and deliverables, namely:
- Alliance Procurement Support
Detail Design, including:
- SDR, PDR and CDR
- AFC Design

Construction Support, including Commissioning and Operational Readiness

Works-As-Executed drawings
5.16 DESIGN PACKAGE 21 – SIGNALLING POWER

5.16.1 Scope of Services

RailCorp are currently undertaking a Signalling Power Supply Upgrade (SPSU) in the area of the NSRU project.

The SPSU includes decommissioning of the existing RailCorp 2kV (NS14 Feeder) supply and providing an upgraded 11kV/415V supply off the RailCorp 11kV (532 Feeder) supply, along with an upgraded Ausgrid 415V/415V supply on the down side of the rail corridor adjacent to the existing signal bungalow located at approx. 14.260 km.

Whilst the TA will not carry out the detail design with regard to the SPSU they will be required to liaise with RailCorp and include any interfaces into the NSRU detail design.

5.16.2 Deliverables

Not applicable
5.17 **DESIGN PACKAGE 22 – HV AND PADMOUNT SUBSTATIONS**

In accordance with TSR T1, the TA and if required any specialist sub-consultant for HV and LV Electrical Services will carry out the detail design and document the Works based on the scope of services described below.

5.17.1 **Scope of Services**

Review the Reference Design, identify any design review comments that need to be closed out and develop the final HV and LV electrical services design, including but not limited to:

5.17.1.1 **North Strathfield Distribution Substation**

- production of final HV and/or LV single line diagrams
- rationalise the existing Ausgrid supply to one 500kVA Ausgrid 415V/415V point of supply
- finalise connection point and co-ordinate with the power supply provider (Ausgrid), including completion and submission of applications
- new 500kVA RailCorp 11kV/415V supply from the RailCorp 11kV (532 Feeder) to provide a dual supply
- SCADA
- substation building in coordination with the building services and systems design, including but not limited to:
  - the form and finishes
  - floor plan layouts
  - elevations
  - cross sections
  - room data sheets
  - drainage
  - way finding, statutory and other signage requirements
- structural design, including but not limited to:
  - fire rating requirements
  - foundations
  - substructure
  - superstructure
  - footings, bases, supports, brackets and fixings for:
- C&CS systems and associated infrastructure
- CCTV cameras and associated infrastructure
- LV power supplies, LV lighting and associated infrastructure
- signage
- fencing

- low voltage power system and installations, including but not limited to:
  - cabling
  - GPO(s)
  - lighting
  - C&CS
  - mechanical and fire systems

- C&CS, including but not limited to:
  - production of final schematic layouts
  - staff amenities security panel
  - EACS for site entry

- CCTV, including but not limited to:
  - vehicular and pedestrian entrances and exits, including emergency exits
  - coverage of parking spaces and pedestrian route

- mechanical and fire systems, including but not limited to:
  - fire detection and protection system
  - fire suppression systems
  - ventilation
  - air conditioning

- pit and duct cable routes, pole and overhead line cable routes, cable containment, including spatial provision and support systems for local and system wide cabling

The TA must:

- interface with RailCorp projects including but not limited to TSU, SPSU, DTRS and ATP
- incorporate, for both existing and new infrastructure, rail systems spatial and other requirements (including those of the STA), maintenance access provisions, property boundaries, rail corridor width etc
5.17.1.2 Concord West Padmount

- production of final HV and/or LV single line diagrams
- new 315kVA Ausgrid 415V/415V single point of supply to Concord West Station
- finalise connection point and co-ordinate with the power supply provider (Ausgrid), including completion and submission of applications
- SCADA
- concrete base
- pit and duct cable routes, pole and overhead line cable routes, cable containment, including spatial provision and support systems for local and system wide cabling
- where required, temporary works including but not limited to hoardings, fences, catch nets, scaffold, signage etc to protect the public and maintain use of local roads and footpaths during construction of the Works

The TA must:

- interface with RailCorp projects including but not limited to TSU, SPSU, DTRS and ATP
- incorporate, for both existing and new infrastructure, rail systems spatial and other requirements (including those of the STA), maintenance access provisions, property boundaries, rail corridor width etc

5.17.2 Deliverables

The scope of services shall be split into a number of phases and deliverables, namely:

- Alliance Procurement Support
- Detail Design, including:
  - SDR, PDR and CDR
  - AFC Design
- Construction Support, including Commissioning and Operational Readiness
- Works-As-Executed drawings

5.18 DESIGN PACKAGE 23 - EARTHING, BONDING AND ELECTROLYSIS

In accordance with TSR T1, the TA and if required any specialist sub-consultant for Earthing, Bonding and Electrolysis will carry out the detail design and document the Works based on the scope of services described below.
5.18.1 **Scope of Services**

Review the Reference Design, identify any design review comments that need to be closed out and develop the final earthing, bonding and electrolysis design, including but not limited to:

- **OHW attachments and bonding/isolation:**
  - tunnel, dives and other bridge structures – OHW fixing to tunnel/bridge structures, provision of isolated base plates to steel handrails and protection screens in close proximity to OHWS and provision of horizontal safety screens and bond fittings to one spark gap back to rail
  - Concord West Station – continuity bonding of OHWS to rationalising a number of rail spark gaps

- **Combined Services Route (CSR):**
  - GST – provision of insulated joints at maximum lengths and at close proximity to HV electrodes and OHWS

- **Stations:**
  - bonding of structural elements and separation of canopies and steel structures from OHWS

- **HV/LV:**
  - earthing layouts for the North Strathfield Distribution Substation 11kV/415V (RailCorp) and 415V/415V (Ausgrid) supplies
  - earthing layouts for the Concord West Padmount Substation 415V/415V (Ausgrid) supply

- **Utility Services:**
  - review of existing utility crossing(s) to ensure any specific bonding or cathodic protection devices are maintained or provided
  - identify any new utility crossing(s) that require any specific bonding or cathodic protection devices be provided
  - providing vertical protection screens to the new services bridge at Beronga Street to avoid the requirement for horizontal safety screens and spark gap to rail and hence avoid the need to provide isolation of the services from the metallic services bridge structure

The TA must:

- complete all necessary site investigations (including current injection testing) necessary to identify existing electrolysis signature for the length of the NSRU project prior to commencement of the Works
• complete all necessary site investigations (including current injection testing) necessary to identify electrolysis signature for the length of the NSRU project post completion of the Works
• interface with RailCorp projects including but not limited to TSU, SPSU, DTRS and ATP
• incorporate, for both existing and new infrastructure, rail systems spatial and other requirements (including those of the STA), maintenance access provisions, property boundaries, rail corridor width etc

Not withstanding Clause 1.9 of this Services Brief, the design of the earthing, bonding and electrolysis must be developed in reference to:

• AS3000 requirements
• Local Supply Authority requirements
• NSW Service and Installation Rules
• EP 12 10 00 01 SP - High Voltage and 1500 System Earthing References and Definitions
• EP 12 10 00 02 SP - Low Voltage Distribution and Installations Earthing References and Definitions
• EP 12 10 00 12 SP - Transmission Line and Cable Earthing
• EP 12 10 00 13 SP - 1500 V Traction System Earthing
• EP 12 10 00 20 SP - Low Voltage Distribution Earthing
• EP 12 10 00 21 SP - Low Voltage Installations Earthing

5.18.2 Deliverables

The scope of services shall be split into a number of phases and deliverables, namely:

• Alliance Procurement Support
• Detail Design, including:
  o SDR, PDR and CDR
  o AFC Design
• Construction Support, including Commissioning and Operational Readiness
• Works-As-Executed drawings
5.19 DESIGN PACKAGE 24 - PERWAY

In accordance with TSRs T1, the TA and if required any specialist sub-consultant for Perway will carry out the detail design and document the Works based on the scope of services described below.

5.19.1 Scope of Services

Review the Reference Design, identify any design review comments that need to be closed out and develop the final rail alignment and permanent way (vertical and horizontal), design including but not limited to:

- alignments:
  - the design for the new Up Goods between the Up Relief and the North Strathfield Goods Loop, including 55km/h horizontal design speed alignment and a vertical alignment design that accommodates the vertical clearances in the tunnel and the limitations on maximum grades for the corridor
  - the design of a new northern extension of the Up Relief from North Strathfield Station, around Concord West Station and towards Homebush Bay Drive overbridge to meet 80km/hr design speed. Including the future proofing (placement of civil and structural infrastructure) clear of a 115km/h design (max deficiency) alignment around Concord West Station

- design the provision of 3,325m of new track including constructability details for the following varying track classifications:
  - new Up Relief track structure classification 60SW/CH/SM between Concord West Station and Homebush Bay Drive generally with 6.4m track centreline from the Up Main
  - new track structure classification 60SW/CH/SM connecting the 557A 500:12 tangential turnout to the Southern Dive Structure with the continuation of the bearers to maintain track stiffness
  - new direct fixed slab track structure through the rail underpass Southern Dive Structure, Tunnel and Northern Dive structure
  - new track structure classification 60SW/CH/SM between 13.55km to 13.64km, connecting the northern dive to the de-commissioned Up Relief
  - re-build existing Up Relief to track structure classification 60SW/CH/SM from North Strathfield to Concord West Station approximately in the existing position

- design the provision of turnouts, crossovers and removal of catchpoints including constructability details for the following:
  - replace existing 557B points with a new crossover to connect to the new Up Goods
tangential turnouts on the 557A/557B crossovers located on Up Goods and Down Relief and associated realignment and slewing to facilitate the installation

new turnout (50 points) from the Up Main to the Up Relief, south of Homebush Bay Drive

removal of the existing 567 catchpoints on the Down Relief

removal of the existing 557 catchpoints on the Goods Loop, south of Parramatta Road Underbridge

The TA must:

- interface with RailCorp projects including but not limited to TSU, SPSU, DTRS and ATP

- incorporate, for both existing and new infrastructure, rail systems spatial and other requirements (including those of the STA), maintenance access provisions, property boundaries, rail corridor width etc

Not withstanding Clause 1.9 of this Services Brief, the design of the route alignment and permanent way must be developed in reference to:

- RailCorp Engineering Specification Track Design - SPC203.

5.19.2 Deliverables

The scope of services shall be split into a number of phases and deliverables, namely:

- Alliance Procurement Support

- Detail Design, including:
  - SDR, PDR and CDR
  - AFC Design

- Construction Support, including Commissioning and Operational Readiness

- Works-As-Executed drawings
5.20 DESIGN PACKAGE 25 – OVERHEAD WIRING

In accordance with TSR T1, the TA and if required any specialist sub-consultant for the Overhead Wiring (OHW) system and structures will carry out the detail design and document the Works based on the scope of services described below.

5.20.1 Scope of Services

Review the Reference Design, identify any design review comments that need to be closed out and develop the final Overhead Wiring (OHW) system design, including but not limited to:

- production of final 1500V OHW Sectioning Diagram
- the overhead wiring system must be suitable for the DC traction power and must be compatible with the existing OHW System 2 comprising single 270mm² catenary wire and twin 137mm² contact wires
- all fixtures and fittings to meet RailCorp’s standards
- a new wire run between chainage HL12+783 and H13+737
- complete a condition assessment on the existing Up Relief wire run between H13+483 and H14+388, if it is acceptable this will be re-energised if it is not acceptable a new wire run will need to be designed
- a new wire run between chainage H14+272 and H15+883
- provision of sectioning to suit maintenance requirements
- provision of track side isolators

The TA must incorporate, for both existing and new infrastructure, rail systems spatial and other requirements (including those of the STA), maintenance access provisions, property boundaries, rail corridor width etc

Review the Reference Design, identify any design review comments that need to be closed out and develop the final Overhead Wiring Structures (OHWS) design, including but not limited to:

- complete a condition assessment on the existing OHWS to be reutilised and if they are not acceptable new OHWS will need to be designed
- adjustments to existing OHWS to integrate the construction of the tunnel, southern and northern dives structures
- cantilever system for the tunnel and dive structures, including liaison with RailCorp to determine whether or not the new Mk3 Single Track Tunnel Cantilever System has been approved and can be utilised
- new OHWS and concrete footings
- OHW connections to bridges and other structures as required including but not limited to:
  o Pomeroy Street Overbridge
  o Concord West Station (temporary to enable staged removal of existing OHWS from platforms)
- cantilevers off existing OHWS between concord West Station and Homebush Bay Drive

The TA must:
- interface with RailCorp projects including but not limited to TSU, SPSU, DTRS and ATP
- incorporate, for both existing and new infrastructure, rail systems spatial and other requirements (including those of the STA), maintenance access provisions, property boundaries, rail corridor width etc

5.20.2 Deliverables

The scope of services shall be split into a number of phases and deliverables, namely:
- Alliance Procurement Support
- Detail Design, including:
  o SDR, PDR and CDR
  o AFC Design
- Construction Support, including Commissioning and Operational Readiness
- Works-As-Executed drawings