Operational Specification

AIRPORT CONSTRUCTION WORKS

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Contents

1 INTRODUCTION 5
2 RELATED DOCUMENTS 5
3 OPERATIONAL SPECIFICATION OBJECTIVES 5
4 SITE ASSESSMENT AND EXISTING CONDITIONS 7
4.1 EXAMINATION OF THE SITE 7
4.2 PRIOR WORK 7
4.3 JOINING UP 8
4.4 EXISTING SERVICES AND STRUCTURES 8
5 OPERATIONAL REQUIREMENTS 10
5.1 OPERATIONAL AREAS 10
5.2 CONSTRUCTION METHOD STATEMENT AND MATERIALS 10
5.3 ACCESS TO THE SITE 10
5.4 PERMIT-TO-WORK 12
5.5 PROJECT MEETINGS 12
5.6 SITE MEETINGS 13
5.7 VARIATION SUBMISSION REQUIREMENTS 14
5.8 PROGRESS CLAIM SUBMISSION REQUIREMENTS 15
6 SAFETY REQUIREMENTS 16
6.1 RESPONSIBILITY FOR SAFETY 16
6.2 TRAINING AND INDUCTIONS 17
6.3 RECORD KEEPING 17
6.4 HEALTH AND SAFETY REPRESENTATIVES 19
6.5 SITE SAFETY MEETINGS 20
6.6 UNSAFE WORK NOTICES 20
6.7 SAFETY AND ENVIRONMENTAL RELATED ISSUES 20
6.8 FIRST AID 21
6.9 FIRE PROTECTION 21
6.10 ENVIRONMENTAL ISSUES 22
6.11 VEGETATION 22
6.12 WATER 22
6.13 RUBBISH DISPOSAL 23
6.14 NOISE 23
6.15 HAZARDOUS MATERIALS AND DANGEROUS GOODS AND HAZARDS EXISTING ONSITE 23
6.16 ASBESTOS 24

6.17 HAZARDOUS MATERIALS AND DANGEROUS GOODS STORAGE AND HANDLING 25
6.18 ELECTRICITY 26
6.19 COMMUNICATIONS 27
6.20 STORAGE OF MATERIALS ON SITE 27
6.21 EMERGENCY RESPONSE PLANS 27
6.22 CONDUCT REQUIREMENTS OF CONTRACTOR PERSONNEL 28
6.23 COMPLAINTS 29
6.24 SAFETY AUDITING 29
7 TEMPORARY WORKS 32
7.1 PROJECT SIGNBOARD 32
7.2 SITE FENCING AND HOARDINGS 32
7.3 BARRICADES 33
7.4 TRAFFIC MANAGEMENT PLANS 33
7.5 CUTOVER & DISASTER RECOVERY PLANS 34
7.6 SCAFFOLDING 34
7.7 CRANAGE 35
7.8 PEDESTRIAN ACCESS WAYS 35
7.9 TEMPORARY SERVICES 35
7.10 SITE AMENITIES 37
7.11 ACCOMMODATION 37
8 AIRSIDE WORKS REQUIREMENTS 37
8.1 AIRSIDE WORKS 37
8.2 METHOD OF WORKS PLANS (MOWP) 38
8.3 NOTAMS 38
8.4 SAFETY CASE 39
8.5 AIRSIDE END OF SHIFT INSPECTION CHECKLIST 39
8.6 AIRSIDE PASSES – AIRPORT IDENTIFICATION CARD (AIC) 39
8.7 AIRSIDE VEHICLE PERMIT (AVP) 40
9 DOCUMENTATION REQUIREMENTS 42
9.1 DOCUMENTS 42
9.2 SOFTWARE REQUIREMENTS 42
9.3 SUBMISSION OF DESIGN 43
9.4 PROTOTYPES AND SAMPLES 43
9.5 DESIGN SUBMISSIONS BY THE CONTRACTOR 43
9.6 SHOPDRAWINGS 44
9.7 REQUESTS FOR INFORMATION (RFI) 45

9.8 MONTHLY REPORTS 45
9.9 WORKFORCE RECORDS 46
9.10 AS-BUILT DOCUMENTATION AND OPERATIONS AND MAINTENANCE MANUALS . 46
9.11 MEX ASSET MAINTENANCE SYSTEM 46
10 PROGRAMMING OBLIGATIONS 46
10.1 FA's PROGRAM 46
10.2 CONTRACTOR'S PROGRAM 47
11 COMMISSIONING AND HANDOVER PROCESSES 48
11.1 COMMISSIONING AND HANDOVER PLANS 48
11.2 COMPLETION AND HANOVER PROCESS 48
12 DEFECTS LIABILITY OBLIGATIONS 52
12.1 ACTIONS REQUIRED 52
12.2 CONTRACTOR SHALL NOTIFY 52
12.3 FA TO APPROVE RECTIFICATION 52
12.4 TIME AND MANNER FOR CONTRACTOR TO CARRY OUT RECTIFICATION WORKS 52
12.5 DEFECTS NOT RECTIFIED BY CONTRACTOR 53

1 INTRODUCTION

Welcome to Fiji Airports, we have prepared this Specification such that there is a clear understanding as to how we expect our Contractor's to operate during construction works such that operational impacts during construction are mitigated as far as practicable.

If you are uncertain or need any further clarification on the requirements of this specification please do not hesitate to contact the Fiji Airports project team. Senimeila Sova is the document owner and may be contacted on SenimeliaS@fijiairports.com.fj

2 RELATED DOCUMENTS

This document should be read in conjunction with the Contract and the following referenced documents:

2.1.1 FA Airside Operation Manual

2.1.2 Emergency Response Procedure for the applicable Airport

2.1.3 FA OH&S Manual 4th Edition

2.1.4 FA Environmental Management Plan

These documents are available via the following link:

https://www.dropbox.com/sh/ejtk6ub51q8r7fj/AAA92aJSVMAGH-qYsTUMC07Na?dl=0

3 OPERATIONAL SPECIFICATION OBJECTIVES

This document provides guidance to the Contractor on the airport's operational requirements during the construction of works on Projects for Fiji Airports. Airports Fiji Limited trade as Fiji Airports (and referenced by the abbreviation FA in this document).

3.1.1 The following requirements are minimum requirements with which the Contractor shall comply. They do not limit the responsibilities or statutory compliance requirements of the Contractor under the contract.

3.1.2 The objectives of this specification are to:

3.1.2.1 ensure that construction is undertaken in a safe and environmentally acceptable fashion;

3.1.2.2 protect the current environment of the Airport;

3.1.2.3 minimize the disruption to the airport operations during construction;

3.1.2.4 ensure compliance with all relevant legislation, codes and regulations;

3.1.2.5 minimize the risks and nuisances associated with construction activities;

3.1.2.6 ensure that measures are in place to avoid, remedy or mitigate any adverse environmental or safety effects which may occur, and

3.1.2.7 maintain OHS&E best practice on site.

3.1.2.8 assist with the effective contract administration of the project.

3.1.2.9 Ensure that completed documentation as provided under this engagement is fit for purpose.

4 SITE ASSESSMENT AND EXISTING CONDITIONS

4.1 EXAMINATION OF THE SITE

4.1.1 The Contractor acknowledges that prior to entering into the Contract it has made a careful and complete examination and assessment of:

(a) the Site on, under or in which any part of the Works are to be constructed or which is to be utilised in the performance of the work under the Contract, and all physical conditions above or below the surface or adjacent to the Site including any fixture structure or services all of which are accepted by the Contractor in their respective state and condition;
(b) hydrological and climatic conditions;
(c) any information made available to it by the FA, including all information relating to asbestos, contamination and other environmental issues at the Site;
(d) the nature and extent of the difficulties, risks and hazards incidental to the performance of the work under the Contract including, prior works, existing structures, materials and conditions;
(e) the extent and nature of work and materials necessary for the performance of the work under the Contract;
(f) the means of accessing the Site; and
(g) without limiting paragraphs (a) to (f), anything else which the Contractor could have discovered by the making of enquiries which a competent Contractor could have made.

4.2 PRIOR WORK

4.2.1 Where the proper execution of the Contractor's Activities is dependent upon or appreciably affected by the quality or completeness of any work to be carried out or that has been carried out by any other person (**"Prior Work"**) the Contractor must:

4.2.1.1 inspect the Prior Work as soon as is practicable after FA gives the Contractor access to the Site;

4.2.1.2 if it discovers any defects or matters in or connected with the Prior Work which in its opinion renders or is likely to render the Prior Work unsuitable, unsatisfactory or detrimental in any way to the proper execution of the Contractor's Activities, immediately notify the FA in writing providing:

- full particulars of the defects or matters identified; and
- the reasons for the opinion formed by it in respect to the defects or matters identified; and
- The recommended Temporary works or rectifications required to mitigate or remove the impediment.

- not commence or continue with the execution of any part of the Contractor's Activities dependent upon or appreciably affected by the Prior Work the subject of the notice.

4.2.1.3 On receipt of the Contractor's notice, the FA will investigate the Prior Work the subject of the notice and:

4.2.1.4 if the FA agrees with the Contractor - issue a direction and the Contractor shall be entitled to a claim in accordance with the provisions of the contract; or

4.2.1.5 if the FA disagrees with the Contractor - issue an instruction to the Contractor to commence or continue with the Contractor's Activities which instruction may be the subject of claim or dispute pursuant in accordance with the provisions of the contract.

4.2.2 If the Contractor fails to:

4.2.2.1 inspect the Prior Work as required by this clause; or

4.2.2.2 notify the FA of any defects or matters which should have been detected at the time of such inspection by a prudent, competent and experienced contractor and which may render the Prior Work unsuitable, unsatisfactory or detrimental in any way for the proper execution of the Contractor's Activities, and the Prior Work subsequently proves to be unsatisfactory for the proper execution of the Contractor's Activities, then any work which is required to be executed in order to render the Prior Work suitable, satisfactory and non-detrimental for the proper execution of the Contractor's Activities will be performed by the Contractor at its own expense.

4.2.2.3 Notify the FA of any defects or matters which could not have been detected at the time of such inspection by a prudent, competent and experienced Contractor and which may render the Prior Work unsuitable unsatisfactory or detrimental in any way for the proper execution of the Contractor's Activities, and the Prior Work subsequently proves to be unsatisfactory for the prior execution of the Contractor's Activities, then any work which is required to be executed in order to render the Prior Work suitable, satisfactory and non-detrimental for the proper execution of the Contractor's Activities will be claimable in accordance with the provisions of the Contract.

4.3 JOINING UP

4.3.1 Where the method of joining up of old and new work is not specified, the cutting away and joining up must be carried out by the Contractor in a manner approved by the FA and made good in all trades to match existing adjacent work to the extent reasonably practicable.

4.4 EXISTING SERVICES AND STRUCTURES

4.4.1 Existing infrastructure records and information must not be taken to be complete nor accurate. The Contractor must carry out investigations to verify services locations prior to any excavations and prior to any work affecting existing services.

4.4.2 The Contractor must notify the FA immediately upon the discovery of services or obstructions not shown in Design Documentation or identified by inspection.

4.4.3 The Contractor must ensure and allow for suitable site investigations and dilapidation surveys are undertaken to verify the purpose, location, isolation point and affected users of any services to be relocated, disconnected or removed as a part of the Works.

4.4.4 The Contractor must immediately notify the FA in the event of damage to any water, gas, steam, compressed air, electric, drainage, sewerage, telephone, fire alarm, control cable or other services in the area. The Contractor must also repair, divert, relocate, cut, seal, disconnect or make safe as required by the relevant authority.

4.4.5 The Contractor must, with every care and skill, support and protect all structures, walls, fences and all services, property and existing landscaping which may, unless so protected, be damaged as a result of the execution of the Works and must comply with the reasonable requirements of FA, of relevant authorities and others controlling those structures, fences, services, landscaping and property for their protection from damage during construction or maintenance of the Works.

5 OPERATIONAL REQUIREMENTS

5.1 OPERATIONAL AREAS

The operational areas on the construction site are access paths around the site. The operation of these areas will be under the direct control of FA. The storage of materials in these areas and the parking of vehicles will only be allowed with the express approval of Fiji Airports via a Traffic Management Plan

A current plan of these working areas will be maintained by the Contractor and distributed as required for the 'Site Construction Plan'. The plan will need to change to reflect the changes in contractors on site and progress in the development of the project. The changes to this plan shall be allowed for within the Contract sum.

Note Airside and Security Controlled areas will have additional operational constraints and these are further detailed in Section 8.

5.2 CONSTRUCTION METHOD STATEMENT AND MATERIALS

The Contractor shall prior to commencing work on the Site provide:

a) a Site Construction Plan detailing hoardings, site fencing access locations and any pedestrian access ways.
b) Temporary works plan
c) Staging plans if applicable
d) OHS&E Plan including the emergency management plan
e) a complete, appropriate and competently prepared construction method statement for the work under the Contract. Until a method statement is received and approved by the FA, acting reasonably, the Contractor shall not commence that part of the Works and shall have no entitlement to payment in connection with the Contract; and
(b) particulars of:
(i) the mode and place of manufacture;
(ii) the source of supply;
(iii) performance capacities;
(iv) performance life and maintenance requirements; and
(v) other information,

in respect of any materials, machinery or equipment to be supplied by the Contractor under or used in connection with the work under the Contract.

5.3 ACCESS TO THE SITE

5.3.1 Site Access will vary according to the nature and location of the Contract. All onsite personnel will require security verification checks prior to commencing works and must wear their approved induction identity card at all times.

All Airside access requires the issue and wearing of the airport identity card refer Section 8 for further details.

The Contractor acknowledges that others (including other Contractors) will be engaged upon the Site for the carrying out of work. The Contractor shall at its cost:
(a) cooperate with others involved in the project in all aspects of carrying out the work under the Contract;
(b) coordinate and accommodate the carrying out of the work under the Contract including the coordination of delivery and unloading of equipment with any work of others on the Site;
(c) comply with any direction by the FA given for the purposes of Site co-ordination; and
(d) not comply with any direction given by the Other Contrator, its agents or any consultant unless directed to do so by the FA.

5.3.2 All site deliveries should be coordinated and approved by the FA's representative and are subject to an approved traffic management plan where access is required to be restricted or impinged on any public space not fully enclosed by hoardings or where access to airside is required.

Access to Construction Work Sites

5.3.3 Access to the construction site may only be by persons authorised by the Contractor.

5.3.4 All visitors must report to the site office and be escorted on site by an inducted person.

5.3.5 A permit to work system shall be used across all trades and coordinated by the Contractor.

5.3.6 Construction works are in designated work areas (construction site). Construction personnel shall not enter any other area other than the designated area under construction without the express prior approval of the FA.

5.3.7 Works outside the designated work area under construction must only be undertaken after a permit to work has been approved by the Contractor and following prior coordination and approval of the FA. These areas therefore become the Contractor's responsibility upon issue of the permit.

5.3.8 Nominated access paths to Construction areas must be utilized.

5.3.9 Designated work areas will be defined via construction signage. Non-inducted airport staff shall not enter designated work areas without the prior approval of the Contractor.

5.3.10 The Contractor is to ensure that work areas will be defined via construction signage and hoardings/ barricades and safety tape as necessary to define a safe work area.

5.3.11 The Contractor is advised to review available access locations which may restrict materials delivery and movement.

5.4 PERMIT-TO-WORK

5.4.1 Permits are required where required in public or operational areas and prior to commencing works on any services and prior to any demolition (including drilling or cutting into existing structures) or excavation works. The requirement for Permits includes circumstances where any adjacent services that may be affected by the works (eg *due to the proximity of work to the adjacent service, or the high likelihood and /or consequence of impacting on the adjacent service if not isolated).*

5.4.2 All permits to work shall be controlled by the Contractor in association with FA where necessary.

5.4.3 The Contractor's representative is to make an application for a permit to work to the FA for access to an area or service. Such an application should reference work procedures, work method statements and specific risk assessments as necessary.

5.4.4 This application must be made at least 7 days prior to the expected commencement of works.

5.4.5 The FA may approve or reject the application and may require that works affecting existing services are completed outside normal working hours or within specified times.

5.4.6 The permit to work application will be forwarded to Spotless Services site contact to determine service locations and isolation procedures.

5.4.7 The FA to forward an approved permit to work to the Contractor's representative which may reference other conditions, times of work and work procedures that must be followed.

5.5 PROJECT MEETINGS

The Contractor must ensure that its personnel attend meetings as directed by the FA which may take place either at the Site or at any other place nominated by the FA acting reasonably. The Contractor shall at its cost ensure that such of its representatives as the FA may nominate attend any such meetings.

5.5.1 PRE-START MEETING

5.5.1.1 The Parties shall prior to commencing any of the Construction works on Site, attend a pre-start meeting to be held at the address and time mutually agreed. The meeting shall address the following matters:

5.5.1.2 construction and site specific issues;

5.5.1.3 lines of communication and authority levels;

5.5.1.4 possession of Site;

5.5.1.5 frequency and venue of Site Meetings;

5.5.1.6 Progress Claims and Progress Payments/Certificates;

5.5.1.7 working hours;

5.5.1.8 safety requirements;

5.5.1.9 insurance;

5.5.1.10 scope of works;

5.5.1.11 critical path and construction programs;

5.5.1.12 security;

5.5.1.13 approvals; and

5.5.1.14 resources.

5.5.1.15 This Operational Specification and the related requirements

At the FA's reasonable discretion any other matters may be added to those listed in item 5.5.1.1.

5.6 SITE MEETINGS

5.6.1 At intervals not exceeding two (2) weeks a Site Meeting shall be held.

5.6.2 FA shall call each Site Meeting, nominating the date, time and place at which the Site Meeting shall be held and shall give at least two (2) working days' notice (or such lesser notice as may be agreed upon by the FA and the Contractor) to the Contractor.

5.6.3 The Contractor Administrator and the Contractor's nominated representative and such other personnel as either party may require and whose presence is approved by the FA shall attend each Site Meeting.

5.6.4 The FA or the Representative shall be the chairman of any Site Meeting.

5.6.5 The FA shall arrange for the recording of minutes. A copy of the minutes, signed by the FA, shall be delivered to the Contractor's site office within two (2) working days

of the time of closing of the Site Meeting that they record. The Contractor shall give the FA a signed receipt for its copy of the minutes, on which shall be recorded the date and time of delivery.

5.6.6 If the Contractor disagrees with any section of the minutes it shall deliver its objections in writing to the FA's site office within two (2) working days of its receiving its copy of the minutes. The Contractor's refraining from delivering or failing to deliver such written objections within the time specified shall constitute the Contractor's agreement with the contents of the minutes.

5.6.7 A written objection by the Contractor to any section of the minutes, delivered as specified above, shall be the first item of business at the next succeeding Site Meeting unless the FA and the Contractor previously agree to an amendment to the minutes resulting from such objection, in which case that amendment shall be made to the original minutes and to the Contractor's copy and signed by the FA and the Contractor.

5.6.8 The minutes shall have been confirmed if, following the delivery of the Contractor's copy as specified above:

5.6.9 the Contractor has not delivered written objections within the time specified;

5.6.10 the Contractor has delivered written objections and the FA and the Contractor's nominated representative have agreed to an amendment to the minutes and it has been made and signed as specified, in which case the minutes as so amended shall have been confirmed; or

5.6.11 the Contractor has delivered written objections within the time specified but no amendment to the minutes has been agreed upon, in which case the minutes shall have been confirmed but the Contractor's objections shall form part of the minutes.

5.7 VARIATION SUBMISSION REQUIREMENTS

If the Principal's Representative requests the Contractor to provide a quotation for a proposed Variation the Contractor shall at its cost provide a detailed quotation for the work within 5 working days:

a) setting out a reasonable price for the Variation supported by detailed measurements or other evidence of cost;
b) detailed breakdown of quantities and rates as applicable in an excel format to the approval of FA or based on FA's variation format.
c) Rates shall be Gross rates (and include for any wastage associated with the trade) and quantities shall be Gross Rates (ie exclude any trade wastage).
d) including the details of any delay costs.
e) including the details of any Extension of Time the Contractor seeks in respect of the Variation (which shall be the maximum Extension of Time entitlement of the Contractor in respect of the Variation); and
f) containing such other information as may be requested by the Principal's Representative.

In response to the quotation the Principal's Representative may:

a) require the Contractor to carry out the Variation for the price contained in the quotation (and either grant the Extension of Time in the quotation or determine any Extension of Time in accordance with the Contract) except that the determination shall not in any event exceed the time contained in the Contractor's quotation. The Principal shall not be taken to have adopted the quotation unless the Principal's Representative has issued to the Contractor a notice entitled "Acceptance of Variation Quotation" which unconditionally accepts the quotation;

b) (f) decline to proceed with the Variation; or

c) (g) require the Contractor to carry out the Variation without accepting the quotation. In that event the Variation shall be valued and any Extension of Time dealt with under the terms of the Contract, except that the determination shall not in any event exceed the amount or time contained in the Contractor's quotation.

5.8 PROGRESS CLAIM SUBMISSION REQUIREMENTS

In addition to the terms as required by the Contract, the Contractor shall submit their progress claim in the excel format as provided by FA.

It is recommended that the Contractor and Fiji Airport's representative complete a dual inspection of the works prior to the progress claim submission.

6 SAFETY REQUIREMENTS

6.1 RESPONSIBILITY FOR SAFETY

The Contractor is responsible for all activities involved in their respective contract. This will include all aspects of their OHS&E Plan. The Contractor and its subcontractors shall provide their own Work Method Statements and other OHS&E documentation in accordance with current legislative requirements and Codes of Practice as applicable.

The Contractor shall explicitly detail the person responsible for each of the following key OH&S responsibilities for the project.

Who is Responsible	Responsibility
Person or Persons	
	has the overall and ultimate responsibility for occupational health and safety on this site
	is delegated the day-to-day responsibility for ensuring the OHS policy is put into practice.
	will lead the hazard identification and risk assessments with the involvement of relevant employees
	will receive hazard identification risk assessment findings.
	will approve action required to remove/control risks so far as is practicable.
	will supervise action required to remove/control risks so far as is practicable.
	will check implemented actions to remove/reduce the risks so far as is practicable.
	will report OH&S performance to senior management.
	is responsible for ensuring that there is only authorised entry, movement on or exit of persons, vehicles and equipment to and from the site
	is responsible for the operation of a permit to work system for tasks deemed to be "high risk" or airside work
	are responsible for investigating and reporting on the outcome of accidents and incidents.
	will report OH&S Incidents to the Engineer and Fiji Airports.

6.1.1 The Contractor shall ensure that suitable work procedures are identified and risk assessments undertaken prior to the commencement of works.

6.1.2 The Construction works and the OHS&E documentation of the Contractor may be audited to ensure that adequate documentation is provided. An audit report will be produced following an audit.

6.1.3 The Contractor shall actively manage the safe conduct of all visitors and contractors on the worksite.

6.2 TRAINING AND INDUCTIONS

6.2.1 The Contractor shall ensure that all personnel on site (employees, subcontractors and suppliers) are competent to undertake work safely.

6.2.2 All personnel requiring airside access must undertake an FA approved course of instruction on the safety and security requirements. The Contractor must include the time and cost of such training within the Contract Sum.

6.2.3 All personnel on site must be inducted by the Contractor before entering site. Personnel will be issued an identity tag upon completion of the induction session which includes photographic identification, the staff name and contractor name. The induction session will cover specific site matters and general safety and environmental matters such as location of first aid shed, emergency procedures, site safety and environment rules etc. The Contractor shall include the cost of these items within the Contract Sum as required to enable the mobilization of the related subcontractors.

6.2.4 All visitors to site have to report to the site office before they may be allowed onto the site when under the constant supervision of another person who has already been inducted.

6.2.5 Unless otherwise determined by the Contractor, a maximum ratio of Visitors to inducted persons is 3:1.

6.2.6 Inducted persons must continually escort any visitor and take personal responsibility for the safety of the Visitor under their escort

6.2.7 Inductions shall be carried out by arrangement with the Contractor. The Contractor shall allow for the induction of FA staff and representatives as required within the Contract Sum.

6.3 RECORD KEEPING

6.3.1 The Contractor will retain current and accurate records of all matters relating to OH&S and the environment and shall as a minimum meet the requirements of this brief.

6.3.2 Before works commences the Contractor is to compile a project safety file and this file will be made available to the FA or alternative nominated representative for reference on site. The file is to contain:

6.3.2.1 Name of contractors and/or specialist contractors.

6.3.2.2 Description of work and scope.

6.3.2.3 Completed work method statements signed off.

6.3.2.4 Completed risk assessments signed off.

6.3.2.5 Nominated contractor personnel for site OH&S committee (health and safety representatives). These personnel will be required to attend a site safety meeting (health and safety committee meeting) every two weeks or as directed by FA staff and will need to meet the other obligations of health and safety representatives as stipulated under the Health and Safety at Work Act 1996 and associated regulations.

6.3.2.6 Details of existing safety training of nominated staff including Certificates of Competency and copy of current First Aid Certificate.

6.3.2.7 Plant and equipment register: Full listing of all plant and equipment on site including serial numbers, date inspected by required authority (e.g. Health and Safety Inspector, Transport Department etc), required date for re-inspection.

6.3.2.8 Material Safety Data Sheets should be provided for materials supplied to site.

6.3.3 During the course of the project, this file it to be updated as follows:

6.3.3.1 Inclusion of minutes of meeting of Contractor's site safety meeting;

6.3.3.2 Inclusion of additional work method statements and risk assessments for any new item of work. These are to be completed before commencement of works on site;

6.3.3.3 Plant and equipment register to be updated with dates of new equipment arriving and leaving site and dates of inspections;

6.3.3.4 Forms as required under the Health and Safety at Work Act;

6.3.3.5 Additional Material Safety Data Sheets as required and approved by FA;

6.3.3.6 Earthworks permits issued including conditions and follow up inspections;

6.3.3.7 Reports on the before and after condition of construction areas and yards;

6.3.3.8 Register of dangerous and hazardous goods on site;

6.3.3.9 Inspection Records;

6.3.3.10 Monitoring results;

6.3.3.11 Reports of any accidents or near miss incidents occurring during the construction process;

6.3.3.12 Complaints and follow-up actions;

6.3.3.13 Environmental Management and Monitoring Reports.

6.3.4 The Contractors project safety file may be audited by FA or its authorized consultant. The Contractor shall provide full and free cooperation and access to the Contractor Administrator or his nominated representatives to undertake an audit of the project safety file and the work site.

6.3.5 FA may direct that additional work method statements and or risk assessments are required.

6.4 HEALTH AND SAFETY REPRESENTATIVES

6.4.1 The Contractor shall nominate a senior site person, with the current OHS qualifications under Health and Safety at Work Act, to be his or her safety representative. All safety issues shall be directed through this nominated person. This person shall have the authority of the company to act on all safety related matters pertaining to the contractor's works on site.

6.4.2 The Contractor's safety representative shall attend the site safety meetings and be required to attend training as required under the Act. They shall also act on all issues as directed by FA safety representatives on site. Acting on such issues is deemed to be included within the Contract Sum.

6.5 SITE SAFETY MEETINGS

6.5.1 The Contractor is required to hold a safety meeting with their personnel and subcontractors on a regular basis and a copy of the minutes of that meeting tabled at the site safety meeting, with copies included in the Contractors, project safety file.

6.6 UNSAFE WORK NOTICES

6.6.1 FA may issue the Contractor with a written warning if personnel are acting in an unsafe manner.

6.6.2 Should the personnel continue to act in an unsafe manner, FA will have the power to expel the personnel from site.

6.6.3 Personnel expelled from site shall not re-enter site without the express written permission of the FA.

6.7 SAFETY AND ENVIRONMENTAL RELATED ISSUES

6.7.1 The management and supervision of site safety and environmental issues shall be included in the Contract Sum Without limiting the previous statement, this includes:

6.7.1.1 Development and implementation of OHS&E plans and their revision as required.

6.7.1.2 Management of Subcontractor OHS&E issues, policies and procedures.

6.7.1.3 Direct supervision, coordination and management of connections to existing services and any ‘permits to work’ associated with existing airport infrastructure.

6.7.1.4 Compilation and updating of all items with the Contractor’s project safety file (including the related activities).

6.7.1.5 Participation in site safety meetings and compilation of minutes, distribution and action on the issues as raised to ensure close out.

6.7.1.6 Participation in project audits, including audits and inspections by the office of the Federal Safety commissioner and the actions necessary to close out any issues raised.

6.7.1.7 Internal Contractor audits and procedures.

6.7.1.8 Provision of First Aid facilities.

6.7.1.9 Provision of Fire protection within the Contractor’s facilities.

6.7.1.10 Provision of adequate fire protection within construction areas as defined by the 'Site Construction Plan' and any other area as defined as the Contractor's responsibility by issue of a permit or otherwise.

6.7.2 The implementation of the OHS&E Plans related to the actual deliverables shall be in the Contract Sum and includes:

6.7.2.1 Barricades and fencing.

6.7.2.2 Environmental silt traps and similar actions.

6.7.2.3 Revegetation works.

6.7.2.4 Additional monitoring of environmental discharges.

6.7.3 The Contractor is not entitled to any claim for time related to any safety issue arising through the completion of their contract works.

6.7.4 Management of complaints or emergency response issues as detailed within this section.

6.7.5 Should the Contractor fail to comply with a safety instruction issued by FA (in addition to the other actions stated within this section and under legislation) will have the power to make the work site safe and deduct the costs of carrying out this work from the contractor's contract sum.

6.8 FIRST AID

6.8.1 The Contractor shall ensure that adequate 1st aid facilities are provided on site and personnel appropriately trained in 1st aid / emergency response.

6.8.2 In the event of an emergency, the Contractor may contact FA for assistance and utilise the FA First Aid Room if available on the applicable site.
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6.9 FIRE PROTECTION

6.9.1 Hot work or works generating flame shall only be undertaken after a permit to work (hot work) has been received.

6.9.2 Adequate fire extinguishers shall be located within the construction area.

6.9.3 The Contractor shall nominate Fire Wardens as necessary.

6.9.4 Refer also the OHS&E Plan and the Site Safety Handbook.

6.10 ENVIRONMENTAL ISSUES

6.10.1 The following environmental issues need to be considered:

6.10.1.1 protection of the off-site environment by minimising the risk of contaminants being released from the site, particularly entering waters, stormwater drains or drainage channels;

6.10.1.2 ensuring that all work is carried out safely without risk of injury to contractors or FA personnel, other airport staff and passengers;

6.10.1.3 ensuring that the impact from construction on the normal operation of the airport is minimised;

6.10.1.4 Adopting strict control over noise, dust and fume emissions;

6.10.1.5 minimising the amount of waste brought to the site or generated during the construction process;

6.10.1.6 ensuring that no burning occurs on site ;

6.11 VEGETATION

6.11.1 The Contractor will ensure that only clearing that is necessary, to make way for the actual infrastructure, will be undertaken. Where possible, trees and shrubs will not be not damaged or destroyed. The Contractor will be responsible for ensuring the protection of vegetation in their contract areas and yards and not introduce weeds to the area.

6.12 WATER

6.12.1 Any water required during the construction program will be accessed from the existing water supply system and shall only be provided subject to the usage not affecting the existing supplies onsite.

6.12.2 Construction water for civil works and dust control shall be sourced offsite.

6.13 RUBBISH DISPOSAL

6.13.1 Good Housekeeping will be a priority of all contractors on the construction site. Failing to maintain a clean site shall be viewed as a breach of site safety requirements.

6.13.2 Rubbish and construction debris during construction works shall be disposed into construction site skips located outside the building within the construction areas provided by the Contractor.

6.13.3 Recycling of construction waste where possible and appropriate shall be encouraged.

6.13.4 Hazardous materials will be disposed at authorized disposal location offsite as approved by the relevant authorities.

6.13.5 Debris control will involve good housekeeping to the construction site, vehicle wash-down as necessary and the proper securing of loads on vehicles.

6.13.6 The Contractor will ensure procedures are in place in respect of the monitoring and maintenance of its responsibility with regards to the prevention of Foreign Object Debris/Damage (FOD). Refer to the Nadi Airport Airside Operations Manual for detailed information.

6.14 NOISE

6.14.1 The Contractor will ensure their equipment is kept in good working order to ensure that noise emissions are kept to a minimum to avoid causing a nuisance. Any work or combination of work that results in unreasonable noise, i.e. over 80 decibels shall be conducted outside of operational airport hours, i.e. 23:00 to 04:00.

6.14.2 Where a person may be exposed to excessive noise, hearing attenuation / protection shall be worn by all personnel working in the area at the time.

6.15 HAZARDOUS MATERIALS AND DANGEROUS GOODS AND HAZARDS EXISTING ONSITE

6.15.1 The following hazards are present on site:

6.15.1.1 Aviation fuelling and fuelling points

6.15.1.2 Dangerous chemicals

6.15.1.3 Dangerous gases

6.15.1.4 Fuel containers

6.16 ASBESTOS

6.16.1 The permit to work system is required to mitigate against the risk of exposure to these dangers. The permits as issued may include additional work procedures to ensure that personnel are not exposed to the dangers provided by these hazards.

6.16.2 Prior to the commencement of construction works in an area FA shall provide a Clearance Certificate to certify that all known Hazardous materials have been removed (excluding asbestos in existing facilities, refer to the FA Asbestos register).

6.16.3 In the course of construction it may be necessary to enter operational areas to isolate or modify services. These works shall be subject to a separate permit as detailed in the following section Permit-To-Work.

6.16.4 If at any time the Contractor discovers the presence on the Site of any material suspected of containing or likely to contain a substance defined or listed in the National Occupation Health and Safety Commission's ("NOHSC") Guidance Notes (NOHSC 1008-2004: "Approved Criteria for Classifying Hazardous Substances" and NOHSC 10005-1999: "List of Designated Hazardous Substances"), it must:

6.16.4.1 not disturb the material under any circumstances;

6.16.4.2 contact the FA and inform the FA of the existence of the material on Site; and

6.16.4.3 ensure that all persons are protected from exposure to the material until the nature of the material has been competently determined.

6.16.5 FA must inspect the Site and must issue directions to the Contractor in respect of further action to be taken.

6.16.6 All such materials upon the Site must if so directed by the FA be treated or removed in accordance with the requirements of the New Zealand "Code of Practice" for the safe removal of such materials and any other local Statutory Requirement in Fiji that relate to the removal of such materials.

6.16.7 The Contractor's Activities include the removal of all material defined or listed in the NOHSC Guidance Notes (NOHSC 30011- 1991: "Determining and Classifying a Hazardous Substance") on the Site, including, without limitation, conducting any surveys necessary to determine the full extent of such material and any required monitoring during the removal of any such material.

6.17 HAZARDOUS MATERIALS AND DANGEROUS GOODS STORAGE AND HANDLING

6.17.1 FA aims to ensure that its employees, other airport employees, passengers and others who may use or be affected by its facilities are not exposed to hazardous substances without appropriate control measures being in place.

6.17.2 Without limiting this section, the Contractor:

6.17.2.1 must ensure that the Works do not contain any hazardous substances in accordance with the Control of Hazardous Substances Regulations 2006

6.17.2.2 must, on request of the FA, be able to show compliance with the Control of Hazardous Substances Regulations 2006; and is responsible for all materials used by its subcontractors under this clause

6.17.3 The Contractor in the course of the contract will bring materials to site that are considered hazardous include those that are toxic, flammable, explosive or corrosive. These include the following:

6.17.3.1 Fuels - petrol, diesel, kerosene etc.

6.17.3.2 Oils, lubricants and hydraulic fluids

6.17.3.3 Paints

6.17.3.4 Thinners and solvents

6.17.3.5 Glues and adhesives

6.17.3.6 Acids and alkalines

6.17.3.7 Finishing compounds

6.17.3.8 Pesticides and herbicides

6.17.4 The Contractor will provide FA with the following information.

6.17.4.1 A list of the hazardous materials;

6.17.4.2 A copy of the relevant material safety data sheet (MSDS);

6.17.4.3 The intended use of the products;

6.17.4.4 Where and how the goods are to be stored;

6.17.4.5 The procedures for mixing and use of the substances;

6.17.4.6 Spill response procedures;

6.17.4.7 Disposal procedures. 6.13 The Contractor and the FA may inspect contractors' yards and construction areas on a periodic basis to ensure that the contractors are using only approved hazardous materials and that they are being stored and handled in the approved manner.

6.17.5 The Contractor should only use products which are environmentally friendly and biodegradable unless there are no alternatives.

6.17.6 There will be no bulk storage of diesel or petrol on site. The largest amount of petrol or diesel supplies to be kept in a contractor's area shall be 40 litres of petrol and 200 litres of diesel. Where quantities in excess of this amount are required by contractors, for example to refuel large machinery, prior permission must be obtained from the Institute. This diesel and petrol shall be kept in areas that are bunded to ensure there is no potential for environmental contamination.

6.17.7 Any goods or substances, which may be potentially explosive or highly flammable, will need the written approval of the Contractor and FA before being brought on to site. The Contractor will need to provide the following information:

6.17.7.1 The need for the product;

6.17.7.2 How the product is to be stored and handled; and,

6.17.7.3 Evidence of compliance with the Health and Safety at Work Act.

6.18 ELECTRICITY

6.18.1 Electricity is provided from Electricity Fiji Limited.

6.18.2 There is a back-up diesel generator for use in emergency power failure situations such as those arising after cyclones, this backup 'essential power' is not available for use by the Contractor. Note given the dual supply services isolations need to ensure that the backup supply is also isolated prior to commencing works.

6.18.3 FA may allow power use from the existing supply for contractors for use to operate machinery and equipment, and for use in contractor sheds and yards. This will be subject to verification and approval on power use, amount and the FA may decline the requested connection based on inadequate supply or potential disruption to services. The Contractor shall advise the Contractor Administrator of their wish to make a temporary connection with their requirements.

6.18.4 The Contractor will assist FA with its energy saving program by ensuring that all equipment is switched off as soon as the task is completed. All equipment will be turned off at the close of business each day unless it is necessary for safety reasons to

keep the equipment turned on. The Contractor is responsible for ensuring their employees and subcontractors comply with this requirement.

6.19 COMMUNICATIONS

6.19.1 The Contractor will not use the airport's internal telephones except in cases of emergency.

6.19.2 There is mobile phone coverage using available networks.

6.20 STORAGE OF MATERIALS ON SITE

6.20.1 The Contractor in consultation with FA shall nominate the locations of storage on site. This shall be documented in the 'Site Construction Plan'.

6.20.2 There is limited storage on site and contractors shall ensure that deliveries are staged to suit the progress of works on site.

6.20.3 The Contractor shall keep storage areas in these open-air locations tidy and clean.

6.20.4 Storage areas should be clearly barricaded with visible orange plastic mesh 1200mm high surrounding the designated storage area.

6.20.5 The Contractor is advised that if extensive undercover storage is required that they allow to provide their own shipping containers to serve this purpose.

6.21 EMERGENCY RESPONSE PLANS

6.21.1 FA's Emergency Response Procedure.

6.21.1.1 The Contractor shall ensure all personnel onsite are to comply with the requirements of FA's Airport Emergency Response Procedure. The Contractor shall ensure the applicable requirements within FA's Emergency Response Procedure are incorporated within its own emergency response plans and any other relevant documentation.

The types of events, which have the potential to result in emergency action being required, are as follows:

a) Cyclones
b) Extreme rainfall events leading to possibility of flooding
c) Prolonged dry periods
d) Operational errors resulting in spillages or leaks to the environment
e) Failure of equipment and infrastructure (e.g. pipes)
f) Accidents.
g) The potential environmental issues associated with these emergency events are as follows:
h) discharge of contaminants to ground with the potential to enter the coastal waters

i) discharge of contaminants directly into coastal waters
j) fire threatening vegetation and buildings
k) accidents on approach roads to the airport or on any internal roads in the airport complex
l) dust emissions from site
m) noxious fumes emissions

To address the potential of these events occurring the Contractor will ensure that emergency response plans are prepared during mobilization and the emergency response equipment is available.

Prior to construction and during the Planning Phase, the Contractor shall prepare an evacuation plan for the Construction area and surrounding properties. This plan will conform to the Airport's Emergency Evacuation procedures, (refer to the relevant sections within FA's Emergency Response Procedures) Evacuation of the site may be required in the event of fire, discharges of noxious fumes or a cyclone.
The Contractor will install a siren on site for use to warn of emergencies. The Contractor will ensure all staff, contractors and their staff are aware of the emergency evacuation procedures.

Contacts

6.21.2 The Airport is manned at all times. In the event of an emergency the Contractor will contact the FA.. The Contractor should in their site specific OH&S plan detail these contacts as a part of their Emeregency response procedure.

6.22 CONDUCT REQUIREMENTS OF CONTRACTOR PERSONNEL

6.22.1 The Contractor shall ensure that all personnel onsite are to comply with the general requirements for the conduct of airport personnel, these are:

6.22.1.1 Fitness for work – Contractors are required to be fit for work and a policy of zero tolerance to drugs, kava and alcohol shall be enforced. Additionally, personnel may be subject to drug and alcohol testing.

6.22.1.2 The Contractor's and subcontractors employees and personnel are to be courteous to airport staff and passengers and ensure airport operations are not interrupted.

6.22.1.3 Offensive behaviour and harassment are not accepted under any circumstances. Personnel found undertaking offensive behaviour may be required to leave the property without delay.

6.22.1.4 All Contractor's and subcontractor's employees and personnel are expected to work in a safe manner. Failure to do so may result in their expulsion from site by the Contractor or FA.

6.22.1.5 The Contractor's and subcontractors employees and personnel must stay within nominated construction areas and not enter other areas of the airport without the express prior permission of FA.

6.22.1.6 The Contractor during the Planning Phase shall develop and receive approval of the FA representative of an induction process, which must comply with the site rules and induction guidelines as detailed within this brief and as advised by FA. The induction process shall as a minimum include:

a) A written induction handbook that must be read and then signed by the staff undergoing induction.
b) Cover the requirements for Safety and the Environment as detailed in this specification.
c) Detail the site and its Amentias.

6.23 COMPLAINTS

6.23.1 During the construction process it is possible that complaints will be made by both members of the public and airport personnel. The Contractor will refer any complaints received to the FA immediately.

6.23.2 The Contractor shall refer all complaints from the general public to the FA. Complaints from airport staff will be referred to the FA for resolution. Any complaints from staff will be discussed at the regular project team meetings with the group being advised on:

6.23.2.1 the nature of the complaint;

6.23.2.2 action taken to address the complaint; and

6.23.2.3 whether the staff member is satisfied with the response.

6.23.3 All complaints will be responded to within a reasonable time, with an oral response within 24 hours and, where necessary, a written response within 7 days.

6.24 SAFETY AUDITING

During the contract Fiji Airports shall at their own discretion undertake safety audits and inspections. A sample inspection/ checklist is provided below such that the Contractor understands likely queries.

Ref	Documentation
PART A - INDUCTION DOCUMENTATION AND PROCESSES	
1	Induction Book including sign off page

2	Induction training programs should emphasise the dangers of workers working in close proximity to mobile plant, and adequate supervision should be provided.
3	Airside access constraints clearly documented
4	Conduct Requirements detailed
5	Drug and alcohol policy detailed
6	Heat Stress management advised
7	OHS Induction Register provided with current staff listing.
8	First Aiders listing and qualifications provided and cross checked against current staff listing
9	First Aid Location and Kits available, and known to staff by induction/ tool box meeting
10	Emergency Incident notification and response procedure confirmed and detailed in induction
11	Current staff listing provided to Fiji Airports/ also query regular provision
12	Staff Identification Cards, worn and displayed
13	Terminated staff card and advise provided to Fiji Airports
PART B - OCCUPATIONAL HEALTH AND SAFETY SYSTEM	
1	Policy Statement
2	OH&SE Plan
3	Site Safety Handbook
4	Emergency Management System
5	Assessed Risk Assessments if available
6	OH&SE Meeting Minutes
7	Incident Reports
8	Quality Assurance System (in general) OH&S Program
9	Material safety Data Sheets and Register
10	Engineer to contract – review if applicable
PART C- EXCAVATION DOCUMENTATION *(OR OTHER ALTERNATIVE TRADE SPECIFIC FOCUS)*	
1	Licensed Driver Register
2	Earthmoving machinery operators must be able to demonstrate they are competent to operate the specific type of plant being used and any attachments fitted to the plant. Detail competency checks
3	Excavation SoP/SWMS/ JSA
4	Sign off of above by current staff
5	Excavation Code of Practice or similar utilized and documented
6	Excavation Permit and Requirements, WHEN USED?
7	Code of Practice: Managing risks of plant in the workplace. Used as reference or similar
8	Prestart checklist on heavy equipment/ vehicles includes driver qual.
9	regular inspections of the plant by a competent person in accordance with the manufacturer/supplier's specifications

10	Dust and Debris management procedures
	PART D- INCIDENT RESPONSE
1	Incident Report advised to Engineer and FA directly upon occurrence
2	Briefing and written advice to staff involved
3	Tool Box Meeting Minutes with staff following incident
4	OHS Committee Meeting Minutes
5	Final Incident Report
6	Lessons Learned documented
	PART E- EMERGENCY RESPONSE
1	Emergency Incident notification and response procedure confirmed and detailed in induction
2	First Aider Listing provided in Tool Box Listing and on safety boards, identification on helmet or similar
3	Spill Kits and Location
4	Spill Kit deployment approval and training by who?

The audits and processes as undertaken by Fiji Airports in no way mitigate the Contractor's obligations to complete works in a safe manner.

Fiji Airports may following failure to act by the Contactor, undertake corrective action to audit findings to ensure compliance with this specification and any associated legislation or code of practice. Costs arising including management costs of Fiji Airports shall be a debt due to Fiji Airports by the Contractor. These debts may be set off against progress claim payments under the contract.

7 TEMPORARY WORKS

7.1 PROJECT SIGNBOARD

7.1.1 The Contractor shall provide a project signboard in an approved location external to the site. The exact position is to be approved by FA..

7.1.2 Where not documented elsewhere Signage specifications are sign mounted 1500mm above ground level 2700mm high by 4800mm wide, professionally color printed UV stabilized PVC Billboard standard (contact Media Metro or alternative approved supplier). Graphics and layout are to be approved by FA prior to construction.

7.1.3 Engineering design of the signboard structure shall be provided by the Contractor to meet the wind loading requirements of the Fiji National Building Code.

7.2 SITE FENCING AND HOARDINGS

Prior to the commencement of any work, the Contractor shall erect a hoarding which completely surrounds and encapsulates the work site.

Where works are directly on an Airside Boundary the hoarding shall be a solid framed partition a minimum of 2.4m high framed and located such that no climbing from the inside of the construction site to airside is possible.

The hoarding shall be a secure structure capable of withstanding cyclonic wind forces (jet blast and prop wash as applicable) and shall be designed by an Engineer and be approved by FA.

Access gates of the same or similar solid construction shall be located in positions approved by the FA.

For any gate to Airside and for the operating hours of the site the Contractor shall be responsible for and shall allow for the staffing of an FA approved security guard.

The Contractor shall allow for any necessary relocation and reconstruction of the hoarding to maintain the site perimeter as a complete and contained site boundary. Hoardings shall be maintained in good condition and repainted as required to present in a clean and uniform condition throughout the life of the project.

Fiji Airports may install signage to the hoarding as required and the Contractor shall allow to relocate as required.

Where the hoarding is located adjacent other tenancies the hoarding shall be full height, be dust proof and double lined both sides.

Site fencing where not on airside or facing airside and works remain 3 metres away from the airside boundary can be cyclone wire mesh at minimum of 2.1m high, include shadecloth to the facing and may be the proprietary relocatable fencing as detailed in the following image.

Temporary site fencing

Note this fencing is not appropriate for use airside. To asset in dust control during earthworks it is also necessary to include shade cloth on the fence line.

7.3 BARRICADES

The Contractor is to ensure that work areas will be defined via construction signage and hoardings/ barricades and safety tape as necessary to define a safe work area.

7.4 TRAFFIC MANAGEMENT PLANS

Traffic management plans, including traffic control are required for cranage, for all deliveries, concrete delivery and the concrete pumping trucks involving access to the airside of the terminal or where works will impact landside roads, pedestrian paths or car parks.

a) All airside works require the provision of traffic management plans for all vehicle access.
b) The Traffic Management Plan must be submitted to the FA a minimum of seven (7) days prior to the undertaking of the planned access provided. All investigations required to identify any flight that may be affected by the access time, must be completed prior to the submission of the Plan.
c) Traffic will be required to be planned to avoid interrupting the planned aircraft schedules which may be amended from time to time.
d) Upon receipt of a Plan, the FA will seek approval from the relevant stakeholders. Works are to be programmed to minimise disruption to the facilities operations particularly aircraft movement (and will require and include night and weekend access times).
e) Any aspect of the plan may be rejected at the FA's discretion. If the Plan is rejected in part or whole, the Contractor is to revise and resubmit accordingly.
f) The Contractor shall again reconfirm access times and requirements the working day prior to access with FA's representative.
g) The Contractor shall have allowed for all necessary barricades, lighting, temporary signage and staffing (eg lollypop men) within the Contract Sum. Temporary signage shall include wayfinding directional signage for pedestrians.

7.5 CUTOVER & DISASTER RECOVERY PLANS

All works within the existing Facility carry the risk of affecting the operations of the facility. To effectively manage the risk of interrupting the Airport's operations, a Cutover & Disaster Recovery Plan is to be developed whenever working in, around or with existing services. The objective of the Plan is to:

a) Identify critical risk issues associated with the expansion, upgrade and integration of the existing services that will require effective management, including the possibility of an unplanned loss of service (this is to include all services that are not directly involved in the works that may be affected as a side-effect);
b) Identify a project implementation program which schedules the project requirements in a logical order (including detailed timing);
c) Detail the extent to which an additional system, required by the Contract, can be independently tested both off-site and on-site before any attempt is made to integrate and expand the existing services;
d) Identify the source, operation/function and method of isolation of all services in and around the task that may be affected by the works;
e) Detail the proposed cutover procedures for each sub-system to provide the necessary expansion/integration (step by step sequence of works);
f) Detail the commissioning tests to be performed for the expanded/integrated systems and how those tests are to be performed with minimum disruption to operations (including all signoffs and ITPs required); and
g) Clearly address the fall-back strategy (disaster recovery plan) for each sub-system in the event that :
h) the expansion/integration is not immediately successful, and/or another service has been inadvertently affected.

The Cutover and Disaster Recovery Plan must be submitted to the FA a minimum of seven (7) days prior to the undertaking of the task. All investigations required to identify any service that may be affected by the works, including its source, operation/function and method of isolation, must be completed prior to the submission of the Plan.
Upon receipt of a Plan, the FA will seek approval from the relevant stakeholders. Works are to be programmed to minimise disruption to the facilities operations (which may include night and weekend work).

Any aspect of the plan may be rejected at the FA's discretion. If the Plan is rejected in part or whole, the Contractor is to revise and resubmit accordingly.
Works are not to proceed until approval is granted by the FA.

A Cutover and Disaster Recovery Plan is also to be completed for any building works that may affect existing services or may potential affect the operation of the facility, aircraft safety or terminal users.

7.6 SCAFFOLDING

All scaffolding required for the works is deemed included within the Contract Sum.

Scaffolding shall be proprietary scaffolding systems erected in accordance with the manufacturers recommendations and in accordance with the relevant standards and codes of practice.
Damage scaffold shall not be used and access to incomplete scaffold by staff not involved in the erection shall be prohibited and detailed via appropriate safety signage and warning tape
A Scaftag system shall be utilized that shall detail the responsible person who has erected the scaffold and assessed that it is safe and this inspection shall reoccur as required and at a minimum weekly.
Mobile scaffold shall not be moved with staff still on it.

7.7 CRANAGE

All cranage shall follow a defined safe work method and agreed lifting plan.
Cranage around airports will likely require a NOTAM (refer Airside Works Requirements). This requires application in the approved format 48 hours prior to works commencing.
Cranes and associated lifting gear utilized on projects shall be in good operational condition and have operational lifting computers.
Cranes with oil leaks shall not be allowed access to the site.
Cranes requiring a NOTAM may require a red flashing light obstruction beacon to be mounted on the top of the boom.

7.8 PEDESTRIAN ACCESS WAYS

Where works are to be completed above or above and directly adjacent an operational area, there will be need to provide enclosed pedestrian access ways through the site that be fully enclosed to enable the safe passage of airport users through the construction site in a secure and safe manner.

The designs shall be submitted for approval by FA and shall be revised and amended as required to achieve approval. Alternative proposals including the use of shipping containers as access passageways will also be considered. Access ways shall be provided with adequate lighting and directional signage as required.

Where the Contractor requires cranage to occur over the walkways when they are in use a suitable crash deck scaffold capable of withstanding the impact of the crane load shall be provided.

The Contractor shall upon request provide engineering calculations to demonstrate the structural stability and capacity of any crash deck scaffold provided.

7.9 TEMPORARY SERVICES

The Contractor in consultation with FA may be allowed to connect the temporary services to existing onsite infrastructure.

This will be subject to verification and approval on use, amount and capacity and impact on existing infrastructure including potential disruptions to the site. When the Contractor wishes to make a temporary connection they are to contact the FA Representative with the

Contractor requirements (and include any cut over and disaster recovery plans as applicable). FA's representative may decline or reschedule a proposed connection based on the impact to the Institute.

Lighting shall be provided as required to create a safe work area by the Contractor or its subcontractor as required.

The following table details the Contractors on site facilities:

SERVICE	FA TO	CONTRACTOR TO	ISSUE
ELECTRICITY - MAINS single phase	Verify potential connection and provide connection point power where available and capacity is not constrained	Nominate potential connection and configure to needs including installation of temporary switchboards with earth leakage	Contractor to install if deemed necessary./ Consumption costs by FA.
ELECTRICITY- MAINS three phase	Unlikely to be available	3 phase welders etc likely to require generators/sound managed	Contractor to provide
ELECTRICITY - GENERATOR SUPPLY	Nil	Nil	Contractor to install ifdeemed necessary
POTABLE WATER	Verify potential connection and supply connection where available and capacity is not constrained	Nominate potential connection, Contractor to install if deemed necessary	Building trades works use only, Civil works watering and water cart filling or bulk water use to be provided by Contractor.
COMMUNICATIONS CABLING	Nil	Arrange connection of outside line through telephone company ()	By Contractor
MOBILE PHONE	Nil	Supply own	
SEWERAGE	Verify and if necessary nominate Supply	Nominate potential connection, Contractor to	

SERVICE	FA TO	CONTRACTOR TO	ISSUE
	connection where available and capacity is not constrained	install if deemed necessary	

7.10 SITE AMENITIES

Lunch sheds, and amenities are to be provided by the Contractor.
Toilet facilities in each of the areas under construction will be provided and maintained in an operational condition by the Contractor.

The Contractor will complete cleaning of lunch sheds and toilet facilities.

Contractor's personnel are not allowed to use existing airport facilities .

Smoking is only permitted within the designated smoking areas to the approval of FA. Smoking is not allowed in any other areas including construction sites, contractor's yards or any other amenities. .

Site sheds or containers may be located on site in locations approved by the Contractor in accordance with the 'Site Construction Plan' and in consultation with FA's Representatives. Services to the Contractor's sheds are to be connected at cost to the Contractor and included in the Contract Sum.

7.11 ACCOMMODATION

There is no provision for accommodation of contractors or personnel, The Contractor is prohibited from accommodating workers on site. FA's security guards will expand their patrols to cover the construction area, and ensure that no unauthorised personnel are sleeping on site.

8 AIRSIDE WORKS REQUIREMENTS

Airside works require additional documentation to Landside works to meet the Civil Aviation Authority of Fiji legislative requirements, these are:

8.1 AIRSIDE WORKS

The following are minimum operational requirements which should be detailed further in the MOWP and safety case responses.

a) No works take place on an active movement area without the knowledge of either the aerodrome operator or any applicable air traffic service unit.
b) As far as practicable working areas should be blocked off from the active movement areas by physical barriers.
c) Where work is conducted on, or involves traversing, paved areas the paving should be thoroughly inspected before opening for aircraft use.
d) A project Evacuation plan shall be in place for all works (To be highlighted in MOWP).

e) In the case of adverse weather conditions, works shall be put on hold or called off by the Project Manger.
f) Vehicles must stay well clear of aircraft when their anti-collision beacons is operating.
g) Works Safety Officer has the authority to direct the immediate removal or vehicles, plant and personnel from the movement area where necessary to ensure the safety of aircraft operations.
h) FOD identified shall be removed immediately, logged and deposited in Airside Bin or Airside Bag.
i) All personnel's working around Navigation Aids shall keep clear or not to have any impact on the safe operation of navigations aids.
j) An inspection checklist shall be signed off by the FA Rep/Contractors Rep/Safety Officer at the end of every work shift to ensure the airfield/construction site is left in a suitable condition for operational activities

8.2 METHOD OF WORKS PLANS (MOWP)

- MOWP- Method of Works Plan Contractors shall submit a Method of Works Plan 2 weeks prior to commencement of work. This shall include as a minimum
  - Works Methodology
  - Program
  - List of Equipment's/Machinery/Workmen
  - Personal Protective Equipment
  - Risk and Mitigation Plan
  - Foreign Object Debris (FOD)Plan

- The MOWP shall use the Blank Template are per the following link https://www.dropbox.com/s/ezkaazk2zjbv5hf/BLANK%20MOWP%20-%20Copy.docx?dl=0

- FA to review and approve MOWP for circulation to FA Department Heads, Control Tower, Contractor and relevant stakeholders (CAAF).
- Contractor to ensure the safety of aircraft operations and the day-to-day safe conduct of woks in accordance with provision of the Method of Works Plan. Method of Works Plans.
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8.3 NOTAMS

- NOTAMS – Notice to Airmen - A notice to airmen (NOTAM) is a notice filed with an aviation authority to alert aircraft pilots of potential hazards along a flight route or at a location that could affect the safety of the flight. NOTAMs are unclassified notices or advisories distributed by means of telecommunication that contain information concerning the establishment, conditions or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel and systems concerned with flight operations.
- These are required to be lodged 48 hours prior to commencement of works.

Specific projects may require that works are completed in accordance with preapproved AIP Supplements (SUP) and Aeronautical Information Circulars (AIC) and these may influence NOTAM and MOWP's

8.4 SAFETY CASE

A Safety Case shall be provided where relevant to a project to ensure all aviation safety issues are understood and addressed. The Safety Case will be based on the Construction Method Statement as submitted by the Contractor prior to commencement of Works.

Where required, Contractors shall provide an additional Risk & Mitigation plan (based on which FA will compile a Safety Case for circulation to all FA Department Heads Contractor and relevant stakeholders (CAAF).

8.5 AIRSIDE END OF SHIFT INSPECTION CHECKLIST

An inspection checklist shall be signed off by the FA Rep/Contractors Rep/Safety Officer at the end of every work shift to ensure the airfield/construction site is left in a suitable condition for operational activities. (Refer https://www.dropbox.com/s/w1fx839x79u1czq/Appendix%20B%20Inspection%20Checklist.docx.pdf?dl=0 an example checklist)

8.6 AIRSIDE PASSES – AIRPORT IDENTIFICATION CARD (AIC)

Airside access and access to secure areas within the airport requires the provision of airside passes to all personnel accessing airside.

The following table summaries the pass types, applicable fees and clearance requirements associated with each of the pass types as nominated.

Pass Type	Validity	Clearance Requirements	Fees
Temporary ID (1 week)	7 Days	Application Form	$5.00
		Employer Approvals	
		FA authority approvals	
Temporary ID (1 month)	30 Days	Application Form	$5.00
		Employer Approvals	
		FA authority approvals	
		Police Clearance Receipt	
		Photo ID	
Permanent ID (For Local)	Yearly	Application Form	$24.00
		Employer Approvals	
		FA authority approvals	
		Police Vetting	

Pass Type	Validity	Clearance Requirements	Fees
Permanent ID (Non-Fiji Citizen)	Yearly	Application Form	$24.00
		Employer Approvals	
		FA authority approvals	
		Police Vetting - Country	
		Work Permit	
Vehicle Pass	7 Days	Application Form	$5.00
		Employer Approvals	
		Purpose of application on Company Letter head	
		Copy of vehicle third party	
		Copy of Driver's License	
		Copy of company public liability exceeding 1m	
		Vehicle inspection will be conducted by airside operations.	

The Airside access application forms are as available in the following link: https://www.dropbox.com/s/8465ybowzfwaovh/Appendix%20B%20-%20Airside%20Pass%20Application%20Forms.pdf?dl=0

The Contractor shall allow for the pass costs within their Contract sum and allow the necessary processing time associated.

All AIC or Permits will be physically verified by Security Personnel's at Access Control Points

- AIC is used to identify who is authorized to be in a Security Area/Security Enhanced Area.
- There are requirements placed on the holders of Airport Identity Cards.
- Must be worn on the front of your outer garment.
- You can only enter or remain in a Security Area for the purpose of your duties
- If you no longer require your AIC you must liaise to the Issuing Authority(FA)

8.7 AIRSIDE VEHICLE PERMIT (AVP)

Every vehicle or motorized equipment that is required to enter and/or operate on airside must be issued with a valid AVP before permission to enter can be granted.
The following items shall be compiled for AVP application;

- AVP Application form (filled by applicant)
- Company letter head (Cleary stating the purpose for applying)
- Copy of vehicle third party
- Copy of drivers License

NOTE: Application form shall be reviewed and endorsed by Project Manager prior to payment and application at the Security Office & Airside Office.

All Vehicles entering Airside shall be escorted by the Safety Officer to the work site.

All vehicles accessing the Airside shall have entry/exit gate depicted on their AVP and driver holds a current ADP or escorted by the Safety Officer with valid ADP.

All vehicles operating on the maneuvering area shall carry amber rotating beacons or amber flashing flights on the highest part of vehicles such to provide a 260 degrees visibility.

Moving aircrafts will always have the right of way over vehicles and personnel on the movement area.

9 DOCUMENTATION REQUIREMENTS

9.1 DOCUMENTS

Documents produced by or on behalf of the Contractor and written information, including all drawings, sketches and specifications, supplied by the FA to the Contractor, including the Contract Documents, shall be kept by the Contractor at the Site or other location approved by the FA and shall be available at all times for reference by the FA or any person it nominates (including other representatives of the FA). Documents provided to or produced by or on behalf of the Contractor and the Contract Documents shall be kept in good order and marked to show where superseded or modified by later documents or instructions.

The Contract Documents and any other drawings or documents issued by or on behalf of the FA and copyright in the Contract Documents and any other drawings or documents shall be, as between the parties, the property of the FA. The Contractor shall not use, copy or reproduce the Contract Documents or any other drawings or documents issued by or on behalf of the FA for any purpose other than the performance of the Contract. The Contractor shall return the Contract Documents to the FA immediately upon request.:

The Contractor's documentation shall comply with the following as a minimum:

9.1.1 Electronic copies of specifications, reports, manuals and similar shall be in PDF and most current version of Microsoft Office in accordance with the Project Documentation manual requirements.

9.1.2 Electronic copies of all drawings shall be supplied in AutoCAD file format current version along with all support files including x-refs, fonts, shapes, images, plot styles, plotter configuration files and CTB files. A PDF copy of the drawing shall also be issued at the same time.

9.1.3 Hard copies of all drawings shall be in A3 and A1 format, as appropriate, with suitable Project identification and issue status on each page.

9.2 SOFTWARE REQUIREMENTS

The following computer software is approved for use on this project. FA reserves the right to reject documents or drawings submitted on incompatible versions or outdated software versions.

1.• Microsoft Office 2013 or later (with MS Access)
2.• Microsoft Project, 2013 or later
3.• AutoCAD 2012
4.• Adobe acrobat Professional
5.• Revit Architecture/Structure/MEP 2012

All external computer files must be checked for viruses prior to being copied or transferred to the firm's computer. Where computer files are protected by a password, the FA representative must be advised, in writing, the password.

9.3 SUBMISSION OF DESIGN

Any:
(a) design required under the Contract to be developed or carried out by the Contractor; and
(b) shop drawings or related documentation to be prepared by the Contractor,
shall be submitted to the FA in accordance with any program for the Works approved

by the FA and in any event within sufficient time for the FA to comment upon that design or documentation and submit it to the FA and for re-design work or amendment of design work, if required by the FA or the FA after a reasonable time for review, to be carried out by the Contractor without causing any delay in the progress of the Works or the Head Contract Works. The Contractor shall at its cost carry out any such re-design or re-documentation.

9.4 PROTOTYPES AND SAMPLES

The Contractor shall review and update a full submissions register associated with all samples and prototypes to be submitted under the contract and submit this for review by Fiji Airports within 3 weeks of contract award.

Where specified or requested by the FA's Representative the Contractor shall submit identified prototypes or samples of materials, products, items and finishes to be used in the Works, allowing a minimum of 14 days for assessment and resubmission.

3 no. of each sample shall be submitted.

9.5 DESIGN SUBMISSIONS BY THE CONTRACTOR

(a) The Contractor shall provide, at its cost, all technical data, manufacturing and installation details, commissioning results, test results, shop drawings and samples as required by the Contract or as the FA may require from time to time.
(b) Where an electronic web based document sharing program has been established and is being implemented by the FA the Contractor must fully participate in and provide all things necessary (except software) for full participation in such programs including the provision of adequate and compatible hardware.
(c) Each document including shop drawings shall be given a unique number by the Contractor and shall at the FA's option be:
(i) submitted in electronic web based document sharing "dwg" and "pdf" formats; or
(ii) submitted in transparency form and in paper form in the number specified in Schedule 1 (unless the FA's Representative notifies the Contractor in writing that submission in paper form is not required).
(d) The Contractor shall be responsible for and ensure that all documents and samples submitted:
(i) meet the requirements expressed in or to be inferred from the Contract;
(ii) conform to the requirements of Authorities and Legislative Requirements and indicate compliance if subject to inspection by any Authority;

(iii) are submitted in sufficient time to allow examination and comment by the FA (or its representative) and the FA and for any modification to be carried out prior to commencement of manufacture and without delay to the Works or the Head Contract Works; and
(iv) are coordinated with the requirements of other trades, and submitted at the same time as documents and samples submitted by related trades.
(e) Work to which the submitted documents or samples relates shall not proceed until the time referred to in (b) has expired.
(f) The Contractor is wholly responsible for the content and accuracy of shop drawings and other documentation and samples prepared by or for the Contractor, notwithstanding that there may have been ambiguities, errors, omissions or discrepancies in any documentation provided by the FA. Any approval or other indication given by the FA in relation to any submitted document or sample or this clause, in no way relieves the Contractor of any responsibility under the terms of the Contract.
(g) The Contractor shall provide the FA with the number of copies set out in Schedule 1 of the as built drawings, maintenance manuals, operating instructions, or other similar documents in a form acceptable to the FA's Representative for all work under the Contract.
(h) The Contractor shall keep at the Site or other location approved in writing by the FA one set of written information which it is obliged to have, prepare or supply in terms of the Contract which shall always be available for reference by the FA and any persons authorized by the FA.

9.6 SHOPDRAWINGS

The Contractor shall submit shop drawings and other documents to be supplied by the Contractor in the format and number required by clause 4.3. The Contractor shall ensure that arrangements or outline drawings identify all types and sizes of electrical, mechanical and other components, FA dimensions, access and part dimensions, sizes and dimensions of anchor bolt holes, forces generated (if any) and clearances necessary (if any).

Shop drawings may be coordinated at meetings convened as and if required by the FA. The Contractor shall attend any such meetings. The Contractor shall supply shop drawings and other documents to be supplied by the Contractor to the FA and to any other relevant Contractors in a timely manner. Where co-ordination meetings have been scheduled the Contractor shall supply such items to the FA and any other relevant Contractors at least 3 days prior to the relevant co-ordination meeting.

The Contractor shall:
(a) resolve any co-ordination problems (including any such problems identified by the FA) with other trades. In the absence of timely and satisfactory resolution the FA may elect to impose a solution as reasonably necessary to overcome co-ordination problems between trades. In the event that the FA imposes a solution it shall be implemented without any adjustment to the Contract Sum or any program dates;
(b) allow for the co-ordination of the Works with other trades and shall be deemed to have allowed for the effects of co-ordination of its work with the work of other Contractors The Contractor shall have no Entitlement in connection with any cost, loss, expense or damage resulting from such co-ordination or its failure to coordinate. For the purpose of this clause "shop drawings" includes penetration drawings which accurately detail all penetrations; and
(c) comply with directions given by the FA (including at any co-ordination meeting) for the purposes of sub-clause (a) above.

The FA shall not be obliged to review or comment upon any information design or document (including shop drawings) or to check any design for errors, omissions or compliance with the Contract. The FA or its agents or consultants receipt of, or review of or comment upon any such information design or documents (including shop drawings) shall not relieve the Contractor from responsibility for the Contractor's errors or omissions or any departure from the requirements of the Contract.

9.7 REQUESTS FOR INFORMATION (RFI)

Where the Contractor requires clarification on the design documentation they shall raise an RFI. The RFI shall include as a minimum the following:

a) A unique reference number specific to the RFI and included in the title.
b) The consultant or design disciplines to which the RFI is applicable.
c) The date upon which a response is required.

The RFI shall be submitted on the template provided and issued in pdf and word for response.

https://www.dropbox.com/s/bue54erk6d1oeqk/Request%20for%20Information%20%28RFI%29%20template.doc?dl=0

Failure to include the information as detailed above or use the format as provided may invalidate the RFI at Fiji Airport's sole discretion.

9.8 MONTHLY REPORTS

Unless the FA acknowledges in writing (in terms which expressly refer to this clause) that the Contractor need not comply with this provision or any part of it, the Contractor must with each payment claim provide a monthly report containing the following information as a precondition to progress payments:

(i) daily summary of personnel on Site;
(ii) detailed status of work against program;
(iii) changes in sequence of activities;
(iv) analysis of delay against critical activities and delay allowance;
(v) changes in duration times of activities;
(vi) additional activities;
(vii) Extension of Time claims;
(viii) design status, including RFI register updated for current status;
(ix) description of matters adversely affecting execution of the Works;
(x) details of preventive or remedial action proposed or implemented;
(xi) Variation status - pending and approved;
(xii) summary of claims and payments and projected cash flow;
(xiii) details of any quality non conformance;
(xiv) environmental issues and corrective action;
(xv) details of injuries and accidents and near misses including details of personnel off-work or on alternate duties as a result of an injury sustained on the Site;
(xvi) status of approvals and details of any notices issued by Authorities;
(xvii) details and evidence of superannuation and redundancy arrangements or provisions; and

(xviii) such other information as required by the FA.

The Contractor shall upon request give the FA access to and copies of its documents and records for the purpose of verifying the information to be provided under this clause.

9.9 WORKFORCE RECORDS

The Contractor shall on each working day provide to the FA a statement in writing showing the number of persons engaged and the hours worked by each person in the carrying out of the work under the Contract on that day in each of the following categories:

(a) supervisor;
(b) tradesperson;
(c) labourer; and
(d) apprentices and other.

9.10 AS-BUILT DOCUMENTATION AND OPERATIONS AND MAINTENANCE MANUALS

The Contractor shall provide draft operations and maintenance manuals prior to practical completion.

For the final issues of the Operation and Maintenance manuals three hardcopies suitably fitted in 3 or 4 ring A4 binders shall be specified. Appropriate Project identification, engineering system identification and issue status shall be provided on each page. An electronic copy of the Operation and Maintenance manuals on CD shall be provided. The use of PDF files is an acceptable format for the electronic copy of the Operations and Maintenance manuals.

As built drawings shall be provided in PDF and native file formats as per the reference documentation standards.

9.11 MEX ASSET MAINTENANCE SYSTEM

The Contractor shall allow to provide the necessary information in the required asset import template for incorporation of the facility into the Asset Maintenance System. The specifics of this requirement will be detailed to the Contractor and the services subcontractors at time of tender interview and again during the commissioning and handover process as documented.

10 PROGRAMMING OBLIGATIONS

10.1 FA’s PROGRAM

The Contractor warrants that it has carefully perused the FA's program or proposed program for the project and the Contractor warrants that it is able to and will perform its obligations consistently with any such program. The Contractor acknowledges that the FA’s program or

proposed program is not a contract document for the purposes of the Contract and is provided for information only.

The FA's program may be updated, amended or replaced by the FA at any time. If the FA's program is updated, amended or replaced the Contractor shall at its cost provide an amended program in accordance with clause 5.2 and take whatever action is necessary to perform its obligations consistently with any such program. The FA does not warrant that the Works or any other work will be carried out consistently with the FA's program and the Contractor shall have no Entitlement arising from the Works or any other work not being carried out in accordance with the FA's program.

10.2 CONTRACTOR'S PROGRAM

Within 7 days after commencement of the work under the Contract and each month thereafter the Contractor shall provide to the FA a program for the work under the Contract in a form and containing the information and detail required by the FA in Microsoft project format. The Contractor shall ensure that its program is consistent with the FA's program. The Contractor shall not (without reasonable cause) depart from a program for the work under the Contract prepared in accordance with this clause.

A 'program' is a program prepared in the form of a computer generated time scaled critical path network logic chart in Microsoft Project Format indicating the following:
i) sequence and duration and activities constituting the critical path and the interrelationship between activities including float for activities not on the critical path; and
ii) sufficient detail of administrative and trade activity to fully describe the Contractor's planning of the Works and the method of achieving Practical Completion by the Date for Practical Completion and must contain as a minimum the following activities:

a) site accessibility restrictions applicable;
b) appointment of key subcontractors;
c) finalisation of project inspection and test plan;
d) procurement for key elements of the Works;
e) inspection and testing for key elements of the Works;
f) milestone and key dates for items including the approval of Authorities;
g) on-site trade activities; and
h) no activity may have a duration greater than 10 days.
i) The schedule shall make allowance for the submission and review of design documents.
j) Durations to be calculated based on good target productivity rates as appropriate.
k) Buffers should be added to the schedule to protect against variability as appropriate
l) Include approval activities in the design phase for the structural steel shop drawings and other critical path design submissions.
m) Include for commissioning and handover activities
n) Include defect inspection and rectification periods in the construction phase.

(iii) The chart(s) must be accompanied by a calendar specific to the Works and showing all working days as well as weekends, public and statutory holidays, rostered days off (which are generally recognised by the building industry in the jurisdiction of the Site) and the Christmas and Easter shutdown.
(iv) The critical path network chart must be colored to indicate critical and non-critical activities and the critical path together with total float for each activity."

The Contractor acknowledges that:
(a) compliance with this clause and any comment or approval by the FA; and
(b) the furnishing of a program for the Works or an amended program,

shall not relieve the Contractor of its responsibility to comply with the Contract. If the Contractor fails to comply with this clause the FA may direct the Contractor in which order and at which time the work under the Contract shall be performed and the Contractor shall comply with such direction at the Contractor's cost.

Following issue of the program required under the Contract and with all other programs and schedules that supersede this program over the life of the project and in addition to the requirements as detailed elsewhere in the Contract the Contractor is required to:

a) Monitor the progress of all consultants and the Contractor/s against the program.
b) Prepare detailed fit out, equipment installation and commissioning schedules to match the program. If appropriate detail is not already included in the master schedule.
c) Manage and advise the FA's Representatives of the programming consequences of any design variation or construction variation.
d) Report monthly to FA on the status of the program.
e) Revise the program at least monthly showing any alterations made and progress against the program.
f) Report any milestones that may be at risk of not being met.

Failure to submit the Programs in the form and at the times required entitles Fiji Airports to enage external programmers to complete the required programs and actions on the Contractor's behalf and deduct costs incurred from the Contract Sum.

11 COMMISSIONING AND HANDOVER PROCESSES

11.1 COMMISSIONING AND HANDOVER PLANS

Six months prior to forecast completion, the Contractor shall prepare commissioning and handover plans for each of the services trades and specialist equipment to be provided under the contract. The plans shall comply with the format and requirements of ANSI/ASHRAE/IES Standard 202-2018 ' *Commissioning Process for Buildings and Systems'*.

These plans will then be reviewed by FA and the associated services consultant.

The Contractor shall amend and revise the plans as required to receive approval on these plans.

Failure to complete these plans prior to commissioning commencing may invalidate any commissioning works undertaken.

11.2 COMPLETION AND HANOVER PROCESS

The following procedure is to be adopted by the Contractor twelve (12) weeks from Completion to ensure the successful and timely handover of each stage of the Project to FA. Failure to follow this process may impair completion as per the associated contract conditions at FA's sole discretion.

Step 1

The Contractor is to convene a Project Finalization Meeting ("PFM") with the FA's Representatives to discuss all outstanding and incomplete Works (including any defects) on-site, outstanding Authority Requirements, and the like.

All outstanding Works are to be listed in a Completion and Compliance Register prepared and maintained in accordance with the agreed format for the Completion and Compliance Register included in the Contract Documents or similar as agreed between the FA's Representatives and the Contractor, with responsibility noted and the Register issued to the relevant parties. The Completion and Compliance Register must include a detailed program showing how (in terms of sequence, activities and expected duration) the Contractor intends to complete all outstanding obligations so as to achieve Practical Completion.

A completion program detailing all relevant survey/council/authority and/or other statutory approval requirements which are to be carried out by FA and/or the Contractor is to be tabled for review and comment at each PFM.

The outstanding items list is to be reviewed with the Contractor and checked for progress at fortnightly intervals.

The Contractor must co-ordinate with the FA's Representatives to review any areas of major concern in the Project.

The Contractor must table the updated Compliance Register at each PFM.

Minutes of PFMs are to be taken by the Contractor, reviewed with the FA's Representatives and distributed to all relevant parties no later than five (5) Days after each PFM.

Step 2

Fortnightly PFMs are to be held prior to Practical Completion (yet may be excused by formal advise of the FA's Representatives).

The agenda for the PFMs shall be:

Review previous minutes.

Review Authority Requirements as follows:

i. Consent authorities: each development consent or construction certificate (or equivalent), and action to be taken;
ii. Water authorities;
iii. Electricity authorities;
iv. Workplace safety authorities;
v. Fire and essential services authorities;
vi. Communications authorities;
vii. Gas authorities;
viii. Environmental planning, monitoring and compliance authorities;

Construction matters:

Outstanding works list;

Defects list;

Commissioning Program;

architectural finishes;

all services (including Authority certificates and approvals);

all soft and hard landscaping;

irrigation systems;
keys and security devices;
FA requirements/Early occupation;
Completion progress/Compliance Registers;
As-built drawings and manuals;
MEX data requirements and formats;
Warranties and guarantees;
Documents package for FA;
Site inspections as required under the completion pre-handover tasks;

Step 3: Completion.

Refer to the Contract conditions and Annexure for specific requirements. Further to these requirements, and to ensure there is no confusion, the following is the sequence of Pre-Handover tasks required to achieve Completion.

Pre - Handover Tasks.

All services* commissioned by services contractors with commissioning data and certifications as required by the consultants forwarded to the consultants.

All services* performance checked and defects list issued by relevant consultants including witness tests as detailed and required to verify commissioning has been completed.

Draft Operations and Maintenance Manuals Submitted

Operator and Technical Training completed as specified

Defects rectified by services contractor

Defect rectification checked and signed off by relevant consultants.

Finishes and FFE completed by contractor

Finishes and FFE checked by Architect and ID and defects issued.

Contractor completes defects.

Architect and ID check and sign off completion of defects.

Installation and sign off of Equipment and Scientific items.

Contractor and FA's Representatives inspect and issue defects list

Contractors complete defect rectification and this is verified as complete by the Contractor.

FA's Representatives inspect defect rectification

If defects completed to enable occupation, Practical Completion is granted.

*The term "Services" as detailed above applies to all needs to make a given space to be fully complete and functional. See detailed list below.

Definition of services (where applicable)

Electrical system
Gas system
Water Hot and Cold
Chilled water
Data network
MATV network
PLC Controls and systems
Fire detection systems / Fire Suppressions systems
HVAC systems
Communications networks.
Audio system / Visual System / Acoustic systems
Signage fixed and digital systems.
Chillers Equipment
Flight Information Display Systems

IT systems
CCTV and security systems
Storm water systems
Sewage systems
Baggage Systems

12 DEFECTS LIABILITY OBLIGATIONS

12.1 ACTIONS REQUIRED

12.1.1 Further to the requirements as detailed elsewhere in the Contract, the Contractor is required to provide a defect liability period on installed works, the specific duration is detailed within the contract;

12.1.1.1 Prepare and submit a program to the FA for approval detailing the steps to be taken during the Defects Liability Period for the identification and rectification of defects;

12.1.1.2 Allow for afterhours and intermittent restricted access to rectify defects in occupied areas.

12.1.1.3 Using the assistance of the other consultants prepare a list of defects to be rectified during the Defects Liability Period;

12.1.1.4 Provide the FA with any notice issued to subcontractor/s requesting the subcontractor/s to perform rectification work pursuant to the Subcontract; and

12.1.1.5 Ensure that the rectification work is carried out by the subcontractor/s.

12.2 CONTRACTOR SHALL NOTIFY

Prior to carrying out any rectification work, the Contractor shall notify the FA of:

(a) the type of work;
(b) the protection measures to be utilised;
(c) the hours of work;
(d) the effect of such work on the occupants of the premises; and
(e) the effect of such work on services.

12.3 FA TO APPROVE RECTIFICATION

The Contractor must not commence to carry out any such rectification work without the FA's consent. The Contractor shall comply with any instructions by the FA as to the matters in clause 5.2 (a) – (e). Notwithstanding any consent or instructions under this clause, the Contractor remains wholly responsible for the rectification work.

12.4 TIME AND MANNER FOR CONTRACTOR TO CARRY OUT RECTIFICATION WORKS

If it is necessary for the Contractor to carry out rectification, the Contractor must do so at times and in a manner which causes as little inconvenience as is reasonably possible to the

FA, FA and any occupants. The Contractor must comply with the occupier's workplace health and safety standards or requirements and any conditions imposed by the FA or the occupier including the payment of any access fees or security costs. The Contractor must give the FA sufficient prior notice of its proposed attendance so that the FA can give at least 2 Business Days prior notice to the occupier (except in case of emergency).

12.5 DEFECTS NOT RECTIFIED BY CONTRACTOR

Without prejudice to the FA's rights generally the FA may:

(a) have any Defect rectified by others and recover the direct and indirect costs of so doing; or

(b) accept the defective work and at its option recover either the costs of making good the Defect or the reduction in value of the Works or the Head Contract Works and any other loss suffered by the FA, as a debt due from the Contractor.