**CAPITAL PROJECTS AND**

**FACILITIES MANAGEMENT**

**INFRASTRUCTURE**

**OPERATIONS AND MAINTENANCE MANUAL**

**SEPTEMBER 2020**

1. **COMBINED CONTRACTOR / ARCHITECTURAL MANUALS**

**Project Name:** i.e. Aconex project name

*Project Description: Provide a brief description and location*

|  |  |
| --- | --- |
| UoA Project Number: |  |
| UoA Project Location:UoA Building Number: |  |
| UoA Project Manager: |  |
| Consultant: |  |
| Architect: |  |
| Contractor: |  |
| Practical Completion Date: |  |

**Combined Contents**

[i. Document Control Resources](#_Toc49952397)

[ii. Document Approval, Use and Revision History](#_Toc49952398)

[iii. Document Guide](#_Toc49952399)

[iv. Applicable Manuals](#_Toc49952400)

[1 Contractor Manual](#_Toc49952401)

[2 Architectural Manual](#_Toc49952402)

[2.2 Enclosure](#_Toc49952403)

[2.3 Interior](#_Toc49952404)

[2.4 Finishes](#_Toc49952405)

1. Document Control Resources

Roles and responsibilities

Insert **‘Applicable’** or **‘Not Applicable’** for Stakeholders involved in the consolidation/review process.

|  |  |  |  |
| --- | --- | --- | --- |
| **Company** | **Role** | **Person(s) or Position(s)** | **Applicable/Not Applicable** |
| Document Controller | Document Controller | XXXX[The same person on each document] |  |
| Document Owner/Approver | Document Owner/Approver | Director Capital Project Delivery and Facilities Management |  |
| [Contractor] | Document Originator | [Title] |  |
| [Consultant] | Document Reviewer | [Title] |  |
| University of Adelaide | Document Reviewer | Project Manager |  |
| University of Adelaide | Document Reviewer | Senior Technical Officer |  |
| University of Adelaide | Document Reviewer | Senior Space Data Coordinator |  |
| University of Adelaide | Document Reviewer | Maintenance Scheduling Officer |  |
| University of Adelaide | Document Reviewer | Mechanical Services Manager |  |
| University of Adelaide | Document Reviewer | Electrical Services Manager |  |
| University of Adelaide | Document Reviewer | Fire Services Manager |  |
| University of Adelaide | Document Reviewer | Hydraulic Services Manager |  |
| University of Adelaide | Document Reviewer | Cleaning & Waste Services Manager |  |
| University of Adelaide | Document Reviewer | Communications Services Manager |  |
| University of Adelaide | Document Reviewer | Security Services Manager |  |

1. Document Approval, Use and Revision History

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Volume** | **Version** | **Date** | **Reason** | **Company** | **Person(s) or Position(s)** | **Comments** |
| [Example: No. of Volume] | [Example: Revision Letter or Number] | [Example: Date of Revision i.e. 2020-02-02] | [Example: Amendment, Review, Transmitted, etc.] | [Example: Company Name] | [XXXX [Name]XXXX [Title]] | [Example: DRAFT Manual Issued to UoA PM for review] |
| Etc. | Etc. | Etc. | Etc. | Etc. | Etc. | Etc. |

1. Document Guide

This template is based upon the Natspec guidelines and reference the University of Adelaide’s Design Standards throughout this document.

Refer to ‘National section Matrix’ for further information relating to the Natspec structure.

Should a section not be applicable to this trade discipline, place ‘Not Applicable’ in the respective section.

**Exclude all irrelevant matter within this template.**

1. Applicable Manuals

Please state which manuals will be submitted for thisproject by stating **‘Applicable’** or **‘Not Applicable’.**

|  |  |  |
| --- | --- | --- |
| **Volume Number** | **Manual Type** | **Applicable/Not Applicable** |
| 1 & 2 | Combined Contractor / Architectural Manual  |  |
| 3 | Communications Manual |  |
| 4 | Electrical Manual  |  |
| 5 | Fire Manual  |  |
| 6 | Hydraulic Manual  |  |
| 7 | Mechanical Manual |  |
| 8 | Security Manual |  |
| 9 | Structural Manual |  |
| 10 | Combined Site, Urban, Structural & Open Spaces Manual |  |
| ~~11~~ | ~~Combined Small Projects Manual~~ | **~~Not Applicable (Unless approved)~~** |

** CAPITAL PROJECTS AND**

**FACILITIES MANAGEMENT**

**INFRASTRUCTURE**

**OPERATIONS AND MAINTENACE MANUAL**

**SEPTEMBER 2020**

#  Contractor Manual

**Project Name:** i.e. Aconex project name

*Project Description: Single paragraph*

|  |  |
| --- | --- |
| UoA Project Number: |  |
| UoA Project Location:UoA Building Number: |  |
| UoA Project Manager: |  |
| Consultant: |  |
| Architect: |  |
| Contractor: |  |
| Practical Completion Date: |  |

**Contents**

[1 Contractor Manual](#_Toc49165010)

[1.1.1 Project Description](#_Toc49165011)

[1.1.2 Directory of Contacts](#_Toc49165012)

[1.1.3 Certificates and Forms](#_Toc49165013)

[1.1.4 Warranties](#_Toc49165014)

[1.1.5 Training Plans and Records](#_Toc49165015)

[1.1.6 User Guides](#_Toc49165016)

[1.1.7 Essential Safety Provisions](#_Toc49165017)

[1.1.8 Occupational Health and Safety / Hazardous Materials](#_Toc49165018)

[1.1.9 Document Register](#_Toc49165019)

###  Project Description

Provide a full description of the project including but not limited to the following:

1. Overall scope of works
2. Listing of the trades
3. Project stages
4. Project commencement and completion dates
5. Any work which may have been completed by others (i.e. works completed by others and not the Contractor)

|  |  |
| --- | --- |
| Design Standard reference:  | Volume K: ‘Project Description’ |

###  Directory of Contacts

Provide in table format a combined contact list which includes Contractors, Consultants, UoA Project Manager and each specific trade discipline listed in this manual. Contact details to be provided in order as follows:

1. Company Name
2. Contact Name (Representative)
3. Company Position
4. Contact Number (Representative)
5. Company Address
6. Company Email Address
7. After-Hours Contact Name
8. Contact Number

Sample table format as follows:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Trade Discipline** | **Company Name** | **Contact Name (Representative)** | **Contact Number (Representative)** | **Company Address** | **Company Email Address** | **After-Hours Contact Name and Contact Number** |
| Contractor |  |  |  |  |  |  |
| Consultant |  |  |  |  |  |  |
| UoA Project Manager |  |  |  |  |  |  |
| Trade Discipline |  |  |  |  |  |  |
| Etc. |  |  |  |  |  |  |

|  |  |
| --- | --- |
| Design Standard reference:  | Volume K: ‘Directory of Contacts’ |

### Certificates and Forms

This section is separated into (3) subsections as follows:

1. University
2. Legal Compliance and Statutory Authorities
3. Essential Safety Provisions

#### University

Provide copies of the *‘Certification of Compliance with UoA Design Standards and Project Brief’* signed at the following stages of the project:

1. Concept Design Phase;
2. Detailed Design (Design Development) Phase;
3. 50% Complete Contract Documentation Phase;
4. 100% Complete Contract Documentation Phase; and
5. Project Hand-Over Phase.

Please state below if a specific Certification of Compliance is **‘Applicable’** or **‘Not Applicable’** to this section for this project.

Provide copies of the application to depart from the Standards, in writing which is to include the following as a minimum:

1. Reference to the Standard clause under consideration
2. Details of the departure and alternative proposal
3. Impact of that departure on:
* Compliance with the Project/ Return Brief;
* Project capital budget; and
* Operating budget

Sample table format as follows:

|  |  |  |
| --- | --- | --- |
| **Phase** | **Applicable/Not Applicable** | **Consultant Name & Date** |
| Concept Design  |  |  |
| Detailed Design (Design Development)  |  |  |
| 50% Complete Contract Documentation  |  |  |
| 100% Complete Contract Documentation  |  |  |
| Project Hand-Over  |  |  |
| Schedule of Departures |  |  |

Note:

Where applicable, include copies of certification in order as listed above.

|  |  |
| --- | --- |
| Design Standard references:  | Volume K:* ‘Certification of Compliance’
* Schedule 4 ‘Certification of Compliance with UoA Design Standards and Project Brief’ template
* ‘Departures’
 |

#### Legal Compliance and Statutory Authorities

Provide signed copies of all Legal Compliance and Statutory Certification including but not limited to the following:

1. Certificate of Occupancy [Schedule 19 of the Development Act 1993 and Development Regulations 2008]; and
2. Statement of Compliance – Builder’s Statement [Schedule 19A of the Development Act 1993 and Development Regulations 2008];

Please state below if a specific Certificate is **‘Applicable’** or **‘Not Applicable’** to this section for this project.

Sample table format as follows:

|  |  |
| --- | --- |
| **Legal Compliance and Statutory Authorities Certification Type** | **Applicable/Not Applicable** |
| Development Approval |  |
| Certificate of Occupancy |  |
| Builder’s Statement |  |

Note:

1. Where applicable, include copies of certificates in order as listed above.
2. Refer to SA Development Act and Ministers Specification for further information.

|  |  |
| --- | --- |
| Design Standard references:  | Volume K:* Australian Standards and Codes of Practice
* ‘DA, Form 2’s, Builders Statement’
* Schedule 4.12 ‘Post-construction documentation’
* Schedule 4.13 ‘As- built documentation checklist’
 |

#### Essential Safety Provisions

Provide signed copies of all Essential Safety Provisions certificates and forms including but not limited to the following:

1. Schedule of Essential Safety Provisions [Form 1, Schedule 16 of the Development Regulations];
2. Certificate of compliance with Essential Safety Provisions [Form 2, Schedule 16 of the Development Regulations]; and
3. Certificate of compliance with maintenance procedures [Form 3, Schedule 16 of the Development Regulations]

Please state below if a specific Certificate and/or form is **‘Applicable’** or **‘Not Applicable’** to this section for this project.

Sample table format as follows:

|  |  |
| --- | --- |
| **Legal Compliance and Statutory Authorities Certification Type** | **Applicable/Not Applicable** |
| Schedule of Essential Safety Provisions [Form 1, Schedule 16 of the Development Regulations] |  |
| Certificate of compliance with Essential Safety Provisions [Form 2, Schedule 16 of the Development Regulations] |  |
| Certificate of compliance with maintenance procedures [Form 3, Schedule 16 of the Development Regulations] |  |

Note:

1. Where applicable, include copies of certificates in order as listed above.
2. Refer to SA Development Act and Ministers Specification for further information.
3. Refer to Minister’s Specification SA76 for further information.
4. Alternative Solutions needs to be added (and SAFMS approval).

|  |  |
| --- | --- |
| Design Standard references:  | Volume K:Australian Standards and Codes of Practice |

###  Warranties

Provide in table format a combined warranties schedule for each trade discipline listing all Warranty periods including but not limited to:

1. Manufactures Warranties;
2. Installation Warranties;
3. Material Warranties;
4. Defects Liability Warranties; and
5. Assignment of warranties

Sample table format as follows:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Trade Discipline** | **Manufactures Warranties** | **Installation Warranties** | **Material Warranties** | **Defects Liability Warranties** |
| Trade Discipline |  |  |  |  |
| Etc. |  |  |  |  |

Note:

1. Copies of warranties for each trade discipline are to be included in this section.
2. Confirmation that warranties have been assigned to the University of Adelaide.
3. Warranties commence from the date of practical completion (identify any departures where warranties do not commence from date of practical completion).
4. Should a warranty not apply insert ‘Not Applicable’.
5. Warranty expiry dates to be included in Asset Register (refer to section 2.2.3, 3.2.3 and 4.2.3).

|  |  |
| --- | --- |
| Design Standard reference:  | Volume B: ‘Warranties’ |

### Training Plans and Records

The contractor is to provide full details of training provided to end users including copies of documentation issued (e.g. presentations and attendance records).

|  |  |
| --- | --- |
| Design Standard references:  | Volume K:‘Training Records’ |

### User Guides

When required, the UoA Project Manager is to provide a user guide for end user training. Refer to documentation standard for further information.

|  |  |
| --- | --- |
| Design Standard references:  | Volume K:* ‘Building User Guide’
* ‘Safe Operating Procedures (SOP)’
 |

### Essential Safety Provisions

The Contractor is to provide the following:

1. Evidence that maintenance and testing of all Essential Safety Provisions (ESP) has been carried out in accordance with Ministers Specification SA76.
2. A signed statement of compliance (by a suitable company representative).
3. A schedule of maintenance of all ESP’s to be maintained during Defects Liability Period (DLP) including how the program will be managed, details of administration, record keeping and sign-offs.

Note:

The Contractor must provide item 3 (2) two months prior to Practical Completion for review and approval by the University of Adelaide.

### Occupational Health and Safety / Hazardous Materials

The Contractor is to provide the following:

1. A copy of Safety in Design register
2. A copy of Safety in Construction (Risk Assessment) register
3. Copies of Asbestos clearance certificates
4. Safe Operating Procedures (SOP) that have been developed during the project delivery process (to be produced by Faculties)

|  |  |
| --- | --- |
| Design Standard references:  | Volume K:* ‘Risk Register’
* ‘Safety in Design/Workplace Health and Safety’
 |

### Document Register

Provide a combined document register including As-Built drawings, Specifications, Space Charging base floor plans in table format including the following necessary components as follows:

1. Document Number
2. Document Name/Title
3. Discipline (i.e. Architectural, Electrical etc.)
4. Issued by (i.e. Builder name, Consultant name etc.)
5. Revision
6. Revision Date

Sample table format as follows:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Document Number** | **Document Name/Title** | **Discipline (i.e. Architectural, Electrical etc.)** | **Issued by (i.e. Builder name, Consultant name etc.)** | **Revision** | **Revision Date**  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
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|  |  |  |  |  |  |

Note:

1. Documents to be submitted separately with the Manual in both pdf and dwg format.
2. If a ‘full’ document register is provided (all disciplines etc) then clearly identify the documents relevant to the manual.

|  |  |
| --- | --- |
| Design Standard references:  | Volume K:* Schedule 4.12 ‘Post-construction documentation’
* Schedule 4.13 ‘As- built documentation checklist’
 |

**CAPITAL PROJECTS AND**

**FACILITIES MANAGEMENT**

**INFRASTRUCTURE**

**OPERATIONS AND MAINTENACE MANUAL**

**SEPTEMBER 2020**

# Architectural Manual

**Project Name:** i.e. Aconex project name

*Project Description: Single paragraph*

|  |  |
| --- | --- |
| UoA Project Number: |  |
| UoA Project Location:UoA Building Number: |  |
| UoA Project Manager: |  |
| Consultant: |  |
| Architect: |  |
| Contractor: |  |
| Practical Completion Date: |  |

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[2.1.3 Key Schedule](#_Toc49165436)

[2.2 Enclosure](#_Toc49165437)

[2.2.1 Description of the Installation](#_Toc49165438)

[2.2.2 Directory of Contacts](#_Toc49165439)

[2.2.3 Asset Register](#_Toc49165440)

[2.2.4 Defects Liability Period (DLP) Maintenance Schedule](#_Toc49165441)

[2.2.5 Care and Maintenance Instructions](#_Toc49165442)

[2.2.6 Essential Services Provisions](#_Toc49165443)

[2.2.7 Certificates and Warranties](#_Toc49165444)

[2.2.8 Installation, Dismantling and Technical (Performance) Data](#_Toc49165445)

[2.2.9 Operating Instructions](#_Toc49165446)

[2.2.10 As-Built Drawings](#_Toc49165447)

[2.2.11 Commissioning and Testing Data](#_Toc49165448)

[2.2.12 Tools and Testing Equipment](#_Toc49165449)

[2.2.13 Spares and Consumables](#_Toc49165450)

[2.2.14 Imported Equipment](#_Toc49165451)

[2.3 Interior](#_Toc49165452)

[2.3.1 Description of the Installation](#_Toc49165453)

[2.3.2 Directory of Contacts](#_Toc49165454)

[2.3.3 Asset Register](#_Toc49165455)

[2.3.4 Defects Liability Period (DLP) Maintenance Schedule](#_Toc49165456)

[2.3.5 Care and Maintenance Instructions](#_Toc49165457)

[2.3.6 Essential Services Provisions](#_Toc49165458)

[2.3.7 Certificates and Warranties](#_Toc49165459)

[2.3.8 Installation, Dismantling and Technical (Performance) Data](#_Toc49165460)

[2.3.9 Operating Instructions](#_Toc49165461)

[2.3.10 As-Built Drawings](#_Toc49165462)

[2.3.11 Commissioning and Testing Data](#_Toc49165463)

[2.3.12 Specialist Tools and Testing Equipment](#_Toc49165464)

[2.3.13 Spares and Consumables](#_Toc49165465)

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[2.4.4 Defects Liability Period (DLP) Maintenance Schedule](#_Toc49165471)

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[2.4.11 Commissioning and Testing Data](#_Toc49165478)

[2.4.12 Tools and Testing Equipment](#_Toc49165479)

[2.4.13 Spares and Consumables](#_Toc49165480)

[2.4.14 Imported Equipment](#_Toc49165481)

###  Schedule of Finishes

This section is expected to contain:

Schedules (As-Built drawings) for floor, wall and ceiling finishes (preferably in table format) with details of location, type, colour, supplier and/or manufacturer.

Sample table format as follows:

|  |  |  |  |
| --- | --- | --- | --- |
| **Location** | **Drawing Code** | **Product/Colour & Finish** | **Supplier/Manufacturer** |
| **Floor Finishes** |
| [Example: Bar Kitchen] | [Example: FV1] | [Example: Sheet Vinyl R12Forbo Safestep R12Colour: Elephant] | [Example: 1.Company Name2.Company Representative3.Contact Number4.Email Address] |
| Etc. |  |  |  |
| **Wall Finishes** |
| [Example: Wall Tile – to Back Bar] | [Example: T1] | [Example: 100 x 100 (size Confirmed)Allow $50psmCode: TBAColour: TBAGrout: TBA] | [Example: 1.Company Name2.Company Representative3.Contact Number4.Email Address] |
| Etc. |  |  |  |
| **Ceiling Finishes** |
| Etc. |  |  |  |

Note:

Provide written confirmation by Consultant that schedules are As-Builts.

|  |  |
| --- | --- |
| Design Standard reference:  | Volume K: ‘Finishes and furniture’ |

###  Schedule of Furniture, Fixtures and Equipment

This section is expected to contain:

Schedules (As-Built drawings) for furniture, fixtures and equipment (preferably in table format) with details of item, description, lead time, warranty, colour/finish, supplier and/or manufacturer.

Sample table format as follows:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Item** | **Drawing Code** | **Description** | **Lead Time** | **Warranty** | **Colour/Finish** | **Supplier/Manufacturer** |
| [Example: Waiting Chair /Meeting Chair] | [Example: C1] | Web ChairFully upholsteredSled frameNo armsStackable | 4 weeks | 5 years | [Example: Upholstery fabric: Instyle 'Feel'Colour: 'Amazing'Frame: Chrome] | [Example: 1. Company Name
2. Company Representative
3. Contact Number
4. Email Address]
 |
| Etc. |  |  |  |  |  |  |

Note:

Provide written confirmation by Consultant that schedules are As-Builts.

|  |  |
| --- | --- |
| Design Standard reference:  | Volume K: ‘Finishes and furniture’ |

### Key Schedule

This section is expected to contain:

A register in table format including each lock type, lock number, key type and key number for reordering in table format including the following necessary components as follows:

1. Item Number
2. Building Name
3. Level Number
4. Room Number
5. Key Type
6. Key Reference
7. Number of Keys

Sample table format as follows:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Trade Discipline** | **Item Number** | **Building Name** | **Level Number** | **Room Number** | **Key Type** | **Key Reference** | **Number of Keys** |
| Trade Discipline |  |  |  |  |  |  |  |
| Etc. |  |  |  |  |  |  |  |

Note:

Transmittal of key handover including both signatories from Contractor and UoA Project Manager to be included in this section.

|  |  |
| --- | --- |
| Design Standard reference:  | Volume K: ‘Key codes’ |

## Enclosure

Please refer below for discipline types which relate to this section of the manual.

1. Tanking and damp-proofing
2. Roofing
3. Cladding
4. Doors and Windows
5. Glass
6. Insulation

|  |  |
| --- | --- |
| **Trade Discipline** | **Applicable/Not Applicable** |
| Tanking and damp-proofing |  |
| Roofing |  |
| Cladding |  |
| Doors and Windows |  |
| Glass |  |
| Insulation |  |

Note:

1. Documents associated with sections 2.2.1, 2.2.2, 2.2.3 and 2.2.4 are to be combined documents which incorporate all trade disciplines within the (1) one sub-heading.
2. Documents associated with sections 2.2.5 to 2.2.14 are to be provided and separated by each trade type in the order as listed above.
3. Separate documents provided within the sections listed in note 2 above are to be separated by each section by each trade discipline by a cover page.
4. State in the table above if a trade discipline is **‘Applicable’** or **‘Not Applicable’** for this project.

### Description of the Installation

Provide a full description of the project including but not limited to the following:

1. Overall scope of works
2. Listing of the trades
3. Project stages
4. Project commencement and completion dates
5. Any work which may have been completed by others (i.e. works completed by others and not the Contractor)

|  |  |
| --- | --- |
| Design Standard reference:  | Volume K:‘Project Description’ |

### Directory of Contacts

Provide in table format a combined contact list which includes Contractors, Consultants, UoA Project Manager and this trade discipline.

Contact details to be provided in order as follows:

1. Company Name
2. Contact Name (Representative)
3. Company Position
4. Contact Number (Representative)
5. Company Address
6. Company Email Address
7. After-Hours Contact Name
8. Contact Number

Sample table format as follows:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Trade Discipline** | **Company Name** | **Contact Name (Representative)** | **Contact Number (Representative)** | **Company Address** | **Company Email Address** | **After-Hours Contact Name and Contact Number** |
| Contractor |  |  |  |  |  |  |
| Consultant |  |  |  |  |  |  |
| UoA Project Manager |  |  |  |  |  |  |
| Tanking and damp-proofing |  |  |  |  |  |  |
| Roofing |  |  |  |  |  |  |
| Cladding |  |  |  |  |  |  |
| Doors and Windows |  |  |  |  |  |  |
| Glass |  |  |  |  |  |  |
| Insulation |  |  |  |  |  |  |

|  |  |
| --- | --- |
| Design Standard reference:  | Volume K: ‘Directory of Contacts’ |

### Asset Register

This may not be applicable. Please confirm with the University of Adelaide Project Manager.

###  Defects Liability Period (DLP) Maintenance Schedule

The Contractor is required to provide a combined maintenance schedule in a spreadsheet, provided by the University. Provide maintenance schedule (2) two months prior to Practical Completion.

Sample table format as follows:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Equipment Code** | **Site**  | **PM Procedure** | **Date for First DLP PM** | **Date of Last DLP PM** | **Freq. 1 Interval** | **Interval Type** |
| INF0000001 | NT - DLP | DLP (M) | 2020-07-01 | 2021-07-01 | 1 | m |
| INF0000001 | NT - DLP | DLP (Q) | 2020-10-01 | 2021-07-01 | 3 | m |
| INF0000001 | NT - DLP | DLP (A) | 2020-12-01 | 2021-07-01 | 12 | m |

Note:

1. Refer to DLP Scheduling procedure provided by the University of Adelaide.
2. Schedule to identify all items that have an ESP function (where applicable).
3. Provide completed DLP Maintenance Schedule in conjunction with the Asset Register.
4. Contractor to complete all columns of the DLP maintenance schedule template with exception for column C which will be completed by the University of Adelaide.
5. The Contractor must provide maintenance schedule (2) two months prior to Practical Completion.

|  |  |
| --- | --- |
| Design Standard reference:  | Volume K:‘Maintenance Schedule’ |
| Refer to the template document PM Schedules.xls |

### Care and Maintenance Instructions

The Contractor is to provide all details for care and maintenance instructions for this trade discipline as recommended by manufacturers/suppliers. These shall include but not limited to the following:

1. Step by step procedures for safe trouble shooting, maintenance and repair
2. Cleaning and maintenance instructions

Note:

1. Contactor contact details are to be recorded in Section 2.2.2.
2. The Contractor must provide care and maintenance instructions (2) two months prior to Practical Completion.

|  |  |
| --- | --- |
| Design Standard reference:  | Volume K: ‘Maintenance Information’ |

### Essential Services Provisions

The Contractor is to provide the following:

1. Evidence that maintenance and testing of all Essential Safety Provisions (ESP) has been carried out in accordance with Ministers Specification SA76
2. A signed statement of compliance (by a suitable company representative)
3. A schedule of maintenance of all ESP’s to be maintained during Defects Liability Period (DLP) including how the program will be managed, details of administration, record keeping and sign-offs
4. Provide a consolidated summary of all fire control functionality and methodology (this information supports the development of the overarching fire matrix)
5. Provide details identifying all ESP interconnection, zoning and functionality

Note:

The Contractor must provide item 2.2.6 (2) two months prior to Practical Completion for review and approval by the University of Adelaide.

|  |  |
| --- | --- |
| Design Standard reference:  | Volume K: ‘Essential Services Provisions’ |

### Certificates and Warranties

In this section provide:

1. A list of warranties that are included including all contact details of suppliers contractors.
2. A combined warranties schedule for each trade discipline in table format similar to the example table provided below.
3. Signed documents assigning the warranties to the University of Adelaide. (Commencing upon date of Practical Completion).

Warranty period sample table:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Trade Discipline** | **Manufactures Warranties** | **Installation Warranties** | **Material Warranties** | **Defects Liability Warranties** |
| Tanking and damp-proofing |  |  |  |  |
| Roofing |  |  |  |  |
| Cladding |  |  |  |  |
| Doors and Windows |  |  |  |  |
| Glass |  |  |  |  |
| Insulation |  |  |  |  |

Note:

1. Copies of warranties for each trade discipline are to be included in this section.
2. Confirmation that warranties have been assigned to the University of Adelaide.
3. Warranties commence from the date of practical completion (identify any departures where warranties do not commence from date of practical completion).
4. Should a warranty not apply insert ‘Not Applicable’.
5. Warranty expiry dates to be included in Asset Register (refer to section 2.2.3).

|  |  |
| --- | --- |
| Design Standard reference:  | Volume B: ‘Warranties’ |

### Installation, Dismantling and Technical (Performance) Data

The Contractor is to provide full details of installation, dismantling and reassembly instructions including manufacturer’s technical (performance) literature that includes a description of the functionality and mode of operation of each system provided for this trade discipline including but not limited to:

1. Equipment brochures
2. Specifications
3. Data sheets
4. Drawings

Note:

1. Mark each product data sheet to clearly identify the specific products and components used in the installation and the data applicable.
2. All installations must be carried out in accordance with manufacturer specifications and data sheets to ensure product performance over its intended life and so as not to invalidate any warranties.

|  |  |
| --- | --- |
| Design Standard reference:  | Volume K: ‘Equipment Details And Manufacturers Technical Data’ |

### Operating Instructions

The Contractor is to provide operating instruction of each system provided for the trades listed above including but not limited to:

1. Safe starting, operating and shutting-down procedures for the equipment installed
2. Control sequences and flow diagrams for the systems installed (where applicable)
3. Fire mode interconnection and operation
4. Legends for colour-coded services (where applicable)

|  |  |
| --- | --- |
| Design Standard reference:  | Volume K: ‘Equipment Details And Manufacturers Technical Data’ |

### As-Built Drawings

The Contractor (in conjunction with the Consultant) are to provide ‘as built’ drawings reflecting all changes made in the specifications and working drawings during the construction process, showing the exact dimensions, geometry, and location of all elements of the work completed under the contract.

Note:

1. Documents to be submitted separately with the Manual in both pdf and dwg format.
2. Expectation - drawings are transmitted via Aconex. Provide Aconex transmittal reference numbers.
3. Provide other related documents not included in the body of the manual (exception being the asset register).
4. Identify measurement points used to achieve commissioning data.
5. All drawings to include legends/keys/schedules where applicable.

|  |  |
| --- | --- |
| Design Standard references:  | Volume K: * ‘As-built documentation’
* ‘Documentation conventions’
* Schedule 4.12 ‘Post-construction documentation’
* Schedule 4.13 ‘As- built documentation checklist’
 |

### Commissioning and Testing Data

The Contractor is to provide commissioning and testing records for each system and component for the trade disciplines listed above.

Note:

1. All records must be witnessed and verified by the UoA Project Manager in consultation with the Consultant and/or Designer.
2. Schedules of the parameter settings of each protective device (Including fixed and adjustable circuit breakers, protective relays, adjustable photoelectric switches, pressure switches, and any other control and monitoring device, as established during commissioning and maintenance).

|  |  |
| --- | --- |
| Design Standard reference:  | Volume K: ‘Commissioning Data’ |

### Specialist Tools and Testing Equipment

This section is expected to contain:

A combined tools and testing equipment register in table format used for the operation, maintenance and dismantling or assembly of the plant and equipment for each system including the following necessary components as follows:

1. Building Name
2. Level Number
3. Room Number
4. Tool Type
5. Tool Reference
6. Number of Tools

Sample table format as follows:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Trade Discipline** | **Item Number** | **Building Name** | **Level Number** | **Room Number** | **Tool Type** | **Tool Reference** | **Number of Tools** |
| Tanking and damp-proofing |  |  |  |  |  |  |  |
| Roofing |  |  |  |  |  |  |  |
| Cladding |  |  |  |  |  |  |  |
| Doors and Windows |  |  |  |  |  |  |  |
| Glass |  |  |  |  |  |  |  |
| Insulation |  |  |  |  |  |  |  |

Note:

1. This applies to special, non-generic tools and instruments that are not commercially available for the operation, maintenance and dismantling or assembly of the plant and equipment.
2. Provide a register/transmittal of handover of tools including both signatories from Builder and UoA.
3. Should a section not apply insert ‘Not Applicable’.

|  |  |
| --- | --- |
| Design Standard reference:  | Volume K:‘Schedule of spares and consumables’ |

### Spares and Consumables

This section is expected to contain:

The Contractor is to provide a combined spares, special tools register and portable indicating instruments in table format which are used for the operation, maintenance, dismantling or assembly of plant and equipment: Include the following necessary components as follows:

1. Manufacturers Name
2. Manufacturers Address
3. Manufacturers Contact Number
4. Catalogue Number
5. Name of Local Distributor
6. Address of Local Distributer
7. Expected Replacement Frequency
8. Storage of Spares
9. Number of Spares

Sample table format as follows:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Trade Discipline** | **Manufacturers Name** | **Manufacturers Address** | **Manufacturers Contact Number** | **Catalogue Number** | **Name of Local Distributor** | **Etc.** |
| Tanking and damp-proofing |  |  |  |  |  |  |
| Roofing |  |  |  |  |  |  |
| Cladding |  |  |  |  |  |  |
| Doors and Windows |  |  |  |  |  |  |
| Glass |  |  |  |  |  |  |
| Insulation |  |  |  |  |  |  |

Note:

1. Provide a register/transmittal of handover of tools including both signatories from Builder and UoA.
2. Should a section not apply insert ‘Not Applicable’.

|  |  |
| --- | --- |
| Design Standard reference:  | Volume K: ‘Schedule of spares and consumables’ |

### Imported Equipment

This section is expected to contain:

The Contractor is to provide in table format a combined list of imported equipment including type, cost, country of origin and importer details.

Sample table format as follows:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Trade Discipline** | **Type of Equipment** | **Cost** | **Country of Origin** | **Importer Details** |
| Tanking and damp-proofing |  |  |  |  |
| Roofing |  |  |  |  |
| Cladding |  |  |  |  |
| Doors and Windows |  |  |  |  |
| Glass |  |  |  |  |
| Insulation |  |  |  |  |

Note:

1. Details of any specialized equipment and/or materials which may be subject to procurement risk.
2. Should a section not apply insert ‘Not Applicable’.

|  |  |
| --- | --- |
| Design Standard reference:  | Volume K: ‘Schedule of spares and consumables’ |

## Interior

Please refer below for discipline types which relate to this section of the manual.

1. Linings
2. Partitions
3. Ceilings
4. Access Floors
5. Fixtures
6. Furniture and Furnishings
7. Signs and Features

|  |  |
| --- | --- |
| **Trade Discipline** | **Applicable/Not Applicable** |
| Linings |  |
| Partitions |  |
| Ceilings |  |
| Access Floors |  |
| Fixtures |  |
| Furniture and Furnishings |  |
| Signs and Features |  |

Note:

1. Documents associated with sections 2.3.1, 2.3.2, 2.3.3 and 2.3.4 are to be combined documents which incorporate all trade disciplines within the (1) one sub-heading.
2. Documents associated with sections 2.3.5 to 2.3.14 are to be provided and separated by each trade type in the order as listed above.
3. Separate documents provided within the sections listed in note 2 above are to be separated by each section by each trade discipline by a cover page.
4. State in the table above if a trade discipline is **‘Applicable’** or **‘Not Applicable’** for this project.

### Description of the Installation

Provide a full description of the project including but not limited to the following:

1. Overall scope of works
2. Listing of the trades
3. Project stages
4. Project commencement and completion dates
5. Any work which may have been completed by others (i.e. works completed by others and not the Contractor)

|  |  |
| --- | --- |
| Design Standard reference:  | Volume K:‘Project Description’ |

### Directory of Contacts

Provide in table format a combined contact list which includes Contractors, Consultants, UoA Project Manager and this trade discipline.

Contact details to be provided in order as follows:

1. Company Name
2. Contact Name (Representative)
3. Company Position
4. Contact Number (Representative)
5. Company Address
6. Company Email Address
7. After-Hours Contact Name
8. Contact Number

Sample table format as follows:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Trade Discipline** | **Company Name** | **Contact Name (Representative)** | **Contact Number (Representative)** | **Company Address** | **Company Email Address** | **After-Hours Contact Name and Contact Number** |
| Contractor |  |  |  |  |  |  |
| Consultant |  |  |  |  |  |  |
| UoA Project Manager |  |  |  |  |  |  |
| Linings |  |  |  |  |  |  |
| Partitions |  |  |  |  |  |  |
| Ceilings |  |  |  |  |  |  |
| Access Floors |  |  |  |  |  |  |
| Fixtures |  |  |  |  |  |  |
| Furniture and Furnishings |  |  |  |  |  |  |
| Signs and Features |  |  |  |  |  |  |

|  |  |
| --- | --- |
| Design Standard reference:  | Volume K: ‘Directory of Contacts’ |

### Asset Register

This may not be applicable. Please confirm with the University of Adelaide Project Manager.

###  Defects Liability Period (DLP) Maintenance Schedule

The Contractor is required to provide a combined maintenance schedule in a spreadsheet, provided by the University. Provide maintenance schedule (2) two months prior to Practical Completion.

Sample table format as follows:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Equipment Code** | **Site**  | **PM Procedure** | **Date for First DLP PM** | **Date of Last DLP PM** | **Freq. 1 Interval** | **Interval Type** |
| INF0000001 | NT - DLP | DLP (M) | 2020-07-01 | 2021-07-01 | 1 | m |
| INF0000001 | NT - DLP | DLP (Q) | 2020-10-01 | 2021-07-01 | 3 | m |
| INF0000001 | NT - DLP | DLP (A) | 2020-12-01 | 2021-07-01 | 12 | m |

Note:

1. Refer to DLP Scheduling procedure provided by the University of Adelaide.
2. Schedule to identify all items that have an ESP function (where applicable).
3. Provide completed DLP Maintenance Schedule in conjunction with the Asset Register.
4. Contractor to complete all columns of the DLP maintenance schedule template with exception for column C which will be completed by the University of Adelaide.
5. The Contractor must provide maintenance schedule (2) two months prior to Practical Completion.

|  |  |
| --- | --- |
| Design Standard reference:  | Volume K:‘Maintenance Schedule’ |
| Refer to the template document PM Schedules.xls |

### Care and Maintenance Instructions

The Contractor is to provide all details for care and maintenance instructions for this trade discipline as recommended by manufacturers/suppliers. These shall include but not limited to the following:

1. Step by step procedures for safe trouble shooting, maintenance and repair
2. Cleaning and maintenance instructions

Note:

1. Contactor contact details are to be recorded in Section 2.3.2.
2. The Contractor must provide care and maintenance instructions (2) two months prior to Practical Completion.

|  |  |
| --- | --- |
| Design Standard reference:  | Volume K: ‘Maintenance Information’ |

### Essential Services Provisions

The Contractor is to provide the following:

1. Evidence that maintenance and testing of all Essential Safety Provisions (ESP) has been carried out in accordance with Ministers Specification SA76
2. A signed statement of compliance (by a suitable company representative)
3. A schedule of maintenance of all ESP’s to be maintained during Defects Liability Period (DLP) including how the program will be managed, details of administration, record keeping and sign-offs
4. Provide a consolidated summary of all fire control functionality and methodology (this information supports the development of the overarching fire matrix)
5. Provide details identifying all ESP interconnection, zoning and functionality

Note:

The Contractor must provide item 2.3.6 (2) two months prior to Practical Completion for review and approval by the University of Adelaide.

|  |  |
| --- | --- |
| Design Standard reference:  | Volume K: ‘Essential Services Provisions’ |

### Certificates and Warranties

In this section provide:

1. A list of warranties that are included including all contact details of suppliers contractors
2. A combined warranties schedule for each trade discipline in table format similar to the example table provided below
3. Signed documents assigning the warranties to the University of Adelaide. (Commencing upon date of Practical Completion)

Warranty period sample table:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Trade Discipline** | **Manufactures Warranties** | **Installation Warranties** | **Material Warranties** | **Defects Liability Warranties** |
| Linings |  |  |  |  |
| Partitions |  |  |  |  |
| Ceilings |  |  |  |  |
| Access Floors |  |  |  |  |
| Fixtures |  |  |  |  |
| Furniture and Furnishings |  |  |  |  |
| Signs and Features |  |  |  |  |

Note:

1. Copies of warranties for each trade discipline are to be included in this section.
2. Confirmation that warranties have been assigned to the University of Adelaide.
3. Warranties commence from the date of practical completion (identify any departures where warranties do not commence from date of practical completion).
4. Should a warranty not apply insert ‘Not Applicable’.
5. Warranty expiry dates to be included in Asset Register (refer to section 2.3.3).

|  |  |
| --- | --- |
| Design Standard reference:  | Volume B: ‘Warranties’ |

### Installation, Dismantling and Technical (Performance) Data

The Contractor is to provide full details of installation, dismantling and reassembly instructions including manufacturer’s technical (performance) literature that includes a description of the functionality and mode of operation of each system provided for this trade discipline including but not limited to:

1. Equipment brochures
2. Specifications
3. Data sheets
4. Drawings

Note:

1. Mark each product data sheet to clearly identify the specific products and components used in the installation and the data applicable.
2. All installations must be carried out in accordance with manufacturer specifications and data sheets to ensure product performance over its intended life and so as not to invalidate any warranties.

|  |  |
| --- | --- |
| Design Standard reference:  | Volume K: ‘Equipment Details And Manufacturers Technical Data’ |

### Operating Instructions

The Contractor is to provide operating instruction of each system provided for the trades listed above including but not limited to:

1. Safe starting, operating and shutting-down procedures for the equipment installed
2. Control sequences and flow diagrams for the systems installed (where applicable)
3. Fire mode interconnection and operation
4. Legends for colour-coded services (where applicable)

|  |  |
| --- | --- |
| Design Standard reference:  | Volume K: ‘Equipment Details And Manufacturers Technical Data’ |

### As-Built Drawings

The Contractor (in conjunction with the Consultant) are to provide ‘as built’ drawings reflecting all changes made in the specifications and working drawings during the construction process, showing the exact dimensions, geometry, and location of all elements of the work completed under the contract.

Note:

1. Documents to be submitted separately with the Manual in both pdf and dwg format.
2. Expectation - drawings are transmitted via Aconex. Provide Aconex transmittal reference numbers.
3. Provide other related documents not included in the body of the manual (exception being the asset register).
4. Identify measurement points used to achieve commissioning data.
5. All drawings to include legends/keys/schedules where applicable.

|  |  |
| --- | --- |
| Design Standard references:  | Volume K: * ‘As-built documentation’
* ‘Documentation conventions’
* Schedule 4.12 ‘Post-construction documentation’
* Schedule 4.13 ‘As- built documentation checklist’
 |

### Commissioning and Testing Data

The Contractor is to provide commissioning and testing records for each system and component for the trade disciplines listed above.

Note:

1. All records must be witnessed and verified by the UoA Project Manager in consultation with the Consultant and/or Designer.
2. Schedules of the parameter settings of each protective device (Including fixed and adjustable circuit breakers, protective relays, adjustable photoelectric switches, pressure switches, and any other control and monitoring device, as established during commissioning and maintenance).

|  |  |
| --- | --- |
| Design Standard reference:  | Volume K: ‘Commissioning Data’ |

###  Specialist Tools and Testing Equipment

This section is expected to contain:

A combined tools and testing equipment register in table format used for the operation, maintenance and dismantling or assembly of the plant and equipment for each system including the following necessary components as follows:

1. Building Name
2. Level Number
3. Room Number
4. Tool Type
5. Tool Reference
6. Number of Tools

Sample table format as follows:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Trade Discipline** | **Item Number** | **Building Name** | **Level Number** | **Room Number** | **Tool Type** | **Tool Reference** | **Number of Tools** |
| Linings |  |  |  |  |  |  |  |
| Partitions |  |  |  |  |  |  |  |
| Ceilings |  |  |  |  |  |  |  |
| Access Floors |  |  |  |  |  |  |  |
| Fixtures |  |  |  |  |  |  |  |
| Furniture and Furnishings |  |  |  |  |  |  |  |
| Signs and Features |  |  |  |  |  |  |  |

Note:

1. This applies to special, non-generic tools and instruments that are not commercially available for the operation, maintenance and dismantling or assembly of the plant and equipment.
2. Provide a register/transmittal of handover of tools including both signatories from Builder and UoA.
3. Should a section not apply insert ‘Not Applicable’.

|  |  |
| --- | --- |
| Design Standard reference:  | Volume K:‘Schedule of spares and consumables’ |

### Spares and Consumables

This section is expected to contain:

The Contractor is to provide a combined spares, special tools register and portable indicating instruments in table format which are used for the operation, maintenance, dismantling or assembly of plant and equipment: Include the following necessary components as follows:

1. Manufacturers Name
2. Manufacturers Address
3. Manufacturers Contact Number
4. Catalogue Number
5. Name of Local Distributor
6. Address of Local Distributer
7. Expected Replacement Frequency
8. Storage of Spares
9. Number of Spares

Sample table format as follows:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Trade Discipline** | **Manufacturers Name** | **Manufacturers Address** | **Manufacturers Contact Number** | **Catalogue Number** | **Name of Local Distributor** | **Etc.** |
| Linings |  |  |  |  |  |  |
| Partitions |  |  |  |  |  |  |
| Ceilings |  |  |  |  |  |  |
| Access Floors |  |  |  |  |  |  |
| Fixtures |  |  |  |  |  |  |
| Furniture and Furnishings |  |  |  |  |  |  |
| Signs and Features |  |  |  |  |  |  |

Note:

1. Provide a register/transmittal of handover of tools including both signatories from Builder and UoA.
2. Should a section not apply insert ‘Not Applicable’.

|  |  |
| --- | --- |
| Design Standard reference:  | Volume K: ‘Schedule of spares and consumables’ |

### Imported Equipment

This section is expected to contain:

The Contractor is to provide in table format a combined list of imported equipment including type, cost, and country of origin and importer details.

Sample table format as follows:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Trade Discipline** | **Type of Equipment** | **Cost** | **Country of Origin** | **Importer Details** |
| Linings |  |  |  |  |
| Partitions |  |  |  |  |
| Ceilings |  |  |  |  |
| Access Floors |  |  |  |  |
| Fixtures |  |  |  |  |
| Furniture and Furnishings |  |  |  |  |
| Signs and Features |  |  |  |  |

Note:

1. Details of any specialized equipment and/or materials which may be subject to procurement risk.
2. Should a section not apply insert ‘Not Applicable’.

|  |  |
| --- | --- |
| Design Standard reference:  | Volume K: ‘Schedule of spares and consumables’ |

## Finishes

Please refer below for discipline types which relate to this section of the manual.

1. Troweled and Sprayed Coatings
2. Wet Areas
3. Tiling
4. Wall Surfacing
5. Floor Surfacing
6. Painting

|  |  |
| --- | --- |
| **Trade Discipline** | **Applicable/Not Applicable** |
| Troweled and Sprayed Coatings |  |
| Wet Areas |  |
| Tiling |  |
| Wall Surfacing |  |
| Floor Surfacing |  |
| Painting |  |

Note:

1. Documents associated with sections 2.4.1, 2.4.2, 2.4.3 and 2.4.4 are to be combined documents which incorporate all trade disciplines within the (1) one sub-heading.
2. Documents associated with sections 2.4.5 to 2.4.14 are to be provided and separated by each trade type in the order as listed above.
3. Separate documents provided within the sections listed in note 2 above are to be separated by each section by each trade discipline by a cover page.
4. State in the table above if a trade discipline is **‘Applicable’** or **‘Not Applicable’** for this project.

### Description of the Installation

Provide a full description of the project including but not limited to the following:

1. Overall scope of works
2. Listing of the trades
3. Project stages
4. Project commencement and completion dates
5. Any work which may have been completed by others (i.e. works completed by others and not the Contractor)

|  |  |
| --- | --- |
| Design Standard reference:  | Volume K:‘Project Description’ |

### Directory of Contacts

Provide in table format a combined contact list which includes Contractors, Consultants, UoA Project Manager and the trade disciplines listed above.

Contact details to be provided in order as follows:

1. Company Name
2. Contact Name (Representative)
3. Company Position
4. Contact Number (Representative)
5. Company Address
6. Company Email Address
7. After-Hours Contact Name
8. Contact Number

Sample table format as follows:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Trade Discipline** | **Company Name** | **Contact Name (Representative)** | **Contact Number (Representative)** | **Company Address** | **Company Email Address** | **After-Hours Contact Name and Contact Number** |
| Contractor |  |  |  |  |  |  |
| Consultant |  |  |  |  |  |  |
| UoA Project Manager |  |  |  |  |  |  |
| Troweled and Sprayed Coatings |  |  |  |  |  |  |
| Wet Areas |  |  |  |  |  |  |
| Tiling |  |  |  |  |  |  |
| Wall Surfacing |  |  |  |  |  |  |
| Floor Surfacing |  |  |  |  |  |  |
| Painting |  |  |  |  |  |  |

|  |  |
| --- | --- |
| Design Standard reference:  | Volume K: ‘Directory of Contacts’ |

### Asset Register

This may not be applicable. Please confirm with the University of Adelaide Project Manager.

### Defects Liability Period (DLP) Maintenance Schedule

The Contractor is required to provide a combined maintenance schedule in a spreadsheet, provided by the University. Provide maintenance schedule (2) two months prior to Practical Completion.

Sample table format as follows:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Equipment Code** | **Site**  | **PM Procedure** | **Date for First DLP PM** | **Date of Last DLP PM** | **Freq. 1 Interval** | **Interval Type** |
| INF0000001 | NT - DLP | DLP (M) | 2020-07-01 | 2021-07-01 | 1 | m |
| INF0000001 | NT - DLP | DLP (Q) | 2020-10-01 | 2021-07-01 | 3 | m |
| INF0000001 | NT - DLP | DLP (A) | 2020-12-01 | 2021-07-01 | 12 | m |

Note:

1. Refer to DLP Scheduling procedure provided by the University of Adelaide.
2. Schedule to identify all items that have an ESP function (where applicable).
3. Provide completed DLP Maintenance Schedule in conjunction with the Asset Register.
4. Contractor to complete all columns of the DLP maintenance schedule template with exception for column C which will be completed by the University of Adelaide.
5. The Contractor must provide maintenance schedule (2) two months prior to Practical Completion.

|  |  |
| --- | --- |
| Design Standard reference:  | Volume K:‘Maintenance Schedule’ |
| Refer to the template document PM Schedules.xls |

### Care and Maintenance Instructions

The Contractor is to provide all details for care and maintenance instructions for this trade discipline as recommended by manufacturers/suppliers. These shall include but not limited to the following:

1. Step by step procedures for safe trouble shooting, maintenance and repair
2. Cleaning and maintenance instructions

Note:

1. Contactor contact details are to be recorded in Section 2.4.2.
2. The Contractor must provide care and maintenance instructions (2) two months prior to Practical Completion.

|  |  |
| --- | --- |
| Design Standard reference:  | Volume K: ‘Maintenance Information’ |

### Essential Services Provisions

The Contractor is to provide the following:

1. Evidence that maintenance and testing of all Essential Safety Provisions (ESP) has been carried out in accordance with Ministers Specification SA76
2. A signed statement of compliance (by a suitable company representative)
3. A schedule of maintenance of all ESP’s to be maintained during Defects Liability Period (DLP) including how the program will be managed, details of administration, record keeping and sign-offs
4. Provide a consolidated summary of all fire control functionality and methodology (this information supports the development of the overarching fire matrix)
5. Provide details identifying all ESP interconnection, zoning and functionality

Note:

The Contractor must provide item 2.4.6 (2) two months prior to Practical Completion for review and approval by the University of Adelaide.

|  |  |
| --- | --- |
| Design Standard reference:  | Volume K: ‘Essential Services Provisions’ |

### Certificates and Warranties

In this section provide:

1. A list of warranties that are included including all contact details of suppliers contractors
2. A combined warranties schedule for each trade discipline in table format similar to the example table provided below
3. Signed documents assigning the warranties to the University of Adelaide. (Commencing upon date of Practical Completion)

Warranty period sample table:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Trade Discipline** | **Manufactures Warranties** | **Installation Warranties** | **Material Warranties** | **Defects Liability Warranties** |
| Troweled and Sprayed Coatings |  |  |  |  |
| Wet Areas |  |  |  |  |
| Tiling |  |  |  |  |
| Wall Surfacing |  |  |  |  |
| Floor Surfacing |  |  |  |  |
| Painting |  |  |  |  |

Note:

1. Copies of warranties for each trade discipline are to be included in this section.
2. Confirmation that warranties have been assigned to the University of Adelaide.
3. Warranties commence from the date of practical completion (identify any departures where warranties do not commence from date of practical completion).
4. Should a warranty not apply insert ‘Not Applicable’.
5. Warranty expiry dates to be included in Asset Register (refer to section 2.4.3).

|  |  |
| --- | --- |
| Design Standard reference:  | Volume B: ‘Warranties’ |

### Installation, Dismantling and Technical (Performance) Data

The Contractor is to provide full details of installation, dismantling and reassembly instructions including manufacturer’s technical (performance) literature that includes a description of the functionality and mode of operation of each system provided for this trade discipline including but not limited to:

1. Equipment brochures
2. Specifications
3. Data sheets
4. Drawings

Note:

1. Mark each product data sheet to clearly identify the specific products and components used in the installation and the data applicable.
2. All installations must be carried out in accordance with manufacturer specifications and data sheets to ensure product performance over its intended life and so as not to invalidate any warranties.

|  |  |
| --- | --- |
| Design Standard reference:  | Volume K: ‘Equipment Details And Manufacturers Technical Data’ |

### Operating Instructions

The Contractor is to provide operating instruction of each system provided for the trade disciplines listed above including but not limited to:

1. Safe starting, operating and shutting-down procedures for the equipment installed
2. Control sequences and flow diagrams for the systems installed (where applicable)
3. Fire mode interconnection and operation
4. Legends for colour-coded services (where applicable)

|  |  |
| --- | --- |
| Design Standard reference:  | Volume K: ‘Equipment Details And Manufacturers Technical Data’ |

### As-Built Drawings

The Contractor (in conjunction with the Consultant) are to provide ‘as built’ drawings reflecting all changes made in the specifications and working drawings during the construction process, showing the exact dimensions, geometry, and location of all elements of the work completed under the contract.

Note:

1. Documents to be submitted separately with the Manual in both pdf and dwg format.
2. Expectation - drawings are transmitted via Aconex. Provide Aconex transmittal reference numbers.
3. Provide other related documents not included in the body of the manual (exception being the asset register).
4. Identify measurement points used to achieve commissioning data.
5. All drawings to include legends/keys/schedules where applicable.

|  |  |
| --- | --- |
| Design Standard references:  | Volume K: * ‘As-built documentation’
* ‘Documentation conventions’
* Schedule 4.12 ‘Post-construction documentation’
* Schedule 4.13 ‘As- built documentation checklist’
 |

### Commissioning and Testing Data

The Contractor is to provide commissioning and testing records for each system and component for this trade discipline.

Note:

1. All records must be witnessed and verified by the UoA Project Manager in consultation with the Consultant and/or Designer.
2. Schedules of the parameter settings of each protective device (Including fixed and adjustable circuit breakers, protective relays, adjustable photoelectric switches, pressure switches, and any other control and monitoring device, as established during commissioning and maintenance).

|  |  |
| --- | --- |
| Design Standard reference:  | Volume K: ‘Commissioning Data’ |

### Specialist Tools and Testing Equipment

This section is expected to contain:

A combined tools and testing equipment register in table format used for the operation, maintenance and dismantling or assembly of the plant and equipment for each system including the following necessary components as follows:

1. Building Name
2. Level Number
3. Room Number
4. Tool Type
5. Tool Reference
6. Number of Tools

Sample table format as follows:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Trade Discipline** | **Item Number** | **Building Name** | **Level Number** | **Room Number** | **Tool Type** | **Tool Reference** | **Number of Tools** |
| Troweled and Sprayed Coatings |  |  |  |  |  |  |  |
| Wet Areas |  |  |  |  |  |  |  |
| Tiling |  |  |  |  |  |  |  |
| Wall Surfacing |  |  |  |  |  |  |  |
| Floor Surfacing |  |  |  |  |  |  |  |
| Painting |  |  |  |  |  |  |  |

Note:

1. This applies to special, non-generic tools and instruments that are not commercially available for the operation, maintenance and dismantling or assembly of the plant and equipment.
2. Provide a register/transmittal of handover of tools including both signatories from Builder and UoA.
3. Should a section not apply insert ‘Not Applicable’.

|  |  |
| --- | --- |
| Design Standard reference:  | Volume K:‘Schedule of spares and consumables’ |

### Spares and Consumables

The Contractor is to provide a combined spares, special tools register and portable indicating instruments in table format which are used for the operation, maintenance, dismantling or assembly of plant and equipment: Include the following necessary components as follows:

1. Manufacturers Name
2. Manufacturers Address
3. Manufacturers Contact Number
4. Catalogue Number
5. Name of Local Distributor
6. Address of Local Distributer
7. Expected Replacement Frequency
8. Storage of Spares
9. Number of Spares

Sample table format as follows:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Trade Discipline** | **Manufacturers Name** | **Manufacturers Address** | **Manufacturers Contact Number** | **Catalogue Number** | **Name of Local Distributor** | **Etc.** |
| Troweled and Sprayed Coatings |  |  |  |  |  |  |
| Wet Areas |  |  |  |  |  |  |
| Tiling |  |  |  |  |  |  |
| Wall Surfacing |  |  |  |  |  |  |
| Floor Surfacing |  |  |  |  |  |  |
| Painting |  |  |  |  |  |  |

Note:

1. Provide a register/transmittal of handover of tools including both signatories from Builder and UoA.
2. Should a section not apply insert ‘Not Applicable’.

|  |  |
| --- | --- |
| Design Standard reference:  | Volume K: ‘Schedule of spares and consumables’ |

### Imported Equipment

The Contractor is to provide in table format a combined list of imported equipment including type, cost, and country of origin and importer details.

Sample table format as follows:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Trade Discipline** | **Type of Equipment** | **Cost** | **Country of Origin** | **Importer Details** |
| Troweled and Sprayed Coatings |  |  |  |  |
| Wet Areas |  |  |  |  |
| Tiling |  |  |  |  |
| Wall Surfacing |  |  |  |  |
| Floor Surfacing |  |  |  |  |
| Painting |  |  |  |  |

Note:

1. Details of any specialized equipment and/or materials which may be subject to procurement risk.
2. Should a section not apply insert ‘Not Applicable’.

|  |  |
| --- | --- |
| Design Standard reference:  | Volume K: ‘Schedule of spares and consumables’ |