

## **EXHIBIT C.4** **JOB BOOK REQUIREMENTS**

### **1.0 GENERAL**

- 1.1 Without limiting the information summarized herein, the purpose of this document is to provide an outline for the minimum contents of the Job Books to be prepared by Contractor by the date set forth in the Submittal Schedule.
- 1.2 The Job Books shall meet the minimum requirements for submittals set forth in Exhibit A.5 (*Submittal Requirements*).

### **2.0 DEFINITIONS**

- 2.1 Unless defined in this exhibit, terms that begin with an upper case shall have the meaning defined in Exhibit A.1 (*Scope of Work*).

### **3.0 OUTLINE OF GENERAL JOB BOOK**

#### 3.1 Table of contents

#### 3.2 Contracting:

- (1) Copy of Agreement
- (2) Copies of Change Orders
- (3) List of Subcontractors used on the Project
- (4) Summary of all work performed by Subcontractors
- (5) Copies of all subcontracts for construction services (non-priced)
- (6) Copies of purchase orders for major equipment supplied (non-priced) including PV panels, inverters, Wind Turbines, BESS, main-power transformers, substation equipment, etc.

#### 3.3 Project Schedule:

- (1) Final, actualized Project Schedule, including actual delivery schedule of Owner-Supplied Equipment

#### 3.4 Contractor plans:

- (1) HSSE Plans
- (2) Quality Assurance Plan
- (3) Project execution plan

#### 3.5 Health and safety statistics:

- (1) Project construction Work hours and statistical information
- (2) Incident reports, including accidents, thefts, injuries, and near misses

3.6 Permits:

- (1) Copies of Applicable Permits

3.7 Training:

- (1) Project construction training records
- (2) Copies of training manuals

3.8 Reporting:

- (1) Plan of the day reports
- (2) Weekly progress reports
- (3) Monthly progress reports

**4.0 OUTLINE OF CIVIL WORKS JOB BOOK**

4.1 Table of contents

4.2 Engineering documents:

- (1) As-built coordinates
- (2) Issued for construction drawings
- (3) As-Built Drawings
- (4) SWPPP
- (5) Aggregate job mix formula

4.3 Product data for permanently-installed equipment and materials (including manuals, data sheets, and warranty agreements):

- (1) Not used

4.4 Quality assurance documents:

- (1) Inspection documentation: roadway, subgrade, drainage structures
- (2) Testing results: sieve analysis, proctors, moisture density, DCP, proof roll, and other required tests set forth in Exhibit A.1 (*Scope of Work*)
- (3) Non-conformance and corrective action reports
- (4) Photographs of Project Site restoration

4.5 Forms and certificates:

- (1) Certificate of Access Road Completion

## **5.0 OUTLINE OF PV STRUCTURAL COMPONENTS AND INSTALLATION JOB BOOK**

### 5.1 Table of contents

### 5.2 Engineering documents:

- (1) Final geotechnical engineering report
- (2) Issued for construction drawings, including structural calculations
- (3) As-Built Drawings, including structural calculations
- (4) Concrete mix design, as applicable
- (5) Grout mix design or product sheet, as applicable

### 5.3 Product data for permanently-installed equipment and materials (including manuals, data sheets, and warranty agreements):

- (1) Equipment: not used
- (2) Materials: reinforcing steel, embedment ring, and anchor bolt mill certificates

### 5.4 Quality assurance documents:

- (1) Inspection documentation: grounding, forms (if any), concrete placement (if any), etc.
- (2) Testing results: pile test results, concrete strength (if applicable), and other required tests set forth in Exhibit A.1 (*Scope of Work*)
- (3) Concrete batch tickets and pour logs (if applicable)
- (4) Non-conformance and corrective action reports

### 5.5 Forms and certificates:

- (1) Certificates of PV Structural Completion

## **6.0 OUTLINE OF COLLECTION SYSTEM CIRCUIT JOB BOOK**

### 6.1 Table of contents

### 6.2 Engineering documents:

- (1) Issued for construction drawings
- (2) As-Built Drawings
- (3) Bore plan / log

### 6.3 Product data for permanently-installed equipment and materials (including manuals, data sheets, and warranty agreements):

- (1) Equipment: medium-voltage cabling, fiber optic cabling, junction boxes, splice kits, fiber splice box, medium-voltage transformers, inverters, DC cabling, DC wiring harnesses, combiner boxes, switchgear (if any), cable management systems (if any), etc.
- (2) Materials: grounding, etc.

6.4 Quality assurance documents:

- (1) Inspection documentation: trench, cable installation, splice inspections (including coordinates of splice locations), terminations, directional boring, junction boxes (including coordinates of cabinets), medium-voltage transformer and inverter installation inspection, etc.
- (2) Testing results: compaction, cable jacket integrity, splice backfill, circuit phase verification, partial discharge (if applicable), VLF, OTDR, voltage and phase rotation, and other required tests set forth in Exhibit A.1 (*Scope of Work*)
- (3) Energization and commissioning results, including commissioning checklists
- (4) Training certifications, including splice training
- (5) Tooling calibration records and testing certificates
- (6) Non-conformance and corrective action reports

6.5 Forms and certificates:

- (1) Certificate of Collection System Circuit Completion

**7.0 OUTLINE OF PROJECT SUBSTATION JOB BOOK**

7.1 Table of contents

7.2 Engineering documents:

- (1) Issued for construction drawings
- (2) As-Built Drawings
- (3) Rebar shop drawings
- (4) Concrete mix design

7.3 Product data for permanently-installed equipment and materials:

- (1) Equipment: breakers, transformers (main power, station service, CT, PT), switches, pre-cast trench, surge arrestors, capacitor bank, buswork, control cable, relays, meters, batteries, etc.
- (2) Materials: reinforcing steel and anchor bolt mill certificates

7.4 Quality assurance documents:

- (1) Inspection documentation: foundations and flat work (pre- and post-pour), concrete placement, ground grid, conduit, trench, steel, equipment installation (breakers, bus, switches, transformers), control building, control cable, terminations, cap bank, fencing
- (2) Testing results: torque records, ground grid resistivity, concrete strength, transformer settings, cable insulation, continuity checks, breaker functions, polarity, relay functions, and other required tests set forth in Exhibit A.1 (*Scope of Work*)
- (3) Factory testing records, including breakers, transformers, control house, relays, and meters at a minimum
- (4) Concrete batch tickets and pour logs
- (5) Energization and commissioning results, including commissioning checklists
- (6) Training certifications, including welding
- (7) Tooling calibration records and testing certificates
- (8) Non-conformance and corrective action reports

7.5 Forms and certificates:

- (1) Certificate of Project Substation Completion

**8.0 OUTLINE OF INTERCONNECTION LINE JOB BOOK**

8.1 Table of contents

8.2 Engineering documents:

- (1) Issued for construction drawings
- (2) As-Built Drawings
- (3) Concrete mix design

8.3 Product data for permanently-installed equipment and materials:

- (1) Equipment: conductor, OPGW, ground rods
- (2) Materials: not used

8.4 Quality assurance documents:

- (1) Inspection documentation: foundations (pre- and post-pour), concrete placement, grounding, equipment installation (structures, conduit, OPGW), terminations
- (2) Testing results: torque records, ground grid resistivity, concrete strength, and other required tests set forth in Exhibit A.1 (*Scope of Work*)
- (3) Concrete batch tickets and pour logs
- (4) Energization and commissioning results, including commissioning checklists

- (5) Training certifications, including welding
- (6) Tooling calibration records and testing certificates
- (7) Non-conformance and corrective action reports

8.5 Forms and certificates:

- (1) Certificate of Interconnection Line Completion

**9.0 OUTLINE OF METEOROLOGICAL STATIONS JOB BOOK**

9.1 Table of contents

9.2 Engineering documents:

- (1) Issued for construction drawings
- (2) As-Built Drawings
- (3) Concrete mix design

9.3 Product data for permanently-installed equipment and materials:

- (1) Equipment: instruments, data logger, cabling, lighting
- (2) Materials: not used

9.4 Quality assurance documents:

- (1) Inspection documentation: foundations (pre- and post-pour), concrete placement, grounding, equipment installation (instruments, data logger, lighting, etc.), terminations, operable communications
- (2) Testing results: torque records, ground grid resistivity, concrete strength, and other required tests set forth in Exhibit A.1 (*Scope of Work*)
- (3) Concrete batch tickets and pour logs
- (4) Energization and commissioning results, including commissioning checklists
- (5) Training certifications, including welding
- (6) Tooling calibration records and testing certificates
- (7) Non-conformance and corrective action reports

9.5 Forms and certificates:

- (1) Certificate of meteorological station completion

**10.0 OUTLINE OF O&M BUILDING JOB BOOK**

10.1 Table of contents

- 10.2 Engineering documents:
  - (1) Issued for construction drawings
  - (2) As-Built Drawings
- 10.3 Product data for permanently-installed equipment and materials:
  - (1) Equipment: Yes
  - (2) Materials: Yes
- 10.4 Quality assurance documents:
  - (1) Non-conformance and corrective action reports
- 10.5 Forms and certificates:
  - (1) Certificate of O&M Building Completion
- 11.0 SOLAR PV JOB BOOK**
- 11.1 Table of contents
- 11.2 Engineering documents:
  - (1) Solar PV Array as-built designs
- 11.3 Product data for permanently-installed equipment and materials:
  - (1) Equipment: PV Panels, mounting systems, tracking systems, inverters,
  - (2) Materials: Yes
- 11.4 Quality assurance documents:
  - (1) PV supplier quality documents
  - (2) Offload inspection checklists
  - (3) PV supplier assembly checklists
  - (4) Tooling calibration records and testing certificates
- 11.5 Forms and certificates:
  - (1) Certificate of PV Array Completion