PART 1 GENERAL

1.1 RELATED WORK

.1 Section 01730 (Spec Note: Co-ordinate with Architectural Specifications)

1.2 SCOPE

.1 Electrical operations and maintenance manuals (hereinafter referred to as O&M manuals) shall be prepared by a firm specializing in this type of work.

.2 Specialty firm to be responsible for:

.1 The supply and preparation of (Spec Note: verify quantity of manuals with Owner) [two] sets of O&M manual binders and tabs as specified in the index below and detailed in Sketches ESK-01 and ESK-02.

.2 The preparation of all written system descriptions and schematics (neatly drafted) as specified below. Format as directed by the Owner, utilizing proportional typewritten format, with schematics in appendices at the end of each section. System descriptions should include design philosophies, reason for component selection, brief component descriptions, system interconnections and interlocks, etc.

.3 Securing and assembling all necessary literature describing operational and maintenance procedures for all equipment into the O&M manual binders, including Preventative Maintenance data as described below. Preventative maintenance data and maintenance suggestions to be compiled in tabular format in applicable section to provide a comprehensive overview of maintenance procedures.

.4 Preparing in coordination with Division 16 and equipment manufacturer’s technical specialist, scheduled maintenance sheets and check lists. Scheduled maintenance sheets shall include safety in maintenance data plus detailed daily, monthly and yearly scheduled maintenance information. Format as directed by the Owner.

.5 Preparation of safety in maintenance suggestions and procedures.

.6 Summarized daily, monthly and yearly maintenance charts.

.7 Prestonia No. 2047-10 plastic sheet protectors for all drawings larger than 210 mm × 275 mm. Locate drawing title block on lower right hand corner.

.3 Division 16 shall be responsible for:
.1 Supplying *(Spec Note: coordinate with item 1.2.2.1)* [xx] copies of all information as described below:

.1 Final shop drawings.

.2 All wiring diagrams.

.3 List of all major trades, sub-trades and suppliers including names of equipment supplied and by whom, addresses, phone numbers, facsimile numbers and contact persons.

.4 Obtaining all data necessary to compile a complete comprehensive Preventative Maintenance program. Data gathered shall be neatly handwritten on forms provided by the Owner. Data to be collected for all systems described in the index below.

.5 Spare/replacement parts lists for all of the above. Copies of the electrical contractor’s data collection sheets available during tendering period when requested.

.6 Test results as outlined in other sections of this specification.

### 1.3 OPERATIONS AND MAINTENANCE MANUAL FORMAT

.1 Electrical contractor to submit complete system description and schematics by 50% complete stage of construction. O&M manuals to be submitted to the Owner 90% complete three (3) months prior to substantial completion inspection.

.2 Electrical O&M manuals to be assembled in 210 mm × 275 mm capacity, expanding spine catalogue binders complete with plated piano hinges, bound in heavy *(Spec Note: confirm color with owner)* [blue] fabric, hot stamped white lettering on front and spine. Electrical contractor to provide sufficient quantity to allow all binders to hold system data while in full closed position (not expanded).

Electrical contractor to provide sample of art work and fabric cover (before having binders constructed) to the Owner.
(Spec Note: Edit for those systems applicable to a specific project.)

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<thead>
<tr>
<th>Tab Name/Description</th>
<th>Tab No.</th>
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<td>Motor Controls</td>
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<td>– Motor Control Centres</td>
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<td>– Overcurrent Protection</td>
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</table>
– Adjustable Overloads
– Fire Alarm System Interface
– Final MCC Schedules
– Isolated Ground Receptacles
– Safety Shutter Receptacles

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– Emergency Receptacles
– Ground Fault Interrupter Receptacles
– Surge Protection Receptacles
– Risk Classified Receptacles
– Isolated Ground Receptacles
– Safety Shutter Receptacles

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– Auxiliary Bonding
– Waste Water Line
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– Exterior Lights
– Low Tension Equipment Grounding

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– Dock Leveller
– Motorized Shutters
– Automatic Doors
– Cable Trays/Wireways
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   – Exit Luminaires
   – Emergency Battery Packs
   – Surgical Battery Packs

Interior Lighting           2.3
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   – High Intensity Discharge (HID) Luminaires

Exterior Lighting           2.4
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   – Annunciators
   – Ancillary Devices
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   – Devices
   – Sequence of Operation
   – Interface with Other Systems
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   – Block Diagrams
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- Block Diagrams
- Schematic Diagrams
- Operation
- Maintenance
- Riser Diagram

1.4 OVERVIEW TO OPERATION AND MAINTENANCE MANUALS

.1 Refer to Section 16032, Electrical Equipment and Systems Demonstration and Instruction.

END OF SECTION