

Part 1 General

1.1 RELATED SECTIONS

- .1 Division 26 – Electrical.

1.2 REFERENCES

- .1 Canadian Standards Association (CSA).
 - .1 CSA C22.1-15, Canadian Electrical Code, Part I (23rd Edition), Safety Standard for Electrical Installations.

1.3 ACTION AND INFORMATION SUBMITTALS

- .1 Make all submittals in accordance with requirements of Section 01 33 00.
- .2 Shop Drawings.
 - .1 Data to include:
 - .1 Manufacturer, equipment description, make or model numbers, materials and finishes, accessories, options.
 - .2 Quantities and locations of tracks and lift units.
 - .3 Layout and details of track, hardware, accessories.
 - .4 Indicate loading to be imposed on supporting structure.
 - .5 How all anchorage, accessory items, and finishes.
 - .6 Electrical service requirements.
 - .7 List of recommended spare parts.
 - .8 Equipment anchors, supports, and overhead brackets, struts and braces to support tracks shall be designed by a Professional Engineer registered in the Province of Manitoba; and shop drawings shall be stamped by the same Professional Engineer who designed the components.
 - .2 Certificates of Compliance.
 - .3 Manufacture's Literature and Data:
 - .1 Lifting Capacity.
 - .2 Lifting Speed.
 - .3 Horizontal Displacement Speeds.
 - .4 Horizontal Axis Motor.
 - .5 Vertical Axis Motor.
 - .6 Emergency Brake.
 - .7 Emergency Lowering Device.
 - .8 Emergency Stopping Device.
 - .9 Electronic Soft-Start and Soft-Stop Motor Control.
 - .10 Current Limiter for Circuit Protection.
 - .11 Low Battery disconnects System.
 - .12 Strap Length
 - .13 All Equipment anchors and supports. Submittals shall include weights, dimensions, center of gravity, Standard connections, manufacturer's recommendations and behavior problems (E.G. Vibrations and Thermal Expansions) associated with the equipment or piping so the proposed installation can be properly reviewed.
 - .4 Individual Room Layouts showing location of lift system installation shall be approved before proceeding with the installation of lifts.
- .3 Closeout Submittals.
 - .1 Provide operation and maintenance data for incorporation into Operation and Maintenance Manual specified in Section 01 78 00.

- .2 Warranty Documentation: Submit manufacturer warranty and ensure forms have been completed in the City's name and registered with manufacturer.

1.4 QUALITY ASSURANCE

- .1 Regulatory Requirements.
 - .1 Ensure electrical connection is adequate and in conformance with the CSA C22.1 and all local codes.

1.5 DELIVERY, STORAGE, AND HANDLING

- .1 Supplier to deliver equipment to site in manufacturer's unopened packaging clearly indicating manufacturer's name, intended location in building, and any other identifying symbols or information.
- .2 Contractor to receive equipment and safely store in convenient location until installation begins. Store in ventilated areas, protected from extreme changes of temperature or humidity. Damaged equipment will not be accepted.
- .3 Equipment to be accompanied by copies of operations manual, service manual, schematics, wiring diagrams and parts list.
- .4 Cleaning in accordance with Section 01 74 00.
- .5 Waste Management and Disposal in accordance with Sections 01 74 19.

1.6 WARRANTY

- .1 Provide manufacturer's standard warranty for each type of equipment specified.

Part 2 Products

2.1 MANUFACTURED UNITS

- .1 Ceiling Lift and Track
 - .1 Basis of Design Product.
 - .1 Human Care, HeliQ 300 lift (300 kg) and track system with power travers and in-rail charging.
- .2 Substitutions not permitted.
- .3 Supply all similar products from single manufacturer.

Part 3 Execution

3.1 INSTALLATION

- .1 Install plumb, level, straight, rigidly supported, and securely fastened to abutting surfaces as applicable, free from superimposed loads.
- .2 Install lift as per Manufacturer's Instruction and under the Supervision of Manufacturer's Qualified Installer in accordance with reviewed shop drawings.
 - .1 Consult with Manufacturer's guidelines for stabilization requirements.
 - .2 Consult with Manufacturer's guidelines for isolation from other fixtures within the ceilings.
 - .3 Ensure that Rails Systems are properly grounded to meet ULC Requirements.
 - .4 Secure rigidly in place using fasteners of type recommended by manufacturer.
 - .5 Co-ordinate installation of anchors, brackets and hangers with work of other trades. Ensure all blocking, furring and framing is in place.

- .6 Co-ordinate connection of electrical services.
- .3 Load Testing.
 - .1 Load tests for each patient lift track system prior to system use. Follow lift manufacturer's instructions using recommended procedures and testing equipment and apparatus. Do not use the ceiling lifts for load testing.
 - .2 Document each load test. Provide label for each track installation that has been proof tested. Indicate the limits to which it was testing, the test date. Labels shall be signed by the individual who conducted the test. Provide copies or same information in commissioning report.
 - .3 Replace materials that are become damaged or defective from load testing. Re-test newly replaced equipment.
- .4 Operational Testing.
 - .1 When the installation is complete, test lift system to confirm functionality.
 - .2 Test track to ensure lift travels freely. Test each individual lift mechanism to ensure proper function.
 - .3 Provide test report and submit copies, signed by authorized lift installer, to Contractor. Include one copy in operation and maintenance manual.

3.2 FIELD QUALITY CONTROL AND ADJUSTING

- .1 Contractor responsible for supervising installation, for startup and testing equipment, and for adjustments to place equipment into full operation to satisfaction of the Contract Administrator and the City. Co-operate with other trades concerned in this matter.
- .2 Supplier is entirely responsible for correct functioning of equipment they supply. Equipment will not be accepted by the City until the City is provided with statement to effect that equipment is installed and working to their complete satisfaction.

3.3 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 00.
 - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 00.
 - .1 Remove packaging debris and clean adjacent surfaces immediately after installation.
- .3 Waste Management: separate waste materials for reuse and recycling in accordance with Section 01 74 19.
 - .1 Remove recycling containers and bins from site and dispose of materials at appropriate facility.

3.4 DEMONSTRATION

- .1 Provide demonstration and training for all equipment in accordance with Section 01 79 00, manufacturer's recommendations and requirements of this Section.
- .2 Each manufacturer is to provide authorized representative to demonstrate operation of their equipment and systems to the City's personnel.

3.5 PROTECTION

- .1 Protect installed equipment from construction activity until project completion.

END OF SECTION