

ELEVATOR CONTRACTOR REQUEST FOR PROPOSALS

1 PROJECT NAME, LOCATION, and RFP PURPOSE:

- The project is referred to as: **Esquimalt Public Safety Building**
- The Place of the Work is: 500 Park Place, Esquimalt, BC
- RFP Closing Date: Tuesday, December 19, 2023 @ 2:00pm

The purpose of this RFP is to obtain Proposals from qualified elevator contractors to supply, install, and engineer the elevator for this project. The successful contractor will provide design-assist services to the Consultant team.

2 PROJECT DESCRIPTION

Work of this Contract comprises the construction of a three-storey, 4-bay firehall building as well as Emergency Operations Centre, and space for the Capital Regional District offices. Hybrid construction using steel structure supplemented with cast-in-place concrete, with steel stud exterior framing, located in the Township of Esquimalt, BC.

- a) Meet the code requirements for post-disaster buildings.
- b) Coordination of Owner supplied items.
- c) Project designed to meet Zero Carbon Building (ZCB) Standard.

3 RESPONSE CONFIRMATION:

It is requested that all invitees confirm if they will be providing a response to this RFP within 3 working days of receipt. This can be completed by sending a confirmation email to caleb@knappett.com

4 DOCUMENTS

4.1 Tender Documents:

- a) Electric Traction Passenger Elevators Spec Section 14 21 23 prepared by HCMA Architecture + Design.
- b) Drawing CO-10 (Section Through Elevator) prepared by HCMA Architecture + Design.
- c) RFP document.

5 CONSTRUCTION MANAGER

1. The Owner has retained **KNAPPETT PROJECTS INC.** as the Construction Manager (CM).
2. The successful Elevator Contractor will provide design-assist services to the design team to coordinate the elevator requirements.

6 INTENT

- a) The Construction Manager is requesting submissions from experienced elevator contractors to provide pre-construction and construction services.
- b) Pre-construction services generally include assisting the design team with coordinating the requirements of the elevator.
- c) The form of contract between **KNAPPETT PROJECTS INC.** and the Elevator Contractor shall be the Standard Construction Document CCA 1 2008 and Supplementary Conditions (Appendix "A"), together with all related parts of these Tendering and Contract Requirements (provided a fixed price agreement is reached). This contract will be signed after the Knappett and the Owner have reached an agreement for a fixed price for the project as a whole (anticipated Spring 2024).

7 RFP CLOSING

- a) RFP responses are to be submitted by email to caleb@knappett.com on or before the date and time specified.
- b) RFP responses shall be signed and dated by a company officer.

8 INQUIRIES

8.1 Requests for Clarification

- a) Are to be addressed to the Construction Manager: Attention: **Caleb Stokkeland** (caleb@knappett.com) no later than 4 working days prior to the tender closing date
- b) All responses shall be confirmed by written addenda, and any spoken interpretations provided shall be null and void unless so confirmed.
- c) Any issues not so clarified shall be subject to the subsequent interpretation of the Consultant or Construction Manager in accordance with the provisions of the Contract.

9 TAXES

- a) The price provided is inclusive of all taxes excluding GST.

10 INSURANCE

- a) The Elevator Contractor shall provide evidence of General Liability insurance (\$5 million minimum coverage) submitted with the RFP response and evidence of good standing with WorkSafe BC.

11 AWARD OF CONTRACTS

- a) The CM and Owner reserves the right to reject any or all submissions and to accept any submission they consider to be advantageous to the Project.
- b) The Construction Manager may waive irregularities or informalities in the RFP response or negotiate with any bidder if it deems it to be in the best interest of the Owner. By submitting a submission, the Elevator Contractor agrees there will be no opportunity for damages as a result of the RFP process, and the costs of preparing the RFP submission is to be borne by the Elevator Contractor.
- c) Upon notification of award, the successful Elevator Contractor will begin work immediately on pre-construction services.

12 OPEN SITE

- a) The Proponents are advised that the Project is an open site for the purpose of labour relations.

13 SCHEDULE

- a) The overall progress of the work shall be governed by the Master Schedule issued by the Construction Manager, which may be revised as necessary.
- b) Pricing to be based on the CCA 1 Contract being signed between Knappett and the Elevator Contractor in Q2 of 2024 with elevator commissioning complete in Q3 2026.
- c) Time shall be of the essence for the Contract.
- d) The project is currently moving through design, and construction start is anticipated to start in the Q2 of 2024.

14 CONFIDENTIALITY

- a) The Proponent agrees to keep all project information confidential and agrees to non-disclosure of all project documents, correspondence, or verbal communications with any third parties without the express written consent of both the Owner and CM.

End of Section

APPENDIX A – DETAILED REQUIREMENTS OF THE RFP SUBMISSION

General Requirements

Submissions are to be compiled into a single PDF document and are to be as brief and concise as possible while still providing the requested information below.

Elevator Requirements

- Refer to attached Spec Section 14 21 23 prepared by HCMA.
- Refer to attached elevation section which indicates number of stops and net travel for the elevator.

Information to be provided by Elevator Contractor

- Required elevator shaft size.
- Connection details to cast-in-place concrete elevator shaft.
- Advise hoist/safety beam requirements, reactions, connections, and location of lifting mechanism.
- Advise required overrun.
- Advise electrical requirements.
- Advise of any special requirements to be supplied and paid for by others.
- Cost for supply, install, engineering, and related items for the proposed elevator based on contract signing in Q2 of 2024 with elevator completion in Q3 of 2026.

End of Document

Part 1 General

1.1 SECTION INCLUDES

- .1 Electric passenger elevator assembly.
- .2 Passenger cabs with doors and frames; hoistway entrance doors and frames.
- .3 Machines, controllers, hoistway equipment, and accessories.
- .4 Overhead hoist beam.

1.2 RELATED REQUIREMENTS

- .1 Section 03 30 00 - Cast-in-Place Concrete.
- .2 Section 04 22 00 - Concrete Unit Masonry.
- .3 Section 05 50 00 - Metal Fabrications: Pit ladder, sill supports.
- .4 Section 07 16 16 - Crystalline Waterproofing: Waterproofing of elevator pit walls and floor.
- .5 Division 22 - Plumbing: Pit drainage.
- .6 Division 23 - Heating, Ventilating and Air-Conditioning (HVAC): Cab and hoistway ventilation.
- .7 Division 26 - Electrical: Electrical requirements.

1.3 REFERENCE STANDARDS

- .1 ASTM A36/A36M-19 - Standard Specification for Carbon Structural Steel.
- .2 ASTM A653/A653M-20 - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- .3 ASTM A666-15 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.
- .4 ASTM A1008/A1008M-18 - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Solution Hardened, and Bake Hardenable.
- .5 ASTM B221M-13 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes (Metric).
- .6 ASME-A17.1-2019/CSA B44:19 - Safety Code for Elevators and Escalators.
- .7 CSA B44.1:19/ASME-A17.5-2019 - Elevator and escalator electrical equipment.
- .8 CSA B651-18 - Accessible Design for the Built Environment.
- .9 CSA C22.1:21 - Canadian Electrical Code, Part 1 (25th Edition).
- .10 CSA W55.3-08 (R2018) - Certification of Companies for Resistance Welding of Steel and Aluminum.
- .11 CAN/ULC S104-15 - Standard Method for Fire Tests of Door Assemblies.
- .12 Master Painters Institute (MPI) - Architectural Painting Specifications Manual.
- .13 ANSI/NEMA LD 3-2005 - High-Pressure Decorative Laminates (HPDL).
- .14 ANSI/NEMA MG 1-2018 - Motors and Generators.
- .15 NFPA 80 - Standard for Fire Doors and Other Opening Protectives, 2019 Edition.
- .16 NFPA 252 - Standard Methods of Fire Tests of Door Assemblies, 2017 Edition.
- .17 British Columbia Building Code (BCBC) 2018.

1.4 REGULATORY REQUIREMENTS

- .1 General Requirements: Conform to ASME A17.1/CSA B44, CSA B44.1/ASME-A17.5 and applicable code at the place of the work for design, manufacture, installation, verification, and testing of elevator system.
- .2 Accessibility Requirements: Conform to CSA B651.

- .3 Hoistway Entrance Assemblies: Labeled and listed to CAN/ULC-S104 or NFPA 252.
 - .1 Installed door and frame assembly to NFPA 80 for fire rated class indicated.
- .4 Products Requiring Electrical Connection: Listed and classified by CSA as suitable for the purpose specified and indicated.
- .5 Seismic Requirements: Make allowance in design of shafts for seismic zone of the Place of the Work. Design seismic restraint for elevator components in accordance with applicable code.
- .6 Communication Requirements: Interconnect elevator control system with building fire alarm and security systems. Provide phones connected to fire alarm panel.

1.5 ADMINISTRATIVE REQUIREMENTS

- .1 Comply with Section 01 31 00 for project management and coordination procedures.
- .2 Coordination: Coordinate with other work having a direct bearing on work of this section.
 - .1 Coordinate installation of sleeves, block outs, elevator equipment with integral anchors, and other items to be embedded in concrete or masonry.
 - .2 Provide templates, sleeves, elevator equipment with integral anchors, and installation instructions in time for installation.
- .3 Pre-installation Meeting: Convene four (4) weeks before starting work of this section.
 - .1 Require attendance of persons directly involved with the work of this section.
- .4 Scheduling: Schedule delivery of equipment to coincide with start of installation of elevators.

1.6 SUBMITTALS

- .1 Comply with Section 01 33 00 for submittal procedures and schedules.
- .2 Product Data: Provide data on signal and operating fixtures, operating panels, and indicators.
 - .1 Cab design and layout, finishes, accessories, and available options.
 - .2 Colour selection charts for finishes.
- .3 Shop Drawings: Indicate cab design, dimensions, layout, clearances required and components. Indicate cab and hoistway door and frame details. Indicate the following information:
 - .1 Driving machine, controller, motor generator, selector, governor and other component locations.
 - .2 Car, counterweight, sheaves, machine and sheave beams, guide rails, buffers, ropes, and other components in hoistway.
 - .3 Individual weight of principal components; load reaction at points of support.
 - .4 Loads on hoisting beams.
 - .5 Locations in hoistway and machine room for connections of car light and telephone.
 - .6 Locations and sizes of access doors.
 - .7 Location and details of hoistway doors and frames.
 - .8 Dimensions, clearances and details of control room, closet or panel.
 - .9 Expected heat dissipation of elevator equipment in hoistway.
 - .10 Interface with building security and fire alarm system.
 - .11 Electrical characteristics and connection requirements.
 - .12 Prepare Shop Drawings under direct supervision of a Professional Structural Engineer experienced in design of this work. Shop Drawings to be sealed and signed.
- .4 Samples: Submit two (2) material samples of cab interior finishes, cab and hoistway door and frame finishes, and handrail material and finish.

1.7 CLOSEOUT SUBMITTALS

- .1 Comply with Section 01 78 00 for closeout submittal requirements.
- .2 Maintenance Contract: Provide service and maintenance of elevator system and components for one year from Date of Substantial Completion.

- .3 Operation and Maintenance Data: Indicate maintenance requirements and frequency, periodic adjustments required, and cleaning instructions.
- .4 Final Inspection Report: Provide a copy of the final inspection report and approval by the Provincial Elevator Branch Inspector prior to occupancy.

1.8 MAINTENANCE MATERIAL SUBMITTALS

- .1 Extra Stock Materials: Supply two (2) extra keys and one lockable key cabinet.

1.9 QUALITY ASSURANCE

- .1 Perform Work in accordance with ASME A17.1/CSA B44, CSA B44.1/ASME-A17.5, CSA-W55.3, CSA-C22.1, and as supplemented in this section.
- .2 Fabricate and install door and frame assemblies in accordance with NFPA 80.
- .3 Manufacturer Qualifications: Company specializing in manufacturing the Products specified in this section with minimum three (3) years documented experience.
- .4 Installer Qualifications: Installation by trained elevator manufacturer employees with minimum three (3) years experience.

1.10 DELIVERY, STORAGE, AND HANDLING

- .1 Comply with Section 01 60 00 for Product transport, handling, storage, and protection requirements.
- .2 Deliver materials in manufacturer's original packaging with labels bearing the manufacturer's name, product name, model number, materials, and installation location.
- .3 Schedule delivery of equipment to coincide with start of installation of elevator.
- .4 Provide storage area approved by the elevator manufacturer.

1.11 WARRANTY

- .1 Manufacturer's Warranty: Provide a one (1) year manufacturer's warranty to include coverage for failure to meet specified requirements from date of Substantial Performance of the Work.
 - .1 Include coverage for elevator operating equipment and devices.

Part 2 Products

2.1 MANUFACTURERS

- .1 Kone Inc., Mississauga ON: 800-370-5590 or 604-777-5663. www.kone.ca
 - .1 Electric Traction Passenger Elevator: Kone EcoSpace.
- .2 Otis Elevator Company, Houston TX USA: 800-233-6847 or 604-412-3400. www.otis.com
 - .1 Electric Traction Passenger Elevator: Gen2 Underslung.
- .3 ThyssenKrupp Northern Elevator Limited, Toronto ON: 416-291-2549 or 604-294-2209. www.thyssenkruppnorthern.com
 - .1 Electric Traction Passenger Elevator: Evolution 100.
- .4 Richmond Elevator, Richmond BC: 604-274-8440.
 - .1 Electric Traction Passenger Elevator: MRL (Machine Room Less) Traction Passenger Elevator.
- .5 Substitutions: Approved alternates.

2.2 PERFORMANCE CRITERIA

- .1 Electric Traction Passenger Elevator: Machine room-less traction passenger elevator system consisting of an AC gearless machine with regenerative drive, mounted at the top of the hoistway, coated steel belts for elevator hoisting purposes, and LED lighting in ceiling lights and elevator fixtures, including sleep mode for lights and fan.
- .2 Characteristics of Elevator: 1814 kg (4000 lbs) rated net capacity, as follows.

- .1 Rated Speed: 0.75 m/s (150 ft/min).
- .2 Number of Stops: 4.
- .3 Number of Openings: 4 Front. 0 Rear.
- .4 Total Rise: 13.80 metres (45 ft 3-1/4 in), confirm with Architectural Drawings.
- .5 Car Interior Width: Not less than 2032 mm (6 ft 8 in).
- .6 Car Interior Depth: Not less than 1295 mm (4 ft 3 in).
- .7 Cab Clear Height (finished ceiling): 2362 mm (7 ft 9 in).
- .8 Car Door Size: 1067 mm (3 ft 6 in) wide by 2134 mm (7 ft 0 in) high.
- .9 Hoistway Size: Not less than 2642 mm (8 ft 8 in) wide by 1753 mm (5 ft 9 in).
- .10 Hoistway Pit Depth: 1524 mm (5 ft 0 in).
- .11 Operation: Simplex collective operation.
- .12 Door Operation: Automatic ECI operator for hoistway and car. Opening and closing speed to suit handicapped requirements. Single speed side opening.
- .13 Leveling Device: Stop elevator within 5 mm (0.2 inch) under any loading condition or direction of travel.
- .14 Main Power Supply: 600 Volts, 3 Phase, 60 Hz.
- .15 Lighting Power Supply: 120 Volts, Single Phase, 15 Amp, 60 Hz.
- .3 Door Control Features: Open doors automatically when car arrives at floor.
 - .1 Door Safety Devices: Moveable, retractable safety edges, quiet in operation.
- .4 Full operation on standby diesel generator at reduced speed capable of receiving, generator power, transfer and pre-transfer signals from the generators automatic transfer switch.
- .5 Limited Access Service: Key operated switch and fob reader access.
- .6 Temporary Elevator Use: Enclose elevators for transport of construction personnel.
 - .1 Enclose cab with protective plywood on floor, walls, and ceiling.
 - .2 Provide temporary lighting.
 - .3 Provide control panel with manual and emergency operation with key operation for attendant operator.

2.3 MATERIALS

- .1 Rolled Steel Sections, Shapes, Rods: ASTM A36/A36M.
- .2 Sheet Steel: ASTM A1008/A1008M, with matte finish. ASTM A653/A653M, zinc coated to Z275.
- .3 Stainless Steel: ASTM A167, Type 304.
- .4 Extruded Aluminum: ASTM B221M.
- .5 Plywood: APA Structural I, Grade C-D, sanded.

2.4 EQUIPMENT

- .1 Electrical Equipment: CSA B44.1/ASME-A17.5, motors, controller, controls, buttons, indicators, wiring and devices.
- .2 Hoistway Equipment: Guide rails, ropes, cables, counterweights, spring buffers, attachment brackets and anchors to be purpose designed, sized according to code with safety factors.

2.5 ELECTRICAL COMPONENTS

- .1 General: Include wiring and connections to elevator devices remote from hoistway. Provide additional components and wiring to suit machine room layout.
 - .1 Drive: CSA C22.1, variable voltage variable frequency AC drive system to be provided. Drive to be set up for regeneration of AC power back to the building grid.
 - .2 Hoistway Operating Devices: Emergency stop switch in the pit. Terminal stopping switches.

- .3 Fittings: Steel compression type for electrical metallic tubing.
- .4 Spare Conductors: Include 10 percent extra conductors and two (2) pairs of shielded audio cables in traveling cables.
- .2 Controller: Microcomputer based control system to be provided to perform all of the functions of safe elevator operation. System to perform car and group operational control.
 - .1 Controllers to be designed and tested for Electromagnetic Interference (EMI) immunity according to EN 12016.
- .3 Positioning System: Encoder, reader box, and door zone vanes.
- .4 Car Operating Panel: Provide one (1) flush mounted operating panel with an integral face plate; containing illuminated call buttons corresponding to floor served, in car alarm button, and DOOR OPEN, DOOR CLOSE buttons. Fob reader for floor access.
 - .1 Position alarm button where it is unlikely to be accidentally actuated.
- .5 Hall Call Stations: Provide keyless hall call station with illuminated call button and stainless steel cover plate for each landing.

2.6 EQUIPMENT - MACHINE AND GOVERNOR

- .1 Machine: AC gearless machine, with a synchronous permanent-magnet motor, dual solenoid service and emergency disc brakes, mounted at the top of the hoistway.
- .2 Governor: Tension type car-mounted governor.
- .3 Buffers, Car and Counterweight: Polyurethane type buffers.
- .4 Guide Rails and Attachments: Guide rails to be tee-section steel rails with brackets and fasteners. Side counterweight arrangements to have a dual-purpose bracket that combines both counterweight guide rails, and one of the car guide rails to building fastening.
- .5 Coated-Steel Belts: Polyurethane coated belts with high-tensile-grade, zinc-plated steel cords and a flat profile on the running surface and the backside of the belt. Driving sheaves and deflector sheaves to have a crowned profile to ensure center tracking of the belts. Continuous monitoring system using resistance based technology to be installed to continuously monitor the integrity of the coated steel belts and provide advanced notice of belt wear.
- .6 Governor Rope: Steel governor rope from eight strands wound about a sisal core center.
- .7 Fascia: Galvanized sheet steel at front of hoistway.

2.7 HOISTWAY ENTRANCES

- .1 Door and Frame Construction: Not less than 1.5 mm (0.058 inch) thick steel, 1-1/2 hour fire rating; insulated sandwich panel door construction not less than 32 mm (1-1/4 inch) thick.
- .2 Typical Door and Frame Material and Finish: Stainless steel, No. 05 satin finish.
- .3 Entrance Signage Plates: Locate 102 x 102 mm (4 x 4 inch) plates at both sides of entrance jambs. Plates to have raised floor number and Braille equivalent adjacent.
- .4 Weatherstripping: Weatherstrip hoistway doors and frames to minimize audible noise caused by air movement, imposed by car movement in the hoistway, and air pressure differential between hoistway and landing floors.
- .5 Thresholds: Extruded aluminum, finish to be selected by Consultant from manufacturer's standard range.

2.8 CAB FABRICATION

- .1 Rear Wall: Two (2) mirror panels.
- .2 Side Walls: Two (2) plastic laminate wall panels for each wall.
- .3 Car Door Entrance Wall: Car door, main return, door jambs and transom to be stainless steel.
- .4 Base and Panel Reveals: Stainless steel.
- .5 Handrail: Stainless steel, continuous flat bar stock, 12.7 x 50.8 mm (1/2 x 2 inch), spaced 38 mm (1-1/2 inches) from wall; placed at rear and side walls.

- .6 Ceiling: Dropped island, three (3) stainless steel panels, and round LED lighting fixtures.
- .7 Flooring: Allow recess depth for tile flooring to match Level 1 Lobby Flooring.
- .8 Control Panel, Hall Lanterns and Hall Stations: Vandal resistant, with illuminating call buttons, stainless steel.
- .9 Protective Pads: One set, canvas cover, padded with cotton wadding fill material, sewn with piping edges; brass grommets spaced to match pad hook spacing in cab, covering side and rear walls and front return, except cut-out for control panel.
- .10 Pad Hooks: Stainless steel type, mounted at 2100 mm (84 inches) high.

2.9 FINISHES

- .1 Aluminum Finish: AA-M12-C22-A41, clear anodic coating, Architectural Class I, not less than 18 microns (0.7 mils) dry film thickness.
- .2 Stainless Steel: No. 5 satin finish.
- .3 Baked Enamel: Clean and degrease metal surface; apply one coat of primer sprayed and baked; two coats of enamel sprayed and baked; colour as indicated on Interior Design drawings.
- .4 Plastic Laminate: NEMA LD-3, Type GP-50, 1.27 mm (0.050 inch) thick; colour/pattern and surface finish to be selected from manufacturer's standard range. Low VOC adhesive.
- .5 Wood Surfaces not Exposed to Public View: One coat primer; two (2) coats enamel.
- .6 Shop and Touch-Up Primer: MPI Approved Product List # 76, solvent based, modified alkyd, fast drying, lead and chromate free, anti-corrosive primer.
- .7 Touch-Up Primer for Galvanized Surfaces: MPI Approved Product List # 19, zinc-rich, inorganic based, anti-corrosive primer.

Part 3 Execution

3.1 EXAMINATION

- .1 Comply with Section 01 71 00 for verification of existing conditions before starting work.
- .2 Verify that hoistway and pit are ready for work of this section.
- .3 Verify hoistway shaft and openings are of correct size and within tolerance.
- .4 Verify that electrical power is available and of the correct characteristics.

3.2 PREPARATION

- .1 Arrange for temporary electrical power for installation work and testing of elevator components.

3.3 INSTALLATION

- .1 Install in accordance with ASME-A17.1/CSA B44, CSA B44.1/ASME-A17.5 and CSA W55.3, and to manufacturer's written instructions.
- .2 Install system components. Connect equipment to building utilities.
- .3 Provide conduit, boxes, wiring, and accessories.
- .4 Accurately machine and align guide rails. Form smooth joints with machined splice plates.
- .5 Bolt brackets to self-drilling expansion shell anchors that will perform to four times the rated pull-out load.
- .6 Coordinate installation of hoistway wall construction.
- .7 Install hoistway door sills, frames, and headers in hoistway walls. Grout sills in place. Set entrances in vertical alignment with car openings and aligned with plumb hoistway lines.
- .8 Fill hoistway door frames solid with grout.
- .9 Adjust equipment for smooth and quiet operation.

3.4 FIELD QUALITY CONTROL

- .1 Perform tests in compliance with regulatory requirements specified and as required by authorities having jurisdiction.

3.5 ADJUSTING

- .1 Adjust for smooth acceleration and deceleration of car so not to cause passenger discomfort.
- .2 Adjust automatic floor leveling feature at each floor to achieve 5 mm (0.2 inch) from flush.

3.6 CLEANING

- .1 Remove protective coverings from finished surfaces.
- .2 Clean surfaces and components ready for inspection.

3.7 PROTECTION OF FINISHED WORK

- .1 Do not permit construction traffic within cab after cleaning.

END OF SECTION 14 21 23

