

Title: SED A&E Services – 395 Penno Road Expansion

1.0 Introduction:

- 1.1 The RCMP requires Architectural and Engineering services to support the objective of re-developing operational leased space located at unit 140 (679.1 m²), 160 (475.6 m²) and 170 (719.1 m²)- 395 Penno Road, Kelowna, BC. This leased site requires improvements to satisfy accommodation issues and configure space for the Kelowna Telecommunications/Radio Shop, and various South East District (SED) operational units located in Kelowna, BC. High level goals include:
 - 1.1.1 Resolution of health and safety issues;
 - 1.1.2 Consolidation of space to reduce costs and increase operational efficiencies;
 - 1.1.3 Development of appropriate and adequate space that aligns with RCMP Real Property standards and physical security and safety requirements. These improvements will include improved reception area, break room, lockers and improvements to the existing HVAC system to support the reconfigured space; and
 - 1.1.4 Development of a second floor space that will span across all 3 leased units.
- 1.2 To achieve these objectives, the project will be delivered in two phases, design development (including tender ready specifications and drawings) and tender/construction.
- 1.3 Phase 1: The Consultant will complete design development, specification development and permit applications (where required). Upon approval, Phase 2 will include technical oversight of the tender and evaluation process, and oversight of construction during the construction phase of the project to ensure design specifications are appropriately delivered by the construction contractor. Once Phase 2 is approved to proceed, the RCMP will tender the construction phase of the project.
- 1.4 The Primary Consultant (an Architect) will be responsible to provide and coordinate personnel, and sub-consultants, qualified in each Discipline, to complete the services specified in this tender. The Disciplines are as follows:
 - 1.4.1 Architecture;
 - 1.4.2 Mechanical and Electrical Engineering;
 - 1.4.3 Civil and Structural Engineering.

- 1.5 Elements of design development and construction will include:
 - 1.5.1 Relocation of the SED Telecommunications/Radio Workshop;
 - 1.5.2 Design and fit up of dedicated space for SED Telecommunications/Radio/workshop and General Investigative Services (GIS) Unit.
 - 1.5.3 Renovation of the District Office including a secure front counter and reception area;
 - 1.5.4 Access control, alarm system and perimeter CCVE system design and installation in accordance with Protective Technical Services Section (PTSS) specifications;
 - 1.5.5 Locker/shower space;
 - 1.5.6 Meeting rooms/shared collaborative space; and
 - 1.5.7 General work areas (open concept workstations) and private office space.

- 1.6 The base building was constructed in 1997 to comply with the 1992 Building Code with three major occupancy classifications, Group F Div. 2 (Medium Hazard Industrial), Group E (Mercantile) and Group D (Business and Personal Services). The building is fully sprinklered but a fire alarm system was not required under this building code. Current fire alarm code requirements will be addressed with the building owner. The property is currently zoned I2 – General Industrial by the City of Kelowna. The building structure consists of slab on grade and 158 mm thick tilt up concrete panels with curtain wall glazing of varying heights. Steel columns, beams and open web steel joists support the 38mm thick steel roof decking and insulated roof assembly and skylights. Structural design allowed for future openings for both additional glazing (for future second floor levels and overhead doors on all elevations).

2.0 Requirement

2.1 Phase 1

- 2.1.1 Complete a design and provide oversight of the redevelopment of existing and new lease space (1780m² which includes development of a second floor);
- 2.1.2 Furniture and equipment layout including development of documentation to support RCMP procurement of furniture and fixtures as required on the project;
- 2.1.3 Development of drawings and specification documents suitable for review and approval by the RCMP to position for tender of the construction/fit up project;

2.2 Phase 2

- 2.2.1 Technical oversight of the tender for construction;
- 2.2.2 Technical oversight of the construction phase of the project;
- 2.2.3 Technical oversight of the commissioning activities and substantial completion of the project; and
- 2.2.4 Technical oversight during the warranty period to act as the RCMP's technical representative to support resolution of warranty issues.

3.0 Tasks, Activities, Deliverables and Milestones:

- 3.1 A high level summary follows outlining milestones and schedule assumptions:
 - 3.1.1 Phase 1
 - 3.1.1.1 Analysis of scope of work
 - 3.1.1.2 Functional Program/space analysis
 - 3.1.1.3 Concept Design
 - 3.1.1.4 Design Development to tender ready drawings and specifications
 - 3.1.2 Phase 2 (pending approval)
 - 3.1.2.1 Construction documents (IFC)
 - 3.1.2.2 Services during tender
 - 3.1.2.3 Services during construction
 - 3.1.2.4 Construction contract administration
 - 3.1.2.5 Commissioning
 - 3.1.2.6 Post construction and project close out services
 - 3.1.2.7 Third party review of plans and specifications

4.0 Project Phasing, Tasks and Deliverables:

- 4.1 Analysis of Scope of Work, Design Concept and Functional Program/space analysis (Phase 1).
 - 4.1.1 The Architect will provide a concept design based on the information gathered from the technical team and client group to inform the development of the leased space. The data will be gathered from RCMP technical and stakeholder groups gathered in preliminary design meetings, and design development meetings. The design will include the requirements for special purpose fit up for the operational units. The work includes:
 - 4.1.1.1 Collection of information to clarify appropriate operational adjacencies using the RCMP space analysis as the footprint and foundation of work moving forward in the design. Gathering technical requirements, and populating room data sheets to inform the project. As noted, the project Space Analysis document provided by the RCMP is the starting point for spatial requirements as well as special purpose space. Space design must comply with the RCMP Property Management Manual and where relevant, the E Division Detachment Standards Manual. The requirements of Workplace 2.0 do not apply to this project.

- 4.1.1.2 Completion of a site analysis to assess the availability and adequacy of site services, utilities, access, site development opportunities and constraints including parking.
- 4.1.1.3 Identification of the security requirement, communication and IT and factors to be incorporated into the design in consultation with RCMP technical resources.
- 4.1.1.4 Submission of design concept documents in sufficient detail to illustrate the design concept and to demonstrate compliance with the Project requirements to be provided in electronic Adobe pdf format to the Project Authority for distribution to the RCMP technical team and stakeholder group.
- 4.1.1.5 Develop alternative solutions which accommodate the space analysis and functional program, while working within the limitations presented by the existing building (if any), within budget limitations. Drawings will include diagrams, plans, elevations, and sections. Perspective sketches may be requested.
- 4.1.1.6 Develop a project schedule and budget assessment including the feasibility of the construction budget for the project.
- 4.1.1.7 Complete a preliminary project risk assessment.
- 4.1.1.8 Submit a concept design report containing schematics and a brief summary of the architectural, structural, mechanical, electrical and civil options presented and rejected; a summary of the option analysis and the selection; a site analysis; preliminary code review and preliminary security assessment. This represents the 33% design development stage.
- 4.1.1.9 Submit a report of the consultant's recommendations on the construction implementation strategy.
- 4.1.1.10 Submit indicative cost estimates (Class C), a preliminary project schedule, and risk assessment plan.
- 4.1.1.11 List significant issues the need to be resolved for the design development stage.

4.2 Design Development (Phase 1)

4.2.1 After acceptance of the design concept documents by the RCMP:

4.2.2 Develop the technical solution for the selected concept option and for all disciplines;

4.2.2.1 Revise and update the cost estimates;

4.2.2.2 Develop outlines of the proposed operations and maintenance manual;

4.2.2.3 Prepare a design development presentation and hold a meeting with the RCMP. A follow up meeting may be required;

4.2.2.4 Organize and deliver design development meetings to capture additional requirements for the 66% design stage;

4.2.2.5 Provide updated recommendations on the construction implementation strategy and a substantive cost estimate (Class B); and

4.2.2.6 Update the project schedule and risk assessment plan.

4.3 Final design development, Tender and Construction documentation (Phase 1)

4.3.1 Construction Documents, Pre-Tender Construction Cost Estimate and Project Schedule. After acceptance of the 66% design documents:

4.3.1.1 Prepare drawings and specifications. Submit to the Project Authority for review at 99% progress. The Project Authority will submit its comments to the consultant within fifteen (15) working days;

4.3.1.2 Prepare detailed specifications in Canadian National Master Specification format (NMS) which will outline both base building and special purpose requirements. Special note should be made within the specification document of any products that are deemed "non-discretionary" by the RCMP and items where substitution is not permitted.

4.3.1.3 Prepare a "Class A" Construction Cost Estimate based on the approved design and construction documents, together with a breakdown thereof, and an updated Project Schedule.

4.3.1.4 Submit an updated Cost Plan including a Construction Cost Estimate and Project Schedule at each specified stage of production;

- 4.3.1.5 Issue a final construction document report consisting of signed and sealed final drawings and specifications ready for tender and construction, final code review, and provide copies of all construction documents submitted, in Adobe pdf format to the RCMP Project Authority.
 - 4.3.1.6 Update the project schedule and risk assessment plan. These documents are to be provided at each design phase and updated during the construction delivery stage.
 - 4.3.1.7 Upon approval to tender (Phase 2), arrange for permits and utilities as needed for development of the leased space and advise the Project Authority if any constraints or issues with permit application for development of the space.
- 4.4 Services during tender (Phase 2)
- 4.4.1 Provide technical support during procurement of the construction contractor including:
 - 4.4.1.1 Development of addenda to drawings and specifications, attending bidders conference and site visit as needed;
 - 4.4.1.2 Review and formulate recommendations on questions and requests for clarification received from Bidders;
 - 4.4.1.3 Assess the technical cost, and schedule implications of the issues that arise during tender;
 - 4.4.1.4 Assist in evaluating alternative materials, equipment systems, or methods proposed by Bidders and assist in the evaluation of bids received.
 - 4.4.1.5 Provide technical guidance to the RCMP during the evaluation process.
 - 4.4.1.6 Provide a tender report including minutes of bidders conferences, a summary of key decisions, clarifications, addenda, and amendments issued to the Bidders, and an assessment of the cost, schedule, risk implications of the issues that arose during the tender, and recommendations to address the issues.
- 4.5 Services during construction (Phase 2)
- 4.5.1 All aspects of construction management and oversight including verification of technical requirements satisfied during construction including:
 - 4.5.1.1 Coordinate, attend and chair bi-weekly site meetings with the General Contractor and prepare minutes and reports including minutes of meetings, and site visit reports;

- 4.5.1.2 Issue revisions and clarification to the plans and specifications including supplementary details and sketches to ensure the design intent is communicated as well as responding to questions specific to design intent;
- 4.5.1.3 Review and issue recommendations for Contractor progress payments;
- 4.5.1.4 Provide technical review, and recommendation for acceptance where appropriate on an ad hoc basis;
- 4.5.1.5 Maintain a log and review/assess and recommend sub-consultant submittals where appropriate to ensure compliance with the design and specifications;
- 4.5.1.6 Review suggestions for substitution and develop a recommendation to the RCMP for consideration;
- 4.5.1.7 Prepare contemplated change notice for design changes including a review of financial estimates for CCN along with a recommendation to the RCMP for acceptance or rejection. Provide bi weekly status report on CCN's and sub-consultant responses. Prepare the CCN for design changes.
- 4.5.1.8 Review sub consultant financial offers for contemplated change notices and formulate recommendations to the RCMP Project Authority;
- 4.5.1.9 Maintain an Issues Log with entries updated as items arise. Develop recommendations for resolution/acceptance by the RCMP Project Authority and track completion or closure of issues. This log is to be maintained during all phases of the project;
- 4.5.1.10 Management and coordination of submittals/shop drawings as/when required incorporating feedback from RCMP technical resources;
- 4.5.1.11 Development of a draft, then final testing and inspection plan;
- 4.5.1.12 Security fit up. Oversight of installation and commissioning of all required security fit up in accordance with the RCMP Protective Technical Security Section (PTSS) specifications (camera/access controls/alarms) with drawings and specifications. PTSS completes final configuration of cameras and access controls;
- 4.5.1.13 Maintain a library of annotated digital photos captured on a weekly basis, illustrating progress, quality and issues at various stages of construction; and

4.5.1.14 Prepare a final construction report summarizing the project's administration, scope, cost, schedule, quality, dispute resolution, and key issues that arose during the execution of the project.

4.6 Construction contract administration. (Phase 2)

To support and assist the RCMP in the delivery of the construction activity the contractor will:

- 4.6.1 Administering and supervising the construction contract from contract award to approximately one year after the issuance of the Final Certificate of Completion.
- 4.6.2 Review and recommendation for contractor progress payments.
- 4.6.3 Plan, coordinate and chair a pre-commencement meeting with the designated General Contractor and RCMP stakeholders;
- 4.6.4 Obtain all mandatory pre-commencement documents from the designated General Contractor and ensure that each requirement under the documents are met;
- 4.6.5 Review the sub-consultant's Construction Safety Plan and Quality Control Plan;
- 4.6.6 Prepare an inspection and testing plan identifying the requirements for inspection and testing support necessary to oversee the execution of the project, and assist the RCMP with defining and acquiring specialised inspection and testing services;
- 4.6.7 Carry out the inspection and testing plan and prepare reports;
- 4.6.8 Obtain the designated General Contractor's schedule and cost breakdown. (These must be found acceptable and approved prior to the submission of the first progress claim);
- 4.6.9 Maintain a daily project diary consigning key information related to the activities of the sub-consultants, the resources on site, weather conditions, communications, directions issued, submittals received, and detail any significant incidents;
- 4.6.10 Instruct the sub consultants formally to rectify any work material and or equipment that do not comply with the project requirements;
- 4.6.11 Participate in informal and formal resolution of project disputes.

4.7 Construction documentation (Phase 2)

Documentation required during construction includes:

- 4.7.1 Agenda and minutes of all site meetings, and minutes of other meetings
- 4.7.2 Correspondence file and log
- 4.7.3 Historical issue log
- 4.7.4 Project diary
- 4.7.5 Monthly project and financial status report and cash flow forecasts
- 4.7.6 Submittals status report
- 4.7.7 CCN status report
- 4.7.8 Testing and inspection plan and reports
- 4.7.9 Construction photos
- 4.7.10 Directives issued
- 4.7.11 Commissioning Plan and report
- 4.7.12 Deficiency lists
- 4.7.13 Recommendations for progress payments, and release of holdback
- 4.7.14 Final construction report summarizing the project history, administration, scope cost, schedule, quality, dispute resolution and key issues that arose during the execution of the project.

4.8 Commissioning (Phase 2)

During the commissioning stage of the project the contractor will:

- 4.8.1 Develop and implement the plan for commissioning of the leased space fit up including certificate of interim completion, training/orientation for end users and final certificate of completion. Submit one draft plan and one final plan to the RCMP Project Authority. Include the roles and responsibilities of the design consultant, general contractor, sub-consultants, contract administrator and the RCMP. The Plan and its execution are to conform to CSA Z320-11.
- 4.8.2 Develop a systematic approach for the sub-consultant to verify and certify that they have installed components and systems as specified and that all testing specified in the project documents have been completed and witnessed, with which, all non-conformances must be documented and presented to the Project Authority.
- 4.8.3 Develop a systematic approach to witness and verify that the individual system tests specified in the project documents.
- 4.8.4 Complete a final inspection to prepare a deficiency list for the Certificate of Substantial Performance and conduct an inspection prior to the issue of the Certificate of Substantial Performance.

- 4.8.5 Develop a familiarisation training plan along with orientation documents for the project's facility manager/operator, maintenance staff, security staff and the occupants.

- 4.9 Post construction and project close out services including deficiency lists. Post construction services are needed to ensure warranty obligations are discharged and that key project events and issues are documented. Activities and deliverables include:
 - 4.9.1 Review of deficiencies that may be warranty issues with the RCMP Project Authority including development of an inspection report and a validated warranty deficiency list.
 - 4.9.2 Provide a recommendation to the RCMP Project Authority to confirm when the project security can be released.
 - 4.9.3 Issue a final construction report summarizing the project's history, administration, scope, cost, schedule, quality, change orders, quality assurance, delays, dispute resolution, and key issues that arose during the execution of the project.
 - 4.9.4 Warranty period services. Conduct walk through to document warranty issues at least 30 days prior to the expiry of the warranty period and issue an inspection report with a validated warranty deficiencies list.
 - 4.9.5 As built drawings. Final drawing set including one copy "hard copy", one copy in electronic pdf and AutoCAD format that reflects fit up work completed for all disciplines.

5.0 Technical Requirements

5.1.1 General documentation:

- 5.1.1.1 Digital copies of correspondence will be in a recent version MS Office (Word, Excel), or Adobe Acrobat. Project Schedules in MS Project.
- 5.1.1.2 Construction Documents must be provided in a PDF format saved on a CD-ROM and the files organised using a consistent directory structure and naming conventions for electronic tendering.

5.1.2 Drawings:

- 5.1.2.1 All drawings produced for construction or maintenance of RCMP facilities will be digital AutoCAD .dwg format (using PWGSC National CADD standard), pdf and one hard copy format is to be provided at each stage of development.
- 5.1.2.2 Documents requiring a security clearance greater than Protected A will be transferred via a portable electronic storage media.

5.1.3 Specifications:

- 5.1.3.1 All specifications produced will use the National Master Specification (NMS) edited by the consultant in accordance with the NMS Users' Guide.
- 5.1.3.2 Use the NMS 1/3 – 2/3 page format.
- 5.1.3.3 The narrow scope sections of the NMS are to be used.
- 5.1.3.4 Specify equipment and materials consistent with government policy. Specify using an appropriate standard, and where one does not exist, use a non-restrictive performance specification or a prescriptive specification.
- 5.1.3.5 Sole Sourcing or restrictive specifications are not to be used, unless justified by exceptional circumstances. Instances of sole sourcing in specifications require the authorization of the Project Authority. These situations typically occur when only one specific material or equipment will fulfil the requirement, where specific materials are required to match existing materials, where compatible equipment or components are required to be integrated in an existing system, or in an emergency.
- 5.1.3.6 Ensure that the latest version of standards are referenced in the Specifications.

5.1.4 Estimates:

- 5.1.4.1 An indicative Estimate (Class C): is based on complete project requirements and an outline of the potential solution or on the concept stage of the design. It is intended primarily to assess the options under consideration and investment planning. Develop Indicative Cost Estimates using the Canadian Institute of Quantity Surveyors elemental cost analysis format using unit costs for each element that are appropriate for the nature of the project and its location. The expected level of accuracy of this estimate is +/- 20%, therefore should require a contingency allowance (scope, design, schedule), of 20% or less.
- 5.1.4.2 A Substantive Estimate (Class B) is based on the design development drawings and specifications. It is intended to provide a realistic project cost objective for its approval. Develop Indicative Cost Estimates using the Canadian Institute of Quantity Surveyors elemental cost analysis and trade divisional format. Provide documentation and backup for the estimates. The expected level of accuracy of this estimate is +/- 10%, therefore should require a contingency allowance of 10% or less.
- 5.1.4.3 A Pre-Tender (Class A) estimate is based on the construction documents. Develop Indicative Cost Estimates using the Canadian Institute of Quantity Surveyors elemental cost analysis and trade divisional format. Provide documentation and backup for the estimates. The expected level of accuracy of this estimate is +/- 5%, therefore should require a design contingency allowance of 5% or less. It should represent the median of the Offers received for the project.
- 5.1.4.4 The Project Authority will indicate specific Sustainable Development and Leadership in Energy Environmental Design (LEED) objectives or other sustainable development expectations the project is to achieve.

6.0 Travel

- 6.1 Travel-related expenses associated with the delivery of services will be calculated from the RCMP E Division Headquarters, 14200 Green Timbers Way, Surrey, BC V3T 6P3 or from the Consultant's Office to the project site, whichever is closer.
- 6.2 All travel related expenses within 50kms of the above location will be included in the consultant's firm price structure.

7.0 RCMP's Roles and Responsibilities:

- 7.1 The RCMP assumes the overall project management responsibilities, management and direction of the consultant's work, and when and where required, securing departmental and government approvals necessary to proceed with the project.
- 7.2 The RCMP will provide the consultant access to information that is available and pertinent such as drawings, reports, notes and correspondence that will assist the consultant in completing the work specified in the Contract. The consultant will be responsible to verify the accuracy of the information provided and inform the Project Authority of any potential discrepancies. All information and documents will be returned to the RCMP once the consultant's work is finalized.
- 7.3 The RCMP will review the consultant's work and deliverables to ensure that the project's objectives and operational requirements have been met, and that the deliverables comply with government and RCMP policies and standards. The RCMP will conduct a general review of the construction plans and specifications to ensure that these are adequate for tendering and that the project is constructible. The RCMP may also choose to review of the consultant's plans and specifications in detail for technical adequacy, accuracy, completeness, and coordination.
- 7.4 The Project Authority will provide, in a timely manner, written decisions and instructions, including acceptances and approvals relating to the services provided by the consultant. No acceptance or approval by the Project Authority, whether expressed or implied, shall be deemed to relieve the consultant of the professional or technical responsibility for the services provided by the consultant.