

City of Coquitlam

Request for Proposals RFP No. 20-08-05

City Radio System Upgrades

Issue Date: September 23, 2020

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Appendix A – Multi-Coupling RF Filter System PROPOSAL SUBMISSION FORM

	RFP No. 20-08-05
RFP Reference	City Radio System Upgrades
Overview of the Opportunity	The purpose of this RFP is to invite Proposals from qualified firms for the City Radio System Upgrades.
Closing Date and Time	2:00 pm local time Thursday October 15, 2020
	Proposals are to be consolidated into one PDF file and uploaded electronically through Qfile, the City's file transfer service accessed at <u>qfile.coquitlam.ca/bid</u>
Instructions for Proposal Submission	 In the "Subject Field" enter: RFP Number and Name Add files in .pdf format and Send (Ensure your web browser remains open until you receive 2 emails from Qfile to confirm receipt.)
	Phone 604-927-3037 should assistance be required. The City reserves the right to accept proposals received after the closing date and time.
Obtaining RFP Documents	RFP Documents are available for download from the City of Coquitlam's website: www.coquitlam.ca/BidOpportunities
Documents	Printing of RFP documents is the sole responsibility of the Proponents.
Instructions to Proponents	The guidelines for participation that will apply to this RFP are posted on the City's website: <u>Instructions to Proponents</u>
Questions	Questions are to be submitted in writing quoting the RFP number and name up to 3 business days before the Closing Date sent to email: <u>bid@coquitlam.ca</u>
Addenda	Proponents are required to check the City's website for any updated information and addenda issued, before the Closing Date at the following website: www.coquitlam.ca/BidOpportunities
Withdrawal of Submission	Proposals may be withdrawn by written notice only, made by an authorized representative of the Proponent sent to email: <u>bid@coquitlam.ca</u> prior to the Closing Date and Time.
Terms and Conditions of Contract City of Coquitlam <u>Standard Terms and Conditions - Purchase of Goods</u> Services are posted on the City's website and will apply to the Contract awarded as a result of this RFP.	

SUMMARY OF KEY INFORMATION

DEFINITIONS

"Accepted" "Approved" "Authorized" "Required" or words of similar import are used, such words refer to the approval, acceptance, requirement, or authorization of the City unless expressly stated otherwise

"ASTM" means American Society for Testing and Materials;

"City" means City of Coquitlam.

"Contract" means the contract for services or City Purchase Order that will be issued to formalize with the successful Proponent through negotiation process with the City based on the proposal submitted and will incorporate by reference the Request for Proposals, Specifications, Drawings, any additional subsequent information, any addenda issued, the Proponent's response and acceptance by the City.

"Contractor" means the person(s) firm(s) or corporation(s) appointed by the City to carry out all duties, obligations, work and services described in the Request for Proposal and all associated documentation, which may also include mutually agreed revisions subsequent to submission of a Proposal. Both "Contractor" and "Proponent" are complementary in terms of duties, obligations and responsibilities contemplated at the Request for Proposals stage, through evaluation process, execution and performance of the services and works.

"CSA" means Canadian Standards Association;

"Including" "Includes," or any variation thereof, when followed by an enumeration of items or things, in every case, are to be read as though the word "including" or "includes," or the variation thereof, was followed by the words "but without restricting the generality of the foregoing" and in no case presume that the items or things enumerated are complete or exhaustive or descriptive of the whole for which the items or things are constituent parts;

"ISO" means International Standards Organization;

"Manufacturer" means refers to the company that manufactures the components and equipment backed by a warranty against defects. They also provide recommendations on the proper application and installation methodology of their products;

"Proponent" means responder to this Request for Proposals.

"Proposal" means the submission by the Proponent.

"RFP" "Request for Proposals" shall mean and include the complete set of documents, specifications, drawings and addenda incorporated herein, and included in this Request for Proposals.

"Services" means and includes the provision by the successful Proponent of all services, duties and expectations as further described in this RFP.

"Supply" "Provide" shall mean supply and pay for and provide and pay for.

"Shall" "Must" "Will" "Mandatory" means a requirement that must be met.

"ULC" means Underwriter's Laboratories (UL);

"Work" "Works" shall unless the context otherwise requires, mean the whole of the work, tools, materials, labour, equipment, travel, and all that is required to be done, furnished and performed by the Contractor, including construction, installation, completion, protection, repair, replacement, maintain and testing of the work.

1. INTRODUCTION

1.1. <u>Project Description</u>

The City of Coquitlam ("City") requests Proposals from professional, qualified, experienced companies to upgrade the City's two-way radio system located at the Austin Public Works Service Centre, 500 Mariner Way, Coquitlam, BC.

The Work will generally include, but will not be limited to:

- Supply and Installation of a DMR radio system and associated equipment.
- Supply and Installation of DMR handheld, portable, remote, and base station radios and associated equipment and accessories.
- Programming of the above radios and systems.
- Testing and documenting the installed system.
- Training users of the system.

DMR trunking-capable radio products are often non-interoperable and non-inter changeable. Therefore, all required two-way radio products will be chosen from a single manufacturer.

At the City's sole discretion, this RFP may be used to establish a preferred Contractor should there be additional similar projects over the next 2 years.

1.2. Proposal Submission

Proponents should complete and submit the information requested in this RFP document on the Proposal Submission Form or in a format that has been approved and is acceptable to the City.

1.3. Evaluation Criteria

The criteria for evaluation of the Proposals may include, but is not limited to:

Corporate Experience, Reputation, Capacity and Resources – 50 points

- Proponent's qualifications, experience, and demonstrated performance providing services of similar size, scope and complexity
- Related work experience
- Corporate stability, financial capacity and stability
- References
- Sub-contractors

Technical – 20 points

- Methodology for delivery of services
- Test and Acceptance Plan
- Ability to comply with the stated specifications and requirements
- Key personnel proposed including qualifications, experience, education and certifications
- Proposed Project Schedule
- Ease of operation
- Maintenance requirements

Financial and Value Added – 30 points

- Total Cost
- Value Added
- Sustainable Benefits and Social Responsibility

These criteria will be used to determine best overall value to the City. Proposals will be compared to select one or more that are most advantageous.

And, upon selection of one or more lead Proponent(s):

- References may be contacted
- Interviews may be conducted

The criteria listed above will be used to determine best overall value to the City. Proposals will be compared to select one or more that are most advantageous.

The City reserves the right to check references on other projects even if they are not specifically listed. Information obtained from references will be confidential and will not be disclosed to any Proponents.

The City may, at is discretion, request clarification or additional information from a Proponent with respect to any Proposal and the City may make such requests to only selected Proponents. The City may consider such clarifications or additional information in evaluating a Proposal.

Proponents agree the City may disclose names of Proponents and total award amount, however, unevaluated results, unit prices, rates or scores will not be provided to any Proponents.

Incomplete Proposals or Proposals submitted on forms other than the Proposal Form may be rejected.

The City reserves the right to reject without further consideration any Proposal which in its opinion does not meet the criteria it considers essential for the work outlined in this RFP.

1.4. Examination of Proposal Documents

The Proponent must carefully examine the Proposal Documents. The Proponent may not claim, after the submission of a Proposal, that there was any misunderstanding with respect to the requirements and conditions imposed by the City.

There will be no opportunity to make any additional claim for compensation or invoice for additional charges that were not considered and included in the Proposal price submitted, unless the City, at its sole discretion, deems that it would be unreasonable to do so, or there are additional work requirements due to unforeseen circumstances.

All information in this RFP Document, Drawings, Specifications, Site Visit and Investigation, and any resulting Addenda will be incorporated into any Contract between the City and the successful Proponent, and therefore must be considered by the Proponent in preparing their Proposal.

1.5. Prices

Prices shall be all-inclusive and stated in (Canadian Funds). Prices shall remain FIRM for the initial one-year Term. Taxes are to be shown separately at time of invoicing. Prices shall include the provision of all tools, materials, equipment, labour, transportation, fuel, supervision, management, overhead, materials, traffic control, services, all necessary packing and crating (where applicable), Canadian Customs import and export duties, freight, handling, transportation, insurance, all other associated or related charges, foreign, federal, provincial and municipal taxes, bonding costs, all licenses, permits, inspections and all other requirements necessary for the commencement, performance and completion of Services as described.

The lowest price of any Proposal will not necessarily be accepted but will be analyzed to determine best overall value.

1.6. Eligibility

For eligibility, and as a condition of award, the successful Proponent would be required to meet or provide the equivalent:

- i. <u>City of Coquitlam requirements:</u>
 - a) Commercial General Liability (CGL) insurance \$5M coverage provided on the City's <u>Certificate of Insurance - Contractor Form</u>
 - b) Be registered and provide WorkSafeBC clearance
 - c) Accept the City's standard Terms and Conditions posted on the City's website: <u>Standard Terms and Conditions - Purchase of Goods and Services</u>
 - d) A City of Coquitlam or Tri Cities Intermunicipal Business License

These items are not required as part of this Proposal Submission but will be required prior to entering into an agreement with the City for the Services.

2. GENERAL CONDITIONS OF CONTRACT

2.1. Terms and Conditions

Award will be confirmed by issue of a City Purchase Order ("PO") incorporating the information contained in this RFP.

The City's <u>Standard Terms and Conditions - Purchase of Goods and Services</u> will apply to this Contract as a result of this RFP and are published on the City's website. The City's <u>Standard Terms and Conditions - Purchase of Goods and Services</u>, the accepted Proposal, addenda and any subsequent clarifications, correspondence, the totality of which will constitute the Contract.

All information in this RFP Document, Drawings, Specifications, and any resulting Addenda will be incorporated into any Contract between the City and the successful Proponent, and therefore must be considered by the Proponent in preparing their Proposal.

In addition, the following terms and conditions will also apply to this Contract:

2.2. Operations and Coordination of the Services

The Contractor shall agree to coordinate the execution of the Services with the City such that disruption of the work of all involved is minimized.

2.3. Hours of Work

The Contractor shall carry out the work during regular business hours.

3. SCOPE OF SERVICES

3.1. General Requirements

The Contractor is to supply, install, program, document, and otherwise perform all duties necessary to establish a fully operational DMR radio system and train City staff as described herein.

3.2. Scope of Work

Provide all materials, equipment, labour, and services necessary to complete the supply, installation, and programming of the new radio system and associated radios. Provide a comprehensive testing plan to verify the system is working correctly as well as user training and documentation.

Provide all incidental or related products or materials necessary to ensure a complete and operating system, including, but not limited to:

- Filters;
- Power supplies, power boosters, relays, AC power strips, enclosure panels and junction boxes required to make the equipment function properly as a system;
- All mounting brackets or hardware required to integrate the equipment into the surrounding work and structure;
- All software, firmware, and programming devices or special programming data cables required to make the system operate and to allow programming of all required programmable functions.
- Provide all incidental or related products or materials necessary to provide a high-level of professional quality finish to equipment racks, enclosures, and cabling. These incidental products or materials include, but are not limited to blank panels, vertical / horizontal lacing bars, cable ties, cable tie mounts, terminal plates/ blocks, 'snake-skin' cable dressing, Velcro straps, grommets, strain-relief, laser-printed cable ID labels, etc.
- Coordinate installation with other trade contractors to facilitate installation work. Extra costs arising from conflicts or delay due to improper contractor's coordination shall be the responsibility of the Contractor. The cost of close coordination with other trade contractors shall be the responsibility of the Contractor.
- Coordinate install and supply of devices with City forces so that devices can be tagged for insurance and tracking purposes.
- Provide all equipment, personnel, & resources necessary to facilitate infrastructure testing and commissioning.
- Provide for related construction requirements such as equipment storage, hoarding, evening, night or weekend work, equipment lifts or scaffolding required to complete the scope of work.
- Provide as-built documents, diagrams, manuals, test results, warranties and other documentation as specified.
- Provide radio system operation, maintenance, and installation training to City's staff as necessary.

• Supply, delivery, and installation of mounting devices and seismic restraints in accordance with local building codes and regulations and any additional requirements specified herein. Contractor shall be responsible for all costs associated with obtaining all necessary professional approvals for mounting of all devices and all seismic restraints and related shop drawings.

3.3. General Product Requirements

All products and materials to meet or exceed the published specifications of the manufacturer.

Unless otherwise specified, all products and materials to conform to the specifications and requirements of all authorities having jurisdiction at the Place of Work. These include, but are not limited to, the Underwriter's Laboratories (UL, cUL), local and provincial Building Codes, the American Society for Testing Materials (ASTM), and all applicable trade association specifications. Where there is conflict between these requirements, the more stringent requirements apply.

Unless otherwise specified, products and materials are to be:

- New, of recent manufacture, and carry full factory warranty: used, reconditioned, or repaired equipment or material is not acceptable. When allowed in the specifications, 'B'-stock or demo units are to be clearly identified as such at the time of bidding.
- The manufacturer's warranty must be valid in Canada. Products purchased from US distributors and warranties that are only valid in the US are not acceptable.
- Commercial grade (unless otherwise specified);
- Highly user friendly in operation;
- Designed to require a low level of maintenance;
- Consumables (i.e. lamps, fuse, or batteries) are to be readily available in Canada.
- Provide all AC plug strips (power bars) required to power the supplied equipment.
- Provide user licenses and passwords for all supplied software. These user licenses and passwords are to be registered under the name of the City or authorized representative.
- Compliant with all ISED labelling requirements.

3.4. Basic System Design

The DMR radio system design has been completed and VHF radio frequencies have been assigned and licensed.

The system includes two DMR radio repeaters that are co-located and connected to RF multi-coupling filters and a single shared antenna. A Sinclair filter rack (TakRak1) is already installed for the existing multi-coupling filters. A new additional TakRak1 and associated filters have been procured, which will be installed on top of the existing filter rack. The repeaters are linked via a layer 2 data switch and local area network (LAN) specific to the radio system.

The repeaters and related equipment are installed in a radio communications shelter which is located at the base of the municipally-owned 90-meter radio tower in the Austin Works

Yard. The communications shelter has available rack space and an existing 12 volt DC power supply system with a battery back-up. The site also has a generator for back-up AC power.

The repeaters operate as a single trunked radio system. This system provides four timeslots which are dynamically allocated as radio users access the system. There could be as many as ten talk groups on the system. Data and/or GPS services do not operate over the radio system.

Most of the user radios are mobile radios installed in vehicles, although there is also a significant quantity of portable (handheld) radios.

A single dispatcher console is located in the Austin Works Yard. The dispatcher may need to access any of the talk groups. The dispatcher console will use a computer and monitor dedicated to operating the radio system software. The dispatch console is linked to the repeaters via the dedicated LAN.

Other departments in the Austin Works Yard may need to access talk groups related to their operations. A mobile radio with a low transmit power of 1-5 watts acting as a base-station will be installed in each department that requires access to their talk group. Antennas for each radio will be installed adjacent to the radio – such as in the ceiling.

Departments located elsewhere, such as at City Hall, will also have dedicated radio basestations and antenna systems in those locations to access the required talk groups.

3.5. Specifications and Alternatives

Wherever the RFP states a brand name, make, name of manufacturer, trade name, or supplier catalogue number, it is for the purpose of establishing a grade or standard. It is not intended to rule out competition from equal brands or makes. If equipment other than that specified is offered, it is the Proponent's responsibility to provide information in its Proposal that enables the City to confirm equivalency and acceptance.

If the Proponent cannot meet specifications, the Proponent may identify and offer an alternative which it believes to be an equal or better alternative.

Proponents shall clearly indicate any variances from the City's specifications or conditions and attach descriptive literature.

The Motorola radio products in the tables below are understood to be suitable for the City's purposes. If Proponents would like to offer equivalent equipment that they believe will better meet the City's needs, alternate products can be proposed in addition to those specified below.

	1			
ITEM	QTY	DESCRIPTION		
1	2	Repeater - SLR 5000 with Capacity-Plus single-site license (HKVN4427); VHF 136-174MHz; 1-50 watts; DMR Tier 2 digital; with DC power cord, user manual		
2	226	Mobile radio - XPR 2500 with Capacity-Plus single-site license (HKVN4413); VHF 136-174MHz; 1-25 watts; DMR Tier 2 digital; with fused DC power cord, mounting bracket, palm microphone, microphone hang-up clip, user manual		
3	9	Fixed mobile radio (desk mounted) with power cord, desk mounting bracket, palm microphone, microphone hang-up clip, antenna, user manual.		
4	124	Portable radio – with display - XPR 3500E with Capacity- Plus single-site license (HKVN4413); VHF 136-174MHz; 1-5 watts; with antenna, Li-Ion battery 1500mAh, belt clip, battery charger and AC power adapter		
5	10	Battery charger – multi-unit rapid rate – PMPN4284		
6	1	Spare Battery for portable radio – PMNN4491		
7	20	Speaker microphone for portable radio – PMMN4071		
8	1	Dispatcher software – Motorola SmartPTT Plus or equivalent system		
9	1	Radio server/gateway software – if required - must be compatible with repeaters, LAN and dispatcher software		
10	1	Repeater Diagnostic and Control (RDAC) software		
11	1	Repeater programming and interface cables		
12		Extended warranty for repeater – state standard warranty information separately		
13		Extended warranty for mobile radio – state standard warranty information separately		
14		Extended warranty for portable radio– state standard warranty information separately		

a) Radio System Accessories:

Generic accessories are required to support any manufacturer's radio system. The accessories are listed in the table below.

The City has procured two new Sinclair C2O27 VHF Multi-coupling filters (see Appendix A) as well as one Sinclair Technologies filter rack (TakRak1) for use in the system.

Proponents are to provide the manufacturers name, specifications and applicable warranty for each of the proposed products as a separate document.

ITEM	QTY	DESCRIPTION			
1	1	Industrial data switch – layer 2 (minimum); with 12 volt DC input; 8 ports (minimum) 10/100Base-TX; 1 SC/ST fiber port			
2	6	Cat.6 data patch cords – 7 foot			
3	6	DC power supply – desktop model; 12 volt DC, 10 amp			
4	6	Antenna for interior mount – wide-band ¼ wave VHF 154-173MHz with suitable ground plane; minimum 17 foot RG-58 cable kit with BNC-male connector			
5	1	Replacement whip antenna for vehicle hood mount – NMO base; wide-band VHF ¼ wave 154-173MHz			
6	1	Vehicle specific antenna hood mount bracket for Ford F150-F450 series; fits under fender bolt - no drilling; ¾ inch antenna mounting hole			
7	2	Rack shelf – 1U for 19 inch rack			
8	2	Rack shelf – 2U for 19 inch rack			

For multi-coupling RF filter system design please see <u>Appendix A - Multi-Coupling RF Filter</u> <u>System</u>.

3.6. Product Alternates and/or Substitutes

Reference Manufacturers & Products:

- Reference manufacturers and/or products are described herein as a minimum reference performance.
- Sole Source Manufacturers & Products:
- Where detailed in the specification documents Sole Source manufacturers and products must be used within the Pricing Submission.

During the RFP phase, the Proponent is responsible for ensuring that proposed product alternates and/or substitutes meet and/or exceed the published performance specifications.

The City reserves the right to request samples of equipment and a fully operational demonstration of all equipment being offered. These would be provided at no cost to the City.

If the Contractor substitutes any product without written permission, he shall be responsible for costs associated with supplying and/or installing products that will meet or exceed the specifications.

3.7. Sequence and Scheduling

The following timeline of installation is based on the proposed installation schedule as it is known to date. It is the responsibility of the Contractor to coordinate scheduling of all aspects of the system installation with the City and to confirm the exact date of completion. The expected schedule is as follows:

- Repeater and system installation: Completed December 17, 2020.
- Testing and initial training: Completed within 5 business days of system installation.
- Programming and deployment of radios to initial team (approximately 13 mobile and 14 portable radios): Completed January 15, 2021.
- Remaining programming, deployment, and training: Completed by end of June, 2021.
- Submission of manuals and documentation: within 20 business days of Substantial Completion.

The Contractor shall accommodate changes in the base schedule if they should occur. If these changes will affect any of the above-mentioned deadlines, the Contractor shall immediately notify the City in writing.

Accomplish the majority of the Work during normal working hours, starting in the morning. Confine off-hours work to additional hours required to complete the Work to the agreed upon schedule.

The Contractor will be granted access to the site from 0700H to 1600H, five days a week. Upon request, the City may grant the Contractor additional access as required. Weekend and extended access must be pre-arranged with the City's Representative at least two working days in advance. Costs for opening and closing rooms out of standard operating hours will be borne by the Contractor.

3.8. **Qualifications**

The Contractor is to have been regularly engaged in the supply and installation of radio equipment similar to that specified herein for a minimum period of five years.

All products specified and supplied in this project must be sourced through manufacturers authorized distribution channels. The Contractor must be authorized by the manufacturer or manufacturers approved distribution channels to supply, install and service products specified or approved for use in this project. Upon request, the Contractor shall show proof of a contractual relationship with the manufacturer or manufacturers authorized representative to supply service and /or provide warranty service and shall submit the manufacturer's certification to City and/or the City's authorized representatives. Verification shall be specific to this job and generic (To Whom It May Concern) letters may not be deemed as acceptable verification. The Contractor shall be responsible for all costs associated with the supply of required equipment through authorized supply channels and shall be fully responsible for all costs related to warranty issues of product.

The Contractor must have been regularly engaged in service and maintenance of radio equipment and systems similar to that specified herein for a minimum period of five years.

The Contractor shall have a service facility with dedicated service staff, and agree to maintain such facility for the duration of the Warranty Period.

Contractor is to submit a list of 3 recent projects of similar scope and size complete with references. Project information is to include a listing of the Contractor's team members that worked on the project.

Contractor is to provide a listing of all such staff members that will be directly involved in this project including:

- Job title and resume of each team member (no more than two pages each);
- A list of projects that each team member has worked on;
- Copies of all relevant certification and diplomas.

Perform all work using fully competent workers in a neat, thorough, and professional manner, in accordance with Standard Industry Practice and manufacturer's installation instructions. Where these may vary, one from the other, follow the more stringent requirements.

Contractor shall designate a full-time, qualified representative to supervise all on-site work, including that of sub-contractors.

Comply fully with the following instructions, acts, regulations and codes, and if the requirements of one act, regulation or code are more stringent than similar requirements under another act, regulation or code, then the more stringent requirements are to apply:

- International Building Code (IBC) and all local building codes in effect at the Place of the Work;
- National Fire Protection Association (NFPA) and all local fire codes in effect at the Place of the Work;
- Canadian Electric Code and any other applicable electrical codes.

3.9. <u>Regulatory Requirements</u>

Contractor shall comply with the latest British Columbia Building Code, and Canadian Electrical Code, including all provincial and other amendments, and local by-laws. When multiple codes and/or regulations apply, follow the most stringent provision:

- Canadian Electrical Code;
- BC Electrical Safety Act;
- British Columbia Building Code;
- British Columbia Fire Code Regulation;
- Municipal Building Codes and By-Laws;
- Worker's Compensation Act;
- Industry standards TIA, EIA, BICSI.

3.10. Permits, Fees, Taxes and Inspections

Prior to execution of work, the Contractor shall obtain all necessary permits and licenses for compliance with Federal, Provincial and Municipal laws and regulations.

The Contractor shall be responsible for all permit, inspection and re-inspection fees.

The Contractor shall pay for all associated taxes.

3.11. Payment for Services by Others

Where, in the specifications, Contractor is required to arrange with others to have certain services carried out, or to have certain services performed, the Proponent shall allow for these in their Proposal and pay for any costs involved. (e.g the payment to the City for transfer of manual drawings to electronic CAD format).

3.12. Contractor Responsibilities

Starting Work shall imply that the Contractor has verified all items and found them to be correct. Additional costs arising out of any subsequent rectifications shall be borne by the Contractor.

Co-ordinate work with other trades people in an efficient and harmonious manner.

Take whatever measures are required to protect new and existing equipment from damage due to dust contamination or construction work activity, to the satisfaction of the City.

The Contractor is responsible for ensuring the infrastructure is not damaged during the installation process (i.e. improperly supported cable bundles).

3.13. Project Meetings

When requested, the Contractor shall attend coordination site meetings with the City.

3.14. Delivery, Storage, and Handling

All materials and equipment shall be new. Deliver and store materials in original, unopened packaging. Assume all packing, transportation, and insurance costs.

All packaging material must be removed from site at the Contractor's expense.

Ensure that all equipment and materials delivered to the site are received in writing by the Contractor. The City and the City are not authorized to sign for receipt of goods.

Store materials in a safe and secure location, and protect against damage. Coordinate storage requirements with the City.

Any equipment that is mounted on the floor, ceiling, and walls during the construction stage shall be protected from dust, dirt, and accidental breakage due to activity by other trades. All other equipment that does not need to be mounted ahead of time shall be mounted during the finishing stage of the Work.

3.15. Coordination on Site

Coordinate and cooperate with other trades for timely accomplishment of installation including supply of special materials, rough-in information, and sequencing of work. Pay particular attention to the impact of the work of others that acceptance of an alternative product may create.

Coordinate and cooperate with other trades for timely accomplishment of system interfacing including supply of special materials, physical connections, testing, and adjusting.

Coordinate and cooperate with other trades for space needs and other needs to result in assemblies that are well integrated into the surrounding work.

The Contractor shall advise the City of any specific equipment, materials or installation that are non–conforming with laws, by-laws or regulations of authorities having jurisdiction.

Immediately upon discovering any apparent conflict between the specifications and the drawings, or between two drawings, report the discrepancy to the City for direction before proceeding with the affected work.

When requested, Contractor shall attend coordination site meetings with the City.

Coordinate with City to avoid disruption of business.

3.16. Progress Claims

Progress claims shall be made once per month and shall only cover labour for current month and for equipment which has been delivered to site.

	Contract Amount	% Comp	% Prev	Amount in Place	Previous Amount	Due This Period	Cost to Complete
Contract V alue	\$1,000.00	10.00%	1.00%	\$100.00	\$10.00	\$100.00	\$ 890.00
Change Orders	\$2,000.00	10.00%	1.00%	\$200.00	\$20.00	\$200.00	\$0.00
Sub Total	\$3,000.00			\$300.00	\$30.00	\$100.00	\$890.00
Total	\$3.000.00			\$300.00	\$30.00	\$100.00	\$890.00
				DEFICIENCY H	OLDBACK	\$10.00	

Progress claims shall be submitted per the example shown in table below:

3.17. Closeout Submittals

There will be a \$10,000.00 holdback which will be released upon submission and approval of all closeout documents.

Note that multiple copies of the following may be required from the Contractor.

Project Record Drawings including, but not limited to:

- Equipment rack layout drawings;
- Wire run lists showing all cables identified by the actual designations affixed to each cable;
- Pin-out schedules or diagrams for all special-purpose connectors;
- "As-built" mechanical and layout drawings of custom-fabricated panels or boxes.

The Contractor shall submit to the City for approval two (2) printed copies and two (2) electronic copies on USB flash drive an electronic version of each of the above drawings in AutoCAD 2012 or newer .DWG files as well <u>as full-size versions in Adobe Acrobat PDF format</u>.

<u>Operations Manual</u> consisting of one or more permanent binders sectioned by tabs and a minimum of two (2) electronic copies on USB flash drive containing:

- Special operational instructions for the system as a whole (e.g.: startup/shutdown procedures); provide typical procedures to activate each major system function;
- Copies of manufacturer's operating manuals for each unique piece of installed equipment or software;
- Brief operating instructions for any custom-fabricated equipment;
- A manufacturer's warranty certificate for each unique piece of equipment; if warranties are required to be registered, supply a warranty registration form for each piece of equipment to be registered; failure to provide warranty registration materials, at a minimum, binds the Contractor to the same terms and conditions as the manufacturer would have had to meet had the warranty been registered; this in no way reduces any other warranty obligations of the Contractor under the Contract.

<u>Maintenance Manual</u> consisting of one or more permanent binders sectioned by tabs and a minimum of two (2) electronic copies on USB flash drive containing the following separated sections, in order:

- A table of contents;
- Contractor data consisting of a page listing names, addresses, phone and fax numbers, and any other relevant contact information, for both the Contractor and the City;
- A copy of this specification;
- A copy of all documents modifying the specification (e.g.: addenda, site memos, relevant correspondence, Change Orders, etc.); bind these in date order from earliest to latest;
- Overall system schematics; if the originals are large drawings, reduce them to one or more 'A'-size drawings to fit into the binder;
- Equipment list in excel format, broken down by system and room location for each line item, show the quantity provided, the manufacturer's name, the full model number, the device serial number, the location of the device and a brief functional description (e.g.: "multi-coupling filter"); this list should logically follow the overall system flow diagrams when read from left to right, first page to last;
- A list of consumables (e.g.: lamps, fuses, or batteries) required to keep the system operating over time, along with sources of supply (if not readily available);
- A recommended maintenance schedule followed by preventative maintenance and user-maintenance procedures, along with details on how to obtain service; include copies of sections from the applicable manufacturer's product manual's maintenance sections, along with any other maintenance procedures recommended by the Contractor; clearly highlight any maintenance procedures required by the manufacturer to keep the manufacturer's warranty in force; include a troubleshooting guide detailing the more common malfunctions;
- Final settings of set-up and alignment controls that are located in electronic program files in software or internally in devices such as DSP or control system devices shall be supplied in the final closeout documentation. Contractor shall

supply PDF files that display internal settings of devices. Pictorial representation of signal flow hookup will not be deemed sufficient and files shall include internal routing and final device settings. i.e. if the DSP file has a mixer or equalizer the PDF shall show all settings on the device(s).

- All user IDs, account names, passwords, software license keys and security codes associated with all equipment or software.
- A table of all networked devices to show network settings and addressing. This includes but is not limited to: device name, MAC address, IP address, subnet mask, and gateway. Provide MS Excel-compatible spreadsheet file in electronic manual.
- Schematic drawings of any custom-fabricated equipment; schematic drawings showing all modifications to off-the-shelf equipment.
- Programming information for all radios, repeaters, and other programmed equipment.

3.18. Testing & Commissioning

The Contractor is responsible to request a time for substantial completion review of systems and devices. System request for substantial completion review is based on a complete test of all systems and devices as detailed in the drawing and written specifications that have been completed by the contractor as part of their internal test and confirmation process. As part of the request for confirmation the contractor must submit a site test and verification report for the repeater system detailing confirmation of system operation and test verification of all inputs, outputs and system interconnections.

All on-site tests are to be conducted in the presence of the City who may suspend or discontinue testing at any time if performance is unsatisfactory. Additional testing will be resumed when corrective action has been performed and request for testing has been submitted. Any additional costs incurred as a result of failed testing are the responsibility of the contractor.

Contractor shall provide all programming for full functionality. During commissioning, allow for coordination and possible modifications of the programming.

At the time of substantial completion review if systems are deemed to not be complete the test shall be cancelled and re-scheduled. Costs for re-scheduling and substantial completion review will be charged to the Contractor at a minimum rate of \$600 per visit. Costs for review shall be paid for from project deficiency and holdbacks.

Declaration of substantial performance is at the discretion of the City and City.

Contractor must allow for up to two (2) return visits for programming and modifications at no additional charge to the City.

3.19. Training

The Contractor is responsible for establishing a training plan and providing initial training to users and administrators of the system.

Training will consist of a train-the-trainer approach to reduce the number of staff needing to be trained by the Contractor.

3.20. Warranty

Warrant all supplied products, regardless of manufacturer, for a minimum of one year on parts and one year on labor without limitation other than those stated herein. This warranty is to apply to all equipment malfunctions not caused by abuse or misuse by the City or their agents. This warranty is to include all equipment modified by the Contractor, as well as, the modifications themselves.

Warrant all supplied software and firmware, regardless of manufacturer, for a minimum of one year without limitation other than those stated herein. During this period, provide all major updates and upgrades at no cost, whether normally charged for by the manufacturer or not.

Warrant the installation work for a minimum of one year on parts and one year on labor without limitation other than those stated herein. This warranty is to apply to all malfunctions directly attributable to faulty installation work or materials.

Warrant all supplied software and firmware, regardless of manufacturer, for a minimum of one year without limitation other than those stated herein. During this period, provide all major updates and upgrades at no cost, whether normally charged for by the manufacturer or not.

Warrant control system programming for a minimum of one year on labor without limitation other than those stated herein. This warranty shall apply to all bugs, glitches, or other program malfunctions directly attributable to programming errors. This does not include adding features after the final programming changes have been made (i.e.: changes made after the first month or two of full operation). This also does not apply to any programming changes made by third parties or by the City.

Begin the warranty period upon substantial completion of work or first beneficial use of system, whichever occurs first.

If any manufacturer's existing warranty on any supplied product is less than the terms specified herein, is prorated, or has limitations, extend the manufacturer's warranty to meet the requirements stated herein. Assume all costs associated with such warranty extension.

In the event that any manufacturers' warranties are for a longer term than specified herein, ensure that all such warranties are fully transferred to the City. Transfer of any warranty to the City must not, in any manner, diminish the Contractor's responsibilities as stated herein.

Submit manufacturer's warranty certificates and registration forms as required under the "CLOSE-OUT SUBMITTALS" article.

Nothing in any of these warranties is to limit any rights or remedies the City may otherwise have under the Contract with respect to defects in material and workmanship.

3.21. Final Acceptance

Final Acceptance shall be granted upon resolution of deficiencies (if any) resulting from the Substantial Performance Review. In addition, the following stipulations must be met:

- The Contractor shall supply to the City a complete report of positive test results for approval and system acceptance.
- Submit to the City, certificate stating that system is fully operational; and that meets all standard requirements as instructed in the contract documents and as required.
- Provide manufacturer's warranty certification or application documents as specified.

Provide all requirements as specified under the article "Close out Submittals".

3.22. Seismic Restraint

Where necessary, obtain the approval of a professional engineer for drawings that detail the installation of suspended overhead and wall mounted equipment and, or floor/wall mounted equipment racks and seismic restraints. Provide these drawings as part of the shop drawings and your Closeout Submittal. The cost of this professional service shall be included in the quotation amount.

3.23. Protection

During the installation phase, protect finished or unfinished work against damage or loss. In the event of such damage or loss, immediately replace or repair such work or equipment at no cost to the City.

3.24. Damage

Where existing structure, grade or pavement is required to be removed, altered or otherwise defaced to facilitate the installation, it will be Contractor's responsibility to arrange for such work.

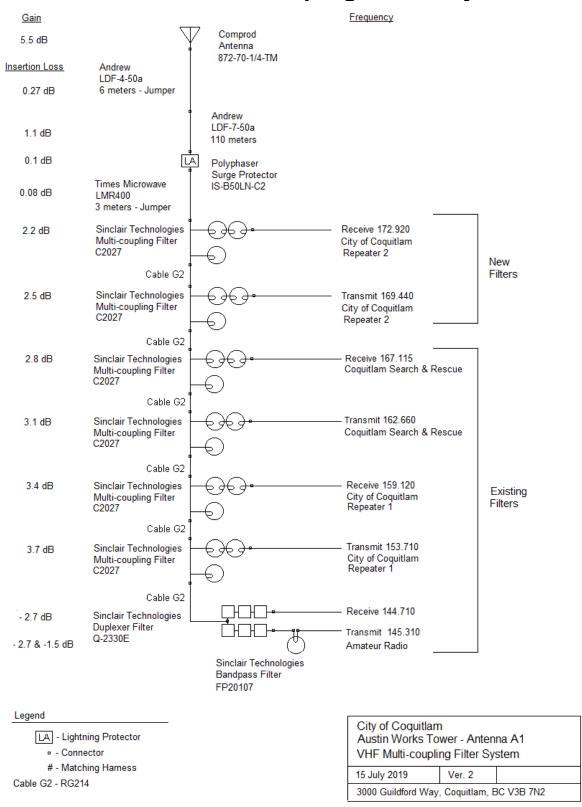
Any equipment, structure, pavement or grade damaged by the execution of this Contract will be repaired to its original condition. Any cost incurred for such work shall be at cost to Contractor.

Irreparably damaged equipment; structures, walls, surfaces etc. shall be replaced at cost to Contractor.

If the finish of new equipment, structures, walls, surfaces etc. is damaged by the contractor, the Contractor, at the discretion of the City, shall either replace or restore the equipment, structures, walls, surfaces etc. to its original condition by re-spraying, refinishing, etc., at no cost to the City.

Openings and cut-outs shall not be burned into panels. Oversize openings shall not be patched up with loose plates or oversize washers. Oversized openings will be considered damage to the equipment and are to be treated as specified above.

The Contractor shall use extreme care when working near existing services and any services disturbed will be replaced at his cost to the satisfaction of the City.



APPENDIX A – Multi-Coupling RF Filter System



City of Coquitlam REQUEST FOR PROPOSALS RFP No. 20-08-05

City Radio System Upgrades

Proposals will be received on or before 2:00 pm local time on:

Thursday October 15, 2020

(Closing Date and Time)

INSTRUCTIONS FOR PROPOSAL SUBMISSION

Proposal submissions are to be consolidated into one (1) .pdf file and uploaded electronically through QFile, the City's file transfer service accessed at website: <u>afile.coquitlam.ca/bid</u>

- 1. In the "Subject Field" enter: RFP Number and Name
- 2. Add files in .pdf format and Send (Ensure your web browser remains open until you receive two emails from Qfile to confirm upload is complete.)

Proponents are to allow ample time to complete the Proposal Submission process. If assistance is required phone 604-927-3037.

Proposal Submission Form

Complete and return this Proposal Submission Form

Submitted by:

(company name)

1. <u>PRICE</u>

All service provided is to be in accordance with all governing regulatory authorities within the City of Coquitlam.

Pricing is to be stated in Canadian funds and held firm for the completion of the work. Pricing provided should be inclusive of the specific labour, materials, tools, equipment, transportation, fuel, supervision, disposal fees, incidentals and any other items required for completion.

Pricing is to exclude GST.

1.1. Pricing – Equipment

(PST applicable YES \Box NO \Box)

Motorola:

Item	Qty	Description	Unit Price	Extended Price
1	2	Repeater - SLR 5000 with Capacity-Plus single-site license (HKVN4427); VHF 136-174MHz; 1-50 watts; DMR Tier 2 digital; with DC power cord, user manual		
2	22 6	Mobile radio - XPR 2500 with Capacity-Plus single-site license (HKVN4413); VHF 136-174MHz; 1-25 watts; DMR Tier 2 digital; with fused DC power cord, mounting bracket, palm microphone, microphone hang-up clip, user manual		
3	9	Fixed mobile radio (desk mounted) with power cord, desk mounting bracket, palm microphone, microphone hang-up clip, antenna, user manual.		
4	12 4	Portable radio – with display - XPR 3500E with Capacity- Plus single-site license (HKVN4413); VHF 136-174MHz; 1-5 watts; with antenna, Li-Ion battery 2100mAh, belt clip, battery charger and AC power adapter		
5	10	Battery charger – multi-unit rapid rate – PMPN4284		
6	1	Spare Battery for portable radio – PMNN4491		
7	20	Speaker microphone for portable radio – PMMN4071		
8	1	Dispatcher software – Motorola SmartPTT Plus or equivalent system		
9	1	Radio server/gateway software – if required - must be compatible with repeaters, LAN and dispatcher software		
10	1	Repeater Diagnostic and Control (RDAC) software		

11	1	Repeater programming and interface cables	
12		Extended warranty for repeater – state standard warranty information separately	
13		Extended warranty for mobile radio – state standard warranty information separately	
14		Extended warranty for portable radio– state standard warranty information separately	

1.2. Pricing – Accessories

(PST applicable YES \Box NO \Box)

Item	Qty.	Description	Unit Price	Extended Price
1		Industrial data switch – layer 2 (minimum); with 12 volt DC input; 8 ports (minimum) 10/100Base-TX; 1 SC/ST fiber port		
2	6	Cat.6 data patch cords – 7 foot		
3	6	DC power supply – desktop model; 12 volt DC, 10 amp		
4	6	Antenna for interior mount – wide-band ¼ wave VHF 154-173MHz with suitable ground plane; minimum 17 foot RG-58 cable kit with BNC-male connector		
5	1	Replacement whip antenna for vehicle hood mount – NMO base; wide-band VHF ¼ wave 154-173MHz		
6	1	Vehicle specific antenna hood mount bracket for Ford F150-F450 series; fits under fender bolt - no drilling; ¾ inch antenna mounting hole		
7	2	Rack shelf – 1U for 19 inch rack		
8	2	Rack shelf – 2U for 19 inch rack		

Item	Qty	Description	Unit Price	Unit of Measure
1	1	Install repeaters and related components, program, test and commission		Lump Sum
2	1	Install TakRak1, multi-coupling filters and RF cabling		Lump Sum
3	1	Install dispatcher and radio server computers, related devices and software; program, test and commission		Lump Sum
4	1	Per unit - Install mobile radio into vehicle – remove old radio and mounting bracket; install new mounting bracket and radio, connect to existing DC power cable and antenna		Per Unit
5	1	Per unit – Install mobile radio into vehicle without a previously existing radio; install mounting bracket, radio, antenna, and connect to DC power.		Per Unit
6	1	Per unit – install fixed mobile radio at desk, install antenna in a suitable location and connect radio to antenna.		Per Unit
7	1	Per unit - programming fee for mobile and portable radios		Per Unit
8	1	Fee to develop radio talk group plan and programming files		Lump Sum
9	1	Fee to train City employees for system use		Lump Sum

1.3. Pricing – Installation, Programming and Documentation

1.4. Pricing - Extra Materials, Spare Parts and Consumables

Proponent is to provide a list of spares and consumables, along with recommended quantities, unit price and expected life span of each spare part and consumable:

Description	Quantity	Unit Price	Expected Life Span

2. PROPOSED ALTERNATE EQUIPMENT/ NO PRE-ACCEPTED PRODUCT SPECIFIED

For any proposed alternate product from what is specified or where there isn't a product specified, the Proponent is to state the proposed product, including which specified product they propose an alternative product to, where applicable, and provide make and model, manufacturer's specification sheets, functional descriptions and any other supporting information to help the City to determine if the product meets or exceeds the specifications or in the absence of a specification, to help the City evaluate the equipment proposed:

Specified Product Description	Alternate Product Proposed	Alternate Product make and Model	Supporting Documentation included/ attached to Proposal submission (Yes/No)

3. TECHNICAL SPECIFICATIONS AND DESCRIPTION - NON SPECIFIED EQUIPMENT

Proponent is to provide a description and technical specifications of all significant equipment, wiring or features deemed by the Proponent to be necessary to the function and operation of the system, but not specified in the RFP (use the space provided and/or attach additional pages, if necessary):

4. SYSTEM ENHANCEMENTS

Proponent is to state recommendations that will enhance the system performance or provide cost savings, without the loss of performance or features. Proponent is to provide a complete description of the recommendations, along with technical specifications and a detailed breakdown of costing. Proponent is to indicate whether the recommendations increase, decrease or do not affect the pricing state in the Proponent's Proposal submission (use the space provided and/or attach additional pages, if necessary):

	Recommendations		Price of Enhancement	Technical Specifications attached (Yes/No)
.1				
.2				
.3				
.4				
.6				
Applicable I Table	Pricing	Price increase – state	Price decrease - state	No change in Price – state
1.1 Pricing - Equipment				
1.2 Pricing – Installation , Programming and Documentation				

5. **DEPARTURES**

Fully describe any deviations outlined in Section 2 General Conditions that your company is unable to comply with.

6. <u>COMPANY PROFILE</u>

- **1.** Proponents is to provide information on the following (use the spaces provided and/or attach additional pages, if necessary):
- i. Company name, years in business and any other name(s) Proponent is, or has been doing business under

ii. Location of head office, branches, background, stability, structure of the Proponent

iii. Proponent's relevant experience and qualifications in delivering Services to those required by the RFP in the last 5 years:

iv. Proponent to provide chart of organizational structure as this relates to the proposed team members that are to be assigned to perform the Services, including the Proponent's internal reporting structures

7. KEY PERSONNEL

The following are the Proponent's key personnel proposed for use on this project. Include relevant experience, qualifications, certification, roles, resumes, responsibilities and availability for this project.

Name	Position	Qualifications	Years of Relevant Experience	Resume Attached (Yes/No)

8. <u>REFERENCES</u>

Proponents shall be professionally qualified to perform the services required and have successfully completed recent Radio Upgrades/Installation projects similar in size, scope and complexity. By submission of a Proposal, Proponents agree the City may verify successful completion of work. Information obtained from references may not be discussed or disclosed to any Proponents.

Description of Contract or Project	
Year Started	
Year Completed	
Company	
Contact Person	
Telephone and Email	
Contract Value	

Description of Contract or Project	
Year Started	
Year Completed	
Company	
Contact Person	
Telephone and Email	
Contract Value	

Description of Contract or Project	
Year Started	
Year Completed	
Company	
Contact Person	
Telephone and Email	
Contract Value	

9. METHODOLOGY

Summarize the key features of your Proposal and the Technical Approach to be used. Provide a brief description the various components required for successful completion of the work.

Delivery, set-up and execution of the work - Proposals should address the plan for the delivery, set up and execution of the work; as well as the disposal, recycle or reuse for the surplus materials.

Quality Assurance - Provide the measures the Project Manager will use to maintain quality control at the worksite to completion of the project. Proponent is to include historical project diagrams, system record drawings and/or proposed drawings for what is being requested within this RFP.

Risk Factors - Describe the risk factors anticipated and how the Proponent intends to mitigate these.

Safety – Proposal is to provide how the Proponent would address safety on the work site.

Test and Acceptance – Provide the methodology as to testing and acceptance phase of the project.

Delivery, set-up and execution
Quality Assurance
(Historical project diagrams, system record drawings and/or proposed drawings are attached to the Proponent's Proposal submission - Yes □)
Risk Factors
Safety
Test and Acceptance

10. WORK SCHEDULE

The Proponent is to provide a sample project schedule, including key milestones. Proponent is to demonstrate they understand the project requirements and have the capability to complete the project within the timelines stated in the RFP:

Dates are subject to any delays approved by the City.

Work Schedule Dates			
	Activity	Start Date	Completion Date
a)			
b)			
c)			
d)			
e)			
f)			
g)			
h)	Project Completion		

11. SUB-CONTRACTORS

The Proponent is to provide information on the background and experience of all sub-contractors proposed to undertake the Services.

The Contractor is responsible for all work on this project and confirms that subcontractors are identified and will comply with all terms and conditions of the RFP:

Sub-Contractor	Services Performed	Experience and Qualifications	Supporting Documentation attached (certifications, qualifications etc.) (Yes/No)

12. VALUE ADDED

Provide information on what makes your firm innovative, what is your competitive advantage, and what other services your firm provides that would assist or be of benefit to the City:

13. SUSTAINABLE BENEFITS AND SOCIAL RESPONSIBILITY

13.1. Sustainable Benefits

Describe all initiatives, policies, programs and product choices that illustrate your firm's efforts towards sustainable practices and environment responsibility in providing the services that would benefit the City:

13.2. Social Responsibility

- a) What policies does your organization have for hiring apprentices, indigenous peoples, recent immigrants, veterans, young people, women, and people with disabilities:
- b) What policies does your organization have for the procurement of goods and services from local small and medium sized business or social enterprises:

14. HEALTH AND SAFETY PROGRAM

a) Confirm the proponent has a written safety program in place that meets the requirements of WorkSafeBC.

YES D NO D

b) Is your company COR (Certificate of Recognition) certified with respect to WorksafeBC?

YES 🗆 🛛 NO 🗆

15. ADDENDA

We acknowledge receipt of the following Addenda related to this Request for Proposals and have incorporated the information received in preparing this Proposal:

Addendum No.	Date Issued

16. AUTHORIZATION

We hereby submit our Proposal for the supply and services as specified and undertake to carry out the work in accordance with all Regulations and Codes, applicable to this RFP.

We agree to the rules of participation outlined in the <u>Instructions to Proponents</u> and should our proposal be selected, will accept the City's contract: <u>Standard Terms and Conditions - Purchase of</u> <u>Goods and Services</u>

The signature is an authorized person of the organization and declares the statements made in their submission are true and accurate.

For the purpose of this RFP submission, electronic signatures will be accepted.

Company Name:	
Address:	
Phone:	
GST Registration No.:	
Project Contact: Name and Title of Individual <i>for</i> <i>communication related to this RFP</i> (please print)	
Contact Email:	
Name & Title of Authorized Signatory: (please print)	
Signature:	
Date:	