

### **Lift Station Controls**

Opportunity description:

The existing lift station comprises of an underground holding tank and three above ground pumps that pump waste water to the treatment plant. Two pumps are required to run together in series for pumping to the treatment plant. Level is measured in the tank with a Milltronic level system with ultrasonic sensor. This level is sent to the PLC via 4-20 ma signal. The pumps are turned on/off by level set points in the Milltronics. Hi and low level alarms are also setup in the Milltronics. Data is send from the PLC to the treatment plant where it is displayed on the VT SCADA system. Alarms are sent out by the VT SCADA system.

The existing controls system has two PLC's. A SLC 5/03 and a DirectLogic 06. The SLC is the main PLC and the Direct Logic is mainly for sending level VFD speed and some alarms to the VT SCADA. The purpose of this upgrade is to upgrade the obsolete PLC's

to one new PLC.

Closing date and time:

Please respond before 3:00 pm Pacific Time on September 18, 2025. All submissions

must be received prior to the Closing Date and Time.

Submit bid

Village of Nakusp

to:

PO Box 280

91 1<sup>st</sup> St NW

Nakusp, BC VOG 1R0

Attention: Mark Tennant, Director of Finance

Alternatively, submissions may be made through BCBid

Contact for

Cavan Gates – operations@nakusp.com

questions:

Any questions should be submitted in writing. Enquiries and responses will be

recorded and may be distributed to all bidders at the Village's discretion.

How to respond:

Please respond by completing the quotation and signatory pages. Prices quoted are to be exclusive of GST. Quotes are to be FOB destination including all delivery charges. Original and one (1) complete copy of a bid in an envelope plainly marked "2025-RFQ-07" may be hand delivered, couriered, or mailed. Alternatively, submissions may be

made through BCBid.

Delivery

96 8th Ave SW, Nakusp, BC VOG 1R0

location: Addenda:

Should a correction be necessary or should additional information become available during the Request for Quotation process, it may be distributed in the form of an addendum. The Village of Nakusp assumes no responsibility for notifying individual bidders of the existence of addenda. It is the sole responsibility of the bidder to ensure it has obtained, prior to the closing, any addenda issued by the Village of

Nakusp.

**Issue Date:** 

August 22, 2025



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### **Specifications**

Bids not clearly demonstrating they meet the mandatory requirements will receive no further consideration. The Bidder must identify where an equivalent material or product is to be used in place of the specification. The Bidder should include how their alternative compares or exceeds the specified materials or product in the explanation column.

### 1.1 Lift Station Context









#### 1.2 **PLC**

- Remove existing SLC 5/03 PLC and replace with a Micrologix 1400 L32AWAA and with the following I/O expansion modules. One (1) 1762-IF2OF2, two (2) 1762-OW16 and three (3) IA8 modules.
- Remove existing DirectLogic 06 PLC. Remove all I/O wiring and move 4 analog inputs to new PLC.
- Wire new Micrologix PLC to the existing control panel I/O terminals. Supply fused power to the Micrologix PLC.
- **Programming** The new PLC must be programmed with the same control function as the SLC and the DirectLogic. The addressing for the new I/O will need to change so the new I/O.
- All new PLC I/O wiring must have the I/O number labelled on both ends of the wire.
- Remove all alarm lamps on the right hand door of the controls enclosure. (High level alarm, Low level alarm, Phase loss, loss of echo, P1 &P2 sequence fault, P2 &P3 sequence fault, P1 &P3 sequence fault, Fuse F20 blown, P1 high temp, P2 high temp, P3 high temp and alarm silence/reset. All these alarms must be put on the new HMI as well as an alarm reset.



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- SCADA program for the lift station will need to be changed to accommodate the new PLC protocol and addressing.
- All other programming required for complete functionality (may be submitted as estimated hours and hourly rates).







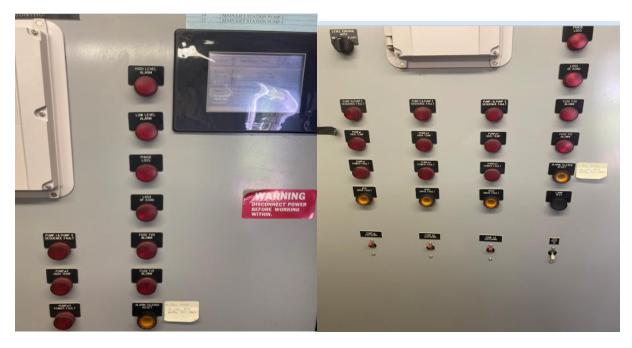


#### 1.3 HMI

- Remove existing 6" HMI and replace with new 12" c-more HMI (EA9-T12CL). The enclosure cut out from the 6" must be expanded to fit the new 12" HMI.
- Ethernet cables from the new HMI and PLC must be connected to the existing Ethernet switch.
- The new HMI must show the Tank level and pump conditions and must be displayed to look like the existing VT SCADA screen. It must also show the locations of the tank floats and status.
- Pump Start/Stop level set points must be removed from the Milltronics and added to the new HMI.
- The new HMI must have trending screens to show level, flow and pump running.
- Pump hours must also be displayed on the HMI.



### **Lift Station Controls**



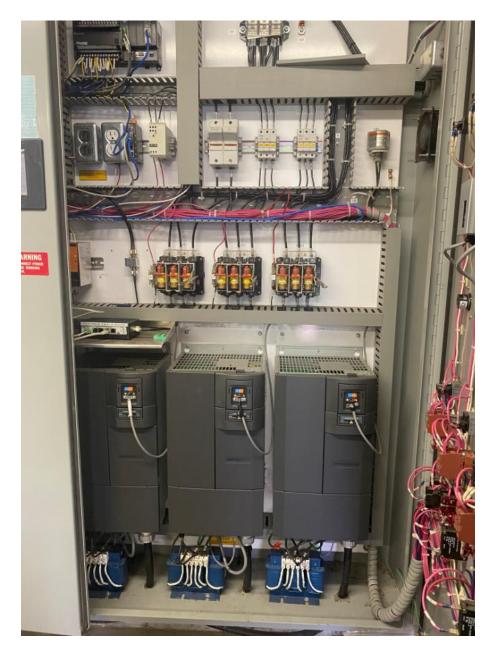
#### 1.4 **VFD's**

- The three (3) existing VFD's must be removed and replaced with three (3) new Yaskawa Nema 1 P1000 VFD's (CIMR-PU5A0027FAA).
- Replace existing control enclosure panel mount VFD interfaces with new Yaskawa interface screens. All other buttons and switches on the right hand side of the enclosure will remain as is.
- The existing VFD's have signals going to and from the PLC. They are as follows; Run and Fault input signal (to PLC), VFD analog speed ref signal (to PLC), and Run signal (to VFD).
- Commission and program VFD's.
- Reuse existing reactors.
- The exhaust venting in the enclosure must be upgraded as well. An 8"x 8" filtered vent must be installed on the left lower side of the enclosure. An 8"x 8" exhaust fan must be installed on the top right side of the controls enclosure. This must run whenever there is power to the panel and be fused accordingly.















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### 1.5 Flowmeter - Option

The pumps have a 6" PVC sch 80 pipe leaving from them heading to the treatment plant. On the out feed of the pumps there is about a 3.5 ft. section of straight horizontal pipe where a Mag flowmeter could be easily mounted. A Toshiba LF654 (place anywhere) model would be preferred. As it can measure flow accurately in tight locations. Please quote on the following for this option.

- Toshiba Mag Flowmeter part number LF654KL1BNCAAF2 (comes with grounding ring). Use this part number for pricing.
- Two (2) required PVC sch 80 flanges for mounting flowmeter on PVC pipe. Required 6" gaskets.
- Wiring to/from control panel and PLC to Flowmeter. Includes 120VAC fused supply power (2A). Single analog twisted pair fused to PLC analog input channel. Grounding of ground plate.
- Installing and setup/programming of flowmeter.
- PLC programming scaling, display on HMI and SCADA. Todays and yesterday's total flow on HMI.
- Low flow alarm when pumps running, displayed on HMI and sent to SCADA for call out.





Price

# **Lift Station Controls**

Appendix A: Submission

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Description

Supply and installation of PLC, HMI, and VFD per the Specifications	
Flowmeter option (specify)	
Other (specify)	
Subtotal	
Submission details	
PLC:	
HMI:	
VFD:	
Flowmeter:	
Other:	
WARRANTY	
Please provide details respecting the warranty provided with the works including to options.	erm and extension



### **Lift Station Controls**

### Appendix B: Bidder information

The undersigned agrees to be bound by the terms and conditions of this Request for Quotation and to supply the items listed at the prices quoted. If a Purchase Order is issued by the Village of Nakusp to the undersigned, the undersigned will be bound by and will comply with the terms and conditions contained in the Request for Quotation, and the Purchase Order which will constitute the full and complete agreement between the parties.

Name & title of individual		
Legal name of company		
Company address		
Phone number		
Email address		
Addenda acknowledged		
Signature	Date	

### Appendix C: Request for Quotation Terms and Conditions

- 1. This Request for Quotation should not be interpreted as an agreement to purchase goods or services. The Village of Nakusp's (the "Village's") intent is to select the bid(s) representing, in its sole discretion, best value to the Village, taking into account, in no particular order, the specifics of the goods or services proposed, the schedule, the experience of the bidder, the bidder's references, the Village's experience with the bidder, the direct costs, the indirect costs and the non-monetary impact upon the Village as well as any other criteria the Village in its sole discretion may deem relevant. It will not be bound to accept the lowest or any bid and reserves the right in its sole and absolute discretion to reject, in whole or in part, any bid, or to cancel the Request for Quotation in its entirety. The Village will not be obligated in any manner to any bidder submitting a quotation whatsoever until the bid has been accepted by the Village, in which case the Purchase Order Terms and Conditions, the terms of this Request for Quotation and the terms of the quotation shall constitute the contract between the Village and the successful bidder.
- 2. It is the responsibility of the bidder to ensure that the quotation arrives prior to the date and time and at the place indicated. The Village reserves the right at its sole discretion to accept or reject any responses received after this time. From time to time the Village's spam filters block legitimate email. The Village cannot accept responsibility for delivery/receipt of email so please follow up if you do not receive a response.
- 3. Quotations shall be based on the specifications. Equivalent alternatives to products specified may be considered if full descriptive data on proposed alternatives is submitted with the Quotation. The Village of Nakusp reserves the right to determine, at its sole discretion, whether the alternatives are equal to products specified.
- 4. Quotations should be in Canadian funds.
- 5. Unless otherwise agreed, payment will become due 30 days from the receipt of the invoice or the satisfactory delivery of the goods or services, whichever is later.
- 6. The Village and its employees and agents shall not be held liable or accountable for any error or omission in any part of this Request for Quotation or response to bidder questions. While the Village and/or its employees and agents have made efforts to ensure an accurate representation of information in this Request for Quotation, the information contained in or provided with the Request for Quotation, is supplied solely as a guideline for bidders. The information is not guaranteed or warranted to be accurate by the Village and/or its employees or agents, nor is it necessarily comprehensive or exhaustive. Bidders should not rely exclusively on any information provided in or with this Request for Quotation and should independently verify all such information. Nothing in this Request for Quotation is intended to relieve bidders from the responsibility of conducting their own investigations and research and forming their own opinions and conclusions with respect to the matters addressed in this Request for Quotation. Proponents will be solely responsible to ensure their quotation meets all requirements of the Request for Quotation, to advise the Village immediately of any apparent discrepancies or errors in the Request for Quotation, and to request clarification if in doubt concerning the meaning or intent of anything in the Request for Quotation.
- 7. Any questions should be submitted in writing to the contact identified herein. Enquiries and responses will be recorded and may be distributed to all bidders at the Village's discretion. Information obtained from any other source is not official and should not be relied upon. Should a correction be necessary or should additional information become available during the Request for Quotation process, it may be distributed in the form of an addendum posted on BC Bid. The Village of Nakusp assumes no responsibility for notifying individual bidders of the existence of addenda. It is the sole responsibility of the bidder to ensure it has obtained, prior to the closing, any addenda issued by the Village of Nakusp.
- 8. If a bidder discovers that it has made an error in its quotation, the bidder may forward a correction notice to the Village, but it must be received prior to the closing date and time for the Request for Quotation. Unless otherwise specified, quotations will be open for acceptance for 60 days after the closing date.
- 9. Quotations that contain qualifying conditions or otherwise fail to conform to the Request for Quotation terms may be rejected. The Village retains the right to waive irregularities in the quotation if it deems such irregularities to be of a minor or technical nature. The Village retains the sole right to determine which quotation, if any, best meets its needs. The Village reserves the right to issue multiple Purchase Orders, i.e., to more than one bidder, should it deem this to be in the best interest of the Village of Nakusp.
- 10. When quotations have been received and an award made, the successful supplier will be held to its quotation as of the closing of the Request for Quotation irrespective of subsequent representation that mistakes have been made in the quotation originally submitted.
- 11. Notwithstanding the previous paragraphs, if it appears an error has been made in a quotation, the Village may, in its sole discretion, before awarding an order, communicate with the potential supplier to ascertain if it will supply at the quoted price or withdraw the quotation. If the potential supplier is permitted to withdraw its quotation, the potential supplier will not be considered on this Request for Quotation.
- 12. The Village reserves the right to award this order in part or in full, on the basis of quotations received.

- 13. In the event of a discrepancy between the unit price and the extended price, the unit price shall govern.
- 14. Bidders should use the unit of measure shown in the Request for Quotation. Where conversions are required, these should be done by the bidder prior to submitting quotation.
- 15. In addition to the services stated in the bid form, the Village may also choose to award non-exclusive contracts to one or more bidders to supply goods or services on an "as and when requested" basis during a specified term. Non-exclusive means the contracted bidder would not have the exclusive right to provide the goods or services to the Village of Nakusp and there would be no guarantee with respect to the volume of goods or services potentially purchased. The Village reserves the right to award to multiple bidders, establish a priority call-out list, assign portions of its requirements to other qualified firms either through a competition or select process, or conduct the work in-house.
- 16. Bidders should refer to the Request for Quotation number in all correspondence.
- 17. Bidders must comply with applicable laws. This Request for Quotation will be governed exclusively by and construed and enforced in accordance with the laws of the Province of British Columbia. The courts of the Province of British Columbia will have exclusive jurisdiction in the event of any dispute concerning this Request for Quotation or any matters arising out of this Request for Quotation.

#### 18. Bidders' expenses:

- a. It is a fundamental condition of this Request for Quotation and the receipt and consideration of quotations by the Village that the Village, and its respective employees, consultants and agents, will not and shall not under any circumstances including without limitation whether pursuant to contract, tort, statutory duty, law, equity, any actual or implied duty of fairness, or otherwise, be responsible or liable for any costs, expenses, claims, losses, damages or liabilities (collectively and individually all of the foregoing referred to as "Claims") incurred or suffered by any bidder as a result of or related to any one or more of: the Request for Quotation; the preparation, negotiation, acceptance or rejection of any conforming or non-conforming quotation; the rejection of any bidder; or the cancellation, suspension or termination of the Request for Quotation process. By submitting a quotation each bidder shall be conclusively deemed to waive and release the Village and its employees, contractors, consultant and agents, from and against any and all such Claims.
- b. By submitting a quotation the bidder agrees that it shall not claim damages for any matter arising out of this Request for Quotation process or in preparing and submitting a quotation. The bidder further agrees to and hereby waives any claim for damages for loss of profit if the bidder is not selected by the Village.
- c. In consideration of the Village considering a bidder's quotation, the bidder waives any right it may have to question or challenge the evaluation of its quotation or any other quotation and releases the Village from any Claims arising from the evaluation process or the failure of the Village to select that bidder's quotation.

### 19. Freedom of Information:

- a. All documents, including bids, submitted to the Village of Nakusp become the property of the Village of Nakusp subject to the provisions of the Freedom of Information and Protection of Privacy Act.
- b. Contracts valued at \$50,000 and over may require approval of Nakusp Council prior to award. The total bid amount of all bids and the reason for selecting the successful bidder will be routinely released at a Regular Meeting of the Nakusp Council.
- c. Certain other bid information may be released in accordance with the provisions of the Freedom of Information and Protection of Privacy Act. Should the bidder believe that portions of its bid should be held as confidential, these should be clearly identified. However, even information identified as confidential may be released in accordance with the Freedom of Information and Protection of Privacy Act or a court order. The Village of Nakusp reserves the right to release to the public the total bid price of any submission, regardless of whether it was identified as confidential. By submitting a bid or quotation you consent to the release of the total bid price in order to provide transparency in relation to municipal expenditures of this type.
- 20. All inquiries related to this Request for Quotation are to be directed to the Village as noted on the Request for Quotation. Information obtained from any other source should not be relied upon. Inquiries and responses may be distributed to all bidders at the Village's option.
- 21. Bidders should supply prices for all items listed as "Optional". Nakusp in its sole and unfettered discretion shall determine whether equipment described as "Optional" will form part of the equipment to be completed in the Contract.

### Appendix D: Purchase Order Terms and Conditions

- 1. Address all correspondence pertaining to this Purchase Order to the buyer specified on the Purchase Order.
- 2. Upon receipt of the Purchase Order, ensure that all pertinent details are correct. If not, please contact the buyer immediately to discuss.
- 3. Unless it specifies otherwise, the price shown on the Purchase Order includes all taxes, delivery charges, installation costs and other fees. No additional charges will be invoiced unless specifically discussed with the Village.
- 4. The Purchase Order number shall appear on all invoices associated with the Purchase Order. Failure to do so may result in a delay in payment.
- 5. Invoices are to be forwarded to the Village of Nakusp, PO Box 280, Nakusp BC VOG 1R0
- 6. The Village reserves the right to cancel all or any of the items associated with this Purchase Order if deliveries are not made by the delivery dates specified.
- 7. The Vendor warrants that the goods supplied under this Purchase Order are fit for the particular purpose or use for which they were purchased, and will perform in accordance with specifications, and the Vendor also warrants the goods, material and equipment against any defects in material, workmanship or design. This warranty is valid for a minimum of one year from the date of delivery.
- 8. All goods, materials and equipment are subject to inspection and approval upon delivery.
- 9. Unless otherwise specified, goods shall be FOB the location stated on the Purchase Order.
- 10. This Purchase Order may not be assigned or sub-contracted either in whole or in part without the prior consent on writing of the Village of Nakusp.
- 11. Whenever the Purchase Order calls for any service to be performed in Nakusp, the Vendor must provide proof of Nakusp Business License, minimum \$5 million public liability and property damage insurance coverage with the Village as a conamed insured. When a vehicle is used to deliver the service, proof of minimum \$5 million vehicle public liability & property damage insurance coverage is required.
- 12. This Purchase Order shall be governed by the laws of the Province of British Columbia.
- 13. All negatives and artwork become the property of the Village, but may be retained by the printer, at the discretion of the job's originator, for possible future use at no charge for handling or storage.
- 14. The Vendor agrees that the Village exclusively owns all intellectual property rights, including copyright, in any materials produced pursuant to this Order. Upon the Village's request, the Vendor must deliver documents to the Village's satisfaction, waiving in the Village's favour any moral rights and confirming the vesting of copyright in the Village.
- 15. Any electrical equipment supplied to the Village, or used in delivery of service to the Village, is required to be compliant with the BC Safety Standards Act and applicable regulations, including the Electrical Safety Regulation.
- 16. The Vendor by the acceptance of this Purchase Order accepts all the terms and conditions thereof.