

Date: 9/22/2025
To: Andrew Noble
Portzen Construction, Inc.
205 Stone Valley Drive
Dubuque, IA 52003
From: Lisa Twarog, Resident Engineer
Project: City of Dodgeville - 2023 Water System Improvements
Subject: **WCD No. 15: Chemical Radar**
RFP 24 - Wells 5, 8, and 9 Chemical Radar, Contractor COR #19 Wells 5,8 & 9 Chemical
Attachments: Radar

You are directed to proceed promptly with the following:

Remove existing cells and install radar sensor and display at Wells 5, 8, and 9.

Reason for Directive:

The Owner would like to update their chemical use monitoring at Wells 5, 8, and 9.

If a claim is made that the above change(s) have affected Contract Price or Contract Times, a Change Order based thereon will involve one or more of the methods listed below for determining the result of the change(s). If the change involves an increase in time, the estimated times are not to be exceeded without further authorization.

Contract Cost:

- ☒ Lump Sum
☐ Unit Bid Price
☐ Time and Materials
☐ Other:

Estimated contract cost adjustment: Increase
\$23,767.00

Contract Time:

- ☐ Engineer's Records
☐ Contractor's Records
☒ Other: 0

Estimated increase/decrease in Contract Time:
Substantial Completion: 0 days
Final Completion: 0 days

AUTHORIZED*:

City of Dodgeville

OWNER

By: _____

Date: _____

*Only required with change in contract work scope, contract cost or contract time.

Please sign and return to sender.

RECOMMENDED:

Town and Country Engineering

ENGINEER


By: 
(AUTHORIZED SIGNATURE)

Date: 9/22/2025

ACCEPTED:

Portzen Construction, Inc.

CONTRACTOR

By: 
(AUTHORIZED SIGNATURE)

Date: 9/23/25

TOWN & COUNTRY ENGINEERING, INC.

Madison ♦ Rhinelander ♦ Kenosha ♦ Platteville

6264 Nesbitt Rd • Madison, WI 53719 • (608) 273-3350 • tce@tcengineers.net



Construction Correspondence

CC No. 24

Contractor Ref No. 13

☐ RFI ☒ RFP ☐ Communication

Date: 8/19/2025

To: Andrew Noble
Portzen Construction, Inc.
205 Stone Valley Drive
Dubuque, IA 52003

From: Evan Chambers, Project Engineer

Project: City of Dodgeville -- 2023 Water System Improvements

Subject: CC No. 24 - Wells 5, 8 and 9 - Chemical Radar

Attachments: Martelle Water Quote and VEGA Cut Sheets

Andrew,

The City is interested in utilizing VEGA Radar units to monitor chemical usage at Wells 5, 8, and 9. Please provide pricing, preferably per Well, to complete this work. Scope to include removal of existing chemical scales for chlorine, fluoride, and aquamag; provide and install VEGAPULS C 11 radar sensor and VEGADIS 82 external display; and wiring back to the respective control panel at each well.

Provide updated controls to monitor the tank level/weight, alarm on low weight, and provide re-order reminder at operator adjustable re-order set-point. Utilize existing chemical tank diameter and chemical density to convert change in level to a usage in terms of weight (pounds).

- Evan Chambers (8/19/2025)

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Equipment Quotation

6/24/25
Dodgeville

Item Description	Quantity	Price Each	Total
Vega C-11 Radar Sensor for continuous liquid level measurement with DIS82 Display	1	\$1,700.00	\$1,700.00
Radar Installation hardware	1	\$95.00	\$95.00
Shipping & Handling	n/a	n/a	\$35.00
Installation Labor	1	\$130.00	\$130.00
Travel	2	\$95.00	\$190.00
Installation Materials	n/a	n/a	\$0.00
			\$2,150.00

VEGAPULS C 11

Two-wire 4 ... 20 mA

Radar sensor for continuous level measurement



Application area

The VEGAPULS C 11 is the ideal radar sensor for non-contact level measurement in all standard applications where a high degree of protection is required. It is particularly suitable for level measurement in water treatment, pumping stations and rain overflow basins, for flow measurement in open channels and level monitoring and for many other industrial applications.

The sensor is suitable both for measuring liquids and for maintenance-free use on small bulk silos or bulk solids containers.

Your benefit

- Maintenance-free operation due to non-contact 80 GHz radar technology
- Exact measuring results independent of product, process and ambient conditions
- Low-cost sensor for simple measuring tasks

Function

The sensor emits a continuous radar signal through the antenna. The emitted signal is reflected by the medium and received as an echo by the antenna.

The frequency difference between the emitted and received signal is proportional to the distance and depends on the filling height. The determined filling height is converted into a respective output signal and output as measured value.

Technical data

Measuring range	up to 8 m (26.25 ft)
Deviation	≤ 5 mm
Beam angle	8°
Output signal	4 ... 20 mA
Process fitting	Thread G1½, 1½ NPT, R1½
Mounting connection	Thread G1, 1 NPT, R1
Process pressure	-1 ... 3 bar (-100 ... 200 kPa/-14.5 ... 43.51 psig)
Process temperature	-40 ... +60 °C (-40 ... +140 °F)
Ambient temperature	-40 ... +60 °C (-40 ... +140 °F)
Operating voltage	12 ... 35 V DC

Materials

The wetted parts of the instrument are made of PVDF. The process seal consists of FKM. The connection cable is PVC insulated.

You will find a complete overview of the available materials and seals in the "Configurator" at www.vega.com and "Products".

Housing versions

The housing is optimized for applications in the water/waste water industry and manufactured of PVDF. Due to the encapsulated cable gland, protection rating IP66/IP68 (3 bar) is achieved.

Electronics versions

The devices are constructed with two-wire electronics 4 ... 20 mA.

Adjustment

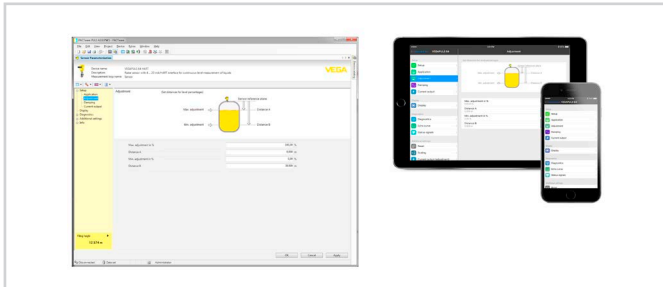
Wireless adjustment via Bluetooth

The Bluetooth version of the instrument enables a wireless connection to standard adjustment units. This can be smartphones/tablets with iOS or Android operating system or PCs with PACTware and Bluetooth USB adapter.



Wireless connection to standard operating devices

Adjustment is hence carried out via a free-of-charge app from the Apple App Store or the Google Play Store or the adjustment software PACTware and respective DTM.



Adjustment via PACTware or app

Electrical connection

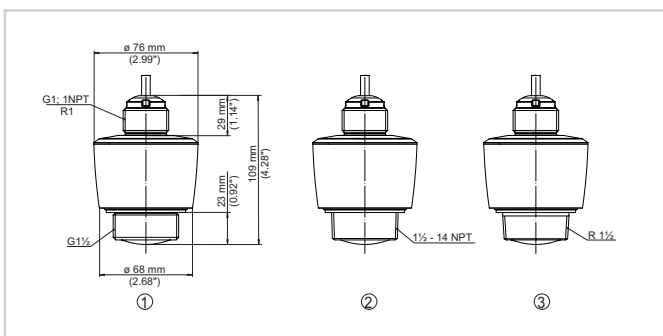


Wire assignment in permanently connected connection cable

- 1 Brown (+) to voltage supply or to the processing system
- 2 Blue (-) to voltage supply or to the processing system

You can find details on electrical connection in the instrument operating instructions at www.vega.com/downloads.

Dimensions



Dimensions VEGAPULS C 11

- 1 Thread G1½
- 2 Thread 1½ NPT
- 3 Thread R1½

Information

You can find further information on the VEGA product line on our homepage.

In the download section on our homepage you'll find operating instructions, product information, brochures, approval documents, instrument drawings and much, much more.

There, you will also find GSD and EDD files for Profibus PA systems as well as DD and CFF files for Foundation Fieldbus systems.

Instrument selection

On our homepage under "*Products*" you can select the suitable measuring principle and instrument for your application.

You can find detailed information on the instrument versions at www.vega.com and "*Products*".

Contact

You can find your personal contact person at VEGA on our homepage www.vega.com and "*Contact*".

VEGADIS 82

4 ... 20 mA/HART

External display and adjustment unit for 4 ... 20 mA/HART sensors



Application area

VEGADIS 82 is suitable for measured value indication and adjustment of 4 ... 20 mA/HART sensors. The instrument is looped directly into the signal line at any location. It operates as a pure display instrument in a 4 ... 20 mA current loop and can hence be used as external display for a four-wire sensor or VEGAMET signal conditioning instrument with an active 4 ... 20 mA output.

Your benefit

- Time and cost saving with the parameter adjustment on site with PLICSCOM
- Reliable and easy adjustment through clear text indication with graphic support
- Universal use through HART standard parameters

Function

When used with a 4 ... 20 mA/HART sensor, the VEGADIS 82 operates as display and HART adjustment unit. The parameter adjustment of the sensor is carried out via HART communication. During the parameter adjustment, the VEGADIS 82 works as Master to the sensor.

The housing of VEGADIS 82 contains a filter element for ventilation. Hence the instrument is also used for atmospheric pressure compensation of a connected submersible pressure transmitter.

Technical data

General data

Materials

- Housing plastic PBT, Alu die-casting, 316L
- Inspection window in housing lid for display and adjustment module Polycarbonate (UL-746-C listed)
- Ground terminal 316Ti/316L

Weight approx. 0.35 kg (0.772 lbs)

Signal and supply circuit

Voltage loss (4 ... 20 mA)

- Without lighting max. 1.7 V
- With lighting max. 3.2 V

Current range 3.5 ... 22.5 mA

Display and adjustment module

Indication LC display in dot matrix

Adjustment elements 4 keys

Protection rating

- unassembled IP 20
- mounted into VEGADIS 82 without cover IP 40

Materials

- Housing ABS
- Inspection window Polyester foil

Ambient conditions

Storage and transport temperature -40 ... +80 °C (-40 ... +176 °F)

Ambient temperature -20 ... +70 °C (-4 ... +158 °F)

Electromechanical data

Options of the cable entry

- Cable gland M20 x 1.5 (cable: ø 5 ... 9 mm)
- Cable entry ½ NPT

Wire cross-section (spring-loaded terminals)

- Massive wire, stranded 0.2 ... 2.5 mm² (AWG 24 ... 14) wire
- Stranded wire with end sleeve 0.2 ... 1.5 mm² (AWG 24 ... 16)

Electrical protective measures

Protection rating

- Plastic housing IP 66/IP 67, NEMA Type 4X
- Housing for panel mounting (mounted) IP 40, NEMA Type 1
- Aluminium/Stainless steel housing IP 66/IP 68 (0.2 bar), NEMA Type 6P

Approvals

You can find detailed information on the existing approvals in the "configurator" on our homepage at www.vega.com/configurator.

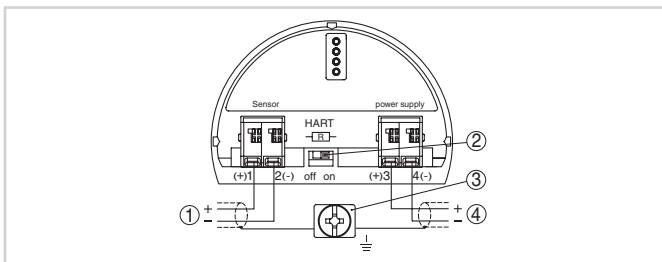
Adjustment

The adjustment of the instrument as well as the connected sensor is carried out via the optional display and adjustment module PLICSCOM. Another adjustment possibility is via a PC with the adjustment software PACTware and respective DTM. The PC is connected to the VEGADIS 82 via the interface adapter VEGACONNECT.



Display and adjustment module PLICSCOM

Electrical connection

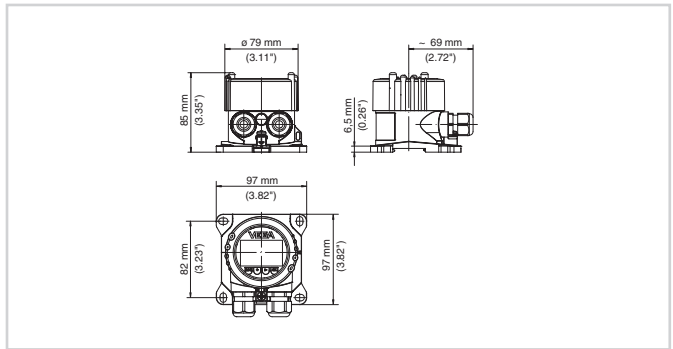


Wiring plan VEGADIS 82 4 ... 20 mA/HART

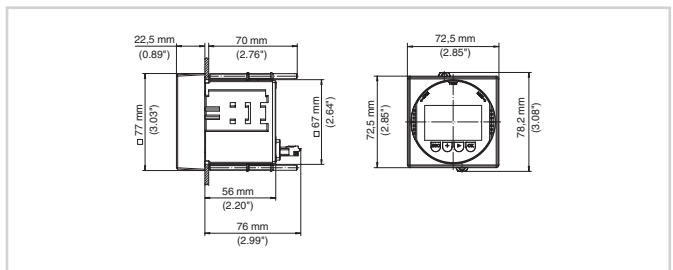
- 1 To the sensor
- 2 Switch for communication resistor (on = activated, off = deactivated)
- 3 Ground terminal for connection of the cable screen
- 4 For power supply

You can find details on electrical connection in the instrument operating instructions at www.vega.com/downloads.

Dimensions



VEGADIS 82 with plastic housing



VEGADIS 82 with plastic housing for panel mounting

Information

You can find further information on the VEGA product line on our homepage www.vega.com.

In the download section under www.vega.com you'll find free operating instructions, product information, brochures, approval documents, instrument drawings and much, much more.

Contact

You can find the VEGA agency serving your area on our homepage www.vega.com.



Change Order Request

City of Dodgeville - 2023 Water System Improvements
Project #23-02

September 12, 2025

Change Order Request 19
Pages 11

Lisa Twarog
Town & Country Engineering, Inc.
6264 Nesbitt Road
Madison, WI 53719

We propose to provide equipment, labor, and materials to complete the following change order:

To remove existing cells and install radar sensor and display at wells 5, 8 & 9 per construction Correspondence #24 dated 08/19/2025.

Description	Qty	Unit	Cost	Total
1 Pieper Electric	1	LS	\$ 20,056.00	20,056.00
2 5% O&P	1	LS	\$ 1,002.80	1,002.80
3 Martelle Water Treatment, Inc.	1	LS	\$ 2,150.00	2,150.00
4 15% O&P	1	LS	\$ 322.50	322.50
5 1% Bond	1	LS	\$ 235.31	235.31

Total Additions or (Deductions) from the contract: \$ 23,766.61

Total Contract Adjustment requested: **\$23,767.00**

Additional Working Days Requested: **0**

If you have any questions regarding this proposal, please contact our office.

Sincerely,

Brandon Miles
Assistant Project Manager

Please Sign if Proposal is ACCEPTED

Authorized Person(s)

Sign: _____

Date: _____



CHANGE ORDER SUMMARY

	JOB NAME:	Dodgeville WSI
Portzen Construction	CHANGE ORDER NUMBER:	PCO#8
205 Stone Valey Dr.	REVISION NUMER:	N/A
Dubuque, IA 52003	DATE:	9/11/2025
	JOB NO:	PEI023041
ATTENTION :	CONTRACT NO:	#23-02
Brandon Miles	AMOUNT OF C/O:	\$20,056

REGARDING YOUR REQUEST FOR QUOTATION:

Proposal for the removal of Chlorine, Flouride, and Polyphosphate scales at wells 5, 8, & 9. Installation of Vega radar units (3), mounting of dispaly units (3) and communication/signal wiring for updated controls. Reuse of existing provisions as available. Procurement of Vega equipment by others. If conduit is deemed not needed please deduct \$2,194.00 from this proposal. Altronex programing is included with this proposal quote on last 2 pages of this document.

SUMMARY:	A. LABOR		\$10,204
	B. MATERIALS		\$1,710
	C. DJE		\$420
SBO:	YES		
	SUBTOTAL		\$12,334
	OVERHEAD & PROFIT	15.00%	\$1,850
	D. SUBCONTRACTS		\$5,592
	OVERHEAD & PROFIT	5.00%	\$280
	SUBTOTAL		\$20,056
	BOND		\$0
	INSURANCE		\$0
	GRAND TOTAL		\$20,056

ADDITIONAL CALENDAR DAYS EXTENDED TO CONTRACT COMPLETION DATE: 0

THIS AMOUNT ONLY COVERS THE DIRECT COSTS IN LABOR, MATERIALS, SUBCONTRACTS AND EQUIPMENT NECESSARY TO EXECUTE THE CHANGED WORK DESCRIBED IN THE PROPOSAL. AT THE PRESENT TIME, WE CANNOT ASSESS OR EVALUATE THE OVERALL IMPACT OF THE CHANGED WORK ON OUR ORIGINAL CONTRACT SCOPE OF WORK. WE THEREBY RESERVE OUR RIGHTS TO CLAIM FOR ANY INDIRECT COSTS WHICH MAY ARISE IN THE FUTURE AS A RESULT OF DELAYS TO THE WORK, OUT OF SEQUENCE WORK, INEFFICIENCIES, EXTENDED CONTRACT COMPLETION, LABOR AND MATERIAL ESCALATION AND/OR ACCELERATION AND EXTENDED WARRANTIES.

JOB	NUMBER	C.O. NO.	DATE	REVISION
Dodgeville WSI	PEI023041	PCO#8	11-Sep-25	N/A

A. LABOR

*SUPER INTENDENT	1 HRS @	\$131.78	TOTAL	\$131.78
** SUPERVISOR	1 HRS @	\$134.40	TOTAL	\$134.40
*** SAFETY	1 HRS @	\$113.30	TOTAL	\$113.30
ELECTRICIAN	84 HRS @	\$116.96	TOTAL	\$9,824.64
ESTIMATOR	0 HRS @	\$58.62	TOTAL	\$0.00
ENGINEER	0 HRS @	\$50.00	TOTAL	\$0.00
	@		TOTAL	\$0.00
	@		TOTAL	\$0.00
	@		TOTAL	\$0.00
TRAVEL	@		TOTAL	\$0.00
SUBSISTENCE	@		TOTAL	\$0.00
PREMIUM COSTS			TOTAL	\$0.00
			LABOR TOTAL	\$10,204.12

B. MATERIALS

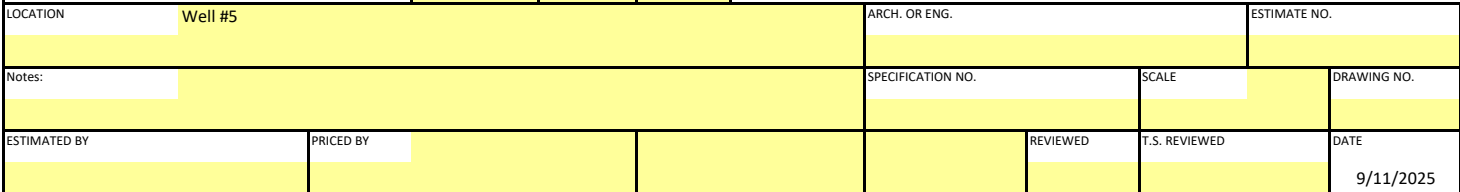
MATERIAL PER "TAKE-OFF"			TOTAL	\$1,710
MISCELLANEOUS MATERIAL & WASTE		0.00%	TOTAL	\$0
			<i>SUBTOTAL</i>	<i>\$1,710</i>
FREIGHT AND HANDLING			TOTAL	\$0
SPECIAL EXPEDITING			TOTAL	\$0
SALES TAX		0.0%	TOTAL	\$0
			MATERIAL TOTAL	\$1,710



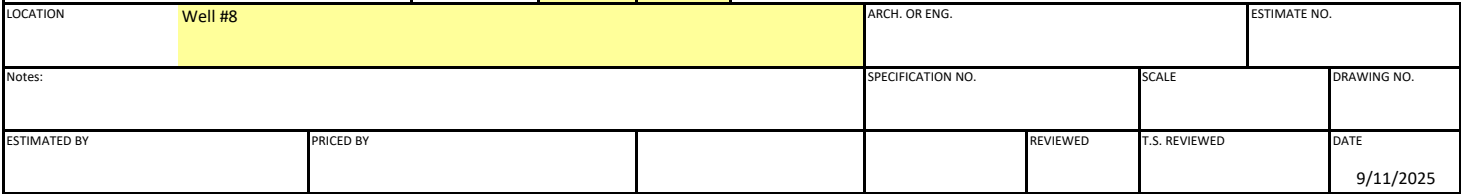
TOTAL:	\$420
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JOB	NUMBER	C.O. NO.	DATE	REVISION
Dodgeville WSI	PEI023041	PCO#8	11-Sep-25	N/A

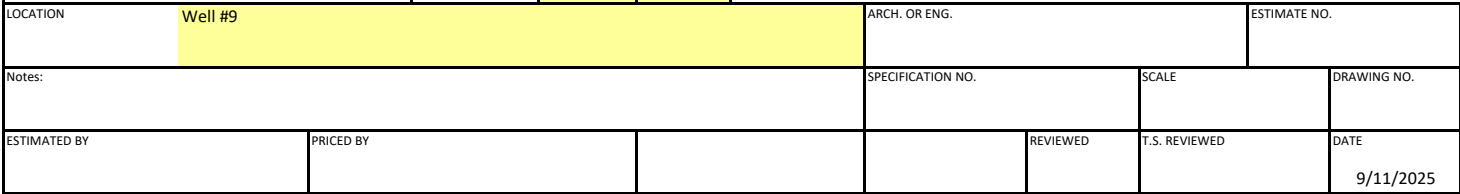
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Project	Change Order Name	Reference/RFI	Change Order #
Dodgeville, WI - 2023 Water System Improvements	Wells 5, 8 & 9 Chemical Tank Level Radar	CC 24	9418-C006

Dear Customer:

Thank you for your continued interest in SJE products, services and solutions. We are pleased to quote the following scope of work pertaining to the above-referenced project. Only the materials/services listed in the scope below.

Reason for change

The City currently have chemical weight scales at Wells 5, 8 & 9. They want to change those to radar level transmitters and have the PLC convert that level to weight.

Scope of work

Well 5 Local Control Panel W5-LCP Mods

- Input new Radar Unit to PLC
 - Radar to be supplied, installed and started up by Others
- Provide PLC programming to covert level to weight
 - Owner/Contractor to provide the following information for the Chlorine, Fluoride and Polyphosphate
 - Chemical Tank inside diameter
 - Specific Gravity of each chemical.
- SCADA
 - We will continue to use weight in pounds for monitoring, alarming and historicals

Well 8 Local Control Panel W8-LCP Mods

- Input new Radar Unit to PLC
 - Radar to be supplied, installed and started up by Others
- Provide PLC programming to covert level to weight
 - Owner/Contractor to provide the following information for the Chlorine, Fluoride and Polyphosphate
 - Chemical Tank inside diameter
 - Specific Gravity of each chemical.
- SCADA
 - We will continue to use weight in pounds for monitoring, alarming and historicals

Well 9 Local Control Panel W9-MCP Mods

- Input new Radar Unit to PLC
 - Radar to be supplied, installed and started up by Others
- Provide PLC programming to covert level to weight
 - Owner/Contractor to provide the following information for the Chlorine, Fluoride and Polyphosphate
 - Chemical Tank inside diameter
 - Specific Gravity of each chemical.
- SCADA
 - We will continue to use weight in pounds for monitoring, alarming and historicals

Clarifications / Exclusions

NOTE: Customer Supplied Parts – Our scheduling team will issue a zero-cost PO for the parts approximately 14 days prior to the beginning of panel manufacturing. This change will not affect ship date and will help the factory maintain the inventory with customer-supplied parts. Please do not ship customer-supplied parts to the factory until you have received the zero-cost PO from us with shipment instructions.

Items specifically not included in this proposal

1. Sales or use tax.
2. Installation of equipment and job site labor other than as specified.
3. Receiving and storage of equipment on the job site.
4. Installation materials, brackets, wire, clamps, piping, junction boxes, etc., not specifically described in our material list.
5. Performance, payment or equipment bond of any kind.
6. Installation of any instruments.
7. Field Terminations.

Respectfully submitted by,



Kurt Atwood
Business Development Manager
katwood@lwallen.com
(608) 210-1455

Proposal Amount \$ 5,592.00

