

ADDENDUM NO. 6
to the
CONTRACT DOCUMENTS
for
CITY OF PORT ALBERNI
WASTEWATER TREATMENT LAGOON UPGRADES
CONSTRUCTION CONTRACT

To All Bidders:

August 8, 2018

The following changes, additions, and/or deletions are hereby made a part of the Contract Documents for City of Port Alberni, Wastewater Treatment Lagoon Upgrades, Construction Contract as fully and completely as if the same were fully set forth therein:

Specifications

.1 Section 26 27 20 – Process Instrumentation

- .1 Delete the flow meter spec sheets attached to this section and replace with new flow meter spec sheets, attached.

All Bidders shall acknowledge receipt and acceptance of this Addendum by signing in the space provided and submitting the signed signature page of the Addendum to the Engineer at any time prior to Bid Closing Time. Submission of the signature page in hard copy, via fax or via email is acceptable. Bids submitted without acknowledgement of receipt of this Addendum may be considered incomplete.

Yours truly,

ASSOCIATED ENGINEERING (B.C.) LTD.



Christian Brumpton, M.Eng., P.Eng.
Project Manager

Receipt acknowledged and conditions agreed to this ___ day of _____, 20__.

Bidder

Signature

Appended hereto and part of this Addendum:

Flow Meter Spec Sheets



INSTRUMENT SPECIFICATION FLOW METER, MAGNETIC

SECTION 26 27 20

CLIENT	THE CITY OF PORT ALBERNI	JOB NUMBER	2017-2972
PROJECT	PORT ALBERNI WW LAGOON UPGRADES	LOCATION	PORT ALBERNI
TAG No.	FIT-105	PROCESS DWG	D-004
SERVICE	Wastewater - Landfill Leachate	LOCATION DWG	I-104
MANUFACTURER	Endress + Hauser	LOOP DWG	I-614
MODEL SERIES	Promag W 400	DETAIL	N/A

OPERATING CONDITIONS			
FLUID	Raw Domestic Wastewater		
SPECIFIC GRAVITY	1.0	LINE SIZE:	250 mm
TEMPERATURE °C	MIN: 0	MAX:	20
FLOW RATE L/s	MIN: 0	TYPICAL:	240
PRESSURE kPa	MIN: 0	TYPICAL:	Atmospheric
TRANSMITTER			
MODEL No.	Promag W 400		
CALIBRATION	0 - 500 l/s		
OUTPUT SIGNAL	(1) 4 - 20 mA HART	ACCURACY:	0.5%
	(2)		
POWER SUPPLY	120 VAC		
LOCAL INDICATION	3-line LCD with touch panel or pushbuttons		
MOUNTING	Remote (in kiosk)		
APPROVAL	CSA: Yes	AREA:	General
ENCLOSURE	Nema 4X		
ACCESSORIES	Lamacoid tag		
ELEMENT			
TAG NUMBER	FE-105		
MODEL No.	Same as transmitter above		
PROCESS CONNECTION	Flanged	METER SIZE:	250 mm
ELECTRODE TYPE	Bullet Nose		
MATERIALS	BODY: Carbon Steel	LINER:	Polyurethane
	ELECTRODE: 316L SS	FLANGE:	CI 150 ANSI B16.5, A105 FLANGES
COIL	VOLTAGE:	FREQUENCY:	
AREA CLASSIFICATION	IP68 + Class 1, Zone 2		
SIGNAL CABLE	LENGTH: As required	TYPE:	Vendor-specific
GROUNDING RINGS	As required		
ACCESSORIES	SS Tag		
	Potting compound for terminal box		

NOTES
 Approved Alternate: ABB, Siemens (all above specifications must be met and identified on the shop drawings).

REV	DESCRIPTION	REVISED BY	REVISION DATE



INSTRUMENT SPECIFICATION FLOW METER, MAGNETIC

CLIENT	THE CITY OF PORT ALBERNI	JOB NUMBER	2017-2972
PROJECT	PORT ALBERNI WW LAGOON UPGRADES	LOCATION	PORT ALBERNI
TAG No.	FIT-115	PROCESS DWG	D-004
SERVICE	Wastewater -Johnston Gravity Forcemain	LOCATION DWG	I-104
MANUFACTURER	Endress + Hauser	LOOP DWG	I-614
MODEL SERIES	Promag W 400	DETAIL	N/A

OPERATING CONDITIONS			
FLUID	Raw Domestic Wastewater		
SPECIFIC GRAVITY	1.0	LINE SIZE:	350 mm
TEMPERATURE °C	MIN: 0	MAX:	20
FLOW RATE L/s	MIN: 0	TYPICAL:	310
PRESSURE kPa	MIN: 0	TYPICAL:	Atmospheric
TRANSMITTER			
MODEL No.	Promag W 400		
CALIBRATION	0 - 500 l/s		
OUTPUT SIGNAL	(1) 4 - 20 mA HART	ACCURACY:	0.5%
	(2)		
POWER SUPPLY	120 VAC		
LOCAL INDICATION	3-line LCD with touch panel or pushbuttons		
MOUNTING	Remote (in kiosk)		
APPROVAL	CSA: Yes	AREA:	General
ENCLOSURE	Nema 4X		
ACCESSORIES	Lamacoid tag		
ELEMENT			
TAG NUMBER	FE-115		
MODEL No.	Same as transmitter above		
PROCESS CONNECTION	Flanged	METER SIZE:	350 mm
ELECTRODE TYPE	Bullet Nose		
MATERIALS	BODY: Carbon Steel	LINER:	Polyurethane
	ELECTRODE: 316L SS	FLANGE:	CI 150 ANSI B16.5, A105 FLANGES
COIL	VOLTAGE:	FREQUENCY:	
AREA CLASSIFICATION	IP68 + Class 1, Zone 2		
SIGNAL CABLE	LENGTH: As required	TYPE:	Vendor-specific
GROUNDING RINGS	As required		
ACCESSORIES	SS Tag		
	Potting compound for terminal box		

NOTES

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INSTRUMENT SPECIFICATION FLOW METER, MAGNETIC

SECTION 26 27 20

CLIENT	THE CITY OF PORT ALBERNI	JOB NUMBER	2017-2972
PROJECT	PORT ALBERNI WW LAGOON UPGRADES	LOCATION	PORT ALBERNI
TAG No.	FIT-125	PROCESS DWG	D-004
SERVICE	Wastewater -Margaret Pump Station	LOCATION DWG	I-104
MANUFACTURER	Endress + Hauser	LOOP DWG	I-614
MODEL SERIES	Promag W 400	DETAIL	N/A

OPERATING CONDITIONS			
FLUID	Raw Domestic Wastewater		
SPECIFIC GRAVITY	1.0	LINE SIZE:	400 mm
TEMPERATURE °C	MIN: 0	MAX:	20
FLOW RATE L/s	MIN: 0	TYPICAL:	290
PRESSURE kPa	MIN: 0	TYPICAL:	Atmospheric
TRANSMITTER			
MODEL No.	Promag W 400		
CALIBRATION	0 - 500 l/s		
OUTPUT SIGNAL	(1) 4 - 20 mA HART	ACCURACY:	0.5%
	(2)		
POWER SUPPLY	120 VAC		
LOCAL INDICATION	3-line LCD with touch panel or pushbuttons		
MOUNTING	Remote (in kiosk)		
APPROVAL	CSA: Yes	AREA:	General
ENCLOSURE	Nema 4X		
ACCESSORIES	Lamacoid tag		
ELEMENT			
TAG NUMBER	FE-125		
MODEL No.	Same as transmitter above		
PROCESS CONNECTION	Flanged	METER SIZE:	400 mm
ELECTRODE TYPE	Bullet Nose		
MATERIALS	BODY: Carbon Steel	LINER:	Polyurethane
	ELECTRODE: 316L SS	FLANGE:	CI 150 ANSI B16.5, A105 FLANGES
COIL	VOLTAGE:	FREQUENCY:	
AREA CLASSIFICATION	IP68 + Class 1, Zone 2		
SIGNAL CABLE	LENGTH: As required	TYPE:	Vendor-specific
GROUNDING RINGS	As required		
ACCESSORIES	SS Tag		
	Potting compound for terminal box		

NOTES

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INSTRUMENT SPECIFICATION FLOW METER, MAGNETIC

SECTION 26 27 20

CLIENT	THE CITY OF PORT ALBERNI	JOB NUMBER	2017-2972
PROJECT	PORT ALBERNI WW LAGOON UPGRADES	LOCATION	PORT ALBERNI
TAG No.	FIT-135	PROCESS DWG	D-004
SERVICE	Wastewater -Josephine Pump Station	LOCATION DWG	I-104
MANUFACTURER	Endress + Hauser	LOOP DWG	I-614
MODEL SERIES	Promag W 400	DETAIL	N/A

OPERATING CONDITIONS			
FLUID	Raw Domestic Wastewater		
SPECIFIC GRAVITY	1.0	LINE SIZE:	350 mm
TEMPERATURE °C	MIN: 0	MAX:	20
FLOW RATE L/s	MIN: 0	TYPICAL:	150
PRESSURE kPa	MIN: 0	TYPICAL:	Atmospheric
TRANSMITTER			
MODEL No.	Promag W 400		
CALIBRATION	0 - 250 l/s		
OUTPUT SIGNAL	(1) 4 - 20 mA HART	ACCURACY:	0.5%
	(2)		
POWER SUPPLY	120 VAC		
LOCAL INDICATION	3-line LCD with touch panel or pushbuttons		
MOUNTING	Remote (in kiosk)		
APPROVAL	CSA: Yes	AREA:	General
ENCLOSURE	Nema 4X		
ACCESSORIES	Lamacoid tag		
ELEMENT			
TAG NUMBER	FE-135		
MODEL No.	Same as transmitter above		
PROCESS CONNECTION	Flanged	METER SIZE:	350 mm
ELECTRODE TYPE	Bullet Nose		
MATERIALS	BODY: Carbon Steel	LINER:	Polyurethane
	ELECTRODE: 316L SS	FLANGE:	CI 150 ANSI B16.5, A105 FLANGES
COIL	VOLTAGE:	FREQUENCY:	
AREA CLASSIFICATION	IP68 + Class 1, Zone 2		
SIGNAL CABLE	LENGTH: As required	TYPE:	Vendor-specific
GROUNDING RINGS	As required		
ACCESSORIES	SS Tag		
	Potting compound for terminal box		

NOTES

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INSTRUMENT SPECIFICATION FLOW METER, MAGNETIC

SECTION 26 27 20

CLIENT	THE CITY OF PORT ALBERNI	JOB NUMBER	2017-2972
PROJECT	PORT ALBERNI WW LAGOON UPGRADES	LOCATION	PORT ALBERNI
TAG No.	FIT-145	PROCESS DWG	D-004
SERVICE	Wastewater -Argyle Pump Station	LOCATION DWG	I-104
MANUFACTURER	Endress + Hauser	LOOP DWG	I-614
MODEL SERIES	Promag W 400	DETAIL	N/A

OPERATING CONDITIONS			
FLUID	Raw Domestic Wastewater		
SPECIFIC GRAVITY	1.0	LINE SIZE:	450 mm
TEMPERATURE °C	MIN: 0	MAX:	20
FLOW RATE L/s	MIN: 0	TYPICAL:	580
PRESSURE kPa	MIN: 0	TYPICAL:	Atmospheric
TRANSMITTER			
MODEL No.	Promag W 400		
CALIBRATION	0 - 1000 l/s		
OUTPUT SIGNAL	(1) 4 - 20 mA HART	ACCURACY:	0.5%
	(2)		
POWER SUPPLY	120 VAC		
LOCAL INDICATION	3-line LCD with touch panel or pushbuttons		
MOUNTING	Remote (in kiosk)		
APPROVAL	CSA: Yes	AREA:	General
ENCLOSURE	Nema 4X		
ACCESSORIES	Lamacoid tag		
ELEMENT			
TAG NUMBER	FE-145		
MODEL No.	Same as transmitter above		
PROCESS CONNECTION	Flanged	METER SIZE:	450 mm
ELECTRODE TYPE	Bullet Nose		
MATERIALS	BODY: Carbon Steel	LINER:	Polyurethane
	ELECTRODE: 316L SS	FLANGE:	CI 150 ANSI B16.5, A105 FLANGES
COIL	VOLTAGE:	FREQUENCY:	
AREA CLASSIFICATION	IP68 + Class 1, Zone 2		
SIGNAL CABLE	LENGTH: As required	TYPE:	Vendor-specific
GROUNDING RINGS	As required		
ACCESSORIES	SS Tag		
	Potting compound for terminal box		

NOTES

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**INSTRUMENT SPECIFICATION
FLOW METER, MAGNETIC**

CLIENT	THE CITY OF PORT ALBERNI	JOB NUMBER	2017-2972
PROJECT	PORT ALBERNI WW LAGOON UPGRADES	LOCATION	PORT ALBERNI
TAG No.	FIT-155	PROCESS DWG	D-004
SERVICE	Wastewater -Wallace Pump Station	LOCATION DWG	I-104
MANUFACTURER	Endress + Hauser	LOOP DWG	I-614
MODEL SERIES	Promag W 400	DETAIL	N/A

OPERATING CONDITIONS	
FLUID	Raw Domestic Wastewater
SPECIFIC GRAVITY	1.0
TEMPERATURE °C	MIN: 0 MAX: 20
FLOW RATE L/s	MIN: 0 TYPICAL: 300 - 600
PRESSURE kPa	MIN: 0 TYPICAL: Atmospheric
TRANSMITTER	
MODEL No.	Promag W 400
CALIBRATION	0 - 1000 l/s
OUTPUT SIGNAL	(1) 4 - 20 mA HART ACCURACY: 0.5% (2)
POWER SUPPLY	120 VAC
LOCAL INDICATION	3-line LCD with touch panel or pushbuttons
MOUNTING	Remote (in kiosk)
APPROVAL	CSA: Yes AREA: General
ENCLOSURE	Nema 4X
ACCESSORIES	Lamacoid tag
ELEMENT	
TAG NUMBER	FE-155
MODEL No.	Same as transmitter above
PROCESS CONNECTION	Flanged METER SIZE: 350 mm
ELECTRODE TYPE	Bullet Nose
MATERIALS	BODY: Carbon Steel LINER: Polyurethane
	ELECTRODE: 316L SS FLANGE: CI 150 ANSI B16.5, A105 FLANGES
COIL	VOLTAGE: FREQUENCY:
AREA CLASSIFICATION	IP68 + Class 1, Zone 2
SIGNAL CABLE	LENGTH: As required TYPE: Vendor-specific
GROUNDING RINGS	As required
ACCESSORIES	SS Tag Potting compound for terminal box

NOTES
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