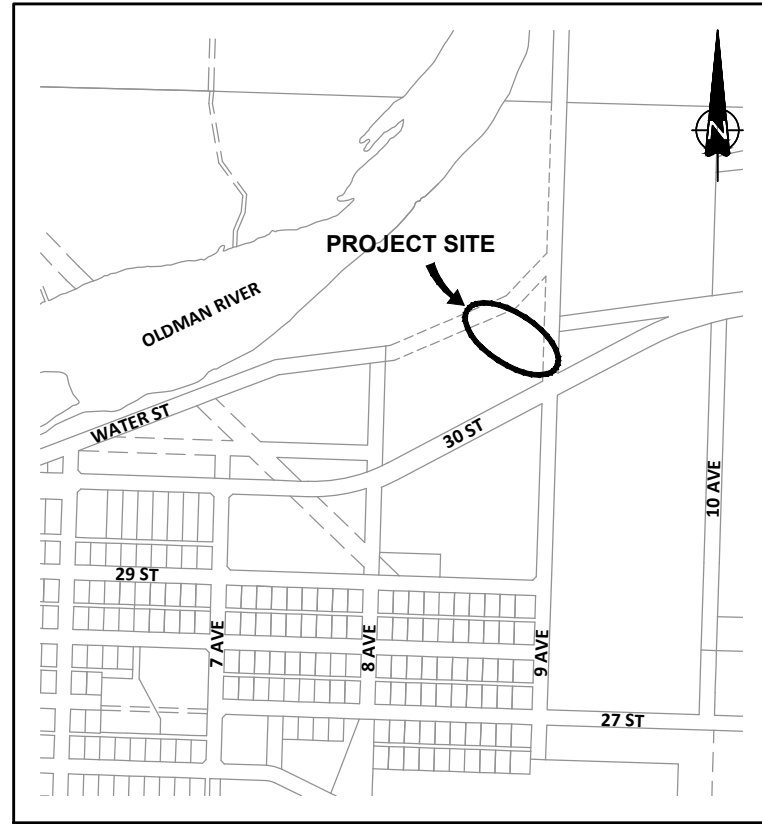


LOCATION PLAN



SITE PLAN

LIST OF DRAWINGS

TITLE PAGE AND DRAWING LIST

PROCESS

P0.1 EQUIPMENT LEGEND

P0.2 PIPING LEGEND

P0.3 INSTRUMENTATION LEGEND

P1.1 AIR SYSTEMS FLOW DIAGRAM

P1.2 BLOWER ROOM PLAN

P1.3 SBR BASIN AND BLOWER ROOM SECTIONS



WASTEWATER TREATMENT PLANT BLOWER PIPING MODIFICATIONS FOR QUOTATION

1485-081-00

PUMPS	VALVES	HYDRAULIC CONTROL VALVE ACTUATORS	RELIEF VALVES	FILTERS	FLOW ELEMENTS	VESSELS/TANKS
 VERTICAL TURBINE PUMP SUBMERSIBLE PUMP RECIPROCATING PUMP CENTRIFUGAL MULTISTAGE PUMP VACUUM PUMP PERISTALTIC PUMP ROTARY PUMP METERING PUMP DUPLEX METERING PUMP AIR OPERATED DIAPHRAGM PUMP SCREW PUMP PROGRESSIVE CAVITY PUMP JET MIXER EJECTOR/EDUCTOR SUBMERSIBLE EFFLUENT PUMP SUMP PUMP	 GATE GLOBE BUTTERFLY BALL PLUG NEEDLE CHECK DIAPHRAGM BLOCK AND BLEED FLAP GATE MUD BLOCK SLIDE GATE SLUICE GATE PINCH KNIFE GATE ROTARY POST INDICATOR UNKNOWN FLOAT OPERATED SOLENOID SOLENOID 3-WAY SOLENOID 4-WAY NORMALLY OPEN NORMALLY CLOSED LOCK OPEN LOCK CLOSED CAR SEAL OPEN CAR SEAL CLOSED	 DIAPHRAGM ACTUATED VALVE FLOW CONTROL VALVE DIAPHRAGM ACTUATED PRESSURE CONTROL VALVE (FLAG IN DIRECTION OF CONTROLLED PRESSURE) DIRECT ACTING PRESSURE CONTROL VALVE (FLAG IN DIRECTION OF CONTROLLED PRESSURE) DIAPHRAGM ACTUATED DIAPHRAGM VALVE C/W SOLENOID AND MICRO SWITCH	 AIR VACUUM (ANTI-SIPHON) AIR RELEASE/VACUUM AIR RELEASE RUPTURE DISC DIRECT ACTING SAFETY RELIEF VALVE (ANGLE BODY) DIRECT ACTING SAFETY RELIEF VALVE (GLOBE BODY) OPEN DRAIN TO SEWER OR FLOOR DRAIN MUSHROOM VENT GOOSENECK VENT (PIPE)	 STRAINER BASKET TYPE STRAINER BASKET TYPE (DUPLIX) STRAINER "Y" TYPE LINE FILTER PRE-FILTER PRE-FILTER c/w REGULATOR COMBINATION LINE FILTER c/w REGULATOR AND LUBRICATOR TRAVELING WATER SCREEN FIXED SCREEN CENTRIFUGE	 FLUME WEIR TURBINE OR PROPELLER TYPE PRIMARY ELEMENT FLOW SITE GLASS ROTAMETER TYPE FLOW INDICATOR VENTURI TUBE PITOT TUBE OR PITOT VENTURI TUBE ORIFICE PLATE TYPE FLOW INDICATOR RO - RESTRICTION ORIFICE SPECTACLE BLIND FLOW STRAIGHTENING VANES POSITIVE DISPLACEMENT TYPE FLOW TOTALIZING INDICATOR VORTEX SENSOR MAGNETIC FLOW METER ULTRASONIC FLOW METER BACK FLOW PREVENTER	 PRESSURE TANK HOPPER TANK DOME TANK OPEN TANK CLOSED TANK WASH DOWN BOWL
		ELECTRIC CONTROL VALVE ACTUATORS MOTORIZED VALVE MOTORIZED VALVE (FAIL OPEN) MOTORIZED VALVE (FAIL CLOSED) MOTORIZED VALVE (FAIL LAST)	MF/UF/RO FOUR PORT HOUSING TWO PORT HOUSING END PORT HOUSING MEMBRANE MODULE	LINE IDENTIFICATION PRIMARY FLOW LINE SECONDARY FLOW LINE EXISTING FLOW LINE FUTURE FLOW LINE CHANNEL DIRECTION OF FLOW DIRECTION OF SLOPE CONNECTING LINES CROSS OVER LINES INSULATION COLD OR PERSONAL PROTECTION INSULATION TRACE (ELECTRIC) INSULATION TRACE (STEAM OR GLYCOL)	ROTATING EQUIPMENT COMMUNOTOR BARMINOTOR BELT CONVEYOR SCREW CONVEYOR NATURAL GAS ENGINE DIESEL ENGINE VARIABLE SPEED GEAR BOX (MECHANICAL) GEAR DRIVE	MISCELLANEOUS SPRAY NOZZLE COARSE BUBBLE DIFFUSER FINE BUBBLE DIFFUSER LAUNDRY DIFFUSER/COLLECTOR CALIBRATION COLUMN SACRIFICIAL ANODE PULSATION DAMPENNER DIAPHRAGM SEAL/GAUGE GUARD SILENCER (MUFFLER) IMPACTOR ULTRAVIOLET REACTOR CAMLOCK CONNECTION HOSE BIBB CONNECTION QUICK CONNECTION SAFETY SHOWER EYE WASH SAMPLE POINT DRAIN POINT MANUAL VENT/PURGE POINT CHLORINE GAS DETECTOR ULTRASONIC OR RADAR LEVEL INSTRUMENT LEVEL SWITCH INJECTION QUILL (CHEMICAL INJECTION NOZZLE) PIG RECEIVER PIG LAUNCHER
COMPRESSORS CENTRIFUGAL COMPRESSOR ROTARY LOBE OR CLAW COMPRESSOR RECIPROCATING AIR COMPRESSOR SCREW AIR COMPRESSOR REFRIGERATED AIR DRYER DESICCANT AIR DRYER	BLOWERS CENTRIFUGAL FAN OR BLOWER POSITIVE DISPLACEMENT BLOWER FAN	PNEUMATIC CONTROL VALVE ACTUATORS CYLINDER OPERATED CONTROL VALVE SINGLE ACTING ACTUATOR (AIR TO CLOSE) DOUBLE ACTING ACTUATOR SOLENOID ON ACTUATOR POSITIONER AND CYLINDER (AIR TO CLOSE) SINGLE ACTING POSITIONER AND CYLINDER (AIR TO OPEN) SINGLE ACTING POSITIONER AND CYLINDER (AIR TO AIR) DOUBLE ACTING ELECTRO-HYDRAULIC CONTROL VALVE THERMOSTATICALLY CONTROLLED VALVE	HEATING HEAT EXCHANGER INLINE HEATER TANK HEATER RADIATOR PLATE AND FRAME HEAT EXCHANGER DESUPERHEATER	MIXING DEVICES VERTICAL MIXER INLINE MIXER FLOCCULATOR MIXER STATIC MIXER	SYMBOLS ELECTRIC MOTOR PNEUMATIC MOTOR SOLENOID I/P CONVERTOR SPECIALTY ITEM	
			 LINE CONNECTION TO ANOTHER DRAWING LINE CONNECTION FROM ANOTHER DRAWING			

NOTES:
 1. ALL ELEVATIONS AND STATIONS ARE SHOWN IN METRES.
 ALL PIPE LENGTHS, PIPE SIZES AND DIMENSIONS ARE SHOWN IN MILLIMETRES UNLESS OTHERWISE INDICATED.

1	23-10-30	FOR QUOTATION
ISSUE	YY-MM-DD	REVISION

PERMIT TO PRACTICE MPE, a division of Englobe Corp. Signature: APEGA ID: 89080 Date: OCT 30, 2023 PERMIT NUMBER: P 7841 The Association of Professional Engineers and Geoscientists of Alberta (APEGA)	 ZAKHARY A. BERTA ID 80202 OCT 30, 2023
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TOWN OF FORT MACLEOD

**WASTEWATER TREATMENT PLANT
 BLOWER PIPING MODIFICATIONS
 PROCESS
 EQUIPMENT LEGEND**

DESIGNED	Z.A.K.	JOB	1485-081-00
DRAWN	D.A.B.	SCALE	
DATE	OCTOBER 2023	DRAWING	P0.1

PIPE CONNECTIONS			PIPE FITTINGS			LINE LABELLING						
DESCRIPTION	DOUBLE LINE (> 75mm)	SINGLE LINE (< 75mm)	DESCRIPTION	DOUBLE LINE (> 75mm)	SINGLE LINE (< 75mm)	PIPE DIAMETER (mm) / PIPE MATERIAL / SPECIAL TREATMENT CODES LINE IDENTIFICATION: YYY-200-ZZZ-a,b,c						
						LINE IDENTIFICATION (YYY)		PIPE MATERIAL (ZZZ)				
						LINE CODE	FLANGE RATING	SCH OR THICKNESS	BASIC MATERIAL	SPECIAL NOTES		
RAISED FACE WELD NECK FLANGED CONNECTION			CROSS			AA	AQUA AMMONIA	A1	ANSI 150	-	CARBON STEEL	STANDARD WEIGHT (STD)
RAISED FACE SLIP ON FLANGED CONNECTION			CROSS (BRANCH UP)			A2	ACID (pH ADJUSTMENT)	A2	ANSI 150	-	CARBON STEEL	EXTRA STRONG (XS)
VICTAULIC FLANGED CONNECTION			45° ELBOW			A3	ACCS POWDERED ACTIVATED CARBON SOLUTION	A3	ANSI 300	SCH 80	CARBON STEEL	EXTRA STRONG (XS)
BLIND FLANGE			45° ELBOW (UP)			B1	AD AIR DISTRIBUTION	B1	ANSI 150	SCH 80	PVC	-
INSULATING FLANGE			45° ELBOW (DOWN)			B2	AL ALUM	B2	ANSI 150	SCH 40	PVC	-
WELDED CONNECTION (RANDOM LENGTH PIPE)			LATERAL			B3	ALS ALUM SOLUTION	B3	ANSI 150	SDR 18	PVC	-
SCREWED CONNECTION (RANDOM LENGTH PIPE)			90° ELBOW			B4	ALG ALGAEICIDE SOLUTION	B4	ANSI 150	SDR 21	PVC	-
VICTAULIC JOINT CONNECTION			90° ELBOW (UP)			B5	AMG AMMONIA GAS	B5	ANSI 150	SDR 26	PVC	-
UNION			90° ELBOW (DOWN)			B6	AMS AMMONIA SOLUTION	B6	ANSI 150	SDR 28	PVC	-
COMPRESSION COUPLING			45° ELBOW (SHORT RADIUS)			B7	ANS ANTISCALANT	B7	ANSI 150	SDR 32.5	PVC	-
FLANGED COUPLING			90° ELBOW (SHORT RADIUS)			B8	AS AIR SUPPLY	B8	ANSI 150	SDR 35	PVC	-
FLANGED ADAPTOR			BASE ELBOW			B9	BWS BACKWASH SUPPLY	B9	ANSI 150	SDR 41	PVC	-
BELL AND SPIGOT, RING TIGHT, MECHANICAL JOINT CONNECTION			SIDE OUTLET ELBOW (UP)			B10	CAS CITRIC ACID SOLUTION	B10	ANSI 150	SDR 51	PVC	-
COUPLER (PVC)			SIDE OUTLET ELBOW (DOWN)			B11	CDG CARBON DIOXIDE GAS	B11	ANSI 150	SDR 51	PVC	-
			TEE			B12	CDS CARBON DIOXIDE SOLUTION	B12	AWWA 150	C900 AND C905	PVC	-
			TEE (BRANCH UP)			C1	CIPS CLEAN IN PLACE SUPPLY	C1	-	SCH 80	PVC (WELL RISER PIPE)	CERTA-LOCK
			TEE (BRANCH DOWN)			C2	CIPR CLEAN IN PLACE RETURN	C2	-	TYPE K	COPPER	-
			SIDE OUTLET TEE (UP)			C3	CIPD CLEAN IN PLACE DRAIN	C3	-	TYPE L	COPPER	-
			CAP			CLG	CLG CHLORINE GAS	CLG	-	TYPE M	COPPER	-
			CONCENTRIC REDUCER			CLS	CLS CHLORINE SOLUTION	CLS	ANSI 150	SCH 105	STAINLESS STEEL, 304L	-
			ECCENTRIC REDUCER			CO	CO COAGULANT	CO	ANSI 150	SCH 105	STAINLESS STEEL, 316L	-
			EXPANSION JOINT			COS	COS COAGULANT SOLUTION	COS	ANSI 150	SCH 405	STAINLESS STEEL, 304L	-
			FLEXIBLE CONNECTION			CSS	CSS CAUSTIC SODA SOLUTION	CSS	ANSI 150	SCH 405	STAINLESS STEEL, 316L	-
						DCW	DCW DOMESTIC COLD WATER	DCW	ANSI 150	SCH 405	STAINLESS STEEL, 316L	-
						DE	DE DAF EFFLUENT	DE	ANSI 300	SCH 405	STAINLESS STEEL, 304L	-
						DHW	DHW DOMESTIC HOT WATER	DHW	ANSI 300	SCH 405	STAINLESS STEEL, 316L	-
						DHWR	DHWR DOMESTIC HOT WATER RECIRCULATION	DHWR	ANSI 300	SCH 805	STAINLESS STEEL, 304L	-
						DL	DL DIESEL FUEL	DL	ANSI 300	SCH 805	STAINLESS STEEL, 316L	-
						DR	DR DRAIN	DR	-	-	PVC - DWV	-
						DW	DW DAF WASTE	DW	-	-	ABS - DWV	-
						EW	EW EFFLUENT WATER	EW	-	-	BIG 'O' DRAIN	c/w FILTER SOCK
						FL	FL FLUORIDE	G1	ANSI 150	-	DUCTILE IRON	-
						FTW	FTW FILTER TO WASTE	G2	ANSI 150	-	CAST IRON	-
						FW	FW FILTERED WATER	H1	-	DR 9	HDPE 4710	-
						G(H)	G(H) NATURAL GAS (HIGH PRESSURE)	H2	-	DR 11	HDPE 4710	-
						G(L)	G(L) NATURAL GAS (LOW PRESSURE)	H3	-	DR 13.5	HDPE 4710	-
						GLS	GLS GLYCOL SUPPLY	H4	-	DR 15.5	HDPE 4710	-
						GLR	GLR GLYCOL RETURN	H5	-	DR 17	HDPE 4710	-
						HWS	HWS HOT WATER SUPPLY	H6	-	DR 32	HDPE 4710	-
						HWR	HWR HOT WATER RETURN	H7	-	DR 11	PE 2406, YELLOW	-
						IA	IA INSTRUMENT AIR	H8	-	DR 7.3	HDPE 4710	-
						OF	OF OVERFLOW	H11	-	-	PEX A, WATER SERVICE	-
						PLY	PLY POLYELECTROLYTE (LIQUID)	J1	-	-	ASBESTOS CEMENT PIPE	-
						PLYS	PLYS POLYELECTROLYTE SOLUTION	J2	-	CLASS V	REINFORCED CONCRETE PIPE	-
						PO	PO POLYMER	K1	-	-	PE OD TUBING	-
						POS	POS POLYMER SOLUTION	K2	-	-	PE ID TUBING	-
						PPS	PPS POTASSIUM PERMANGANATE SOLUTION	K3	-	-	LLDPE OD TUBING	-
						PSW	PSW PLANT SERVICE WATER	K4	-	-	PP OD TUBING	-
						PW	PW POTABLE WATER	K5	-	-	SS OD TUBING	-
						RAS	RAS RETURN ACTIVATED SLUDGE					
						RF	RF REFRIGERANT					
						RJW	RJW REJECT WATER					
						RW	RW RAW WATER					
						S	S SANITARY WASTE					
						SA	SA SULFURIC ACID	A			CEMENT MORTAR LINING	
						SAM	SAM SAMPLE LINE	B			INTERNAL HOT APPLIED COAL TAR LINING	
						SAS	SAS SODA ASH SOLUTION	C			EXTERNAL HOT APPLIED COAL TAR LINING	
						SB	SB SODIUM BISULPHATE	D			INTERNAL EPOXY COATED	
						SEN	SEN SENSING LINE	E			EXTERNAL EPOXY COATED	
						SHS	SHS SODIUM HYPOCHLORITE SOLUTION	F			EXTERNAL YELLOW JACKETED	
						SLG	SLG SLUDGE	G			EXTERNAL DOUBLE WRAP POLYKEN TAPE	
						SPSW	SPSW SOFTENED PLANT SERVICE WATER	H			EXTERNAL INSULATION	
						SU	SU SUPERNATANT	I			EXTERNAL INSULATION AND ALUMINUM MECHANICAL PROTECTION	
						SV	SV SANITARY VENT	J			EXTERNAL SHOP PRIME	
						TEW	TEW TEMPERED EFFLUENT WASTE	K			DENSYL MASTIC WRAP - BURIED FLANGES, COUPLERS AND VALVES	
						TW	TW TREATED WATER	L			GALVANIZED	
						VE	VE VENT	M			ROCK SHIELD	
						WAS	WAS WASTE ACTIVATED SLUDGE	N			FROST SHIELDED	
						WT	WT WEEPING TILE	P			INSTALLED IN RPVC CONDUIT	
						XR	XR EXCESS RECIRCULATION	R			TRACER WIRE INSTALLED ABOVE PIPE	

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ISSUE	YY-MM-DD	REVISION

PERMIT TO PRACTICE
MPE, a division of Englobe Corp.

Signature:

APEGA ID: 89080

Date: OCT 30, 2023

PERMIT NUMBER: P 7841

The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

OCT 30, 2023



TOWN OF FORT MACLEOD

**WASTEWATER TREATMENT PLANT
BLOWER PIPING MODIFICATIONS
PROCESS
PIPING LEGEND**

DESIGNED	Z.A.K.	JOB	1485-081-00
DRAWN	D.A.B.	SCALE	
DATE	OCTOBER 2023	DRAWING	P0.2

IDENTIFICATION LETTERS				
FIRST LETTER		SUCCEEDING LETTERS		
MEASURED OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	INPUT/OUTPUT FUNCTION	MODIFIER
A	ANALYSIS	ALARM		AUTO
B	BURNER, COMBUSTION	USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
C	COMMUNICATION		CONTROL	CLOSE
D	USER'S CHOICE			
E	VOLTAGE	SENSOR (PRIMARY ELEMENT)		
F	FLOW RATE	RATIO (FRACTION)		FAULT
G	USER'S CHOICE	GLASS, VIEWING DEVICE		
H	HAND			HIGH
I	CURRENT (ELECTRICAL)	INDICATE		
J	POWER	SCAN		
K	TIME, TIME SCHEDULE	TIME RATE OF CHANGE		CONTROL STATION
L	LEVEL	LIGHT		LOW
M	MOTOR	MOMENTARY		MIDDLE INTERMEDIATE USER'S CHOICE
N	SECURITY	USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
O	USER'S CHOICE	ORIFICE, RESTRICTION		OPEN
P	PRESSURE, VACUUM	POINT (TEST) CONNECTION		
Q	QUANTITY OR EVENT	INTEGRATE, TOTALIZE		
R	RADIATION	RECORD		RUN/REMOTE
S	SPEED, FREQUENCY	SAFETY	SWITCH/STATUS	STOP
T	TEMPERATURE		TRANSMIT	
U	MULTIVARIABLE	MULTIFUNCTION	MULTIFUNCTION	MULTIFUNCTION
V	VIBRATION, MECHANICAL ANALYSIS		VALVE, DAMPER, LOUVER	
W	WEIGHT, FORCE	WELL		
X	UNCLASSIFIED	X-AXIS	UNCLASSIFIED	UNCLASSIFIED
Y	EVENT, STATE OR PRESENCE	Y-AXIS	RELAY, COMPUTE, CONVERT DRIVER, ACTUATOR, UNCLASSIFIED FINAL CONTROL ELEMENT	
Z	POSITION, DIMENSION	Z-AXIS		

INSTRUMENT/DEVICE IDENTIFICATION EXAMPLES (aaa)			
AIT	ANALYZER INDICATOR TRANSMITTER	PIT	PRESSURE INDICATOR TRANSMITTER
FCV	FLOW CONTROL VALVE	PI	PRESSURE INDICATOR (PRESSURE GAGE)
FIT	FLOW INDICATOR TRANSMITTER	TSH	TEMPERATURE SWITCH HIGH (HEAT DETECTOR)
LT	LEVEL INDICATOR TRANSMITTER	TSL	TEMPERATURE SWITCH LOW (HEAT DETECTOR)
PCV	PRESSURE CONTROL VALVE	ZSC	POSITION SWITCH CLOSE (DOOR CONTACT)

VALVE FUNCTION EXAMPLES (aaa)			
ZY or ZC	POSITION COMPUTE/CONVERT (CONTROL) - AO	ZCC or YSC	POSITION CONTROL CLOSE - DO
ZT or ZI	POSITION TRANSMIT (FEEDBACK) - AI	ZSO	POSITION STATUS OPEN - DI
ZCO or YSO	POSITION CONTROL OPEN - DO	ZSC	POSITION STATUS CLOSE - DI

MOTOR FUNCTION EXAMPLES (aaa)	
HSA or HA	HAND STATUS AUTO (AUTO SIGNAL FROM THE HAND-OFF-AUTO SWITCH) - DI
MCR or YS	MOTOR CONTROL RUN (START) - DO
MSR or YC	MOTOR STATUS RUN - DI
MSF or YA	MOTOR STATUS FAULT (OVERLOAD) - DI
SY or SC	SPEED COMPUTE/CONVERT (CONTROL) - AO
ST or SI	SPEED TRANSMIT (FEEDBACK) - AI
TSH or YA	TEMPERATURE STATUS HIGH (THERMISTOR) - DI
LSH or YA	LEVEL STATUS HIGH (LEAKAGE IN SUBMERSIBLE PUMP SEAL) - DI

EQUIPMENT TAG	
	LOCALLY MOUNTED INSTRUMENT
	PANEL MOUNTED INSTRUMENT
	BACK OF PANEL MOUNTED INSTRUMENT

PRESSURE CONTROL VALVE LEGEND (xx)	
	PRESSURE CONTROL VALVE
SU	SUSTAINING
RD	REDUCING
RL	RELIEVING
SA	SURGE ANTICIPATING
VR	VACUUM RELIEF

ANALYZING ELEMENT/ALARM LEGEND (yy)	
	PROCESS ANALYZER
CL2	CHLORINE
TURB	TURBIDITY
pH	pH
DO	DISSOLVED OXYGEN
CON	CONDUCTIVITY
TEMP	TEMPERATURE
PC	PARTICLE COUNT

BUILDING ANALYZING ELEMENT/ALARM LEGEND	
	BUILDING ANALYZER
H	HIGH
L	LOW
F	FAULT
SMK	SMOKE
H ₂ S	H ₂ S
CH ₄	METHANE
CO	CARBON MONOXIDE

FUNCTION BLOCK	
	SINGLE SIGNAL
	MULTIPLE SIGNAL
AI	ANALOG INPUT
AO	ANALOG OUTPUT
DI	DIGITAL INPUT
DO	DIGITAL OUTPUT
H	HART
D	DEVICE NET
C	CONTROL NET
M	MODBUS
P	PROFIBUS
E	ETHERNET
qq	PLC IDENTIFIER

INTERLOCK	
	x - INTERLOCK NUMBER (IF APPLICABLE)
	s - INTERLOCK SYSTEM (IE; PLC, DCS, MCC, VFD, ETC.)
	* - PACKAGE CONTROL INTERFACE
	s - CONTROL SYSTEM TYPE
	FIRE SYSTEM
	SECURITY MONITORING SYSTEM

POWER SUPPLY AND PURGE FLUIDS LEGEND			
AS	AIR SUPPLY	HS	HYDRAULIC SUPPLY
IS	INSTRUMENT AIR SUPPLY	NS	NITROGEN SUPPLY
PS	PLANT AIR SUPPLY	SS	STEAM SUPPLY
ES	ELECTRICAL SUPPLY	WS	WATER SUPPLY
GS	GAS SUPPLY		

SIGNAL TYPES	
	PNEUMATIC SIGNAL
	ELECTRICAL SIGNAL
	HYDRAULIC SIGNAL
	CAPILLARY TUBING (FILLED SYSTEM)
	ELECTRO MAGNETIC OR SONIC SIGNAL (GUIDED)
	ELECTRO MAGNETIC OR SONIC SIGNAL (NOT GUIDED)
	INTERNAL SYSTEM LINK (SOFTWARE OR DATA LINK)
	MECHANICAL LINK

FUNCTION SYMBOLS			
	PROPORTIONAL		ANALOG TO DIGITAL
	SQUARE ROOT EXTRACTOR		CURRENT TO PNEUMATIC CONVERTER
	HIGH SELECTOR		PNEUMATIC TO CURRENT TRANSDUCER
	LOW SELECTOR		VOLT TO PNEUMATIC TRANSDUCER
	DIVIDE		VOLT TO CURRENT TRANSDUCER
	MULTIPLY		MILLIVOLT TO CURRENT TRANSDUCER
	SUMMATION		CURRENT TO CURRENT TRANSDUCER
	DIFFERENCE		NON-LINEAR OR UNSPECIFIED FUNCTION
	BIAS		FUNCTION OF TIME
	EXPONENTIAL		REVERSE
	HIGH LIMITING		AUTO MANUAL
	INTEGRAL		AVERAGE
	DERIVATIVE		

NOTES:
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PERMIT TO PRACTICE MPE, a division of Englobe Corp. Signature: APEGA ID: 89080 Date: OCT 30, 2023 PERMIT NUMBER: P 7841 The Association of Professional Engineers and Geoscientists of Alberta (APEGA)	 OCT 30, 2023
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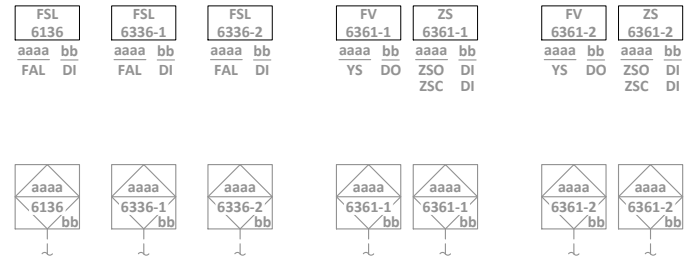
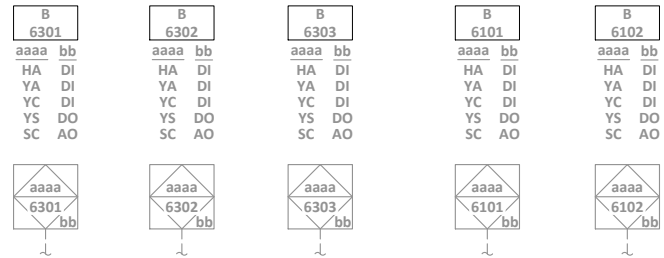
TOWN OF FORT MACLEOD

WASTEWATER TREATMENT PLANT BLOWER PIPING MODIFICATIONS PROCESS INSTRUMENTATION LEGEND

DESIGNED	Z.A.K.	JOB	1485-081-00
DRAWN	D.A.B.	SCALE	
DATE	OCTOBER 2023	DRAWING	P0.3

DIGITAL DRAWINGS BEST VIEWED IN ©ADOBE ACROBAT READER

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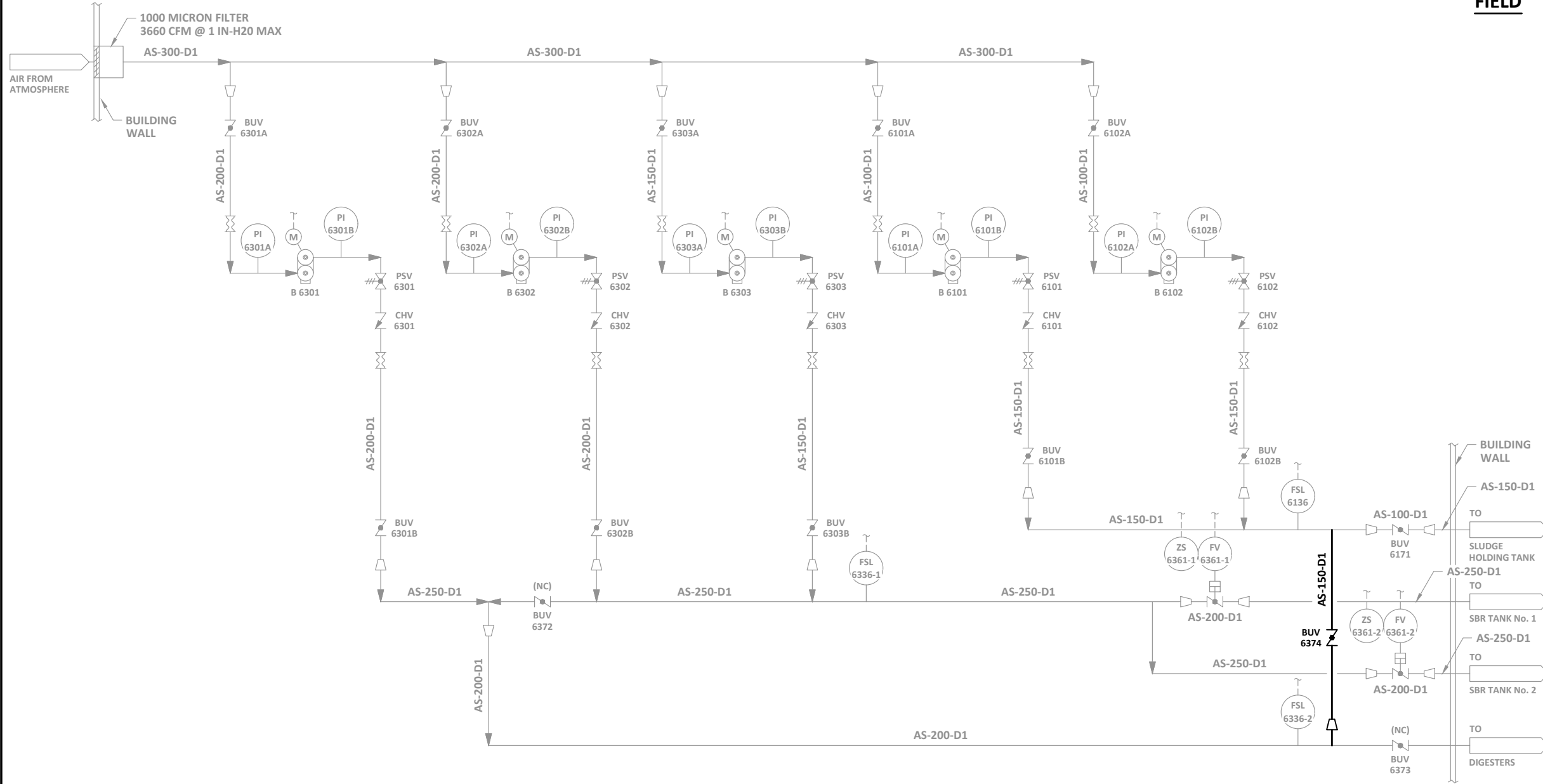


PLC/HMI

MCC

FIELD

NOTES:
1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, SYMBOLS AND ABBREVIATIONS REFER TO THE PROCESS LEGEND DRAWINGS.



B 6301/B 6302
DUTY POINT: 1360 CFM @ 7.3 psig
75 HP
575 VAC/3 PH/60 Hz

B 6303
DUTY POINT: 1085 CFM @ 7.3 psig
75 HP
575 VAC/3 PH/60 Hz

B 6101/B 6102
DUTY POINT: 270 CFM @ 7.3 psig
15 HP
575 VAC/3 PH/60 Hz

DESIGN CRITERIA

1	23-10-30	FOR QUOTATION
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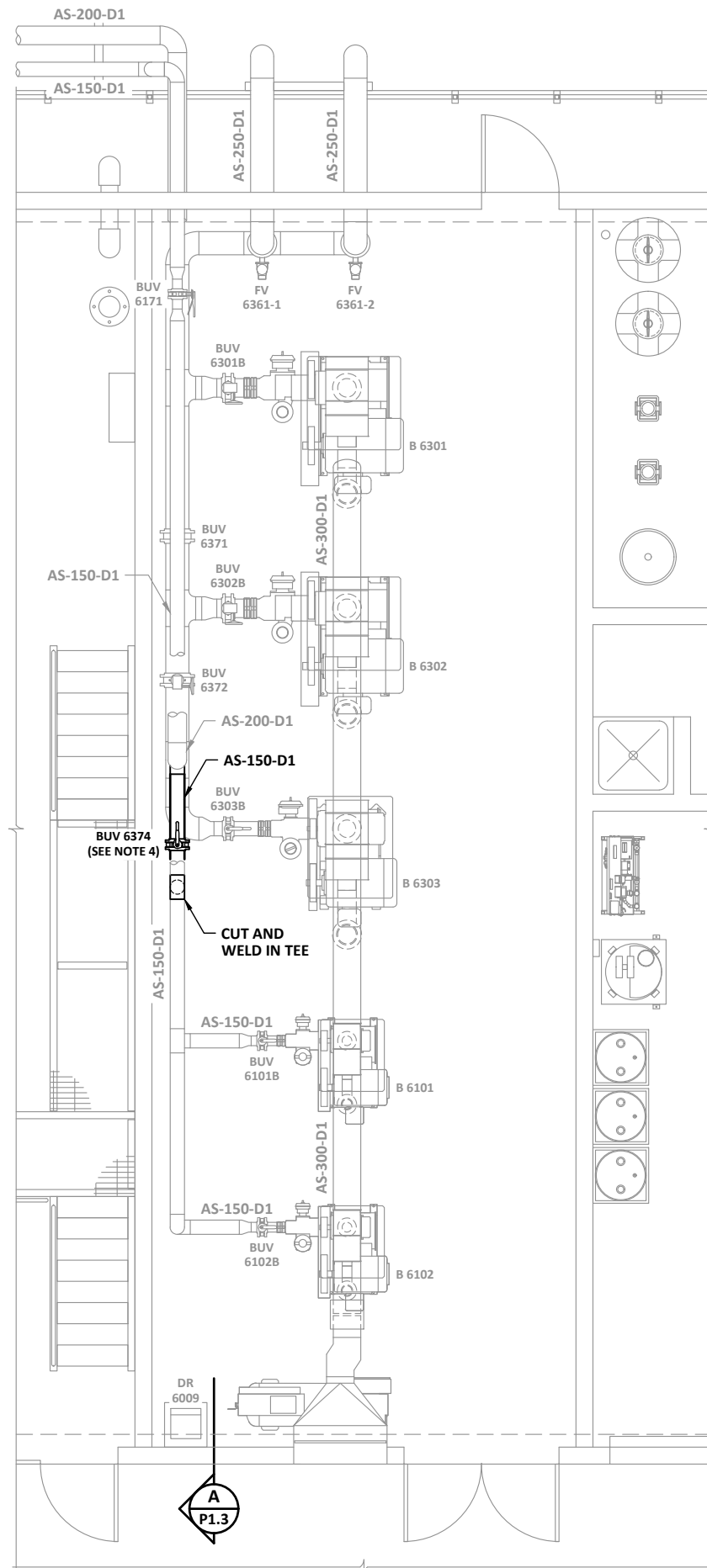
PERMIT TO PRACTICE
MPE, a division of Englobe Corp.
Signature: *[Signature]*
APEGA ID: 89080
Date: OCT 30, 2023
PERMIT NUMBER: P 7841
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)



TOWN OF FORT MACLEOD

**WASTEWATER TREATMENT PLANT
BLOWER PIPING MODIFICATIONS
PROCESS
AIR SYSTEMS FLOW DIAGRAM**

DESIGNED	Z.A.K.	JOB	1485-081-00
DRAWN	D.A.B.	SCALE	
DATE	OCTOBER 2023	DRAWING	P1.1

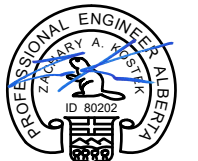


NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, SYMBOLS AND ABBREVIATIONS, REFER TO THE PROCESS LEGEND DRAWINGS.
2. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS. NOTE ANY DISCREPANCIES WITH ENGINEER PRIOR TO CONSTRUCTION OR FABRICATION.
3. CONTRACTOR TO PROVIDE SUPPORT FOR PIPING AND FITTINGS AS PER MANUFACTURER'S RECOMMENDATIONS.
4. SUPPLY AND INSTALL 150Ø BUTTERFLY VALVE. ACCEPTABLE SUPPLIERS: BRAY, PRATT, DeZURIK, WATTS, MUELLER, DRESSER, KEYSTONE.

1	23-10-30	FOR QUOTATION
ISSUE	YY-MM-DD	REVISION

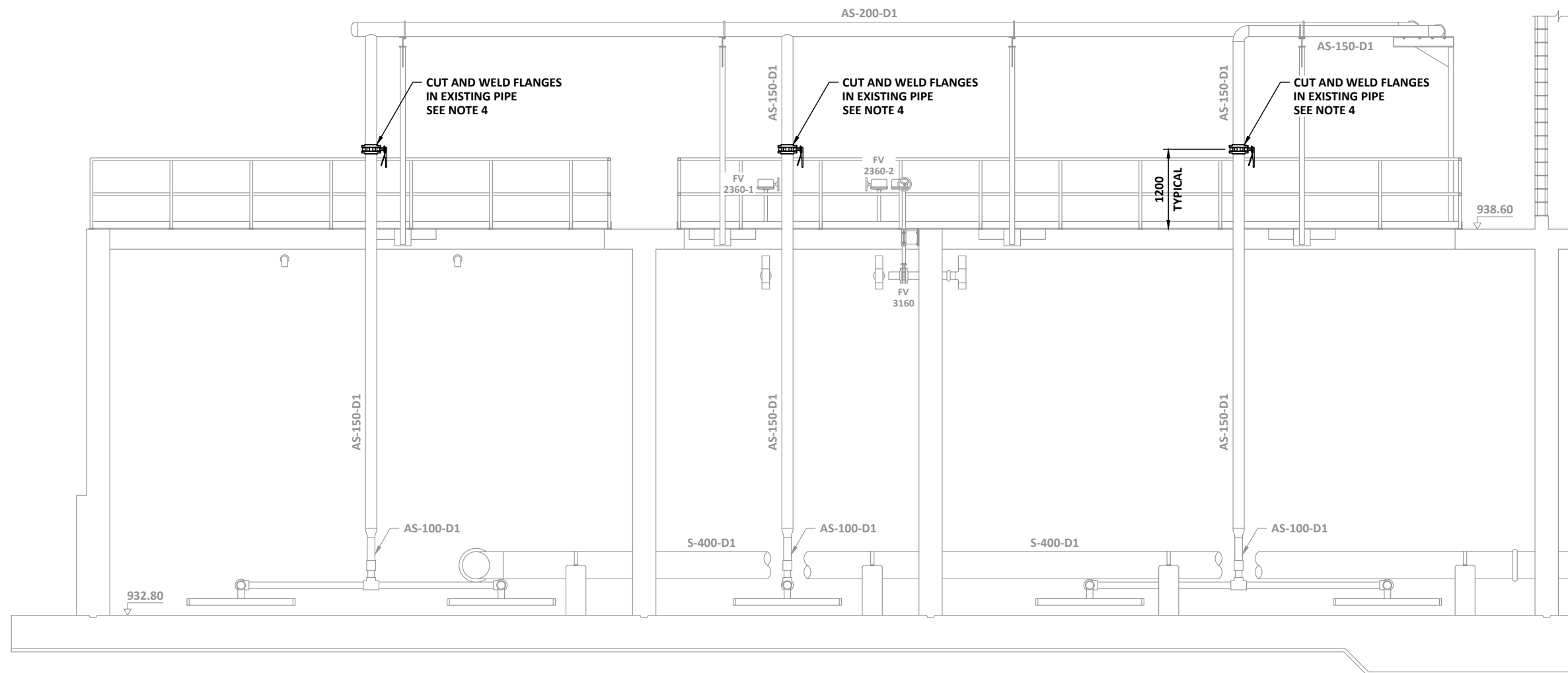
PERMIT TO PRACTICE
MPE, a division of Englobe Corp.
Signature: *[Signature]*
APEGA ID: 89080
Date: OCT 30, 2023
PERMIT NUMBER: P 7841
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)



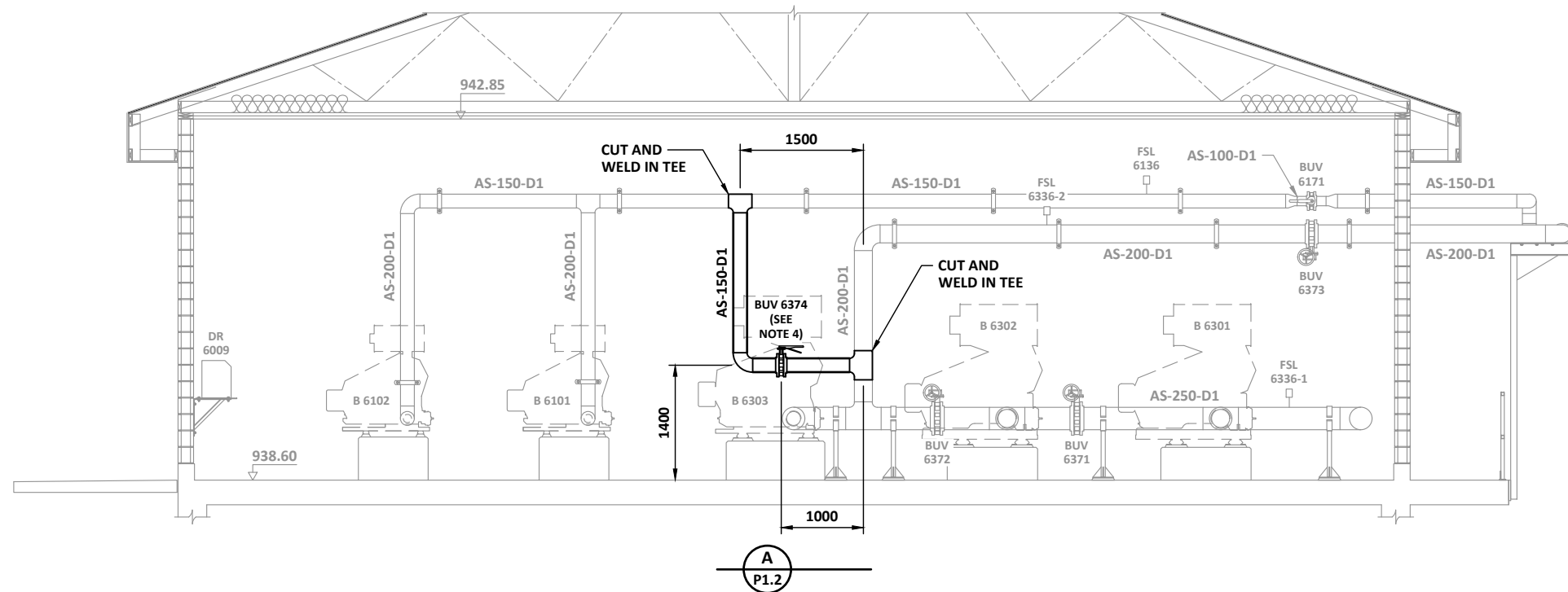
TOWN OF FORT MACLEOD

WASTEWATER TREATMENT PLANT
BLOWER PIPING MODIFICATIONS
PROCESS
BLOWER ROOM PLAN

DESIGNED	Z.A.K.	JOB	1485-081-00
DRAWN	D.A.B.	SCALE	1:75
DATE	OCTOBER 2023	DRAWING	P1.2



SBR BASIN - SECTION

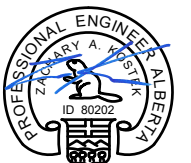


NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, SYMBOLS AND ABBREVIATIONS, REFER TO THE PROCESS LEGEND DRAWINGS.
2. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS. NOTE ANY DISCREPANCIES WITH ENGINEER PRIOR TO CONSTRUCTION OR FABRICATION.
3. CONTRACTOR TO PROVIDE SUPPORT FOR PIPING AND FITTINGS AS PER MANUFACTURER'S RECOMMENDATIONS.
4. SUPPLY AND INSTALL 150Ø BUTTERFLY VALVE. ACCEPTABLE SUPPLIERS: BRAY, PRATT, DeZURIK, WATTS, MUELLER, DRESSER, KEYSTONE.

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OCT 30, 2023



a division of Englobe

TOWN OF FORT MACLEOD

**WASTEWATER TREATMENT PLANT
BLOWER PIPING MODIFICATIONS
PROCESS
SBR BASIN AND BLOWER ROOM
SECTIONS**

DESIGNED	Z.A.K.	JOB	1485-081-00
DRAWN	D.A.B.	SCALE	1:75
DATE	OCTOBER 2023	DRAWING	P1.3