ADDENDUM NO. 1

To the Contract Provisions for
CITY OF SELAH
YAKIMA COUNTY, WASHINGTON

Phase 2 – Wastewater Treatment Plant Improvements

HLA Project No. 23166

BID OPENING: July 30, 2026 1:00 p.m.

To the attention of all bidders for the above project:

The following additions, revisions, and/or modifications are made to the Contract Documents, Plans, and Specifications for this project:

ITEM 1 – SECTION 6, SPECIAL PROVISIONS AND TECHNICAL SPECIFICATIONS, TABLE OF CONTENTS

Revise the title of Section 26 28 16 to read "Enclosed Switches and Circuit Breakers".

ITEM 2 – SECTION 6, SPECIAL PROVISIONS AND TECHNICAL SPECIFICATIONS, SECTION 46 33 33 – POLYMER BLENDING AND FEED EQUIPMENT

Revise Section 2.02A. to read "…components specified herein is DynaBlend Polymer Makedown System…)

ITEM 3 – SECTION 6, SPECIAL PROVISIONS AND TECHNICAL SPECIFICATIONS, SECTION 46 76 71 – INDIRECT BIOSOLIDS DRYING SYSTEM

Revise Section 1.01C to read "…materials of construction, and process performance. Preliminary basis of design information is included in Appendix C – BCR Preliminary Engineering Package."

Revise Section 1.01F.1 to read "Inlet hopper with Live bottoms, ~~leveling screws~~, Load cells, …)

Revise Section 2.06.A.2.b to read "The Hopper shall have a total capacity of 8.0 cubic yards."

Revise Section 2.06.B.3.b.v to read "The burner shall be sized for the maximum and minimum heating loads with 8:1 modulation turndown ratio."

Revise Section 2.06.I.2.i.i to read "Materials of construction shall be carbon steel rotor and stainless steel housing."

Revise Section 2.07.A.5.c. to read "120 VAC service from UPS system to Thermal Fluid System control panel and instruments."

Revise Section 2.07.B.2.a to read "The Panel Mount HMI shall be 22-inch industrial touch panel…"

Delete Section 2.08.B.3.

Revise Section 2.09.C.3 to read "Anchor bolts shall be provided and installed by the Contractor."

ITEM 4 – APPENDIX C – BCR Preliminary Engineering Package

Add the attached Appendix C to the Specifications.

ITEM 5 – CONTRACT PLANS – SHEET G-5 (5), CONSTRUCTION SEQUENCE AND GENERAL NOTES

Revise General Note 8 to read “A preconstruction meeting with the Engineer, the City, the Contractor, and interested…”

Revise Overall Construction Sequence Note 3 to read “Construct new biosolids storage and handling area, and complete sitework to allow truck access.”

ITEM 6 – CONTRACT PLANS – SHEET G-11 (11), AREA 9 P&ID 2

Revise electrical connections from 09-CNT-01 and 09-C-01 to Centrifugal Control Panel (CCP) in lieu of VFD Control Panel (VCP).

ITEM 7 – CONTRACT PLANS – SHEET G-12 (12), AREA 9 P&ID 3

Replace Sheet G-12 with the attached sheet.

ITEM 8 – CONTRACT PLANS – SHEET G-13 (13), AREA 9 P&ID 4

Replace Sheet G-13 with the attached sheet.

ITEM 9 – CONTRACT PLANS – SHEET C2 (15), SITE PIPING PLAN

Revise Construction Note 11 to read “New 6” D.I. drain pipe. Connect to existing 15” PVC sewer pipe with Romac…”

ITEM 10 – CONTRACT PLANS – SHEET M9-3 (19), SOLIDS HANDLING PIPING PLAN

Replace Sheet M9-3 with the attached sheet.

ITEM 11 – CONTRACT PLANS – SHEET M9-6 (22), SOLIDS HANDLING SECTIONS

Replace Sheet M9-6 with the attached sheet.

ITEM 12 – CONTRACT PLANS – SHEET M9-7 (23), SOLIDS HANDLING SECTIONS

Revise Construction Note 20 to read “12” stainless steel flue stack…”

ITEM 13 – CONTRACT PLANS – SHEET M9-10 (26), SOLIDS HANDLING ELEVATIONS

Replace Sheet M9-10 with the attached sheet.

ITEM 14 – CONTRACT PLANS – SHEET S9-4 (44), STRUCTURAL DETAILS

Replace Sheet S9-4 with the attached sheet.

ITEM 15 – CONTRACT PLANS – SHEET S9-5 (45), STRUCTURAL DETAILS

Replace Sheet S9-5 with the attached sheet.

ITEM 16 – SUPPLEMENTAL INFORMATION

See attached Pre-Bid Walkthrough Supplemental Information and Sign-In Sheet.

This ADDENDUM is to be considered as much a part of the contract provisions as if it were included in the body of the Plans and Specifications.

All Bidders shall acknowledge receipt of the ADDENDUM on the proposal form prior to bid opening.

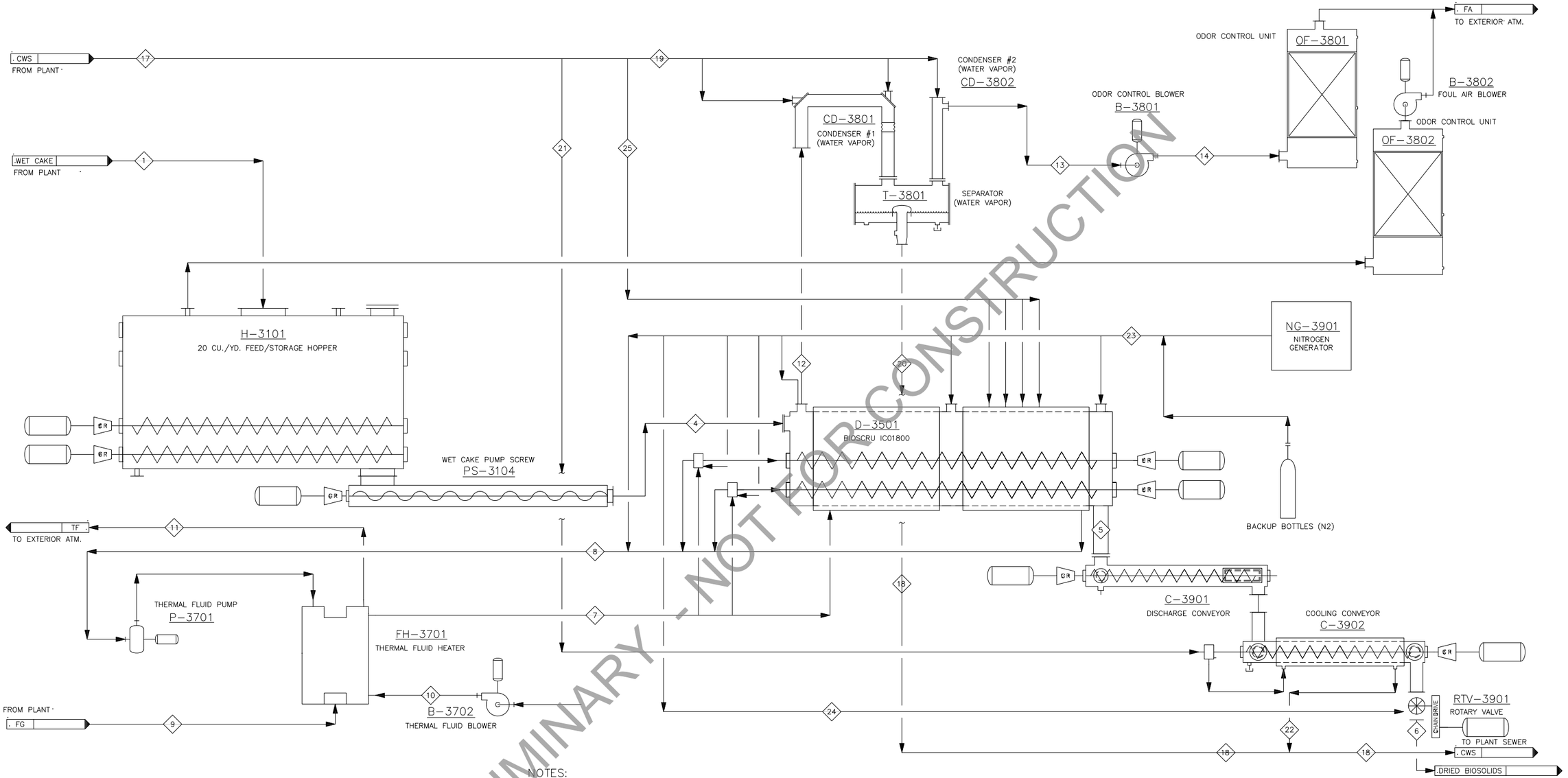
Digitally signed by Robert Scott
Date: 2026.07.17 13:33:26-07'00'

Robert J. Scott, PE
HLA Engineering and Land Surveying, Inc.
2803 River Road
Yakima, WA 98902
Phone: (509) 966-7000

Date

0292-PFD-DWG-0001
PROCESS FLOW DIAGRAM

100 N Laura Street, Suite 601, Jacksonville, FL 32202 | 866.724.9145 | bcrinc.com



NOTES:
1. BACK UP WATER ACTIVATED IN EMERGENCY SITUATION

	STREAM:	1	4	5	6	7	8	9	10	11	12	13	14	17	18	19	20	21	22	23	24	25 (NOTE 1)
	FROM:	CUSTOMER	PS-3101	D-3501	RTV-3901	FH-3701	D-3501	CUSTOMER	B-3701	FH-3701	D-3501	CD-3801	B-3801	CUSTOMER	TK-3801/ C-3902	CUSTOMER	TK-3801	CUSTOMER	C-3902	NG-3901	NG-3901	CUSTOMER
	TO:	H-3101	D-3501	RTV-3901	CUSTOMER	D-3501	FH-3701	FH-3701	COMBUSTION AIR	CUSTOMER	CD-3801	B-3801	O.C.U.	D-3501/ C-3902/ CD-3801/02	CUSTOMER	CD-3801/ CD-3802	CUSTOMER	C-3902	CUSTOMER	PURGING	C-3902	D-3501
DESCRIPTION	**UNITS**	**WET SLUDGE**	**WET SLUDGE**	**DRIED SOLIDS**	**DRIED SOLIDS**	**THERMAL FLUID**	**THERMAL FLUID**	**NATURAL GAS**	**COMBUSTION AIR**	**FLUE GAS**	**VAPOR**	**NCG'S**	**NCG'S**	**C.W. SUPPLY**	**C.W. RETURN**	**CONDENSER SPRAYS**	**CONDENSER DRAIN**	**C.W. SUPPLY**	**C.W. RETURN**	**NITROGEN**	**NITROGEN**	**BACKUP WATER**
SOLIDS	lb/hr	387	387	387	387						0.157				0.157		0.157					
WATER	lb/hr	1550	1550	43.0	43.0						1507			39285	40792	28295	29801	10990	10990			4496
AIR/NCG/N_2	lb/hr								3004	3108	7.56	7.56	7.56							7.00	1.02	
TOTAL	lb/hr	1937	1937	430	430	55051	55051	104	3004	3108	1514	7.56	7.56	39285	40792	28295	29801	10990	10990	7.00	1.02	4496
TEMP.	°F	77.0	77.0	245	110	480	433	77.0	77.0	460	285	72.0	72.0	72.0	115	72.0	130	72.0	74.1	77.0	77.0	72.0
PRESSURE,	PSI (IN. WC)	AMBIENT	AMBIENT	(-0.5)	AMBIENT	25	5	(14)	(3)	(14)	(-0.5)	(-0.5)	(3.5)	60	GRAVITY	45	GRAVITY	45	16	80	80	45
DENSITY	lb/CF	62.4	62.4	40.0	40.0	45.8	46.8	0.0446	0.0748		0.0334	0.0752	0.0760			62.3	61.6	62.3	62.3	0.462		62.3
FLOW	GPM (ACFM)	3.9(0.52)	3.9(0.52)	(0.18)	(0.18)	150	146.6	(39.06)	(669.57)	(1186.36)	(755.64)	(1.68)	(1.66)	78.7	82.4	56.7	60.4	22	22.1	(0.26)	(0.04)	9
DUTY (LHV)	mmBtu/hr					1.82		2.12			1.64				1.66			0.0239				

REVISION HISTORY						
ECN	REV	DESCRIPTION	DWN	CHK	APP	DATE
---	A	ISSUED FOR REVIEW	SA	LWR	NC	11/12/2025

BCR
100 N. LAURA STREET
SUITE 601
JACKSONVILLE, FL. 32202
PHONE (904) 819-9160

PROCESS FLOW DIAGRAM IC01800 BIOSCRU DRYER SYSTEM

COMPANY DESC.	CITY OF SELAH WWTP	PLANT LOCATION	SELAH, WA
PROJECT NO.	BCR-0292	STATUS: IFR / SCALE: NTS / REV: A	
DOCUMENT NO.	0292-PFD-DWG-0001-IC01800		
DRAWING NO.	PFD20000	SHEET NO.	1 - of - 1

0292-PID-DWG-3000
PIPING & INSTRUMENTATION DIAGRAM

100 N Laura Street, Suite 601, Jacksonville, FL 32202 | 866.724.9145 | bcrinc.com

CITY OF SELAH WASTE WATER TREATMENT PLANT (WWTP)
SELAH, WA
IC01800 BIOSCRU

PIPING & INSTRUMENTATION DIAGRAM (P&ID)

REVISION HISTORY						
ECN	REV	DESCRIPTION	DWN	CHK	APP	DATE
---	A	ISSUED FOR REVIEW	SA	LWR	NC	07/14/2025

BCR
100 N. LAURA STREET,
SUITE 601,
JACKSONVILLE, FL. 32202

PIPING & INSTRUMENTATION DIAGRAM
IC01800 BIOSCRU
COVER SHEET

COMPANY DESC. CITY OF SELAH WWTP			PLANT LOCATION SELAH, WA	
PROJECT NO. BCR-0292	STATUS IFR	SCALE NTS	REV A	
DOCUMENT NO. 0292-PID-DWG-3000				
DRAWING NO. PID3000			SHEET NO. 1 -of- 12	

P&ID INDEX OF SHEETS			
DWG NO.	REV.	STATUS	DESCRIPTION
PID3000	A	IFR	COVER SHEET
PID3001	A	IFR	INDEX OF SHEETS
PID3002	A	IFR	EQUIPMENT AND VALVE TAGGING
PID3003	A	IFR	GENERAL P&ID SYMBOLS
PID3004	A	IFR	INSTRUMENTATION AND CONTROL IDENTIFICATION
PID3005	A	IFR	INSTRUMENT CONTROL SYMBOLS
PID3100	A	IFR	WET CAKE STORAGE & FEED SYSTEM
PID3500	A	IFR	BIOSOLIDS DRYER SYSTEM
PID3700	A	IFR	THERMAL FLUID HEATER SYSTEM
PID3800	A	IFR	CONDENSING & EXHAUST SYSTEM
PID3900	A	IFR	DISCHARGE COOLING AND LOADOUT
PID3910	A	IFR	BIOSOLIDS TRANSFER CONVEYOR

REVISION HISTORY						
ECN	REV	DESCRIPTION	DWN	CHK	APP	DATE
---	A	ISSUED FOR REVIEW	SA	LWR	NC	07/14/2025
---	A	ISSUED FOR REVIEW	SS	LWR	NC	04/17/2026

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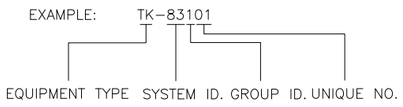
SUITE 601,
JACKSONVILLE, FL. 32202

PIPING & INSTRUMENTATION DIAGRAM
IC01800 BIOSCRU
INDEX OF SHEETS

COMPANY DESC.	CITY OF SELAH WWTP	PLANT LOCATION	SELAH, WA	
PROJECT NO.	BCR-0292	STATUS: IFR	SCALE: NTS	REV: A
DOCUMENT NO.	0292-PID-DWG-3001			
DRAWING NO.	PID3001	SHEET NO.	2 -of-12	

EQUIPMENT NUMBERING SYSTEM

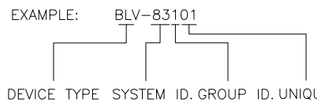
EQUIPMENT NUMBER PHILOSOPHY



EQUIP. ID.	DESCRIPTION
B	BLOWER
BC	BELT CONVEYOR
BE	BUCKET ELEVATOR
C	SCREW CONVEYOR
CC	COOLING CONVEYOR
CD	CONDENSER
CHX	COOLING HEAT EXCHANGER
CP	COMPRESSOR
D	DRYER
DC	DISCHARGE CONVEYOR
DC	DUST COLLECTOR
DVV	BIOSOLIDS DIVERTER VALVE
F	FILTER
FH/TFH	THERMAL FLUID HEATER
G	GENERATOR
H	FEED HOPPER/PELLET HOPPER
LDC	LOADOUT CHUTE
NG	NITROGEN GENERATOR
OF	ODOR FILTER
P	PUMP
PC	PELLET COOLER
PM	PELLET MILL
PRD	PRESSURE RUPTURE DISK
PS	PUMP SCREW
RU	ROTARY UNION
SB	SPRAY NOZZLE
SG	SIGHT GLASS
STR	STRAINER
TK	EXPANSION TANK/ SEPARATOR/ CATCH TANK/ ODOR SCRUBBER
V	VESSEL STORAGE

VALVE NUMBERING SYSTEM

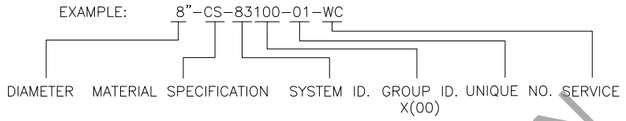
INLINE VALVE/ DEVICE NUMBER PHILOSOPHY



DEVICE ID.	DESCRIPTION
ACV	AIR CONTROL VALVE
ARV	AIR RELIEF VALVE
ATV	ADJUSTABLE THROTTLE VALVE
BCV	BALL CHECK VALVE
BFV	BUTTERFLY VALVE
BGV	BLOCK GATE VALVE
BLV	BALL VALVE
BLW	BELLOWS (EXPANSION JOINT)
BPR	BACK PRESSURE REGULATOR
CKV	CHECK VALVE
DIV	DIAPHRAGM VALVE
DVV	DIVERTER VALVE
FIV	FLOW INDICATOR VALVE
GCV	GAS CONTROL VALVE
GLV	GLOBE VALVE
GTV	GATE VALVE
KGV	KNIFE GATE VALVE
MOV	MOTOR OPERATED VALVE
MVL	MANIFOLD VALVE
NDV	NEEDLE VALVE
PNV	PINCH VALVE
PRV	PRESSURE REDUCING VALVE
PVRV	PRESSURE VACUUM RELEASE VALVE
SOV	SOLENOID OPERATED VALVE
TWV	THREE WAY VALVE
VBV	VACUUM BREAK VALVE

LINE NUMBERING SYSTEM

PIPE LINE NUMBER PHILOSOPHY



MATERIAL	DESCRIPTION
CPVC	CHLORINATED POLYVINYL CHLORIDE
CS	CARBON STEEL
DI	DUCTILE IRON
PCV	POLYVINYL CHLORIDE
SS	STAINLESS STEEL

SERVICE	PROCESS MEDIA IDENTIFICATION
CDA	COMPRESSED AIR
CWS	COOLING WATER
DB	DRIED BIOSOLIDS
FA	FOUL AIR
FG	FUEL GAS
IA	INSTRUMENT AIR
N	NITROGEN
NG	NATURAL GAS
TF	THERMAL FLUID
WC	WET CAKE
WV	WATER VAPOR

REVISION HISTORY						
ECN	REV	DESCRIPTION	DWN	CHK	APP	DATE
---	A	ISSUED FOR REVIEW	SS	LWR	NC	04/15/2026

BCR
100 N. LAURA STREET,
SUITE 601,
JACKSONVILLE, FL. 32202

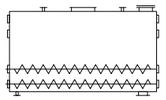
PIPING & INSTRUMENTATION DIAGRAM
IC01800 BIOSCRU
EQUIPMENT & VALVE TAGGING

COMPANY DESC. CITY OF SELAH WWTP		PLANT LOCATION SELAH, WA	
PROJECT NO. BCR-0292	STATUS IFR	SCALE NTS	REV A
DOCUMENT NO. 0292-PID-DWG-3002			
DRAWING NO. PID3002		SHEET NO. 3 -of-12	

SYMBOL IDENTIFICATION

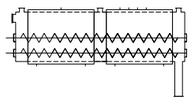
EQUIPMENT SYMBOLS

FEED HOPPER

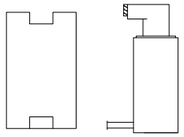


PUMP SCREW

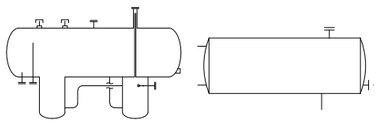
BIOSCRU
IC03600 DRYER



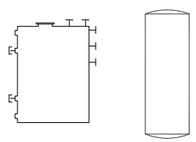
THERMAL FLUID
HEATER



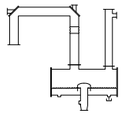
EXPANSION
TANK



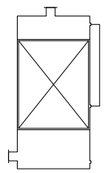
CATCH TANK



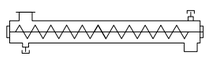
CONDENSER/
SEPARATOR



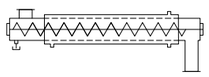
ODOR SCRUBBER



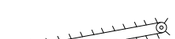
DISCHARGE
SCREW



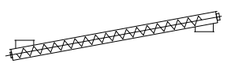
COOLING
SCREW



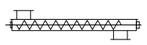
CONVEYOR
CLEATED BELT



SCREW CONVEYOR
(INCLINE)



SCREW CONVEYOR



FLOWMETER, MAGNETIC

SIGHT GLASS

ELECTRIC MOTOR

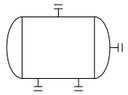
GEARED REDUCER

ROTARY UNION

PUMP, CENTRIFUGAL

FAN/BLOWER

PRESSURE RUPTURE DISC



VESSEL STORAGE

SPRAY NOZZLE

KNIFE-GATE VALVE

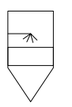
ROTARY VALVE (AIR LOCK)

DIVERTER VALVE (BIOSOLIDS)

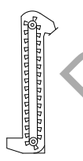
LOADOUT CHUTE

PELLET MILL

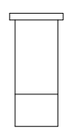
CONVEYOR SHAKER
TABLE W/ DUST COLLECTION



ROTOCLONE DUST
COLLECTION

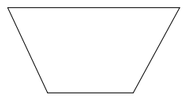


BUCKET ELEVATOR

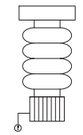


FLUID FILTER

DROP PAN



PELLET HOPPER



LOADOUT CHUTE

VALVES

BALL VALVE

SOLENOID VALVE
NORMALLY OPEN

MOTOR OPERATED
VALVE

BALL CHECK VALVE

DIAPHRAGM VALVE

CHECK VALVE

PRESSURE RELIEF VALVE
AIR RELIEF VALVE

VACUUM BREAK VALVE

PRESSURE VACUUM VALVE

PRESSURE REDUCING
VALVE

BACK PRESSURE
REGULATOR

GLOBE VALVE

3-WAY BALL VALVE

4-WAY BALL VALVE

ADJUSTABLE THROTTLE
VALVE

GATE VALVE

PINCH VALVE

GLOBE VALVE
(NORMALLY CLOSED)

VALVE (ANGLED)

LOUVERED VALVE

BUTTERFLY VALVE
BLOCK GATE VALVE

NEEDLE VALVE

PRESSURE RUPTURE DISK

GAS CONTROL VALVE

DIVERTER VALVE

KNIFE GATE VALVE

ACTUATORS

ACTUATOR, SOLENOID

ACTUATOR, AIR CYLINDER

ACTUATOR, MOTOR

ACTUATOR, MOTOR W/ POSITIONER

ACTUATOR, DIAPHRAGM

ACTUATOR, HYDRAULIC

PIPING CONNECTIONS

FLANGE

WELDED CONNECTION

TEE

CROSS

SADDLE TAP

UNION

REDUCER

FLEXIBLE CONNECTION

HOSE CONNECTION

CAP

Y-TYPE STRAINER

EXPANSION JOINT

SAMPLE PORT

FLOOR DRAIN

INLINE MIXER

STRAINER

FILTER

REVISION HISTORY						
ECN	REV	DESCRIPTION	DWN	CHK	APP	DATE
---	A	ISSUED FOR REVIEW	SS	LWR	NC	04/15/2026

BCR
100 N. LAURA STREET,
SUITE 601,
JACKSONVILLE, FL. 32202

PIPING & INSTRUMENTATION DIAGRAM
IC01800 BIOSCRU
GENERAL P&ID SYMBOLS

COMPANY DESC. CITY OF SELAH WWTP		PLANT LOCATION SELAH, WA	
PROJECT NO. BCR-0292	STATUS IFR	SCALE NTS	REV A
DOCUMENT NO. 0292-PID-DWG-3003			
DRAWING NO. PID3003		SHEET NO. 4 -or- 12	

INSTRUMENT IDENTIFICATION LETTERS

	FIRST LETTER		SECOND LETTER		
	MEASURING OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A	ANALYSIS	—	ALARM	—	—
B	BURNER, COMBUSTION	—	USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
C	USER'S CHOICE	—	CLOSE	CONTROL	—
D	USER'S CHOICE	DIFFERENTIAL	—	—	—
E	VOLTAGE	—	SENSOR (PRIMARY ELEMENT)	—	—
F	FLOW RATE	RATIO (FRACTION)	—	—	—
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	USER'S CHOICE	MOMENTARY	—	—	MIDDLE, INTERMEDIATE
N	USER'S CHOICE	—	USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
O	USERS' CHOICE	—	ORIFICE (RESTRICTION) OPEN	—	—
P	PRESSURE, VACUUM	—	POINT (TEST CONNECTION)	—	—
Q	QUANTITIY	—	—	—	—
R	RADIATION	—	RECORD	—	—
S	SPEED, FREQUENCY	SAFETY	—	SWITCH	—
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 OF PRESENCE	Y – AXIS	—	RELAY, COMPUTE, CONVERT	—
Z	POSITION, DIMENSION	Z – AXIS	—	DRIVER, ACTUATOR, FINAL CONTROL ELEMENT	—

NOTE 1: SEE ANSI/ISA-S5.1 STANDARD "INSTRUMENTATION SYMBOLS & INDENDIFICATION" FOR ADDITIONAL DETAILS ON ABOVE TABLE.
NOTE 2: SEE ANSI/ISA-S5.1 STANDARD, TABLE 2, FOR TYPICAL LETTER COMBINATIONS.

INSTRUMENT SYMBOLS

LOCATION / ACCESSIBILITY	DISCRETE INSTRUMENTS	SHARED DISPLAY SHARED CONTROL	PRIMARY PLC	STANDALONE CONTROL SYSTEM / FUNCTION	COMPUTER FUNCTION
FIELD MOUNTED > FIELD OR LOCALLY MOUNTED > ACCESSIBLE TO OPERATOR AT DEVICE	*				
PRIMARY LOCATION NORMALLY ACCESSIBLE TO AN OPERATOR > CENTRAL OR MAIN CONTROL ROOM > FRONT OF MAIN PANEL OR CONSOLE MOUNTED > VISIBLE ON VIDEO DISPLAY > ACCESSIBLE TO AN OPERATOR AT DEVICE OR CONSOLE	*				
PRIMARY LOCATION NORMALLY INACCESSIBLE TO AN OPERATOR > CENTRAL OR MAIN CONTROL ROOM > REAR OF MAIN PANEL OR CONSOLE MOUNTED > NOT VISIBLE ON VIDEO DISPLAY > NOT NORMALLY ACCESSIBLE TO AN OPERATOR AT DEVICE OR CONSOLE					
AUXILLARY LOCATION NORMALLY ACCESSIBLE TO AN OPERATOR > SECONDARY OR LOCAL CONTROL ROOM > FIELD OR LOCAL CONSOLE PANEL > REAR OR SECONDARY, LOCAL PANEL OR CABINET MOUNTED > NOT VISIBLE ON VIDEO DISPLAY > NOT NORMALLY ACCESSIBLE TO AN OPERATOR AT DEVICE OR CONSOLE					
AUXILLARY LOCATION NORMALLY INACCESSIBLE TO AN OPERATOR > SECONDARY OR LOCAL CONTROL ROOM > FIELD OR LOCAL CONSOLE PANEL > REAR OR SECONDARY, LOCAL PANEL OR CABINET MOUNTED > NOT VISIBLE ON VIDEO DISPLAY > NOT NORMALLY ACCESSIBLE TO AN OPERATOR AT DEVICE OR CONSOLE					
NOTE 1: "" ABBREVIATION OF USER'S CHOICE, SUCH AS:* *> GB1: GAUGE BOARD #1* *> JUNCTION PANEL #2* *> ETC.*					

INSTRUMENT LINE SYMBOLS

TYPE	LINE SYMBOL
INSTRUMENT LINE	
PNEUMATIC LINE	
CAPILLARY TUBING	
PLC / ELECTRICAL SIGNAL	
PLC SOFTWARE SIGNAL	
FIBER OPTIC CABLE	

INSTRUMENT FUNCTION SYMBOLS

Σ/n	AVERAGING
/	CONVERT
d/dt	DERIVATIVE
Δ	DIFFERENCE
÷	DIVIDING
X^n	EXPONENTIAL
>	HIGH SELECT
▷	HIGH LIMITING
∫	INTEGRAL
<	LOW SELECT
◁	LOW LIMITING
X	MULTIPLYING
±	PLUS/MINUS BIAS
K	PROPORTIONAL
$\sqrt{}$	ROOT EXTRACTION
$\sqrt{}$	SQUARE ROOT
Σ	SUMMING
F(+)	TIME
F(x)	UNSPECIFIED TIME
MISC. INSTRUMENT SYMBOLS	
LC 8XXX1 LS 8XXX1	INSTRUMENTS OR FUNCTIONS SHARING COMMON HOUSING
E LS 8XXX2	INSTRUMENT POWER

INSTRUMENT IDENTIFICATION

PG — INSTRUMENT TYPE I.D.
SYSTEM ID NO. — 8XXXX
GROUP ID NO. — UNIQUE NO.

ID	DESCRIPTION	ID	DESCRIPTION	ID	DESCRIPTION
AE	ANALYTICAL ELEMENT	LS	LEVEL SWITCH	SIC	SPEED INDICATOR/CONTROLLER (VFD)
AP	ANALYTICAL SAMPLE POINT	LSH	LEVEL SWITCH: HIGH ALARM	SOV	SOLENOID VALVE
AIT	ANALYTICAL INDICATING TRANSMITTER	LSHH	LEVEL SWITCH: HIGH–HIGH ALARM/TRIP	SSL	SPEED SWITCH: LOW ALARM
AV	ANALYTICAL CONTROL VALVE	LSL	LEVEL SIWTCH: LOW ALARM	ST	SPEED FEEDBACK (MOTOR VFD)
AW	ANALYTICAL PROBE	LSLL	LEVEL SWITCH: LOW–LOW ALARM/TRIP	SV	SOLENOID VALVE
BE	U.V. FLAME SCANNER	LT	LEVEL TRANSMITTER	SY	SPEED CONTROL (PCS TO VFD)
BMI	HEATHER BURNER FLAME MONITOR	LV	LEVEL CONTROL VALVE	TE	TEMPERATURE ELEMENT
BMS	HEATHER BURNER MANAGEMENT SYSTEM	LY	LEVEL CONTROL VALVE ACTUATOR	TI	TEMPERATURE INDICATOR
FA	FAILURE ALARM (F)	MOV	MOTOR OPERATED VALVE	TIC	TEMPERATURE INDICATING CONTROLLER
FE	FLOW ELEMENT	PCV	PRESSURE REGULATING CONTROL VALVE	TIT	TEMPERATURE INDICATING TRANSMITTER
FIC	FLOW INDICATING CONTROLLER	PDI	PRESSURE DIFFERENTIAL INDICATOR	TSH	TEMPERATURE SWITCH: HIGH ALARM
FIT	FLOW INDICATING TRANSMITTER	PDIT	PRESSURE DIFFERENTIAL INDICATING TRANSMITTER	TSHH	TEMPERATURE SWITCH: HIGH–HIGH ALARM/TRIP
FS	FLOW SWITCH	PDS	PRESSURE DIFFERENTIAL SWITCH	TSL	TEMPERATURE SWITCH: LOW ALARM
FSH	FLOW SWITCH: HIGH ALARM	PDSH	PRESSURE DIFFERENTIAL SWITCH: HIGH ALARM	TSLL	TEMPERATURE SWITCH: LOW–LOW ALARM/TRIP
FSHH	FLOW SWITCH: HIGH–HIGH ALARM/TRIP	PDSHH	PRESSURE DIFFERENTIAL SWITCH: HIGH–HIGH ALARM/TRIP	TV	TEMPERATURE CONTROL VALVE
FSL	FLOW SWITCH: LOW ALARM	PDSL	PRESSURE DIFFERENTIAL SWITCH: LOW ALARM	TW	TEMPERATURE THERMOWELL
FSLL	FLOW SWITCH: LOW–LOW ALARM/TRIP	PDSLL	PRESSURE DIFFERENTIAL SWITCH: LOW–LOW ALARM/TRIP	TY	TEMPERATURE CONTROL VALVE ACTUATOR
FX	FLOW TRANSDUCER	PI	PRESSURE INDICATOR	VSV	VACUUM SAFETY VALVE
FY	FLOW CONTROL VALVE ACTUATOR	PIC	PRESSURE INDICATING CONTROLLER	WE	WEIGHT ELEMENT
FV	FLOW CONTROL VALVE	PIT	PRESSURE INDICATING TRANSMITTER	WIT	WEIGHT INDICATOR TRANSMITTER
HS	PUSHBUTTON OR SWITCH	PS	PRESSURE SWITCH	WJB	WEIGHT SYSTEM JUNCTION BOX
HTR	SIMPLE HEATER	PSH	PRESSURE SWITCH: HIGH ALARM	XC	LOCAL DISPLAY KEYPAD (MOTOR VFD)
HV	HAND CONTROL VALVE	PSHH	PRESSURE SWITCH: HIGH–HIGH ALARM	XS	CONTROL STATUS (MOTOR)
HY	HAND CONTROL VALVE ACTUATOR	PSL	PRESSURE SWITCH: LOW ALARM	XV	ON/OFF ACTUATED VALVE
I	PCS INTERLOCKS	PSHH	PRESSURE SWITCH: LOW–LOW ALARM	XY	ON/OFF CONTROL (PCS TO VFD)
IT	CURRENT TRANSMITTER/IGNITION TRANSFORMER	PSV	PRESSURE SAFETY RELIEF VALVE	ZI	POSITION INDICATOR
KV	TIME/SEQUENCE CONTROL VALVE	PV	PRESSURE CONTROL VALVE	ZS	POSITION SWITCH
KY	TIME/SEQUENCE CONTROL VALVE ACTUATOR	PVSV	PRESSURE/VACUUM SAFETY RELIEF VALVE	ZSC	POSITION LIMIT SWITCH – CLOSE
LI	LEVEL INDICATOR	PY	PRESSURE CONTROL VALVE ACTUATOR	ZSO	POSITION LIMIT SWITCH – OPEN
LIC	LEVEL INDICATING CONTROLLER	RO	RESTRICTIVE ORIFICE	ZT	POSITION TRANSMITTER
LIT	LEVEL INDICATING TRANSMITTER				

SYSTEM PANEL AND CONTROL COMPONENT IDENTIFICATION

ID	DESCRIPTION	ID	DESCRIPTION	ID	DESCRIPTION
HMI	HUMAN MACHINE INTERFACE	HMCP	THERMAL FLUID HEATER VFD CONTROL PANEL	PCP	PELLETIZER CONTROL PANEL
MCP	MAIN CONTROL PANEL	BMCP	BMS CONTROL PANEL	NCP	NITROGEN GENERATOR CONTROL PANEL
VCP	BIOSCRU VFD CONTROL PANEL	FJB	FEED SYSTEM JUNCTION BOX		
RCP	REMOTE INPUT & OUTPUT CONTROL PANEL	CCP	CONVEYANCE CONTROL PANEL		

REVISION HISTORY						
ECN	REV	DESCRIPTION	DWN	CHK	APP	DATE
---	A	ISSUED FOR REVIEW	SA	LWR	NC	07/15/2025

BCR
100 N. LAURA STREET,
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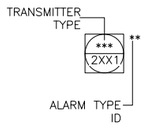
PIPING & INSTRUMENTATION DIAGRAM
IC01800 BIOSCRU
INSTRUMENTATION & CONTROL IDENTIFICATION

COMPANY DESC. CITY OF SELAH WWTP		PLANT LOCATION SELAH, WA	
PROJECT NO. BCR–0292	STATUS IFR	SCALE NTS	REV A
DOCUMENT NO. 0292–PID–DWG–3004			
DRAWING NO. PID3004		SHEET NO. 5 -of- 12	

PCS ALARM & CONTROL SYMBOLS

TRANSMITTER ALARM LEGEND



	ALARM TYPES
HH	HIGH–HIGH TRIP OR ALARM
H	HIGH ALARM
L	LOW ALARM
LL	LOW–LOW ALARM
F	FAULT TRIP OR ALARM
O	FAIL TO OPEN TRIP OR ALARM
C	FAIL TO CLOSE TRIP OR ALARM

NOTES:

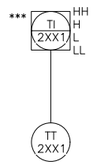
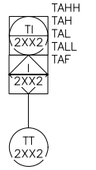
HIS CONTROL LEGEND

	HIS CONTROL TYPES
AM	AUTO–MANUAL
AMO	AUTO–MANUAL–OFF
ASMO	AUTO–STANDBY–MANUAL–OFF (NOTE1)
AO	AUTO–OFF
ED	ENABLE–DISABLE
FX	FLOW TIME
OC	OPEN–CLOSE
SS	START–STOP
R	RESET

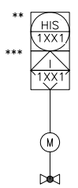
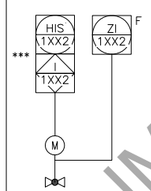
NOTES:
1. UPON FAILURE OF RUNNING EQUIPMENT, THE STANDBY EQUIPMENT WILL AUTOMATICALLY START.

INSTRUMENT P&ID REPRESENTATION

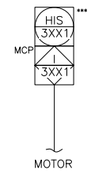
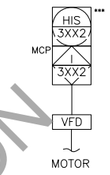
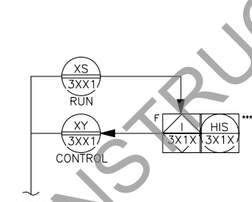
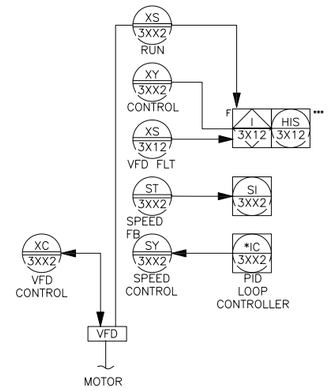
PCS INSTRUMENT - I/O INPUT

P&ID SIMPLIFIED REPRESENTATION	*DETAIL REPRESENTATION*	NOTES:
		1. ALL TRANSMITTERS HAVE FAULT ALARM BUT IT IS NOT SHOWN ON THE P&ID SIMPLIFIED REPRESENTATION. 2. *** CONTROL PANEL DESIGNATION (MCP, RIO, etc.)

PCS INSTRUMENT - I/O OUTPUT

P&ID SIMPLIFIED REPRESENTATION	*DETAIL REPRESENTATION*	NOTES:
		.1. *** CONTROL PANEL DESIGNATION (MCP, RIO,etc.)

MOTOR CONTROL SYMBOLS

P&ID MS NO.	MS1 MOTOR STARTER CONTROL INTERFACE	MS2 MOTOR STARTER CONTROL INTERFACE
P&ID SIMPLIFIED REPRESENTATION		
DETAIL REPRESENTATION		
	MCC OR MS SECTION OF CONTROL PANEL	MCC OR MS SECTION OF CONTROL PANEL
	MS TAG NO : E–000101	MS TAG NO : E–000102
FRONT	SYSTEM E–STOP: HS–000100 (2)	SYSTEM E–STOP : HS–000100 (2)
FRONT		MS VFD DISPLAY/KEYPAD : XC–000102
INSIDE CABINET	RUN (AUX) FEEDBACK: XS–000101	RUN (AUX) FEEDBACK: XS–000102
INSIDE CABINET	PCS START/STOP COMMAND: XY–000102	PCS START/STOP COMMAND: XY–000102
INSIDE CABINET		PCS VFD FAULT: XS–00102
INSIDE CABINET		PCS VFD SPEED FEEDBACK : ST–000102
INSIDE CABINET		PCS VFD SPEED CONTROL : SY–000102
INTERLOCKS, ALARMS & INDICATION	INTERLOCKS : I–000101	INTERLOCKS : I–000102
INTERLOCKS, ALARMS & INDICATION	FAIL TO START/RUN ALARM (F) : XAF–000101	FAIL TO START/RUN ALARM (F) : XAF–000102A
INTERLOCKS, ALARMS & INDICATION	VFD FAULT ALARM (F) : XAF–000101	VFD FAULT ALARM (F) : XAF–000102B
INTERLOCKS, ALARMS & INDICATION	HMI MODE SELECT : HIS–000101 (****)	HMI MODE SELECT : HIS–000102 (***)
INTERLOCKS, ALARMS & INDICATION		PID LOOP CONTROLLER : *IC–******
	NOTES: *1.TYPICAL MOTOR STARTER (MS) USED FOR LOW VOLTAGE MOTORS. START/STOP IS MANUALLY INITIATED FROM THE HMI.* *2.THE E-STOP ON THE MAIN CONTROL PANEL IS INCLUDED IN THE INTERLOCK LOGIC.*	*NOTES:* *1. TYPICAL MOTOR STARTER USED FOR LOW VOLTAGE VFD MOTORS. START/STOP IS MANUALLY INITIATED FROM THE HMI.* *2. THE E-STOP ON THE MAIN CONTROL PANEL IS INCLUDED IN THE INTERLOCK LOGIC.*

REVISION HISTORY						
ECN	REV	DESCRIPTION	DWN	CHK	APP	DATE
---	A	ISSUED FOR REVIEW	SA	LWR	NC	07/15/2025

BCR
100 N. LAURA STREET,
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JACKSONVILLE, FL. 32202

PIPING & INSTRUMENTATION DIAGRAM
IC01800 BIOSCRU
INSTRUMENT CONTROL SYMBOLS

COMPANY DESC.	CITY OF SELAH WWTP	PLANT LOCATION	SELAH, WA
PROJECT NO.	BCR–0292	STATUS / SCALE / REV	IFR / NTS / A
DOCUMENT NO.	0292–PID–DWG–3005		
DRAWING NO.	PID3005	SHEET NO.	6 -of- 12

H-3101
WET CAKE FEED/STORAGE HOPPER
LIVE BOTTOM SCREW FEEDER W/ LEVELING SCREWS @ 8 CU./YD. HOPPER CAPACITY
PRELIM

P-3104
SCREW PUMP, PROGRESSIVE CAVITY
NETZSCH OR SEEPEX
2-5 GPM @ 200 PSIG

M-3104
ELECTRIC GEARMOTOR
10 HP, 480 V, 3 PH, 60 HZ
(INVERTER DUTY) W/ CLASS F INSULATION

MZ-3101A
ELECTRIC GEARMOTOR
3 HP, 480 V, 3 PH, 60 HZ
(INVERTER DUTY) W/ CLASS F INSULATION

MZ-3101B
ELECTRIC GEARMOTOR
3 HP, 480 V, 3 PH, 60 HZ
(INVERTER DUTY) W/ CLASS F INSULATION

PRELIM 3100-01 WET CAKE FROM PLANT

PRELIM 4"-CPVC-3100-02-FA

PRELIM FA 3800-02 FOUL AIR TO ODOR CONTROL FILTER

PRELIM WC 3500-03 WET CAKE TO DRYER

PRELIM 8"-CS-3100-01-WC

BCR SUPPLIED / CUSTOMER SUPPLIED

MCP LI 3101, T C201, LT 3101, T P202, T P201, MANWAY, T P206, 4" BCV-3101

MCP DI 3102A, DI 3102B, T C205, HS 3102

MCP DI 302A, E-STOP PB 302A, T C015

HIS 3101B, HIS 3101A, SIC-3101B, SIC-3101A, VFD, T E204, T E205, GR

WE 3101A, WE 3101B, WE 3101C, WE 3101D

MCP WI 3101, T E206, T C202, WIT 3101, WJB 3101

H-3101

MANWAY

BCR SUPPLIED

MCP TI 3101, PI 3103, T C204, T C203, TT 3101, TE 3101

MCP PI 3102, T C208, PT 3101, PE 3101, PI 3101

PRELIM 0-10 PSIG, PE 3103, PT 3103

M-3104, GR, T E208, VFD, SIC-3104, MCP HIS 3104, I 3104

P-3104

1/2", 6"x8", 3"x6", 3"-CS-3100-01-WC, T P203, HS 3101, T C206, MCP DI 3101A, DI 3101B, 1 1/2", BLV-3102

PRELIMINARY - NOT FOR CONSTRUCTION

SHEET NOTES

1. GATE VALVE REQUIRED FOR CAKE BIN INLET CONNECTIONS WHERE APPLICABLE.
2. VENT NOZZLE IS GOOSENECK WITH A SCREEN & MANUAL SLIDE GATE FOR VENTING.

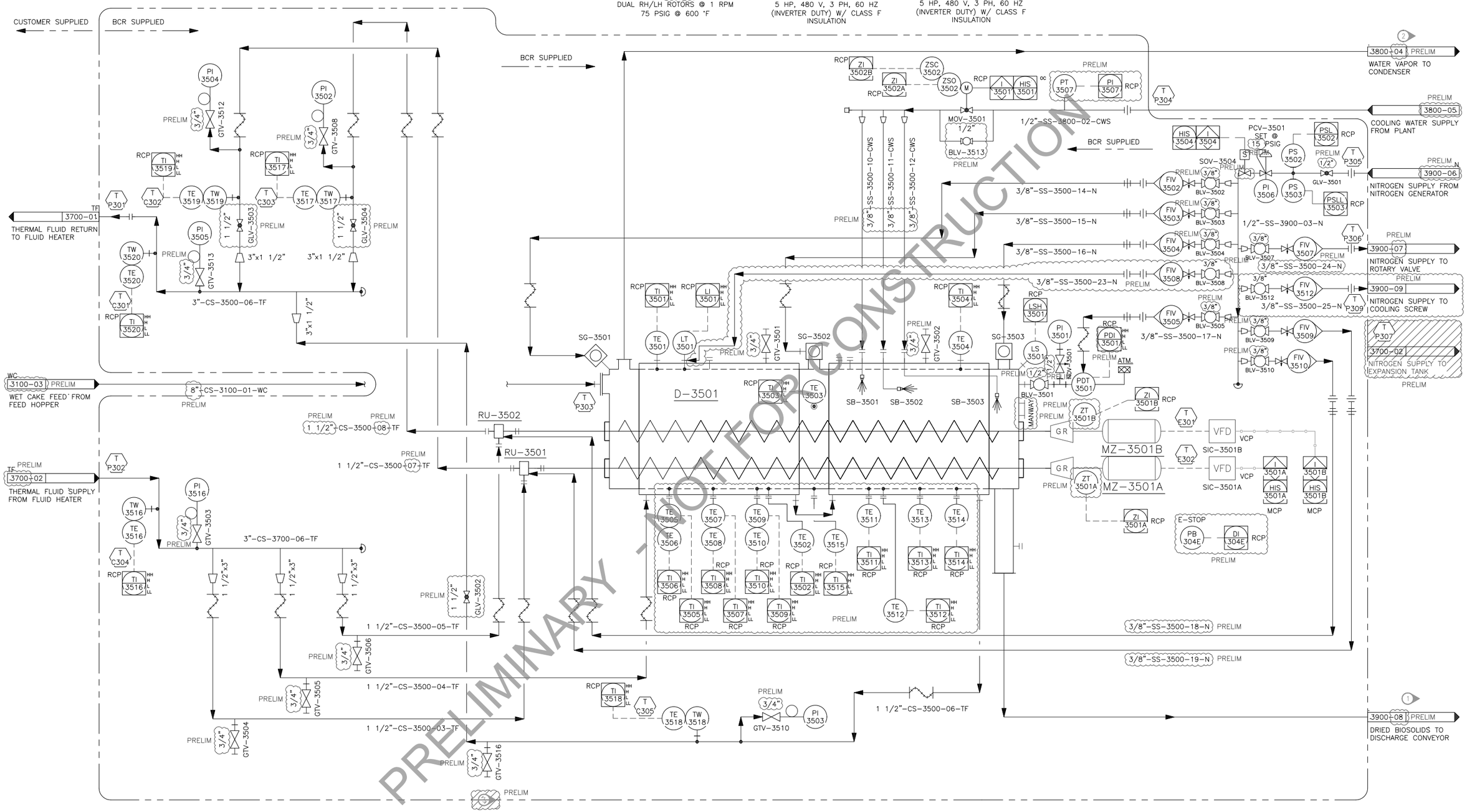
PRELIM

REVISION HISTORY						
ECN	REV	DESCRIPTION	DWN	CHK	APP	DATE
---	A	ISSUED FOR REVIEW	SA	LWR	NC	07/14/2025
---	A	ISSUED FOR REVIEW	SS	LWR	NC	04/21/2026

BCR
100 N. LAURA STREET,
SUITE 601,
JACKSONVILLE, FL. 32202

PIPING & INSTRUMENTATION DIAGRAM
IC01800 BIOSCRU
WET CAKE STORAGE & FEED SYSTEM

COMPANY DESC. CITY OF SELAH WWTP		PLANT LOCATION SELAH, WA	
PROJECT NO. BCR-0292	STATUS IFR	SCALE NTS	REV A
DOCUMENT NO. 0292-PID-DWG-3100			
DRAWING NO. PID3100		SHEET NO. 7 of 12	



SHEET NOTES

1. FOR REFERENCE ONLY, THIS EQUIPMENT D-3501 DISCHARGE & C-3901 INLET ARE CONNECTED FLANGE TO FLANGE (SEE PID3900).
2. FOR REFERENCE ONLY, THIS EQUIPMENT D-3501 VENT & CD-3801 INLET ARE CONNECTED FLANGE TO FLANGE (SEE PID3800).

3. DASHED LINES REPRESENT THE SCOPE BOUNDARY FOR PRE-ASSEMBLED SECTIONS. PRELIM

REVISION HISTORY						
ECN	REV	DESCRIPTION	DWN	CHK	APP	DATE
---	A	ISSUED FOR REVIEW	SA	LWR	NC	07/15/2025
---	A	ISSUED FOR REVIEW	SS	LWR	NC	04/20/2026

BCR
100 N. LAURA STREET,
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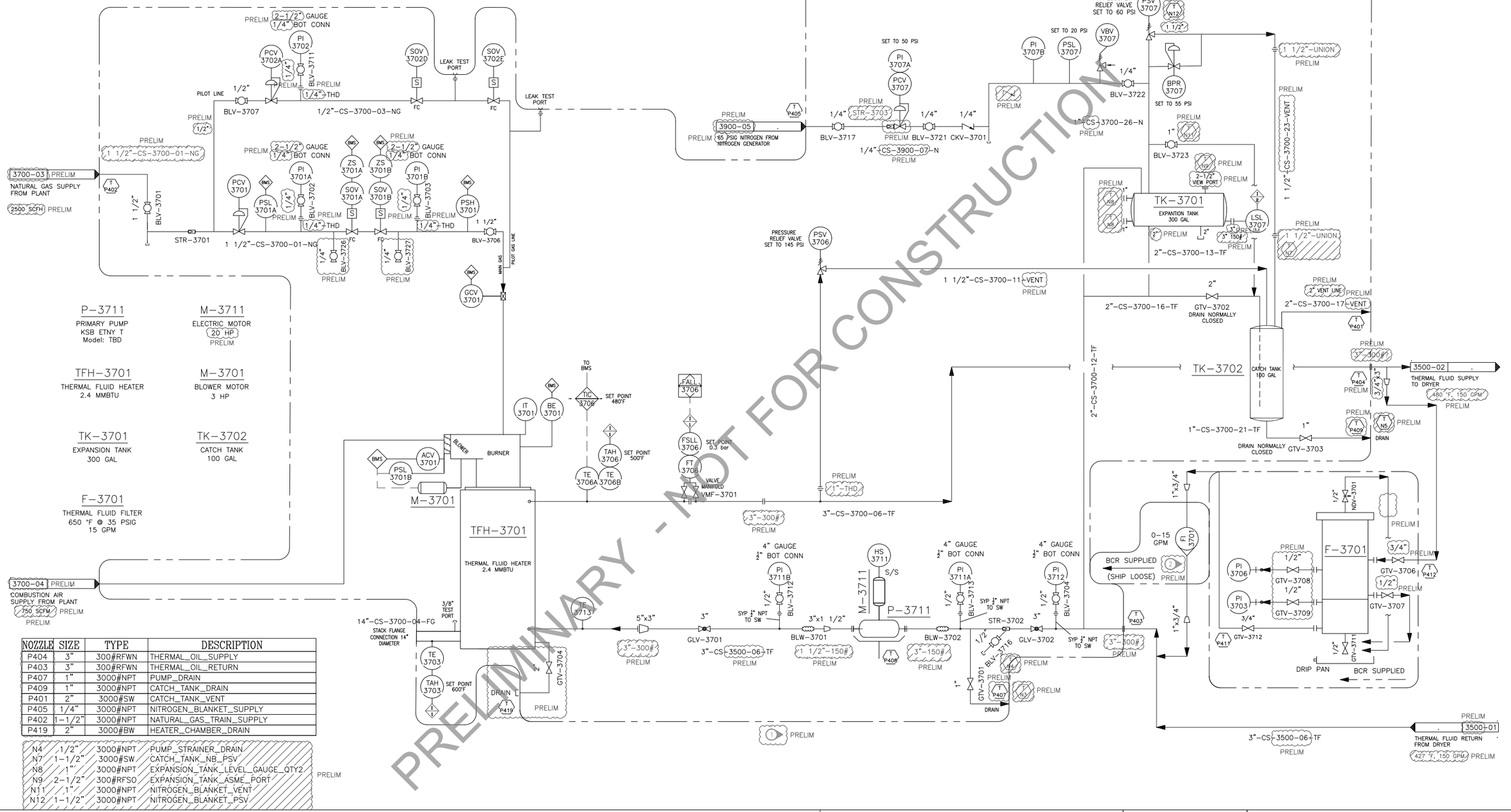
JACKSONVILLE, FL. 32202

PIPING & INSTRUMENTATION DIAGRAM
IC01800 BIOSCRU
BIOSOLIDS DRYER SYSTEM

COMPANY DESC.	CITY OF SELAH WWTP	PLANT LOCATION	SELAH, WA
PROJECT NO.	BCR-0292	STATUS: IFR / SCALE: NTS / REV: A	
DOCUMENT NO.	0292-PID-DWG-3500		
DRAWING NO.	PID3500	SHEET NO.	8 of 12



NOZZLE	SIZE	TYPE	DESCRIPTION
P404	3"	300#RFWN	THERMAL_OIL_SUPPLY
P403	3"	300#RFWN	THERMAL_OIL_RETURN
P407	1"	3000#NPT	PUMP_DRAIN
P409	1"	3000#NPT	CATCH_TANK_DRAIN
P401	2"	3000#SW	CATCH_TANK_VENT
P405	1/4"	3000#NPT	NITROGEN_BLANKET_SUPPLY
P402	1-1/2"	3000#NPT	NATURAL_GAS_TRAIN_SUPPLY
P419	2"	3000#BW	HEATER_CHAMBER_DRAIN
N4	1/2"	3000#NPT	PUMP_STRAINER_DRAIN
N7	1-1/2"	3000#SW	CATCH_TANK_NB_PSV
N8	1"	3000#NPT	EXPANSION_TANK_LEVEL_GAUGE_QTY2
N9	2-1/2"	300#RFSO	EXPANSION_TANK_ASME_PORT
N11	1"	3000#NPT	NITROGEN_BLANKET_VENT
N12	1-1/2"	3000#NPT	NITROGEN_BLANKET_PSV

PRELIM

SHEET NOTES

1. THIS IS A VENDOR CONTROLLED P&ID AND REDRAWN SUITABLE TO BCR STANDARD.
2. FREE ISSUE TO CONTRACTOR; SUPPLIED BY BCR.

REVISION HISTORY						
ECN	REV	DESCRIPTION	DWN	CHK	APP	DATE
---	A	ISSUED FOR REVIEW	SA	LWR	NC	07/15/2025
---	A	ISSUED FOR REVIEW	SS	LWR	NC	04/20/2026

BCR
100 N. LAURA STREET,
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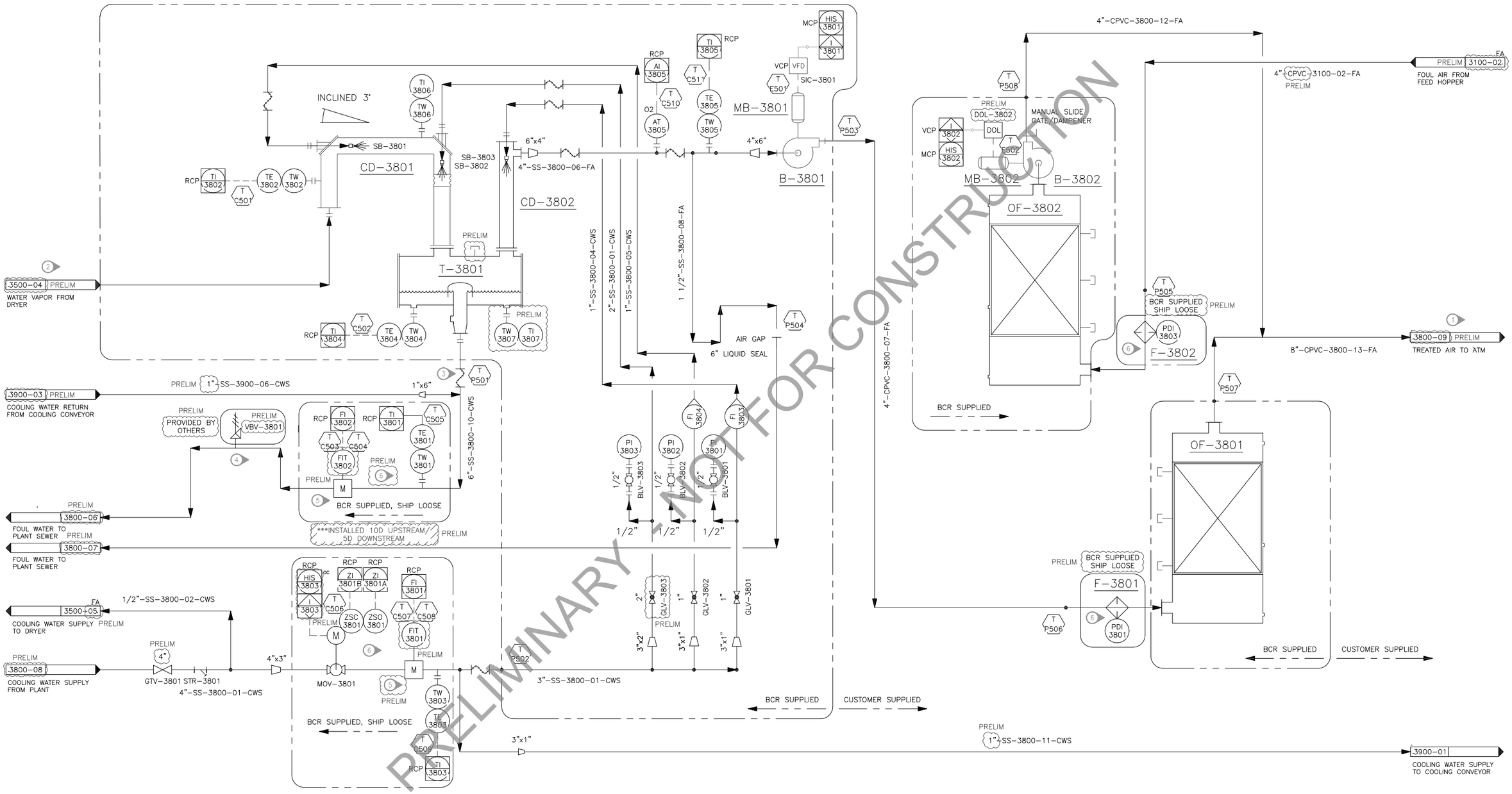
JACKSONVILLE, FL. 32202

PIPING & INSTRUMENTATION DIAGRAM IC01800 BIOSCRU THERMAL FLUID HEATER SYSTEM

COMPANY DESC. CITY OF SELAH WWTP		PLANT LOCATION SELAH, WA	
PROJECT NO. BCR-0292	STATUS IFR	SCALE NTS	REV A
DOCUMENT NO. 0292-PID-DWG-3700			
DRAWING NO. PID3700		SHEET NO. 9 of 12	

CD-3801	T-3801	CD-3802	B-3801	MB-3801	OF-3801	OF-3802	B-3802	MB-3802
12" #150 PIPE DUCT W/ DRYER CHUTE INLET, 304 S/S, (NON-CODE)	SEPARATOR/SCRUBBER, 18" #150 PIPE, 304 S/S, (NON-CODE)	6" #150 PIPE STACK, 304 S/S, (NON-CODE)	CENTRIFUGAL BLOWER S/S WETTED MAT'L, 3500 RPM AIR BLOWER, 9.69 LB/HR @ 77 °F	ELECTRIC MOTOR 1 HP, 480 V, 3 PH, 60 HZ (INVERTER DUTY) W/ CLASS F INSULATION	ODOR CONTROL FILTER PACKAGE CHEMISORPTION MEDIA 300 CFM	ODOR CONTROL FILTER PACKAGE CHEMISORPTION MEDIA 100 CFM	CENTRIFUGAL BLOWER S/S WETTED MAT'L, 3500 RPM AIR BLOWER, 9.69 LB/HR @ 77 °F	ELECTRIC MOTOR 1/2 HP, 480 V, 3 PH, 60 HZ W/ CLASS F INSULATION



SHEET NOTES

1. PIPING AWAY FROM EQUIPMENT TO SAFE EXTERIOR AREA.
2. FOR REFERENCE ONLY, THIS EQUIPMENT D-3501 VENT & CD-3801 INLET ARE CONNECTED FLANGE TO FLANGE (SEE PID3500).
3. CONDENSATE/COOLING WATER TO FLOOR DRAIN NEEDS TO BE FLEXIBLE TO ALLOW 1.25" DRYER/CONDENSER MOVEMENT FOR THERMAL EXPANSION AND SEALED FOR ODOR RETENTION.
4. CONTRACTOR TO PROVIDE "TRAP" TO KEEP PIPE FULL AT TEMPERATURE/FLOW TRANSMITTER LOCATION. PRELIM VBV (VACUUM BREAK VALVE) PROVIDED BY OTHERS.
5. INSTALL MINIMUM (3D) UPSTREAM & (2D) DOWNSTREAM TO ADJACENT INSTRUMENTS. PRELIM PROVIDED AS GENERAL LAYOUT, TO BE LOCATED BY CONTRACTOR OUTSIDE DRYER. PRELIM
6. FREE ISSUE TO CONTRACTOR; SUPPLIED BY BCR.

REVISION HISTORY

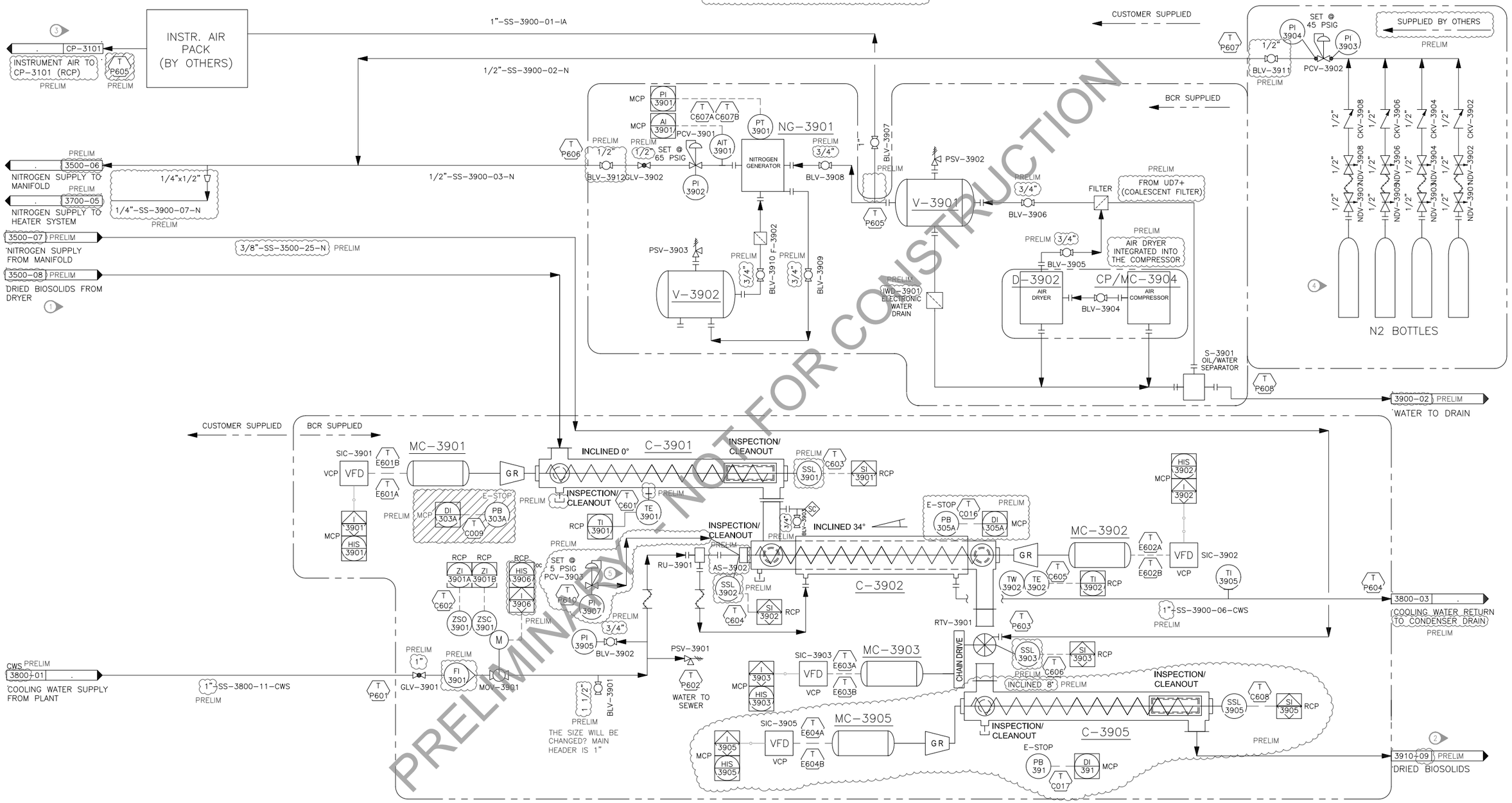
ECN	REV	DESCRIPTION	DWN	CHK	APP	DATE
---	A	ISSUED FOR REVIEW	SA	LWR	NC	07/15/2025
---	A	ISSUED FOR REVIEW	SS	LWR	NC	04/21/2026

BCR
100 N. LAURA STREET, SUITE 601, JACKSONVILLE, FL. 32202

PIPING & INSTRUMENTATION DIAGRAM IC01800 BIOSCRU CONDENSING & EXHAUST SYSTEM

COMPANY DESC.	CITY OF SELAH WWTP	PLANT LOCATION	SELAH, WA	
PROJECT NO.	BCR-0292	STATUS IFR	SCALE NTS	REV A
DOCUMENT NO.	0292-PID-DWG-3800			
DRAWING NO.	PID3800	SHEET NO.	10 of 12	

C-3901	MC-3901	C-3902	MC-3902	RTV-3901	MC-3903	C-3905	MC-3905	NG-3901	D-3902	CP/MC-3904	V-3901	V-3902
CONVEYOR DISCHARGE, CS, 500 LB/HR @ 40-45 PCF PRELIM	ELECTRIC MOTOR 5 HP, 480 V, 3 PH, 60 HZ (INVERTER DUTY) W/ CLASS F INSULATION & THERMOSTAT TEMPERATURE SWITCHES	CONVEYOR COOLING, 304 S/S, W/ WATER JACKET, 500 LB/HR @ 40-45 PCF PRELIM	ELECTRIC MOTOR 5 HP, 480 V, 3 PH, 60 HZ (INVERTER DUTY) W/ CLASS F INSULATION & THERMOSTAT TEMPERATURE SWITCHES	ROTARY VALVE, PRATER, CS, 3 RPM, 500 LB/HR @ 40-45 PCF PRELIM DRIED BULK BIO-SOLIDS	ELECTRIC MOTOR 1 HP, 480 V, 3 PH, 60 HZ (INVERTER DUTY) W/ CLASS F INSULATION & THERMOSTAT TEMPERATURE SWITCHES	CONVEYOR TRANSFER, 304 S/S, 500 LB/HR @ 40-45 PCF PRELIM	ELECTRIC MOTOR 2 HP, 480 V, 3 PH, 60 HZ (INVERTER DUTY) W/ CLASS F INSULATION & THERMOSTAT TEMPERATURE SWITCHES PRELIM	NITROGEN GENERATOR 200 CFH @ 99.5% PSA TYPE	AIR DRYER 70 °C @ 125 PSI	AIR COMPRESSOR W/ MOTOR 5 HP, 480 V, 3 PH, 60 HZ (INVERTER DUTY) W/ CLASS F INSULATION	VESSEL STORAGE INSTRUMENT AIR 80 GALLON CAPACITY	VESSEL STORAGE NITROGEN (N2) 80 GALLON CAPACITY



SHEET NOTES

1. FOR REFERENCE ONLY, THIS EQUIPMENT C-3901 INLET & D-3501 DISCHARGE ARE CONNECTED FLANGE TO FLANGE (SEE PID3500).
2. FOR REFERENCE ONLY, THIS EQUIPMENT RTV-3901 & H-3910 ARE CONNECTED FLANGE TO FLANGE (SEE PID3910).
3. INSTRUMENT AIR PIPING SHALL BE 3/8"-SS-3900-10-IA (BY OTHERS) DIRECTLY INTO INSTRUMENTS AS SHOWN AT TIE POINTS.
4. SUPPLY OF FOUR SIZE 300 HIGH PRESSURE NITROGEN CYLINDERS IS BY THE CLIENT.
5. NITROGEN PIPING SHALL BE 3/8"-SS-3500-25-N (BY OTHERS) FROM PID3500 NITROGEN MANIFOLD DIRECTLY INTO SHAFT SEAL AS SHOWN. PRELIM

REVISION HISTORY						
ECN	REV	DESCRIPTION	DWN	CHK	APP	DATE
---	A	ISSUED FOR REVIEW	SA	LWR	NC	07/15/2025
---	A	ISSUED FOR REVIEW	SS	LWR	NC	04/21/2026

BCR
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PIPING & INSTRUMENTATION DIAGRAM IC01800 BIOSCRU DISCHARGE COOLING AND LOADOUT

COMPANY DESC. CITY OF SELAH WWTP		PLANT LOCATION SELAH, WA	
PROJECT NO. BCR-0292	STATUS IFR	SCALE NTS	REV A
DOCUMENT NO. 0292-PID-DWG-3900			
DRAWING NO. PID3900		SHEET NO. 11 - 12	

0292-ICS-DWG-0007
CONTROL ARCHITECTURE DIAGRAM

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P-1
480V

CUSTOMER 480V/3PH
POWER DISTRIBUTION

LPP-1
120/208V

CUSTOMER 120V/208V
1PH
POWER DISTRIBUTION

PLANT
WAN

TE003

TE013

TE005

TE007

TE012

TE002

TE001

TE006

CP-3771

CONTROL PANEL,
MOTORS, THERMAL
FLUID HEATER
(TFCP)

NEMA 12
EQUIPMENT MOUNTED

TC007

CP-3770

CONTROL PANEL,
THERMAL FLUID
HEATER
(BMCP)

NEMA 12
EQUIPMENT MOUNTED

TC009

CP-3107

BCR MOTOR CONTROLS
(VCP)

NEMA 12
FLOOR/WALL MOUNT
ELECTRICAL ROOM

TC002

TC001

CP-3100

BCR CONTROL PANEL,
PLC & HMI
(MCP)

NEMA 12
WALL MOUNT
ELECTRICAL ROOM

TC03,04,05

ESD STATIONS
(X3)

UPS-3100

UPS SUPPLY, SINGLE
PHASE
(UPS)

RACKMOUNT (3U X 2)
ELECTRICAL ROOM

IWD-3901

ZERO LOSS DRAIN

NEMA 3
EQUIPMENT
MOUNTED

TC011

TC007

TC008

TE010

TE011

TC005

CP-3101

FIELD REMOTE I/O
DRYER
(RCP)

NEMA 4X
EQUIPMENT MOUNTED

TP001

CP-3120

CONTROL PANEL
NITROGEN GENERATOR
(NCP)

NEMA 3
EQUIPMENT MOUNTED

CP-3130

CONTROL PANEL
AIR COMPRESSOR
(ACP)

NEMA 3
EQUIPMENT MOUNTED

SHEET NOTES

1. REFERENCE: 0062-MEC-PPP-0010 TIE POINT SCHEDULE

LINE LEGEND

- 480V/3PH PLANT POWER
- 120V/208V/1PH PLANT POWER
- SYSTEM UPS 120V/1PH
- INSTRUMENT/CNTRL
- COMPRESSED AIR

BCR

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HOUSTON, TX 77084

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0292 – SELAH, WA

POWER AND INSTRUMENT ARCHITECTURE BLOCK DRAWING

SIZE	DATE	DWG NO	REV
C	03 JUN 2026	ELE0005	C

SCALE	N/A	DRAWN	MPN	SHEET	1 OF 2

P-1
480V

CUSTOMER 480V/3PH
POWER DISTRIBUTION

LPP-1
120/208V

CUSTOMER 120V/208V
1PH
POWER DISTRIBUTION

PLANT
WAN

TD001

IWD-3901

ZERO LOSS
DRAIN

NEMA 3
EQUIPMENT
MOUNTED

CP-3771

CONTROL PANEL,
MOTORS, THERMAL
FLUID HEATER
(TFCP)

NEMA 12
EQUIPMENT MOUNTED

CP-3770

CONTROL PANEL, ,
THERMAL FLUID
HEATER
(BMCP)

NEMA 12
EQUIPMENT MOUNTED

TD003

CP-3107

BCR MOTOR CONTROLS
(VCP)

NEMA 12
FLOOR/WALL MOUNT
ELECTRICAL ROOM

TD002

CP-3100

BCR CONTROL PANEL,
PLC & HMI
(MCP)

NEMA 12
WALL MOUNT
ELECTRICAL ROOM

ESD STATION
(x4)

TD006

UPS-3100

UPS SUPPLY, SINGLE
PHASE
(UPS)

RACKMOUNT (3U X 2)
ELECTRICAL ROOM

TD004

TD005

CP-3101

FIELD REMOTE I/O
DRYER
(RCP)

NEMA 4X
EQUIPMENT MOUNTED

CP-3120

CONTROL PANEL
NITROGEN GENERATOR
(NCP)

NEMA 3
EQUIPMENT MOUNTED

CP-3130

CONTROL PANEL
AIR COMPRESSOR
(ACP)

NEMA 3
EQUIPMENT MOUNTED

SHEET NOTES

1 REFERENCE: 0062-MEC-PPP-0010 TIE POINT SCHEDULE

LINE LEGEND

RING DATA

STAR DATA

BCR

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0292 – SELAH, WA

DATA ARCHITECTURE
BLOCK DRAWING

SIZE	DATE	DWG NO	REV
C	03 JUN 2026	ELE0005	C

SCALE	DRAWN	SHEET
N/A	MPN	2 OF 2

0292-MEC-LST-0001
EQUIPMENT MOTOR & CONTROLS LIST

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EQUIPMENT LIST

Project Name: **SELAH WWTP**
Location: **SELAH, WA**
Document No.: **0292-MEC-LST-0001**

REV	TYPE	STANDARD TAG	SERVICE DESCRIPTION	MANUFACTURER	MODEL NO.	REMARKS
A	H	H-3101	HOPPER, FEED	BCR	LIVE BOTTOM, TWIN SHAFTED, 8 CU.YD	
A	PS	PS-3104	PUMP, FEED	SEEPEX OR EQUAL	TBD	
A	D	D-3501	DRYER	BCR	IC 1800	IC-1800
A	GR	GR-3501A	GEAR REDUCING TRANSMISSION, DRYER ROTOR, LH	DODGE	DODGE VEM 3615T	SEE MOTOR INDEX FOR MOTOR DETAILS
A	GR	GR-3501B	GEAR REDUCING TRANSMISSION, DRYER ROTOR, RH	DODGE	DODGE VEM 3615T	SEE MOTOR INDEX FOR MOTOR DETAILS
A	RU	RU-3501	ROTARY UNION, DRYER ROTOR, LH	KADANT	AB10955	W/ N2 PURGE
A	RU	RU-3502	ROTARY UNION, DRYER ROTOR, RH	KADANT	AB10955	W/ N2 PURGE
A	TFH	TFH-3701	HEATER, GAS FIRED	TPD	TV-2-240	SEE MFG DATA SHEET
A	P	P-3711	PUMP, THERMAL FLUID	TBD	TBD	SEE MFG DATA SHEET
A	B	B-3701	BLOWER, COMBUSTION AIR	TBD	-	SEE MFG DATA SHEET
A	TK	TK-3701	TANK, EXPANSION (AKA "DEAERATOR")	TPD	300 Gallon	SEE MFG DATA SHEET
A	TK	TK-3702	TANK, CONTAINMENT (AKA "CATCH")	TPD	100 GAL	SEE MFG DATA SHEET
A	F	F-3701	FILTER, SIDE STREAM, THERMAL FLUID	HEAT	15 GPM	PACKAGE SYSTEM
A	CD	CD-3801	CONDENSER, SPRAY, PRIMARY	BCR	VC-1800	SEE MFG DRAWING
A	TK	T-3801	TANK, GAS-LIQUID SEPARATOR	BCR	VC-1800	SEE MFG DRAWING
A	CD	CD-3801	CONDENSER, SPRAY, SECONDARY	BCR	VC-1800	SEE MFG DRAWING
A	B	B-3801	BLOWER, EXHAUST (AKA "FOUL AIR")	NEW YORK BLOWER	RADIAL FUME EXHAUSTER	SEE MOTOR INDEX FOR MOTOR DETAILS
A	OF	OF-3802	FILTER, ODOR SCRUBBER	PURAFIL	DS-300	PACKAGE SYSTEM
A	B	B-3802	BLOWER, EXHAUST (AKA "FOUL AIR")	PURAFIL	TBD	

EQUIPMENT LIST

Project Name: **SELAH WWTP**
Location: **SELAH, WA**
Document No.: **0292-MEC-LST-0001**

REV	TYPE	STANDARD TAG	SERVICE DESCRIPTION	MANUFACTURER	MODEL NO.	REMARKS
A	OF	OF-3801	FILTER, ODOR SCRUBBER	PURAFIL	DS-300	PACKAGE SYSTEM
A	OF	OF-3802	FILTER, ODOR SCRUBBER	PURAFIL	DS-100	PACKAGE SYSTEM
A	F	F-3801	DEMISTING FILTER, HOPPER FOUL AIR STREAM	PURAFIL	-	PACKAGE SYSTEM
A	F	F-3802	DEMISTING FILTER, CONDENSER ODOR STREAM	PURAFIL	-	PACKAGE SYSTEM
A	C	C-3901	CONVEYOR, DISCHARGE	BCR		SEE MFG DATA SHEET
A	C	C-3902	CONVEYOR, COOLING	BCR		SEE MFG DATA SHEET
A	RU	RU-3901	ROTARY UNION, COOLING CONVEYOR	KADANT	12K45900	
A	RTV	RTV-3901	VALVE, ROTARY	PRATER	PAV-6	
A	PSV	PSV-3901	PRESSURE RELIEF VALVE, COOLING CONVEYOR JACKET	KUNKLE/MCMASTER	6270T16	
A	NG	NG-3901	NITROGEN GENERATOR, PSA TYPE 99.5%	ATLAS COPCO	NGP8+	W/ 80 GAL DEMAND TANK
A	D	D-3902	COMPRESSED AIR DRYER, REFRIGERANT (37F)	ATLAS COPCO	INTEGRATED WITH COMPRESSOR	
A	CP	CP-3904	AIR COMPRESSOR, ROTARY	ATLAS COPCO	G4FF	W/ TANK AND OWS SEPARATOR AUTO DRAIN
A	MC	MC-3904	AIR COMPRESSOR MOTOR	ATLAS COPCO	G4FF	ELECTRIC MOTOR FOR COMPRESSOR
A	MC	MC-3905	BIO-SCRU TRANSFER CONVEYOR MOTOR	BCR		ELECTRIC MOTOR FOR CONVEYOR
A	C	C-3905	BIO-SCRU TRANSFER CONVEYOR	BCR		

CONTROL EQUIPMENT LIST

Project Name: **SELAH WWTP**
Location: **SELAH , WA**
Document No.: **0292-MEC-LST-0001**

STANDARD TAG	SERVICE DESCRIPTION	MANUFACTURER	MODEL NO.	REMARKS	SIZE (Prelim)	MOUNTING (Prelim)
CP-3100	CONTROL PANEL, PLC	BCR		CONTAINS PRIMARY PLC, HMI, IND COMPUTER, NETWORKING MGD SWITCH, VPN ROUTER	36" W x 60" H x 12" D	WALL MOUNT, IN ELECTRICAL ROOM
UPS-3100	UNINTERUPPTED POWER SUPPLY, SINGLE PHASE	EATON		30 MIN PWR STANDBY FOR CONTROL POWER ONLY.	19" W x 5.25"H x 17.75" D (3U RACKMOUNT) x 2 (1 EBM INCLUDED)	INCLUDED 3U RACK (HALF HEIGHT), IN ELECTRICAL ROOM
CP-3107	CONTROL PANEL, VFD	BCR		CONTAINS DRIVES (VFD, RVSS, DOL), NETWORK SWITCH, CIRCUIT BREAKERS FOR EQUIPMENT	100" W x 87"H x 18"D	FLOOR MOUNT, IN ELECTRICAL ROOM
CP-3101	FIELD REMOTE I/O, DRYER	BCR		CONTAINS REMOTE I/O, NETWORK SWITCH, POWER SUPPLY ETC. HAZ AREA (CL 2 DIV 2 GR G)	36"W x 48"H x 12" D	WALL MOUNT, INTEGRATED TO EQUIPMENT (DRYER)
CP-3120	CONTROL PANEL, NITROGEN GENERATOR, PACKAGE SYSTEM	ATLAS COPCO		CONTAINS PLC W/ INTEGRATED I/O, HMI, POWER SUPPLY,	18W" x 24" H x 10" D	INTEGRATED TO EQUIPMENT
CP-3130	CONTROL PANEL, AIR COMPRESSOR, PACKAGE SYSTEM	ATLAS COPCO		CONTAINS RELAY BASED LOGIC CONTROLLER, MOTOR STARTER	18W" x 24" H x 10" D	INTEGRATED TO EQUIPMENT
CP-3770	CONTROL PANEL, RELAY, THERMAL FLUID HEATER	TPD	-	CONTAINS CNTRL XFMER, BURNER MGMT CONTROLLER, I/O	36"W x 42"H x 10"D	INTEGRATED TO EQUIPMENT
CP-3771	CONTROL PANEL, MOTORS, THERMAL FLUID HEATER	TPD		CONTAINS DRIVES (DOL AND RVSS)	30"W x 42"H x 10"D	INTEGRATED TO EQUIPMENT

MOTOR LIST

Project Name: **SELAH WWTP**
Location: **SELAH, WA**
Document No.: **0292-MEC-LST-0001**

REV	TYPE	STANDARD TAG	SERVICE DESCRIPTION	AREA CLASSIFICATION	DRIVE TYPE	RPM	HP	VOLTS	PHASE	REMARKS
A	MZ	MZ-3101A	HOPPER, FEED, LIVE BOTTOM CENTER MOTOR TEFC, NEMA C-FACE, NEMA PREMIUM EFFICIENCY (INVERTER DUTY)	GEN. AREA - TEFC	VFD	1755	3.0	480	3	
A	MZ	MZ-3101B	HOPPER, FEED, LIVE BOTTOM RH MOTOR TEFC, NEMA C-FACE, NEMA PREMIUM EFFICIENCY (INVERTER DUTY)	GEN. AREA - TEFC	VFD	1755	3.0	480	3	
A	MP	MP-3104	FEED PUMP, PS-3104 ROTOR MOTOR TEFC, NEMA C-FACE, (INVERTER DUTY)	GEN. AREA - TEFC	VFD	1770	10	480	3	PRELIM SIZING, DEPENDENT ON FIELD PIPING
A	MZ	MZ-3501A	DRYER ROTOR LH MOTOR TEFC, NEMA C-FACE, (INVERTER DUTY)	CLASS II, DIV 2, TEFC	VFD	1750	5	480	3	
A	MZ	MZ-3501B	DRYER ROTOR LH MOTOR TEFC, NEMA C-FACE, (INVERTER DUTY)	CLASS II, DIV 2, TEFC	VFD	1750	5	480	3	
A	M	M-3711	THERMAL FLUID CIRCULATION PUMP MOTOR, TEFC,	GEN. AREA - TEFC	RVSS	3530	20	480	3	SUPPLIED BY TFH PACKAGE VENDOR. PRELIM SIZING, DEPENDENT ON FIELD PIPING
A	M	M-3701	COMBUSTION AIR BLOWER MOTOR, TEFC,	GEN. AREA - TEFC	FVS	3490	3	480	3	SUPPLIED BY TFH PACKAGE VENDOR.
A	MB	MB-3801	CONDENSER BLOWER MOTOR TEFC, NEMA-C FACE, (INVERTER DUTY)	CLASS II, DIV 2, TEFC	VFD	1760	1.0	480	3	
A	MB	MB-3802	HOPPER FOUL AIR BLOWER MOTOR TEFC, NEMA-C FACE, (INVERTER DUTY)	CLASS II, DIV 2, TEFC	FVS	1760	0.5	480	3	
A	MC	MC-3901	DISCHARGE CONVEYOR MOTOR TEFC, NEMA C-FACE, PREMIUM EFFICIENT MOTOR (INVERTER DUTY)	CLASS II, DIV 2, TEFC	VFD	1750	5	480	3	
A	MC	MC-3902	COOLING CONVEYOR MOTOR TEFC, NEMA C-FACE, PREMIUM EFFICIENT MOTOR (INVERTER DUTY)	CLASS II, DIV 2, TEFC	VFD	1755	5	480	3	
A	MC	MC-3903	ROTARY VALVE AIR LOCK MOTOR TEFC, INVERTER DUTY	CLASS II, DIV 2, TEFC	VFD	1725	1	480	3	
A	MC	MC-3904	AIR COMPRESSOR MOTOR, TEFC,	GEN. AREA - TEFC	FVS	3600	5	480	3	
A	MC	MC-3905	TRANSFER CONVEYOR MOTOR TEFC, NEMA C-FACE, PREMIUM EFFICIENT MOTOR (INVERTER DUTY)	CLASS II, DIV 2, TEFC	VFD	1750	2	480	3	

0292-ICS-CAL-0002 ELECTRICAL LOAD CALCULATION

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Date: 06/03/2026

IC-1800 DRYER SYSTEM

C	03 Jun 26	REVISED FROM MARKUP	MPN	LWR	NC
B	14 Apr 26	ISSUED FOR PRELIM. REVIEW	MPN	LWR	NC
REV	**DATE**	**DESCRIPTION**	**OWNER**	**CHECKER**	**APPROVER**

BCR

BIOSCRU®

ELECTRICAL LOAD CALCULATION

Doc. No. 0292-ICS-CAL-0002

Project: IC-1800 DRYER
Client: SELAH, WA
BCR Doc No.: 0292-ICS-CAL-0002
By: MPN
Date: 06/03/2026

Electrical Load Analysis Data

THREE PHASE LOADS

	Load Description	Equipment		Demand		Peak							NEC FLA	Operating			
		Volts	Nameplate	Factor	Load	Status	Factor	EFF	KW	PF	KVA	AMPS		Factor	KW	KVA	AMPS
1	M-3101A - LIVE BOTTOM MOTOR RH	480	3 HP	100%	3 HP	C	100%	85%	2.6	0.82	3.2	3.9	4.8	75%	2.0	2.4	2.9
2	M-3101B - LIVE BOTTOM MOTOR LH	480	3 HP	100%	3 HP	C	100%	85%	2.6	0.82	3.2	3.9	4.8	75%	2.0	2.4	2.9
3	M-3104 - FEED PUMP PS-3104 MOTOR	480	10 HP	100%	10 HP	C	100%	85%	8.8	0.87	10.1	12.1	14.0	75%	6.6	7.6	9.1
4	M-3501A - DRYER ROTORS MOTOR LH	480	5 HP	100%	5 HP	C	100%	85%	4.4	0.85	5.2	6.2	7.6	75%	3.3	3.9	4.7
5	M-3501B - DRYER ROTORS MOTORS RH	480	5 HP	100%	5 HP	C	100%	85%	4.4	0.85	5.2	6.2	7.6	75%	3.3	3.9	4.7
6	M-3711 - THERMAL FLUID HEATER PUMP MOTOR	480	20 HP	100%	20 HP	C	100%	85%	17.6	0.88	19.9	24.0	27.0	100%	17.6	19.9	24.0
7	M-3701 - THERMAL FLUID HEATER BLOWER MOTOR	480	3 HP	100%	3 HP	C	100%	85%	2.6	0.82	3.2	3.9	4.8	100%	2.6	3.2	3.9
8	M-3801 - CONDENSER FOUL-AIR FAN MOTOR	480	1 HP	100%	1 HP	C	100%	85%	0.9	0.69	1.3	1.5	2.1	75%	0.7	1.0	1.1
9	M-3802 - HOPPER FOUL- AIR FAN MOTOR	480	0.5 HP	100%	0.5 HP	C	100%	85%	0.4	0.66	0.7	0.8	1.1	100%	0.4	0.7	0.8
9	M-3901 - DISCHARGE CONVEYOR MOTOR	480	5 HP	100%	5 HP	C	100%	85%	4.4	0.85	5.2	6.2	7.6	75%	3.3	3.9	4.7
10	M-3902 - COOLING CONVEYOR MOTOR	480	5 HP	100%	5 HP	C	100%	85%	4.4	0.85	5.2	6.2	7.6	75%	3.3	3.9	4.7
11	M-3903 - ROTARY VALVE MOTOR	480	1 HP	100%	1 HP	C	100%	85%	0.9	0.69	1.3	1.5	2.1	75%	0.7	1.0	1.1
12	M-3904 - AIR COMPRESSOR MOTOR	480	5 HP	100%	5 HP	C	100%	85%	4.4	0.85	5.2	6.2	7.6	100%	4.4	5.2	6.2
13	M-3905 - BIOSCRU TRANSFER CONVEYOR	480	2 HP	100%	2 HP	C	100%	85%	1.8	0.78	2.3	2.7	3.4	75%	1.3	1.7	2.0
	TOTALS								**60.1 KW**		**70.9 KVA**	**85.3 AMPS**	**102.1 AMPS**		**51.3 KW**	**60.5 KVA**	**72.7 AMPS**

SINGLE PHASE LOADS

	Load Description	Equipment		Demand		Peak							NEC FLA	Operating			
		Volts	Nameplate	Factor	Load	Status	Factor	EFF	KW	PF	KVA	AMPS		Factor	KW	KVA	AMPS
14	IWD-3901 - ZERO LOSS DRAIN	120	0.01 KVA	100%	0.01 KVA	C	100%	95%	0.0	0.80	0.0	0.1	0.1	100%	0.0	0.0	0.1
15	UPS-3100 - SINGLE PHASE UPS SUPPLY	208	6.0 KVA	100%	6 KVA	C	100%	95%	4.8	0.80	6.0	28.8	28.8	100%	4.8	6.0	28.8
	TOTALS								**4.8 KW**		**6.0 KVA**	**28.9 AMPS**	**28.9 AMPS**		**4.8 KW**	**6.0 KVA**	**28.9 AMPS**

Project: IC-1800 DRYER
Client: SELAH, WA
BCR Doc No.: 0292-ICS-CAL-0002
By: MPN
Date: 06/03/2026

Electrical Load Analysis Data (UPS-3100)

Load Description	Equipment			
	Volts	Nameplate		AMPS
CP-3100 - (MCP) PLC & HMI CONTROL PANEL	120	0.8	KVA	6.7
CP-3101 - (RCP) DRYER FIELD REMOTE I/O	120	0.6	KVA	5.0
CP-3120 - (NCP) NITROGEN GENERATOR SYSTEM CONTROL PANEL	120	0.7	KVA	5.8
CP-3107 - (VCP) VFD/MOTORS CONTROL PANEL	120	0.7	KVA	5.8
CP-3770 - (BMCP) THERMAL FLUID HEATER CONTROL PANEL	120	0.6	KVA	5.0
TOTALS		**3.4**	**KVA**	**28.3 AMPS**

0292-ICS-LST-0003
UTILITIES DATA SHEET

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SELAH WASTE WATER TREATMENT FACILITY (WWTF)
SELAH, WA
IC-1800 BIOSCRU®

REV	DATE	DESCRIPTION	OWNER	CHECKER	APPROVER
F	June 3, 2026	ISSUED FOR REVIEW	MPN	LWR	NNC
E	April 14, 2026	ISSUED FOR REVIEW	MPN	LWR	NNC

BCR

100 N. LAURA STREET,
SUITE 601,
JACKSONVILLE, FL, 32202

BIOSCRU® IC-1800

UTILITY REQUIREMENTS

Doc. No. 0292-ICS-LST-0002

UTILITY REQUIREMENTS DATA SHEET

Project:	**SELAH WWTF**	**Date:**	**06/03/2026**
Project Number:	**BCR-0292**	**By:**	**MPN**
Document Number:	**0292-ICS-LST-0002**	**Revision:**	**F**

REV	P&ID	Service Description	Type of Device	Equipment No.:	Continuous / Intermittent	Units	Consumption each device	Qty	Total Continuous Consumption	Total Intermittent Consumption	Basis: Actual/ Estimate	Comments
INSTRUMENT AIR												
A	0292-PID-DWG-0001	INSTRUMENT AIR	DRYER RIO PANEL PURGE	CP-3101	CONTINUOUS	SCFM	0.05	1	0.05	---	ACTUAL	MIN SUPPLY PRESSURE 80 PSIG
		INSTRUMENT AIR	DRYER RIO PANEL PURGE	CP-3101	INTERMITTENT	SCFM	12	1	---	12	ACTUAL	ONLY ACTIVE DURING PURGE
		INSTRUMENT AIR	NITROGEN GENERATOR	NG-3901	CONTINUOUS	SCFM	7.98	1	7.98	---	ESTIMATE	AIR/NITROGEN RATIO IS 2.6:1
					TOTAL	**SCFM**			**8.03**	**12**		
SERVICE AIR												
						SCFM	---		---	---		NO SERVICE AIR REQUIRED
					TOTAL	SCFM			**0**	**0**		
SERVICE WATER												
						GPM	---		---	---		NO SERVICE WATER REQUIRED
					TOTAL	GPM			**0**	**0**		
COOLING WATER												
A	0292-PID-DWG-0001	COOLING WATER	COOLING SCREW	C-3902	CONTINUOUS	GPM	22	1	22	---	ACTUAL	
		COOLING WATER	SCRUBBER/CONDENSER	CD-3801/3802	CONTINUOUS	GPM	57	1	57	---	ACTUAL	
		COOLING WATER	DRYER SPRAY NOZZLE SATURATION CYCLE	D-3501	INTERMITTENT	GPM	6	1	---	6	ACTUAL	
					TOTAL	**GPM**			**79**	**6**		MIN SUPPLY PRESSURE 60 PSIG
THERMAL FLUID												
A	0292-PID-DWG-0001	PARATHERM NF	THERMAL FLUID HEATER	FH-3701	CONTINUOUS	GPM	150	1	150	---	ACTUAL	100 GALLON TOTAL TANK CAPACITY
					TOTAL	GPM			**150**	**0**		
ELECTRICAL DEMAND												
A	0292-PID-DWG-0001	ELECTRICITY	DRYER MOTOR PANEL CONNECTED LOADS	CP-3107	CONTINUOUS	KW	35.5	1	35.5	---	ESTIMATE	MAXIMUM 3PH POWER FROM CUSTOMER
		ELECTRICITY	THERMAL FLUID HEATER PUMP/BLOWER	CP-3771	CONTINUOUS	KW	20.2	1	20.2	---	ESTIMATE	MAXIMUM 3PH POWER FROM CUSTOMER
		ELECTRICITY	AIR COMPRESSOR CONNECTED LOADS	CP-3904	CONTINUOUS	KW	4.4	1	4.4	---	ESTIMATE	MAXIMUM 3PH POWER FROM CUSTOMER
		ELECTRICITY	ZERO LOSS DRAIN	IWD-3901	CONTINUOUS	KW	0.01	1	0.01	---	ESTIMATE	1 PH POWER FROM CUSTOMER
		ELECTRICITY	OTHER PANEL CONNECTED LOADS	UPS-3100	CONTINUOUS	KW	6.0	1	6.0	---	ESTIMATE	1 PH POWER FROM CUSTOMER (208V)
					TOTAL	**KW**			**66.11**	**0**		SEE ELECTRICAL LOAD CALCULATIONS FOR DETAIL
NATURAL GAS DEMAND												
A	0292-PID-DWG-0001	NATURAL GAS	THERMAL FLUID HEATER	FH-3701	CONTINUOUS	ACFM	39.1	1	39.1	---	ESTIMATE	SEE THERMAL FLUID HTR DATASHEET FOR DETAIL
					TOTAL	**ACFM**			**39.1**	**0**		SUPPLY REQUIRED AT 60"WC
NITROGEN (INERT GAS)												
A	0292-PID-DWG-0001	NITROGEN	DRYER HEADSPACE INERT PURGE	RTV-3901	CONTINUOUS	SCFM	1.00	1	1.0	---	ACTUAL	
		NITROGEN	DRYER SIGHTGLASS PURGE	D-3501	CONTINUOUS	SCFM	0.08	3	0.24	---	ACTUAL	
		NITROGEN	DRYER HOT OIL ROTARY UNION PURGE	RU-3501/RU-3502	CONTINUOUS	SCFM	0.10	2	0.2	---	ACTUAL	
		NITROGEN	DRYER LEVEL SENSOR PURGE	LT-3501	CONTINUOUS	SCFM	1.00	1	1			
		NITROGEN	DRYER PRESSURE SENSOR PURGE	PDT-3501	CONTINUOUS	SCFM	0.08	1	0.08			
		NITROGEN	COOLING SCREW SEAL PURGE	AS-3902	CONTINUOUS	SCFM	0.50	1	0.5	---	ACTUAL	
		NITROGEN	TFH DEAREATOR TANK NITROGEN BLANKET	T-3701	CONTINUOUS	SCFM	0.05	1	0.05	---	ACTUAL	
					TOTAL	**SCFM**			**3.1**	**0.0**		

NITROGEN SUPPLY NOTES:
SCOPE OF SUPPLY & INSTALLATION FOR NITROGEN SUPPLY LINE UP TO CONNECTION POINT ADJACENT TO DRYER TO BE RESPONSIBILITY OF OTHERS.

0292-MEC-PPP-0010
TIE-POINT SCHEDULE

100 N Laura Street, Suite 601, Jacksonville, FL 32202 | 866.724.9145 | bcrinc.com

SELAH WASTE WATER
TREATMENT FACILITY (WWTP)
SELAH , WA
IC01800 BIOSCRU®

REV	DATE	DESCRIPTION	OWNER	CHECKER	APPROVER
3	June 3, 2026	REVISED FOR ENG DESIGN	MPN	LWR	NNC
2	April 20, 2026	REVISED FOR ENG DESIGN	MPN	LWR	NNC
1	November 12, 2025	INITIAL RELASE FOR REVIEW	MPN	LWR	NNC

BCR
100 N. LAURA STREET,
SUITE 601,
JACKSONVILLE, FL, 32202

BIOSCRU®

TIE POINTS LIST

Doc. No. 0292-ICS-PPP-0010

TIE-POINT SCHEDULE (ELECTRICAL)

Project Name:	Selah WWTP		06/03/2026
Project No.:	0292	By:	MPN
Document No.:	0292-ICS-PPP-0010	Revision:	3

TIE POINT NUMBER	DESCRIPTION	CONNECTION	FROM	TO	TYPE	REMARKS
C001	DRYER CONTROL PANEL TO VFD CONTROL PANEL CONTROL SIGNAL WIRING	3/4" RIGID CONDUIT: 1 SHIELDED TWISTED PAIR (1BLK, 1WHT)	MCP (CP-3100)	VCP (CP-3107)	4-20mA	SEE CONTROL BLOCK DIAGRAM
C002	DRYER CONTROL PANEL TO VFD CONTROL PANEL CONTROL WIRING	1" RIGID CONDUIT 30C #14 AWG	MCP (CP-3100)	VCP (CP-3107)	24VDC CONTROL	SEE CONTROL BLOCK DIAGRAM
C003	ESD STATIONS TO DRYER CONTROL PANEL (FEED HOPPER)	3/4" RIGID CONDUIT: 6 #14AWG, (1BLK, 1BLU, 1WHT, 1RED, 1GRN, 1ORG)	ESD-3101	MCP (CP-3100)	24VDC CONTROL	SEE CONTROL BLOCK DIAGRAM
C004	ESD STATIONS TO DRYER CONTROL PANEL (DISHARGE & COOLING CONVEYORS)	3/4" RIGID CONDUIT: 6 #14AWG, (1BLK, 1BLU, 1WHT, 1RED, 1GRN, 1ORG)	ESD-3102	MCP (CP-3100)	24VDC CONTROL	SEE CONTROL BLOCK DIAGRAM
C005	ESD STATIONS TO PELLETIZER CONTROL PANEL (TRANSFER CONVEYOR)	3/4" RIGID CONDUIT: 6 #14AWG, (1BLK, 1BLU, 1WHT, 1RED, 1GRN, 1ORG)	ESD-3103	MCP (CP-3100)	24VDC CONTROL	SEE CONTROL BLOCK DIAGRAM
E012	VCP (CP-3107) DRYER MOTOR PANEL UPS SINGLE PHASE POWER FEED	3/4" RIGID CONDUIT: 6 #14AWG, (1BLK, 1BLU, 1WHT, 1RED, 1GRN, 1ORG)	CP-3100	VCP (CP-3107)	24VDC CONTROL	SEE CONTROL BLOCK DIAGRAM
C007	DRYER CONTROL PANEL TO NITROGEN GENERATOR SIGNAL	1" RIGID CONDUIT: 3 BELDEN 9316 SHIELDED TWISTED PAIR (2RED, 2BLK, 2SHL), 3 #14AWG (1BLK, 1WHT, 1GRN)	MCP (CP-3100)	NCP (CP-3120)	4-20mA/24VDC SIGNAL	SEE CONTROL BLOCK DIAGRAM
C008	DRYER CONTROL PANEL TO AIR COMPRESSOR SIGNAL	1" RIGID CONDUIT: 1 BELDEN 9316 SHIELDED TWISTED PAIR (1RED, 1BLK, 1SHL), 3 #14AWG (1BLK, 1WHT, 1GRN)	MCP (CP-3100)	ACP (CP-3130)	4-20mA/24VDC SIGNAL	SEE CONTROL BLOCK DIAGRAM
C009	DRYER CONTROL PANEL TO THERMAL FLUID HEATER PANEL CONTROL WIRING	3/4" RIGID CONDUIT: 6 #14AWG, (1BLK, 1BLU, 1WHT, 1RED, 1GRN, 1ORG)	MCP (CP-3100)	CP-3770	24VDC CONTROL	SEE CONTROL BLOCK DIAGRAM
D001	DRYER CONTROL PANEL INTERNET CONNECTION	3/4" RIGID CONDUIT: 1 ETHERNET PATCH CABLE CAT-6A AND CONNECTORS SHIELDED BERK-TEK LANmark-XPT	CUSTOMER IT	MCP (CP-3100)	Ethernet CAT6A	SEE CONTROL BLOCK DIAGRAM
D002	DRYER CONTROL PANEL TO VFD CONTROL PANEL ETHERNET COMMUNICATIONS	3/4" RIGID CONDUIT: 1 ETHERNET PATCH CABLE CAT-6A AND CONNECTORS SHIELDED BERK-TEK LANmark-XPT	MCP (CP-3100)	VCP (CP-3107)	Ethernet CAT6A	SEE CONTROL BLOCK DIAGRAM
D003	VCP PANEL TO REMOTE I/O PANEL	3/4" RIGID CONDUIT: 1 ETHERNET PATCH CABLE CAT-6A AND CONNECTORS SHIELDED BERK-TEK LANmark-XPT	VCP (CP-3107)	BMCP (CP-3770)	Ethernet CAT6A	SEE CONTROL BLOCK DIAGRAM
D004	BMCP (CP-3770) THERMAL FLUID HEATER CONTROL PANEL TO REMOTE I/O PANEL	3/4" RIGID CONDUIT: 1 ETHERNET PATCH CABLE CAT-6A AND CONNECTORS SHIELDED BERK-TEK LANmark-XPT	BMCP (CP-3770)	RCP (CP-3101)	Ethernet CAT6A	SEE CONTROL BLOCK DIAGRAM
D005	DRYER CONTROL TO REMOTE I/O PANEL	3/4" RIGID CONDUIT: 1 ETHERNET PATCH CABLE CAT-6A AND CONNECTORS SHIELDED BERK-TEK LANmark-XPT	MCP (CP-3100)	RCP (CP-3101)	Ethernet CAT6A	SEE CONTROL BLOCK DIAGRAM
D006	DRYER CONTROL PANEL TO UPS PANEL ETHERNET COMMUNICATIONS	3/4" RIGID CONDUIT: 1 ETHERNET PATCH CABLE CAT-6A AND CONNECTORS SHIELDED BERK-TEK LANmark-XPT	MCP (CP-3100)	UPS-3101	Ethernet CAT6A	SEE CONTROL BLOCK DIAGRAM
D007	DRYER CONTROL PANEL TO AIR COMPRESSOR DATA	3/4" RIGID CONDUIT: 1 ETHERNET PATCH CABLE CAT-6A AND CONNECTORS SHIELDED BERK-TEK LANmark-XPT	MCP (CP-3100)	CP-3130	Ethernet CAT6A	SEE CONTROL BLOCK DIAGRAM
D008	DRYER CONTROL PANEL TO NITROGEN GENERATOR DATA	3/4" RIGID CONDUIT: 1 ETHERNET PATCH CABLE CAT-6A AND CONNECTORS SHIELDED BERK-TEK LANmark-XPT	MCP (CP-3100)	CP-3120	Ethernet CAT6A	SEE CONTROL BLOCK DIAGRAM
D009	DRYER VFD CONTROL PANEL TO THERMAL FLUID CONTROL PANEL DATA	3/4" RIGID CONDUIT: 1 ETHERNET PATCH CABLE CAT-6A AND CONNECTORS SHIELDED BERK-TEK LANmark-XPT	VCP (CP-3107)	CP-3770	Ethernet CAT6A	SEE CONTROL BLOCK DIAGRAM
E001	VCP (CP-3107) DRYER MOTOR PANEL THREE PHASE POWER FEED	1-1/2" RIGID CONDUIT: 3 #1/0AWG (1BRN, 1ORG, 1YEL) THHN, 1 #6AWG (1GRN) THHN	CUSTOMER 480VAC/3P POWER DISTRIBUTION	VCP (CP-3107)	480VAC/3P POWER	SEE CONTROL BLOCK DIAGRAM 150A CIRCUIT BREAKER
E002	CP-3771 THERMAL FLUID HEATER MOTOR PANEL THREE PHASE POWER FEED	1-1/2" RIGID CONDUIT: 3 #3AWG (1BRN, 1ORG, 1YEL) THHN, 1 #6AWG (1GRN) THHN	CUSTOMER 480VAC/3P POWER DISTRIBUTION	CP-3771	480VAC/3P POWER	SEE CONTROL BLOCK DIAGRAM 60A CIRCUIT BREAKER
E003	CP-3130 AIR COMPRESSOR PANEL THREE PHASE POWER FEED	1-1/2" RIGID CONDUIT: 3 #3AWG (1BRN, 1ORG, 1YEL) THHN, 1 #6AWG (1GRN) THHN	CUSTOMER 480VAC/3P POWER DISTRIBUTION	CP-3771	480VAC/3P POWER	SEE CONTROL BLOCK DIAGRAM 60A CIRCUIT BREAKER
E005	UPS-3100 UPS LOAD CENTER SINGLE PHASE POWER FEED	3/4" RIGID CONDUIT: 3C #10AWG (1 BLK, 1 RED, 1 WHT) THHN, 1 #12AWG (1GRN) THHN	CUSTOMER 208/120VAC POWER DISTRIBUTION	UPS-3100	208VAC POWER	SEE CONTROL BLOCK DIAGRAM

TIE-POINT SCHEDULE (ELECTRICAL)

Project Name:	Selah WWTP		06/03/2026
Project No.:	0292	By:	MPN
Document No.:	0292-ICS-PPP-0010	Revision:	3

TIE POINT NUMBER	DESCRIPTION	CONNECTION	FROM	TO	TYPE	REMARKS
E006	MCP (CP-3100) DRYER CONTROL PANEL UPS SINGLE PHASE POWER FEED	3/4" RIGID CONDUIT: 2C #12AWG (1 BLK, 1 WHT) THHN, 1 #12AWG (1GRN) THHN	UPS-3100	MCP (CP-3100)	UPS 120VAC POWER	SEE CONTROL BLOCK DIAGRAM
E007	BMCP (CP-3770) THERMAL FLUID HEATER CONTROL PANEL UPS SINGLE PHASE POWER FEED	3/4" RIGID CONDUIT: 2C #12AWG (1 BLK, 1 WHT) THHN, 1 #12AWG (1GRN) THHN	UPS-3100	BMCP (CP-3770)	UPS 120VAC POWER	SEE CONTROL BLOCK DIAGRAM
E010	NCP (CP-3120) NITROGEN GENERATOR CONTROL PANEL UPS SINGLE PHASE POWER FEED	3/4" RIGID CONDUIT: 2C #12AWG (1 BLK, 1 WHT) THHN, 1 #12AWG (1GRN) THHN	UPS-3100	NCP (CP-3120)	UPS 120VAC POWER	SEE CONTROL BLOCK DIAGRAM
E011	RCP (CP-3101) DRYER REMOTE I/O PANEL UPS SINGLE PHASE POWER FEED	3/4" RIGID CONDUIT: 2C #12AWG (1 BLK, 1 WHT) THHN, 1 #12AWG (1GRN) THHN	UPS-3100	RCP (CP-3101)	UPS 120VAC POWER	SEE CONTROL BLOCK DIAGRAM
E012	VCP (CP-3107) DRYER MOTOR PANEL UPS SINGLE PHASE POWER FEED	3/4" RIGID CONDUIT: 2C #12AWG (1 BLK, 1 WHT) THHN, 1 #12AWG (1GRN) THHN	UPS-3100	VCP (CP-3107)	UPS 120VAC POWER	SEE CONTROL BLOCK DIAGRAM
E013	ZERO LOSS WATER DRAIN	3/4" RIGID CONDUIT: 3 #12AWG (1BLK, 1WHT, 1GRN)	CUSTOMER 120VAC POWER DISTRIBUTION	IWD-3901	120VAC POWER	SEE CONTROL BLOCK DIAGRAM
C201A	FEED HOPPER H-3101 LEVEL TRANSMITTER SIGNAL	3/4" RIGID CONDUIT: 1 SHIELDED TWISTED PAIR (1BLK, 1WHT)	MCP (CP-3100)	LT-3101	4-20mA	
C201B	FEED HOPPER H-3101 LEVEL TRANSMITTER GROUND	3/4" RIGID CONDUIT: 3 #14AWG (1BLK, 1WHT, 1GRN)	MCP (CP-3100)	LT-3101	24VDC	SHARES CONDUIT WITH PREVIOUS CABLE
C202	FEED HOPPER H-3101 WEIGH CELL TRANSMITTER	3/4" RIGID CONDUIT: 1 SHIELDED TWISTED PAIR (1BLK, 1WHT)	MCP (CP-3100)	WIT-3101	4-20mA	
C203A	FEED PUMP PS-3104 FEED INLET PRESSURE TRANSMITTER SIGNAL	3/4" RIGID CONDUIT: 1 SHIELDED TWISTED PAIR (1BLK, 1WHT)	MCP (CP-3100)	PT-3104	4-20mA	
C203B	FEED PUMP PS-3104 FEED INLET PRESSURE TRANSMITTER GROUND	3/4" RIGID CONDUIT: 3 #14AWG (1BLK, 1WHT, 1GRN)	MCP (CP-3100)	PT-3104	24VDC	SHARES CONDUIT WITH PREVIOUS CABLE
C204	FEED PUMP PS-3104 STATOR TEMPERATURE TRANSMITTER ELEMENT	3/4" RIGID CONDUIT: 1 SHIELDED TWISTED PAIR (1BLK, 1WHT)	MCP (CP-3100)	TT-3101	4-20mA	
C208A	FEED PUMP PS-3104 FEED DISCHARGE PRESSURE TRANSMITTER SIGNAL	3/4" RIGID CONDUIT: 1 SHIELDED TWISTED PAIR (1BLK, 1WHT)	MCP (CP-3100)	PT-3101	4-20mA	
C208B	FEED PUMP PS-3104 FEED DISCHARGE PRESSURE TRANSMITTER GROUND	3/4" RIGID CONDUIT: 3 #14AWG (1BLK, 1WHT, 1GRN)	MCP (CP-3100)	PT-3101	24VDC	SHARES CONDUIT WITH PREVIOUS CABLE
C205	FEED HOPPER H-3101 HOA SWITCH	3/4" RIGID CONDUIT: 3 #14AWG, (2BLU, 1WHT)	MCP (CP-3100)	HS-3102	24VDC CONTROL	
C206	FEED PUMP PS-3104 HOA SWITCH	3/4" RIGID CONDUIT: 3 #14AWG, (2BLU, 1WHT)	MCP (CP-3100)	HS-3101	24VDC CONTROL	
E204	FEED HOPPER H-3101B LIVE BOTTOM MOTOR POWER RH	1" RIGID CONDUIT: 3C+G #12AWG SHIELDED VFD MOTOR CABLE	VCP (CP-3107)	MZ-3101B	480VAC/3P POWER	3 HP
E205	FEED HOPPER H-3101A LIVE BOTTOM MOTOR POWER LH	1" RIGID CONDUIT: 3C+G #12AWG SHIELDED VFD MOTOR CABLE	VCP (CP-3107)	MZ-3101A	480VAC/3P POWER	3 HP
E206	FEED HOPPER1 H-3101 WEIGHT SCALE TERMINAL POWER	3/4" RIGID CONDUIT: 3 #12AWG, (1BLK, 1WHT, 1GRN)	MCP (CP-3100)	WJB-3101	120VAC POWER	
E208	FEED PUMP PS-3104 MOTOR POWER	1" RIGID CONDUIT: 3C+G #10AWG SHIELDED VFD MOTOR CABLE	VCP (CP-3107)	MP-3104	480VAC/3P POWER	10 HP
C301	TEMPERATURE SENSOR, COMBINED THERMAL FLUID RETURN FROM DRYER	3/4" RIGID CONDUIT: 1 OMEGA ENGINEERING TWISTED T-TYPE THERMOCOUPLE EXTENSION WIRE EXPP-T-20S-TWSH-UL (1BLUE, 1RED)	RCP (CP-3101)	TE-3520	Type T Thermocouple	CONTRACTOR TO REINSTALL AFTER MATCH MARK, KNOCKDOWN FROM FACTORY.

TIE-POINT SCHEDULE (ELECTRICAL)

Project Name:	Selah WWTP		06/03/2026
Project No.:	0292	By:	MPN
Document No.:	0292-ICS-PPP-0010	Revision:	3

TIE POINT NUMBER	DESCRIPTION	CONNECTION	FROM	TO	TYPE	REMARKS
C302	TEMPERATURE SENSOR, LH AUGER THERMAL FLUID RETURN FROM DRYER	3/4" RIGID CONDUIT: 1 OMEGA ENGINEERING TWISTED T-TYPE THERMOCOUPLE EXTENSION WIRE EXPP-T-20S-TWSH-UL (1BLUE, 1RED)	RCP (CP-3101)	TE-3519	Type T Thermocouple	CONTRACTOR TO REINSTALL AFTER MATCH MARK, KNOCKDOWN FROM FACTORY.
C303	TEMPERATURE SENSOR, RH AUGER THERMAL FLUID RETURN FROM DRYER	3/4" RIGID CONDUIT: 1 OMEGA ENGINEERING TWISTED T-TYPE THERMOCOUPLE EXTENSION WIRE EXPP-T-20S-TWSH-UL (1BLUE, 1RED)	RCP (CP-3101)	TE-3517	Type T Thermocouple	CONTRACTOR TO REINSTALL AFTER MATCH MARK, KNOCKDOWN FROM FACTORY.
C304	TEMPERATURE SENSOR, COMBINED THERMAL FLUID SUPPLY FROM HEATER	3/4" RIGID CONDUIT: 1 OMEGA ENGINEERING TWISTED T-TYPE THERMOCOUPLE EXTENSION WIRE EXPP-T-20S-TWSH-UL (1BLUE, 1RED)	RCP (CP-3101)	TE-3516	Type T Thermocouple	CONTRACTOR TO REINSTALL AFTER MATCH MARK, KNOCKDOWN FROM FACTORY.
C305	TEMPERATURE SENSOR, JACKET THERMAL FLUID RETURN FROM DRYER	3/4" RIGID CONDUIT: 1 OMEGA ENGINEERING TWISTED T-TYPE THERMOCOUPLE EXTENSION WIRE EXPP-T-20S-TWSH-UL (1BLUE, 1RED)	RCP (CP-3101)	TE-3518	Type T Thermocouple	CONTRACTOR TO REINSTALL AFTER MATCH MARK, KNOCKDOWN FROM FACTORY.
E301	DRYER ROTORS MOTORS RH POWER	1" RIGID CONDUIT: 3C+G #12AWG SHIELDED VFD MOTOR CABLE	VCP (CP-3107)	MZ-3501B	480VAC/3P POWER	5 HP
E302	DRYER ROTORS MOTORS LH POWER	1" RIGID CONDUIT: 3C+G #12AWG SHIELDED VFD MOTOR CABLE	VCP (CP-3107)	MZ-3501A	480VAC/3P POWER	5 HP
C501	TEMPERATURE SENSOR, CONDENSER VAPOR INLET	3/4" RIGID CONDUIT: 1 OMEGA ENGINEERING TWISTED T-TYPE THERMOCOUPLE EXTENSION WIRE EXPP-T-20S-TWSH-UL (1BLUE, 1RED)	RCP (CP-3101)	TE-3802	Type T Thermocouple	
C502	TEMPERATURE SENSOR, SEPARATOR TANK LIQUID	3/4" RIGID CONDUIT: 1 OMEGA ENGINEERING TWISTED T-TYPE THERMOCOUPLE EXTENSION WIRE EXPP-T-20S-TWSH-UL (1BLUE, 1RED)	RCP (CP-3101)	TE-3804	Type T Thermocouple	
C503	COOLING WATER COMBINED OUTLET MAGNETIC FLOW METER	3/4" RIGID CONDUIT: 1 SHIELDED TWISTED PAIR (1BLK, 1WHT)	RCP (CP-3101)	FIT-3802	4-20mA	
C504	COOLING WATER COMBINED OUTLET MAGNETIC FLOW METER POWER	3/4" RIGID CONDUIT: 3 #14AWG (1BLK, 1WHT, 1GRN)	RCP (CP-3101)	FIT-3802	24VDC POWER	SHARES CONDUIT WITH PREVIOUS CABLE
C505	TEMPERATURE SENSOR, COMBINED COOLING WATER OUTLET	3/4" RIGID CONDUIT: 1 OMEGA ENGINEERING TWISTED T-TYPE THERMOCOUPLE EXTENSION WIRE EXPP-T-20S-TWSH-UL (1BLUE, 1RED)	RCP (CP-3101)	TE-3801	Type T Thermocouple	
C506	CONDENSERS COOLING WATER SUPPLY VALVE POWER, OPEN/CLOSE COMMAND AND POSITION SWITCHES FULL OPEN / FULL CLOSE STATUS	3/4" RIGID CONDUIT: 8 #14AWG	RCP (CP-3101)	MOV-3801, ZSC-3801, ZSO-3801	120VAC & 24VDC POWER/CONTROL	
C507	COOLING WATER SUPPLY MAGNETIC FLOW METER	3/4" RIGID CONDUIT: 1 SHIELDED TWISTED PAIR (1BLK, 1WHT)	RCP (CP-3101)	FIT-3801	4-20mA	
C508	COOLING WATER SUPPLY MAGNETIC FLOW METER POWER	3/4" RIGID CONDUIT: 3 #14AWG (1BLK, 1WHT, 1GRN)	RCP (CP-3101)	FIT-3801	24VDC POWER	SHARES CONDUIT WITH PREVIOUS CABLE
C509	TEMPERATURE SENSOR, COOLING WATER SUPPLY	3/4" RIGID CONDUIT: 1 OMEGA ENGINEERING TWISTED T-TYPE THERMOCOUPLE EXTENSION WIRE EXPP-T-20S-TWSH-UL (1BLUE, 1RED)	RCP (CP-3101)	TE-3808	Type T Thermocouple	
C510	OXYGEN ANALYZER TRANSMITTER	3/4" RIGID CONDUIT: 35m VP CABLE (FOR INPRO 6860i) METTLER TOLEDO PART VP8-ST/35m 52 300 359	RCP (CP-3101)	AT-3805	24VDC POWER/ 4-20mA	BCR PROVIDES CABLE
C511	TEMPERATURE SENSOR, NON-CONDENSING GAS DRYER	3/4" RIGID CONDUIT: 1 OMEGA ENGINEERING TWISTED T-TYPE THERMOCOUPLE EXTENSION WIRE EXPP-T-20S-TWSH-UL (1BLUE, 1RED)	RCP (CP-3101)	TE-3805	Type T Thermocouple	
E501	CONDENSER FOUL-AIR FAN MOTOR	1" RIGID CONDUIT: 3C+G #12AWG SHIELDED VFD MOTOR CABLE	VCP (CP-3107)	MB-3801	480VAC/3P POWER	1 HP
E502	HOPPER BLOWER MOTOR	3/4" RIGID CONDUIT: 3C+G #12AWG	VCP (CP-3107)	MB-3802	480VAC/3P POWER	1/2 HP
C601	DISCHARGE CONVEYOR INLET TEMPERATURE SOLIDS	3/4" RIGID CONDUIT: 1 OMEGA ENGINEERING TWISTED T-TYPE THERMOCOUPLE EXTENSION WIRE EXPP-T-20S-TWSH-UL (1BLUE, 1RED)	RCP (CP-3101)	TE-3901	Type T Thermocouple	

TIE-POINT SCHEDULE (ELECTRICAL)

Project Name:	Selah WWTP		06/03/2026
Project No.:	0292	By:	MPN
Document No.:	0292-ICS-PPP-0010	Revision:	3

TIE POINT NUMBER	DESCRIPTION	CONNECTION	FROM	TO	TYPE	REMARKS
C602	COOLING CONVEYOR WATER VALVE POWER, OPEN/CLOSE COMMAND AND POSITION SWITCHES FULL OPEN / FULL CLOSE STATUS	3/4" RIGID CONDUIT: 8 #14AWG	RCP (CP-3101)	MOV-3901	120VAC & 24VDC POWER/CONTROL	
C603	DISCHARGE CONVEYOR MOTOR SPEED MONITOR	3/4" RIGID CONDUIT: 3 #14AWG, (1BLK, 1WHT, 1RED) THHN	RCP (CP-3101)	SSL-3901	24VDC CONTROL	
C604	COOLING SCREW MOTOR SPEED MONITOR	3/4" RIGID CONDUIT: 3 #14AWG, (1BLK, 1WHT, 1RED) THHN	RCP (CP-3101)	SSL-3902	24VDC CONTROL	
C605	TEMPERATURE SENSOR, OUTLET FROM COOLING CONVEYOR	3/4" RIGID CONDUIT: 1 OMEGA ENGINEERING TWISTED T-TYPE THERMOCOUPLE EXTENSION WIRE EXPP-T-20S-TWSH-UL (1BLUE, 1RED)	RCP (CP-3101)	TE-3902	Type T Thermocouple	
C606	ROTARY VALVE MOTOR SPEED MONITOR	3/4" RIGID CONDUIT: 3 #14AWG, (1BLK, 1WHT, 1RED) THHN	RCP (CP-3101)	SSL-3903	24VDC CONTROL	
E601A	DISCHARGE CONVEYOR MOTOR POWER	1" RIGID CONDUIT: 3C+G #12AWG SHIELDED VFD MOTOR CABLE	VCP (CP-3107)	MC-3901	480VAC/3P POWER	5 HP
E601B	DISCHARGE CONVEYOR MOTOR THERMOSTAT	1" RIGID CONDUIT: 3 #14AWG (1BLK, 1WHT, 1BLU)	VCP (CP-3107)	MC-3901	120VAC POWER	SHARES CONDUIT WITH PREVIOUS CABLE
E602A	COOLING CONVEYOR MOTOR POWER	1" RIGID CONDUIT: 3C+G #12AWG SHIELDED VFD MOTOR CABLE	VCP (CP-3107)	MC-3902	480VAC/3P POWER	5 HP
E602B	COOLING CONVEYOR MOTOR THERMOSTAT	1" RIGID CONDUIT: 3 #14AWG (1BLK, 1WHT, 1BLU)	VCP (CP-3107)	MC-3902	120VAC POWER	SHARES CONDUIT WITH PREVIOUS CABLE
E603A	ROTARY VALVE MOTOR POWER	1" RIGID CONDUIT: 3C+G #12AWG SHIELDED VFD MOTOR CABLE	VCP (CP-3107)	MC-3903	480VAC/3P POWER	1 HP
E603B	ROTARY VALVE MOTOR THERMOSTAT	1" RIGID CONDUIT: 3 #14AWG (1BLK, 1WHT, 1BLU)	VCP (CP-3107)	MC-3903	120VAC POWER	SHARES CONDUIT WITH PREVIOUS CABLE
E604A	BIO-SCRU TRANSFER CONVEYOR MOTOR POWER	1" RIGID CONDUIT: 3C+G #12AWG SHIELDED VFD MOTOR CABLE	VCP (CP-3107)	MC-3905	480VAC/3P POWER	2 HP
E604B	BIO-SCRU TRANSFER CONVEYOR MOTOR THERMOSTAT	1" RIGID CONDUIT: 3 #14AWG (1BLK, 1WHT, 1BLU)	VCP (CP-3107)	MC-3905	120VAC POWER	SHARES CONDUIT WITH PREVIOUS CABLE
C608	BIO-SCRU TRASNFER CONVEYOR MOTOR SPEED MONITOR	3/4" RIGID CONDUIT: 3 #14AWG, (1BLK, 1WHT, 1RED) THHN	RCP (CP-3101)	SSL-3905	24VDC POWER/CONTROL	

NOTES:

1: ALL CONDUITS IN HAZARDOUS AREA MUST HAVE ELECTRICAL CONDUIT OR GLANDING SEALS AT INSTRUMENT AND CONTROL PANEL ENDS.
2: MINIMUM CONDUIT SIZE 3/4".
3: MINIMUM MOTOR LEAD WIRE SIZE 12AWG.
4. MAXIMUM 3 SETS OF UNSHIELDED VFD MOTOR LEADS IN A SINGLE CONDUIT.
5. NO PENETRATIONS ON ENCLOSURE TOP WALL.
6. SEPARATE CONDUIT FOR 120VAC WIRES.
7. SEPARATE CONDUIT FOR 480VAC WIRES.
8. SEPARATE CONDUIT FOR VDC WIRES.
9. SEPARATE CONDUIT FOR VDC INTRINSICALLY SAFE WIRES.
10. YELLOW INDICATES THE LATEST CHANGES. IT WILL BE DELETED IN THE FINAL VERSION.
ENGINEER APPROVED CABLE, GLANDING, AND SUPPORT/ROUTING ACCEPTABLE TO RIGID CONDUIT.

TIE-POINT SCHEDULE (MECHANICAL)

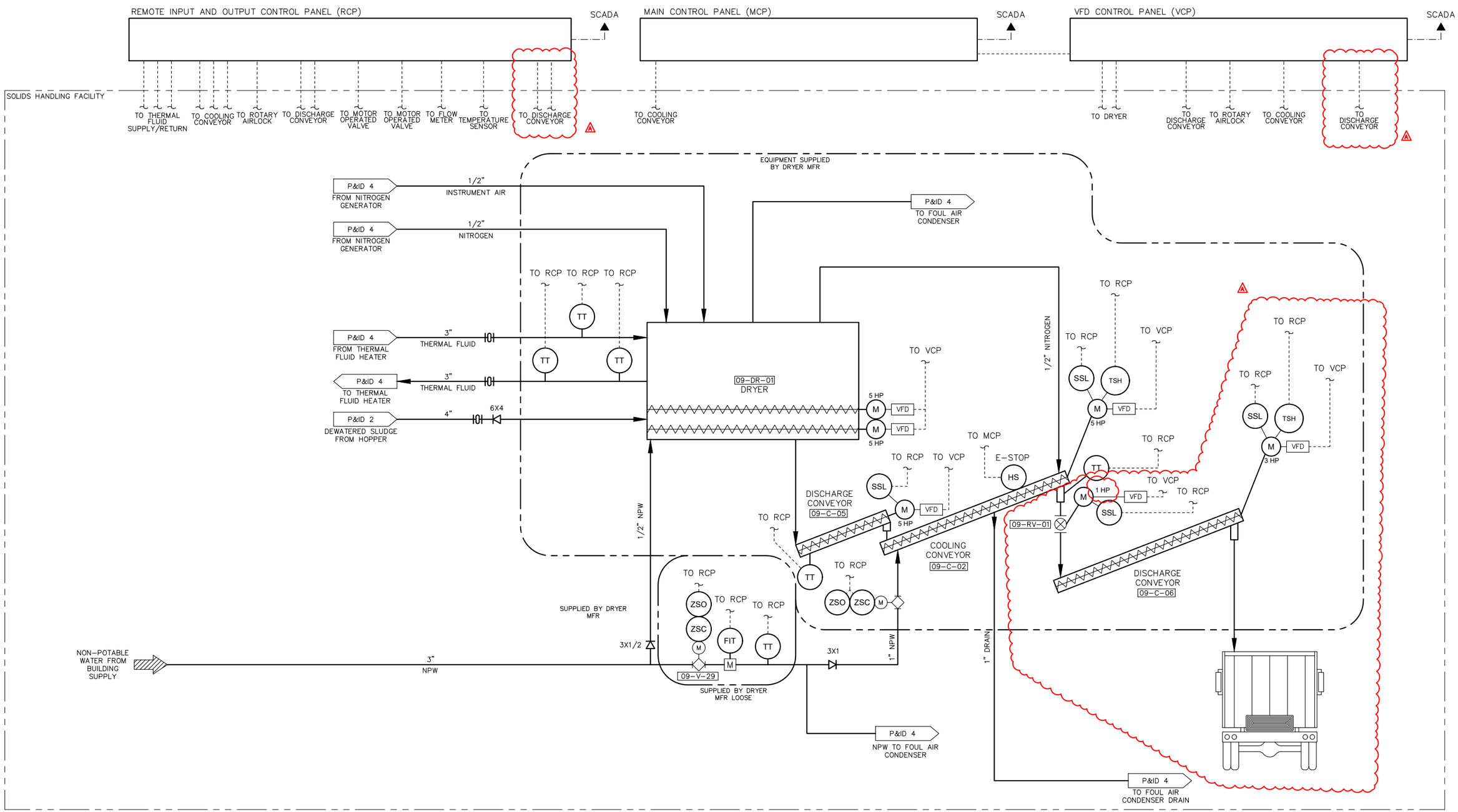
Project Name: SELAH WWTP 6/4/2026
Project No.: 0292
Document No.: 0292-MEC-PPP-0010 REV: B

TIE POINT NUMBER	DESCRIPTION	CONNECTION	FROM	TO	REMARKS
P001	COMPRESSED AIR, PANEL PURGE	3/4" NPT	D-3902	CP-3101	SEE CONTROL BLOCK DIAGRAM
P201	FEED HOPPER H-3101 INLET #1	10" SQUARE FLANGE	CUSTOMER WET CAKE FEED	H-3101	SEE HOPPER GA FOR BOLT DETAIL
P202	FEED HOPPER1 VENT TO ODOR FAN	4" ANSI CL150 FLANGE DRILLING PATTERN	H-3101	CF-133	PLATE FLANGE
P203	FEED PUMP PS-3104 TO DRYER D-3501	3" ANSI CL300 FLANGE	PS-3104	D-3501	3" PUMP OUTLET PER EQUIPMENT SUBMITTAL
P301	THERMAL FLUID RETURN TO HEATER	3" ANSI CL300 FLANGE	D-3501	T-3701	
P302	THERMAL FLUID SUPPLY TO DRYER	3" ANSI CL300 FLANGE	TFH-3701	D-3501	
P303	WET CAKE SUPPLY TO DRYER	8" ANSI CL150 FLANGE	PS-3104	D-3501	Dryer inlet flange moves along the dryer axis up to 1.25" towards feed piping due to thermal expansion of the dryer housing.
P304	EMERGENCY WATER SUPPLY TO DRYER SPRAY	1/2"FNPT	D-3501	4"-SS-3800-01-CWS	
P305	NITROGEN SUPPLY TO MANIFOLD	1/2"FNPT	NG-3901	D-3501	
P306	NITROGEN DISTIRBUTION SUPPLY TO ROTARY VALVE	3/8"FNPT	D-3501	RTV-3901	REASSEMBLE SUPPLIED TUBING FROM FACTORY
P309	NITROGEN DISTIRBUTION SUPPLY TO COOLING SCREW SEAL	3/8"FNPT	D-3501	AS-3902	
P401	THERMAL FLUID HEATER CATCH TANK VENT	2" FNPT	TK-3702	CUSTOMER VENT	HOLD FOR "TPD" SUBMITTAL
P402	FUEL GAS SUPPLY HEADER	1 1/2" FNPT	CUSTOMER GAS UTILITY	FH-3701	HOLD FOR "TPD" SUBMITTAL
P403	THERMAL FLUID HEATER RETURN	3" ANSI CL300 FLANGE	D-3501	P-3711	HOLD FOR "TPD" SUBMITTAL
P404	HEATER OUTLET THERMAL FLUID SUPPLY	3" ANSI CL300 FLANGE	TFH-3701	D-3501	HOLD FOR "TPD" SUBMITTAL
P405	NITROGEN SUPPLY TO BLANKET	1/2" FNPT	D-3501	T-3701	HOLD FOR "TPD" SUBMITTAL
P406	HEATER EXHAUST GAS FLUE/OUTLET TO STACK	14" ID FLANGE	TFH-3701	CUSTOMER FLUE STACK	HOLD FOR "TPD" SUBMITTAL
P411	THERMAL FLUID SIDE STREAM FILTER RETURN	3/4" ANSI CL150 FLANGE	F-3701	T-3701	
P412	THERMAL FLUID SIDE STREAM FILTER SUPPLY	3/4" ANSI CL150 FLANGE	FH-3701	F-3701	
P501	CONDENSER DRAIN FROM SEPARATOR TANK	6" ANSI CL150 FLANGE	T-3801	CUSTOMER DRAIN	Condenser Sump Drain and Water Supply flanges move parallel to the dryer (D-110) axis by up to 1" towards dryer feed piping due to thermal expansion of the dryer housing.
P502	COOLING WATER MANIFOLD INLET	3" ANSI CL150 FLANGE	CUSTOMER PLANT WATER	CD-3801/2	
P503	FOUL AIR FAN OUTLET TO ODOR CONTROL DUCT	4" RECT. PLATE FLANGE (CUSTOM DRILLING)	B-3801	OF-3802	

TIE-POINT SCHEDULE (MECHANICAL)

Project Name: SELAH WWTP 6/4/2026
Project No.: 0292
Document No.: 0292-MEC-PPP-0010 REV: B

TIE POINT NUMBER	DESCRIPTION	CONNECTION	FROM	TO	REMARKS
P504	CONDENSER NON-CONDENSIBLE DRAIN	1-1/2" FEMALE NPT	CD-3802	PLANT DRAIN	Charge liquid seal with plant water before operating. Requires air gapped drain to floor
P505	AIR FROM HOPPER H-3101 FOR ODOR CONTROL	4" FERNCO COUPLING FITTING	H-3101	OF-3802	HOLD FOR ODOR CONTROL VENDOR SUBMITTAL
P506	NON-CONDENSABLE GAS FOR ODOR CONTROL	4" FERNCO COUPLING FITTING	B-3801	OF-3801	HOLD FOR ODOR CONTROL VENDOR SUBMITTAL
P507	TREATED AIR FROM ODOR CONTROL FILTER	8" FERNCO COUPLING FITTING	OF-3801	CUSTOMER VENT TO ATM	HOLD FOR ODOR CONTROL VENDOR SUBMITTAL
P508	TREATED AIR FROM ODOR CONTROL FILTER	4" FERNCO COUPLING FITTING	OF-3802	CUSTOMER VENT TO ATM	HOLD FOR ODOR CONTROL VENDOR SUBMITTAL
P601	COOLING CONVEYER WATER SUPPLY	1" FEMALE NPT	CUSTOMER PLANT	C-3902	FROM HEADER AFTER FLOWMETER
P602	COOLING WATER PSV DISCHARGE	1/2" FEMALE NPT	PSV-3901	CUSTOMER DRAIN	AIR GAP TO FLOOR DRAIN RECOMMENDED FOR NO DISCHARGE BACKPRESSURE
P603	NITROGEN SUPPLY TO ROTARY VALVE	1/2"FNPT	D-3501	RTV-3901	
P604	COOLING CONVEYOR WATER RETURN	1" NPT	C-3902	CUSTOMER SEWER DRAIN HEADER	COMBINED WITH FOUL WATER DRAIN BEFORE FLOW METER AND TEMPERATURE SENSOR
P605	PANEL PURGES - INSTRUMENT AIR	3/4"FNPT	F-3901	CP-3101	HOLD FOR "ATLAS/ COPCO" SUBMITTAL
P606	COMPRESSED NITROGEN TO DRYER MANIFOLD PANEL	3/4"FNPT	NG-3901	D-3501	
P607	COMPRESSED NITROGEN BACKUP TO DRYER MANIFOLD PANEL	1/2" FNPT	PCV-3902	D-3501	Supplied by others - confirm with submittal
P608	AIR COMPRESSOR WATER DRAIN	1/2" FNPT	S-3901	CUSTOMER DRAIN	Supplied by others - confirm with submittal



SOLIDS HANDLING

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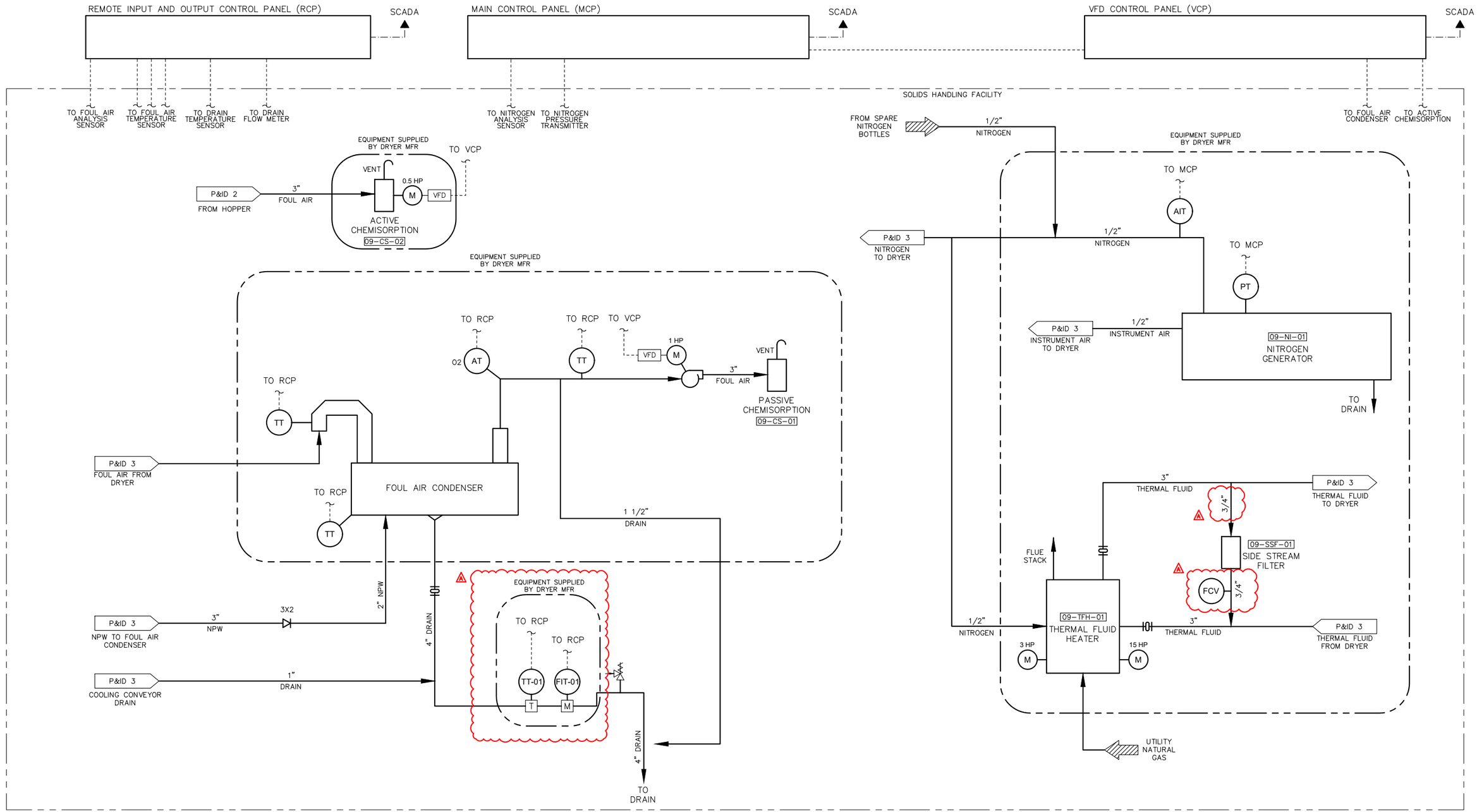
REVISION	DATE
ADDENDUM NO. 1	07/17/26

JOB NUMBER: 23166	DATE: 07/07/26
FILE NAMES: DRAWING: Sheets-G-Phase 1.dwg	
PLAN: 23166.dwg	
DESIGNED BY:	RJS
ENTERED BY:	DAS

CITY OF SELAH
PHASE 2 - WASTEWATER TREATMENT PLANT IMPROVEMENTS
AREA 9 P&ID 3

G-12

SHEET 12 OF 82



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DESIGNED BY: RJS
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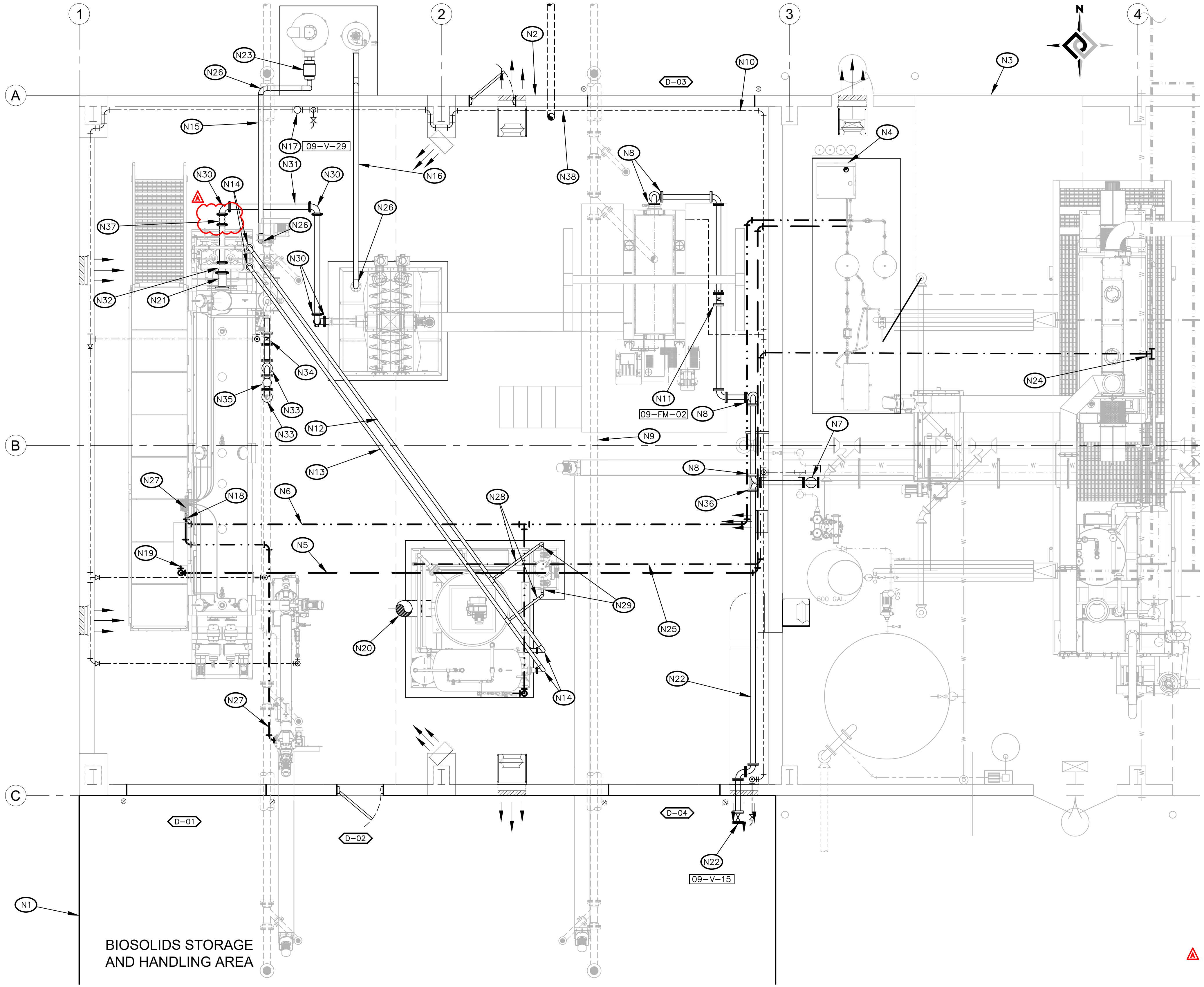
CITY OF SELAH
PHASE 2 - WASTEWATER TREATMENT PLANT IMPROVEMENTS
AREA 9 P&ID 4

G-13

SHEET 13 OF 82



SOLIDS HANDLING PIPING PLAN

0 2'-0" 4'-0" 8'-0"

CONSTRUCTION NOTES:

- (N1) NEW BIOSOLIDS STORAGE AND HANDLING AREA. SEE STRUCTURAL PLANS.
- (N2) SEE STRUCTURAL PLANS FOR MODIFICATIONS TO EXISTING BIOSOLIDS STORAGE AND HANDLING AREA.
- (N3) EXISTING SOLIDS HANDLING BUILDING.
- (N4) 3" PVC SCH 40 VENT PIPE.
- (N5) 1/2" THREADED 304 STAINLESS STEEL SCH 40 PRESSURIZED AIR SUPPLY TO DRYER CONTROL PANEL. CONNECT TO DRYER AND NITROGEN GENERATOR PER MANUFACTURERS RECOMMENDATIONS. PIPING TO BE ROUTED IN FIELD AND SUPPORTED ON WALLS AND OVERHEAD WHERE FEASIBLE. ENSURE ROUTING DOES NOT CONFLICT WITH CRANE OPERATION. ROUTING SHALL BE SUBJECT TO OWNER APPROVAL.
- (N6) 1/2" THREADED 304 STAINLESS STEEL SCH 40 NITROGEN PIPING TO DRYER DISTRIBUTION PANEL AND THERMAL FLUID HEATER. CONNECT TO DRYER, THERMAL FLUID HEATER, AND NITROGEN GENERATOR PER MANUFACTURER RECOMMENDATIONS. PIPING TO BE ROUTED IN FIELD AND SUPPORTED ON WALLS AND OVERHEAD WHERE FEASIBLE. ENSURE ROUTING DOES NOT CONFLICT WITH CRANE OPERATION. ROUTING SHALL BE SUBJECT TO OWNER APPROVAL.
- (N7) REPLACE EXISTING 4" FLG 90° ELBOW WITH NEW 4" DI FLG TEE. EXTEND PIPE WEST THROUGH WALL. SEE STRUCTURAL PLANS FOR WALL PENETRATION DETAIL. SEE SECTION B, SHEET M9-5.
- (N8) 4" DI FLG 90° ELBOW
- (N9) 6" D.I. DRAIN PIPE. SEE M9-4 FOR DRAINAGE PLAN.
- (N10) NEW NON-POTABLE WATER PIPING TO NEW HOSE BIBS. SEE SHEET M9-12.
- (N11) NEW 4" FLG ELECTROMAGNETIC FLOW METER.
- (N12) NEW 3" THREADED SEAMLESS CARBON STEEL SCH 40 HOT OIL THERMAL FLUID SUPPLY PIPE WITH 1" JACKETED PIPE INSULATION.
- (N13) NEW 3" THREADED SEAMLESS CARBON STEEL SCH 40 HOT OIL THERMAL FLUID RETURN PIPE WITH 1" JACKETED PIPE INSULATION.
- (N14) CONNECT THERMAL FLUID SUPPLY AND RETURN PIPES TO DRYER WITH 300# FLANGES AND/OR FITTINGS AS RECOMMENDED BY DRYER MANUFACTURER.
- (N15) 4" CPVC ODOR CONTROL PIPING. CONNECT TO CHEMSORPTION UNIT AND CONDENSER BLOWER AS RECOMMENDED BY MANUFACTURERS.
- (N16) 4" CPVC ODOR CONTROL PIPING. CONNECT TO CHEMSORPTION UNIT AND INLET HOPPER AS RECOMMENDED BY MANUFACTURERS.
- (N17) 3" MOTOR OPERATED VALVE SUPPLIED BY DRYER MANUFACTURER.
- (N18) NEW DRYER NITROGEN PANEL AND COMPRESSED NITROGEN CONNECTION POINT.
- (N19) COMPRESSED AIR CONNECTION POINT TO NEW DRYER REMOTE I/O PANEL.
- (N20) STACK CONNECTION. COORDINATE STACK VENTING THROUGH ROOF WITH STRUCTURAL PLANS.
- (N21) 6" GLASS LINED DUCTILE IRON DEWATERED SLUDGE PIPING. CONNECT TO DRYER AS RECOMMENDED BY MANUFACTURER.
- (N22) ROUTE SLUDGE BYPASS TO NEW BIOSOLIDS STORAGE AND HANDLING AREA, 4" FLANGED D.I., REINSTALL VALVE AT SOUTH WALL.
- (N23) MIST ELIMINATOR. INSULATE ALL EXTERIOR CONNECTION PIPING.
- (N24) CONNECT TO EXISTING 2" GAS LINE WITH FITTINGS AS NECESSARY. INSTALL NEW 2" GAS LINE. FIELD ROUTE PER OWNER APPROVAL.
- (N25) CONNECT 2" GAS LINE TO THERMAL FLUID HEATER PER MANUFACTURER RECOMMENDATIONS.
- (N26) 4" CPVC 90° ELBOW.
- (N27) 1/2" THREADED 304 STAINLESS STEEL SCH 40 NITROGEN LINE FROM DRYER DISTRIBUTION PANEL TO COOLING CONVEYOR ROTARY AIR-LOCK VALVE.
- (N28) 2" THREADED SEAMLESS 304 CARBON STEEL SCH 40 THERMAL FLUID PIPING WITH 1" INSULATION TO SIDE STREAM FILTER. SUPPLY AND RETURN.
- (N29) 3/4" THREADED SEAMLESS 304 CARBON STEEL SCH 40 THERMAL FLUID PIPING TO SIDE STREAM FILTER. SUPPLY AND RETURN. CONNECT TO FILTER WITH FITTINGS AS RECOMMENDED BY MANUFACTURER.
- (N30) 4" D.I. VICTAULIC GLASS LINED 90° ELBOW.
- (N31) 4" GLASS LINED DUCTILE IRON DEWATERED SLUDGE PIPING.
- (N32) 4" X 6" D.I. VICTAULIC REDUCER.
- (N33) NEW 4" D.I. FLG 90° ELBOW.
- (N34) NEW 4" FLG ELECTROMAGNETIC FLOW METER BY DRYER MANUFACTURER.
- (N35) AIR VAC RELEASE VALVE BY CONTRACTOR. SEE DETAIL 3.5/SHEET GP-2.
- (N36) REMOVE EXISTING 4" FLANGED GATE VALVE AND INSTALL 4" FLANGED D.I. 90° ELBOW. RELOCATE VALVE TO NEW LOCATION IN TRUCK LOADING BAY.
- (N37) 4" VICTAULIC THERMAL EXPANSION JOINT, SIZE PER DRYER MANUFACTURER RECOMMENDATIONS.
- (N38) NEW 6" WATER SERVICE FOR FIRE SUPPRESSION SYSTEM. COORDINATE LOCATION WITH DESIGN OF FIRE SUPPRESSION SYSTEM.

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REVISION	DATE
1 ADDENDUM NO. 1	07/17/26

JOB NUMBER: 23166 | DATE: 07/07/26

FILE NAMES: DRAWING: Sheets - M9.dwg; PLAN: 23166.dwg

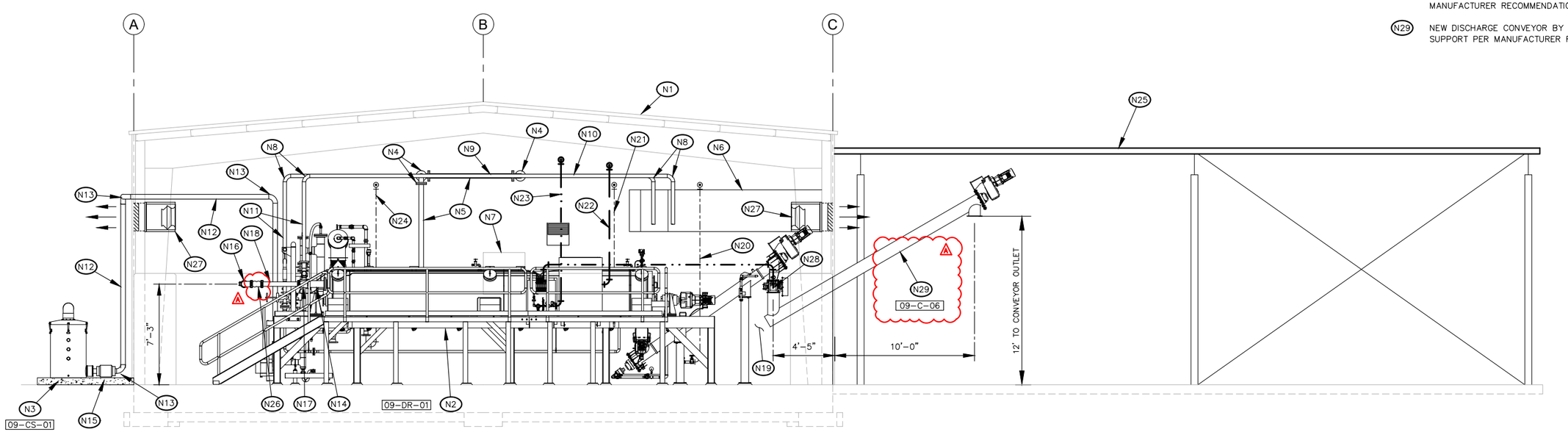
DESIGNED BY: RJS
ENTERED BY: DAS

CITY OF SELAH
PHASE 2 - WASTEWATER TREATMENT PLANT IMPROVEMENTS
SOLIDS HANDLING PIPING PLAN

M9-3

CONSTRUCTION NOTES:

- (N1) EXISTING SOLIDS HANDLING BUILDING.
- (N2) NEW DRYER.
- (N3) NEW BCR DS–300 CHEMISORPTION UNIT.
- (N4) NEW 4" DI FLG 90° ELBOW.
- (N5) NEW 4" DI FLG SLUDGE FEED PIPING.
- (N6) NEW DUCTING AND EXHAUST LOUVER. SEE SHEET M9–14.
- (N7) EXISTING CONVEYOR OPENING.
- (N8) NEW 3" THREADED CARBON STEEL 90° ELBOW.
- (N9) NEW 3" THREADED CARBON STEEL SCH 40 HOT OIL THERMAL FLUID SUPPLY PIPE WITH 1" JACKETED PIPE INSULATION.
- (N10) NEW 3" THREADED CARBON STEEL SCH 40 HOT OIL THERMAL FLUID RETURN PIPE WITH 1" JACKETED PIPE INSULATION.
- (N11) CONNECT THERMAL FLUID SUPPLY AND RETURN PIPES TO DRYER WITH 300# FLANGES AND/OR FITTINGS AS RECOMMENDED BY DRYER MANUFACTURER.
- (N12) 4" CPVC ODOR CONTROL PIPING. CONNECT TO CHEMSORPTION UNIT AND DRYER AS RECOMMENDED BY MANUFACTURERS.
- (N13) 4" CPVC SCH 40 90° ELBOW.
- (N14) 6" GLASS LINED DUCTILE IRON DEWATERED SLUDGE PIPING. CONNECT TO EQUIPMENT PER MANUFACTURER RECOMMENDATIONS.
- (N15) MIST ELIMINATOR.
- (N16) 4" D.I. VICTAULIC GLASS LINED 90° ELBOW.
- (N17) 4" X 6" D.I. VICTAULIC REDUCER.
- (N18) 4" D.I. VICTAULIC GLASS LINED SLUDGE PIPE.
- (N19) NEW THERMAL FLUID HEATER NOT SHOWN FOR CLARITY.
- (N20) 1" SCH 80 PVC NON–POTABLE WATER PIPING TO COOLING CONVEYOR.
- (N21) 1/2" SCH 80 PVC PROCESS WATER TO DRYER.
- (N22) 1/2" THREADED 304 STAINLESS STEEL SCH 40 PRESSURIZED AIR SUPPLY TO DRYER CONTROL PANEL. CONNECT TO DRYER AND NITROGEN GENERATOR PER MANUFACTURERS RECOMMENDATIONS.
- (N23) 1/2" THREADED 304 STAINLESS STEEL SCH 40 NITROGEN PIPING TO DRYER DISTRIBUTION PANEL AND THERMAL FLUID HEATER. CONNECT TO DRYER, THERMAL FLUID HEATER, AND NITROGEN GENERATOR PER MANUFACTURERS RECOMMENDATIONS.
- (N24) 2" SCH 80 PVC NON–POTABLE WATER TO FOUL AIR CONDENSOR.
- (N25) NEW SLUDGE BIOSOLIDS STORAGE AND HANDLING AREA. SEE STRUCTURAL PLANS.
- (N26) 4" VICTAULIC THERMAL EXPANSION JOINT, SIZE PER DRYER MANUFACTURER RECOMMENDATIONS.
- (N27) NEW EXHAUST FAN AND LOUVER. SEE SHEET M9–14.
- (N28) 1/2" THREADED 304 STAINLESS STEEL SCH 40 NITROGEN PIPING FROM NITROGEN DISTRIBUTION PANEL TO COOLING CONVEYOR ROTARY AIRLOCK VALVE. CONNECT PER MANUFACTURER RECOMMENDATIONS.
- (N29) NEW DISCHARGE CONVEYOR BY DRYER MANUFACTURER. SUPPORT PER MANUFACTURER RECOMMENDATIONS.



C / M9-1 DRYER SECTION VIEW

0 2'–0" 4'–0" 8'–0"

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REVISION	DATE
⚠ ADDENDUM NO. 1	07/17/26

JOB NUMBER: 23166	DATE: 07/07/26
FILE NAMES:	
DRAWING: Sheets – M9.dwg	
PLAN: 23166.dwg	
DESIGNED BY:	RJS
ENTERED BY:	DAS

CITY OF SELAH
PHASE 2 - WASTEWATER TREATMENT PLANT IMPROVEMENTS
SOLIDS HANDLING SECTIONS

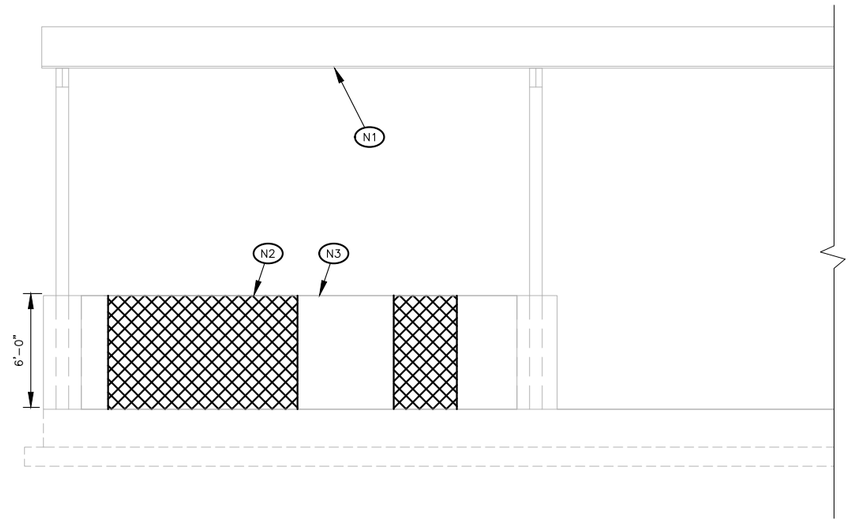
M9-6

CONSTRUCTION NOTES:

(N1) EXISTING SOLIDS HANDLING BUILDING.

(N2) DEMO EXISTING CONCRETE WALL BETWEEN SUPPORTS. COORDINATE WITH STRUCTURAL DRAWINGS.

(N3) SAWCUT PUSHWALL AS NEEDED FOR DISCHARGE CONVEYOR CLEARANCE.



SOUTH ELEVATION DEMOLITION

0 2'-0" 4'-0" 8'-0"

CONSTRUCTION NOTES:

(N1) EXISTING SOLIDS HANDLING BUILDING.

(N2) FACTORY FINISHED ROLL-UP DOOR. SEE SCHEDULE AND DETAILS ON SHEET GA-1.

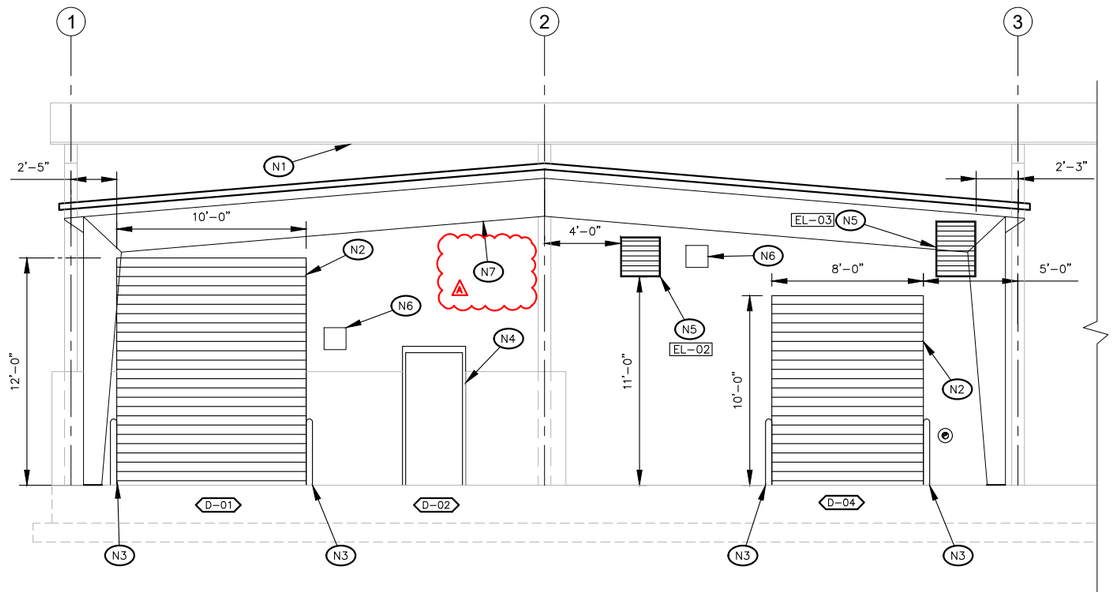
(N3) PROTECTIVE BOLLARD. SEE DETAIL ST-13/SHEET GC-1.

(N4) HOLLOW METAL DOOR AND FRAME SEE SCHEDULE ON SHEET GA-1.

(N5) NEW EXHAUST LOUVER, SEE SCHEDULE ON SHEET GM-1.

(N6) CONVEYOR OPENING THROUGH WALL. INSTALL INSIDE AND OUTSIDE FLASHING AND SEAL WEATHER TIGHT.

(N7) NEW BIOSOLIDS STORAGE AND HANDLING AREA ROOF. SEE STRUCTURAL SHEETS. △A



SOUTH ELEVATION BUILDING MODIFICATIONS

0 2'-0" 4'-0" 8'-0"

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ROBERT J. SKOLNIK 46442 REGISTERED PROFESSIONAL ENGINEER

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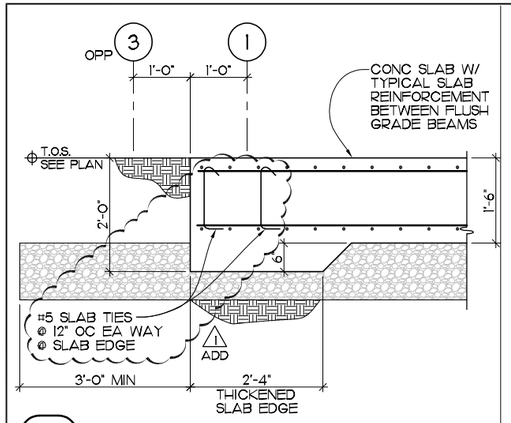
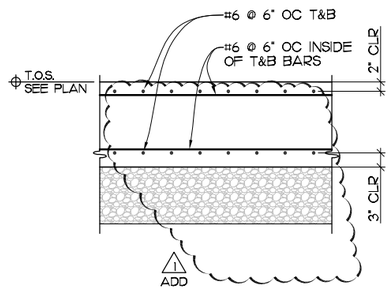
CITY OF SELAH
PHASE 2 - WASTEWATER TREATMENT PLANT IMPROVEMENTS
SOLIDS HANDLING ELEVATIONS

M9-10

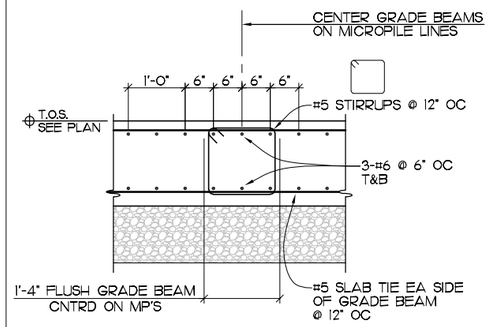
SHEET 26 OF 82



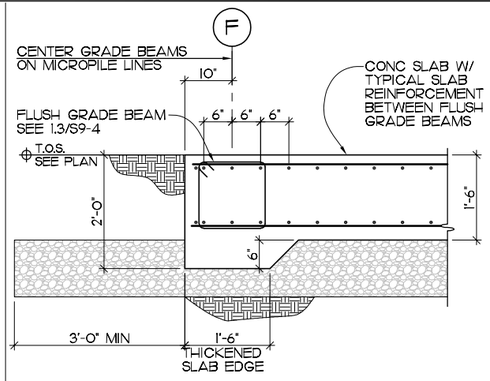
1.1 THICKENED SLAB EDGE @ GRIDS 1&3 — 3/4"=1'-0"



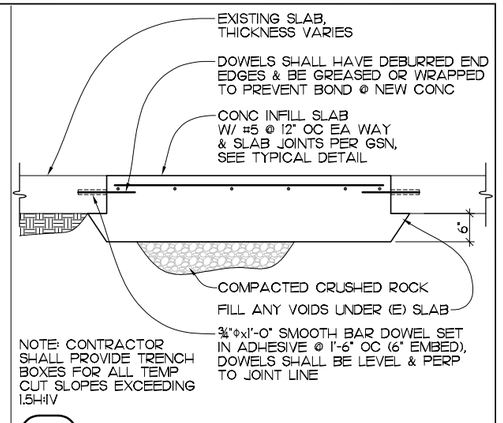
1.2 TYPICAL SLAB REINFORCEMENT — 3/4"=1'-0"



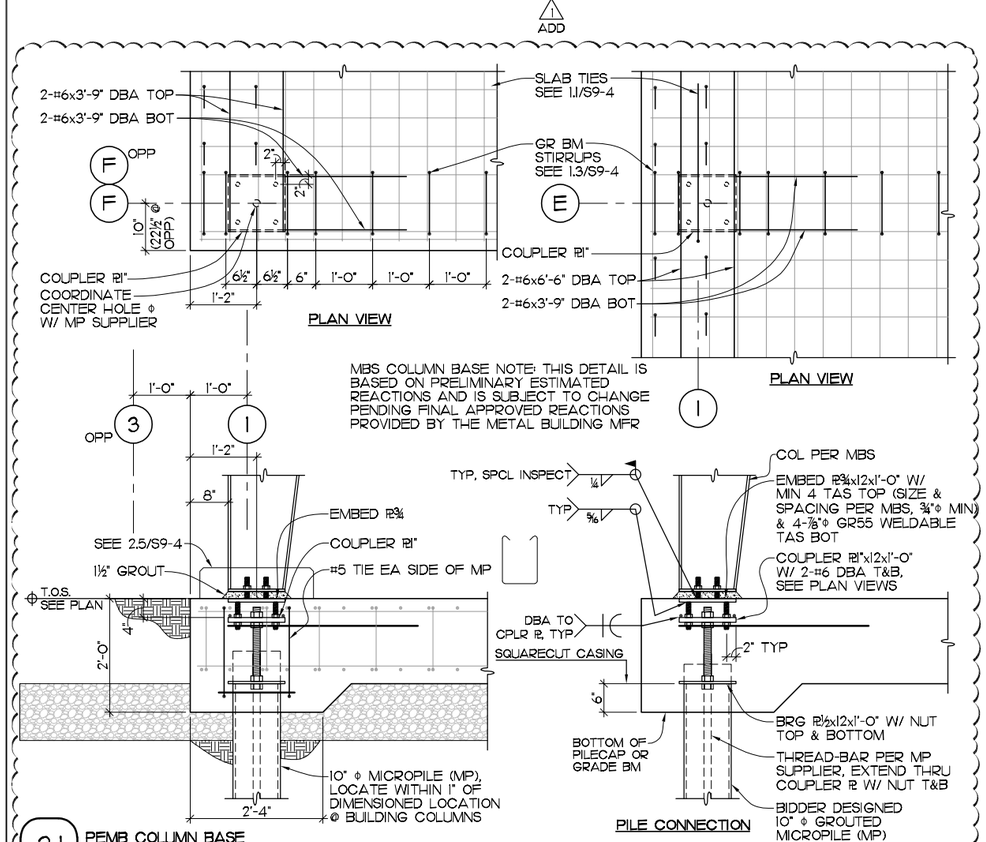
1.3 TYPICAL FLUSH GRADE BEAM — 3/4"=1'-0"



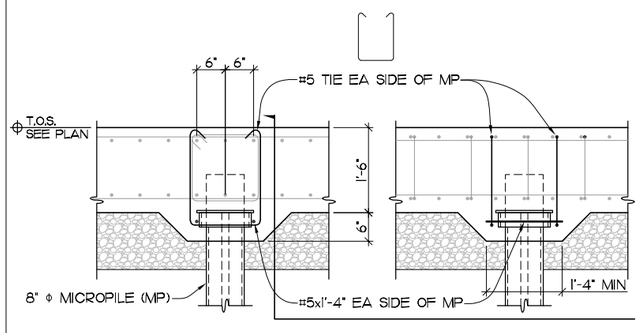
1.4 THICKENED SLAB EDGE @ GRID F — 3/4"=1'-0"



1.5 EXISTING SLAB INFILL — 3/4"=1'-0"

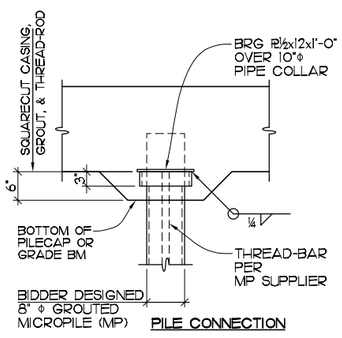


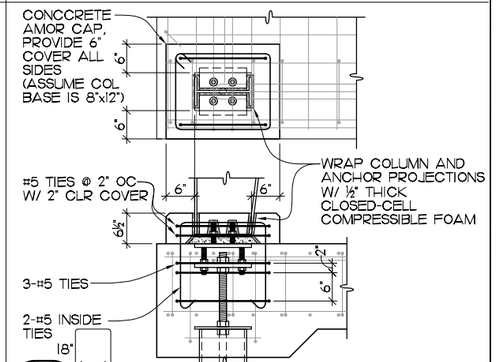
3.1 PEMB COLUMN BASE — 3/4"=1'-0"



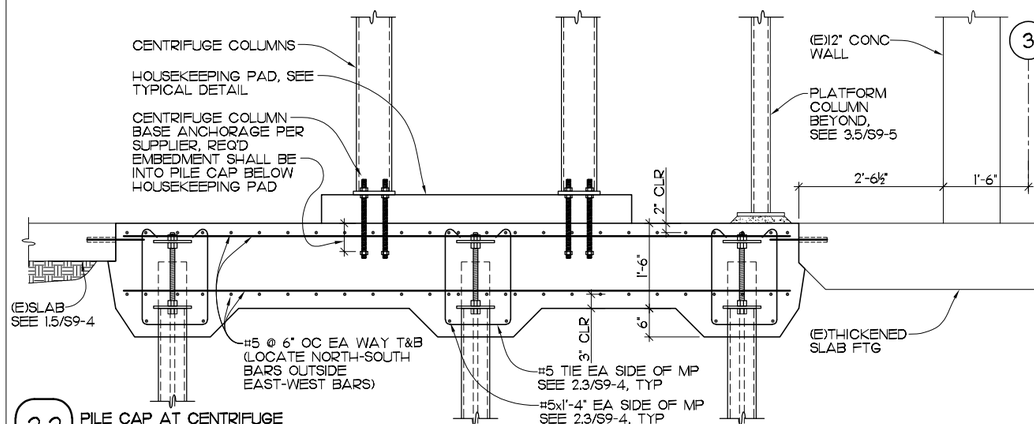
NOTE: SEE 1.3/S9-4 FOR FLUSH GRADE BEAM BETWEEN MICROPILES, TYP

2.3 MICROPILE @ FLUSH GRADE BEAM — 3/4"=1'-0"

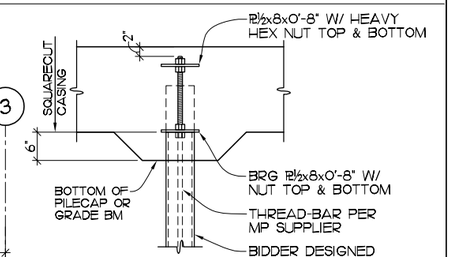




2.5 CONCRETE COLUMN BASE ARMOR — 3/4"=1'-0"



3.3 PILE CAP AT CENTRIFUGE — 3/4"=1'-0"



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6/25/26

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(LSB#25045)

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REVISION	DATE	FILE NAMES: DRAWING: PLAN:	
		DESIGNED BY: BTS	
		ENTERED BY: MAC	

CITY OF SELAH
PHASE 2- WASTEWATER TREATMENT PLANT IMPROVEMENTS
STRUCTURAL DETAILS

S9-4

SHEET 44 OF 81

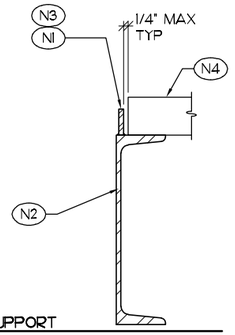
NOTES (FOR THIS DETAIL)

(N1) GRATING RETENTION FLATBAR 1/4 x 1 1/2 CONTINUOUS. WELD TO CHANNEL WITH FILLETS EACH SIDE. 1/8" x2" @ 12" PITCH, STAGGERED

(N2) CHANNEL SUPPORT MEMBER, SEE PLAN FOR SIZE

(N3) WELD FLATBARS AT CORNER WHERE THEY MEET, GRIND OUTSIDE FACE SMOOTH

(N4) GRATING, SEE PLAN & SHEDULE



1.1 TYPICAL GRATING SUPPORT

NOTES (FOR THIS DETAIL)

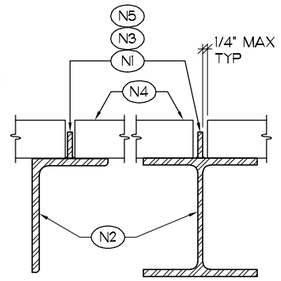
(N1) GRATING RETENTION FLATBAR 1/4 x 1 1/2 CONTINUOUS. WELD TO GRATING SUPPORT MEMBER WITH FILLETS EACH SIDE. 1/8" x2" @ 12" PITCH, STAGGERED.

(N2) GRATING SUPPORT MEMBER, SEE PLAN FOR SIZE

(N3) WELD FLATBARS AT CORNER WHERE THEY MEET, GRIND OUTSIDE FACE SMOOTH

(N4) GRATING, SEE PLAN & SHEDULE

(N5) CENTER FLATBAR ON TOP FLANGE OF SUPPORT MEMBER



1.2 TYPICAL GRATING SUPPORT

3" = 1'-0"

GRATING SCHEDULE

Type	Material	Top Surface	Bar Depth	Bar Width	Bar Spacing		Max Span	Remarks
					Bearing	Cross		
FA	FRP	quartz grit	2"	1/4"	2" oc	2" oc	4'-0"	See specifications 06 74 13
AA	ALUM	plain	1 1/2"	3/16"	1 3/16" oc	4" oc	4'-0"	
GA	Galv Steel	plain	1 1/2"	3/16"	1 3/16" oc	4" oc	4'-0"	See specifications 05 53 00
GB	Galv Steel	plain	1 1/4"	3/16"	1 3/16" oc	4" oc	4'-0"	

GRATING NOTES

1. ALUMINUM GRATINGS ARE TO BE BANDED AROUND ALL OPENINGS
2. GRATINGS ARE TO BE DESIGNED TO SUPPORT A MINIMUM LIVE LOAD OF 100 PSF OR A CONCENTRATED LOAD OF 300 POUNDS AT ANY POINT
3. DEFLECTIONS SHALL BE LIMITED AS SHOWN IN THE SPECIFICATIONS
4. GRATINGS OVER WEIRS OR GATES ARE TO BE MADE SO THAT THEY MAY BE EASILY REMOVED BY ONE PERSON
5. REMOVABLE SECTIONS ARE TO BE AT LEAST 8" WIDE, OR AS WIDE AS NECESSARY FOR EASY ACCESS TO THE GATE OR WEIR
6. GRATINGS ARE TO BE FASTENED DOWN TO SUPPORTS BY BENT CLIP-TYPE FASTENERS STUD WELDED TO SUPPORTS OR SELF-DRILLING SCREWS
7. MAXIMUM SPANS SHOWN ARE FOR FOOT TRAFFIC ONLY
8. FRP GRATING COLOR TO BE "SLATE GRAY" OR APPROVED EQUAL.

1.3 GRATING SCHEDULE & NOTES

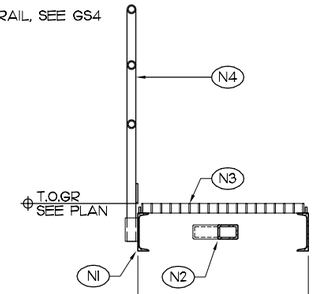
NOTES (FOR THIS DETAIL)

(N1) C8

(N2) HSS3x3 BRACING

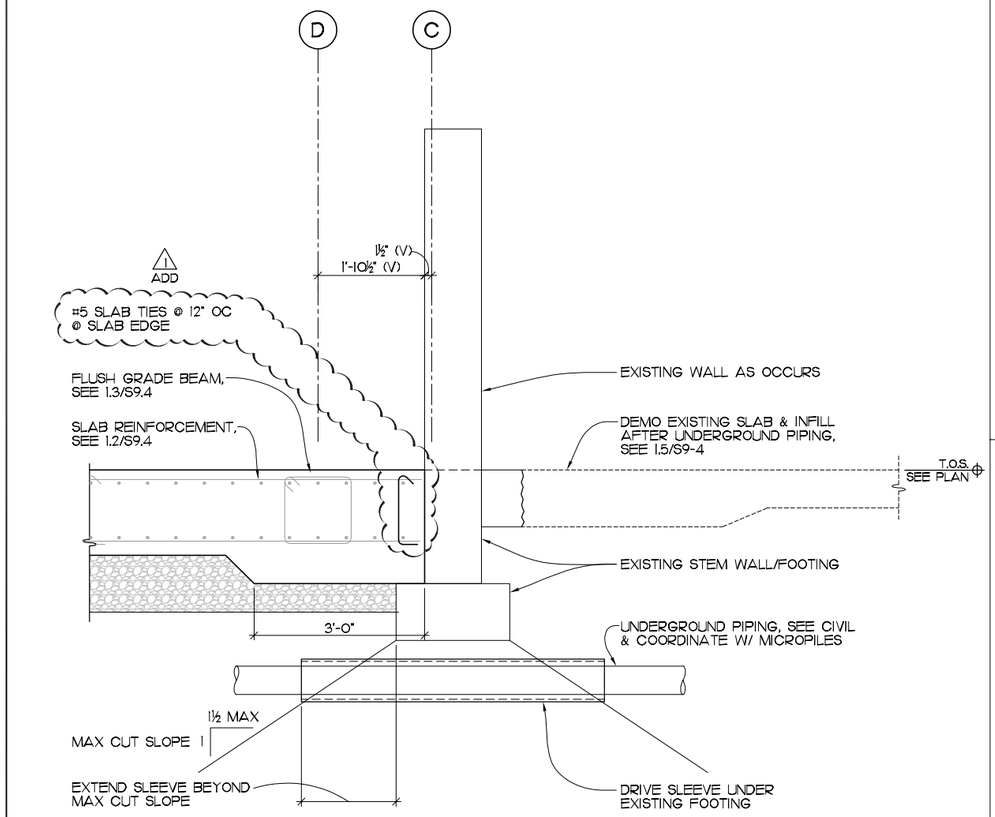
(N3) 2" FRP GRATING

(N4) GUARDRAIL, SEE GS4



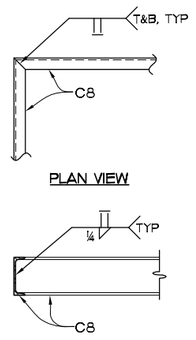
1.5 PLATFORM DETAIL

3/4"=1'-0"



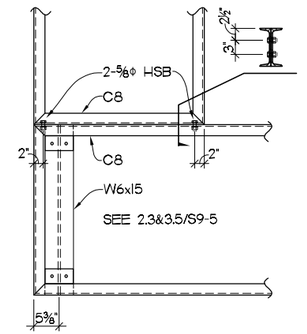
3.1 NEW SLAB @ EXISTING BUILDING

3/4"=1'-0"



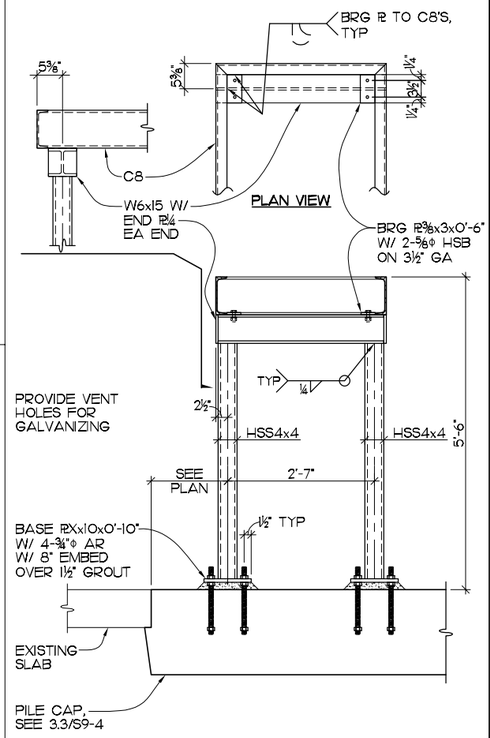
2.3 PLATFORM DETAIL - TYP C8 TO C8 WELDS

3/4"=1'-0"



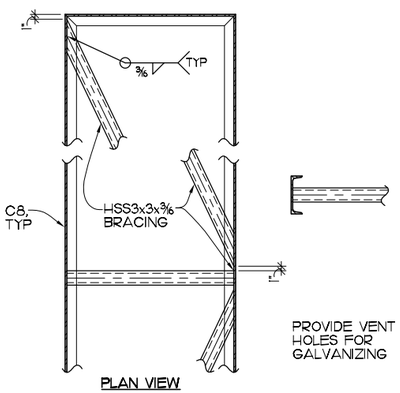
2.4 PLATFORM DETAIL

3/4"=1'-0"



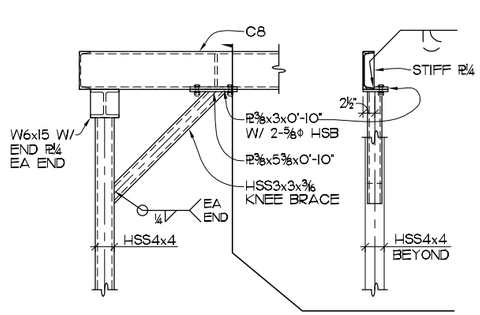
3.5 PLATFORM DETAIL

3/4"=1'-0"



3.3 PLATFORM DETAIL - TYP BRACING

3/4"=1'-0"



3.4 PLATFORM DETAIL

3/4"=1'-0"

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CITY OF SELAH
PHASE 2- WASTEWATER TREATMENT PLANT IMPROVEMENTS
STRUCTURAL DETAILS

S9-5

SHEET 45 OF 81

City of Selah
Phase 2 - Wastewater Treatment Plant Improvements
Pre-Bid Walkthrough Attendance; July 16, 2026

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Alex McCoy	Stellar J	bids@stellarj.com
Tim Irving	MBI	Tim1@mbiyakima.com
Spencer Nokes	McAlvain	snokes@mcalvain.com
Hank Otterstein	AVSM	Hank@alvalsm.com
Kodi Frank	CNL Construction	KodiF@vplum.com
Dustin Watts	GAME Inc.	Estimating@gameingc.com
Trenton Ashbaugh	GAME Inc.	Estimating@gameingc.com
Jo Valle	Condon Johnson	jvalle@condon-johnson.com
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