

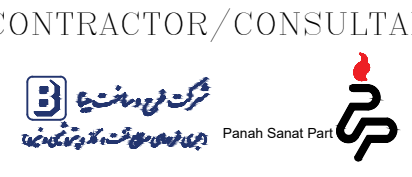
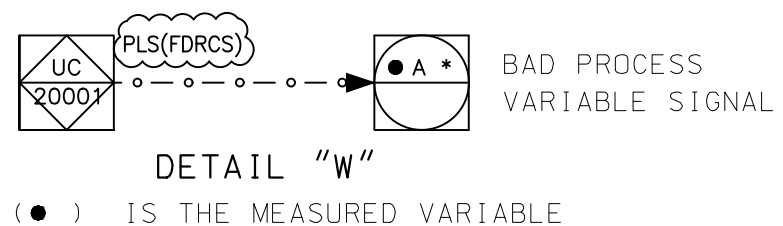
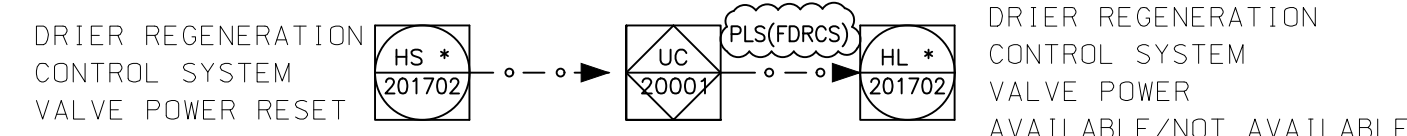
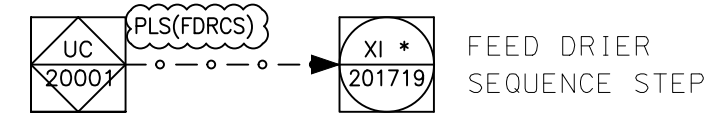
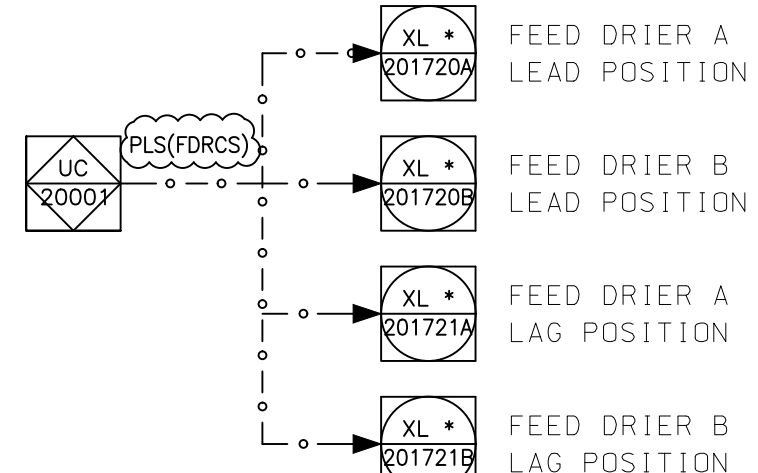
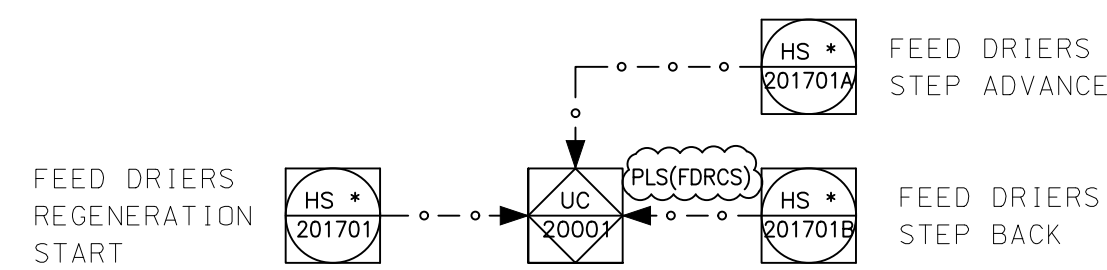
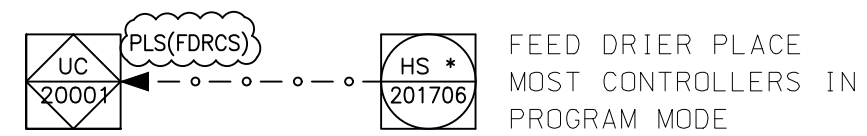
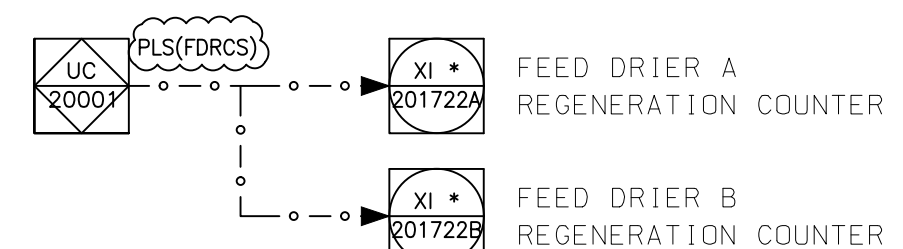
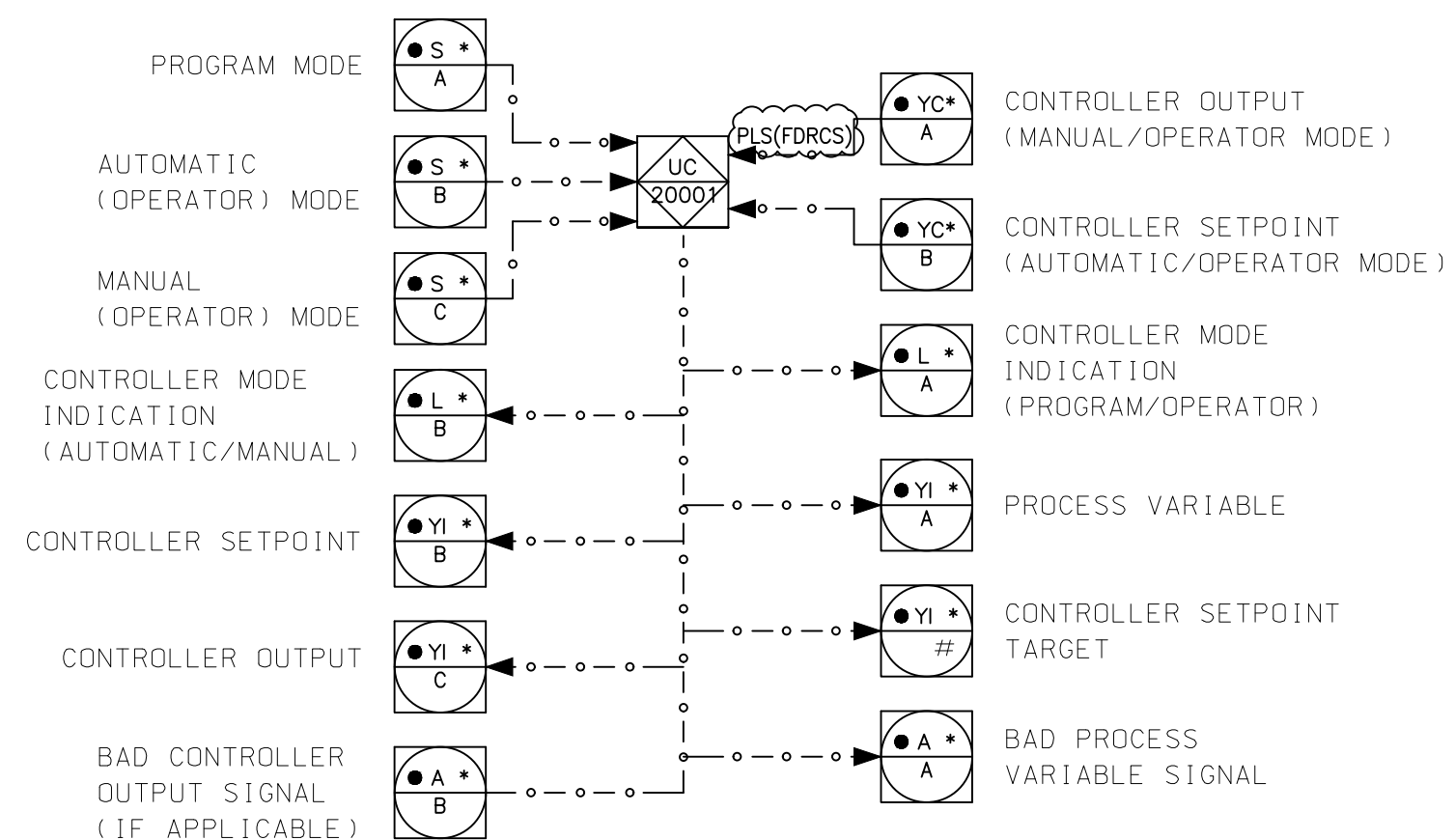
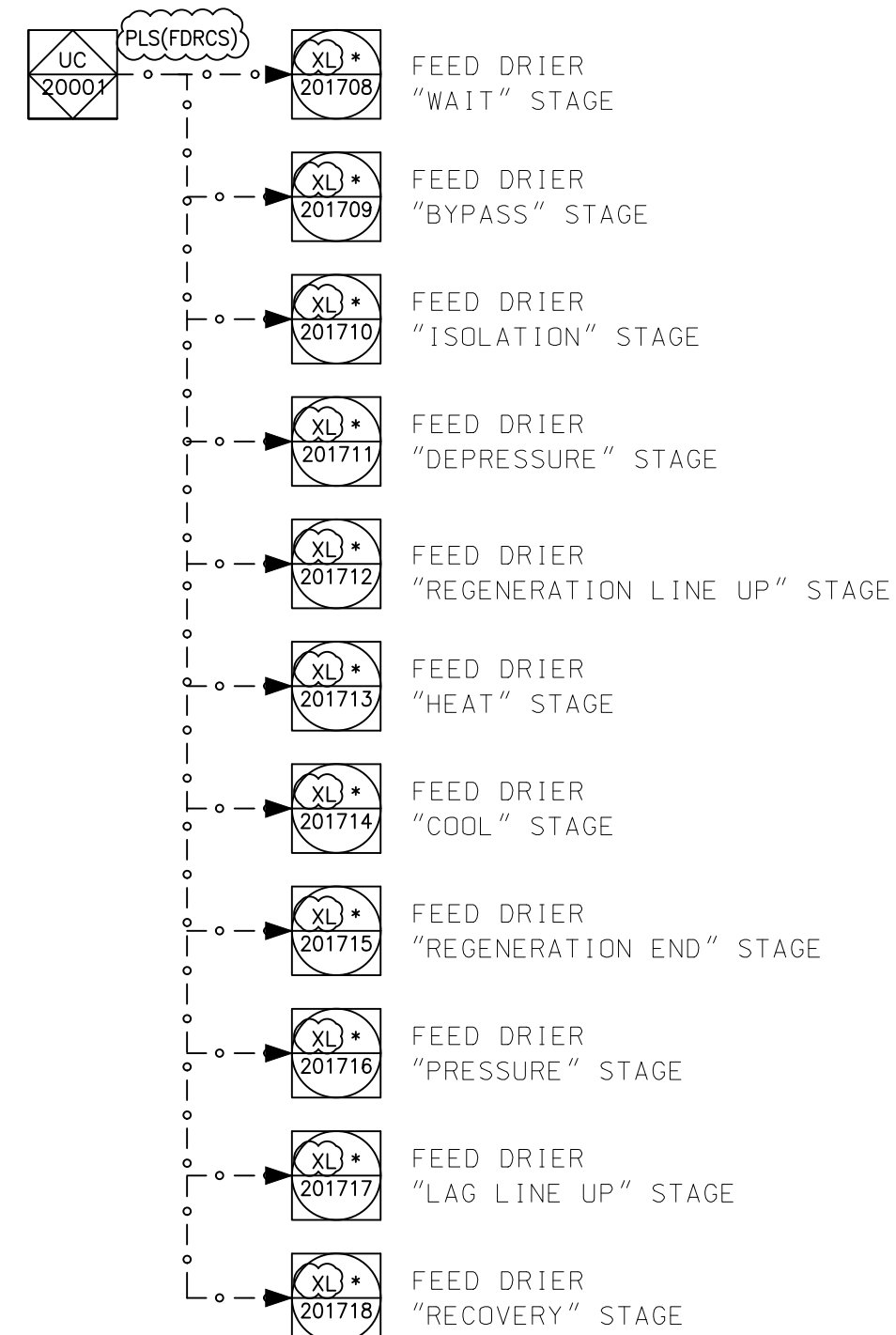
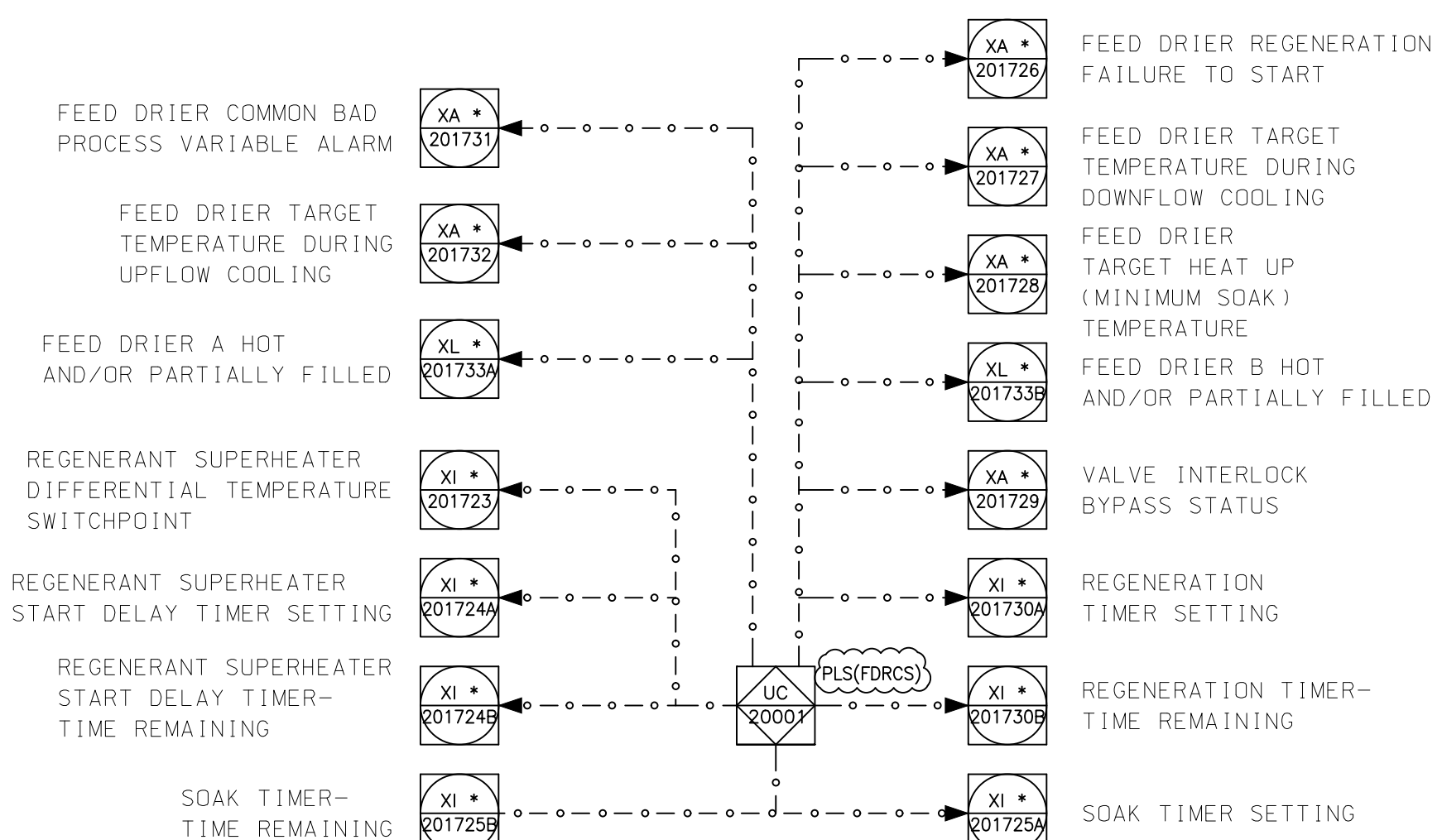
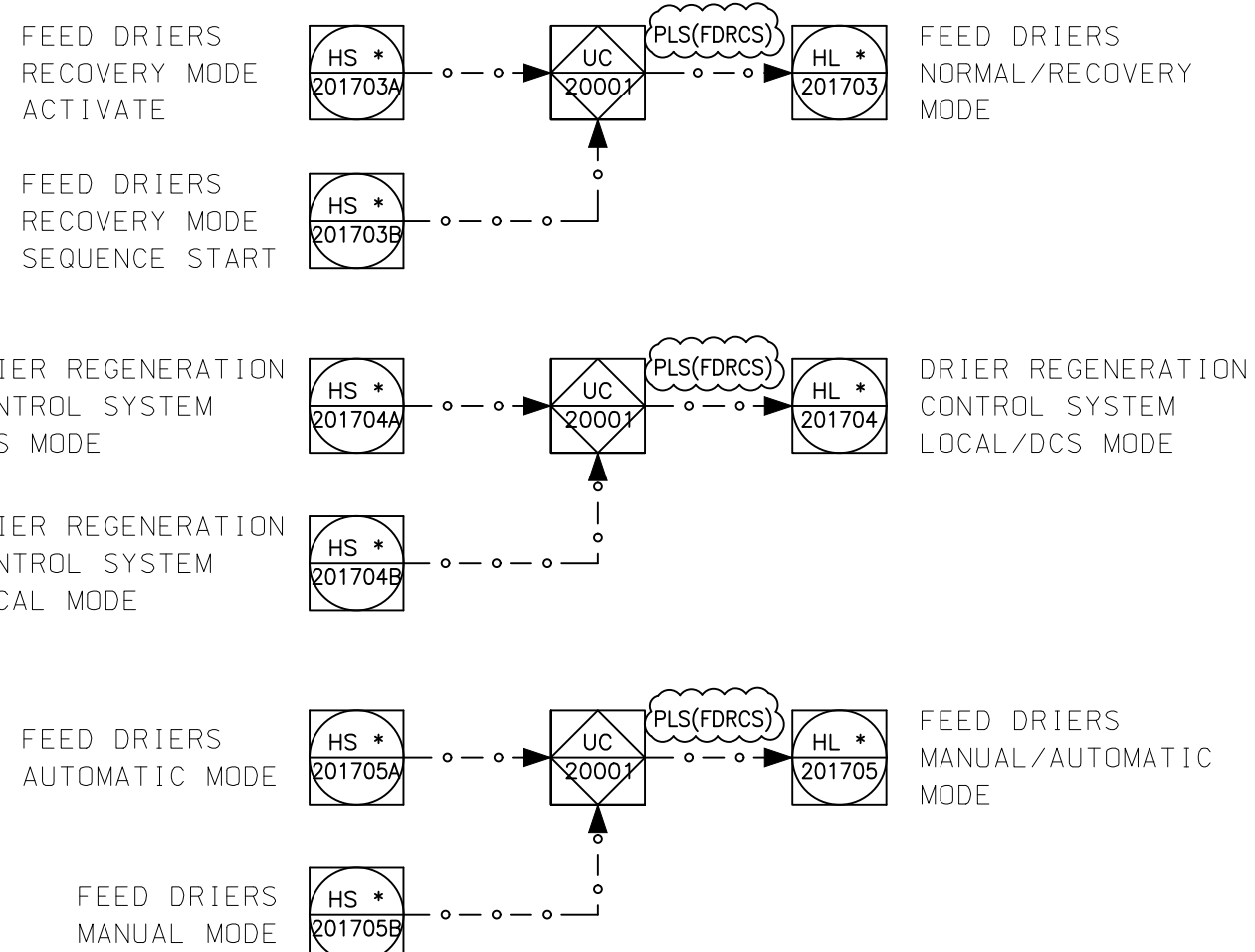
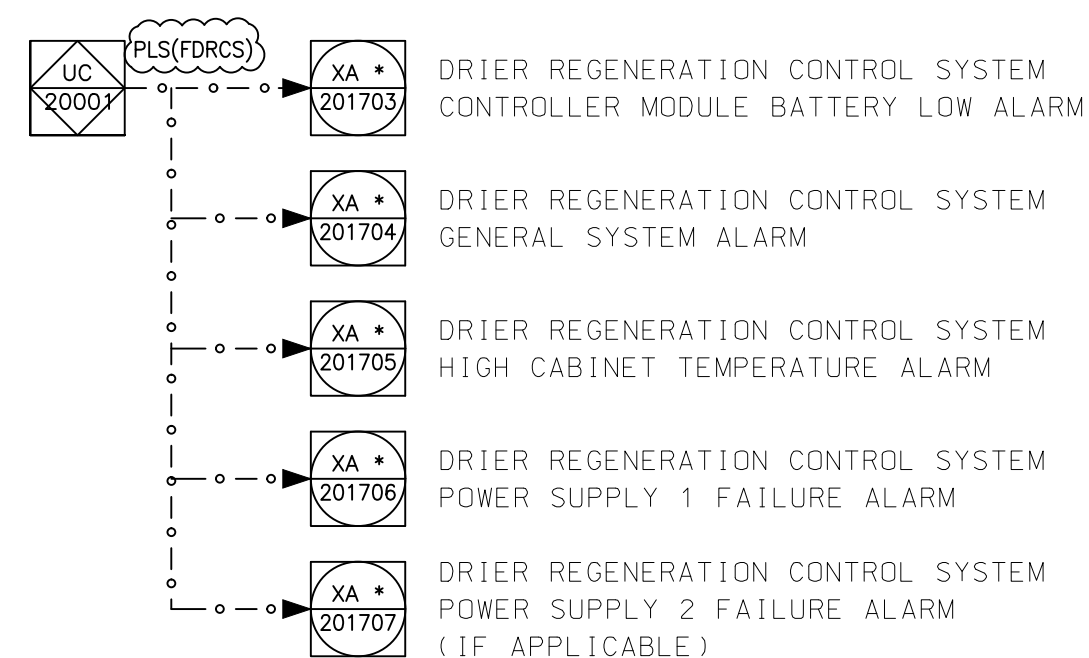


																		REFERENCE		DRAWINGS	
																		NOTES			
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																		HOLDS			
01	ISSUED FOR APPROVAL		10-Jan-2026		F.KHODADAD		M.JAMSHIDI		M.H.ESHRAGHI												
00	ISSUED FOR COMMENT		18-Aug-2025		M.KHERADKAR		M.JAMSHIDI		M.H.ESHRAGHI												
REV.	PURPOSE OF ISSUE		ISSUE DATE		PREPARE		CHECKED		APPROVED												
OWNER:			MC:				CONTRACTOR/CONSULTANT:														
PROJECT TITLE:																					
PROPANE DEHYDROGENATION (PDH) PROJECT																					
DOCUMENT TITLE:																					
PIPING AND INSTRUMENT DIAGRAM PROPANE HEATER SYSTEM																					
DOC NO.:		PROJ.CODE		Sec.	PHASE	DEP.	DOC. TYPE	SERIAL NO.													
		3981		20	DE	PR	PID	016													
SCALE:		SIZE: A1		SHEET NO: 1 OF 1				REVISION: 01		CLASS: 1											



REFERENCE	DRAWINGS

NOTES

Patient Information	
First Name	
Last Name	
Room Number	
Phone Number	
Insurance Company	
Insurance Policy Number	
Referring Physician	
Referral Date	
Referral Indication	
Patient History	
Chief Complaint	
History of Present Illness	
Past Medical History	
Past Surgical History	
Family History	
Social History	
Review of Systems	
Physical Examination	
General	
Head	
Eyes	
Ears	
Nose	
Throat	
Heart	
Lungs	
Abdomen	
Genitourinary	
Neurological	
Musculoskeletal	
Skin	
Laboratory and Diagnostic Test Results	
Complete Blood Count (CBC)	
Basic Metabolic Panel (BMP)	
Comprehensive Metabolic Panel (CMP)	
Liver Function Tests (LFTs)	
Renal Function Tests (RFTs)	
Thyroid Function Tests (TFTs)	
Imaging Studies	
X-ray	
Ultrasound	
CT Scan	
MRI	
Treatment Plan	
Medications	
Procedures	
Follow-up	
Physician Signature	
Physician Name	
Physician Title	
Physician License Number	
Physician Signature	
Nurse Signature	
Nurse Name	
Nurse Title	
Nurse License Number	
Nurse Signature	
Patient Signature	
Patient Name	
Patient Title	
Patient License Number	
Patient Signature	




GENERAL NOTES:

1. FOR GENERAL USE, ABBREVIATIONS, NOMENCLATURE, INSTRUMENTATION, EQUIPMENT SYMBOLLOGY AND GENERAL DETAILS SEE DWG'S 3981-00-DE-PR-PID-045 THRU 3981-00-DE-PR-PID-055
2. EACH INSTRUMENT TAG NUMBER HAS A PLANT IDENTIFICATION NUMBER(PROJECT CODE=81) WHICH WILL NOT BE SHOWN ON THE P.I.D.'S
3. FUNCTIONAL IDENTIFICATION OF INSTRUMENT SYMBOLS SUFFIXED WITH AN ASTERISK (*) ARE INCLUDED IN THE FEED DRIER REGENERATION CONTROL SYSTEM. THE SUPPLIER OF THE FEED DRIER REGENERATION CONTROL SYSTEM SHALL PROVIDE DETAILS FOR THESE SIGNALS.

HOLDS

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01	ISSUED FOR APPROVAL	10-Jan-2026	F.KHODADAD	M.JAMSHIDI	M.H.ESHRAGHI
00	ISSUED FOR COMMENT	10-Aug-2025	M.KHERADKAR	M.JAMSHIDI	M.H.ESHRAGHI

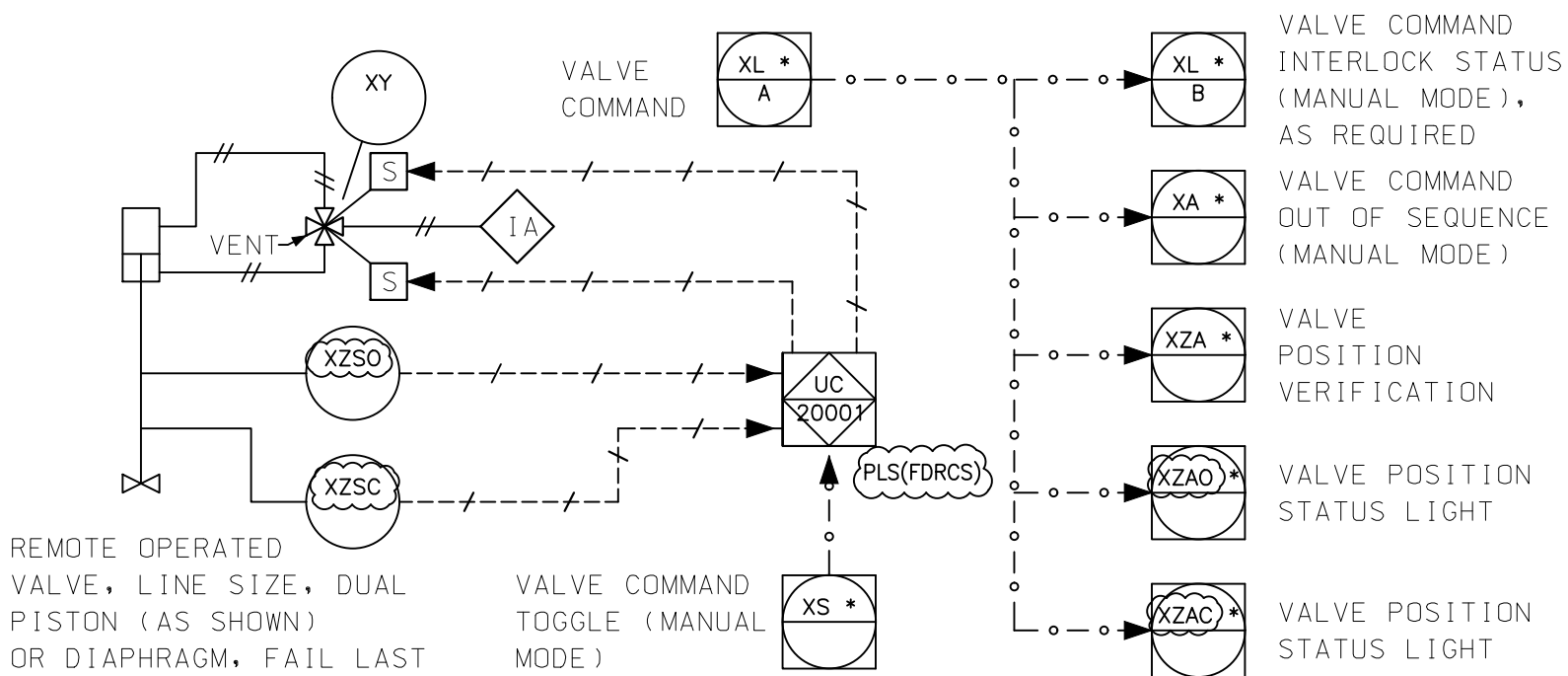
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OWNER:		MC: 	CONTRACTOR/CONSULTANT: 		

PROJECT TITLE:	PROPANE DEHYDROGENATION (PDH) PROJECT
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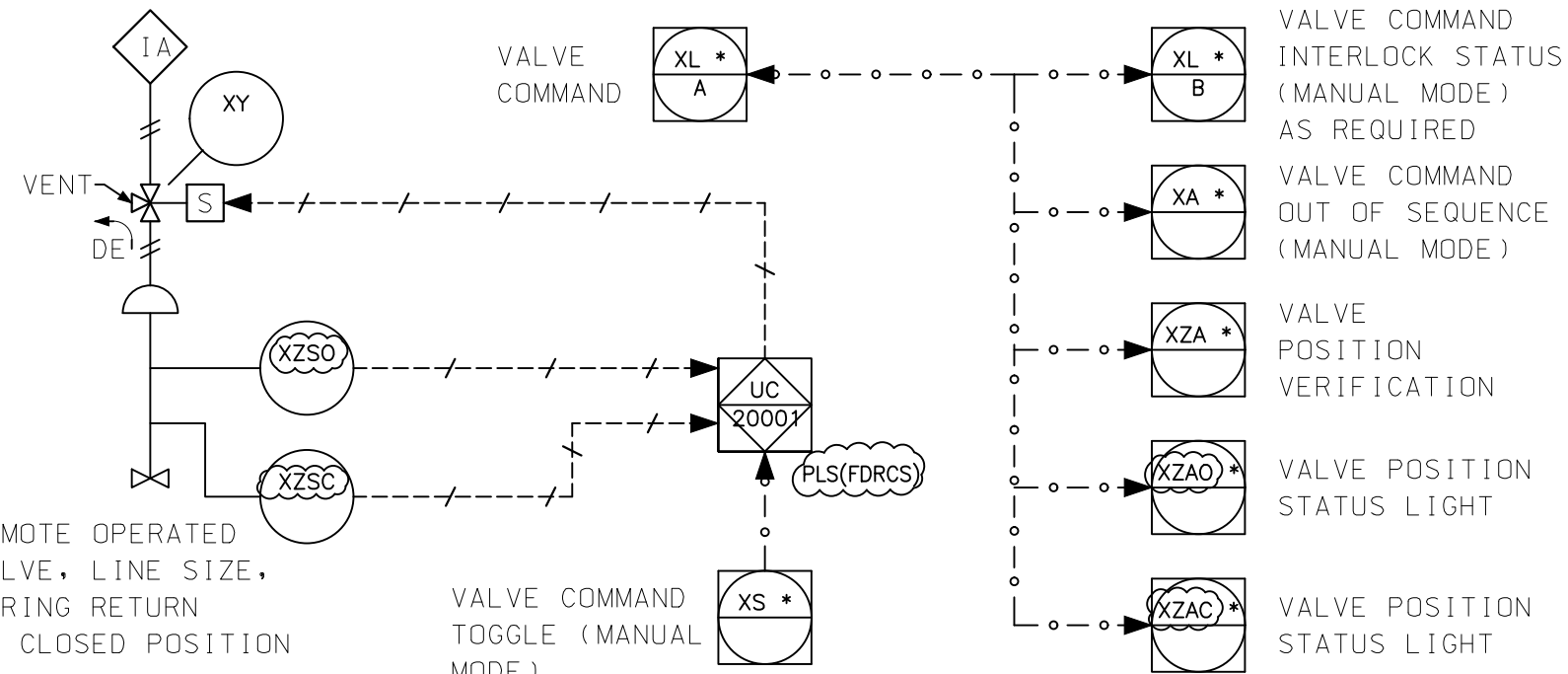
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<p style="text-align: center;">PIPING AND INSTRUMENT DIAGRAM UNIT SPECIFIC DETAILS AND NOTES-1</p>

DOC NO.:	PROJ.CODE	Sec.	PHASE	DEP.	DOC. TYPE	SERIAL NO.
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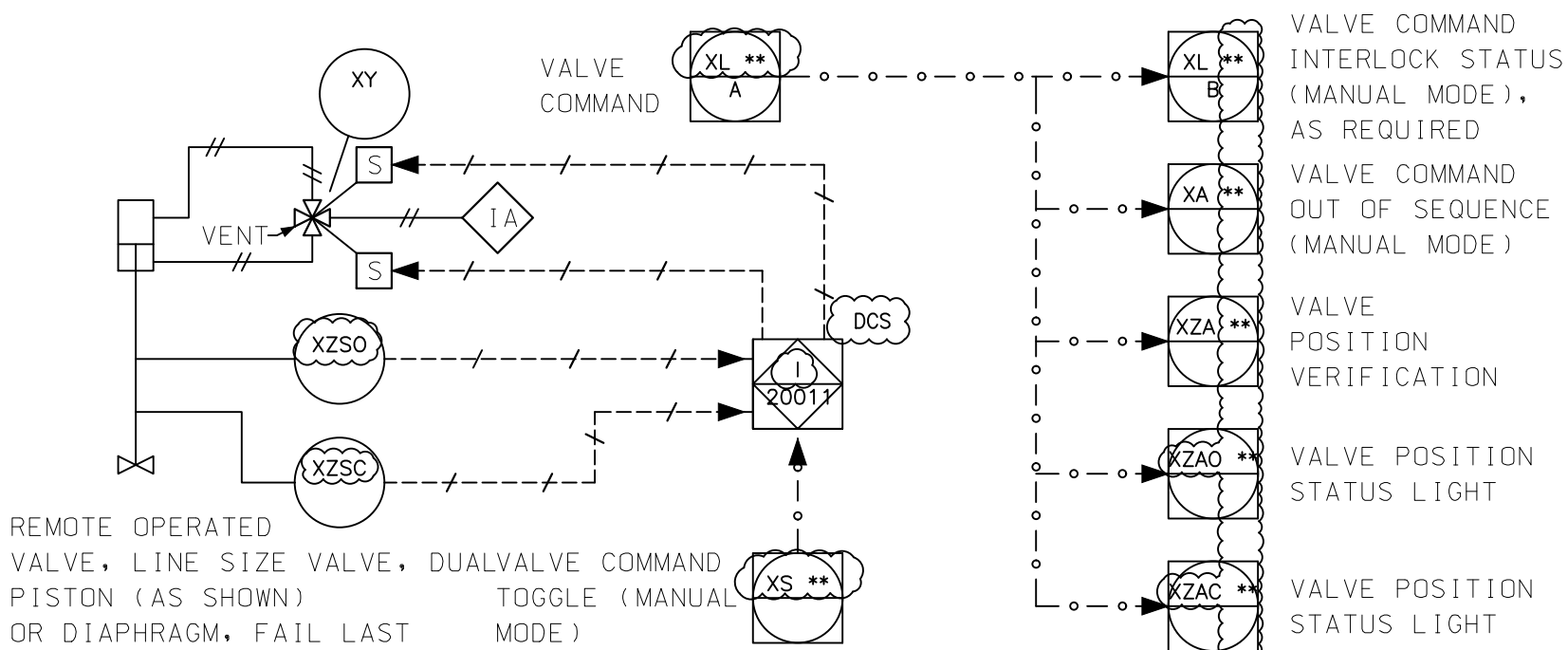
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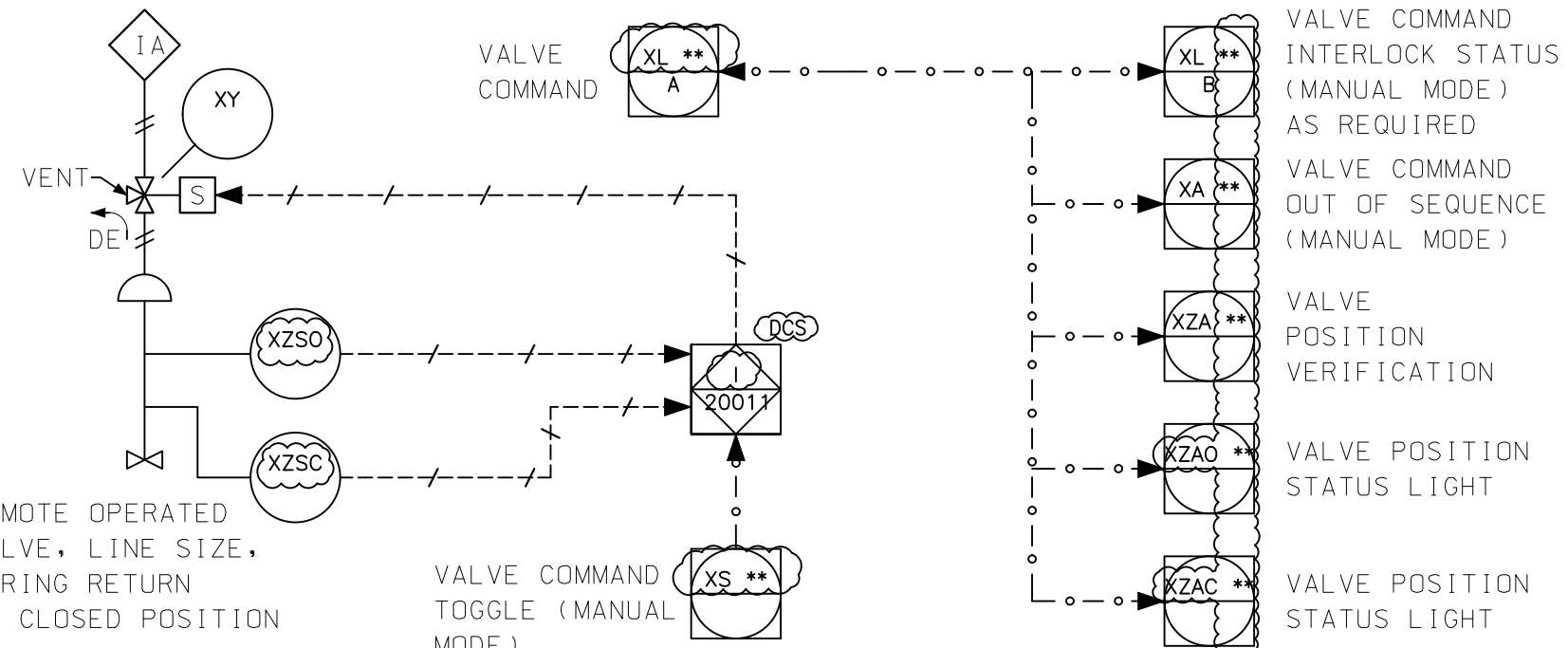
DETAIL "X"



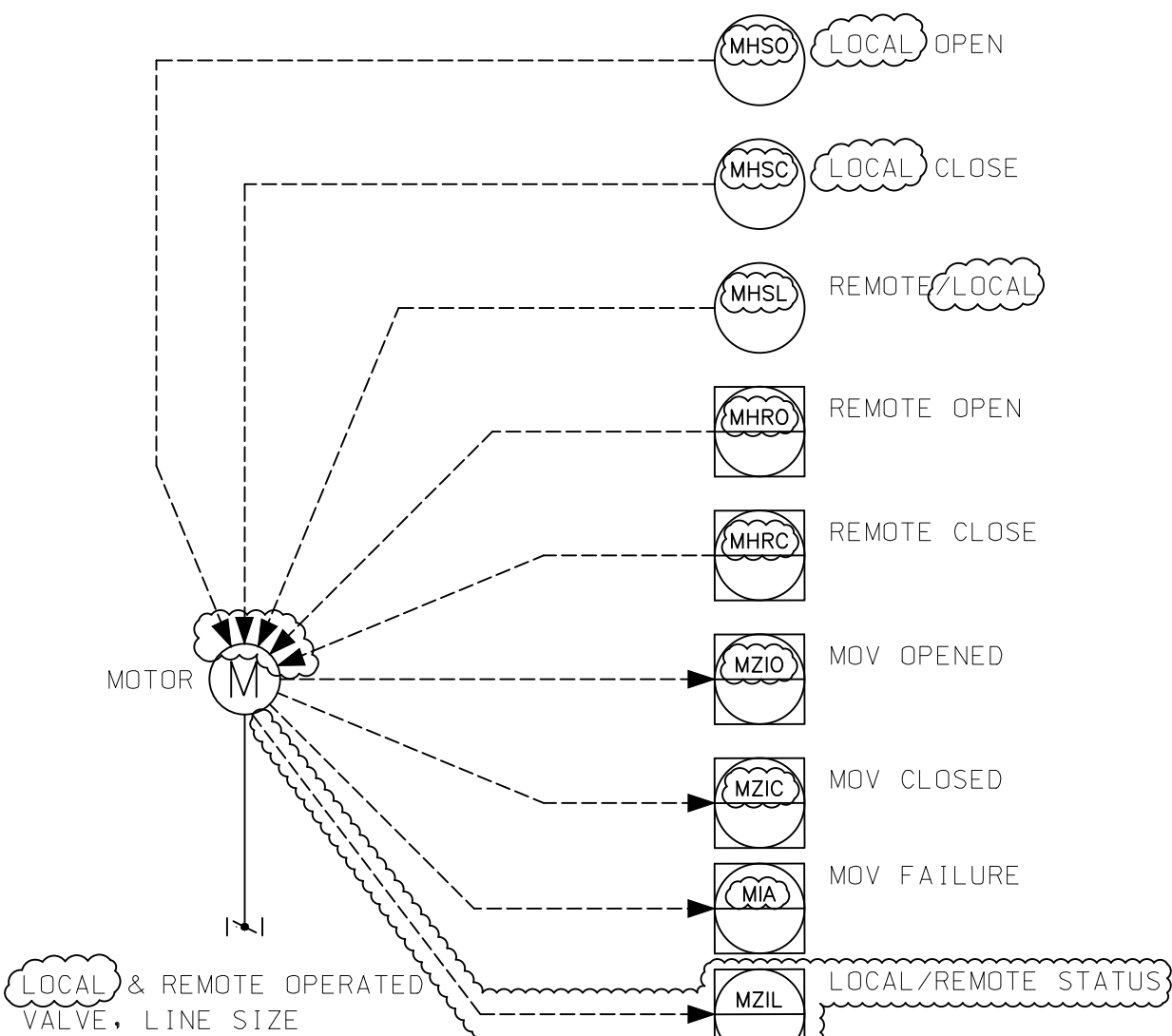
DETAIL "Y"



DETAIL "XX"



DETAIL "YY"



DETAIL "MO"

REFERENCE

DRAWINGS

NOTES

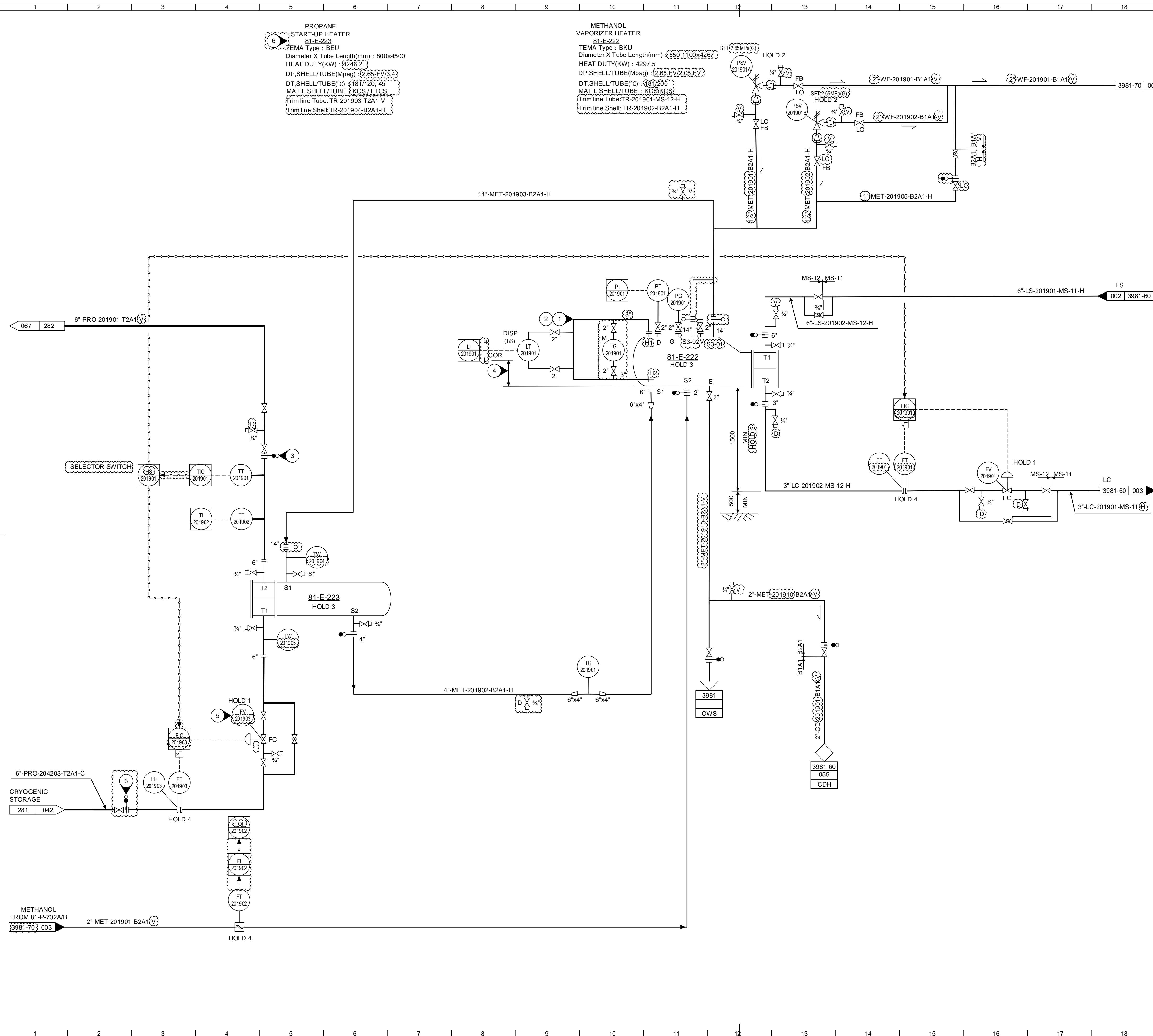
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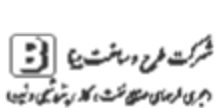
- FOR GENERAL LEGEND, ABBREVIATIONS, NOMENCLATURE, INSTRUMENTATION, EQUIPMENT SYMBOLOLOGY AND GENERAL DETAILS SEE DWG'S 3981-00-DE-PR-PID-045 THRU 3981-00-DE-PR-PID-055
- EACH INSTRUMENT TAG NUMBER HAS A PLANT IDENTIFICATION NUMBER(PROJECT CODE=81) WHICH WILL NOT BE SHOWN ON THE PID'S.
- FUNCTIONAL IDENTIFICATION OF INSTRUMENT SYMBOLS SUFFIXED WITH AN ASTERISK (*) ARE INCLUDED IN THE FEED DRIER REGENERATION CONTROL SYSTEM. THE SUPPLIER OF THE FEED DRIER REGENERATION CONTROL SYSTEM SHALL PROVIDE DETAILS FOR THESE SIGNALS.
- FUNCTIONAL IDENTIFICATION OF INSTRUEMNT SYMBOLS SUFFIXED WITH TWO ASTERISK (**)ARE INCLUDED IN THE COS/CO2 TREATER REGENERATION CONTROL SYSTEM. THE SUPPLIER OF COS/CO2 TREATER REGENERATION CONTROL SYSTEM SHALL PROVIDE DETAILS FOR THESES SIGNALS.

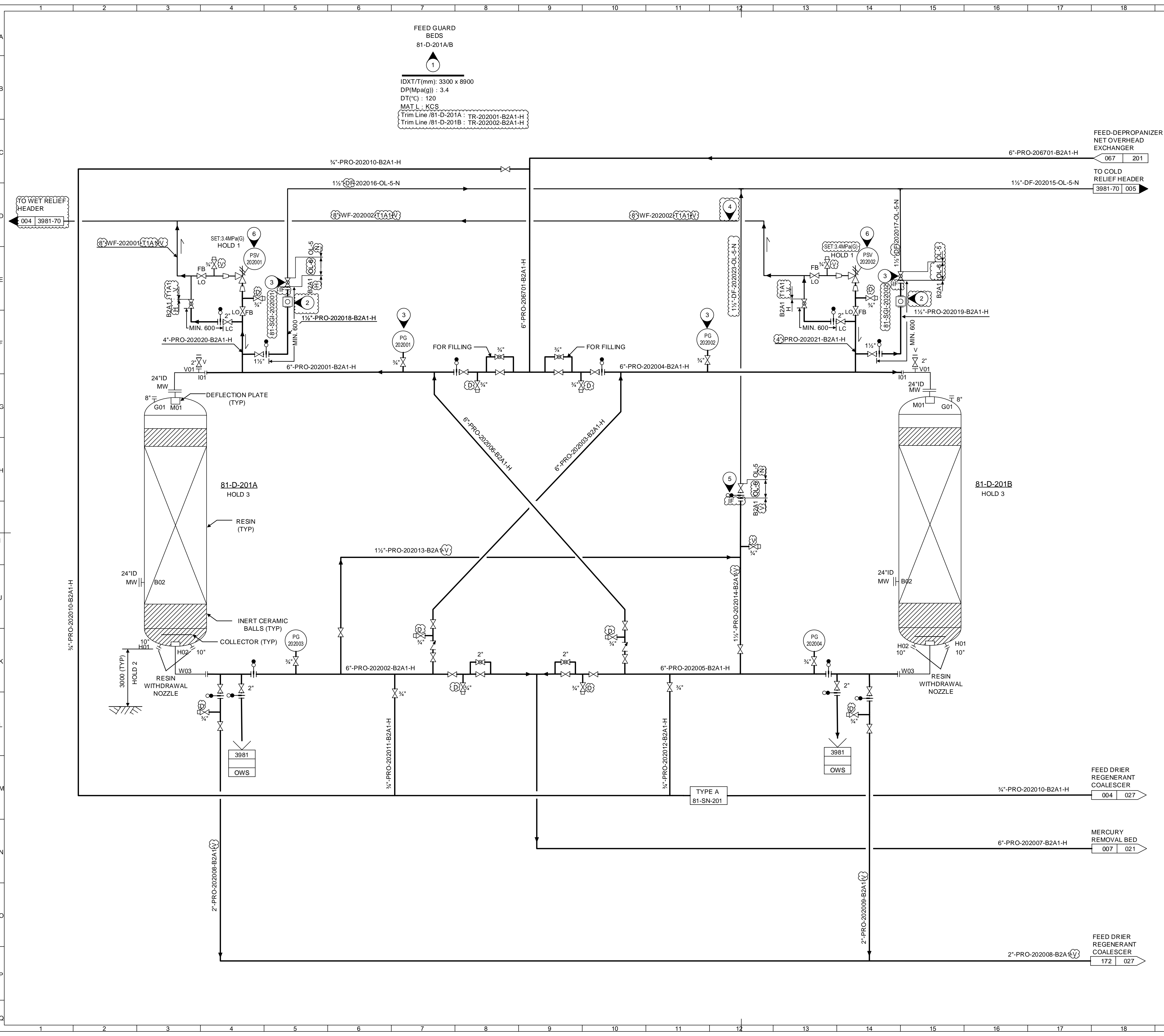
HOLDS

01	ISSUED FOR APPROVAL	10-Jan-2026	F.KHODADAD	M.JAMSHIDI	M.H.ESHRAGHI
00	ISSUED FOR COMMENT	10-Aug-2025	M.KHERADKAR	M.JAMSHIDI	M.H.ESHRAGHI
REV.	PURPOSE OF ISSUE	ISSUE DATE	PREPARE	CHECKED	APPROVED
OWNER:		MC:		CONTRACTOR/CONSULTANT:	
PROJECT TITLE:					
PROPANE DEHYDROGENATION (PDH) PROJECT					
DOCUMENT TITLE:					
PIPING AND INSTRUMENT DIAGRAM UNIT SPECIFIC DETAILS AND NOTES-2					
DOC NO.:	PROJ.CODE	Sec.	PHASE	DEP.	DOC. TYPE
	3981	20	DE	PR	PID
SCALE:	SIZE: A1	SHEET NO: 1 OF 1	REVISION: 01	CLASS: 1	

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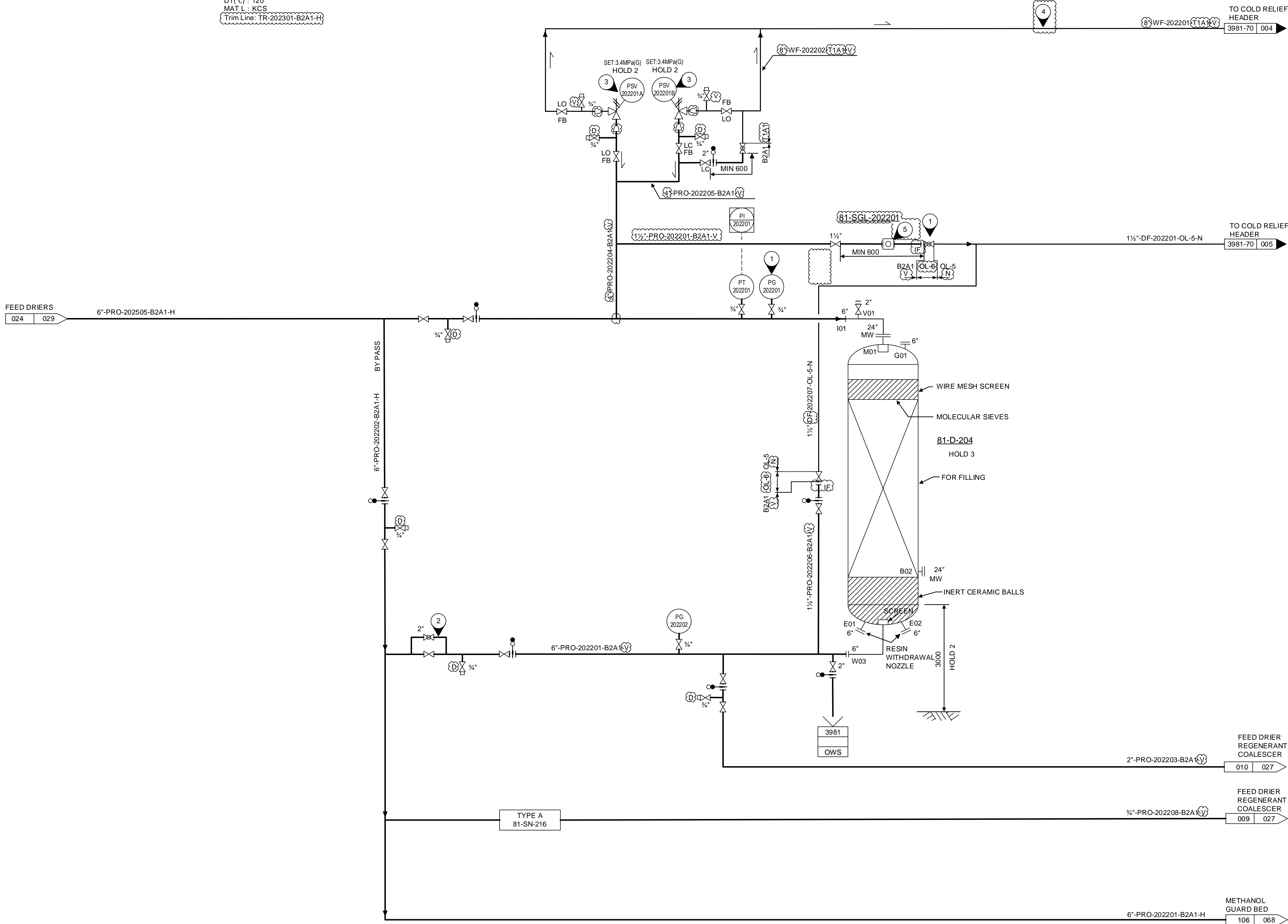


19	20	21	22	23		
REFERENCE			DRAWINGS			
NOTES						
1. DETAIL "LVD", SEE DWG 3981-00-DE-PR-PID-054. 2. SEE STD DWG 8-121. 3. BLANKOFF WHEN NOT IN USE. 4. LOCATE 50 ABOVE TOP OF BUNDLE. 5. DETAIL "CVD", SEE DWG 3981-00-DE-PR-PID-054. 6. 81-E-223 SHALL BE INSTALLED ABOVE 81-E-222.						
GENERAL NOTES:						
1. FOR GENERAL LEGEND, ABBREVIATIONS, NOMENCLATURE, INSTRUMENTATION, EQUIPMENT SYMBOLOGY AND GENERAL DETAILS SEE DWG'S 3981-00-DE-PR-PID-045 THRU 3981-00-DE-PR-PID-055 2. EACH INSTRUMENT TAG NUMBER HAS A PLANT IDENTIFICATION NUMBER(PROJECT CODE=81) WHICH WILL NOT BE SHOWN ON THE PID'S.						
HOLDS						
1. CONTROL VALVE, ITS ISOLATION, BY PASS VALVE SIZE AND NUMBER OF EXPANDER/REDUCER. 2. PSV ORIFICE SIZE, ITS INLET/OUTLET LINE SIZE AND CORRESPONDING VESSEL NOZZLE SIZE. 3. ELEVATION. 4. FLOWMETER CONNECTION SIZE.						
01	ISSUED FOR APPROVAL	10-Jan-2026	F.KHODADAD	M.JAMSHIDI	M.H.ESHRAGH	
00	ISSUED FOR COMMENT	06-Aug-2025	M.KHERADKAR	M.JAMSHIDI	M.H.ESHRAGH	
REV	PURPOSE OF ISSUE	ISSUE DATE	PREPARE	CHECKED	APPROVED	
OWNER: 		MC:  A.P.G	CONTRACTOR/CONSULTANT:  پارسیان سنات پاش Parsian Sanat Pash			
PROJECT TITLE:						
PROPANE DEHYDROGENATION (PDH) PROJECT						
DOCUMENT TITLE:						
PIPING AND INSTRUMENT DIAGRAM						
PROPANE HEATER SYSTEM						
DOC NO.:	PROJ.CODE	Sec.	PHASE	DEP.	DOC.TYPE	SERIAL NO.
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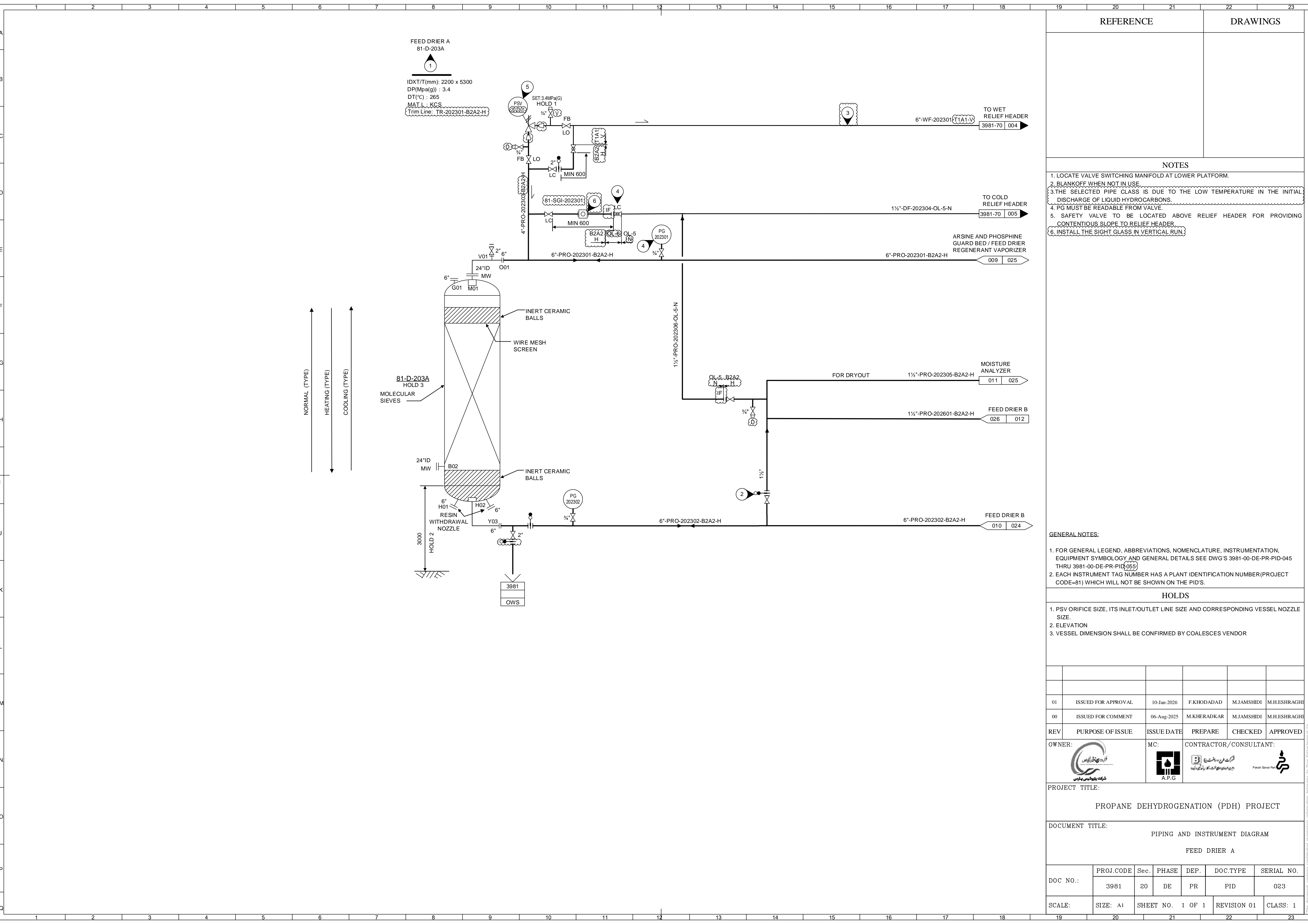






REFERENCE		DRAWINGS			
NOTES					
1. LOCATE VALVE SWITCHING MANIFOLD AT GRADE. 2. INSTALL THE SIGHT GLASS IN VERTICAL RUN. 3. PG MUST BE READABLE FROM VALVE. 4. THE SELECTED PIPE CLASS IS DUE TO THE LOW TEMPERATURE IN THE INITIAL DISCHARGE OF LIQUID HYDROCARBONS. 5. BLANKOFF WHEN NOT IN USE. 6. SAFETY VALVE TO BE LOCATED ABOVE RELIEF HEADER FOR PROVIDING CONTENTIOUS SLOPE TO RELIEF HEADER.					
GENERAL NOTES:					
1. FOR GENERAL LEGEND, ABBREVIATIONS, NOMENCLATURE, INSTRUMENTATION, EQUIPMENT SYMBOLOLOGY AND GENERAL DETAILS SEE DWG'S 3981-00-DE-PR-PID-045 THRU 3981-00-DE-PR-PID-053. 2. EACH INSTRUMENT TAG NUMBER HAS A PLANT IDENTIFICATION NUMBER (PROJECT CODE=81) WHICH WILL NOT BE SHOWN ON THE PID'S.					
HOLDS					
1. CONTROL VALVE, ITS ISOLATION, BY PASS VALVE SIZE AND NUMBER OF EXPANDER/REDUCER 2. ELEVATION. 3. VESSEL DIMENSION SHALL BE CONFIRMED BY ADSORBENT VENDOR.					
01	ISSUED FOR APPROVAL	10-Jan-2026	F.KHODADAD	M.JAMSHIDI	M.H.ESHRAGHI
00	ISSUED FOR COMMENT	06-Aug-2025	M.KHERADKAR	M.JAMSHIDI	M.H.ESHRAGHI
REV	PURPOSE OF ISSUE	ISSUE DATE	PREPARE	CHECKED	APPROVED
OWNER:			MC:	CONTRACTOR/CONSULTANT:	
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PROPANE DEHYDROGENATION (PDH) PROJECT					
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PIPING AND INSTRUMENT DIAGRAM FEED GUARD BEDS					
DOC NO.:	PROJ.CODE	Sec.	PHASE	DEP.	DOC.TYPE
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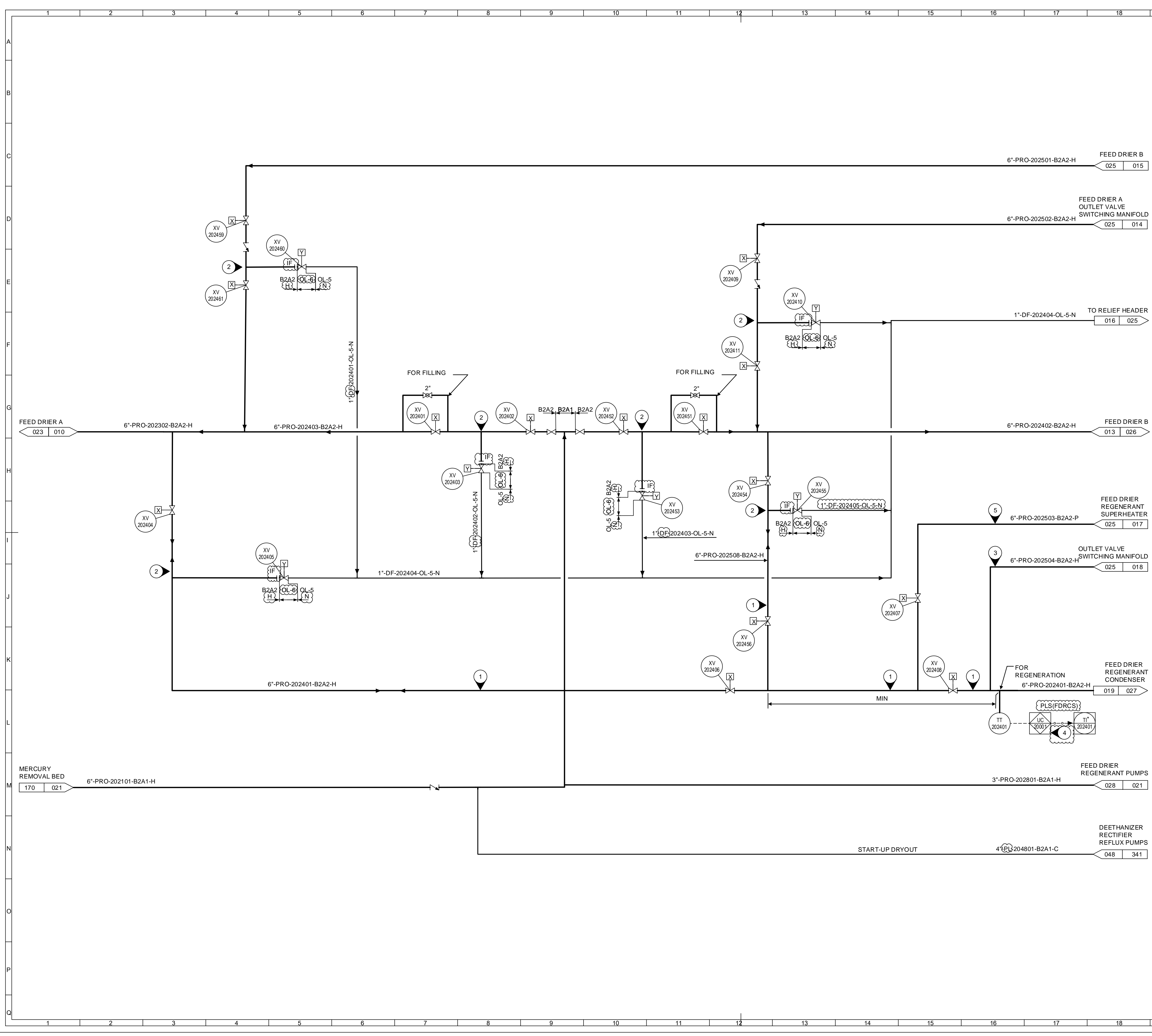
ARSINE AND PHOSPHINE GUARD BED
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IDXT/T(mm): 2200 x 7400
DP(Mpa(g)) : 3.4
DT(°C) : 120
MAT L : KCS
Trim Line: TR-202301-B2A1-H



19	20	21	22	23
REFERENCE			DRAWINGS	
NOTES				
1.PG MUST BE READABLE FROM VALVE.				
2.FOR FILLING.				
3.SAFETY VALVE TO BE LOCATED ABOVE RELIEF HEADER FOR PROVIDING				
CONTENTIOUS SLOPE TO RELIEF HEADER.				
4. THE SELECTED PIPE CLASS IS DUE TO THE LOW TEMPERATURE IN THE INITIAL				
DISCHARGE OF LIQUID HYDROCARBONS.				
5. INSTALL THE SIGHT GLASS IN VERTICAL RUN.				



REFERENCE			DRAWINGS		
NOTES					
1. LOCATE VALVE SWITCHING MANIFOLD AT LOWER PLATFORM.					
2. BLANKOFF WHEN NOT IN USE.					
3.THE SELECTED PIPE CLASS IS DUE TO THE LOW TEMPERATURE IN THE INITIAL DISCHARGE OF LIQUID HYDROCARBONS.					
4. PG MUST BE READABLE FROM VALVE.					
5. SAFETY VALVE TO BE LOCATED ABOVE RELIEF HEADER FOR PROVIDING CONTENTIOUS SLOPE TO RELIEF HEADER.					
6. INSTALL THE SIGHT GLASS IN VERTICAL RUN.					
GENERAL NOTES:					
1. FOR GENERAL LEGEND, ABBREVIATIONS, NOMENCLATURE, INSTRUMENTATION, EQUIPMENT SYMBOLOGY AND GENERAL DETAILS SEE DWG'S 3981-00-DE-PR-PID-045 THRU 3981-00-DE-PR-PID-055					
2. EACH INSTRUMENT TAG NUMBER HAS A PLANT IDENTIFICATION NUMBER(PROJECT CODE=81) WHICH WILL NOT BE SHOWN ON THE PID'S.					
HOLDS					
1. PSV ORIFICE SIZE, ITS INLET/OUTLET LINE SIZE AND CORRESPONDING VESSEL NOZZLE SIZE.					
2. ELEVATION					
3. VESSEL DIMENSION SHALL BE CONFIRMED BY COALESCESES VENDOR					
01	ISSUED FOR APPROVAL	10-Jan-2026	F.KHODADAD	M.JAMSHIDI	M.H.ESHRAGH
00	ISSUED FOR COMMENT	06-Aug-2025	M.KHERADKAR	M.JAMSHIDI	M.H.ESHRAGH
REV	PURPOSE OF ISSUE	ISSUE DATE	PREPARE	CHECKED	APPROVED
OWNER:		MC:	CONTRACTOR/CONSULTANT:		
			 		
PROJECT TITLE:					
PROPANE DEHYDROGENATION (PDH) PROJECT					
DOCUMENT TITLE:					
PIPING AND INSTRUMENT DIAGRAM					
FEED DRIER A					
DOC NO.:	PROJ.CODE	Sec.	PHASE	DEP.	DOC.TYPE
	3981	20	DE	PR	PID
SCALE:	SIZE: A1		SHEET NO. 1 OF 1		REVISION 01
					CLASS: 1



REFERENCE

DRAWINGS

NOTES

PPS = PREFERRED PRESSURE SIDE
DETAIL "Z"

TYPICAL DETAIL FOR FREE DRAINING DOUBLE BLOCK AND BLEED ARRANGEMENT AT DRIERS

FOR DETAILED INFORMATION
SEE DETAILS X AND Y
LOCATED ON UNIT SPECIFIC
DETAILS AND NOTES P&ID (3981-20-DE-PR-PID-018)

GENERAL NOTES:

1. FOR GENERAL LEGEND, ABBREVIATIONS, NOMENCLATURE, INSTRUMENTATION, EQUIPMENT SYMBOLOGY AND GENERAL DETAILS SEE DWG'S 3981-00-DE-PR-PID-045 THRU 3981-00-DE-PR-PID-053

2. EACH INSTRUMENT TAG NUMBER HAS A PLANT IDENTIFICATION NUMBER (PROJECT CODE=81) WHICH WILL NOT BE SHOWN ON THE PID'S.

3. FUNCTIONAL IDENTIFICATION OF INSTRUMENT SYMBOLS SUFFIXED WITH AN ASTERISK (*) ARE INCLUDED IN THE FEED DRIER REGENERATION CONTROL SYSTEM. THE SUPPLIER OF THE FEED DRIER REGENERATION CONTROL SYSTEM SHALL PROVIDE DETAILS FOR THESE SIGNALS.

HOLDS

01	ISSUED FOR APPROVAL	10-Jan-2026	F.KHODADAD	M.JAMSHIDI	M.H.ESHRAGHI
00	ISSUED FOR COMMENT	06-Aug-2025	M.KHERADKAR	M.JAMSHIDI	M.H.ESHRAGHI
REV	PURPOSE OF ISSUE	ISSUE DATE	PREPARE	CHECKED	APPROVED
OWNER:		MC:		CONTRACTOR/CONSULTANT:	

PROJECT TITLE:

PROPANE DEHYDROGENATION (PDH) PROJECT

DOCUMENT TITLE:

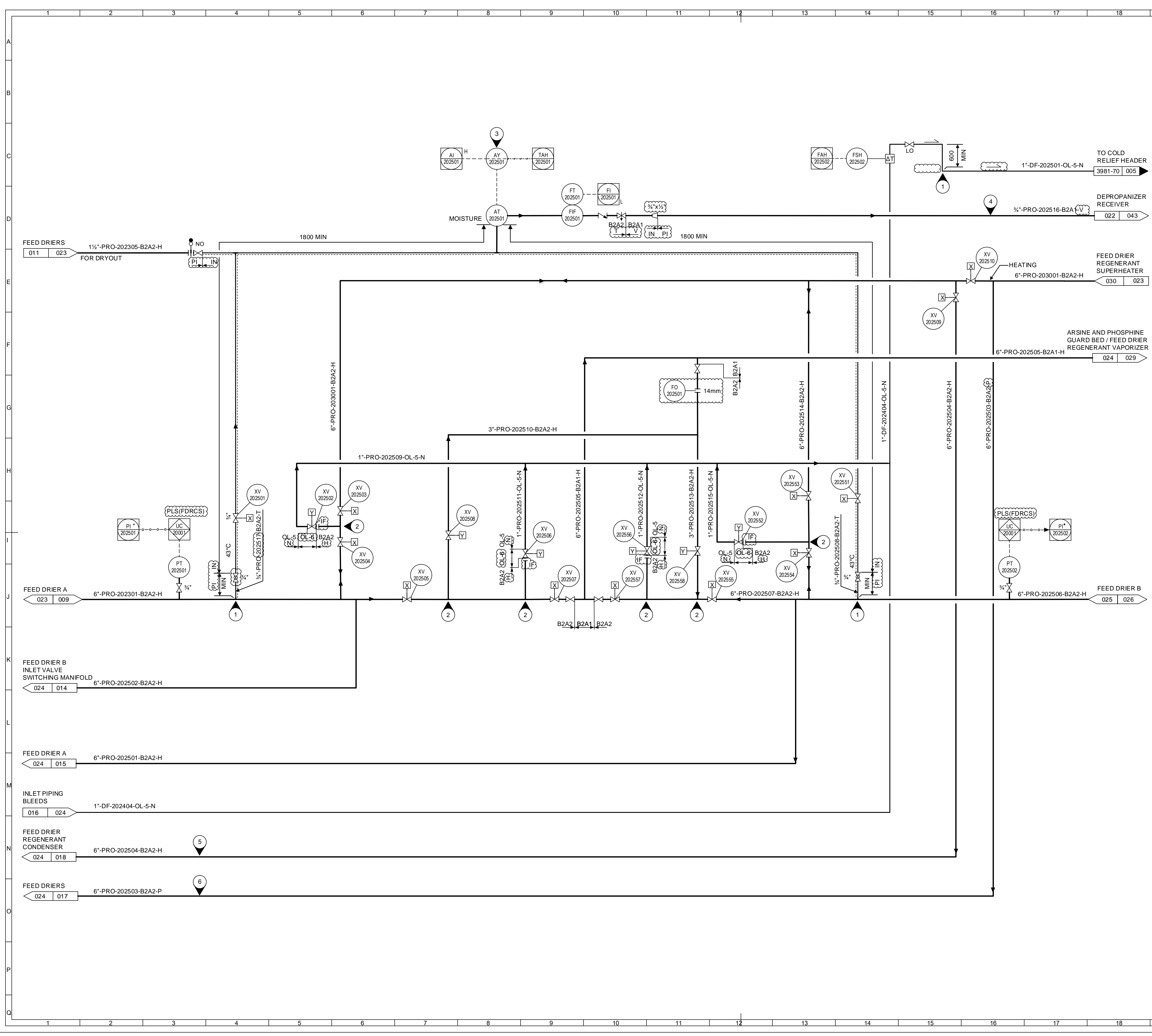
PIPING AND INSTRUMENT DIAGRAM
FEED DRIERS INLET VALVE SWITCHING MANIFOLD

DOC NO.:	PROJ.CODE	Sec.	PHASE	DEF.	DOC.TYPE	SERIAL NO.
	3981	20	DE	PR	PID	024

SCALE:

SIZE: A1	SHEET NO. 1 OF 1	REVISION 01	CLASS: 1
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REFERENCE

DRAWINGS

NOTES

1. MAKE CONNECTION ON TOP OF PIPE.

2. DETAIL "Z".

3. MULTI-CHANNEL PROGRAMMER (AY-104701) LOCATED IN REACTOR SECTION.

4. SAMPLE RETURN.

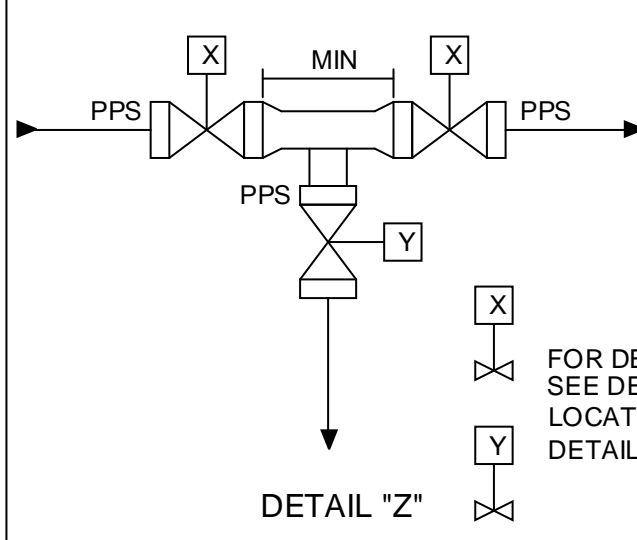
5. UPFLOW COOLING RETURN.

6. UPFLOW COOLING.

PPS = PREFERRED PRESSURE SIDE

DETAIL "Z"

TYPICAL DETAIL FOR FREE DRAINING DOUBLE BLOCK AND BLEED ARRANGEMENT AT DRIERS



FOR DETAILED INFORMATION SEE DETAILS X AND Y LOCATED ON UNIT SPECIFIC DETAILS AND NOTES P&ID (3981-20-DE-PR-PID-018)


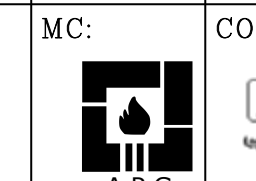

GENERAL NOTES:

1. FOR GENERAL LEGEND, ABBREVIATIONS, NOMENCLATURE, INSTRUMENTATION, EQUIPMENT SYMBOLOLOGY AND GENERAL DETAILS SEE DWG'S 3981-00-DE-PR-PID-045 THRU 3981-00-DE-PR-PID-053

2. EACH INSTRUMENT TAG NUMBER HAS A PLANT IDENTIFICATION NUMBER (PROJECT CODE=81) WHICH WILL NOT BE SHOWN ON THE PID'S.

3. FUNCTIONAL IDENTIFICATION OF INSTRUMENT SYMBOLS SUFFIXED WITH AN ASTERISK (*) ARE INCLUDED IN THE FEED DRIER REGENERATION CONTROL SYSTEM. THE SUPPLIER OF THE FEED DRIER REGENERATION CONTROL SYSTEM SHALL PROVIDE DETAILS FOR THESE SIGNALS.

HOLDS

01	ISSUED FOR APPROVAL	10-Jan-2026	F.KHODADAD	M.JAMSHIDI	M.H.ESHRAGHI
00	ISSUED FOR COMMENT	06-Aug-2025	M.KHERADKAR	M.JAMSHIDI	M.H.ESHRAGHI
REV	PURPOSE OF ISSUE	ISSUE DATE	PREPARE	CHECKED	APPROVED
OWNER:		MC:		CONTRACTOR/CONSULTANT:	
					

PROJECT TITLE:

PROPANE DEHYDROGENATION (PDH) PROJECT

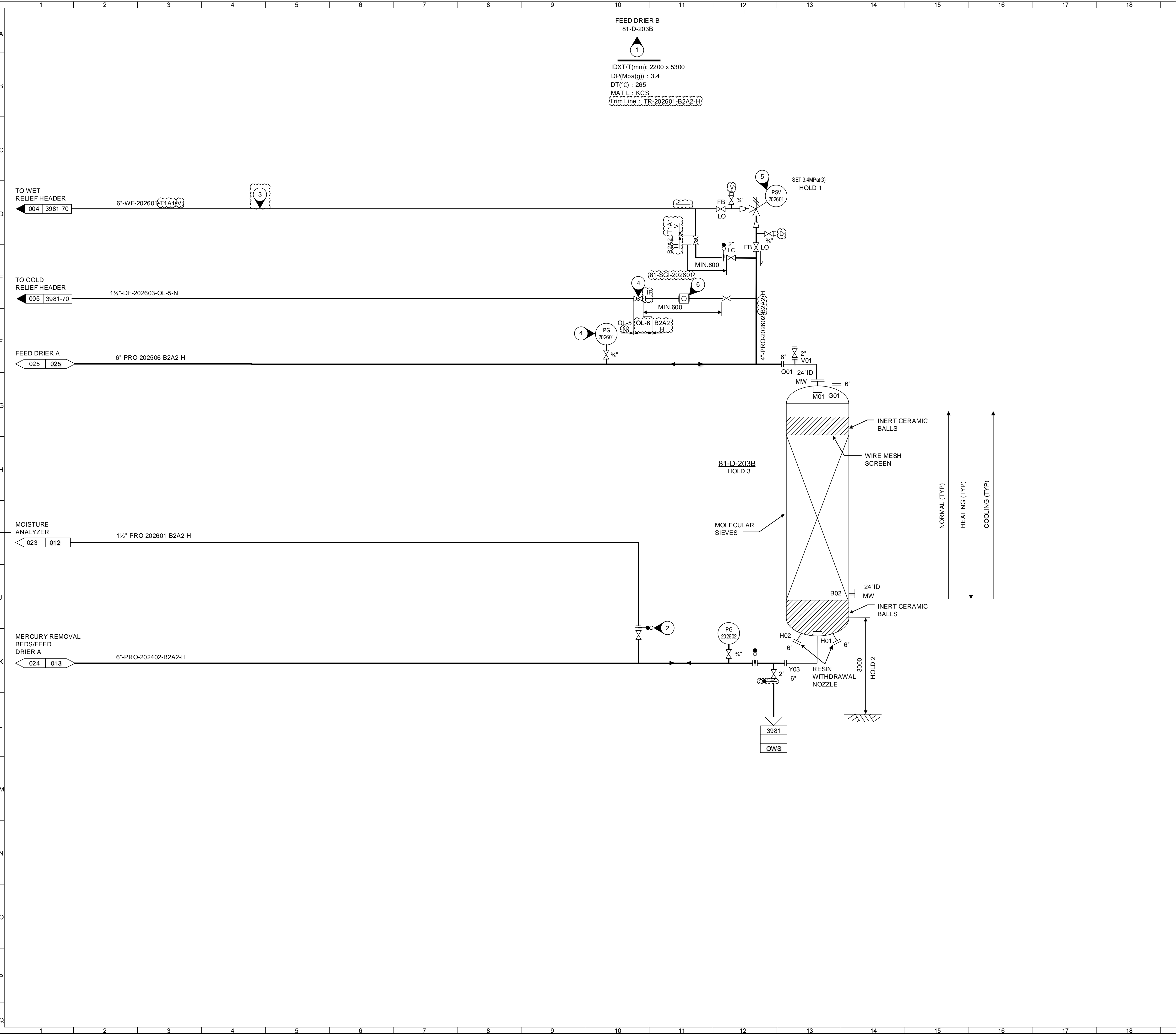
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PIPING AND INSTRUMENT DIAGRAM
FEED DRIERS OUTLET VALVE SWITCHING MANIFOLD

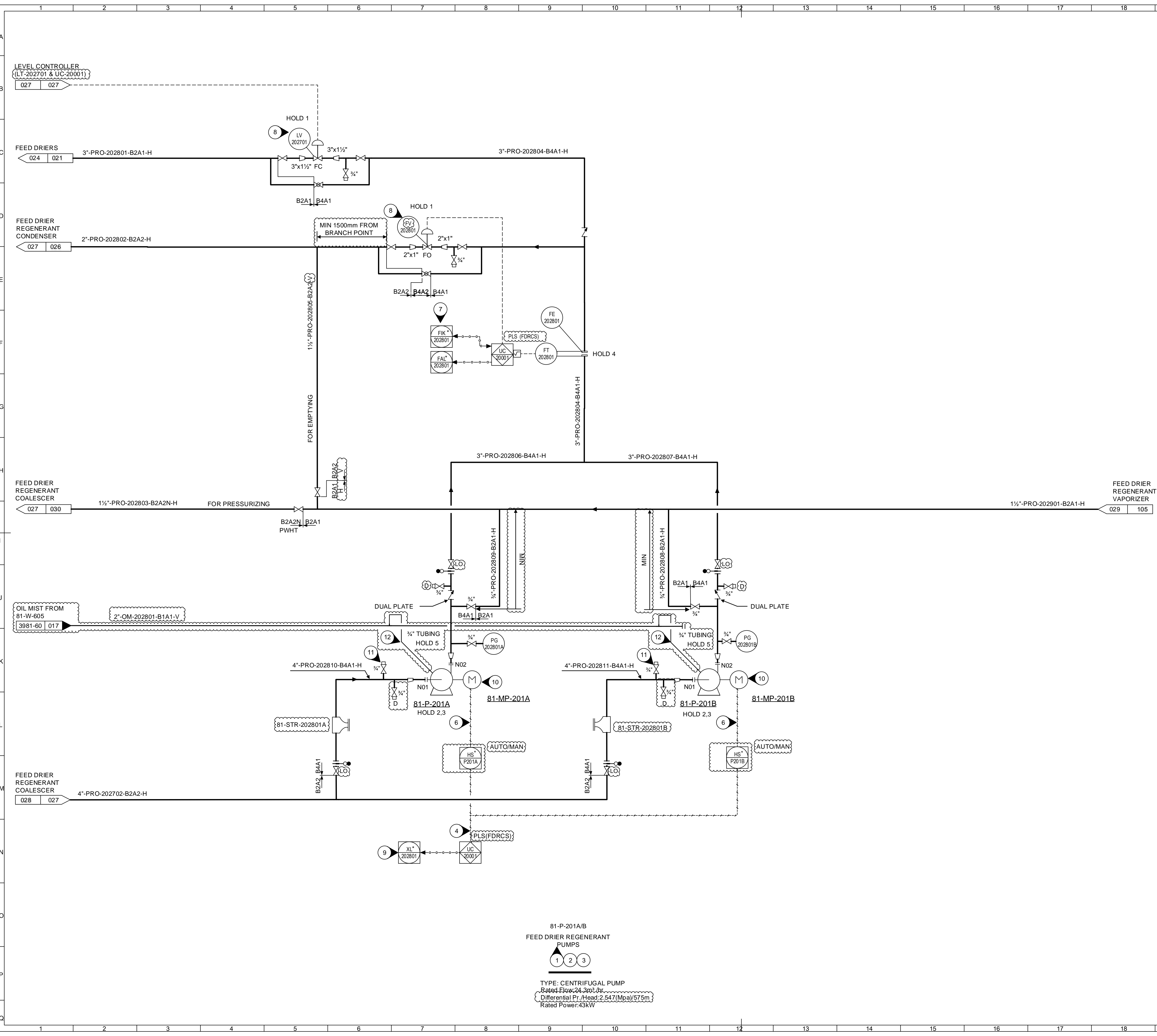
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SCALE:	SIZE: A1	SHEET NO. 1 OF 1	REVISION 01	CLASS: 1
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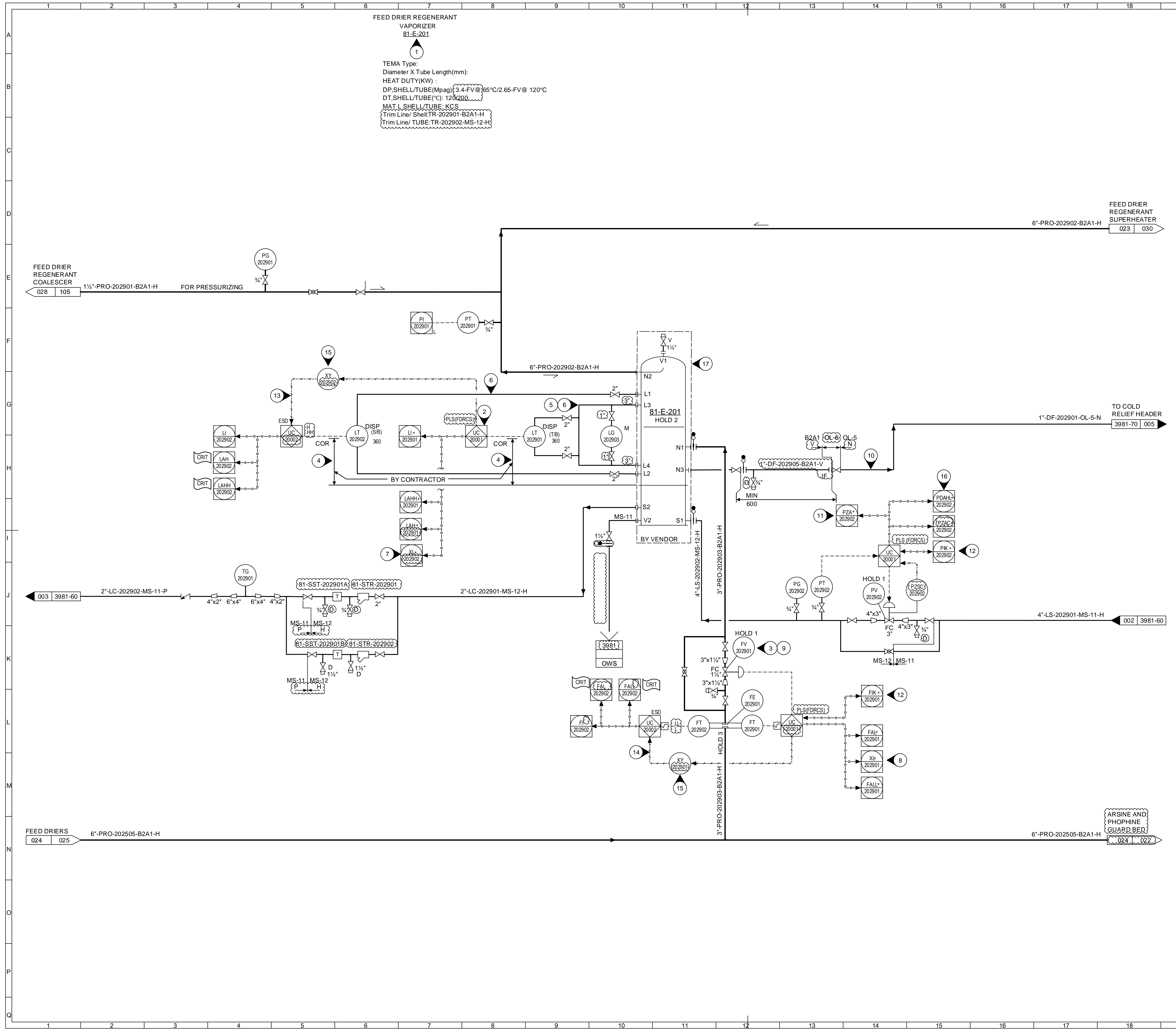




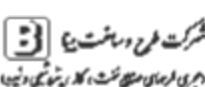

19	20	21	22	23
REFERENCE			DRAWINGS	
NOTES				
1. LOCATE VALVE SWITCHING MANIFOLD AT LOWER PLATFORM.				
2. BLANKOFF WHEN NOT IN USE.				
3. THE SELECTED PIPE CLASS IS DUE TO THE LOW TEMPERATURE IN THE INITIAL DISCHARGE OF LIQUID HYDROCARBONS.				
4. PG MUST BE READABLE FROM VALVE.				
5. SAFETY VALVE TO BE LOCATED ABOVE RELIEF HEADER FOR PROVIDING CONTENTIOUS SLOPE TO RELIEF HEADER.				
6. INSTALL THE SIGHT GLASS IN VERTICAL RUN.				

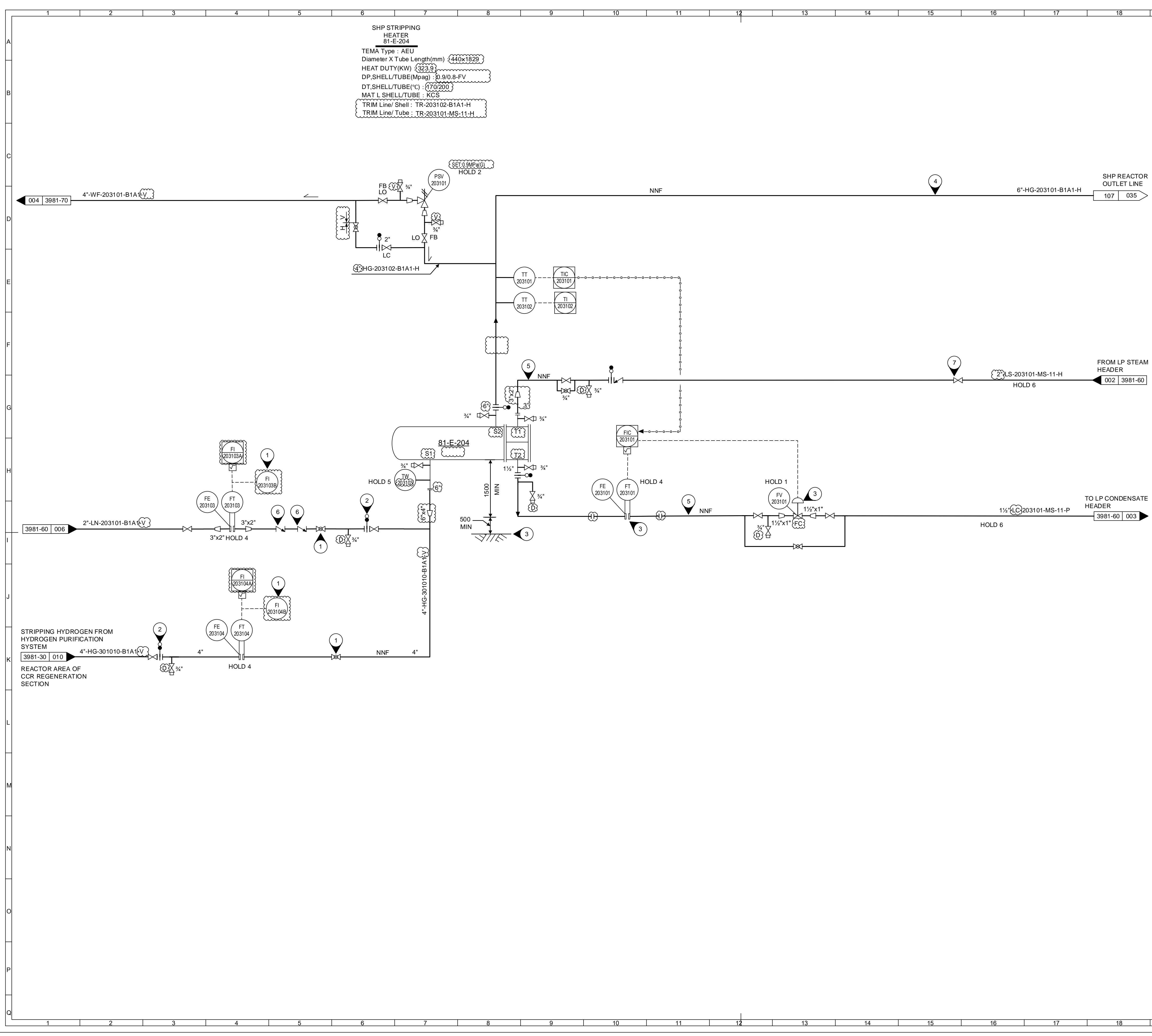


19	20	21	22	23		
REFERENCE			DRAWINGS			
NOTES						
1. DETAIL "TA", SEE DWG 3981-00-DE-PR-PID-052 (CONNECT TO COLD RELIEF HEADER). 2. DETAIL "PVD", SEE DWG 3981-00-DE-PR-PID-054 (CONNECT TO COLD RELIEF HEADER). 3. LOCATE AS CLOSE TO REGENERANT COALESCER AS POSSIBLE. 4. START/STOP. 5. DELETED 6. TO MOTOR CONTROL CIRCUIT. 7. DETAIL "U1", SEE DWG 3981-20-DE-PR-PID-017. 8. DETAIL "CVD", SEE DWG 3981-00-DE-PR-PID-054 (CONNECT TO COLD RELIEF HEADER). 9. PUMP START / STOP. 10. DETAIL "PUMP E", SEE DWG 3981-00-DE-PR-PID-055. 11. RESSURE GAUGE CONNECTION 12. OIL DRAIN OF MIST OIL LUBRICATION SYSTEM IS COLLECTED ON A CONTAINER						
GENERAL NOTES:						
1. FOR GENERAL LEGEND, ABBREVIATIONS, NOMENCLATURE, INSTRUMENTATION, EQUIPMENT SYMBOLOGY AND GENERAL DETAILS SEE DWG'S 3981-00-DE-PR-PID-045 THRU 3981-00-DE-PR-PID-055 2. EACH INSTRUMENT TAG NUMBER HAS A PLANT IDENTIFICATION NUMBER (PROJECT CODE=81) WHICH WILL NOT BE SHOWN ON THE PID'S. 3. FUNCTIONAL IDENTIFICATION OF INSTRUMENT SYMBOLS SUFFIXED WITH AN ASTERISK (*) ARE INCLUDED IN THE FEED DRIER REGENERATION CONTROL SYSTEM. THE SUPPLIER OF THE FEED DRIER REGENERATION CONTROL SYSTEM SHALL PROVIDE DETAILS FOR THESE SIGNALS.						
HOLDS						
1. CONTROL VALVE, ITS ISOLATION, BY PASS VALVE SIZE AND NUMBER OF EXPANDER/REDUCER 2. PUMP SUCTION / DISCHARGE NOZZLE SIZE 3. DETAIL OF PUMP VENT AND DRAIN. 4. FLOWMETER CONNECTION SIZE 5. SIZE AND ARRANGEMENT OF OIL MIST DROP POINT IN PUMP LUBRICATION SYSTEM INCLUDING RECLASSIFIER, OIL DRAIN CONTAINER AND OTHER REQUIREMENT.						
01	ISSUED FOR APPROVAL	10-Jan-2026	F.KHODADAD	M.JAMSHIDI	M.H.ESHRAGHI	
00	ISSUED FOR COMMENT	06-Aug-2025	M.KHERADKAR	M.JAMSHIDI	M.H.ESHRAGHI	
REV	PURPOSE OF ISSUE	ISSUE DATE	PREPARE	CHECKED	APPROVED	
OWNER:		MC:	CONTRACTOR/CONSULTANT:			
PROJECT TITLE:						
PROPANE DEHYDROGENATION (PDH) PROJECT						
DOCUMENT TITLE:						
PIPING AND INSTRUMENT DIAGRAM FEED DRIER REGENERANT PUMPS						
DOC NO.:	PROJ.CODE	Sec.	PHASE	DEP.	DOC.TYPE	SERIAL NO.
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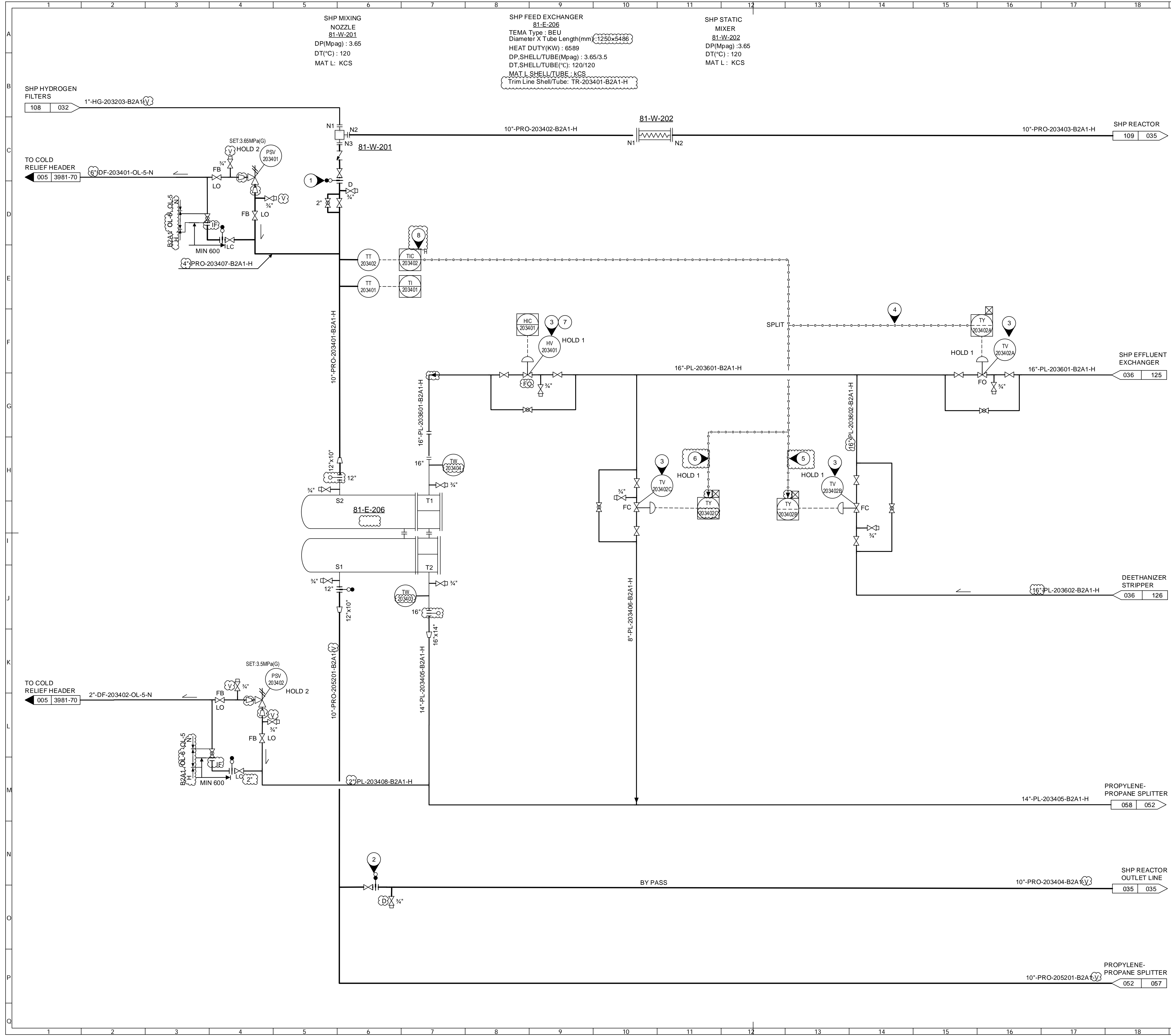
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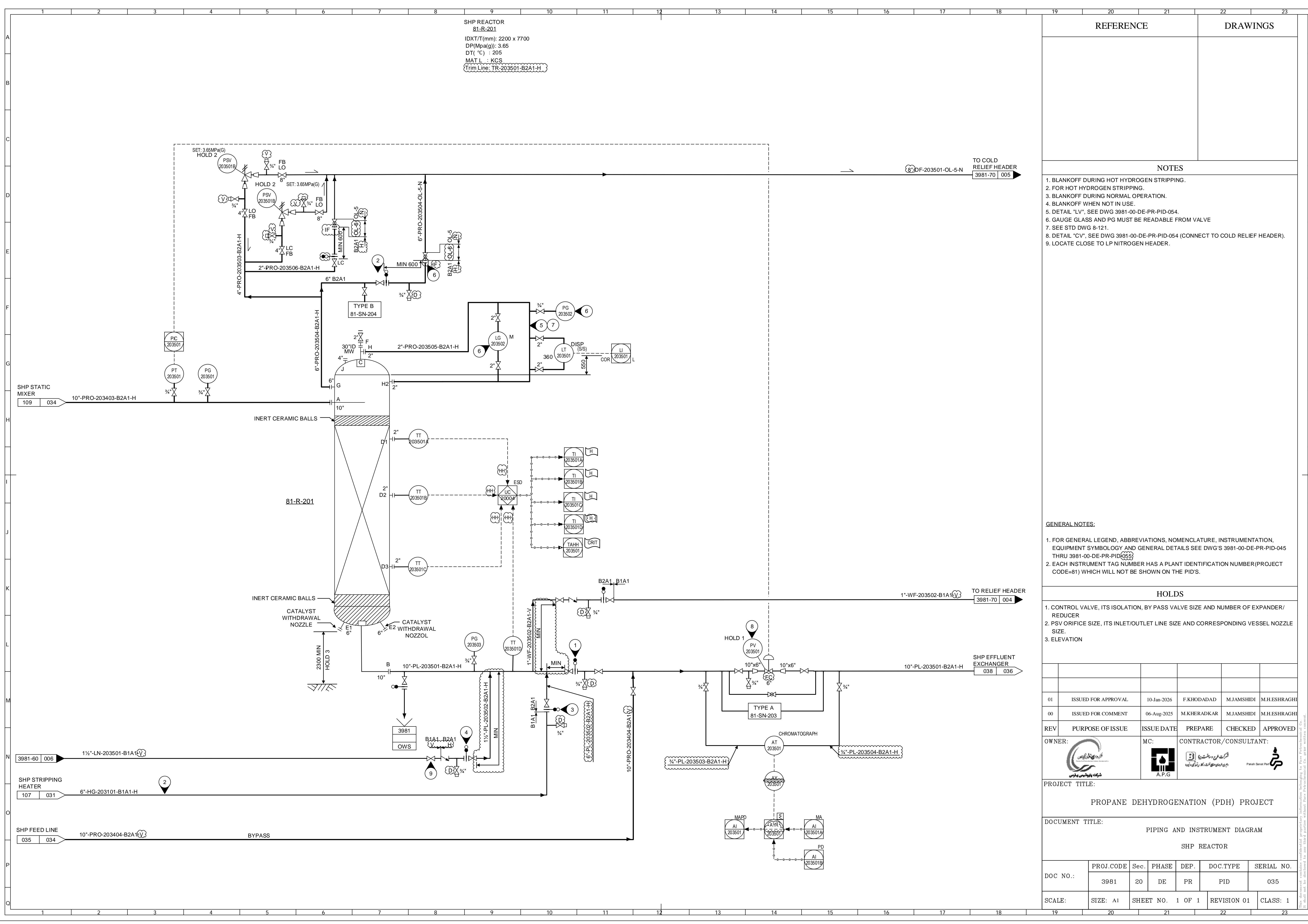
19	20	21	22	23		
REFERENCE			DRAWINGS			
NOTES						
1. LOCATE AS CLOSE TO DRIERS AS POSSIBLE. 2. DETAIL "W", 3981-20-DE-PR-PID-017. 3. DETAIL "CV", SEE DWG 3981-00-DE-PR-PID-054. 4. BY CONTRACTOR. 5. SEE STD DWG 8-121. 6. DETAIL "LV", SEE DWG 3981-00-DE-PR-PID-054. 7. HIGH LEVEL ALARM INHIBITION STATUS 8. LOW FLOW ALARM INHIBITION STATUS 9. CONNECT TO COLD RELIEF HEADER 10. FOR EMPTYING 11. VALVE POSITION VERIFICATION 12. DETAIL "U1", 3981-20-DE-PR-PID-017 13. HIGH LEVEL ALARM INHIBITION SIGNAL 14. LOW FLOW ALARM INHIBITION SIGNAL 15.RELAY (PROVIDED BY SUPPLIER OF FEED DRIER REGENERATION CONTROL SYSTEM) 16. DEVIATION FROM SETPOINT 17.THE INSTALLATION HEIGHT OF THE VAPORIZER IS DETERMINED BY THE MANUFACTURE 18. DELETED.						
GENERAL NOTES:						
1. FOR GENERAL LEGEND, ABBREVIATIONS, NOMENCLATURE, INSTRUMENTATION, EQUIPMENT SYMBOLOGY AND GENERAL DETAILS SEE DWG'S 3981-00-DE-PR-PID-045 THRU 3981-00-DE-PR-PID-055 2. EACH INSTRUMENT TAG NUMBER HAS A PLANT IDENTIFICATION NUMBER(PROJECT CODE=81) WHICH WILL NOT BE SHOWN ON THE PID'S. 3. FUNCTIONAL IDENTIFICATION OF INSTRUMENT SYMBOLS SUFFIXED WITH AN ASTERISK (*) ARE INCLUDED IN THE FEED DRIER REGENERATION CONTROL SYSTEM. THE SUPPLIER OF THE FEED DRIER REGENERATION CONTROL SYSTEM SHALL PROVIDE DETAILS FOR THESE SIGNALS.						
HOLDS						
1. CONTROL VALVE, ITS ISOLATION, BY PASS VALVE SIZE AND NUMBER OF EXPANDER/ REDUCER. 2. TYPE OF HEAT EXCHANGER, ITS NOZZLE DETAIL AND SIZE OF HX INLET/OUTLET NOZZLES. 3. FLOWMETER CONNECTION SIZE.						
01	ISSUED FOR APPROVAL	10-Jan-2026	F.KHODADAD	M.JAMSHIDI	M.H.ESHRAGHI	
00	ISSUED FOR COMMENT	06-Aug-2025	M.KHERADKAR	M.JAMSHIDI	M.H.ESHRAGHI	
REV	PURPOSE OF ISSUE	ISSUE DATE	PREPARE	CHECKED	APPROVED	
OWNER:		MC:	CONTRACTOR/CONSULTANT:			
			 			
PROJECT TITLE:						
PROPANE DEHYDROGENATION (PDH) PROJECT						
DOCUMENT TITLE:						
PIPING AND INSTRUMENT DIAGRAM						
FEED DRIER REGENERANT VAPORIZER						
DOC NO.:	PROJ.CODE	Sec.	PHASE	DEP.	DOC.TYPE	SERIAL NO.
	3981	20	DE	PR	PID	029
SCALE:	SIZE: A1	SHEET NO. 1 OF 1		REVISION 01		CLASS: 1
19	20	21	22	23		



19	20	21	22	23		
REFERENCE			DRAWINGS			
NOTES						
1. FI MUST BE READABLE FROM VALVE. 2. BLANKOFF WHEN NOT IN USE 3. LOCATE ORIFICE FLANGES AND CONTROL VALVE ASSEMBLY IN HORIZONTAL RUN AT HEATER. 4. FOR HOT HYDROGEN STRIPPING. 5. BLANKOFF STEAM SOURCE AND DRAIN CONDENSATE FROM SYSTEM WHEN NOT IN USE. 6. TWO CHECK VALVE TO BE DISSIMILAR TYPE. 7. LOCATE CLOSE TO LP STEAM HEADER. 8. DELETED						
GENERAL NOTES:						
1. FOR GENERAL LEGEND, ABBREVIATIONS, NOMENCLATURE, INSTRUMENTATION, EQUIPMENT SYMBOLOGY AND GENERAL DETAILS SEE DWG'S 3981-00-DE-PR-PID-045 THRU 3981-00-DE-PR-PID-055 2. EACH INSTRUMENT TAG NUMBER HAS A PLANT IDENTIFICATION NUMBER(PROJECT CODE=81) WHICH WILL NOT BE SHOWN ON THE PID'S.						
HOLDS						
1. CONTROL VALVE, ITS ISOLATION, BY PASS VALVE SIZE AND NUMBER OF EXPANDER/ REDUCER. 2. PSV ORIFICE SIZE, ITS INLET/OUTLET LINE SIZE AND CORRESPONDING VESSEL NOZZLE SIZE 3. DELETED 4. FLOWMETER CONNECTION SIZE. 5. ELEVATION. 6. LINE SIZE.						
01	ISSUED FOR APPROVAL	10-Jan-2026	F.KHODADAD	M.JAMSHIDI	M.H.ESHRAGHI	
00	ISSUED FOR COMMENT	06-Aug-2025	M.KHERADKAR	M.JAMSHIDI	M.H.ESHRAGHI	
REV	PURPOSE OF ISSUE	ISSUE DATE	PREPARE	CHECKED	APPROVED	
OWNER:		MC:	CONTRACTOR/CONSULTANT:			
PROJECT TITLE:						
PROPANE DEHYDROGENATION (PDH) PROJECT						
DOCUMENT TITLE:						
PIPING AND INSTRUMENT DIAGRAM						
SHP STRIPPING HEATER						
DOC NO.:	PROJ.CODE	Sec.	PHASE	DEP.	DOC.TYPE	SERIAL NO.
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SCALE:	SIZE: A1	SHEET NO. 1 OF 1		REVISION 01		CLASS: 1
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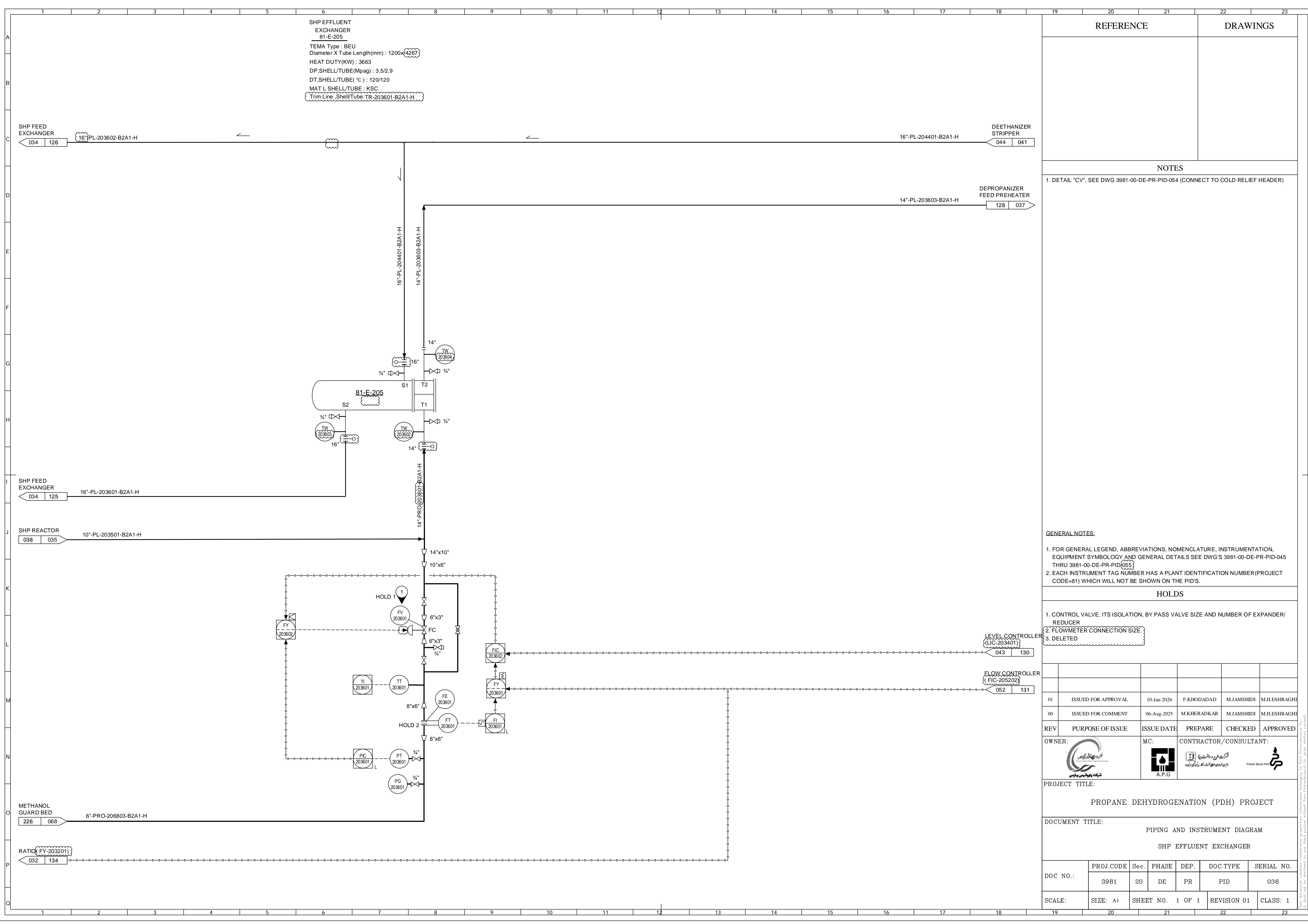


REFERENCE				DRAWINGS		
NOTES						
1. BLANKOFF DURING HOT HYDROGEN STRIPPING.						
2. BLANKOFF WHEN NOT IN USE.						
3. DETAIL "CVD". SEE DWG 3981-00-DE-PR-PID-054 (CONNECT TO COLD RELIEF HEADER)						
4. HIGH TEMPERATURE SIGNAL OPENS VALVE FIRST.						
5. HIGH TEMPERATURE SIGNAL CLOSES VALVE SECOND.						
6. HIGH TEMPERATURE SIGNAL OPENS VALVE LAST.						
7. PROVIDE LIMIT STOP.						
8. TIC-203402 SPILIT RANGE CONTROL:						
<div><div>VALVE OPENING(%)</div><div><div>100</div><div>33</div><div>66</div><div>100</div></div><div><div>TV-203402A</div><div>TV-203402B</div><div>TV-203402C</div></div><div>TIC OUTPUT (%)</div></div>						
GENERAL NOTES:						
1. FOR GENERAL LEGEND, ABBREVIATIONS, NOMENCLATURE, INSTRUMENTATION, EQUIPMENT SYMBOLGY AND GENERAL DETAILS SEE DWG'S 3981-00-DE-PR-PID-045 THRU 3981-00-DE-PR-PID-053						
2. EACH INSTRUMENT TAG NUMBER HAS A PLANT IDENTIFICATION NUMBER(PROJECT CODE=81) WHICH WILL NOT BE SHOWN ON THE PID'S.						
HOLDS						
1. CONTROL VALVE, ITS ISOLATION, BY PASS VALVE SIZE AND NUMBER OF EXPANDER/REDUCER						
2. PSV ORIFICE SIZE, ITS INLET/OUTLET LINE SIZE AND CORRESPONDING VESSEL NOZZLE SIZE						
3. DELETED						
01	ISSUED FOR APPROVAL	10-Jan-2026	F.KHODADAD	M.JAMSHIDI	M.H.ESHRAGHI	
00	ISSUED FOR COMMENT	06-Aug-2025	M.KHERADKAR	M.JAMSHIDI	M.H.ESHRAGHI	
REV	PURPOSE OF ISSUE	ISSUE DATE	PREPARE	CHECKED	APPROVED	
OWNER:	MC:		CONTRACTOR/CONSULTANT:			
			 			
PROJECT TITLE:						
PROPANE DEHYDROGENATION (PDH) PROJECT						
DOCUMENT TITLE:						
PIPING AND INSTRUMENT DIAGRAM						
SHF FEED EXCHANGER						
DOC NO.:	PROJ.CODE	Sec.	PHASE	DEP.	DOC.TYPE	SERIAL NO.
	3981	20	DE	PR	PID	034
SCALE:	SIZE: A1	SHEET NO. 1 OF 1		REVISION 01		CLASS: 1



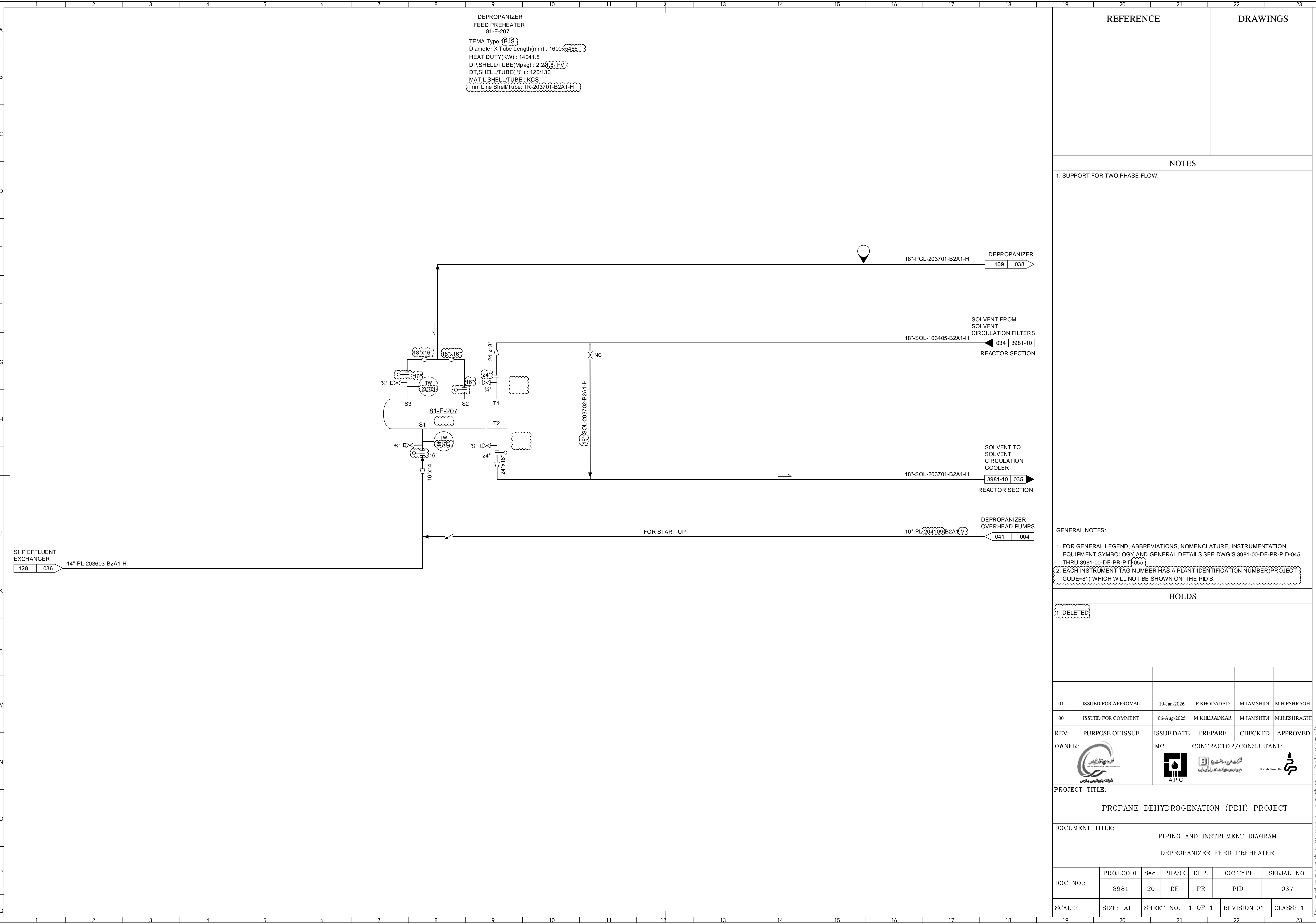
REFERENCE		DRAWINGS			
NOTES					
<p>1. BLANKOFF DURING HOT HYDROGEN STRIPPING.</p> <p>2. FOR HOT HYDROGEN STRIPPING.</p> <p>3. BLANKOFF DURING NORMAL OPERATION.</p> <p>4. BLANKOFF WHEN NOT IN USE.</p> <p>5. DETAIL "LV", SEE DWG 3981-00-DE-PR-PID-054.</p> <p>6. GAUGE GLASS AND PG MUST BE READABLE FROM VALVE</p> <p>7. SEE STD DWG 8-121.</p> <p>8. DETAIL "CV", SEE DWG 3981-00-DE-PR-PID-054 (CONNECT TO COLD RELIEF HEADER).</p> <p>9. LOCATE CLOSE TO LP NITROGEN HEADER.</p>					
GENERAL NOTES:					
<p>1. FOR GENERAL LEGEND, ABBREVIATIONS, NOMENCLATURE, INSTRUMENTATION, EQUIPMENT SYMBOLOGY AND GENERAL DETAILS SEE DWG'S 3981-00-DE-PR-PID-045 THRU 3981-00-DE-PR-PID-055</p> <p>2. EACH INSTRUMENT TAG NUMBER HAS A PLANT IDENTIFICATION NUMBER(PROJECT CODE=81) WHICH WILL NOT BE SHOWN ON THE PID'S.</p>					
HOLDS					
<p>1. CONTROL VALVE, ITS ISOLATION, BY PASS VALVE SIZE AND NUMBER OF EXPANDER/ REDUCER</p> <p>2. PSV ORIFICE SIZE, ITS INLET/OUTLET LINE SIZE AND CORRESPONDING VESSEL NOZZLE SIZE.</p> <p>3. ELEVATION</p>					
01	ISSUED FOR APPROVAL	10-Jan-2026	F.KHODADAD	M.JAMSHIDI	M.H.ESHRAGHI
00	ISSUED FOR COMMENT	06-Aug-2025	M.KHERADKAR	M.JAMSHIDI	M.H.ESHRAGHI
REV	PURPOSE OF ISSUE	ISSUE DATE	PREPARE	CHECKED	APPROVED
OWNER:		MC:	CONTRACTOR/CONSULTANT:		
PROJECT TITLE:					
PROPANE DEHYDROGENATION (PDH) PROJECT					
DOCUMENT TITLE:					
SHP REACTOR					
DOC NO.:	PROJ.CODE	Sec.	PHASE	DEF.	DOC.TYPE
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SCALE:	SIZE: A1	SHEET NO. 1 OF 1		REVISION 01	CLASS: 1

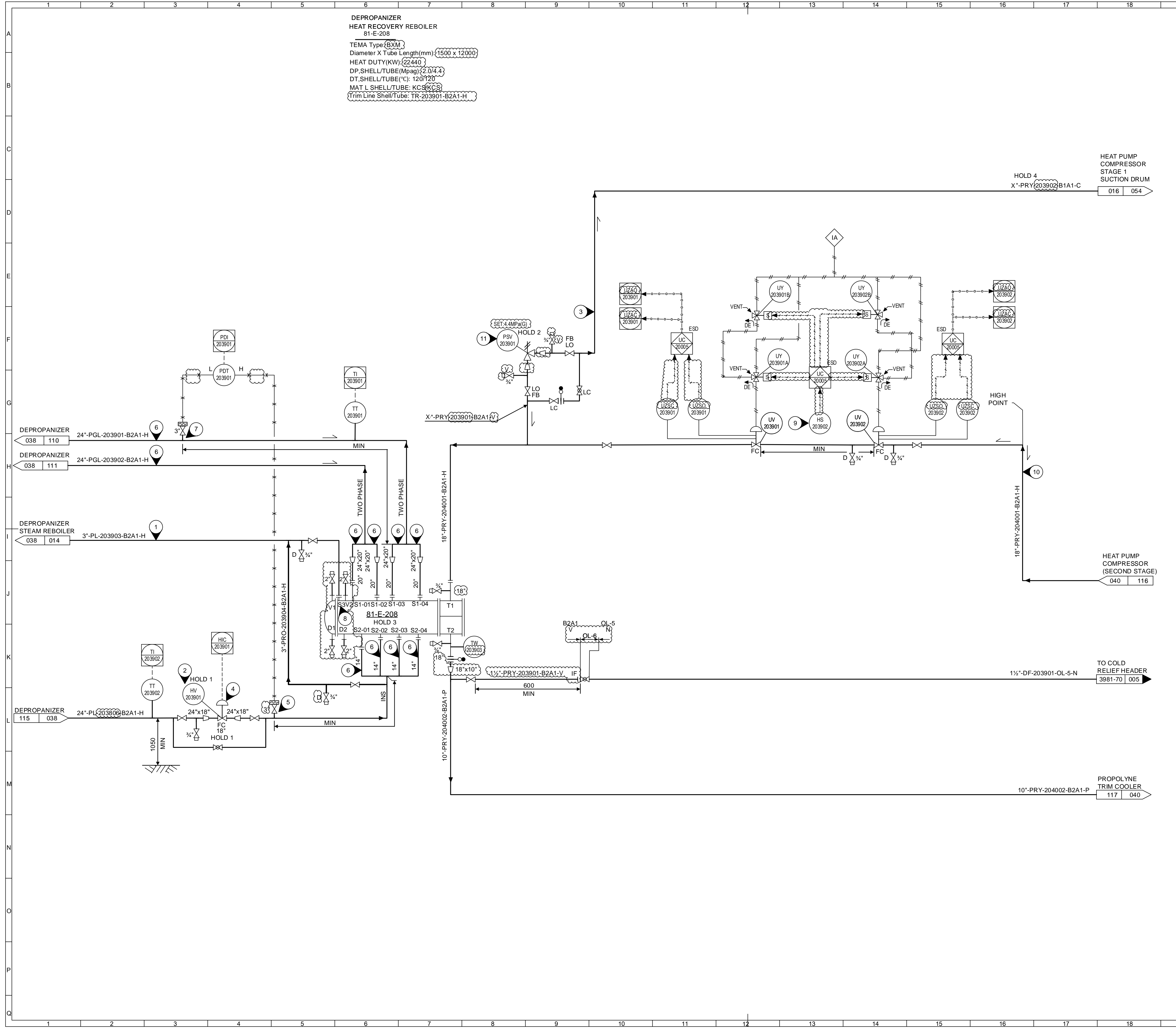
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DP(Mpa(g)): 3.65
DT(°C) : 205
MAT.L : KCS
Trim Line: TR-203501-B2A1-H



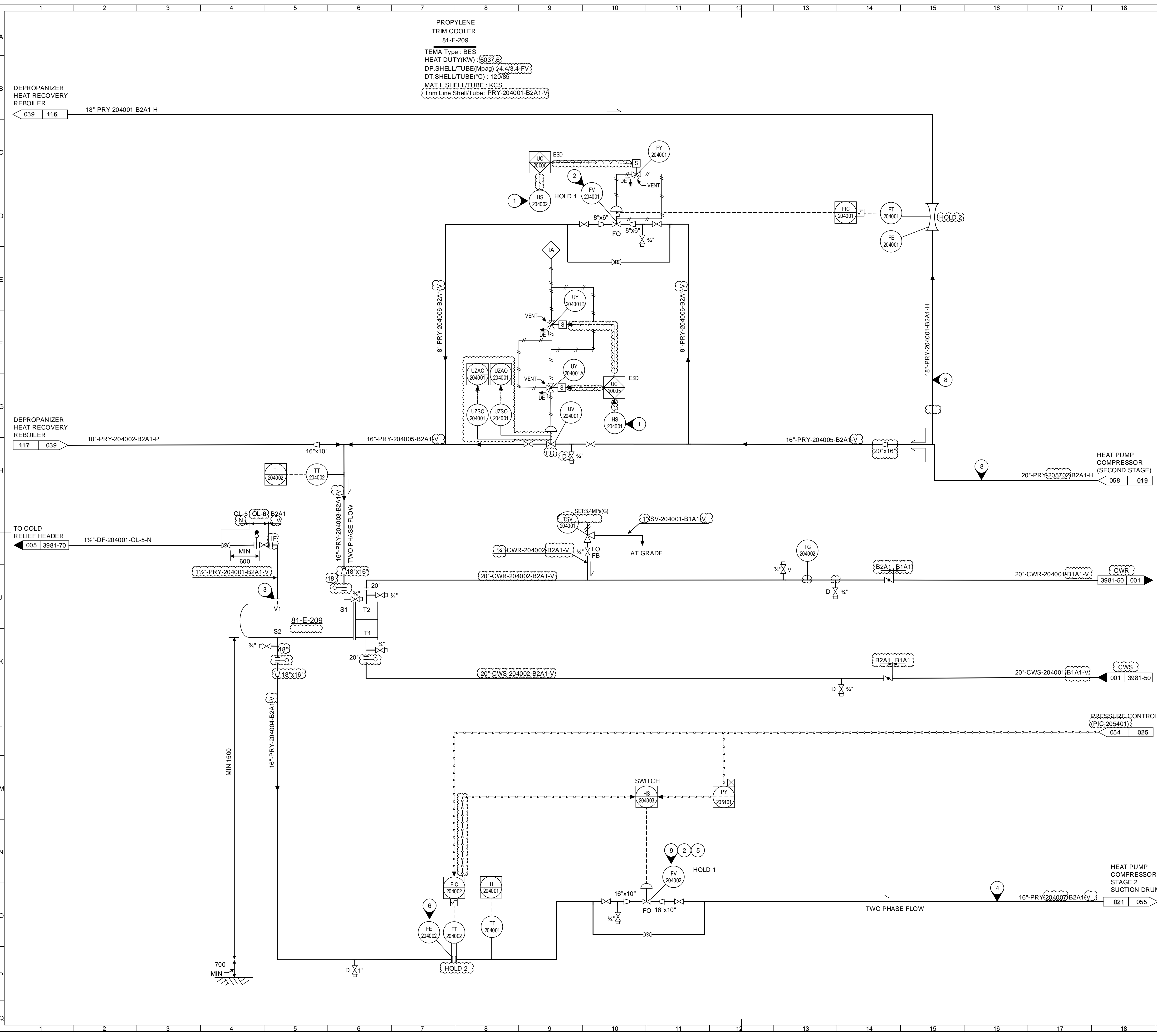
REFERENCE		DRAWINGS			
NOTES					
1. DETAIL "CV", SEE DWG 3981-00-DE-PR-PID-054 (CONNECT TO COLD RELIEF HEADER)					
GENERAL NOTES:					
1. FOR GENERAL LEGEND, ABBREVIATIONS, NOMENCLATURE, INSTRUMENTATION, EQUIPMENT SYMBOLOGY AND GENERAL DETAILS SEE DWG'S 3981-00-DE-PR-PID-045 THRU 3981-00-DE-PR-PID-055					
2. EACH INSTRUMENT TAG NUMBER HAS A PLANT IDENTIFICATION NUMBER(PROJECT CODE=81) WHICH WILL NOT BE SHOWN ON THE PID'S.					
HOLDS					
1. CONTROL VALVE, ITS ISOLATION, BY PASS VALVE SIZE AND NUMBER OF EXPANDER/REDUCER					
2. FLOWMETER CONNECTION SIZE					
3. DELETED					
01	ISSUED FOR APPROVAL	10-Jan-2026	F.KHODADAD	M.JAMSHIDI	M.H.ESHRAGHI
00	ISSUED FOR COMMENT	06-Aug-2025	M.KHERADKAR	M.JAMSHIDI	M.H.ESHRAGHI
REV	PURPOSE OF ISSUE	ISSUE DATE	PREPARE	CHECKED	APPROVED
OWNER:		MC:	CONTRACTOR/CONSULTANT:		
PROJECT TITLE:					
PROPANE DEHYDROGENATION (PDH) PROJECT					
DOCUMENT TITLE:					
SHF EFFLUENT EXCHANGER					
DOC NO.:	PROJ.CODE	Sec.	PHASE	DEP.	DOC.TYPE
	3981	20	DE	PR	PID
SCALE:	SIZE: A1	SHEET NO. 1 OF 1		REVISION 01	
				CLASS: 1	

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19	20	21	22	23		
REFERENCE			DRAWINGS			
NOTES						
1. START-UP DRAIN LINE, USED IF REBOILER RETURN LINES ARE LIQUID FULL.						
2. DETAIL "CVD", SEE DWG 3981-00-DE-PR-PID-054 (CONNECT TO COLD RELIEF HEADER)						
3. SIZE BY VENDOR.						
4. LOCATE CONTROL VALVE ASSEMBLY IN HORIZONTAL RUN AT REBOILER.						
5. MAKE CONNECTION ON SIDE OF PIPE.						
6. PIPING MUST BE SYMMETRICAL.						
7. MAKE CONNECTION ON TOP OR SIDE OF PIPE.						
8. LOCATE AT END OPPOSITE SHELL INLET.						
9. RESET, LOCATE NEAR ASSOCIATED VALVES						
10. MINIMIZE POCKETS.						
11.PSV ORIFICE SIZE, ITS INLET/OUTLET LINE SIZE WILL BE SPECIFIED AFTER RECEIVING HEAT PUMP COMPRESSOR VENDOR DATA.						
GENERAL NOTES:						
1. FOR GENERAL LEGEND, ABBREVIATIONS, NOMENCLATURE, INSTRUMENTATION, EQUIPMENT SYMBOLOGY AND GENERAL DETAILS SEE DWG'S 3981-00-DE-PR-PID-045 THRU 3981-00-DE-PR-PID-055						
2. EACH INSTRUMENT TAG NUMBER HAS A PLANT IDENTIFICATION NUMBER(PROJECT CODE=81) WHICH WILL NOT BE SHOWN ON THE PID'S.						
HOLDS						
1. CONTROL VALVE, ITS ISOLATION, BY PASS VALVE SIZE AND NUMBER OF EXPANDER/ REDUCER.						
2. PSV ORIFICE SIZE, ITS INLET/OUTLET LINE SIZE AND CORRESPONDING VESSEL NOZZLE SIZE.						
3. TYPE OF HEAT EXCHANGER, ITS NOZZLE DETAIL AND SIZE OF HX INLET/OUTLET NOZZLES.						
4. LINE SIZE.						
01	ISSUED FOR APPROVAL	10-Jan-2026	F.KHODADAD	M.JAMSHIDI	M.H.ESHRAGHI	
00	ISSUED FOR COMMENT	06-Aug-2025	M.KHERADKAR	M.JAMSHIDI	M.H.ESHRAGHI	
REV	PURPOSE OF ISSUE	ISSUE DATE	PREPARE	CHECKED	APPROVED	
OWNER:		MC:	CONTRACTOR/CONSULTANT:			
PROJECT TITLE:						
PROPANE DEHYDROGENATION (PDH) PROJECT						
DOCUMENT TITLE:						
PIPING AND INSTRUMENT DIAGRAM						
DEPROPANIZER HEAT RECOVERY REBOILER						
DOC NO.:	PROJ.CODE	Sec.	PHASE	DEP.	DOC.TYPE	SERIAL NO.
	3981	20	DE	PR	PID	039
SCALE:	SIZE: A1		SHEET NO.		REVISION 01	CLASS: 1
			1 OF 1			



REFERENCE		DRAWINGS			

NOTES					
1. RESET, LOCATE NEAR ASSOCIATED VALVE. 2. DETAIL "CVD", SEE DWG 3981-00-DE-PR-PID-054 (CONNECT TO COLD RELIEF HEADER). 3. LOCATE AT END OPPOSITE SHELL INLET. 4. SUPPORT FOR TWO PHASE FLOW. 5. PROVIDE LIMIT STOP. 6. LOCATE ORIFICE FLANGES AND CONTROL VALVE ASSEMBLY IN HORIZONTAL RUN AT COOLER. 7. DELETE. 8. MINIMIZE POCKETS. 9. CONTROL VALVE HEIGHT HIGHER THAN HEAT EXCHANGER.					

GENERAL NOTES:

1. FOR GENERAL LEGEND, ABBREVIATIONS, NOMENCLATURE, INSTRUMENTATION, EQUIPMENT SYMBOLOLOGY AND GENERAL DETAILS SEE DWG'S 3981-00-DE-PR-PID-045 THRU 3981-00-DE-PR-PID-055.
2. EACH INSTRUMENT TAG NUMBER HAS A PLANT IDENTIFICATION NUMBER(PROJECT CODE=81) WHICH WILL NOT BE SHOWN ON THE PID'S.
3. DELETED

HOLDS					
1. CONTROL VALVE, ITS ISOLATION, BY PASS VALVE SIZE AND NUMBER OF EXPANDER/REDUCER 2. FLOWMETER CONNECTION SIZE. 3. DELETED					

REV	PURPOSE OF ISSUE	ISSUE DATE	PREPARE	CHECKED	APPROVED
01	ISSUED FOR APPROVAL	10-Jan-2026	F.KHODADAD	M.JAMSHIDI	M.H.ESHRAGHI
00	ISSUED FOR COMMENT	06-Aug-2025	M.KHERADKAR	M.JAMSHIDI	M.H.ESHRAGHI

OWNER:	MC:	CONTRACTOR/CONSULTANT:			

PROJECT TITLE:

PROPANE DEHYDROGENATION (PDH) PROJECT

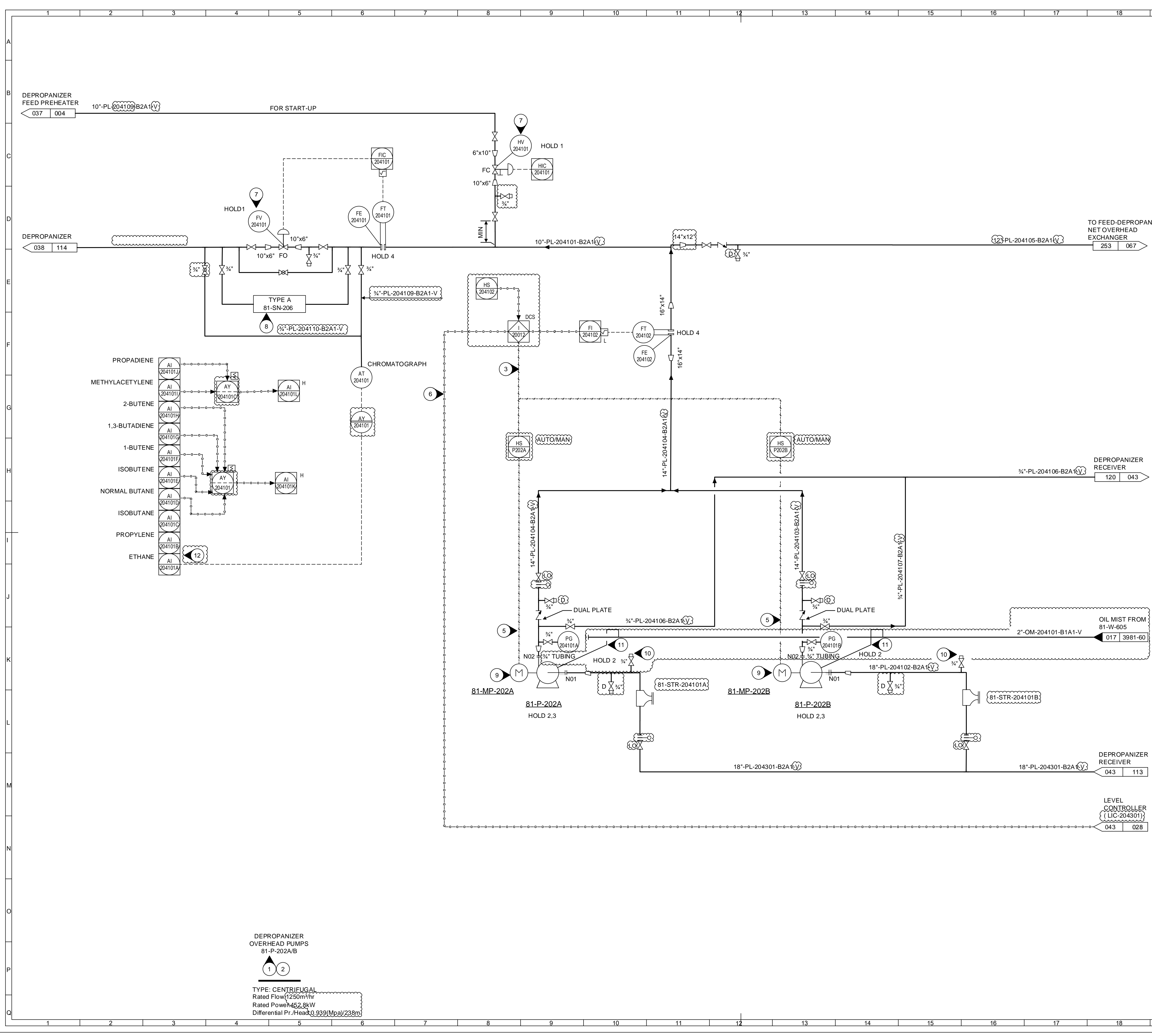
DOCUMENT TITLE:

PIPING AND INSTRUMENT DIAGRAM
PROPYLENE TRIM COOLER

DOC NO.:	PROJ.CODE	Sec.	PHASE	DEP.	DOC.TYPE	SERIAL NO.
	3981	20	DE	PR	PID	040

SCALE:	SIZE: A1	SHEET NO.	1 OF 1	REVISION 01	CLASS: 1

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REFERENCE

DRAWINGS

NOTES

GENERAL NOTES:

HOLDS

01	ISSUED FOR APPROVAL	10-Jan-2026	F.KHODADAD	M.JAMSHIDI	M.H.ESHRAHGH
00	ISSUED FOR COMMENT	06-Aug-2025	M.KHERADKAR	M.JAMSHIDI	M.H.ESHRAHGH
REV	PURPOSE OF ISSUE	ISSUE DATE	PREPARE	CHECKED	APPROVED
OWNER:	MC:		CONTRACTOR/CONSULTANT:		

PROJECT TITLE:
PROPANE DEHYDROGENATION (PDH) PROJECT

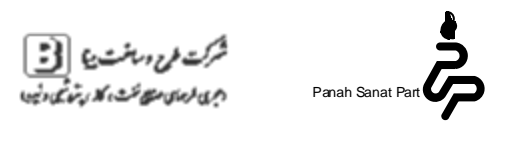
DOCUMENT TITLE:
PIPING AND INSTRUMENT DIAGRAM
DEPROPANIZER OVERHEAD PUMPS

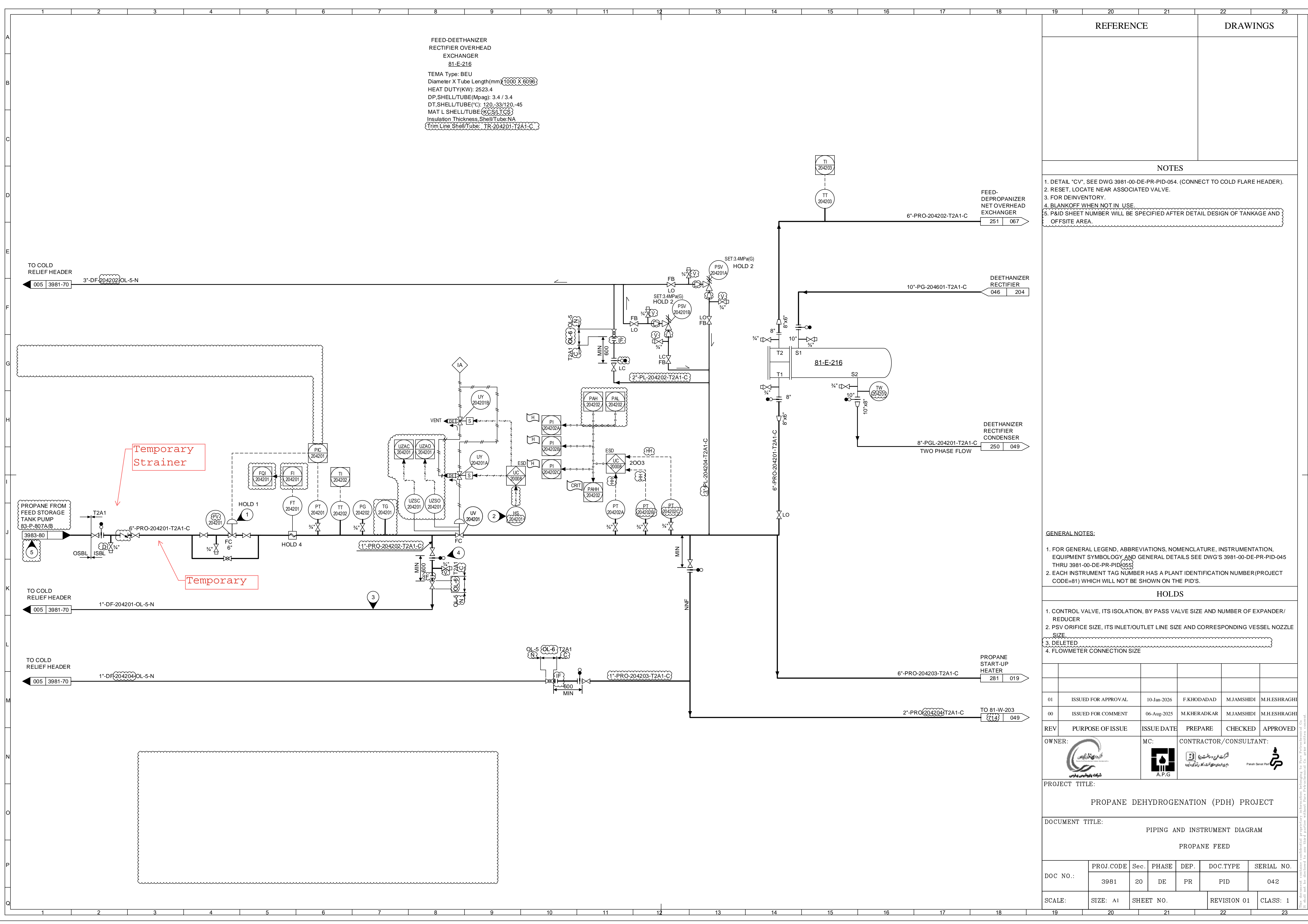
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	3981	20	DE	PR	PID	041
SCALE:	SIZE: A1	SHEET NO. 1 OF 1		REVISION 01		CLASS: 1

1. DETAIL "TL", SEE DWG 3981-00-DE-PR-PID-052 (CONNECT TO COLD RELIEF HEADER).
2. DETAIL "PV", SEE DWG 3981-00-DE-PR-PID-054 (CONNECT TO COLD RELIEF HEADER).
3. LOW FLOW START.
4. DELETED.
5. TO MOTOR CONTROL CIRCUIT.
6. AUTO-START INHIBIT (LOW LEVEL).
7. DETAIL "CV", SEE DWG 3981-00-DE-PR-PID-054 (CONNECT TO COLD RELIEF HEADER).
8. CONNECT TO COLD RELIEF HEADER.
9. DETAIL "PUMP B", SEE DWG 3981-00-DE-PR-PID-055.
10. PRESSURE GAUGE CONNECTION.
11. OIL DRAIN OF MIST OIL LUBRICATION SYSTEM IS COLLECTED ON A CONTAINER.
12. EACH PARAMETER HAS DEDICATED SIGNAL.

1. FOR GENERAL LEGEND, ABBREVIATIONS, NOMENCLATURE, INSTRUMENTATION, EQUIPMENT SYMBOLOLOGY AND GENERAL DETAILS SEE DWG'S 3981-00-DE-PR-PID-045 THRU 3981-00-DE-PR-PID-055.
2. EACH INSTRUMENT TAG NUMBER HAS A PLANT IDENTIFICATION NUMBER (PROJECT CODE=81) WHICH WILL NOT BE SHOWN ON THE PID'S.

1. CONTROL VALVE, ITS ISOLATION, BY PASS VALVE SIZE AND NUMBER OF EXPANDER/REDUCER.
2. SIZE AND ARRANGEMENT OF OIL MIST DROP POINT IN PUMP LUBRICATION SYSTEM INCLUDING RECLASSIFIER, OIL DRAIN CONTAINER AND OTHER REQUIREMENT.
3. DETAIL OF PUMP VENT & DRAIN
4. FLOWMETER CONNECTION SIZE





REFERENCE

DRAWINGS

NOTES

GENERAL NOTES:

HOLDS

01	ISSUED FOR APPROVAL	10-Jan-2026	F.KHODADAD	M.JAMSHIDI	M.H.ESHRAGHI
00	ISSUED FOR COMMENT	06-Aug-2025	M.KHERADKAR	M.JAMSHIDI	M.H.ESHRAGHI
REV	PURPOSE OF ISSUE	ISSUE DATE	PREPARE	CHECKED	APPROVED
OWNER:	MC:		CONTRACTOR/CONSULTANT:		

PROJECT TITLE:

PROPANE DEHYDROGENATION (PDH) PROJECT

DOCUMENT TITLE:

PIPING AND INSTRUMENT DIAGRAM
PROPANE FEED

DOC NO.:	PROJ.CODE	Sec.	PHASE	DEF.	DOC.TYPE	SERIAL NO.
	3981	20	DE	PR	PID	042
SCALE:	SIZE: A1	SHEET NO.		REVISION 01	CLASS: 1	

1. DETAIL "CV", SEE DWG 3981-00-DE-PR-PID-054. (CONNECT TO COLD FLARE HEADER).
2. RESET, LOCATE NEAR ASSOCIATED VALVE.
3. FOR DEINVENTORY.
4. BLANKOFF WHEN NOT IN USE.
5. P&ID SHEET NUMBER WILL BE SPECIFIED AFTER DETAIL DESIGN OF TANKAGE AND OFFSITE AREA.

1. FOR GENERAL LEGEND, ABBREVIATIONS, NOMENCLATURE, INSTRUMENTATION, EQUIPMENT SYMBOLOLOGY AND GENERAL DETAILS SEE DWG'S 3981-00-DE-PR-PID-045 THRU 3981-00-DE-PR-PID-055
2. EACH INSTRUMENT TAG NUMBER HAS A PLANT IDENTIFICATION NUMBER(PROJECT CODE=81) WHICH WILL NOT BE SHOWN ON THE PID'S.

1. CONTROL VALVE, ITS ISOLATION, BY PASS VALVE SIZE AND NUMBER OF EXPANDER/ REDUCER
2. PSV ORIFICE SIZE, ITS INLET/OUTLET LINE SIZE AND CORRESPONDING VESSEL NOZZLE SIZE
3. DELETED
4. FLOWMETER CONNECTION SIZE

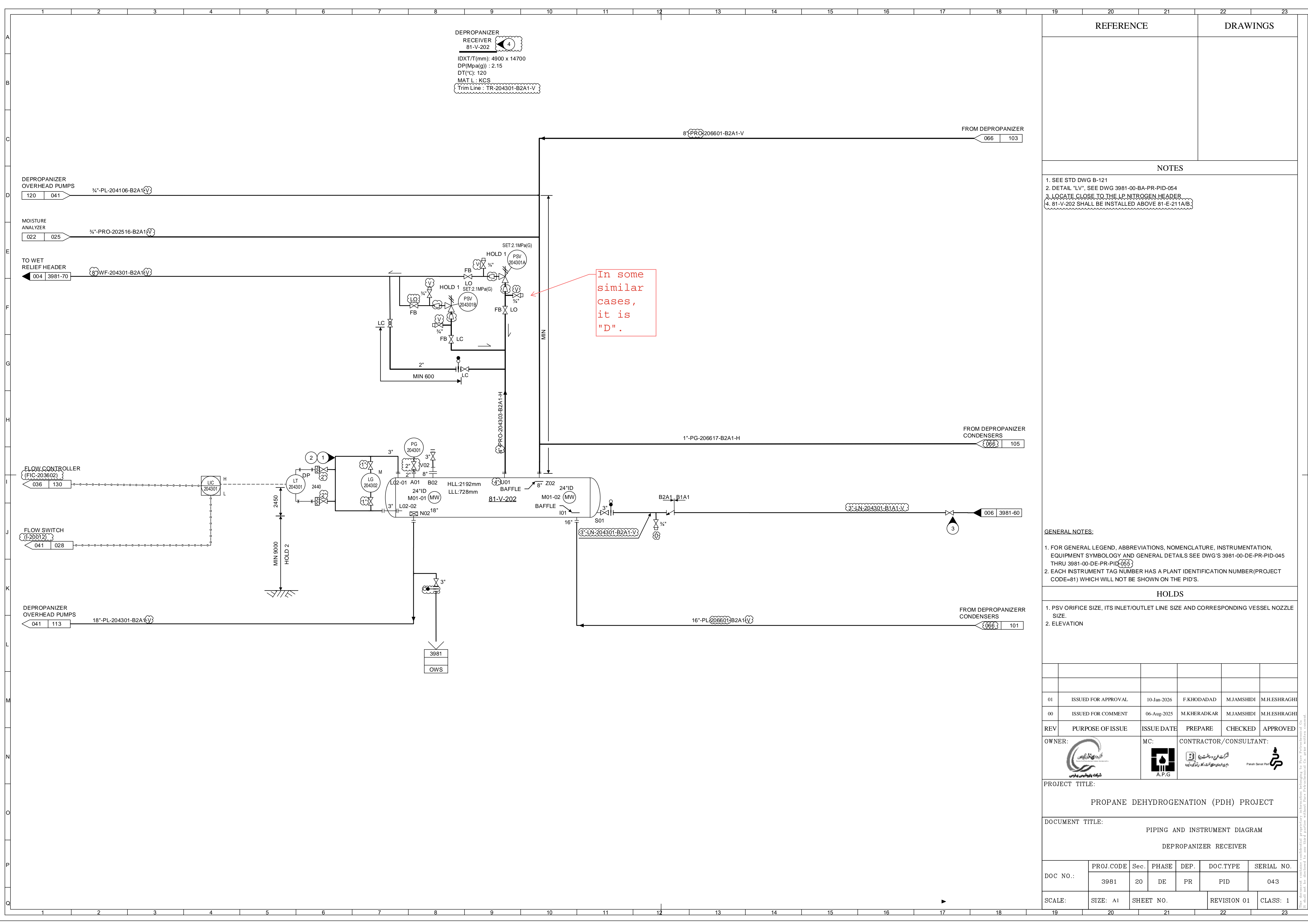
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PROPANE DEHYDROGENATION (PDH) PROJECT

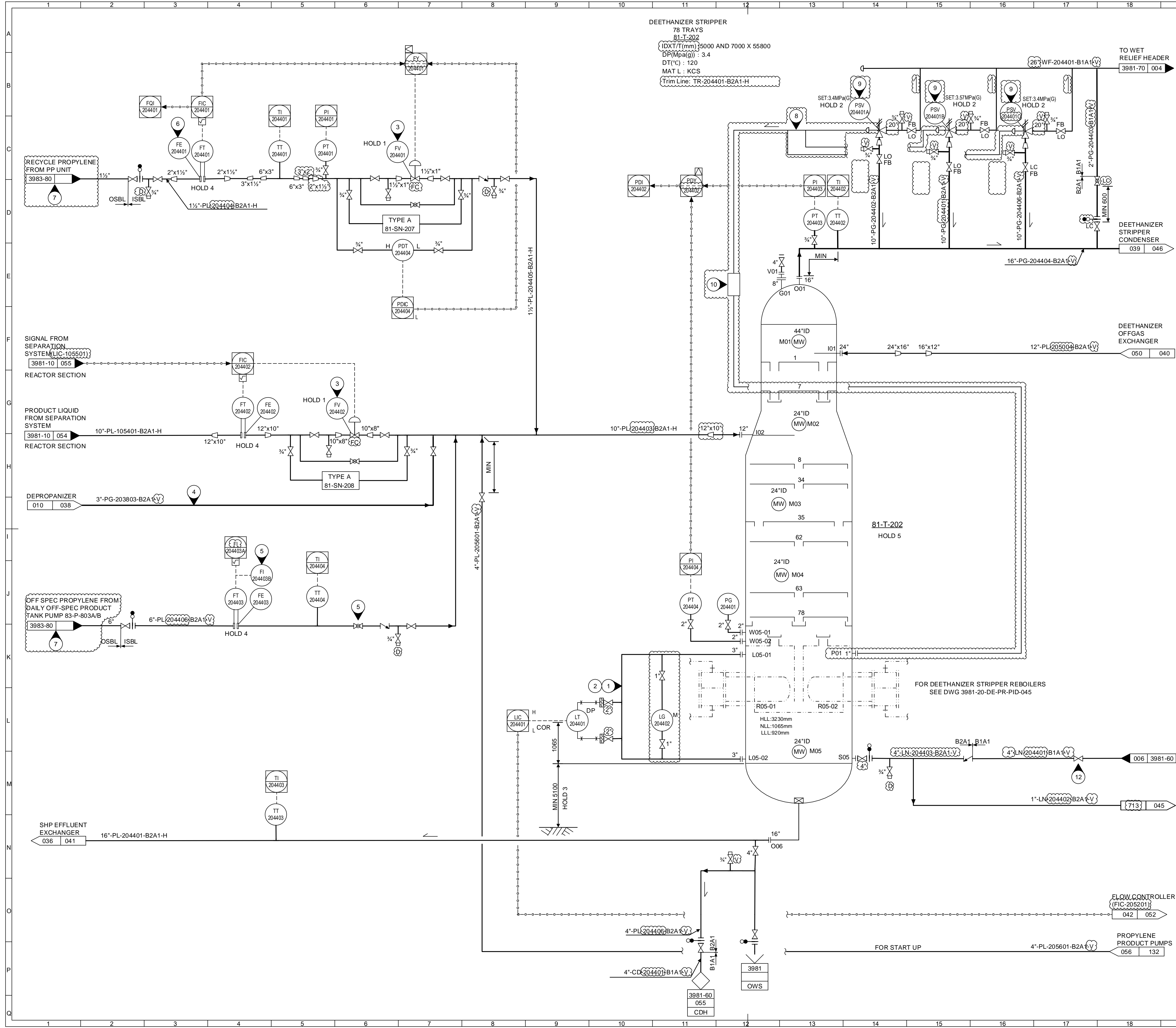
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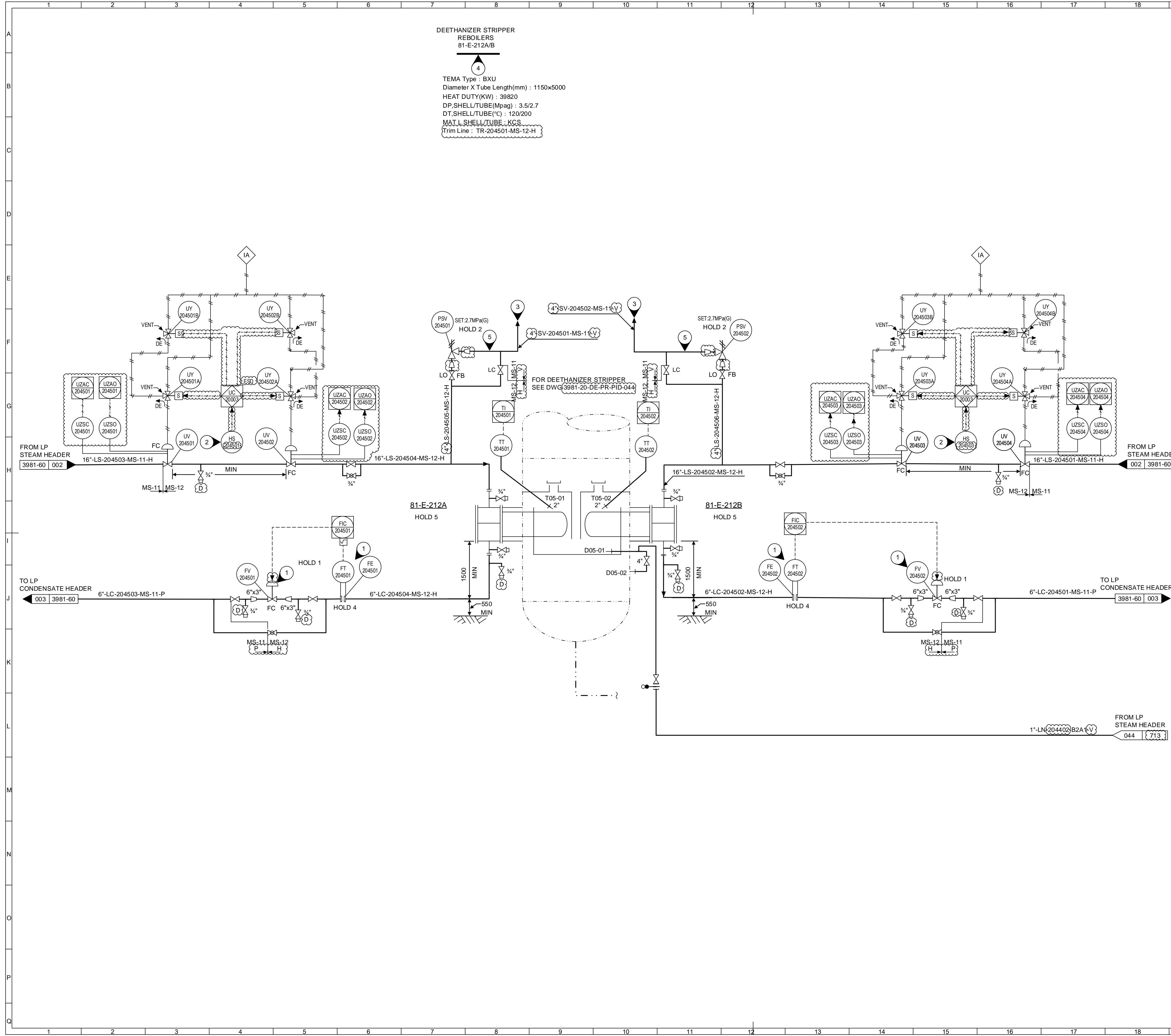
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	3981	20	DE	PR	PID	042
SCALE:	SIZE: A1	SHEET NO.		REVISION 01	CLASS: 1	



19	20	21	22	23
REFERENCE			DRAWINGS	
NOTES				
1. SEE STD DWG B-121 2. DETAIL "LV", SEE DWG 3981-00-BA-PR-PID-054 3. LOCATE CLOSE TO THE LP NITROGEN HEADER 4. 81-V-202 SHALL BE INSTALLED ABOVE 81-E-211A/B				



19	20	21	22	23
REFERENCE			DRAWINGS	
NOTES				
1. SEE STD DWG 8-121.				
2. DETAIL "LV", SEE DWG 3981-00-DE-PR-PID-054 (CONNECT TO COLD RELIEF HEADER).				
3. DETAIL "CV", SEE DWG 3981-00-DE-PR-PID-054 (CONNECT TO COLD RELIEF HEADER).				
4. FOR START UP INVENTORYING WITH VAPOR.				
5. FI MUST BE READABLE FROM VALVE.				
6. LOCATE CLOSE TO LP NITROGEN HEADER.				
7.P&ID SHEET NUMBER WILL BE SPECIFIED AFTER DETAIL DESIGN OF TANKAGE AND OFFSITE AREA.				
8- BY PSV VENDOR.				
9- PILOT OPERATED SAFETY VALVE.				
10-PILOT OPERATED SAFETY VALVE REMOTE SENSING SYSTEM.				
GENERAL NOTES:				
1. FOR GENERAL LEGEND, ABBREVIATIONS, NOMENCLATURE, INSTRUMENTATION, EQUIPMENT SYMBOLOGY AND GENERAL DETAILS SEE DWG'S 3981-00-DE-PR-PID-045 THRU 3981-00-DE-PR-PID-053				
2. EACH INSTRUMENT TAG NUMBER HAS A PLANT IDENTIFICATION NUMBER(PROJECT CODE=81) WHICH WILL NOT BE SHOWN ON THE PID'S.				
HOLDS				
1. CONTROL VALVE, ITS ISOLATION, BY PASS VALVE SIZE AND NUMBER OF EXPANDER/REDUCER				
2. PSV ORIFICE SIZE, ITS INLET/OUTLET LINE SIZE AND CORRESPONDING VESSEL NOZZLE SIZE.				
3. ELEVATION				
4. FLOWMETER CONNECTION SIZE				
5. TOWER DIMENSION SHALL BE CONFIRMED BY TRAY VENDOR				
01	ISSUED FOR APPROVAL	10-Jan-2026	F.KHODADAD	MJAMSHIDI
00	ISSUED FOR COMMENT	06-Aug-2025	M.KHERADKAR	MJAMSHIDI
REV	PURPOSE OF ISSUE	ISSUE DATE	PREPARE	CHECKED
OWNER:		MC:	CONTRACTOR/CONSULTANT:	
PROJECT TITLE:				
PROPANE DEHYDROGENATION (PDH) PROJECT				
DOCUMENT TITLE:				
PIPING AND INSTRUMENT DIAGRAM				
DEETHANIZER STRIPPER				
DOC NO.:	PROJ.CODE	Sec.	PHASE	DEP.
	3981	20	DE	PR
SCALE:	DOC.TYPE	SERIAL NO.		
	PID	044		
SIZE: A1	SHEET NO.	1 OF 1	REVISION 01	CLASS: 1
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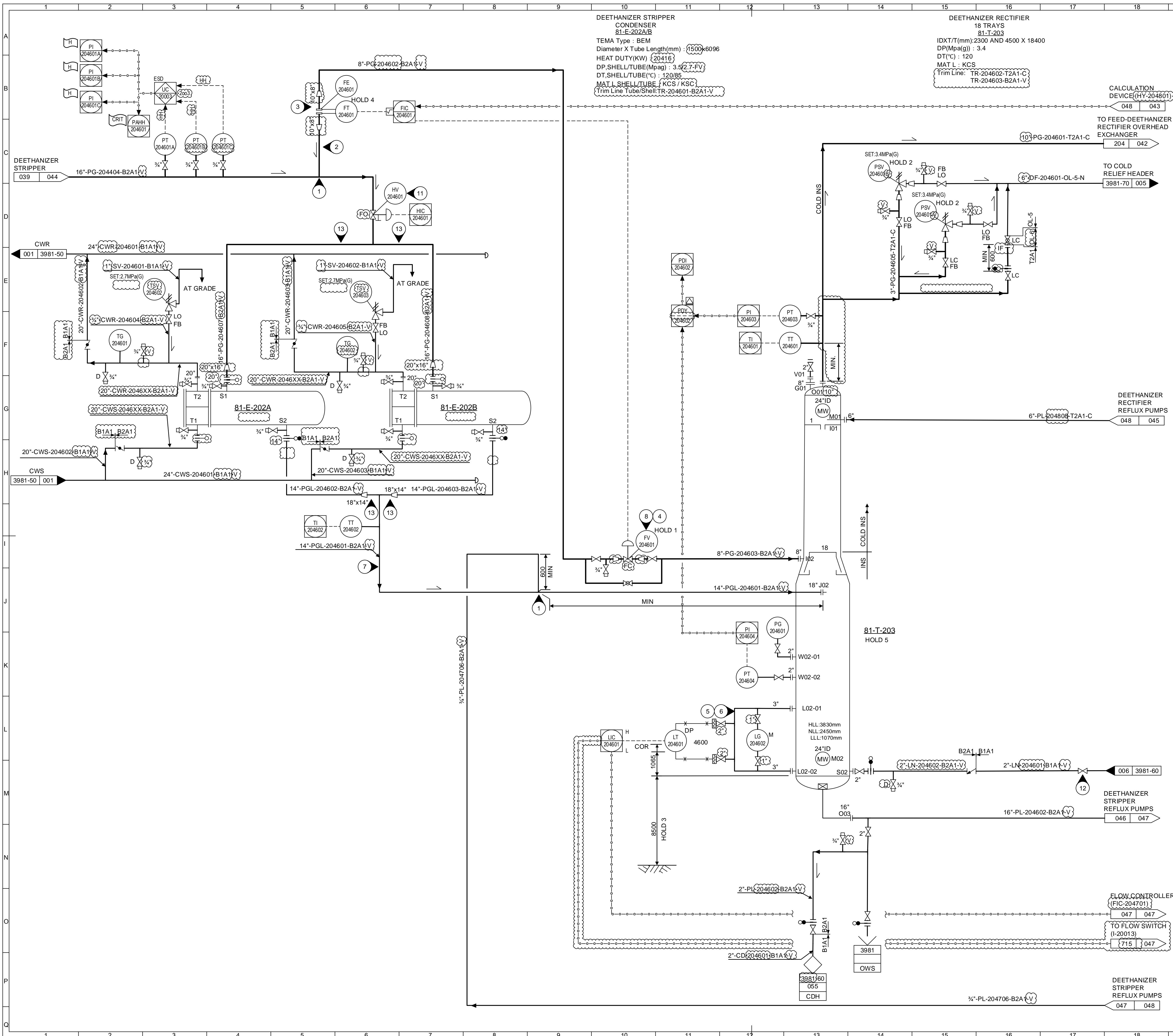




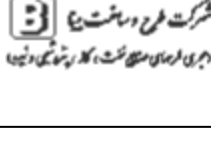

DEETHANIZER STRIPPER
REBOILERS
81-E-212A/B

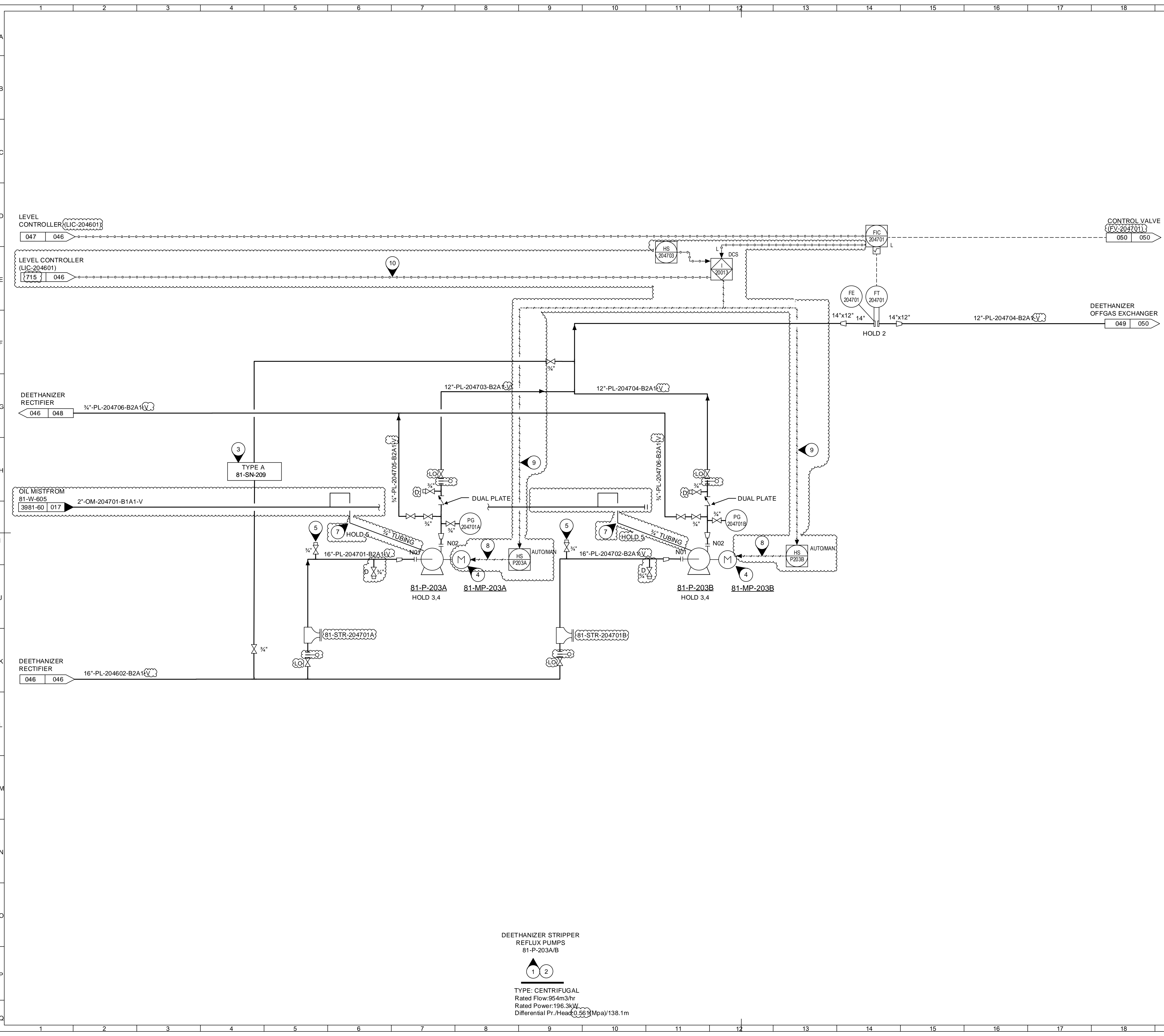
4

TEMA Type : BXU
Diameter X Tube Length(mm) : 1150x5000
HEAT DUTY(KW) : 39820
DP,SHELL/TUBE(Mpag) : 3.5/2.7
DT,SHELL/TUBE(°C) : 120/200
MAT L SHELL/TUBE : KCS
Trim Line : TR-204501-MS-12-H

19	20	21	22	23		
REFERENCE			DRAWINGS			
NOTES						
1. LOCATE ORIFICE FLANGES AND CONTROL VALVE ASSEMBLY IN HORIZONTAL RUN AT DEETHANIZER STRIPPER REBOILERS.						
2. RESET, LOCATE NEAR ASSOCIATED VALVES.						
3. TO ATMOSPHERE AT SAFE LOCATION.						
4. DESIGN AND SUPPLY OF 81-E-212 A/B/ IS BY 81-T-202 MANUFACTURE.						
5. PROVIDE WEEP HOLE AT LOW POINT.						
GENERAL NOTES:						
1. FOR GENERAL LEGEND, ABBREVIATIONS, NOMENCLATURE, INSTRUMENTATION, EQUIPMENT SYMBOLOGY AND GENERAL DETAILS SEE DWG'S 3981-00-DE-PR-PID-045 THRU 3981-00-DE-PR-PID-055						
2. EACH INSTRUMENT TAG NUMBER HAS A PLANT IDENTIFICATION NUMBER(PROJECT CODE=81) WHICH WILL NOT BE SHOWN ON THE PID'S.						
HOLDS						
1. CONTROL VALVE, ITS ISOLATION, BY PASS VALVE SIZE AND NUMBER OF EXPANDER/ REDUCER						
2. PSV ORIFICE SIZE, ITS INLET/OUTLET LINE SIZE AND CORRESPONDING VESSEL NOZZLE SIZE.						
3. ELEVATION						
4. FLOWMETER CONNECTION SIZE						
5. TYPE OF HEAT EXCHANGER, ITS NOZZLE DETAIL AND SIZE OF HX INLET/OUTLET NOZZLES						
01	ISSUED FOR APPROVAL	10-Jan-2026	F.KHODADAD	M.JAMSHIDI	M.H.ESHRAGHI	
00	ISSUED FOR COMMENT	06-Aug-2025	M.KHERADKAR	M.JAMSHIDI	M.H.ESHRAGHI	
REV	PURPOSE OF ISSUE	ISSUE DATE	PREPARE	CHECKED	APPROVED	
OWNER:		MC:	CONTRACTOR/CONSULTANT:			
PROJECT TITLE:						
PROPANE DEHYDROGENATION (PDH) PROJECT						
DOCUMENT TITLE:						
PIPING AND INSTRUMENT DIAGRAM						
DEETHANIZER STRIPPER REBOILERS						
DOC NO.:	PROJ.CODE	Sec.	PHASE	DEP.	DOC.TYPE	SERIAL NO.
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SCALE:	SIZE: A1	SHEET NO. 1 OF 1		REVISION 01		CLASS: 1
19	20	21	22	23		



19	20	21	22	23		
REFERENCE			DRAWINGS			
NOTES						
<div>1. MAKE CONNECTION ON TOP OR SIDE OF PIPE.</div> <div>2. INSULATE LINE TO ORIFICE FLANGES.</div> <div>3. LOCATE ORIFICE FLANGES IN VERTICAL LINE AS CLOSE TO JUNCTION AS POSSIBLE.</div> <div>4. LOCATE ON PLATFORM AS CLOSE TO INLET NOZZLE AS POSSIBLE AND AT SAME ELEVATION.</div> <div>5. SEE STD DWG 8-121.</div> <div>6. DETAIL "LV", SEE DWG 3981-00-DE-PR-PID-054 (CONNECT TO COLD RELIEF HEADER).</div> <div>7. SUPPORT FOR TWO PHASE FLOW.</div> <div>8. DETAIL "CV", SEE DWG 3981-00-DE-PR-PID-054 (CONNECT TO COLD RELIEF HEADER).</div> <div>9. DELETED.</div> <div>10. DELETED.</div> <div>11. PROVIDE LIMIT STOP.</div> <div>12. LOCATE CLOSE TO LP NITROGEN HEADER.</div> <div>13. PIPING MUST BE SYMMETRICAL.</div>						
GENERAL NOTES:						
<div>1. FOR GENERAL LEGEND, ABBREVIATIONS, NOMENCLATURE, INSTRUMENTATION, EQUIPMENT SYMBOLOGY AND GENERAL DETAILS SEE DWG'S 3981-00-DE-PR-PID-045 THRU 3981-00-DE-PR-PID-055</div> <div>2. EACH INSTRUMENT TAG NUMBER HAS A PLANT IDENTIFICATION NUMBER (PROJECT CODE=81) WHICH WILL NOT BE SHOWN ON THE PID'S.</div>						
HOLDS						
<div>1. CONTROL VALVE, ITS ISOLATION, BY PASS VALVE SIZE AND NUMBER OF EXPANDER/REDUCER.</div> <div>2. PSV ORIFICE SIZE, ITS INLET/OUTLET LINE SIZE AND CORRESPONDING VESSEL NOZZLE SIZE.</div> <div>3. ELEVATION.</div> <div>4. DELETED.</div> <div>5. TOWER DIMENSION SHALL BE CONFIRMED BY TRAY VENDOR.</div>						
01	ISSUED FOR APPROVAL	10-Jan-2026	F.KHODADAD	M.JAMSHIDI	M.H.ESHRAGHI	
00	ISSUED FOR COMMENT	06-Aug-2025	M.KHERADKAR	M.JAMSHIDI	M.H.ESHRAGHI	
REV	PURPOSE OF ISSUE	ISSUE DATE	PREPARE	CHECKED	APPROVED	
OWNER:		MC:	CONTRACTOR/CONSULTANT:			
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PROJECT TITLE:						
PROPANE DEHYDROGENATION (PDH) PROJECT						
DOCUMENT TITLE:						
PIPING AND INSTRUMENT DIAGRAM						
DEETHANIZER RECTIFIER						
DOC NO.:	PROJ.CODE	Sec.	PHASE	DEP.	DOC.TYPE	SERIAL NO.
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SCALE:	SIZE: A1	SHEET NO. 1 OF 1		REVISION 01	CLASS: 1	
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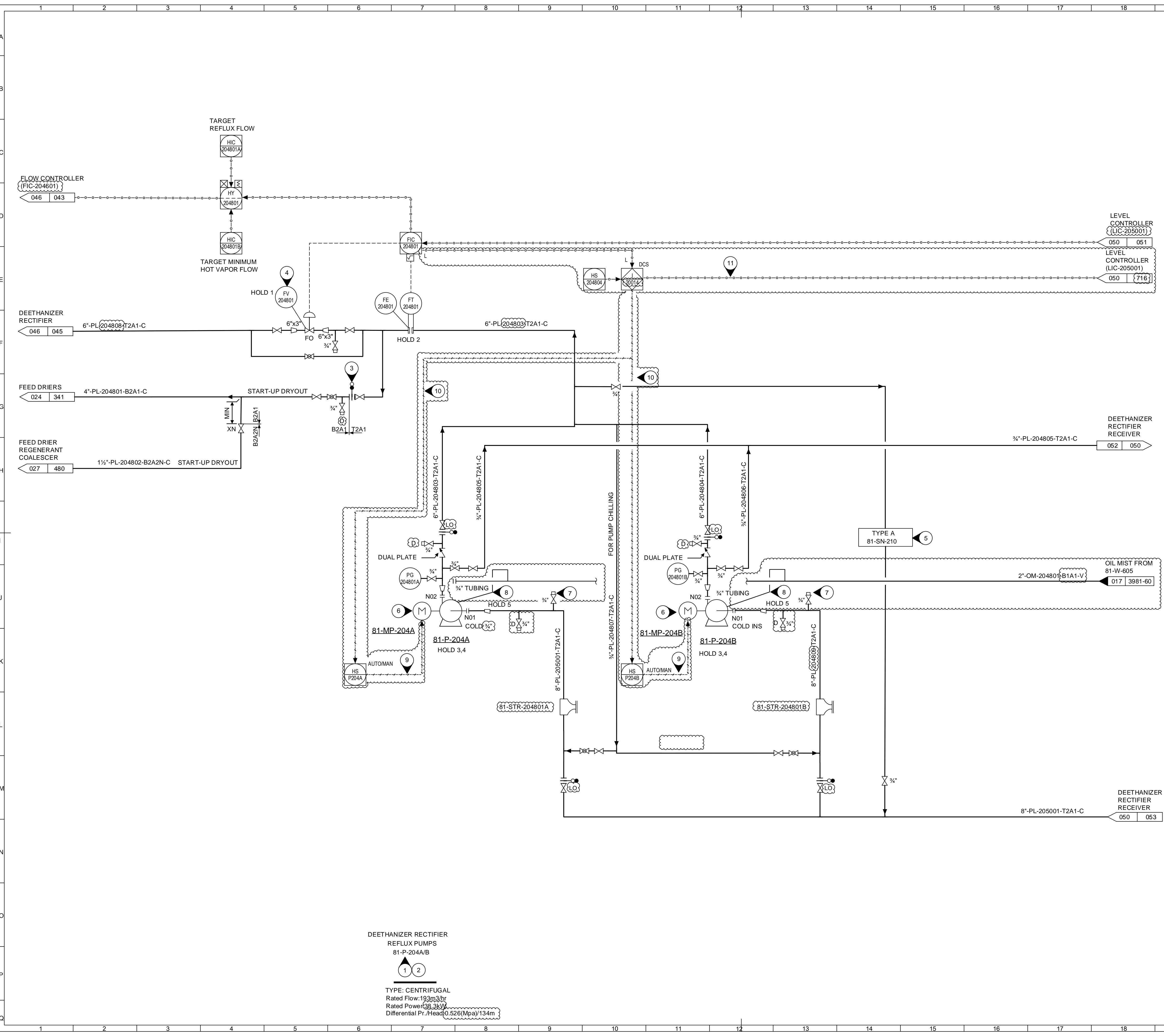


DEETHANIZER STRIPPER
REFLUX PUMPS
81-P-203A/B

1 2

TYPE: CENTRIFUGAL
Rated Flow:954m3/hr
Rated Power:196.3kW
Differential Pr./Head:0.56 MPa/138.1m

REFERENCE		DRAWINGS																																																																																
NOTES																																																																																		
<div>1. DETAIL "TL", SEE DWG 3981-00-DE-PR-PID-052 (CONNECT TO COLD RELIEF HEADER).</div> <div>2. DETAIL "PV", SEE DWG 3981-00-DE-PR-PID-054 (CONNECT TO COLD RELIEF HEADER).</div> <div>3. CONNECT TO COLD RELIEF HEADER.</div> <div>4. DETAIL "PUMP B" SEE DWG 3981-00-DE-PR-PID-055.</div> <div>5. PRESSURE GAUGE CONNECTION.</div> <div>6. DETAIL "CV", SEE DWG 3981-00-DE-PR-PID-054</div> <div>7. OIL DRAIN OF MIST OIL LUBRICATION SYSTEM IS COLLECTED ON A CONTAINER.</div> <div>8. TO MOTOR CONTROL CIRCUIT</div> <div>9. LOW FLOW START</div> <div>10. AUTO START INHIBIT (LOW LEVEL)</div>																																																																																		
GENERAL NOTES:																																																																																		
<div>1. FOR GENERAL LEGEND, ABBREVIATIONS, NOMENCLATURE, INSTRUMENTATION, EQUIPMENT SYMBOLOGY AND GENERAL DETAILS SEE DWG'S 3981-00-DE-PR-PID-045 THRU 3981-00-DE-PR-PID-055</div> <div>2. EACH INSTRUMENT TAG NUMBER HAS A PLANT IDENTIFICATION NUMBER(PROJECT CODE=81) WHICH WILL NOT BE SHOWN ON THE PID'S.</div>																																																																																		
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<div>1. CONTROL VALVE, ITS ISOLATION, BY PASS VALVE SIZE AND NUMBER OF EXPANDER/REDUCER</div> <div>5. FLOWMETER CONNECTION SIZE</div> <div>3. PUMP SUCTION/DISCHARGE NOZZLE SIZE.</div> <div>4. DETAIL OF PUMP VENT & DRAIN</div> <div>5. SIZE AND ARRANGEMENT OF OIL MIST DROP POINT IN PUMP LUBRICATION SYSTEM INCLUDING RECLASSIFIER, OIL DRAIN CONTAINER AND OTHER REQUIREMENT.</div>																																																																																		
<table><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>01</td><td>ISSUED FOR APPROVAL</td><td>10-Jan-2026</td><td>F.KHODADAD</td><td>M.JAMSHIDI</td><td>M.H.ESHRAGHI</td></tr><tr><td>00</td><td>ISSUED FOR COMMENT</td><td>06-Aug-2025</td><td>M.KHERADKAR</td><td>M.JAMSHIDI</td><td>M.H.ESHRAGHI</td></tr><tr><td>REV</td><td>PURPOSE OF ISSUE</td><td>ISSUE DATE</td><td>PREPARE</td><td>CHECKED</td><td>APPROVED</td></tr><tr><td>OWNER:</td><td></td><td>MC:</td><td></td><td colspan="2">CONTRACTOR/CONSULTANT:</td></tr><tr><td colspan="6">PROJECT TITLE:</td></tr><tr><td colspan="6">PROPANE DEHYDROGENATION (PDH) PROJECT</td></tr><tr><td colspan="6">DOCUMENT TITLE:</td></tr><tr><td colspan="6">PIPING AND INSTRUMENT DIAGRAM DEETHANIZER STRIPPER REFLUX PUMPS</td></tr><tr><td rowspan="2">DOC NO.:</td><td>PROJ.CODE</td><td>Sec.</td><td>PHASE</td><td>DEF.</td><td>DOC.TYPE</td></tr><tr><td>3981</td><td>20</td><td>DE</td><td>PR</td><td>PID</td></tr><tr><td rowspan="2">SCALE:</td><td>SIZE: A1</td><td colspan="2">SHEET NO. 1 OF 1</td><td>REVISION 01</td><td>CLASS: 1</td></tr></table>																		01	ISSUED FOR APPROVAL	10-Jan-2026	F.KHODADAD	M.JAMSHIDI	M.H.ESHRAGHI	00	ISSUED FOR COMMENT	06-Aug-2025	M.KHERADKAR	M.JAMSHIDI	M.H.ESHRAGHI	REV	PURPOSE OF ISSUE	ISSUE DATE	PREPARE	CHECKED	APPROVED	OWNER:		MC:		CONTRACTOR/CONSULTANT:		PROJECT TITLE:						PROPANE DEHYDROGENATION (PDH) PROJECT						DOCUMENT TITLE:						PIPING AND INSTRUMENT DIAGRAM DEETHANIZER STRIPPER REFLUX PUMPS						DOC NO.:	PROJ.CODE	Sec.	PHASE	DEF.	DOC.TYPE	3981	20	DE	PR	PID	SCALE:	SIZE: A1	SHEET NO. 1 OF 1		REVISION 01	CLASS: 1
01	ISSUED FOR APPROVAL	10-Jan-2026	F.KHODADAD	M.JAMSHIDI	M.H.ESHRAGHI																																																																													
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	3981	20	DE	PR	PID																																																																													
SCALE:	SIZE: A1	SHEET NO. 1 OF 1		REVISION 01	CLASS: 1																																																																													







DEETHANIZER RECTIFIER
REFLUX PUMPS
81-P-204A/B

1 2

TYPE: CENTRIFUGAL
Rated Flow: 193m³/hr
Rated Power: 38.3kW
Differential Pr./Head: 0.526(Mpa)/134m

REFERENCE		DRAWINGS			
NOTES					
<p>1. DETAIL "TL", SEE DWG 3981-00-DE-PR-PID-052 (CONNECT TO COLD RELIEF HEADER)</p> <p>2. DETAIL "PV", SEE DWG 3981-00-DE-PR-PID-054 (CONNECT TO COLD RELIEF HEADER)</p> <p>3. LANKOFF WHEN NOT IN USE</p> <p>4. DETAIL "CV", SEE DWG 3981-00-DE-PR-PID-054 (CONNECT TO COLD RELIEF HEADER)</p> <p>5. CONNECT TO COLD RELIEF HEADER</p> <p>6. DETAIL "PUMP B" SEE DWG 3981-00-DE-PR-PID-055.</p> <p>7. PRESSURE GAUGE CONNECTION</p> <p>8. OIL DRAIN OF MIST OIL LUBRICATION SYSTEM IS COLLECTED ON A CONTAINER.</p> <p>9. TO MOTOR CONTROL CIRCUIT.</p> <p>10. LOW FLOW START.</p> <p>11. AUTO START INHIBIT (LOW LEVEL).</p>					
GENERAL NOTES:					
<p>1. FOR GENERAL LEGEND, ABBREVIATIONS, NOMENCLATURE, INSTRUMENTATION, EQUIPMENT SYMBOLOLOGY AND GENERAL DETAILS SEE DWG'S 3981-00-DE-PR-PID-045 THRU 3981-00-DE-PR-PID-055</p> <p>2. EACH INSTRUMENT TAG NUMBER HAS A PLANT IDENTIFICATION NUMBER(PROJECT CODE=81) WHICH WILL NOT BE SHOWN ON THE PID'S.</p>					
HOLDS					
<p>1. CONTROL VALVE, ITS ISOLATION, BY PASS VALVE SIZE AND NUMBER OF EXPANDER/REDUCER</p> <p>2. FLOWMETER CONNECTION SIZE</p> <p>3. PUMP SUCTION/DISCHARGE NOZZLE SIZE.</p> <p>4. DETAIL OF PUMP VENT & DRAINS, FLOWMETER CONNECTION SIZE</p> <p>5. SIZE AND ARRANGEMENT OF OIL MIST DROP POINT IN PUMP LUBRICATION SYSTEM INCLUDING RECLASSIFIER, OIL DRAIN CONTAINER AND OTHER REQUIREMENT.</p>					
01	ISSUED FOR APPROVAL	10-Jan-2026	F.KHODADAD	M.JAMSHIDI	M.H.ESHRAGHI
00	ISSUED FOR COMMENT	06-Aug-2025	M.KHERADKAR	M.JAMSHIDI	M.H.ESHRAGHI
REV	PURPOSE OF ISSUE	ISSUE DATE	PREPARE	CHECKED	APPROVED
OWNER:			MC:	CONTRACTOR/CONSULTANT:	
PROJECT TITLE:					
PROPANE DEHYDROGENATION (PDH) PROJECT					
DOCUMENT TITLE:					
PIPING AND INSTRUMENT DIAGRAM DEETHANIZER RECTIFIER REFLUX PUMPS					
DOC NO.:	PROJ.CODE	Sec.	PHASE	DEF.	DOC.TYPE
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SCALE:	SIZE: A1	SHEET NO. 1 OF 1		REVISION 01	CLASS: 1

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C																							C																					
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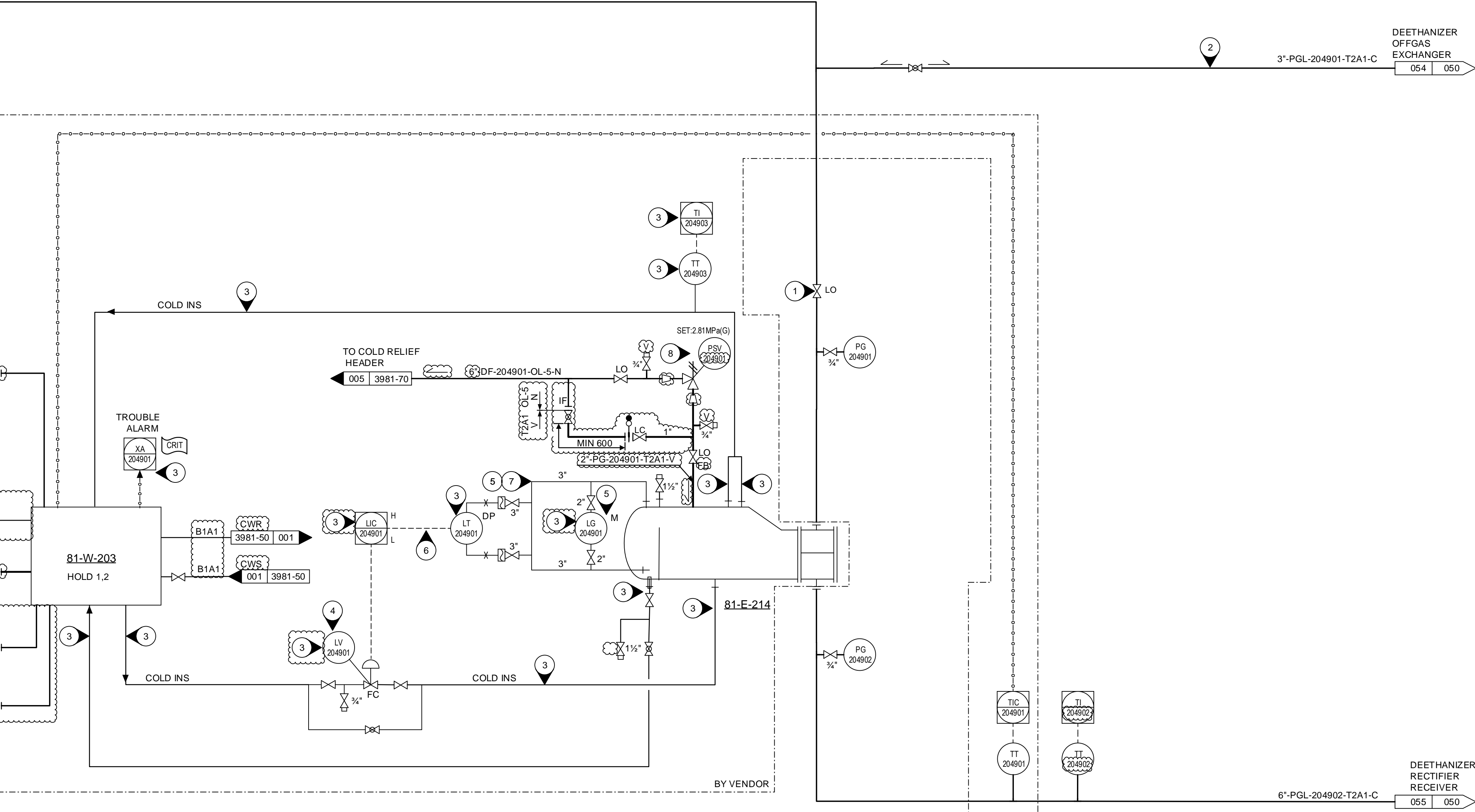
REFRIGERATION
EQUIPMENT
81-W-203

DEETHANIZER RECTIFIER
CONDENSER
COLD INSULATE
81-E-214

TEMA Type : BKU
Diameter X Tube Length (mm) : 1200/2000x6096
HEAT DUTY(KW) : 4408.2
DP,SHELL/TUBE(Mpag) : 2.81/3.65
DT,SHELL/TUBE(°C) : 85,-46/120,-33
MAT L SHELL/TUBE : KCS
Insulation Thickness,Shell/Tube:

FROM FEED-DEETHANIZER
RECTIFIER OVERHEAD
EXCHANGER
250 042 8"-PGL-204201-T2A1-C

DEETHANIZER
OFFGAS
EXCHANGER
054 050



REFERENCE

DRAWINGS

NOTES

1. THROTTLE DURING START-UP.
2. HOT VAPOR BYPASS FOR START-UP.
3. BY VENDOR.
4. DETAIL "CV", SEE DWG 3981-00-DE-PR-PID-054 (CONNECT TO COLD RELIEF HEADER).
5. DETAIL "LV", SEE DWG 3981-00-DE-PR-PID-054 (CONNECT TO COLD RELIEF HEADER).
6. COR 50 ABOVE TOP OF TUBE BUNDLE.
7. SEE STD DWG 8-121.
8. FURNISHED WITH CONDENSER.
9. P&ID SHEET NUMBER WILL BE SPECIFIED AFTER DETAIL DESIGN OF TANKAGE AND OFFSITE AREA.
10. PROPYLENE FIRST FILLING FACILITIES WILL BE FINALIZED DURING DETAIL DESIGN.

GENERAL NOTES:

1. FOR GENERAL LEGEND, ABBREVIATIONS, NOMENCLATURE, INSTRUMENTATION, EQUIPMENT SYMBOLOGY AND GENERAL DETAILS SEE DWG'S 3981-00-DE-PR-PID-045 THRU 3981-00-DE-PR-PID-053.
2. EACH INSTRUMENT TAG NUMBER HAS A PLANT IDENTIFICATION NUMBER(PROJECT CODE=81) WHICH WILL NOT BE SHOWN ON THE PID'S.

HOLDS

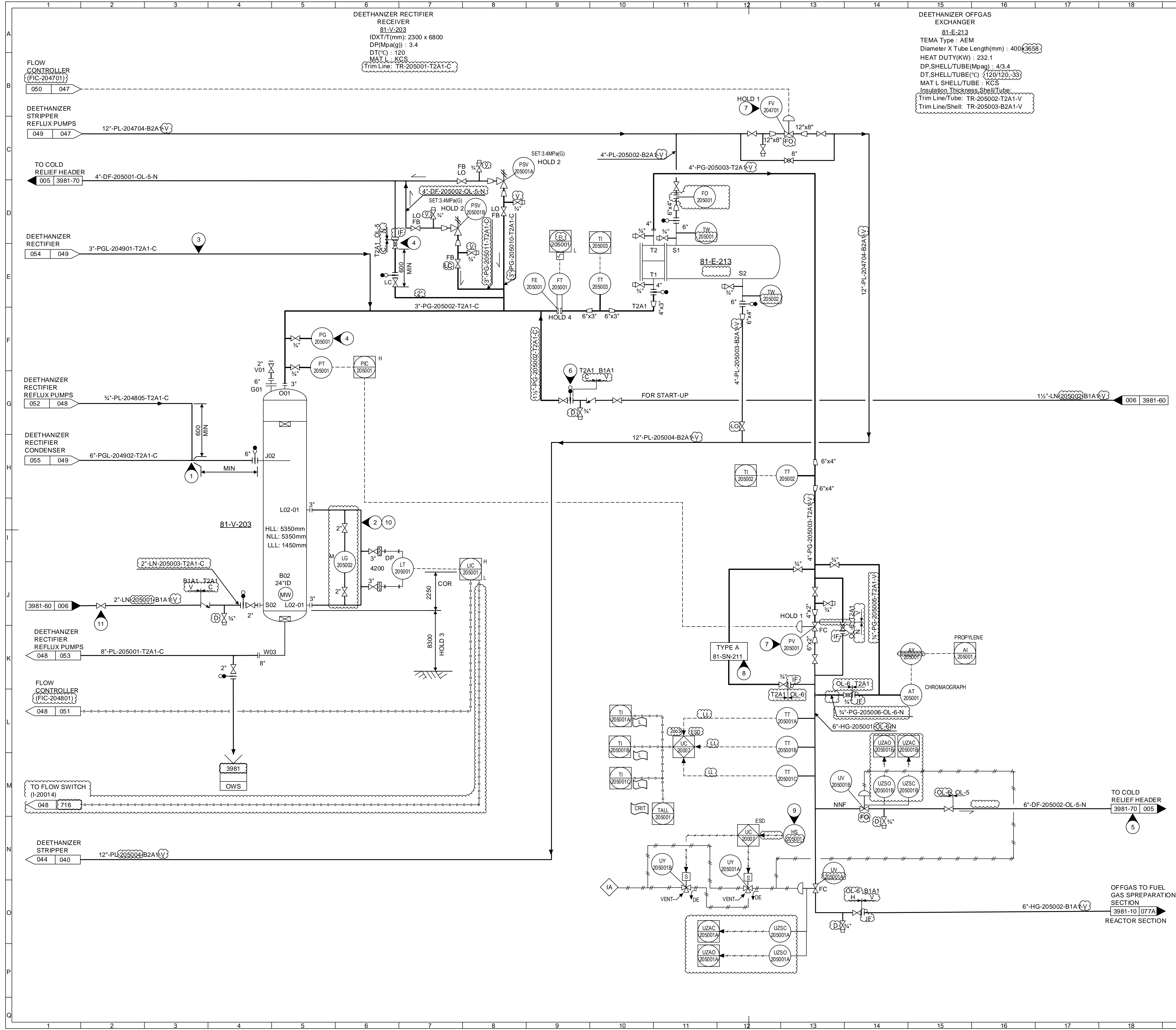
1. PACKAGE DETAILS WITHIN VENDOR BATTERY LIMIT.
2. REQUIRED UTILITY AND LINE SIZE FOR PACKAGE.
3. LINE SIZE



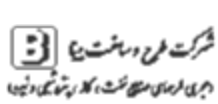
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00	ISSUED FOR COMMENT	06-Aug-2025	M.KHERADKAR	M.JAMSHIDI	M.H.ESHRAGHI
REV	PURPOSE OF ISSUE	ISSUE DATE	PREPARE	CHECKED	APPROVED
OWNER:	MC:		CONTRACTOR/CONSULTANT:		

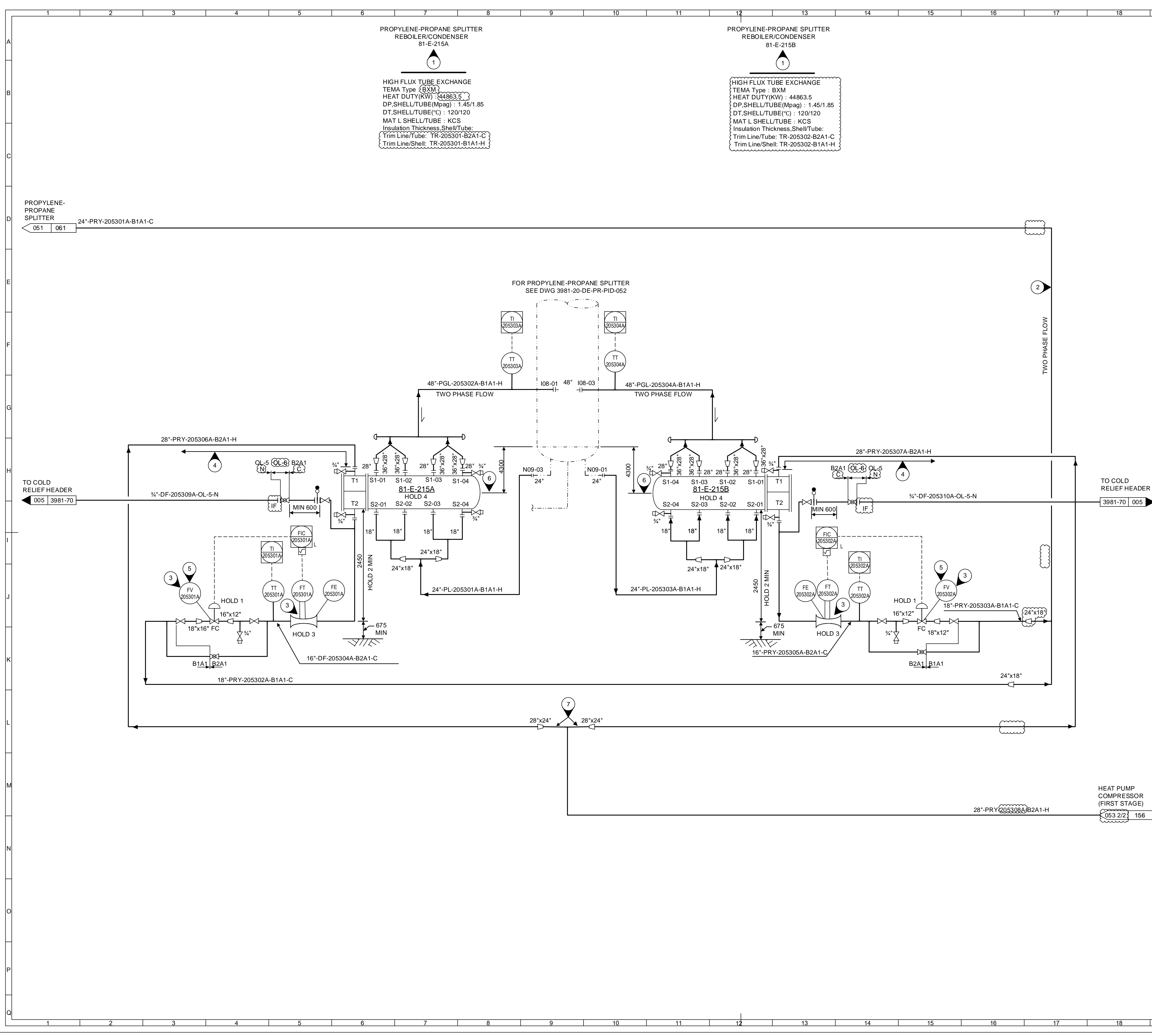
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PROPANE DEHYDROGENATION (PDH) PROJECT

DOCUMENT TITLE:
PIPING AND INSTRUMENT DIAGRAM
DEETHANIZER RECTIFIER CONDENSER

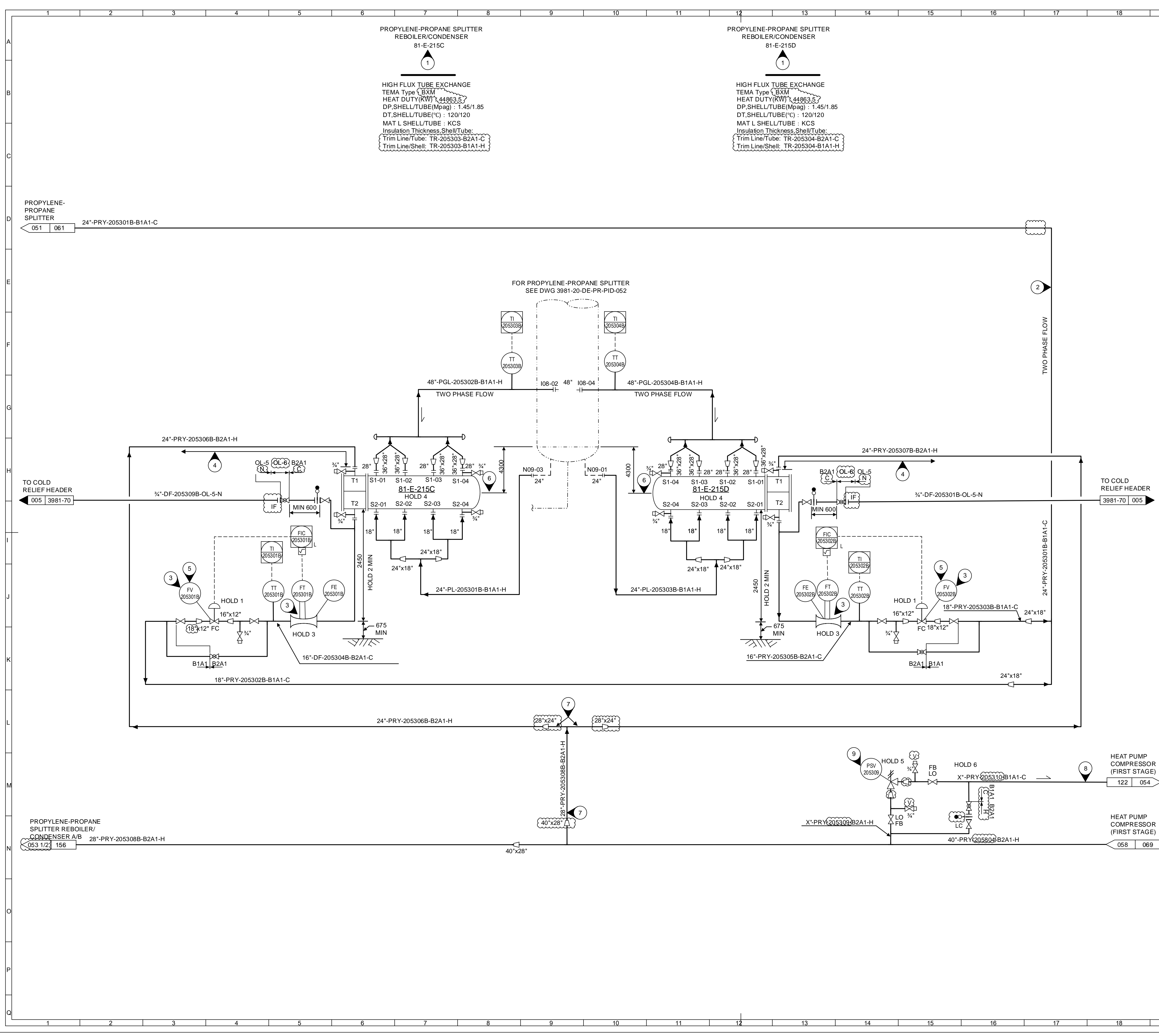
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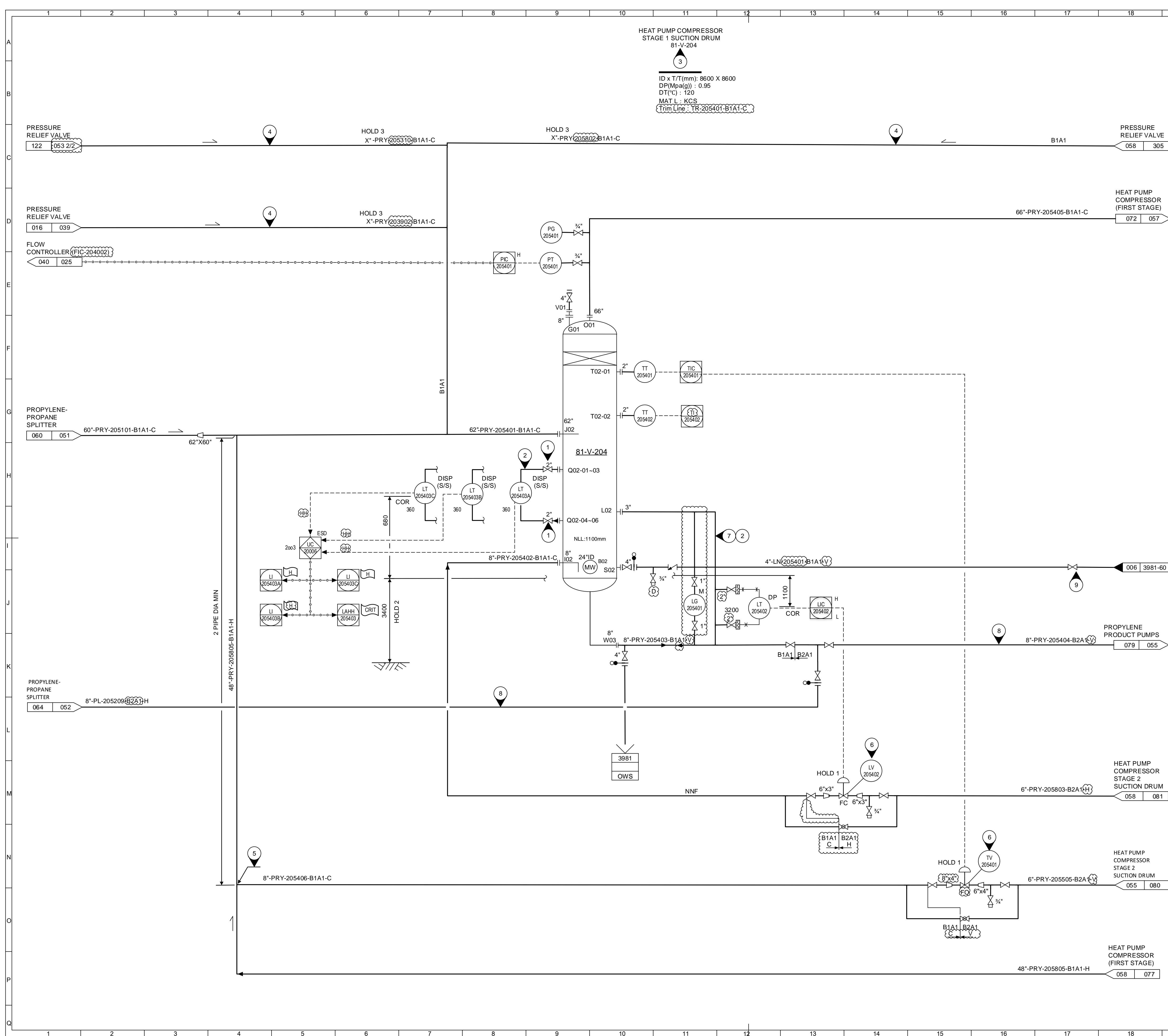
REFERENCE			DRAWINGS			
NOTES						
1. MAKE CONNECTION ON TOP OF PIPE						
2. SEE STD DWG 8-121						
3. HOT VAPOR BYPASS FOR START-UP						
4. PG MUST BE READABLE FROM VALVE						
5. DEETHANIZER OFFGAS TO COLD RELIEF HEADER						
6. BLANKOFF WHEN NOT IN USE						
7. DETAIL "CV", SEE DWG 3981-00-DE-PR-PID-054 (CONNECT TO COLD RELIEFHEADER)						
8. CONNECT TO COLD RELIEF HEADER						
9. RESET, LOCATE NEAR ASSOCIATED VALVES						
10. DETAIL "LV", SEE DWG 3981-00-DE-PR-PID-054 (CONNECT TO COLD RELIEF HEADER)						
11. LOCATE CLOSE TO LP NITROGEN HEADER						
GENERAL NOTES:						
1. FOR GENERAL LEGEND, ABBREVIATIONS, NOMENCLATURE, INSTRUMENTATION, EQUIPMENT SYMBOLGY AND GENERAL DETAILS SEE DWG'S 3981-00-DE-PR-PID-045 THRU 3981-00-DE-PR-PID-053						
2. EACH INSTRUMENT TAG NUMBER HAS A PLANT IDENTIFICATION NUMBER(PROJECT CODE=81) WHICH WILL NOT BE SHOWN ON THE PID'S.						
HOLDS						
1. CONTROL VALVE, ITS ISOLATION, BY PASS VALVE SIZE AND NUMBER OF EXPANDER/ REDUCER						
2. PSV ORIFICE SIZE, ITS INLET/OUTLET LINE SIZE AND CORRESPONDING VESSEL NOZZLE SIZE.						
3. ELEVATION						
4. FLOWMETER CONNECTION SIZE						
5. DELETED						
01	ISSUED FOR APPROVAL	10-Jan-2026	F.KHODADAD	M.JAMSHIDI	M.H.ESHRAHGH	
00	ISSUED FOR COMMENT	06-Aug-2025	M.KHERADKAR	M.JAMSHIDI	M.H.ESHRAHGH	
REV	PURPOSE OF ISSUE	ISSUE DATE	PREPARE	CHECKED	APPROVED	
OWNER:		MC:	CONTRACTOR/CONSULTANT:			
						
PROJECT TITLE:						
PROPANE DEHYDROGENATION (PDH) PROJECT						
DOCUMENT TITLE:						
PIPING AND INSTRUMENT DIAGRAM						
DEETHANIZER RECTIFIER RECEIVER						
DOC NO.:	PROJ.CODE	Sec.	PHASE	DEP.	DOC.TYPE	SERIAL NO.
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SCALE:	SIZE: A1	SHEET NO. 1 OF 1		REVISION 01		CLASS: 1



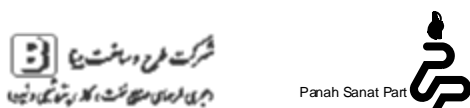


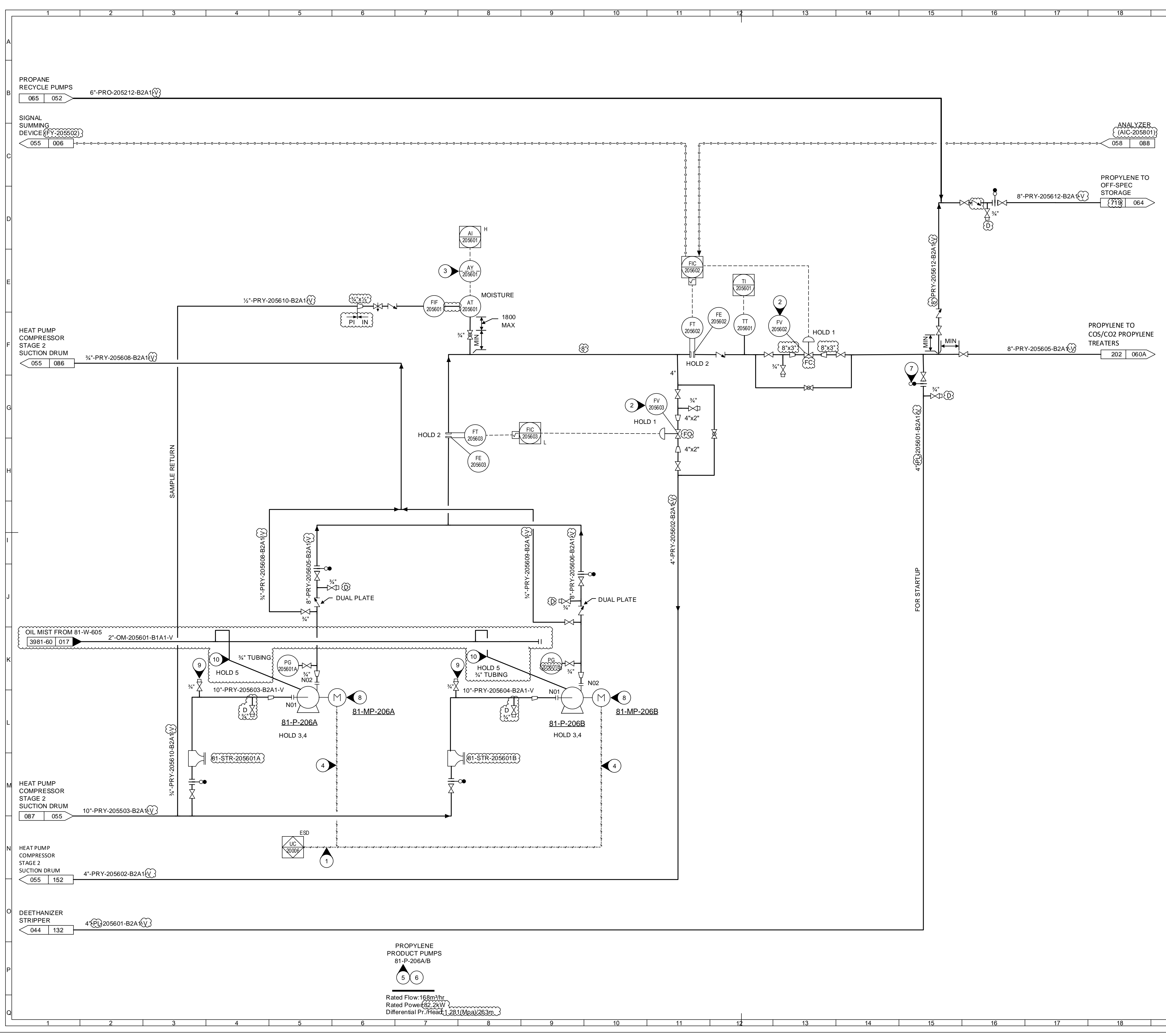
19	20	21	22	23		
REFERENCE			DRAWINGS			
NOTES						
1. SHELL SIDE PIPING MUST BE SYMMETRICAL FROM PROPYLENE-PROPANE SPLITTER OUTLETS TO PROPYLENE-PROPANE SPLITTER INLETS.						
2. SUPPORT FOR TWO PHASE FLOW.						
3. LOCATE VENTURI AND CONTROL VALVE ASSEMBLY IN HORIZONTAL RUN ATREBOILER/ CONDENSER.						
4. VOLUME SHALL BE SUFFICIENT TO CONTAIN LIQUID FROM REBOILER OUTLET TO COLUMN WITH MINIMUM EXCESS.						
5. DETAIL "CV", SEE DWG 3981-00-DE-PR-PID-054 (CONNECT TO COLDRELIEF HEADER).						
6. CL OF REBOILER/CONDENSER.						
7. PIPING MUST BE SYMMETRICAL.						
GENERAL NOTES:						
1. FOR GENERAL LEGEND, ABBREVIATIONS, NOMENCLATURE, INSTRUMENTATION, EQUIPMENT SYMBOLOGY AND GENERAL DETAILS SEE DWG'S 3981-00-DE-PR-PID-045 THRU 3981-00-DE-PR-PID-055						
2. EACH INSTRUMENT TAG NUMBER HAS A PLANT IDENTIFICATION NUMBER(PROJECT CODE=81) WHICH WILL NOT BE SHOWN ON THE PID'S.						
HOLDS						
1. CONTROL VALVE, ITS ISOLATION, BY PASS VALVE SIZE AND NUMBER OF EXPANDER/ REDUCER.						
2. ELEVATION.						
3. FLOWMETER CONNECTION SIZE.						
4. TYPE OF HEAT EXCHANGER, ITS NOZZLE DETAIL AND SIZE OF HX INLET/OUTLET NOZZLES.						
01	ISSUED FOR APPROVAL	10-Jan-2026	F.KHODADAD	M.JAMSHIDI	M.H.ESHRAGHI	
00	ISSUED FOR COMMENT	06-Aug-2025	M.KHERADKAR	M.JAMSHIDI	M.H.ESHRAGHI	
REV	PURPOSE OF ISSUE	ISSUE DATE	PREPARE	CHECKED	APPROVED	
OWNER:		MC:	CONTRACTOR/CONSULTANT:			
PROJECT TITLE:						
PROPANE DEHYDROGENATION (PDH) PROJECT						
DOCUMENT TITLE:						
PIPING AND INSTRUMENT DIAGRAM PROPYLENE-PROPANE SPLITTER REBOILERS/ CONDENSERS						
DOC NO.:	PROJ.CODE	Sec.	PHASE	DEP.	DOC.TYPE	SERIAL NO.
	3981	20	DE	PR	PID	053
SCALE:	SIZE: A1	SHEET NO. 1 OF 2		REVISION 01		CLASS: 1
19	20	21	22	23		



REFERENCE			DRAWINGS		
NOTES					
1. SHELL SIDE PIPING MUST BE SYMMETRICAL FROM PROPYLENE-PROPANE SPLITTER OUTLETS TO PROPYLENE-PROPANE SPLITTER INLETS.					
2. SUPPORT FOR TWO PHASE FLOW.					
3. LOCATE VENTURI AND CONTROL VALVE ASSEMBLY IN HORIZONTAL RUN ATREBOILER/CONDENSER.					
4. VOLUME SHALL BE SUFFICIENT TO CONTAIN LIQUID FROM REBOILER OUTLET TO COLUMN WITH MINIMUM EXCESS.					
5. DETAIL "CV", SEE DWG 3981-00-DE-PR-PID-054 (CONNECT TO COLDRELIEF HEADER).					
6. CL OF REBOILER/CONDENSER.					
7. PIPING MUST BE SYMMETRICAL.					
8. SIZE BY VENDOR					
9. PSV ORIFICE SIZE, ITS INLET/OUTLET LINE SIZE WILL BE SPECIFIED AFTER HEAT PUMP COMPRESSOR VENDOR DATA.					



19		20		21		22		23		
REFERENCE						DRAWINGS				
NOTES										
1. 1 SHOWN 3 REQUIRED.										
2. DETAIL "LV", SEE DWG 3981-00-DE-PR-PID-054 (CONNECT TO COLDRELIEF HEADER).										
3. LOCATE AS CLOSE TO HEAT PUMP COMPRESSOR AS POSSIBLE										
4. SIZE BY VENDOR.										
5. MAKE CONNECTION ON TOP OF PIPE.										
6. DETAIL "CV", SEE DWG 3981-00-DE-PR-PID-054 (CONNECT TO COLDRELIEF HEADER).										
7. SEE STD DWG 8-121.										
8. FOR PUMP-OUT AND START-UP COOLING.										
9. LOCATE CLOSE TO LP NITROGEN HEADER.										
GENERAL NOTES:										
1. FOR GENERAL LEGEND, ABBREVIATIONS, NOMENCLATURE, INSTRUMENTATION, EQUIPMENT SYMBOLOGY AND GENERAL DETAILS SEE DWG'S 3981-00-DE-PR-PID-045 THRU 3981-00-DE-PR-PID-055										
2. EACH INSTRUMENT TAG NUMBER HAS A PLANT IDENTIFICATION NUMBER(PROJECT CODE=81) WHICH WILL NOT BE SHOWN ON THE PID'S.										
HOLDS										
1. CONTROL VALVE, ITS ISOLATION, BY PASS VALVE SIZE AND NUMBER OF EXPANDER/ REDUCER										
2. ELEVATION.										
3. LINE SIZE.										
01	ISSUED FOR APPROVAL		10-Jan-2026		F.KHODADAD		MJAMSHIDI		M.H.ESHRAGHI	
00	ISSUED FOR COMMENT		06-Aug-2025		M.KHERADKAR		MJAMSHIDI		M.H.ESHRAGHI	
REV	PURPOSE OF ISSUE		ISSUE DATE		PREPARE		CHECKED		APPROVED	
OWNER:			MC:		CONTRACTOR/CONSULTANT:					
										
PROJECT TITLE:										
PROPANE DEHYDROGENATION (PDH) PROJECT										
DOCUMENT TITLE:										
PIPING AND INSTRUMENT DIAGRAM										
HEAT PUMP COMPRESSOR STAGE 1 SUCTION DRUM										
DOC NO.:		PROJ.CODE	Sec.	PHASE	DEP.	DOC.TYPE	SERIAL NO.			
		3981	20	DE	PR	PID	054			
SCALE:		SIZE: A1	SHEET NO.			REVISION 01		CLASS: 1		
19		20		21		22		23		



19		20		21		22		23	
REFERENCE						DRAWINGS			
NOTES									
1. PUMP STOP.									
2. DETAIL "CV", SEE DWG 3981-00-DE-PR-PID-054 (CONNECT TO COLD RELIEF HEADER).									
3. MULTI-CHANNEL PROGRAMMER (AY-104701).									
4. TO MOTOR CONTROL CIRCUIT.									
5. DETAIL "TL", SEE DWG 3981-00-DE-PR-PID-052 (CONNECT TO COLD RELIEF HEADER).									
6. DETAIL "PV", SEE DWG 3981-00-DE-PR-PID-054 (CONNECT TO COLD RELIEF HEADER).									
7. BLANKOFF DURING NORMAL OPERATION.									
8. DETAIL "PUMP F",SEE DWG 3981-00-DE-PR-PID-055.									
9. PRESSURE GAUGE CONNECTION.									
10. OIL DRAIN OF MIST OIL LUBRICATION SYSTEM IS COLLECTED ON A CONTAINER.									

12

2"-CD-205601-B1A1-V

055A3981-60

2"-CD-205602-B1A1-V

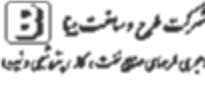
055A3981-60

REFERENCE

DRAWINGS

NOTES

HOLDS

01	ISSUED FOR APPROVAL	10-Jan-2026	F.KHODADAD	M.JAMSHIDI	M.H.ESHRAGHI	
00	ISSUED FOR COMMENT	06-Aug-2025	M.KHERADKAR	M.JAMSHIDI	M.H.ESHRAGHI	
REV	PURPOSE OF ISSUE	ISSUE DATE	PREPARE	CHECKED	APPROVED	
OWNER: <div></div>		MC: <div></div>	CONTRACTOR/CONSULTANT: <div><div><div>پارسین پتروشیمی</div></div><div><div>Parsian Petrochemical Co.</div></div></div>			
PROJECT TITLE: <div>PROPANE DEHYDROGENATION (PDH) PROJECT</div>						
DOCUMENT TITLE: <div>PIPING AND INSTRUMENT DIAGRAM PROPYLENE PRODUCT PUMPS</div>						
DOC NO.:	PROJ.CODE	Sec.	PHASE	DEP.	DOC.TYPE	SERIAL NO.
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SCALE:	SIZE: A1	SHEET NO.			REVISION 01	CLASS: 1

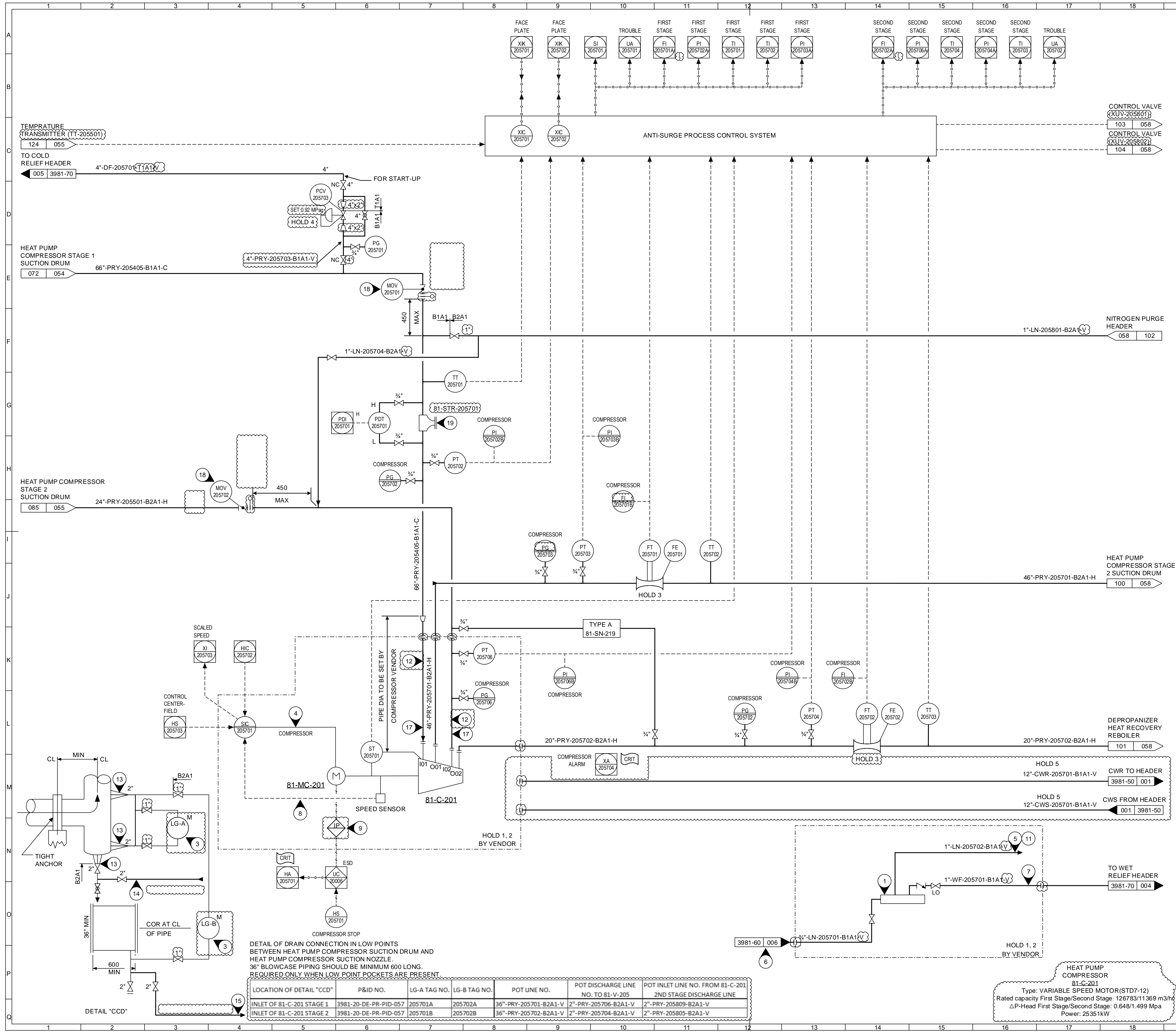
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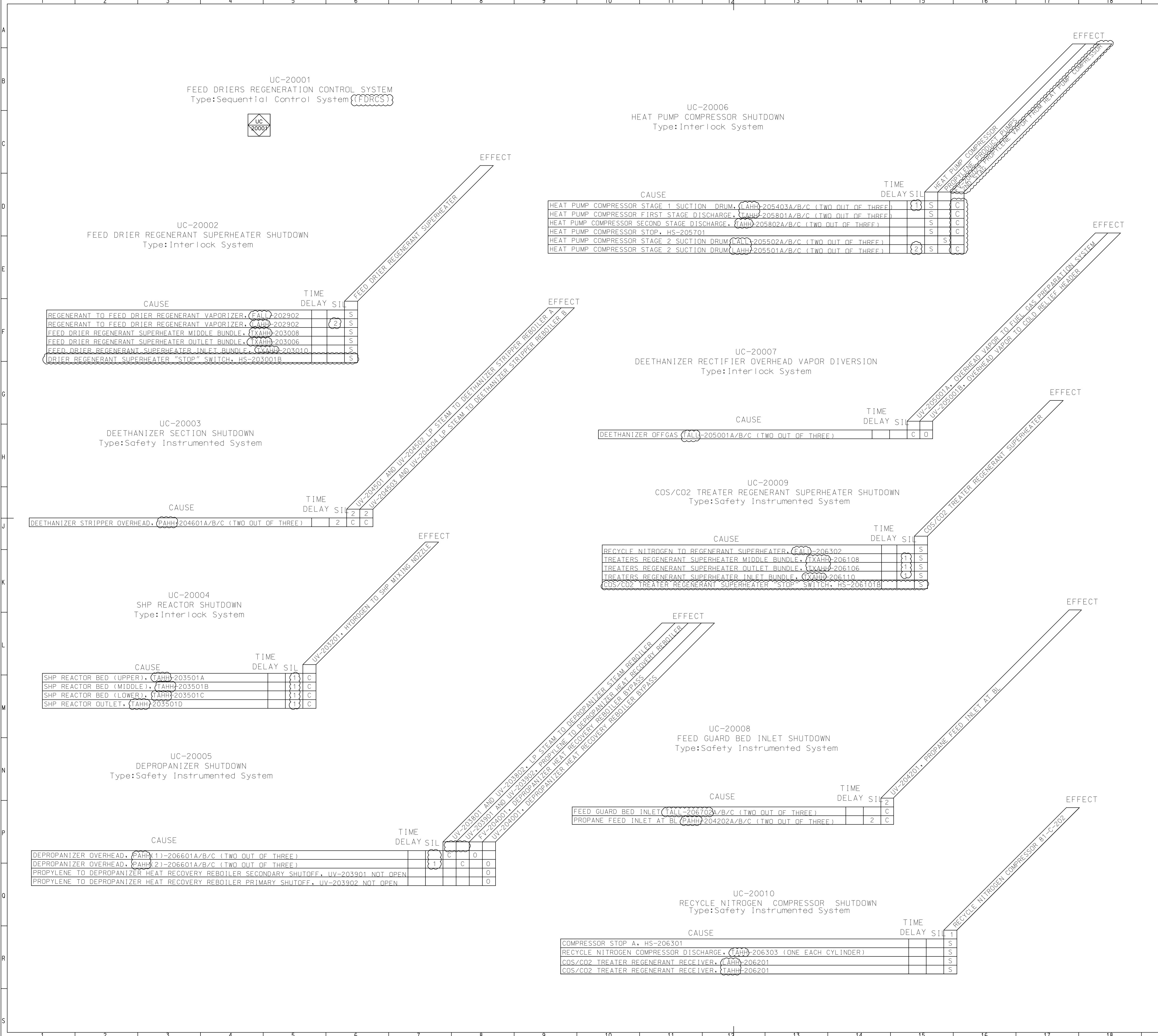
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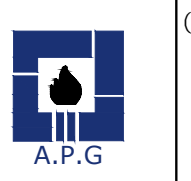
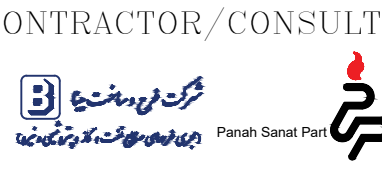
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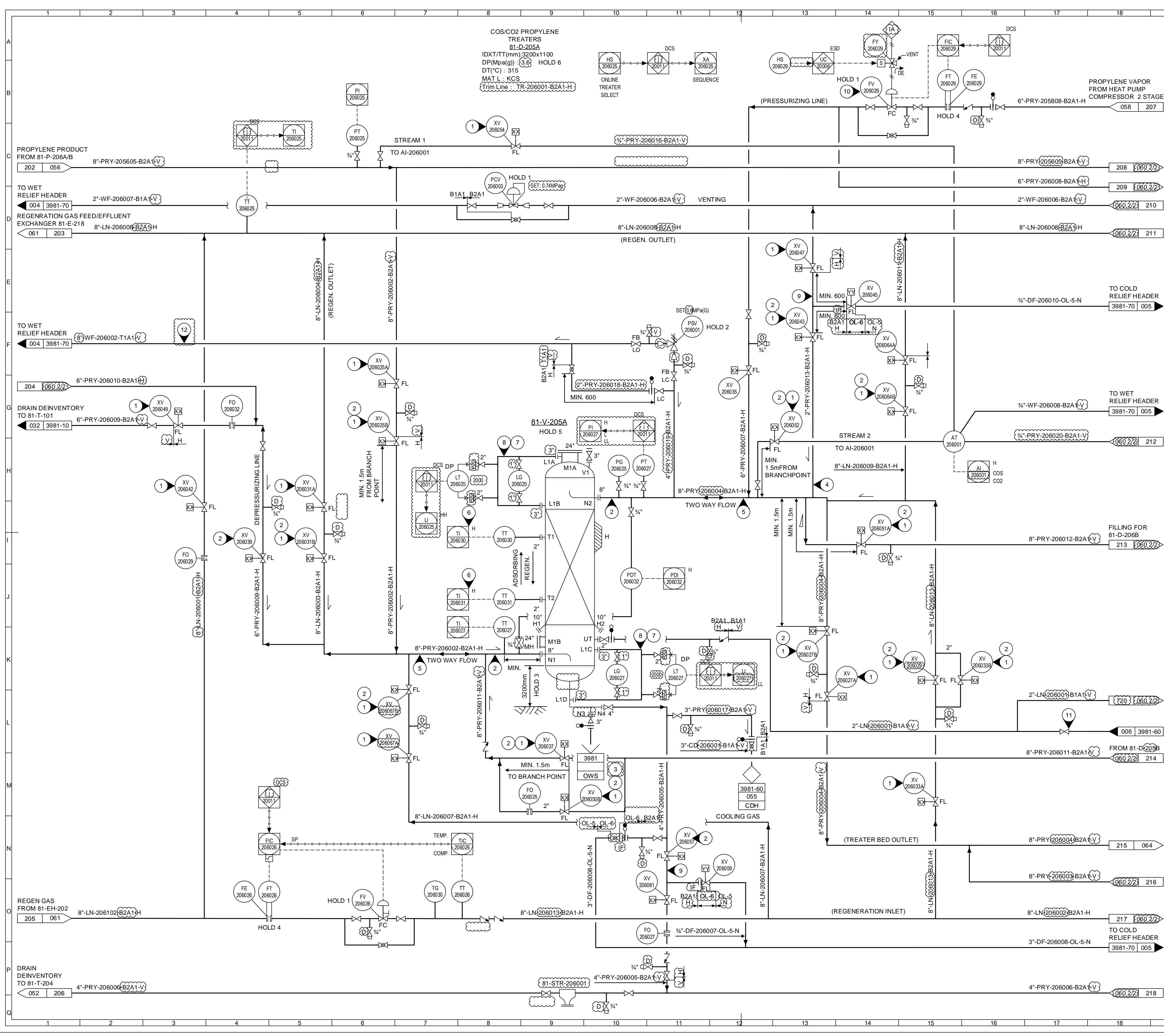


19	20	21	22	23		
REFERENCE			DRAWINGS			
NOTES						
1. DRY GAS SEAL SYSTEM (FURNISHED WITH COMPRESSOR, PROCESS GAS IS USED AS DRY GAS).						
2. DELETED.						
3. DETAIL "LV", SEE DWG 3981-00-DE-PR-PID-054 (CONNECT TO COLD RELIEF HEADER)						
4. TO VARIABLE FREQUENCY DRIVE.						
5. LOCATE OUTSIDE COMPRESSOR SHELTER.						
6. FOR SEPARATION GAS ONLY						
7. SEAL GAS VENT (SIZE BY COMPRESSOR SUPPLIER)						
8. FURNISHED BY COMPRESSOR SUPPLIER						
9. SHUTDOWN SYSTEM FURNISHED WITH COMPRESSOR						
10. DELETED						
11. SEPARATE VENT TO ATMOSPHERE AT SAFE LOCATION						
12. DETAIL "CCD"						
13. PROVIDE ADEQUATE STIFFENING						
14. 2" FROM HEAT PUMP COMPRESSOR SECOND STAGE DISCHARGE, SEE DWG 3981-20-DE-PR-PID-058.						
15. 2" TO HEAT PUMP COMPRESSOR STAGE 2 SUCTION DRUM, SEE DWG 3981-20-DE-PR-PID-055.						
16. DELETED.						
17. INLET PIPING SIZE AND NOZZLES REQUIRED SUBJECT TO COMPRESSOR VENDOR SELECTION.						
18. DETAIL "MOV", SEE DWG 3981-20-DE-PR-PID-018.						
19. STRAINER OF COMPRESSOR SUCTION IS USUALLY PROVIDED BY COMPRESSOR VENDOR.						
20. THE ACTUAL SETTLE OUT PRESSURE WILL BE DEFINED DURING DETAIL ENGINEERING, BASED ON FINAL DETAILED PIPING LAYOUT AND EQUIPMENT VOLUMES.						
GENERAL NOTES:						
1. FOR GENERAL LEGEND, ABBREVIATIONS, NOMENCLATURE, INSTRUMENTATION, EQUIPMENT SYMBOLOGY AND GENERAL DETAILS SEE DWG'S 3981-00-DE-PR-PID-045 THRU 3981-00-DE-PR-PID-055.						
2. EACH INSTRUMENT TAG NUMBER HAS A PLANT IDENTIFICATION NUMBER (PROJECT CODE=81) WHICH WILL NOT BE SHOWN ON THE PID'S.						
HOLDS						
1. COMPRESSOR PACKAGE DETAILS WITHIN VENDOR BATTERY LIMIT.						
2. REQUIRED UTILITY AND LINE SIZES FOR COMPRESSOR PACKAGE.						
3. FLOWMETER CONNECTION SIZE.						
4. CONTROL VALVE, ITS ISOLATION, BY PASS VALVE SIZE AND NUMBER OF EXPANDER/REDUCER.						
5. LINE SIZE						
01	ISSUED FOR APPROVAL	10-Jan-2026	F.KHODADAD	M.JAMSHIDI	M.H.ESHRAHGH	
00	ISSUED FOR COMMENT	06-Aug-2025	M.KHERADKAR	M.JAMSHIDI	M.H.ESHRAHGH	
REV	PURPOSE OF ISSUE	ISSUE DATE	PREPARE	CHECKED	APPROVED	
OWNER: 		MC: 	CONTRACTOR/CONSULTANT: 			
PROJECT TITLE: PROPANE DEHYDROGENATION (PDH) PROJECT						
DOCUMENT TITLE: PIPING AND INSTRUMENT DIAGRAM HEAT PUMP COMPRESSOR						
DOC NO.:	PROJ.CODE	Sec.	PHASE	DEP.	DOC.TYPE	SERIAL NO.
	3981	20	DE	PR	PID	057
SCALE:	SIZE: A1	SHEET NO. 1 OF 1			REVISION 01	CLASS: 1
19	20	21	22	23		



REFERENCE				DRAWINGS			
NOTES							
<div>CAUSE AND EFFECT TABLE LEGEND</div> <div>SIL SAFETY INTEGRITY LEVEL (*)</div> <div>C CLOSE</div> <div>O OPEN</div> <div>R RUN</div> <div>S STOP</div> <div>T TRIP</div> <div>(*) SIL LEVELS WILL BE FINALIZED AFTER SIL STUDY DURING DETAIL DESIGN.</div>							
<div>GENERAL NOTES:</div> <div>1. FOR GENERAL LEGEND, ABBREVIATIONS, NOMENCLATURE, INSTRUMENTATION, EQUIPMENT SYMBOLOGY AND GENERAL DETAILS, SEE DWG'S 3981-00-DE-PR-PID-045 THRU 3981-00-DE-PR-PID-055</div> <div>2. EACH INSTRUMENT TAG NUMBER HAS A PLANT IDENTIFICATION NUMBER(PROJECT CODE=81) WHICH WILL NOT BE SHOWN ON THE PID'S.</div>							
HOLDS							
01	ISSUED FOR APPROVAL	10-Jan-2026	F.KHODADAD	M.JAMSHIDI	M.H.ESHRAGHI		
00	ISSUED FOR COMMENT	10-Aug-2025	M.KHERADKAR	M.JAMSHIDI	M.H.ESHRAGHI		
REV.	PURPOSE OF ISSUE	ISSUE DATE	PREPARE	CHECKED	APPROVED		
OWNER:		MC:		CONTRACTOR/CONSULTANT:			
							
PROJECT TITLE:							
PROPANE DEHYDROGENATION (PDH) PROJECT							
DOCUMENT TITLE:							
PIPING AND INSTRUMENT DIAGRAM CAUSE AND EFFECT TABLE FOR FRACTIONATION UNIT							
DOC NO.:	PROJ.CODE	Sec.	PHASE	DEP.	DOC. TYPE	SERIAL NO.	
	3981	20	DE	PR	PID	059	
SCALE:	SIZE: A1	SHEET NO: 1 OF 1		REVISION: 01		CLASS: 1	

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REFERENCE

DRAWINGS

NOTES

1. PISTON OPERATORS ARE TO BE INTERLOCKED SUCH THAT THE LIQUID C3'S & REGENERATION VALVES CANNOT BE SIMULTANEOUSLY OPENED. VALVES TO BE IN HORIZONTAL POSITION AND STEMS TO BE VERTICAL.

2. TREATER BED INLET/OUTLET HEADERS AND XVS TO HAVE MINIMUM LIQUID DEAD LEGS.

3. BYPASS VALVES ARE USED TO FILL VESSELS WITH LIQUID AND TO MAINTAIN SMALL FLOW THROUGH BED AFTER REGENERATION AND PRIOR TO COMING ON LINE.

4. LOCATE AT HIGH POINT.

5. MINIMIZE POCKETS ON PIPING TO/FROM TREATERS. PROVIDE SUFFICIENT LOW POINT DRAINS TO REMOVE ANY CONDENSATION THAT MAY OCCUR WHEN TREATER IS NOT ONLINE OR BEING REGENERATED.

6. TOP THERMOCOUPLE SHOULD BE 180° OPPOSITE TO BOTTOM THERMOCOUPLE.

7. SEE STD DWG 8-121.

8. DETAIL "LV", SEE DWG 3981-00-DE-PR-PID-054. (CONNECT TO COLD RELIEF HEADER).

9. DETAIL "Z".

10. DETAIL "CV" SEE DWG 3981-DE-PR-PID-054 (CONNECT TO COLD RELIEF HEADER).

11. LOCATE CLOSE TO LP NITROGEN HEADER.

12. THE SELECTED PIPE CLASS IS DUE TO THE LOW TEMPERATURE IN THE INITIAL DISCHARGE OF LIQUID HYDROCARBONS.

GENERAL NOTES:

1. FOR GENERAL LEGEND, ABBREVIATIONS, NOMENCLATURE, INSTRUMENTATION, EQUIPMENT SYMBOLOLOGY AND GENERAL DETAILS SEE DWG'S 3981-00-DE-PR-PID-045 THRU 3981-00-DE-PR-PID-055.

2. EACH INSTRUMENT TAG NUMBER HAS A PLANT IDENTIFICATION NUMBER (PROJECT CODE=81) WHICH WILL NOT BE SHOWN ON THE PID'S.

HOLDS

1. CONTROL VALVE, ITS ISOLATION, BY PASS VALVE SIZE AND NUMBER OF EXPANDER/REDUCER.

2. PSV ORIFICE SIZE, ITS INLET/OUTLET LINE SIZE AND CORRESPONDING VESSEL NOZZLE SIZE.

3. ELEVATION.

4. FLOWMETER CONNECTION SIZE.

5. VESSEL DIMENSION SHALL BE CONFIRMED BY ADSORBENT VENDOR.

6. DESIGN PRESSURE TO BE FINALIZED AFTER PUMP SHUT OFF PRESSURE CALCULATION.

OWNER:

MC:

CONTRACTOR/CONSULTANT:

PROJECT TITLE:

PROPANE DEHYDROGENATION (PDH) PROJECT

DOCUMENT TITLE:

PIPING AND INSTRUMENT DIAGRAM
COS/CO2 PROPYLENE TREATER A

DOC NO.:

PROJ.CODE

Sec.

PHASE

DEF.

DOC.TYPE

SERIAL NO.

SCALE:

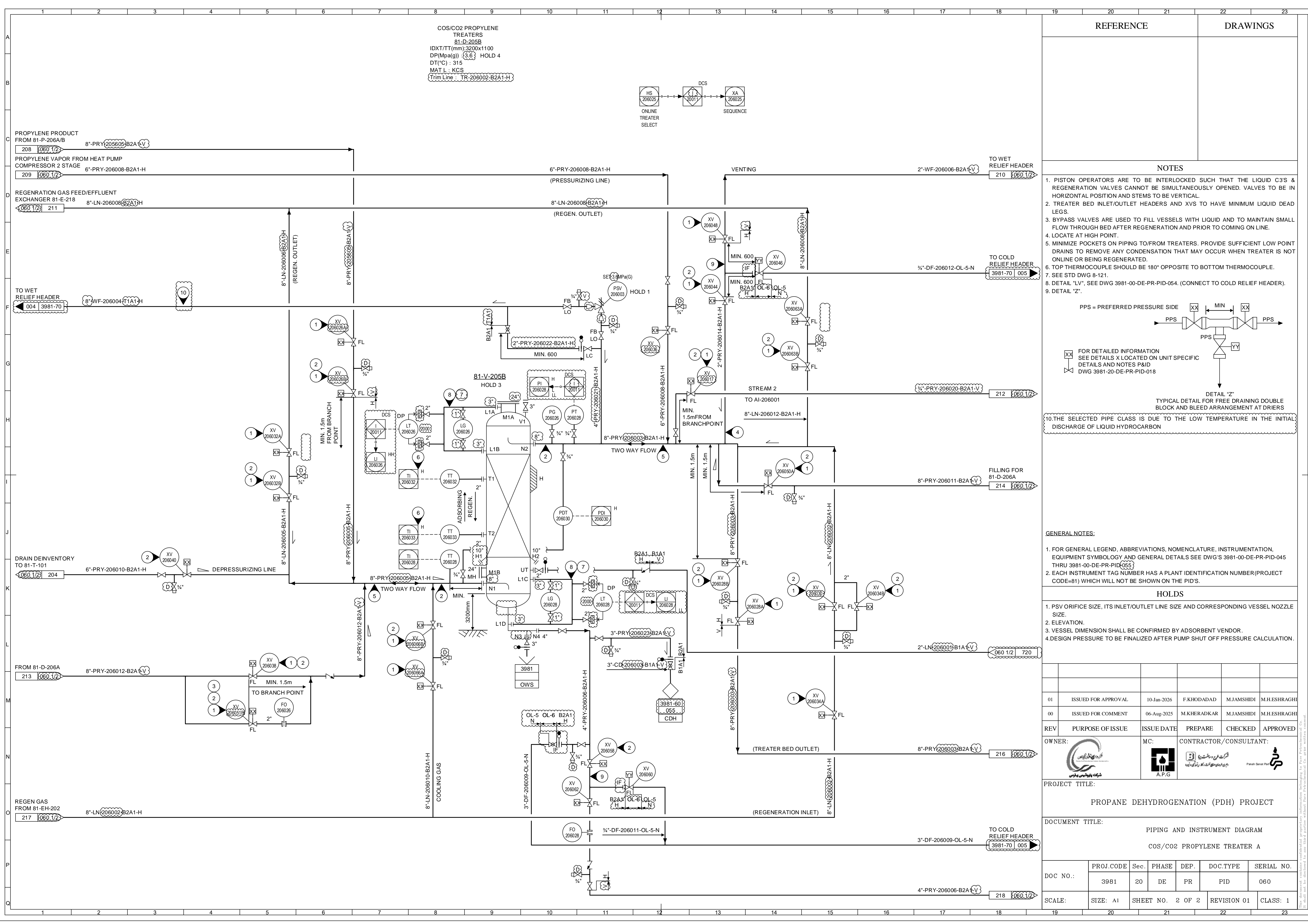
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SHEET NO. 1 OF 2

REVISION 01

CLASS: 1

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REFERENCE

DRAWINGS

NOTES

1. PISTON OPERATORS ARE TO BE INTERLOCKED SUCH THAT THE LIQUID C3'S & REGENERATION VALVES CANNOT BE SIMULTANEOUSLY OPENED. VALVES TO BE IN HORIZONTAL POSITION AND STEMS TO BE VERTICAL.

2. TREATER BED INLET/OUTLET HEADERS AND XVS TO HAVE MINIMUM LIQUID DEAD LEGS.

3. BYPASS VALVES ARE USED TO FILL VESSELS WITH LIQUID AND TO MAINTAIN SMALL FLOW THROUGH BED AFTER REGENERATION AND PRIOR TO COMING ON LINE.

4. LOCATE AT HIGH POINT.

5. MINIMIZE POCKETS ON PIPING TO/FROM TREATERS. PROVIDE SUFFICIENT LOW POINT DRAINS TO REMOVE ANY CONDENSATION THAT MAY OCCUR WHEN TREATER IS NOT ONLINE OR BEING REGENERATED.

6. TOP THERMOCOUPLE SHOULD BE 180° OPPOSITE TO BOTTOM THERMOCOUPLE.

7. SEE STD DWG 8-121.

8. DETAIL "LV", SEE DWG 3981-00-DE-PR-PID-054. (CONNECT TO COLD RELIEF HEADER).

9. DETAIL "Z".

PPS = PREFERRED PRESSURE SIDE

FOR DETAILED INFORMATION SEE DETAILS X LOCATED ON UNIT SPECIFIC DETAILS AND NOTES P&ID DWG 3981-20-DE-PR-PID-018

DETAIL "Z"

TYPICAL DETAIL FOR FREE DRAINING DOUBLE BLOCK AND BLEED ARRANGEMENT AT DRIERS

10. THE SELECTED PIPE CLASS IS DUE TO THE LOW TEMPERATURE IN THE INITIAL DISCHARGE OF LIQUID HYDROCARBON

GENERAL NOTES:

1. FOR GENERAL LEGEND, ABBREVIATIONS, NOMENCLATURE, INSTRUMENTATION, EQUIPMENT SYMBOLOGY AND GENERAL DETAILS SEE DWG'S 3981-00-DE-PR-PID-045 THRU 3981-00-DE-PR-PID-055.

2. EACH INSTRUMENT TAG NUMBER HAS A PLANT IDENTIFICATION NUMBER (PROJECT CODE=81) WHICH WILL NOT BE SHOWN ON THE PID'S.

HOLDS

1. PSV ORIFICE SIZE, ITS INLET/OUTLET LINE SIZE AND CORRESPONDING VESSEL NOZZLE SIZE.

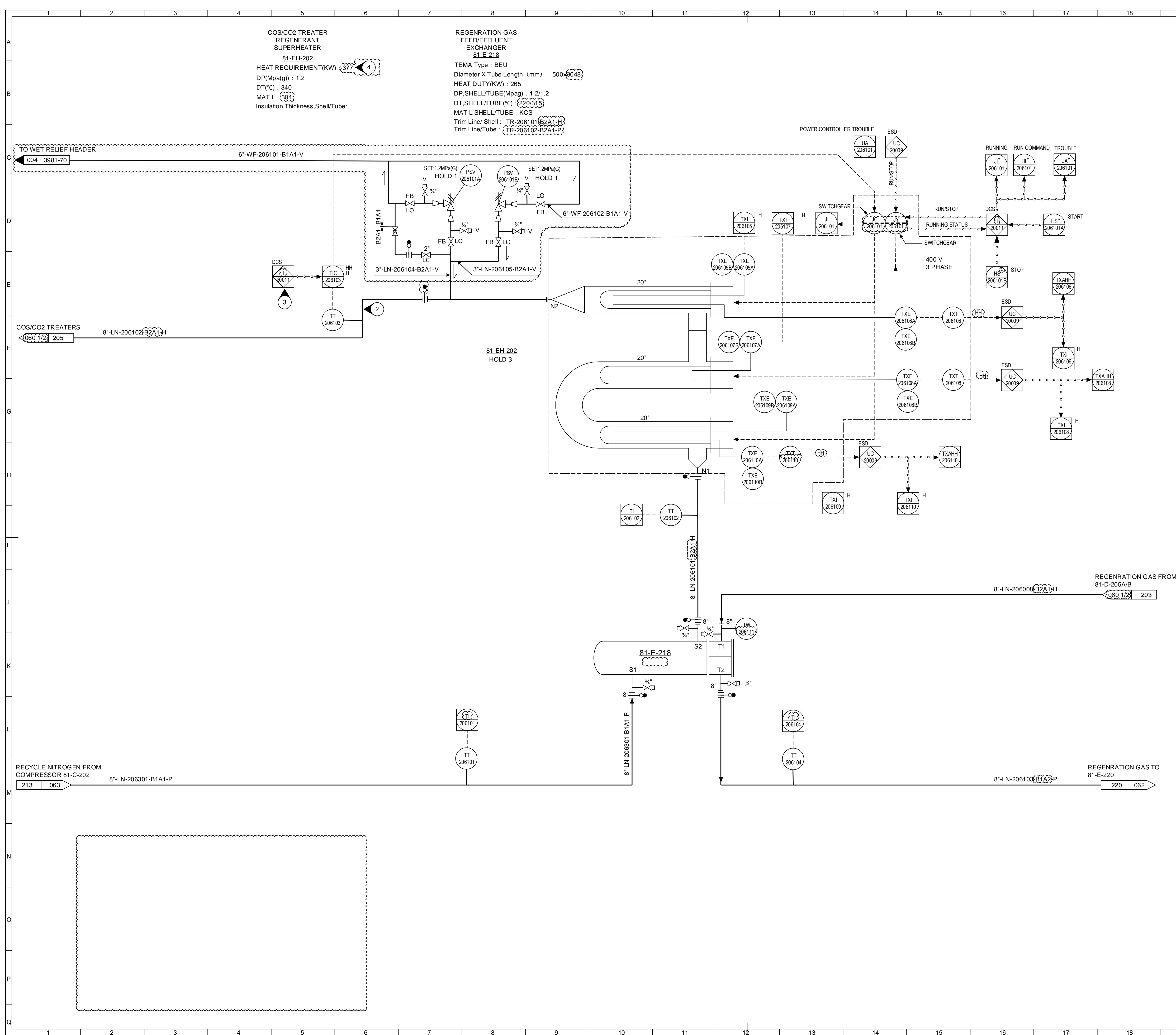
2. ELEVATION.

3. VESSEL DIMENSION SHALL BE CONFIRMED BY ADSORBENT VENDOR.

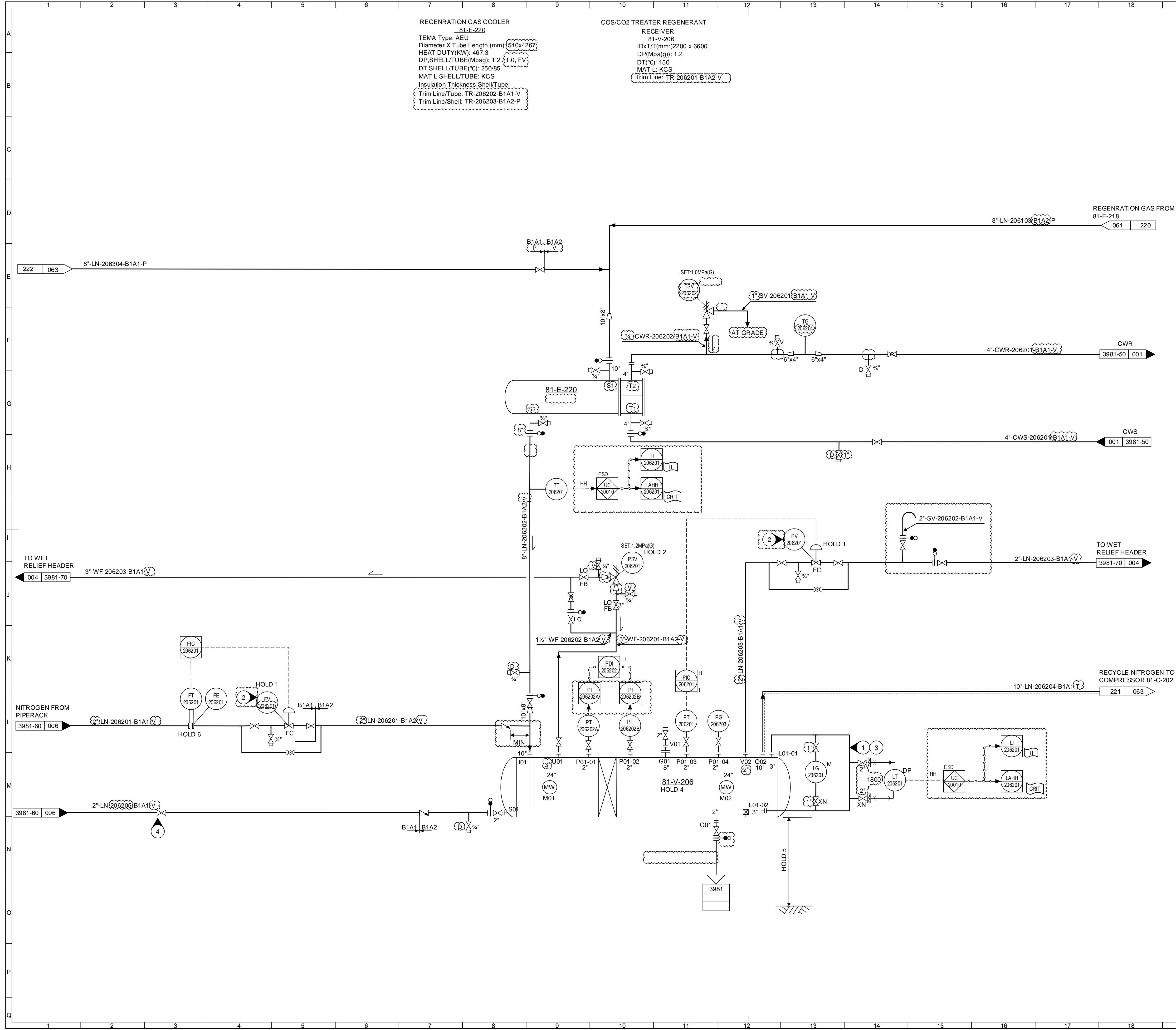
4. DESIGN PRESSURE TO BE FINALIZED AFTER PUMP SHUT OFF PRESSURE CALCULATION.

01	ISSUED FOR APPROVAL	10-Jan-2026	F.KHODADAD	M.JAMSHIDI	M.H.ESHRAIGHI
00	ISSUED FOR COMMENT	06-Aug-2025	M.KHERADKAR	M.JAMSHIDI	M.H.ESHRAIGHI
REV	PURPOSE OF ISSUE	ISSUE DATE	PREPARE	CHECKED	APPROVED
OWNER:		MC:		CONTRACTOR/CONSULTANT:	
PROJECT TITLE:					
PROPANE DEHYDROGENATION (PDH) PROJECT					
DOCUMENT TITLE:					
PIPING AND INSTRUMENT DIAGRAM					
COS/CO2 PROPYLENE TREATER A					
DOC NO.:	PROJ.CODE	Sec.	PHASE	DEF.	DOC.TYPE
	3981	20	DE	PR	PID
SCALE:	SIZE: A1	SHEET NO. 2 OF 2		REVISION 01	CLASS: 1

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19	20	21	22	23
REFERENCE			DRAWINGS	
NOTES				
1. LOCATE AS CLOSE TO TREATERS AS POSSIBLE.				
2. MAKE CONNECTION DOWNSTREAM OF ELBOW.				
3. INTERLOCK 1320011 SETS THE TEMPERATURE SETPOINT FOR TIC-206103 DURING THE HEATING STEP.				
4.WILL BE FINALIZED AFTER RECEIVING VENDOR DATA.				



REGENERATION GAS COOLER
81-E-220
TEMA Type: AEU
Diameter X Tube Length (mm): 540x4267
HEAT DUTY(KW): 467.3
DP,SHELL/TUBE(Mpag): 1.2 {1.0, FV
DT,SHELL/TUBE(°C): 250/85
MAT L SHELL/TUBE: KCS
Insulation Thickness,Shell/Tube:
Trim Line/Tube: TR-206202-B1A1-V
Trim Line/Shell: TR-206203-B1A2-P

COS/CO2 TREATER REGENERANT
RECEIVER
81-V-206
IDxTT(mm.):2200 x 6600
DPM(Mpa(g)): 1.2
DT(°C): 150
MAT L: KCS
Trim Line: TR-206201-B1A2-V

REFERENCE	DRAWINGS

- NOTES
- SEE STD DWG 8-121.
 - DETAIL "CV", SEE DWG 3981-00-DE-PR-PID-054.
 - DETAIL "LVD", SEE DWG 3981-00-DE-PR-PID-054.
 - LOCATE CLOSE TO LP NITROGEN HEADER.

- GENERAL NOTES:
- FOR GENERAL LEGEND, ABBREVIATIONS, NOMENCLATURE, INSTRUMENTATION, EQUIPMENT SYMBOLOLOGY AND GENERAL DETAILS SEE DWG'S 3981-00-DE-PR-PID-045 THRU 3981-00-DE-PR-PID-055
 - EACH INSTRUMENT TAG NUMBER HAS A PLANT IDENTIFICATION NUMBER(PROJECT CODE=81) WHICH WILL NOT BE SHOWN ON THE PID'S.

- HOLDS
- CONTROL VALVE, ITS ISOLATION, BY PASS VALVE SIZE AND NUMBER OF EXPANDER/REDUCER
 - PSV ORIFICE SIZE, ITS INLET/OUTLET LINE SIZE AND CORRESPONDING VESSEL NOZZLE SIZE
 - DELETED
 - VESSEL DIMENSION SHALL BE CONFIRMED BY ADSORBENT VENDOR.
 - ELEVATION
 - FLOWMETER CONNECTION SIZE

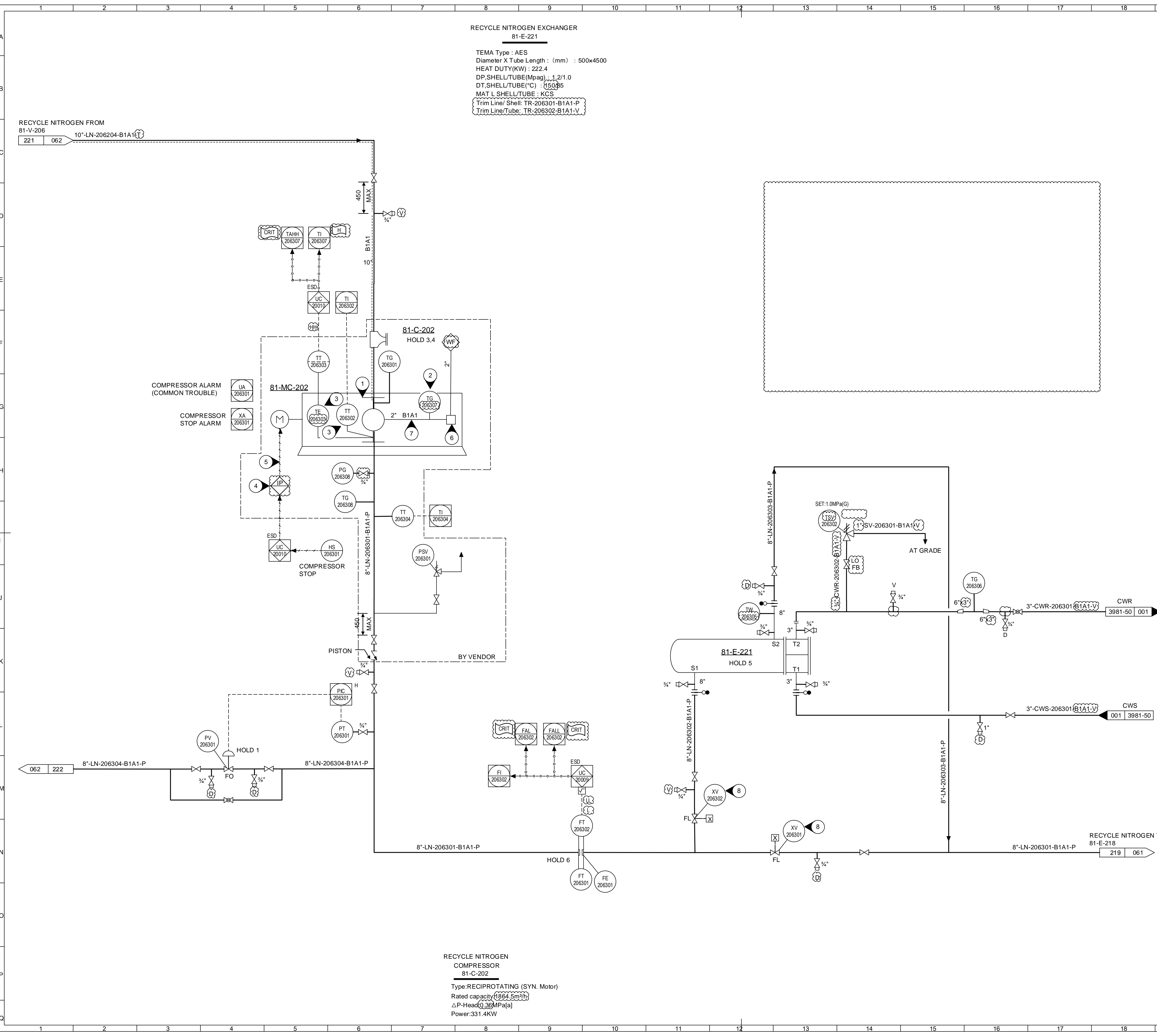
01	ISSUED FOR APPROVAL	10-Jan-2026	F.KHODADAD	M.JAMSHIDI	M.H.ESHRAGHI
00	ISSUED FOR COMMENT	06-Aug-2025	M.KHERADKAR	M.JAMSHIDI	M.H.ESHRAGHI
REV	PURPOSE OF ISSUE	ISSUE DATE	PREPARE	CHECKED	APPROVED
OWNER:	MC:	CONTRACTOR/CONSULTANT:			

PROJECT TITLE:
PROPANE DEHYDROGENATION (PDH) PROJECT

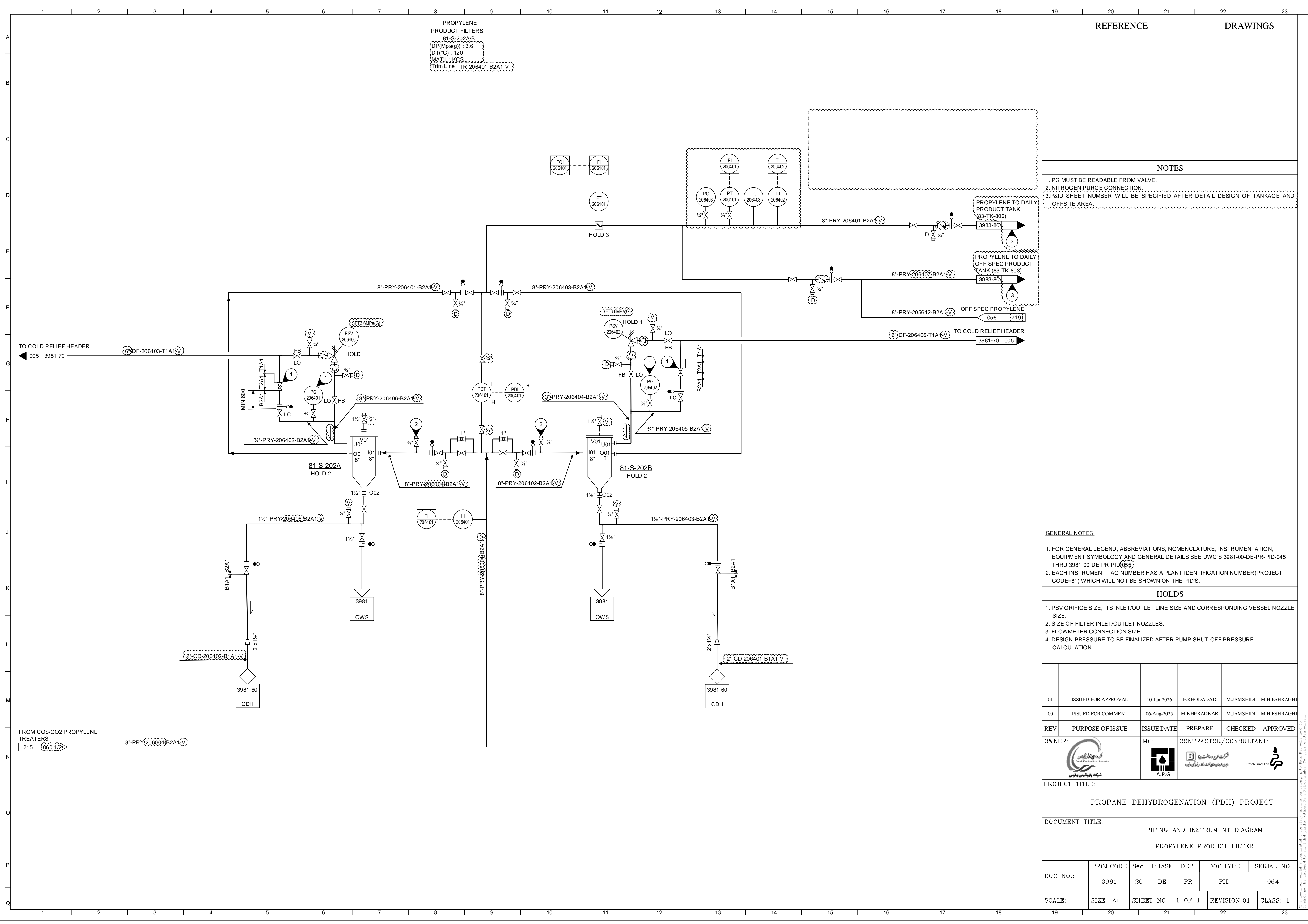
DOCUMENT TITLE:
PIPING AND INSTRUMENT DIAGRAM
COS/CO2 TREATER REGENERANT RECIEVER

DOC NO.:	PROJ.CODE	Sec.	PHASE	DEP.	DOC.TYPE	SERIAL NO.
	3981	20	DE	PR	PID	062
SCALE:	SIZE: A1	SHEET NO. 1 OF 1		REVISION 01		CLASS: 1

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19	20	21	22	23		
REFERENCE			DRAWINGS			
NOTES						
1. PULSATION SUPPRESSION DEVICE. 2. BY SUPPLIER. 3. ONE FOR EACH CYLINDER 4. SHUTDOWN SYSTEM (FURNISHED WITH COMPRESSOR). 5. TO MOTOR CONTROL CIRCUIT 6. DETAIL "KP", SEE DWG 3981-00-DE-PR-PID-051. 7. PACKING VENT. 8. DETAIL "X", SEE DWG 3981-20-DE-PR-PID-018..						
GENERAL NOTES:						
1. FOR GENERAL LEGEND, ABBREVIATIONS, NOMENCLATURE, INSTRUMENTATION, EQUIPMENT SYMBOLGY AND GENERAL DETAILS SEE DWG'S 3981-00-DE-PR-PID-045 THRU 3981-00-DE-PR-PID-055 2. EACH INSTRUMENT TAG NUMBER HAS A PLANT IDENTIFICATION NUMBER(PROJECT CODE=81) WHICH WILL NOT BE SHOWN ON THE PID'S.						
HOLDS						
1. CONTROL VALVE, ITS ISOLATION, BY PASS VALVE SIZE AND NUMBER OF EXPANDER/REDUCER 2. DELETED 3. COMPRESSOR PACKAGE DETAILS WITHIN VENDOR BATTERY LIMIT 4. REQUIRED UTILITY AND LINE SIZE FOR COMPRESSOR PACKAGE 5. TYPE OF HEAT EXCHANGER, ITS NOZZLE DETAIL AND SIZE OF HX INLET/OUTLET NOZZLE 6. FLOWMETER CONNECTION SIZE						
01	ISSUED FOR APPROVAL	10-Jan-2026	F.KHODADAD	M.JAMSHIDI	M.H.ESHRAGHI	
00	ISSUED FOR COMMENT	06-Aug-2025	M.KHERADKAR	M.JAMSHIDI	M.H.ESHRAGHI	
REV	PURPOSE OF ISSUE	ISSUE DATE	PREPARE	CHECKED	APPROVED	
OWNER:		MC:	CONTRACTOR/CONSULTANT:			
PROJECT TITLE:						
PROPANE DEHYDROGENATION (PDH) PROJECT						
DOCUMENT TITLE:						
PIPING AND INSTRUMENT DIAGRAM						
RECYCLE NITROGEN COMPRESSOR						
DOC NO.:	PROJ.CODE	Sec.	PHASE	DEP.	DOC.TYPE	SERIAL NO.
	3981	20	DE	PR	PID	063
SCALE:	SIZE: A1	SHEET NO. 1 OF 1		REVISION 01	CLASS: 1	
19	20	21	22	23		



19	20	21	22	23
REFERENCE			DRAWINGS	
NOTES				
1. PG MUST BE READABLE FROM VALVE.				
2. NITROGEN PURGE CONNECTION.				
3.P&ID SHEET NUMBER WILL BE SPECIFIED AFTER DETAIL DESIGN OF TANKAGE AND OFFSITE AREA.				

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REFERENCE

DRAWINGS

NOTES

HOLDS

01

ISSUED FOR APPROVAL

10-Jan-2026

F.KHODADAD

M.JAMSHIDI

M.H.ESHRAGHI

00

ISSUED FOR COMMENT

06-Aug-2025

M.KHERADKAR

M.JAMSHIDI

M.H.ESHRAGHI

REV

PURPOSE OF ISSUE

ISSUE DATE

PREPARE

CHECKED

APPROVED

OWNER:

MC:

CONTRACTOR/CONSULTANT:

شرکت پتروشیمی پارس

A.P.G

گرفتار در شرکت پارس پتروشیمی

پارس پتروشیمی

Parsah Serati Pars

PROJECT TITLE:

PROPANE DEHYDROGENATION (PDH) PROJECT

DOCUMENT TITLE:

PIPING AND INSTRUMENT DIAGRAM

DEPROPANIZER CONDENSER- 1

DOC NO.:

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SCALE:

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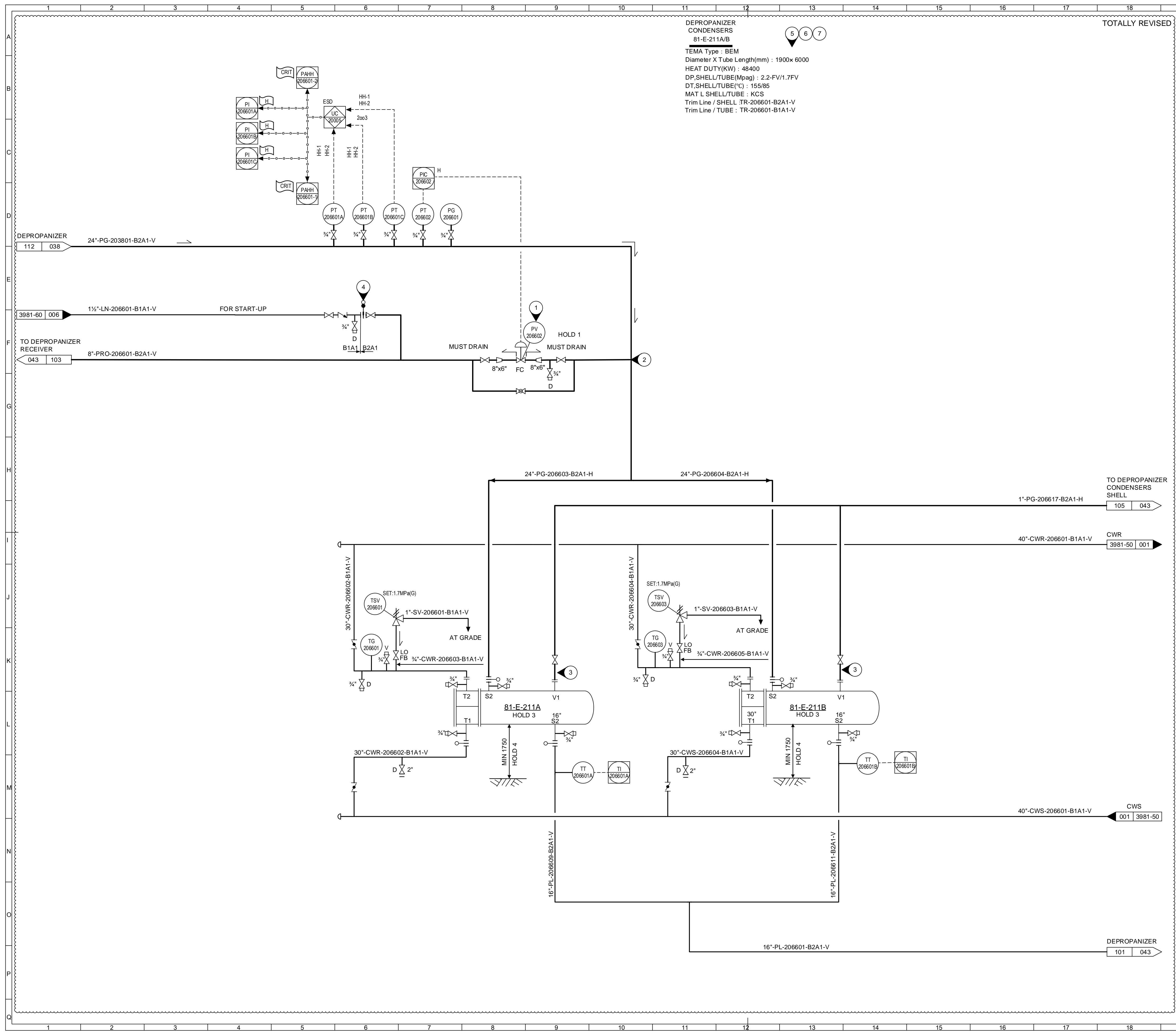
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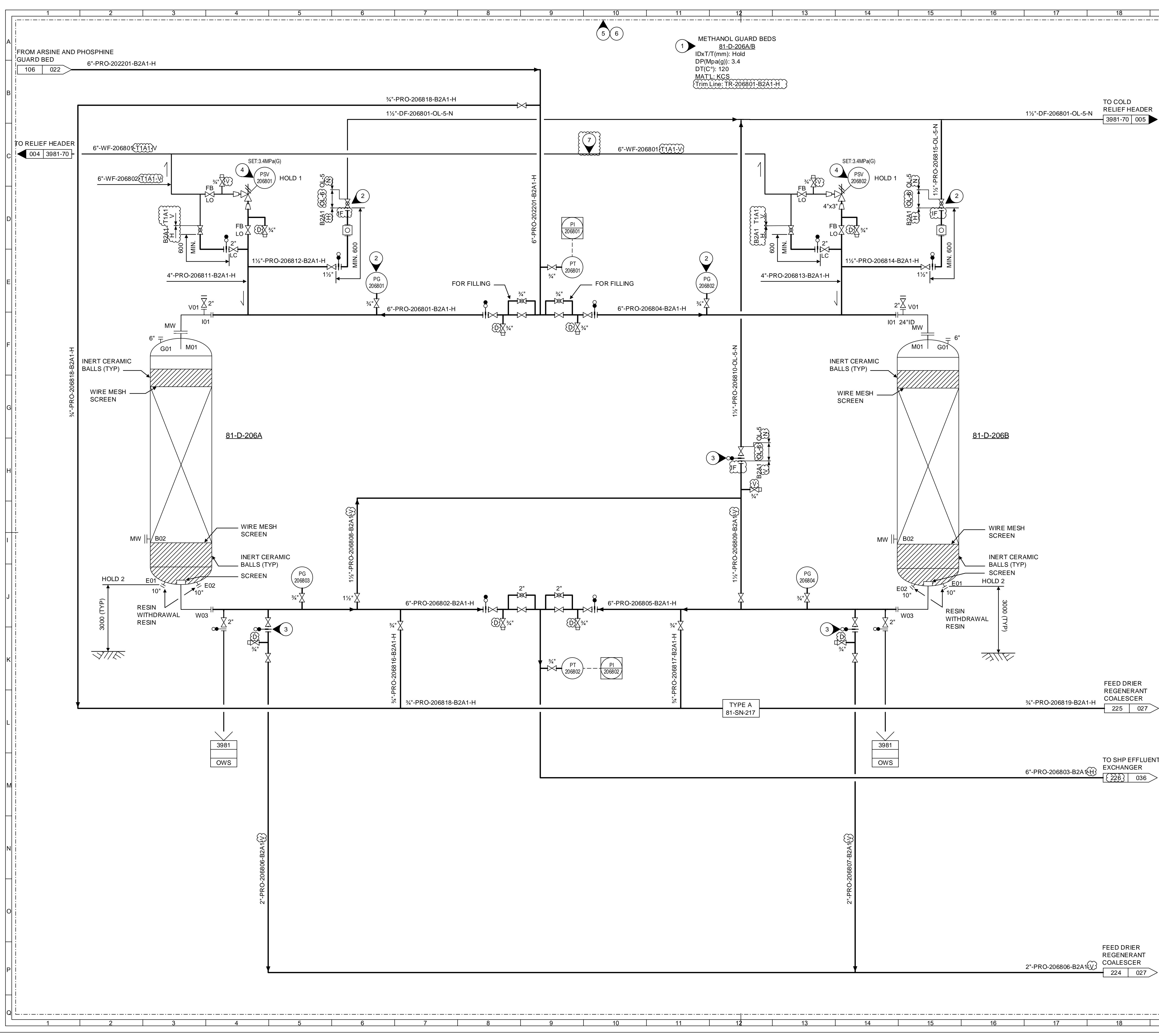
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19	20	21	22	23
REFERENCE			DRAWINGS	
NOTES				
1. DETAIL "CV", SEE DWG 3981-00-DE-PR-PID-054 (CONNECT TO COLD RELIEF HEADER).				
2. MAKE CONNECTION ON TOP OR SIDE OF PIPE. BYPASS SHALL BE MINIMUM DISTANCE FROM CONNECTION TO RECEIVER NOZZLE.				
3. LOCATE AT END OPPOSITE SHELL INLET.				
4. BLANKOFF WHEN NOT IN USE.				
5. THESE HEAT EXCHANGERS SHOULD BE FULL SYMMETRICAL.				
6. 81-V-202 SHALL BE INSTALLED ABOVE E-211A/B.				
7. THE HEAT EXCHANGER NUMBERS HAVE BEEN CHANGED DUE TO THE MODIFICATION OF THE TUBE TYPE TO A HIGH-CONDENSING DESIGN.				



19	20	21	22	23		
REFERENCE			DRAWINGS			
NOTES						
1. LOCATE VALVE SWITCHING MANIFOLD AT GRADE. 2. PG MUST BE READABLE FROM VALVE. 3. BLANKOFF WHEN NOT IN USE. 4. SAFTY VALVE TO BE LOCATED ABOVE RELIEF HEADER FOR PROVIDING CONTINUOUS SLOPE TO RELIEF HEADER. 5. SIZE OF THE METHANOL GUARD BED WILL BE FINALIZED DURING DETAIL STAGE BY PACKAGE VENDOR. 6. NECESSITY OF METHANOL GUARD BED REGENERATION SYSTEM WILL BE FINALIZED DURING DETAIL STAGE BY PACKAGE VENDOR. 7. THE SELECTED PIPE CLASS IS DUE TO THE LOW TEMPERATURE IN THE INITIAL DISCHARGE OF LIQUID HYDROCARBONS.						
GENERAL NOTES:						
1. FOR GENERAL LEGEND, ABBREVIATIONS, NOMENCLATURE, INSTRUMENTATION, EQUIPMENT SYMBOLOGY AND GENERAL DETAILS SEE DWG'S 3981-00-DE-PR-PID-045 THRU 3981-00-DE-PR-PID-055. 2. EACH INSTRUMENT TAG NUMBER HAS A PLANT IDENTIFICATION NUMBER(PROJECT CODE=81) WHICH WILL NOT BE SHOWN ON THE PID'S.						
HOLDS						
1. PSV ORIFICE SIZE, ITS INLET/OUTLET LINE SIZE AND CORRESPONDING VESSEL NOZZLE SIZE. 2. ELEVATION.						
01	ISSUED FOR APPROVAL	10-Jan-2026	F.KHODADAD	M.JAMSHIDI	M.H.ESHRAGHI	
00	ISSUED FOR COMMENT	06-Aug-2025	M.KHERADKAR	M.JAMSHIDI	M.H.ESHRAGHI	
REV	PURPOSE OF ISSUE	ISSUE DATE	PREPARE	CHECKED	APPROVED	
OWNER:		MC:	CONTRACTOR/CONSULTANT:			
PROJECT TITLE:						
PROPANE DEHYDROGENATION (PDH) PROJECT						
DOCUMENT TITLE:						
PIPING AND INSTRUMENT DIAGRAM						
METHANOL GUARD BEDS						
DOC NO.:	PROJ.CODE	Sec.	PHASE	DEP.	DOC.TYPE	SERIAL NO.
	3981	20	DE	PR	PID	068
SCALE:	SIZE: A1	SHEET NO. 1 OF 1		REVISION 01		CLASS: 1
19	20	21	22	23		