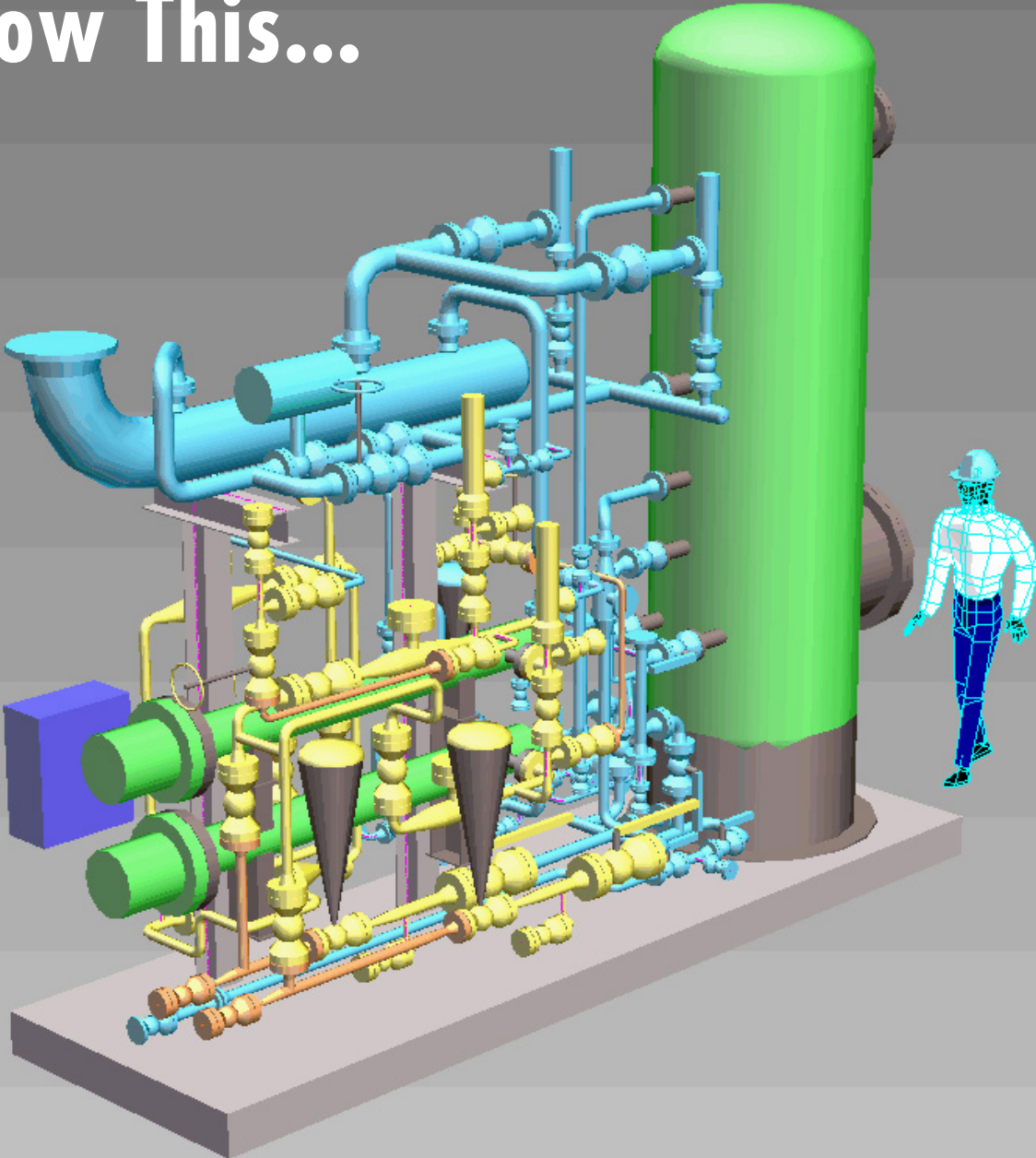
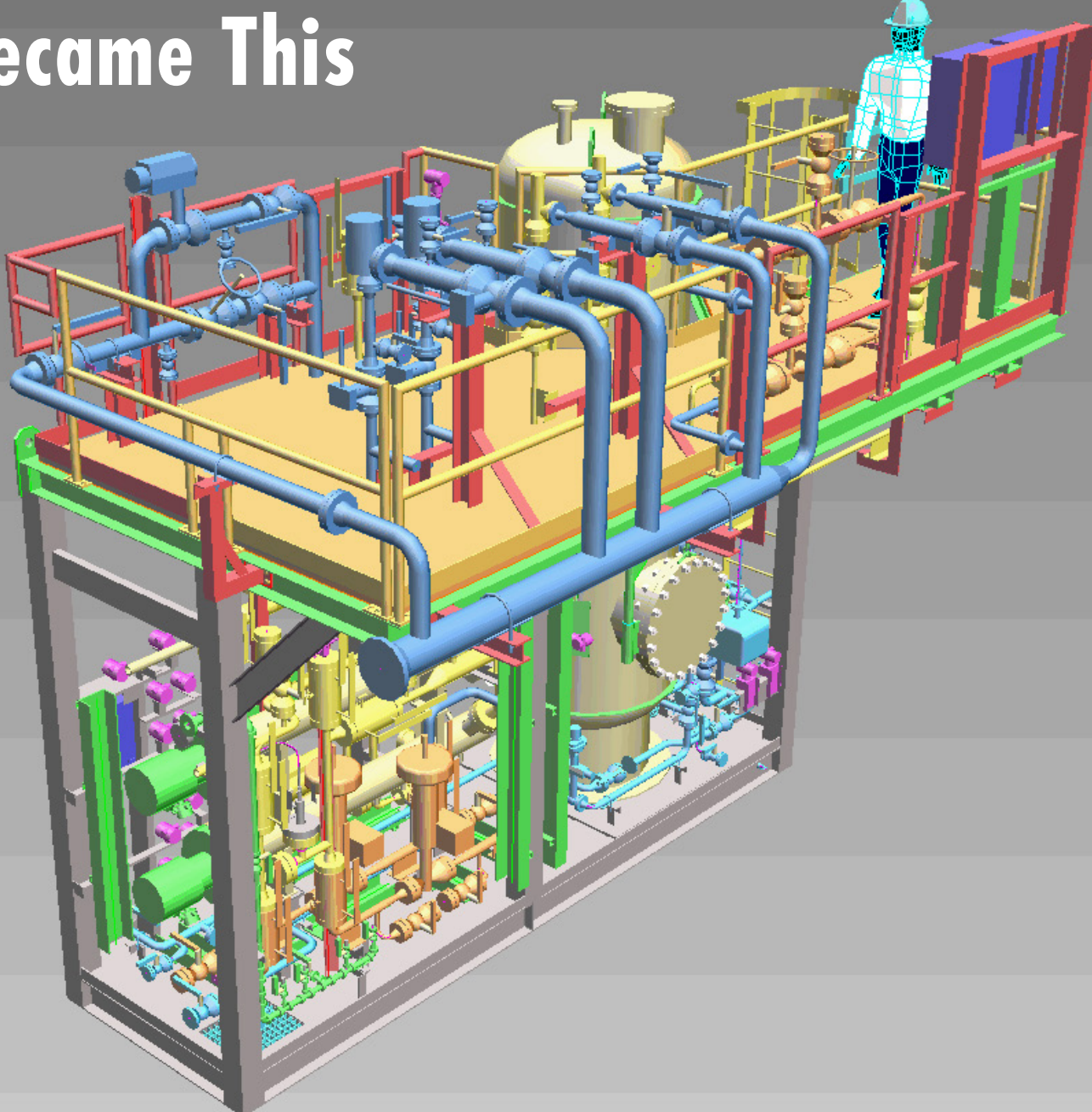


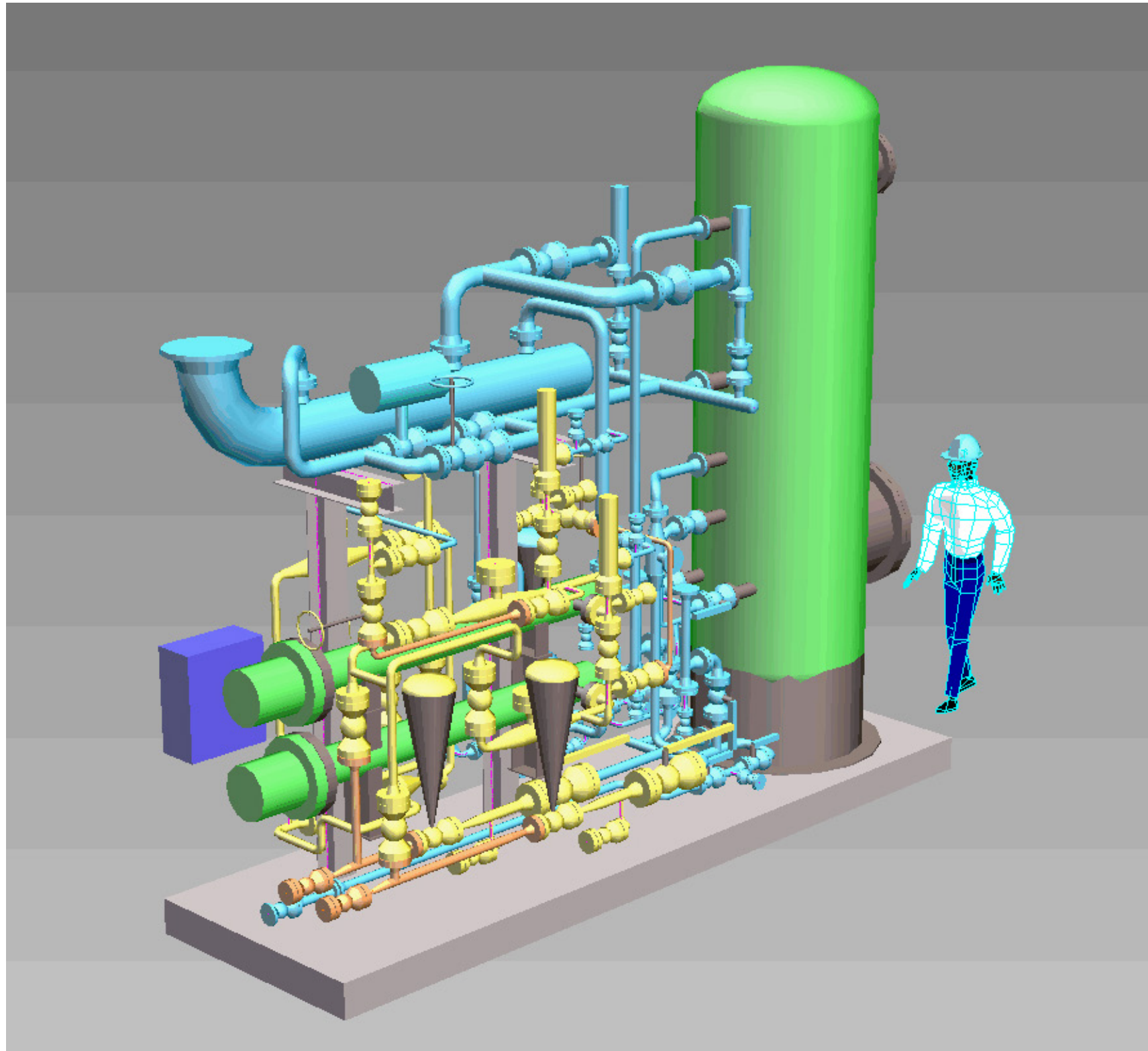
Offshore Fuel Gas Treatment Package Surprise

How This...



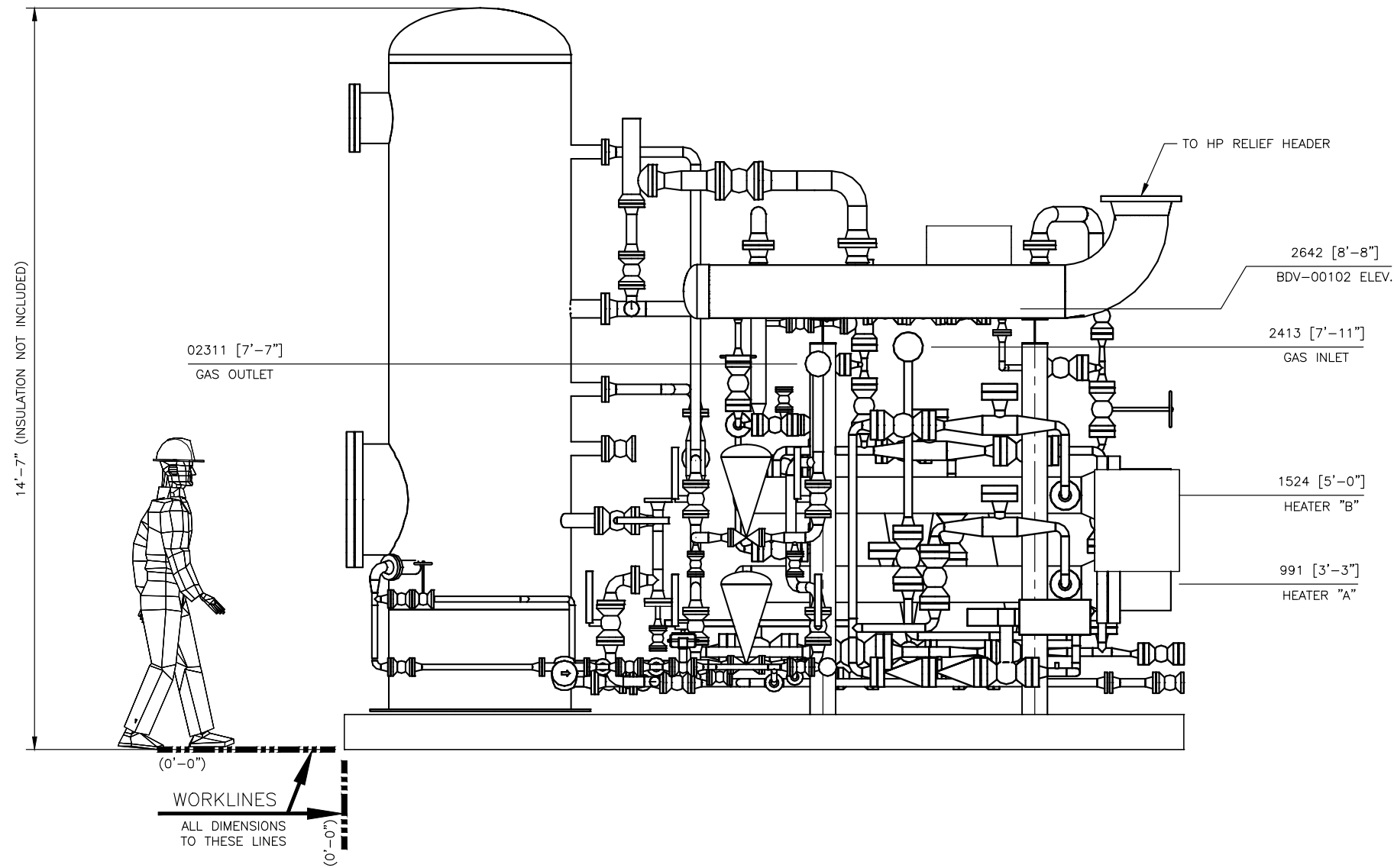
...Became This





Offshore Fuel Gas Treatment Package

Original Specifications



ELEVATION VIEW

- NOTES:
1. FOR PLAN VIEW SEE DWG. NO.: G-25167-01.
 2. FOR END VIEW SEE DWG. NO.: G-25167-03.
 3. FOR ISO VIEW SEE DWG. NO.: G-25167-04.
 4. ALL DIMENSIONS ± 1/4".



**INTEGRATED
FLOW SOLUTIONS**

6461 REYNOLDS RD, TYLER, TEXAS, USA 75708
PHONE NUMBER: +1 (903) 595-6511
EMAIL: SUPPORT@IFSOLUTIONS.COM

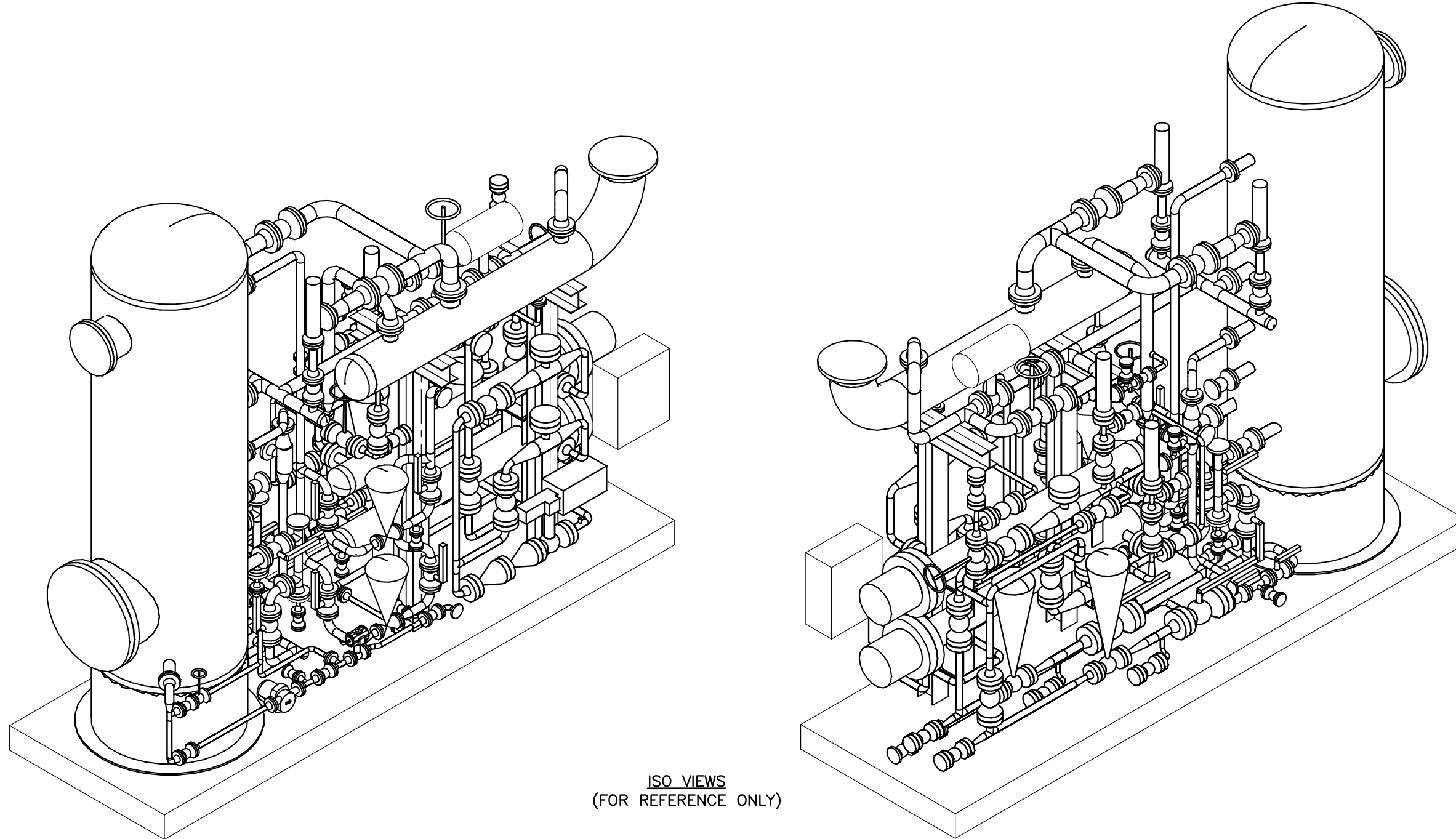
THIS DRAWING IS THE PROPERTY OF INTEGRATED FLOW SOLUTIONS AND SHALL NOT BE REPRODUCED, COPIED, LENT, NOR USED FOR ANY PURPOSE OTHER THAN THAT WHICH IT IS FURNISHED EXCEPT BY WRITTEN PERMISSION.

REV.	DATE	DESCRIPTION	DES	ENG
A	WIP	PRELIMINARY DRAWINGS	-D-	-E-

PROJECT NAME: CTR-262 DAP FUEL GAS & DIESEL SYSTEM UPGRADE
CUSTOMER NAME: FLUOR
END USER: BG DOLPHIN PLATFORM
DESCRIPTION: FUEL GAS TREATMENT SKID PACKAGE
TAG NUMBER: 145-ZZZ-0010
CUSTOMER PO#: ASTF-4-0001-262/A5TF100294
ESTIMATED DRY WEIGHT: TBD
ESTIMATED OPERATING WEIGHT: TBD

**GENERAL ARRANGEMENT
FUEL GAS TREATMENT SKID PACKAGE**

CLIENT No.: -				
SCALE: 2"=1'-0"	SECTION	JOB	SHEET	TOTAL SHEETS
PM.: DP	G - 25167-02		4	REV. A



ISO VIEWS
(FOR REFERENCE ONLY)

- NOTES:
 1. FOR PLAN VIEW SEE DWG. NO.: G-25167-01.
 2. FOR ELEVATION VIEW SEE DWG. NO.: G-25167-02.
 3. FOR END VIEW SEE DWG. NO.: G-25167-03.



**INTEGRATED
FLOW SOLUTIONS**

6461 REYNOLDS RD, TYLER, TEXAS, USA 75708
 PHONE NUMBER: +1 (903) 595-6511
 EMAIL: SUPPORT@IFSOLUTIONS.COM

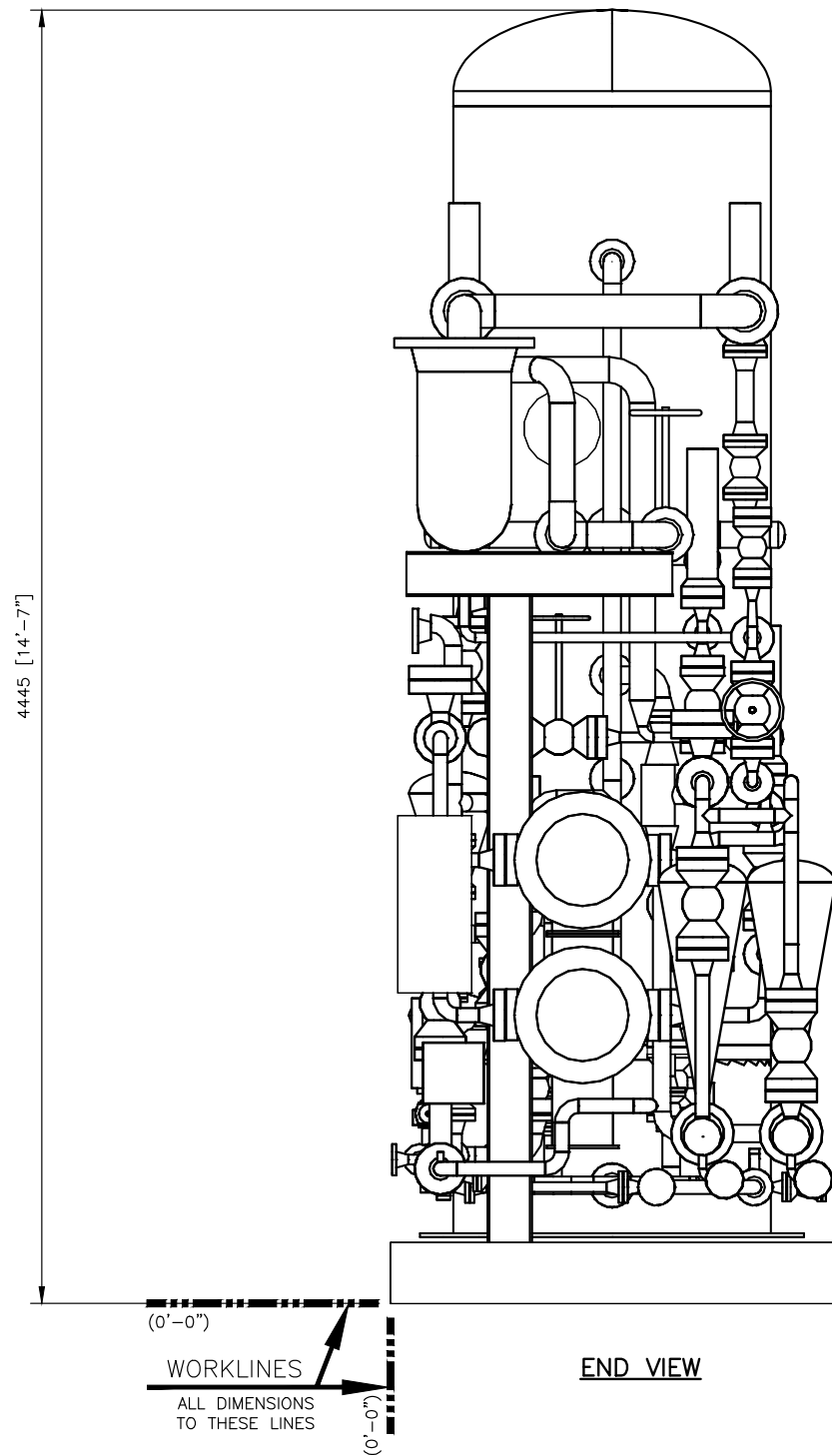
THIS DRAWING IS THE PROPERTY OF INTEGRATED FLOW SOLUTIONS AND SHALL NOT BE REPRODUCED, COPIED, LENT, NOR USED FOR ANY PURPOSE OTHER THAN THAT WHICH IT IS FURNISHED EXCEPT BY WRITTEN PERMISSION.

REV.	DATE	DESCRIPTION	DES	ENG
A	WIP	PRELIMINARY DRAWINGS	-D-	-E-

PROJECT NAME: CTR-262 DAP FUEL GAS & DIESEL SYSTEM UPGRADE
 CUSTOMER NAME: FLUOR
 END USER: BG DOLPHIN PLATFORM
 DESCRIPTION: FUEL GAS TREATMENT SKID PACKAGE
 TAG NUMBER: 145-ZZZ-0010
 CUSTOMER PO#: ASTF-4-0001-262/A5TF100294
 ESTIMATED DRY WEIGHT: TBD
 ESTIMATED OPERATING WEIGHT: TBD

**GENERAL ARRANGEMENT
FUEL GAS TREATMENT SKID PACKAGE**

CLIENT No.: -	SECTION	JOB	SHEET	TOTAL SHEETS	REV.
SCALE: NONE				4	A
PM.: DP	G - 25167-04				



- NOTES:
1. FOR PLAN VIEW SEE DWG. NO.: G-25167-01.
 2. FOR ELEVATION VIEW SEE DWG. NO.: G-25167-02.
 3. FOR ISO VIEW SEE DWG. NO.: G-25167-04.
 4. ALL DIMENSIONS $\pm 1/4"$.



**INTEGRATED
FLOW SOLUTIONS**

6461 REYNOLDS RD, TYLER, TEXAS, USA 75708
PHONE NUMBER: +1 (903) 595-6511
EMAIL: SUPPORT@IFSOLUTIONS.COM

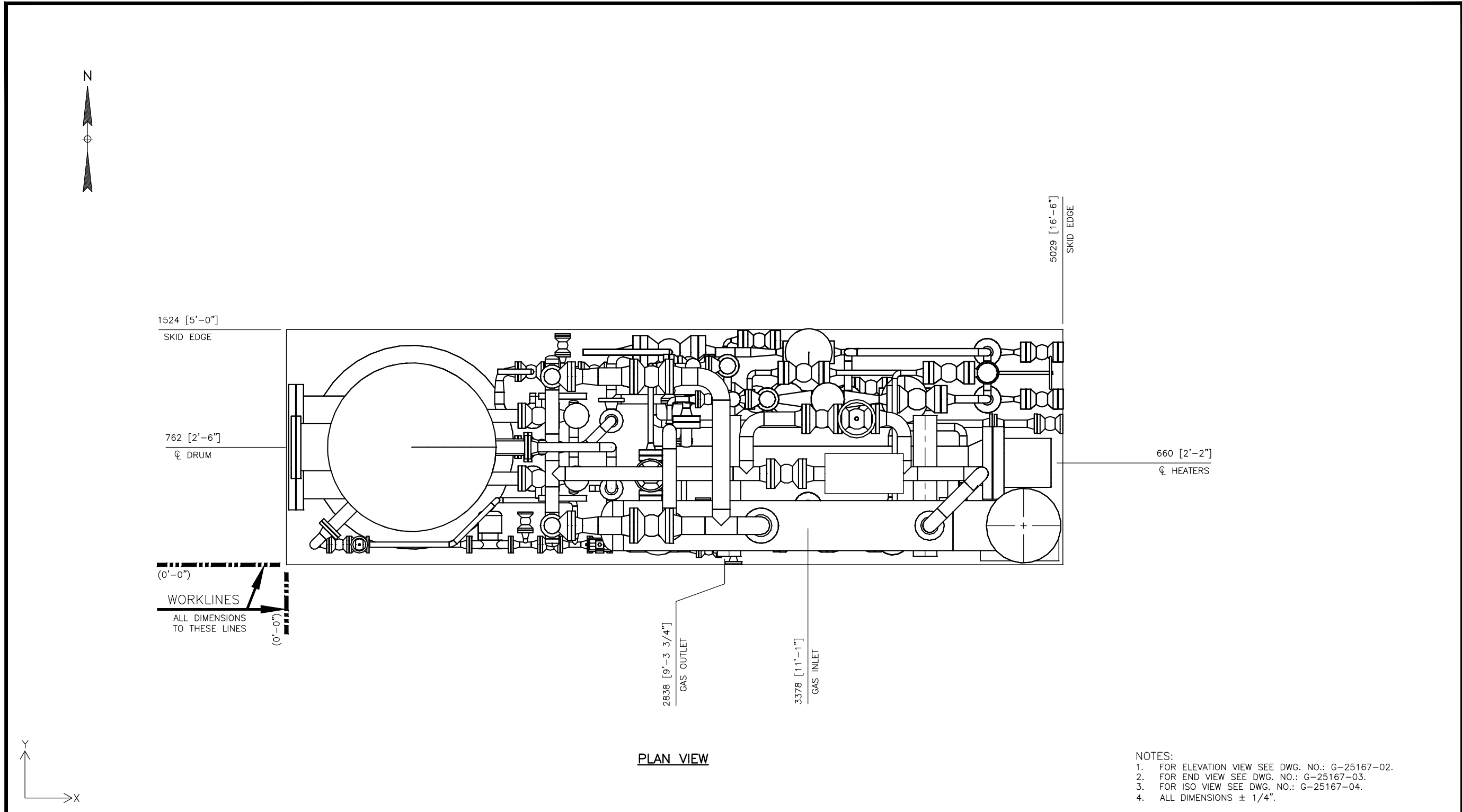
THIS DRAWING IS THE PROPERTY OF INTEGRATED FLOW SOLUTIONS AND SHALL NOT BE REPRODUCED, COPIED, LENT, NOR USED FOR ANY PURPOSE OTHER THAN THAT WHICH IT IS FURNISHED EXCEPT BY WRITTEN PERMISSION.

REV.	DATE	DESCRIPTION	DES	ENG
A	WIP	PRELIMINARY DRAWINGS	-D-	-E-


PROJECT NAME: CTR-262 DAP FUEL GAS & DIESEL SYSTEM UPGRADE
CUSTOMER NAME: FLUOR
END USER: BG DOLPHIN PLATFORM
DESCRIPTION: FUEL GAS TREATMENT SKID PACKAGE
TAG NUMBER: 145-ZZZ-0010
CUSTOMER PO#: ASTF-4-0001-262/A5TF100294
ESTIMATED DRY WEIGHT: TBD
ESTIMATED OPERATING WEIGHT: TBD

**GENERAL ARRANGEMENT
FUEL GAS TREATMENT SKID PACKAGE**

CLIENT No.: -					
SCALE: 2"=1'-0"	SECTION	JOB	SHEET	TOTAL SHEETS	REV.
PM.: DP	G - 25167-03		4		A



- NOTES:
1. FOR ELEVATION VIEW SEE DWG. NO.: G-25167-02.
 2. FOR END VIEW SEE DWG. NO.: G-25167-03.
 3. FOR ISO VIEW SEE DWG. NO.: G-25167-04.
 4. ALL DIMENSIONS ± 1/4".



**INTEGRATED
FLOW SOLUTIONS**
6461 REYNOLDS RD, TYLER, TEXAS, USA 75708
PHONE NUMBER: +1 (903) 595-6511
EMAIL: SUPPORT@IFSOLUTIONS.COM

THIS DRAWING IS THE PROPERTY OF INTEGRATED FLOW SOLUTIONS AND SHALL NOT BE REPRODUCED, COPIED, LENT, NOR USED FOR ANY PURPOSE OTHER THAN THAT WHICH IT IS FURNISHED EXCEPT BY WRITTEN PERMISSION.

REV.	DATE	DESCRIPTION	DES	ENG
A	WIP	PRELIMINARY DRAWINGS	-D-	-E-

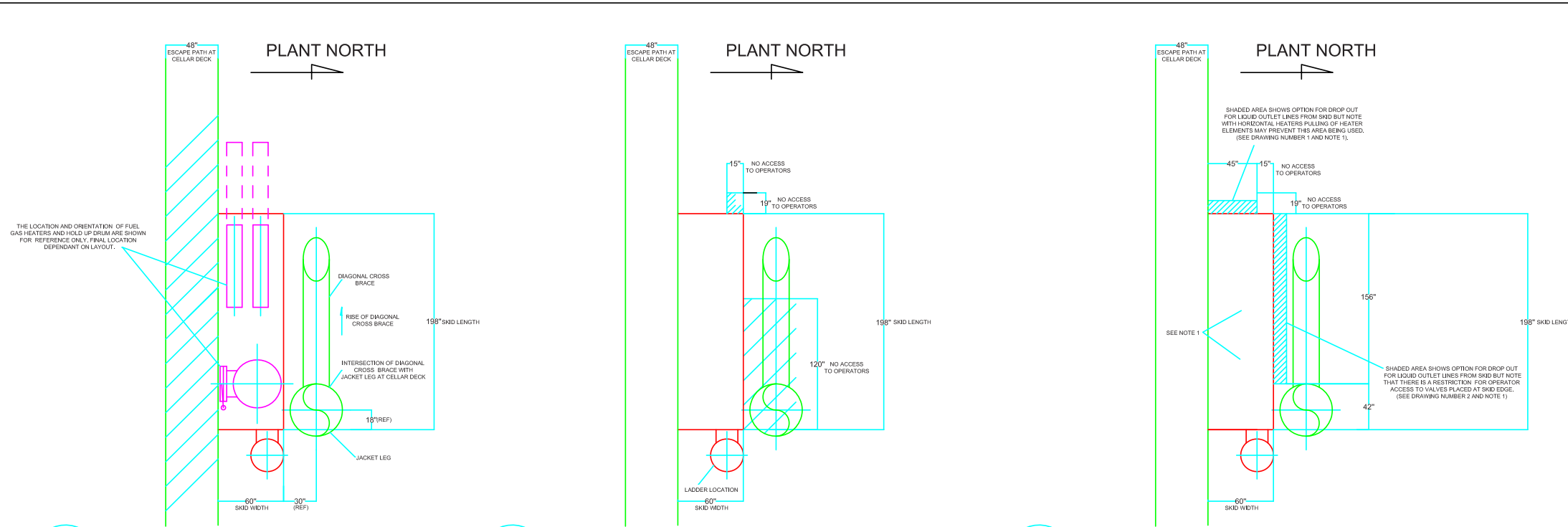
PROJECT NAME: CTR-262 DAP FUEL GAS & DIESEL SYSTEM UPGRADE
 CUSTOMER NAME: FLUOR
 END USER: BG DOLPHIN PLATFORM
 DESCRIPTION: FUEL GAS TREATMENT SKID PACKAGE
 TAG NUMBER: 145-ZZZ-0010
 CUSTOMER PO#: ASTF-4-0001-262/A5TF100294
 ESTIMATED DRY WEIGHT: TBD
 ESTIMATED OPERATING WEIGHT: TBD

**GENERAL ARRANGEMENT
FUEL GAS TREATMENT SKID PACKAGE**

CLIENT No.: -

SCALE: 2"=1'-0"	SECTION	JOB	SHEET	TOTAL SHEETS	REV.
PM.: DP	G - 25167- 01			4	A

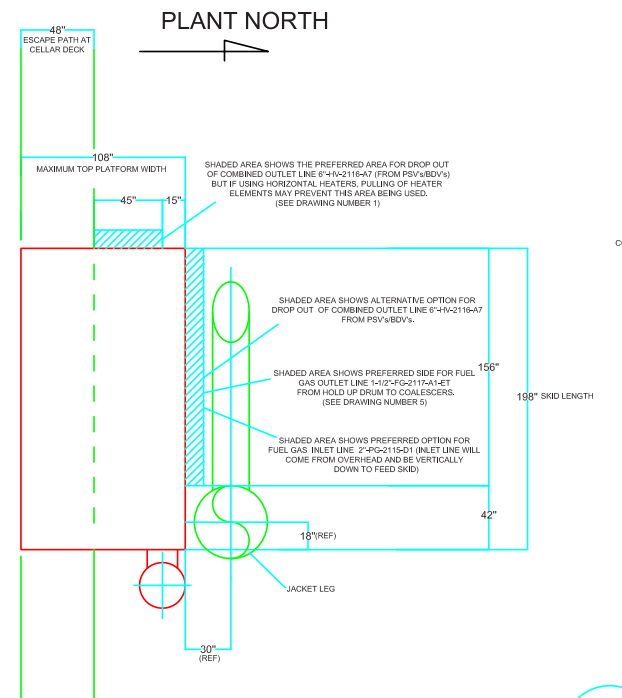
Offshore Fuel Gas Treatment Package Upgrade Study for New Specifications



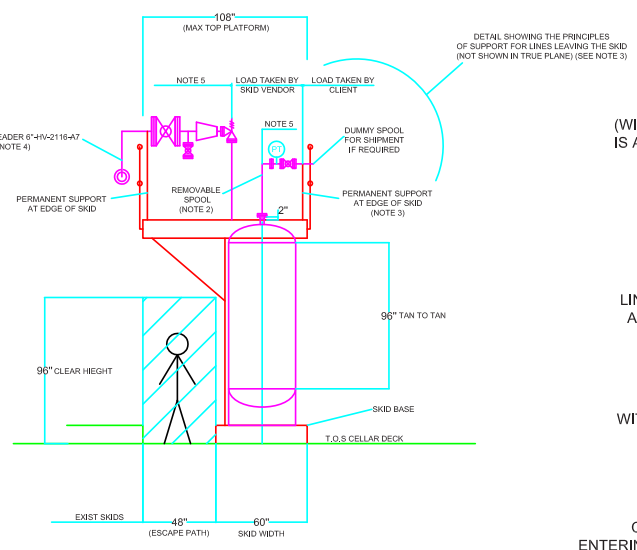
1 PLAN VIEW OF SKID BASE ON CELLAR DECK SHOWING ESCAPE PATH

2 PLAN VIEW OF SKID BASE SHOWING SHADED AREAS WHICH OFFER NO ACCESS TO OPERATORS.

3 PLAN VIEW OF SKID BASE SHOWING SHADED AREAS WHERE PIPING MAY DROP OUT FROM THE SKID.



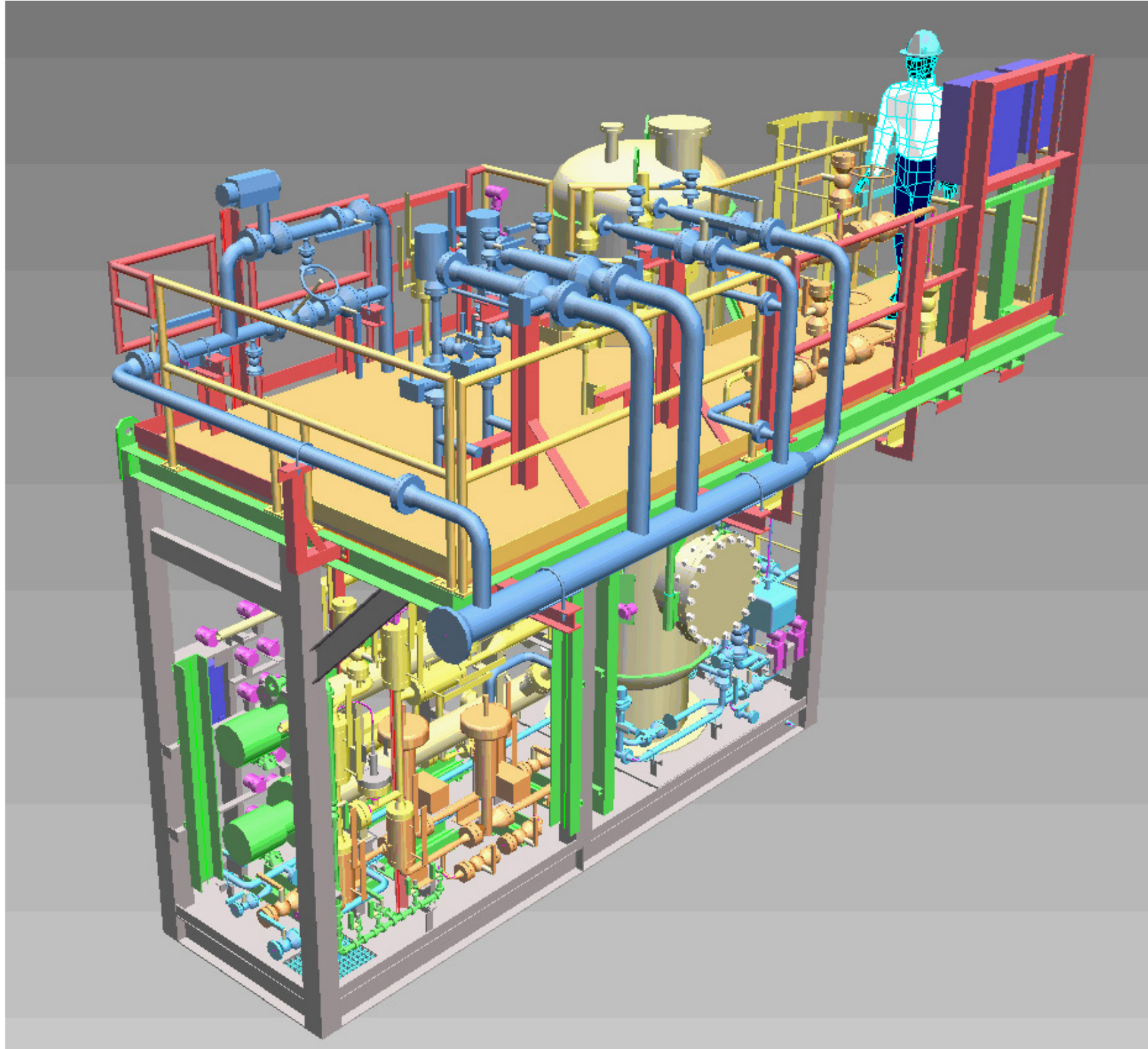
4 PLAN VIEW OF ELEVATED PLATFORM SHOWING SHADED AREAS WHERE PIPING MAY DROP OUT OR ENTER THE SKID



5 ELEVATION LOOKING WEST SHOWING TOP PLATFORM CONSTRAINTS, PRINCIPLES OF SUPPORT AND SHADED AREA FOR ESCAPE PATH

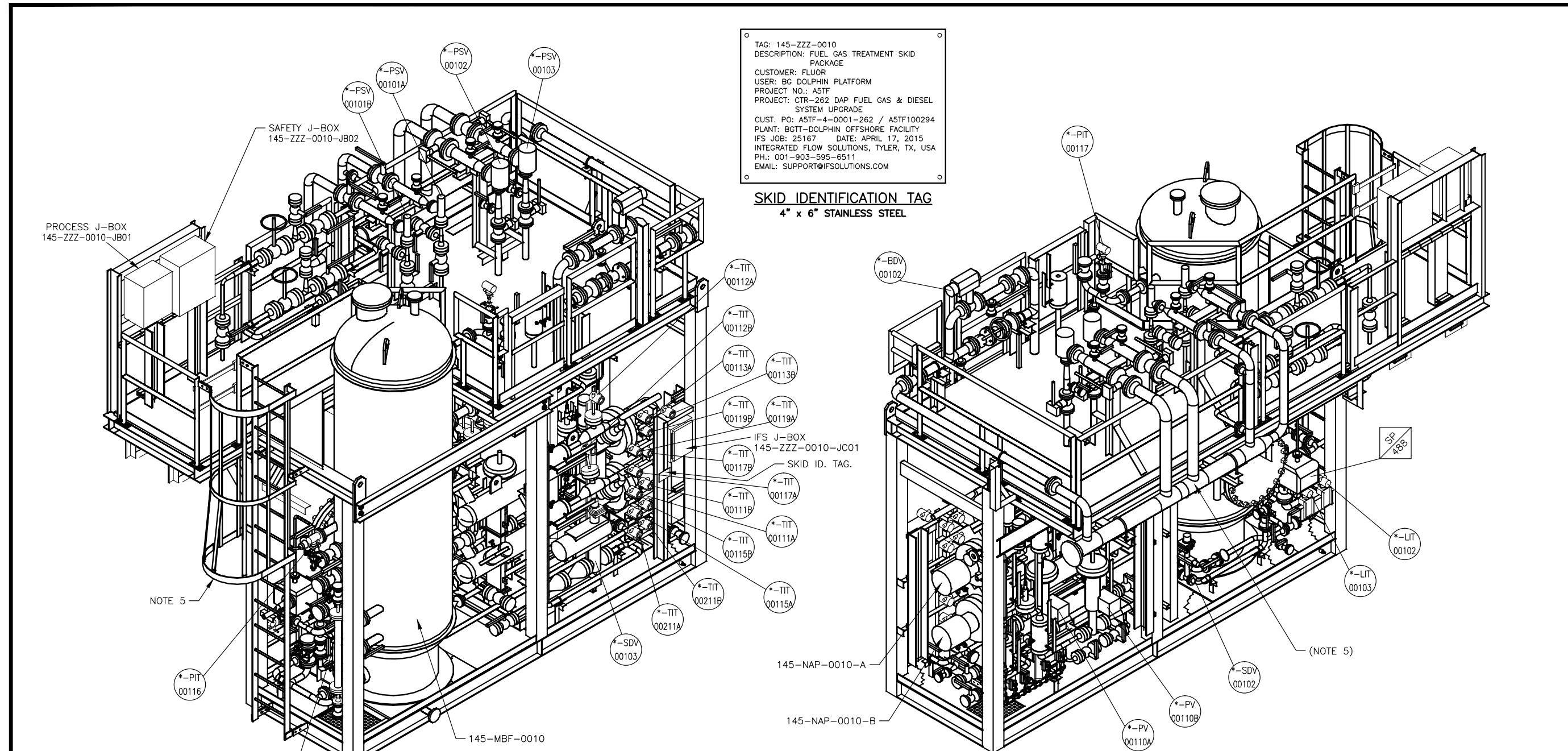
- NOTE 1.
IF REQUIRED, LINES MAY DROP OUT FROM WITHIN THE SKID BASE (WITHIN THE AREA OF THE FOOTPRINT) PROVIDING THAT TERMINATION FLANGE IS ACCESSIBLE AND AT AN ELEVATION THAT CAN BE SUBJECT TO BOLT TORQUE.
- NOTE 2.
SUPPORTS OF LINES ON SKID SHALL BE ARRANGED SO THAT LINES ARE STILL SUPPORTED WHEN REMOVABLE SPOOLS ARE OUT OF PLACE, I.E. NO TEMPORARY FIELD SUPPORTS.
- NOTE 3.
LINES ENTERING OR LEAVING THE SKID WHICH REQUIRE AN ISOLATION VALVE AT THE SKID EDGE MAY BE SUPPORTED AT SKID EDGE WITH DUMMY SPOOL IF/AS DESIGN REQUIRES.
- NOTE 4.
DUE TO THE POTENTIAL FOR BLOCKING OFF THE TOP PLATFORM WITH COMMON HEADER LINE 6"-HV-2119-A7 FROM COMBINED PSV'S AND BDV'S OUTLET LINES, THIS LINE MAY BE ROUTED TO THE OUTSIDE OF TOP PLATFORM IF REQUIRED. (SHIPPED LOOSE?)
- NOTE 5.
CLIENT WILL PERFORM COMPUTERIZED STRESS ANALYSIS ON ALL LINES ENTERING AND LEAVING THE SKID BACK TO EQUIPMENT NOZZLES. VENDOR TO SUPPLY LOADS AND MOMENTS AT EQUIPMENT NOZZLES AND LAST SUPPORT AT CLIENT/VENDOR INTERFACE.

DOLPHIN- FUEL GAS AND DIESEL UPGRADE STUDY OF FUEL GAS SKID REQUIREMENTS			
JOHN POWELL	21 MAR 2014	SCALE: N.T.S	REV 0



Offshore Fuel Gas Treatment Package

Final Specifications




TAG: 145-ZZZ-0010
 DESCRIPTION: FUEL GAS TREATMENT SKID PACKAGE
 CUSTOMER: FLUOR
 USER: BG DOLPHIN PLATFORM
 PROJECT NO.: A5TF
 PROJECT: CTR-262 DAP FUEL GAS & DIESEL SYSTEM UPGRADE
 CUST. PO: A5TF-4-0001-262 / A5TF100294
 PLANT: BGT-DOLPHIN OFFSHORE FACILITY
 IFS JOB: 25167 DATE: APRIL 17, 2015
 INTEGRATED FLOW SOLUTIONS, TYLER, TX, USA
 PH.: 001-903-595-6511
 EMAIL: SUPPORT@IFSOLUTIONS.COM

SKID IDENTIFICATION TAG
4" x 6" STAINLESS STEEL

ISO VIEWS
(FOR REFERENCE ONLY)

- NOTES:**
- FOR UPPER PLAN VIEW SEE DWG. NO.: G-25167-01.
 - FOR LOWER PLAN VIEW AND NOZZLE LOADS SEE DWG. NO.: G-25167-02.
 - FOR ELEVATION VIEW SEE DWG. NO.: G-25167-03.
 - FOR END VIEWS SEE DWG. NO.: G-25167-04.
 - PSV VENT HEADER & SUPPORTS, CAGE LADDER TO BE SHIPPED LOOSE FOR FIELD INSTALLATION BY OTHERS
 - ALL DIMENSIONS ± 1/4".



**INTEGRATED
FLOW SOLUTIONS**
 6461 REYNOLDS RD, TYLER, TEXAS, USA 75708
 PHONE NUMBER: +1 (903) 595-6511
 EMAIL: SUPPORT@IFSOLUTIONS.COM

REV.	DATE	DESCRIPTION	DES	ENG
2	26JUN15	AS BUILT	JG	SM
1	23MAR15	REVISED PER CUSTOMER COMMENTS	JG	SM
0	02FEB15	APPROVED FOR CONSTRUCTION	JG	SM
B	26NOV14	ISSUED FOR CUSTOMER APPROVAL	JG	SM
A	24SEP14	ISSUED FOR PRELIMINARY REVIEW	JG	SM

PROJECT NAME: CTR-262 DAP FUEL GAS & DIESEL SYSTEM UPGRADE
 CUSTOMER NAME: FLUOR
 END USER: BG DOLPHIN PLATFORM
 DESCRIPTION: FUEL GAS TREATMENT SKID PACKAGE
 TAG NUMBER: 145-ZZZ-0010
 CUSTOMER PO#: A5TF-4-0001-262/A5TF100294
 ESTIMATED DRY WEIGHT: 12122 kg [26725 lb]
 ESTIMATED OPERATING WEIGHT: 15580 kg [34348 lb]

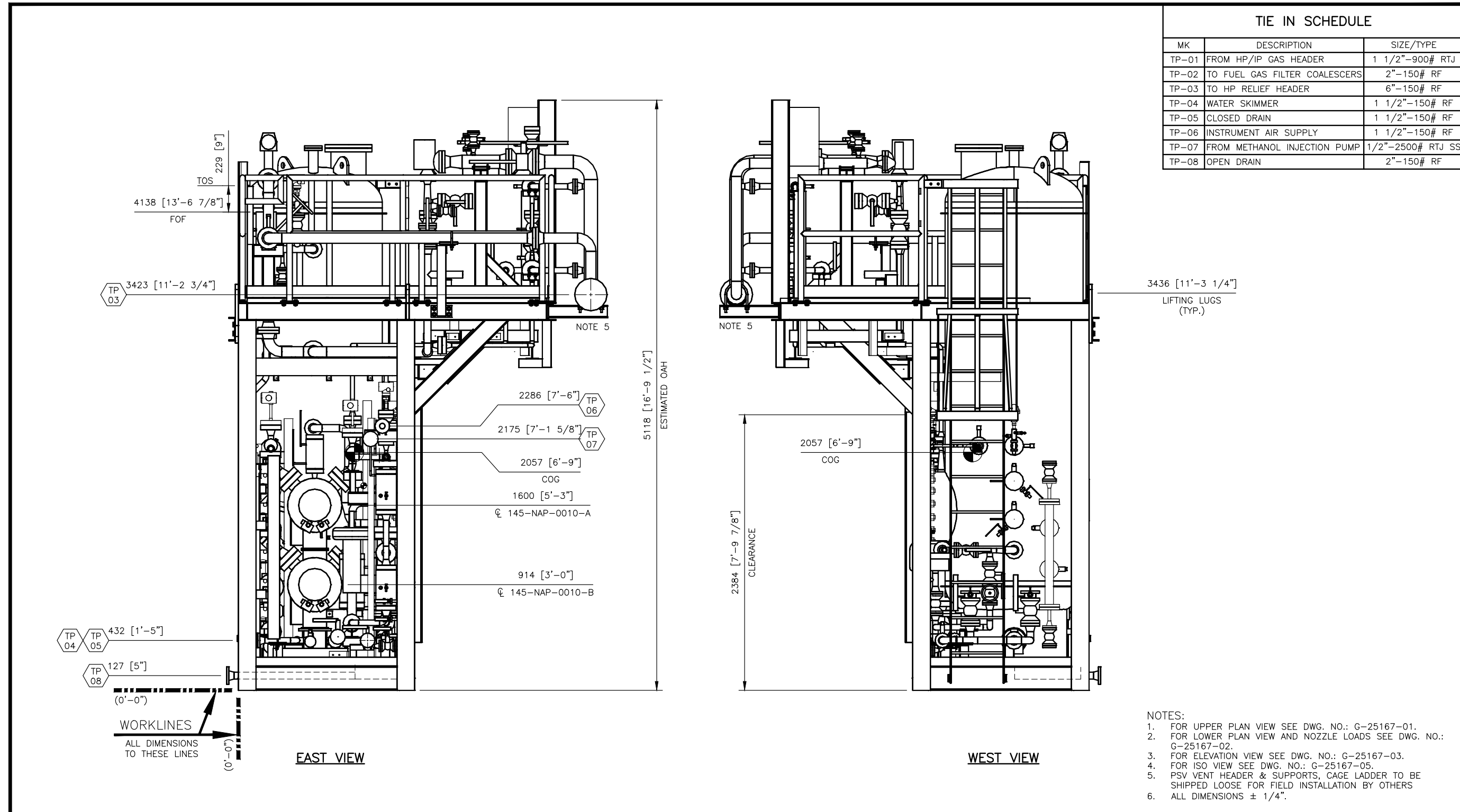
**GENERAL ARRANGEMENT
FUEL GAS TREATMENT SKID PACKAGE**

CLIENT No.:-


SCALE:	SECTION	JOB	SHEET	TOTAL SHEETS	REV.
NONE	G	-25167	-05	5	2

PM.DP

THIS DRAWING IS THE PROPERTY OF INTEGRATED FLOW SOLUTIONS AND SHALL NOT BE REPRODUCED, COPIED, LENT, NOR USED FOR ANY PURPOSE OTHER THAN THAT WHICH IT IS FURNISHED EXCEPT BY WRITTEN PERMISSION.



- NOTES:
- FOR UPPER PLAN VIEW SEE DWG. NO.: G-25167-01.
 - FOR LOWER PLAN VIEW AND NOZZLE LOADS SEE DWG. NO.: G-25167-02.
 - FOR ELEVATION VIEW SEE DWG. NO.: G-25167-03.
 - FOR ISO VIEW SEE DWG. NO.: G-25167-05.
 - PSV VENT HEADER & SUPPORTS, CAGE LADDER TO BE SHIPPED LOOSE FOR FIELD INSTALLATION BY OTHERS
 - ALL DIMENSIONS ± 1/4".



**INTEGRATED
FLOW SOLUTIONS**
 6461 REYNOLDS RD, TYLER, TEXAS, USA 75708
 PHONE NUMBER: +1 (903) 595-6511
 EMAIL: SUPPORT@IFSOLUTIONS.COM

THIS DRAWING IS THE PROPERTY OF INTEGRATED FLOW SOLUTIONS AND SHALL NOT BE REPRODUCED, COPIED, LENT, NOR USED FOR ANY PURPOSE OTHER THAN THAT WHICH IT IS FURNISHED EXCEPT BY WRITTEN PERMISSION.

REV.	DATE	DESCRIPTION	DES	ENG
2	26JUN15	AS BUILT	JG	SM
1	23MAR15	REVISED PER CUSTOMER COMMENTS	JG	SM
0	02FEB15	APPROVED FOR CONSTRUCTION	JG	SM
B	26NOV14	ISSUED FOR CUSTOMER APPROVAL	JG	SM
A	24SEP14	ISSUED FOR PRELIMINARY REVIEW	JG	SM

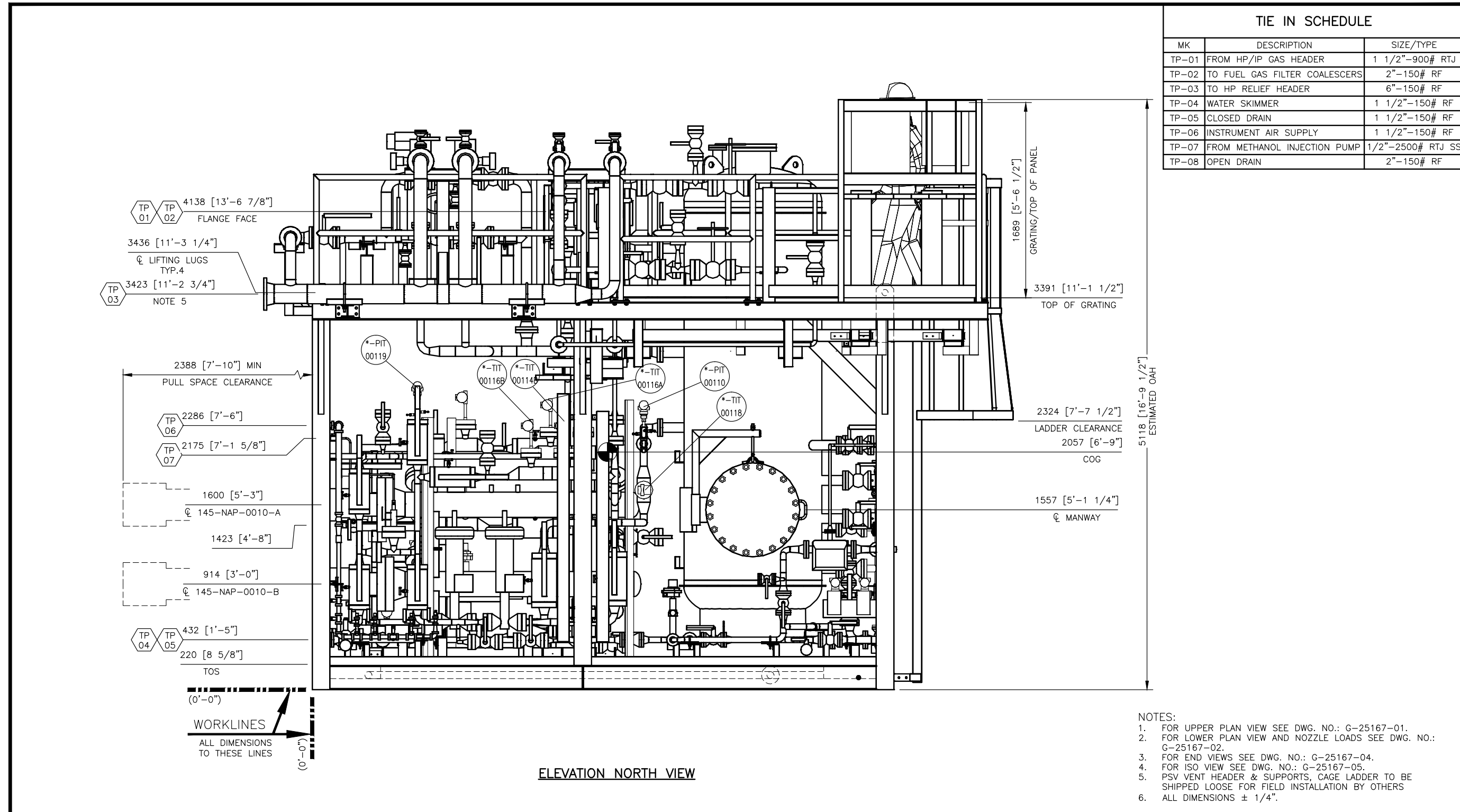
PROJECT NAME: CTR-262 DAP FUEL GAS & DIESEL SYSTEM UPGRADE
 CUSTOMER NAME: FLUOR
 END USER: BG DOLPHIN PLATFORM
 DESCRIPTION: FUEL GAS TREATMENT SKID PACKAGE
 TAG NUMBER: 145-ZZZ-0010
 CUSTOMER PO#: A5TF-4-0001-262/A5TF100294
 ESTIMATED DRY WEIGHT: 12122 kg [26725 lb]
 ESTIMATED OPERATING WEIGHT: 15580 KG [34348 lb]

**GENERAL ARRANGEMENT
FUEL GAS TREATMENT SKID PACKAGE**

CLIENT No.:-

SCALE:	SECTION	JOB	SHEET	TOTAL SHEETS	REV.
3/8"=1'-0"	G	-25167	-04	5	2

PM.DP



INTEGRATED FLOW SOLUTIONS

6461 REYNOLDS RD, TYLER, TEXAS, USA 75708
PHONE NUMBER: +1 (903) 595-6511
EMAIL: SUPPORT@IFSOLUTIONS.COM

THIS DRAWING IS THE PROPERTY OF INTEGRATED FLOW SOLUTIONS AND SHALL NOT BE REPRODUCED, COPIED, LENT, NOR USED FOR ANY PURPOSE OTHER THAN THAT WHICH IT IS FURNISHED EXCEPT BY WRITTEN PERMISSION.

REV.	DATE	DESCRIPTION	DES	ENG
2	26JUN15	AS BUILT	JG	SM
1	23MAR15	REVISED PER CUSTOMER COMMENTS	JG	SM
0	02FEB15	APPROVED FOR CONSTRUCTION	JG	SM
B	26NOV14	ISSUED FOR CUSTOMER APPROVAL	JG	SM
B	24SEP14	ISSUED FOR PRELIMINARY REVIEW	JG	SM

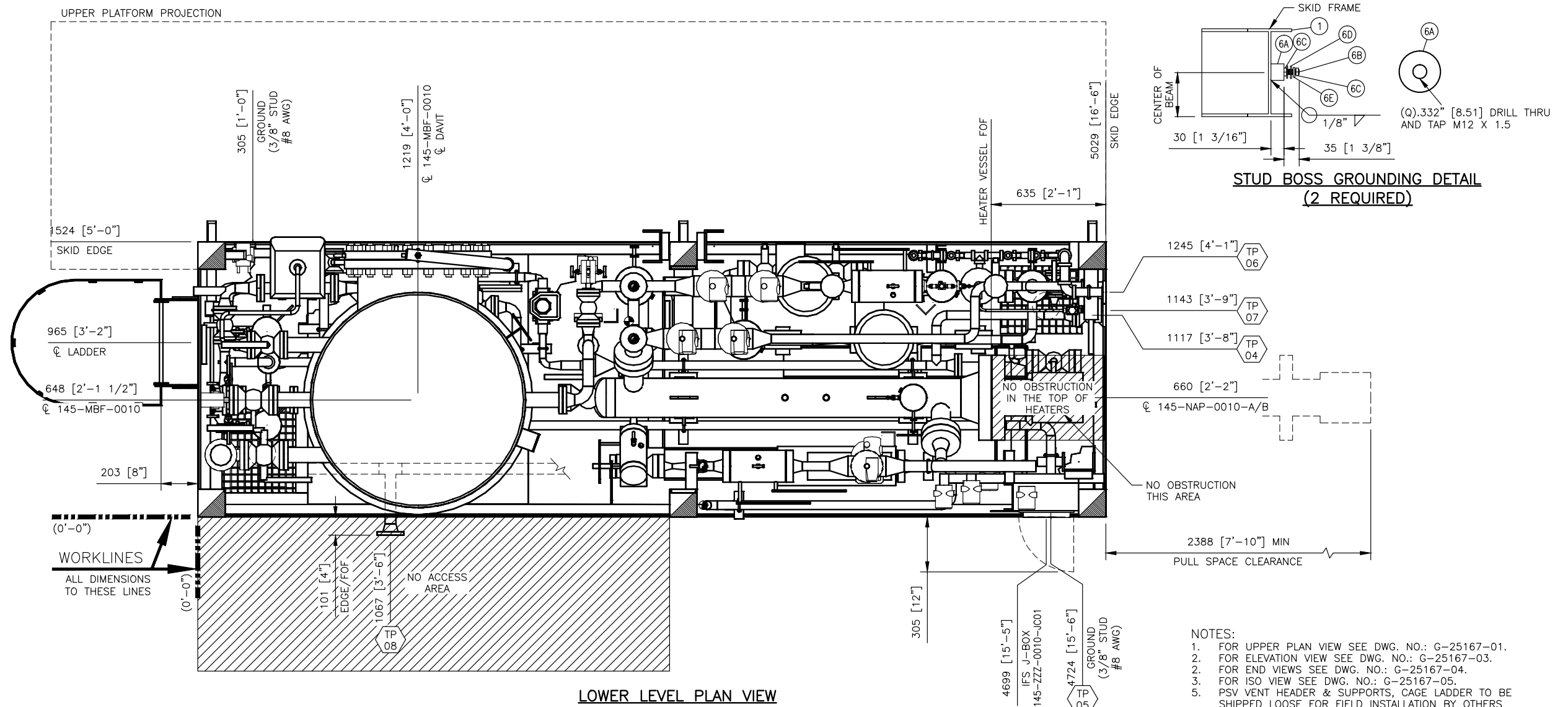
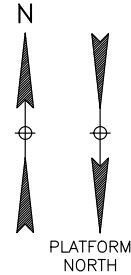
PROJECT NAME: CTR-262 DAP FUEL GAS & DIESEL SYSTEM UPGRADE
CUSTOMER NAME: FLUOR
END USER: BG DOLPHIN PLATFORM
DESCRIPTION: FUEL GAS TREATMENT SKID PACKAGE
TAG NUMBER: 145-ZZZ-0010
CUSTOMER PO#: A5TF-4-0001-262/A5TF100294
ESTIMATED DRY WEIGHT: 12122 kg [26725 lb]
ESTIMATED OPERATING WEIGHT: 15580 KG [34348 lb]

GENERAL ARRANGEMENT FUEL GAS TREATMENT SKID PACKAGE

CLIENT No.: -

SCALE: 3/8"=1'-0"	SECTION	JOB	SHEET	TOTAL SHEETS	REV.
PM.DP	G	-25167	-03	5	2

TIE-IN	MAX. ALLOWED LOADS						MAX. ALLOWED DISPLACEMENTS						TIE IN SCHEDULE		
	Fx [lb]	Fy [lb]	Fz [lb]	Mx [ft-lb]	My [ft-lb]	Mz [ft-lb]	X [in]	Y [in]	Z [in]	Rx [deg]	Ry [deg]	Rz [deg]	MK	DESCRIPTION	SIZE/TYPE
TP-01	572.00	572.00	248.00	423.10	423.10	280.00	0.00	0.00	0.00	0.00	0.00	0.00	TP-01	FROM HP/IP GAS HEADER	1 1/2"-900# RTJ
TP-02	62.00	34.00	975.00	-26.50	87.50	-0.70	0.00	0.00	0.00	0.00	0.00	0.00	TP-02	TO FUEL GAS FILTER COALESCERS	2"-150# RF
TP-03	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.01	-0.07	0.00	0.03	TP-03	TO HP RELIEF HEADER	6"-150# RF
TP-04	150.00	180.00	180.00	160.00	100.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	TP-04	WATER SKIMMER	1 1/2"-150# RF
TP-05	150.00	180.00	180.00	160.00	100.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	TP-05	CLOSED DRAIN	1 1/2"-150# RF
TP-06	150.00	180.00	180.00	160.00	100.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	TP-06	INSTRUMENT AIR SUPPLY	1 1/2"-150# RF
TP-07	-	-	-	-	-	-	-	-	-	-	-	-	TP-07	FROM METHANOL INJECTION PUMP	1/2"-2500# RTJ SS
TP-08	180.00	360.00	360.00	316.00	200.00	316.00	0.00	0.00	0.00	0.00	0.00	0.00	TP-08	OPEN DRAIN	2"-150# RF



- NOTES:
1. FOR UPPER PLAN VIEW SEE DWG. NO.: G-25167-01.
 2. FOR ELEVATION VIEW SEE DWG. NO.: G-25167-03.
 3. FOR END VIEWS SEE DWG. NO.: G-25167-04.
 4. FOR ISO VIEW SEE DWG. NO.: G-25167-05.
 5. PSV VENT HEADER & SUPPORTS, CAGE LADDER TO BE SHIPPED LOOSE FOR FIELD INSTALLATION BY OTHERS
 6. ALL DIMENSIONS ± 1/4".

6461 REYNOLDS RD, TYLER, TEXAS, USA 75708
PHONE NUMBER: +1 (903) 595-6511
EMAIL: SUPPORT@IFSOLUTIONS.COM

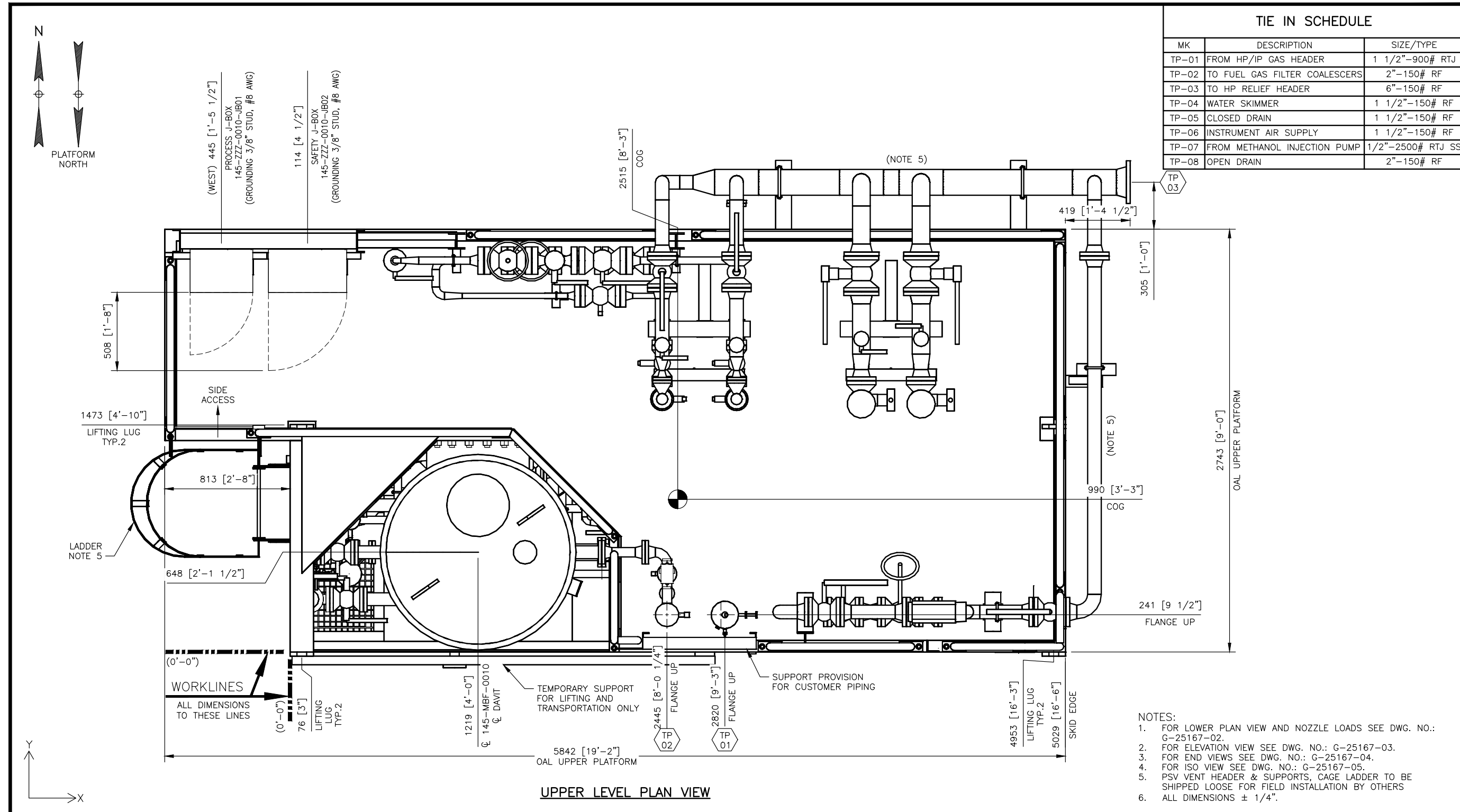
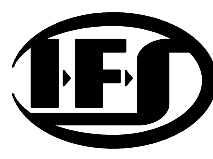
REV.	DATE	DESCRIPTION	DES	ENG
2	26JUN15	AS BUILT	JG	SM
1	23MAR15	REVISED PER CUSTOMER COMMENTS	JG	SM
0	02FEB15	APPROVED FOR CONSTRUCTION	JG	SM
B	26NOV14	ISSUED FOR CUSTOMER APPROVAL	JG	SM
A	24SEP14	ISSUED FOR PRELIMINARY REVIEW	JG	SM

PROJECT NAME: CTR-262 DAP FUEL GAS & DIESEL SYSTEM UPGRADE
 CUSTOMER NAME: FLUOR
 END USER: BG DOLPHIN PLATFORM
 DESCRIPTION: FUEL GAS TREATMENT SKID PACKAGE
 TAG NUMBER: 145-ZZ-0010
 CUSTOMER PO#: A5TF-4-0001-262/A5TF100294
 ESTIMATED DRY WEIGHT: 12122 kg [26725 lb]
 ESTIMATED OPERATING WEIGHT: 15580 KG [34348 lb]

GENERAL ARRANGEMENT FUEL GAS TREATMENT SKID PACKAGE

CLIENT No.: -	SECTION	JOB	SHEET	TOTAL SHEETS	REV.
SCALE: 1/2"=1'-0"	G	-25167	-02	5	2
PM,DP					

THIS DRAWING IS THE PROPERTY OF INTEGRATED FLOW SOLUTIONS AND SHALL NOT BE REPRODUCED, COPIED, LENT, NOR USED FOR ANY PURPOSE OTHER THAN THAT WHICH IT IS FURNISHED EXCEPT BY WRITTEN PERMISSION.

**INTEGRATED
FLOW SOLUTIONS**
6461 REYNOLDS RD, TYLER, TEXAS, USA 75708
PHONE NUMBER: +1 (903) 595-6511
EMAIL: SUPPORT@IFSOLUTIONS.COM

REV.	DATE	DESCRIPTION	DES	ENG
2	26JUN15	AS BUILT	JG	SM
1	23MAR15	REVISED PER CUSTOMER COMMENTS	JG	SM
0	02FEB15	APPROVED FOR CONSTRUCTION	JG	SM
B	26NOV14	ISSUED FOR CUSTOMER APPROVAL	JG	SM
A	24SEP14	ISSUED FOR PRELIMINARY REVIEW	JG	SM

PROJECT NAME: CTR-262 DAP FUEL GAS & DIESEL SYSTEM UPGRADE
 CUSTOMER NAME: FLUOR
 END USER: BG DOLPHIN PLATFORM
 DESCRIPTION: FUEL GAS TREATMENT SKID PACKAGE
 TAG NUMBER: 145-ZZZ-0010
 CUSTOMER PO#: A5TF-4-0001-262/A5TF100294
 ESTIMATED DRY WEIGHT: 12122 kg [26725 lb]
 ESTIMATED OPERATING WEIGHT: 15580 KG [34348 lb]

**GENERAL ARRANGEMENT
FUEL GAS TREATMENT SKID PACKAGE**

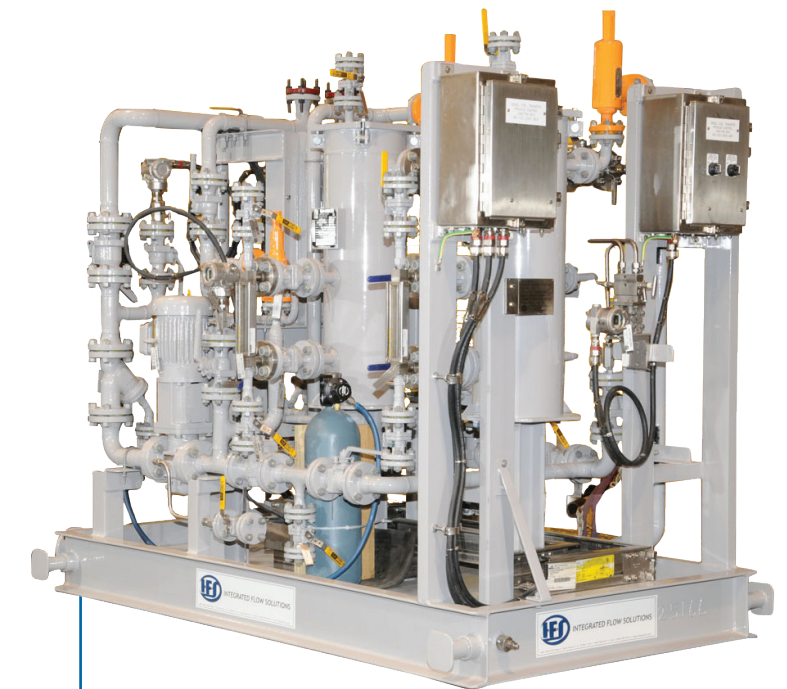
CLIENT No.: -

SCALE:	SECTION	JOB	SHEET	TOTAL SHEETS	REV.
1/2"=1'-0"	G	-25167-01	5	2	

THIS DRAWING IS THE PROPERTY OF INTEGRATED FLOW SOLUTIONS AND SHALL NOT BE REPRODUCED, COPIED, LENT, NOR USED FOR ANY PURPOSE OTHER THAN THAT WHICH IT IS FURNISHED EXCEPT BY WRITTEN PERMISSION.



Fuel Gas Treatment Package



Diesel Fuel Filter Coalescer Package
also for use on the DAP.