REGIONAL DISTRICT OF NANAIMO
LANDFILL GAS FLARE UPGRADE
ISSUED FOR TENDER

OCTOBER 2023



Nanaimo, BC

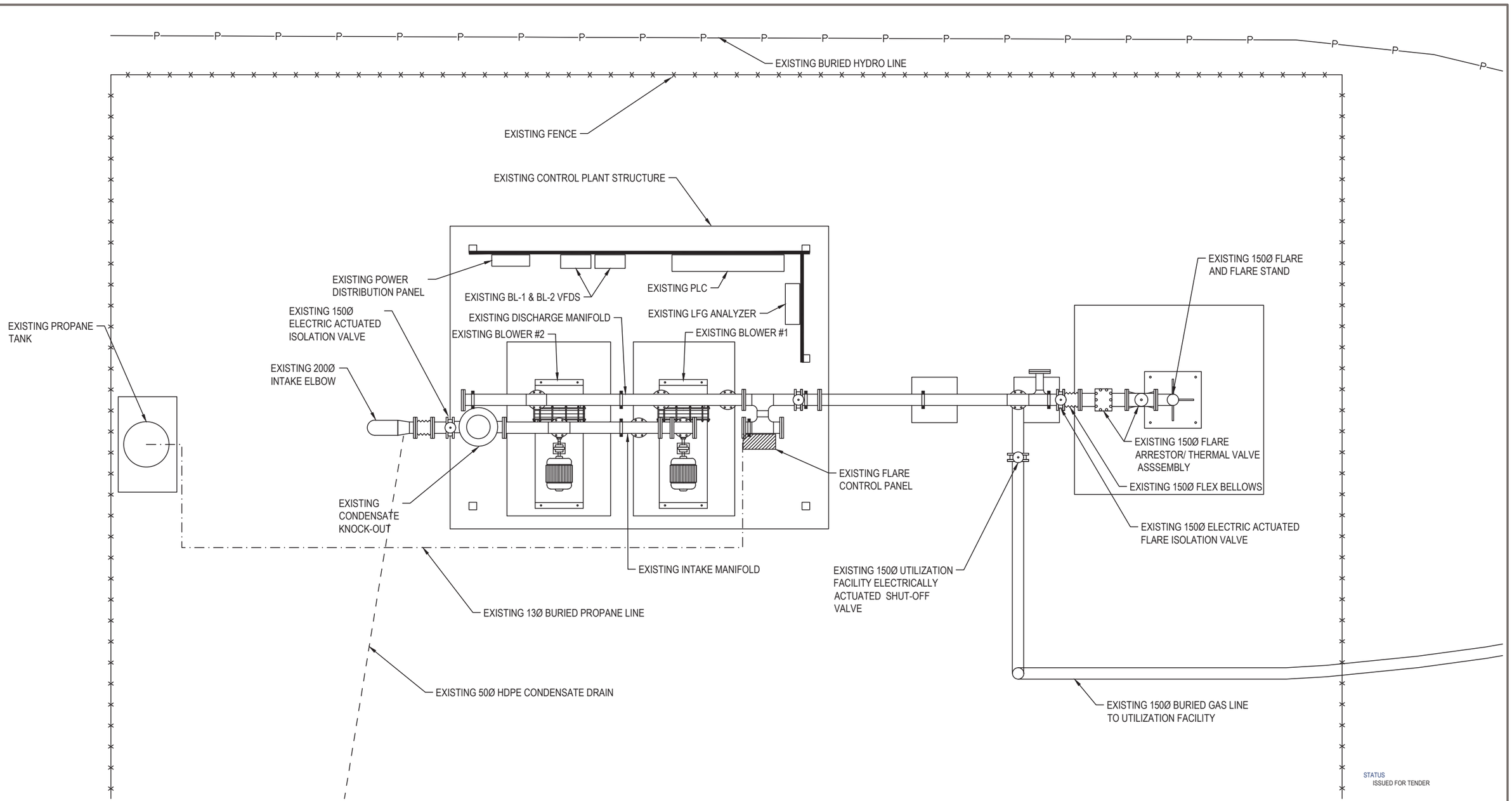
REGIONAL DISTRICT OF NANAIMO

TETRA TECH

SHEET LIST INDEX

SHEET NUMBER	SHEET TITLE
M101	PLAN - EXISTING CONDITIONS
M102	PLAN - DECOMMISSIONING
M103	PLAN - PROPOSED CONDITIONS
M104	EMERGENCY STOP BUTTON LOCATIONS
M105	PROFILE - PROPOSED CONDITIONS
M106	DETAILS (1 OF 2)
M107	DETAILS (2 OF 2)
E01	PLANT AREA CLASSIFICATION
E02	FLARE COMPOUND AREA - ELECTRICAL PLAN
E03	PLC PANEL LAYOUT
E04	PLC PANEL EQUIPMENT SCHEDULE
E05	PLC PANEL 120V DISTRIBUTION
E06	PLC PANEL 24V DISTRIBUTION
E07	DISCRETE INPUT MODULE #1 - WIRING DETAILS
E08	DISCRETE INPUT MODULE #2 - WIRING DETAILS
E09	DISCRETE INPUT MODULE #3 - WIRING DETAILS
E10	DISCRETE OUTPUT MODULE #1 - WIRING DETAILS
E11	ANALOG INPUT MODULE #1 - WIRING DETAILS
E12	ANALOG INPUT MODULE #2 - WIRING DETAILS
E13	ANALOG INPUT MODULE #3 - WIRING DETAILS
E14	ANALOG OUTPUT MODULE #1 - WIRING DETAILS
E15	INSTRUMENTATION BLOCK DIAGRAM
E16	INTRINSIC BARRIERS - WIRING DETAILS
E17	BLOWER VFD - TYPICAL WIRING DIAGRAM
E18	COMMUNICATION BLOCK DIAGRAM
E19	EXISTING PIPE & INSTRUMENTATION DIAGRAM
E20	PROPOSED PIPE & INSTRUMENTATION DIAGRAM

FILE PATH: Q:\Edmonton\Drafting\00_MASTER PROJECT BASE PLANS\RDN – Nanaimo Regional Landfill\Production\SWM.SWOP04043-01_RDN Flare Upgrade\IFT



NUM	DATE	APR	DESCRIPTION
0	OCT 25/23	ML	ISSUED FOR TENDER

REVISIONS

NUM	DATE	APR	DESCRIPTION
D	JULY 27/23	ML	ISSUED FOR REVIEW - 99%
C	APRIL 28/21	ML	ISSUED FOR REVIEW - 95%
B	APRIL 21/21	ML	ISSUED FOR REVIEW - 90%
A	APRIL 8/21	ML	ISSUED FOR REVIEW - 60%

DRAWING STATUS

PERMIT TO PRACTICE
TETRA TECH CANADA INC.
PERMIT NUMBER: 1001972

PERMIT

2023-12-08

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
M.E. LEFEBVRE
#26071

PROFESSIONAL SEAL

CLIENT

REGIONAL DISTRICT OF NANAIMO

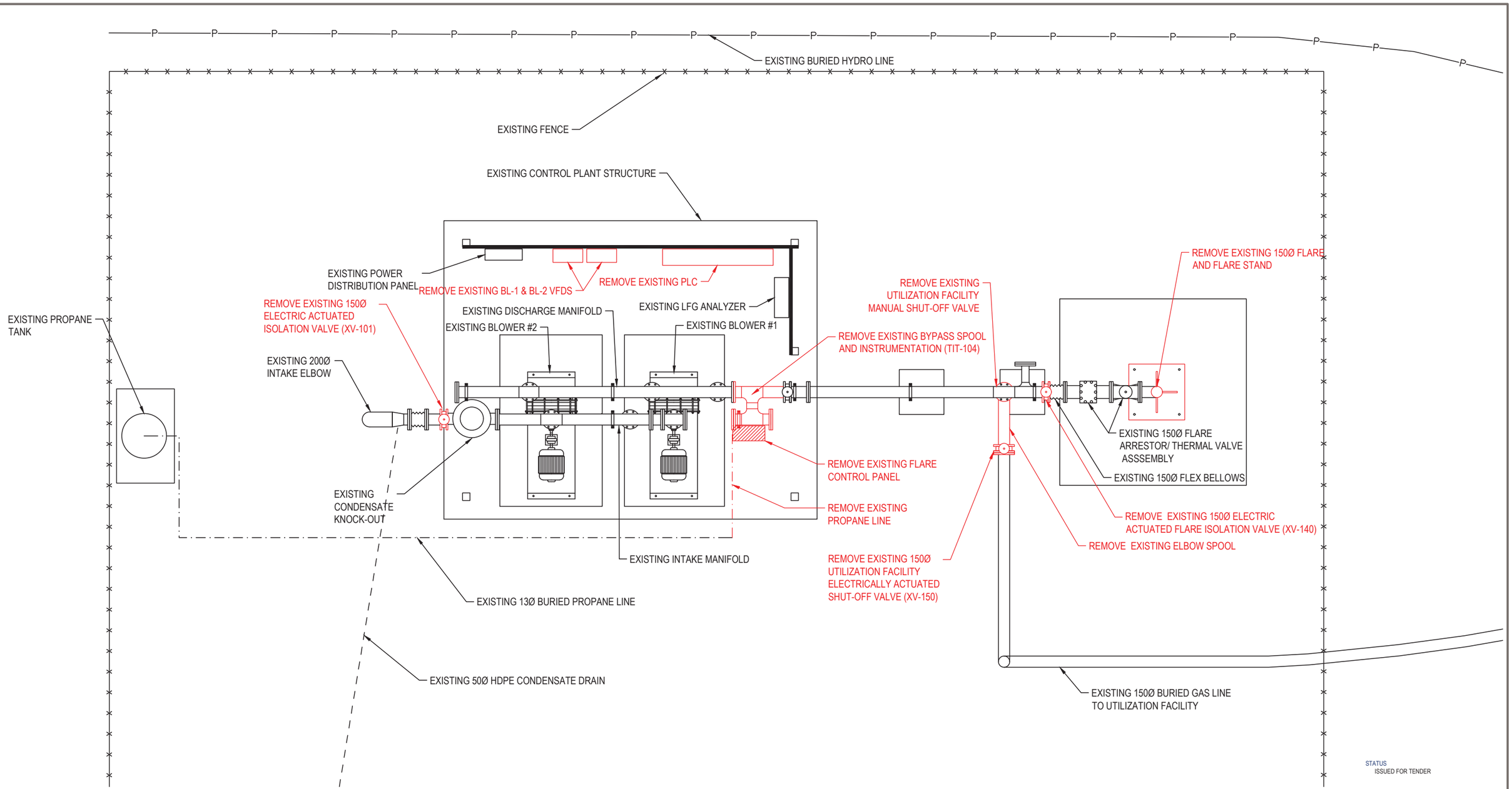
TETRA TECH

LFG UTILIZATION CONTROL PLANT AND FLARE UPGRADE NANAIMO REGIONAL LANDFILL

PLAN - EXISTING CONDITIONS

PROJECT No.	OFFICE	DES	CKD	REV	DRAWING
SWM.SWOP04043-01	EDM	ML	ML	0	M101
DATE: October 18, 2023	SHEET No. 1 of 7	DWN JL	APP ML	STATUS D	

Q:\Edmonton\Drafting\00_MASTER PROJECT BASE PLANS\RDN - Nanaimo Regional Landfill\Production\SWM.SWOP04043-01_RDN Flare Upgrade\IFT\SWM.SWOP04043-01_RDN Flare Upgrade.dwg [M101] October 27, 2023 - 3:23:25 pm (BY: LING, JOHN)



STATUS
ISSUED FOR TENDER

NUM	DATE	APR	DESCRIPTION
0	OCT 25/23	ML	ISSUED FOR TENDER

REVISIONS

NUM	DATE	APR	DESCRIPTION
D	JULY 27/23	ML	ISSUED FOR REVIEW - 99%
C	APRIL 28/21	ML	ISSUED FOR REVIEW - 95%
B	APRIL 21/21	ML	ISSUED FOR REVIEW - 90%
A	APRIL 8/21	ML	ISSUED FOR REVIEW - 60%

DRAWING STATUS

PERMIT TO PRACTICE
TETRA TECH CANADA INC.
PERMIT NUMBER: 1001972

PERMIT

2023-12-08

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
M.E. LEFEBVRE
#26071

PROFESSIONAL SEAL

CLIENT

REGIONAL DISTRICT OF NANAIMO

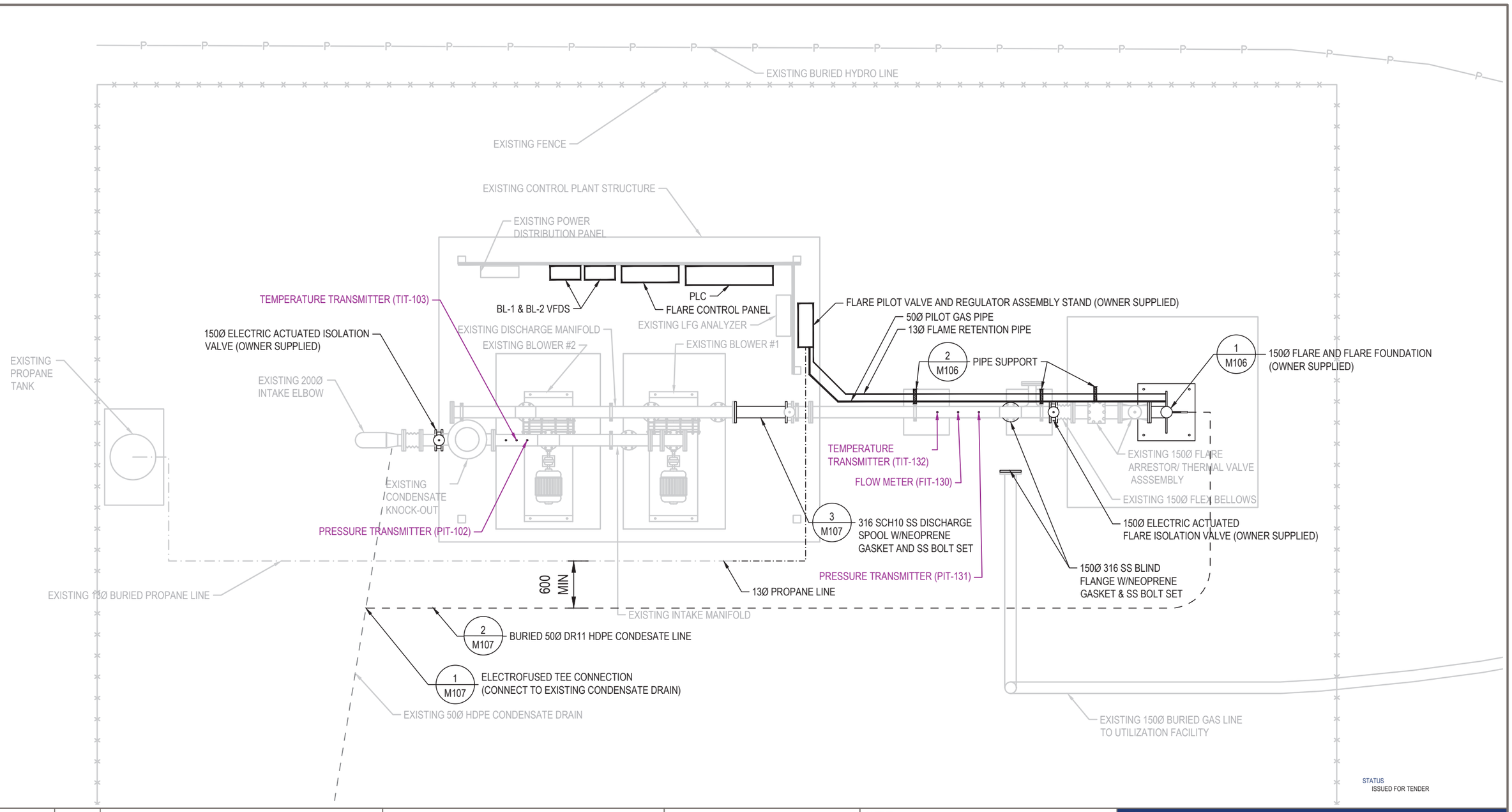
TETRA TECH

LFG UTILIZATION CONTROL PLANT AND FLARE UPGRADE NANAIMO REGIONAL LANDFILL

PLAN - DECOMMISSIONING

PROJECT No.	OFFICE	DES	CKD	REV	DRAWING
SWM.SWOP04043-01	EDM	ML	ML	0	M102
DATE: October 18, 2023	SHEET No. 1 of 7	DWN JL	APP ML	STATUS D	

Q:\Edmonton\Drafting\00_MASTER PROJECT BASE PLANS\RDN - Nanaimo Regional Landfill\Production\SWM.SWOP04043-01_RDN Flare Upgrade\IFT\SWM.SWOP04043-01_RDN Flare Upgrade.dwg [M102] October 27, 2023 - 3:23:27 pm (BY: LING, JOHN)



STATUS
ISSUED FOR TENDER

NUM	DATE	APR	DESCRIPTION
0	OCT 25/23	ML	ISSUED FOR TENDER
REVISIONS			
D	JULY 27/23	ML	ISSUED FOR REVIEW - 99%
C	APRIL 28/21	ML	ISSUED FOR REVIEW - 95%
B	APRIL 21/21	ML	ISSUED FOR REVIEW - 90%
A	APRIL 8/21	ML	ISSUED FOR REVIEW - 60%
NUM	DATE	APR	DESCRIPTION
DRAWING STATUS			

PERMIT TO PRACTICE
TETRA TECH CANADA INC.
PERMIT NUMBER: 1001972

PERMIT

2023-12-08
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
M.E. LEFEBVRE
#26071

PROFESSIONAL SEAL

CLIENT

REGIONAL DISTRICT OF NANAIMO

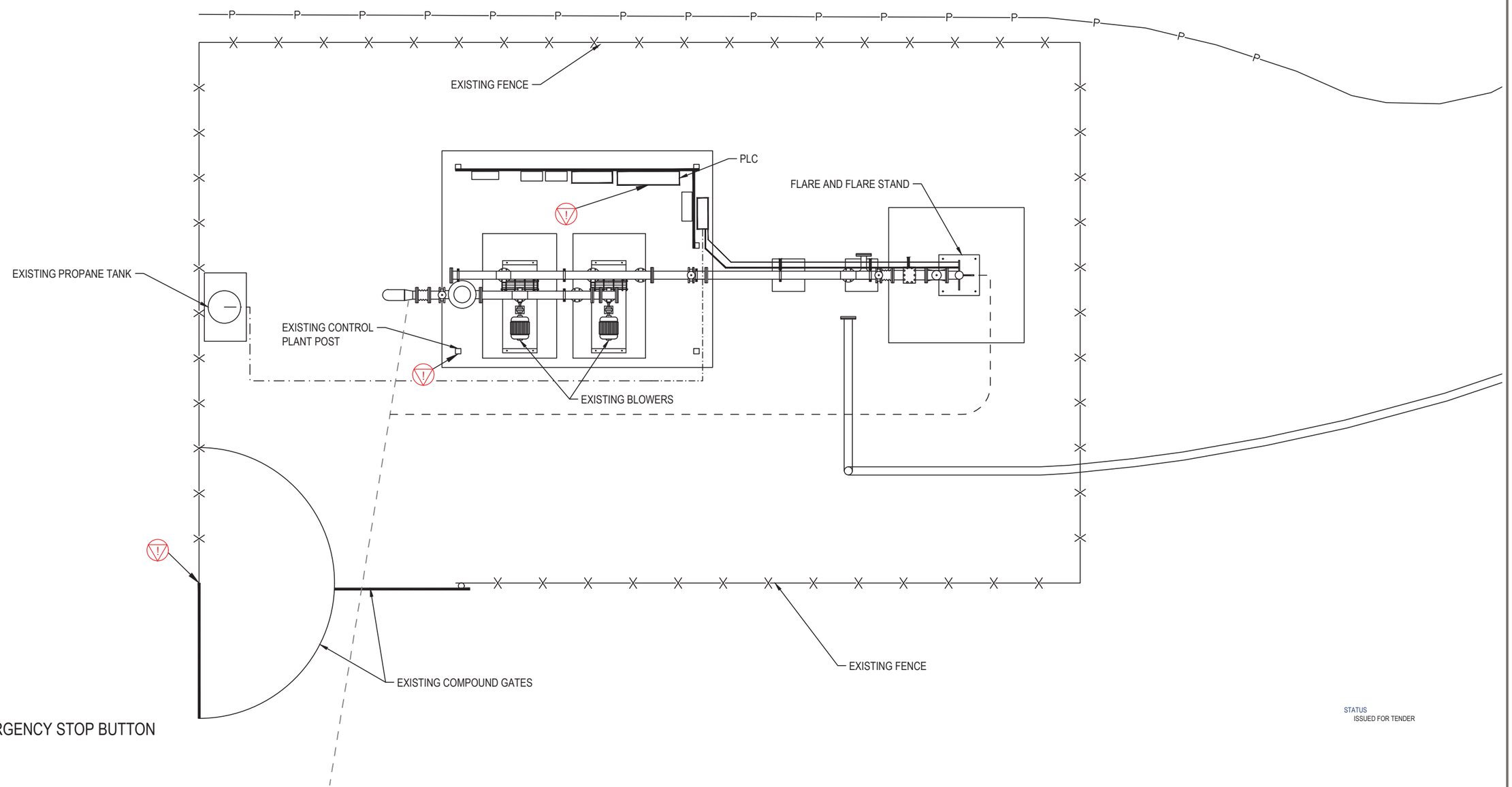
TETRA TECH

LFG UTILIZATION CONTROL PLANT AND FLARE UPGRADE NANAIMO REGIONAL LANDFILL

PLAN - PROPOSED CONDITIONS

PROJECT No.	OFFICE	DES	CKD	REV	DRAWING
SWM.SWOP04043-01	EDM	ML	ML	0	M103
DATE: October 18, 2023	SHEET No. 2 of 7	DWN JL	APP ML	STATUS D	

Q:\Edmonton\Drafting\00_MASTER PROJECT BASE PLANS\RDN - Nanaimo Regional Landfill\Production\SWM.SWOP04043-01_RDN Flare Upgrade\IFT\SWM.SWOP04043-01_RDN Flare Upgrade.dwg [M103] October 27, 2023 - 3:23:32 pm (BY: LING, JOHN)



LEGEND:

- EMERGENCY STOP BUTTON

STATUS
ISSUED FOR TENDER

NUM	DATE	APR	DESCRIPTION
0	OCT 25/23	ML	ISSUED FOR TENDER
REVISIONS			
D	JULY 27/23	ML	ISSUED FOR REVIEW - 99%
C	APRIL 28/21	ML	ISSUED FOR REVIEW - 95%
B	APRIL 21/21	ML	ISSUED FOR REVIEW - 90%
A	APRIL 8/21	ML	ISSUED FOR REVIEW - 60%
NUM	DATE	APR	DESCRIPTION
DRAWING STATUS			

PERMIT TO PRACTICE
TETRA TECH CANADA INC.
PERMIT NUMBER: 1001972

PERMIT

2023-12-08
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
M.E. LEFEBVRE
#26071

PROFESSIONAL SEAL

CLIENT

REGIONAL DISTRICT OF NANAIMO

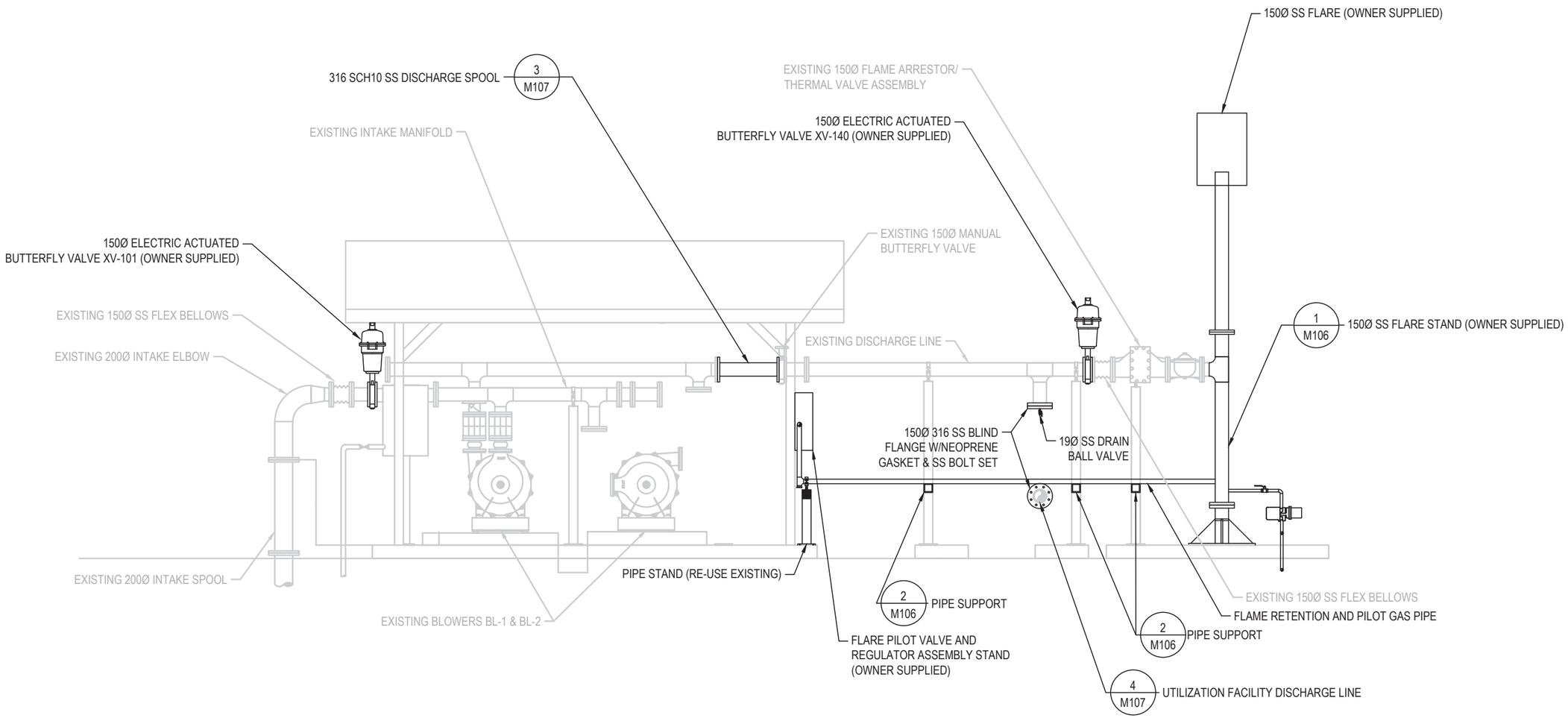
TETRA TECH

LFG UTILIZATION CONTROL PLANT AND FLARE UPGRADE
NANAIMO REGIONAL LANDFILL

EMERGENCY STOP BUTTON LOCATIONS

PROJECT No.	OFFICE	DES	CKD	REV	DRAWING
SWM.SWOP04043-01	EDM	ML	ML	0	**M104**
DATE: October 18, 2023	SHEET No. 3 of 7	DWN JL	APP ML	STATUS D	

Q:\Edmonton\Drafting\00_MASTER PROJECT BASE PLANS\RDN - Nanaimo Regional Landfill\Production\SWM.SWOP04043-01_RDN Flare Upgrade\IFT\SWM.SWOP04043-01_RDN Flare Upgrade.dwg [M104] October 27, 2023 - 3:23:37 pm (BY: LING, JOHN)



NOTES
ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE INDICATED

STATUS
ISSUED FOR TENDER

NUM	DATE	APR	DESCRIPTION
0	OCT 25/23	ML	ISSUED FOR TENDER

REVISIONS

NUM	DATE	APR	DESCRIPTION
D	JULY 27/23	ML	ISSUED FOR REVIEW - 99%
C	APRIL 28/21	ML	ISSUED FOR REVIEW - 95%
B	APRIL 21/21	ML	ISSUED FOR REVIEW - 90%
A	APRIL 8/21	ML	ISSUED FOR REVIEW - 60%

DRAWING STATUS

PERMIT TO PRACTICE
TETRA TECH CANADA INC.
PERMIT NUMBER: 1001972

PERMIT

2023-12-08
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
M.E. LEFEBVRE
#26071

PROFESSIONAL SEAL

CLIENT
REGIONAL DISTRICT OF NANAIMO

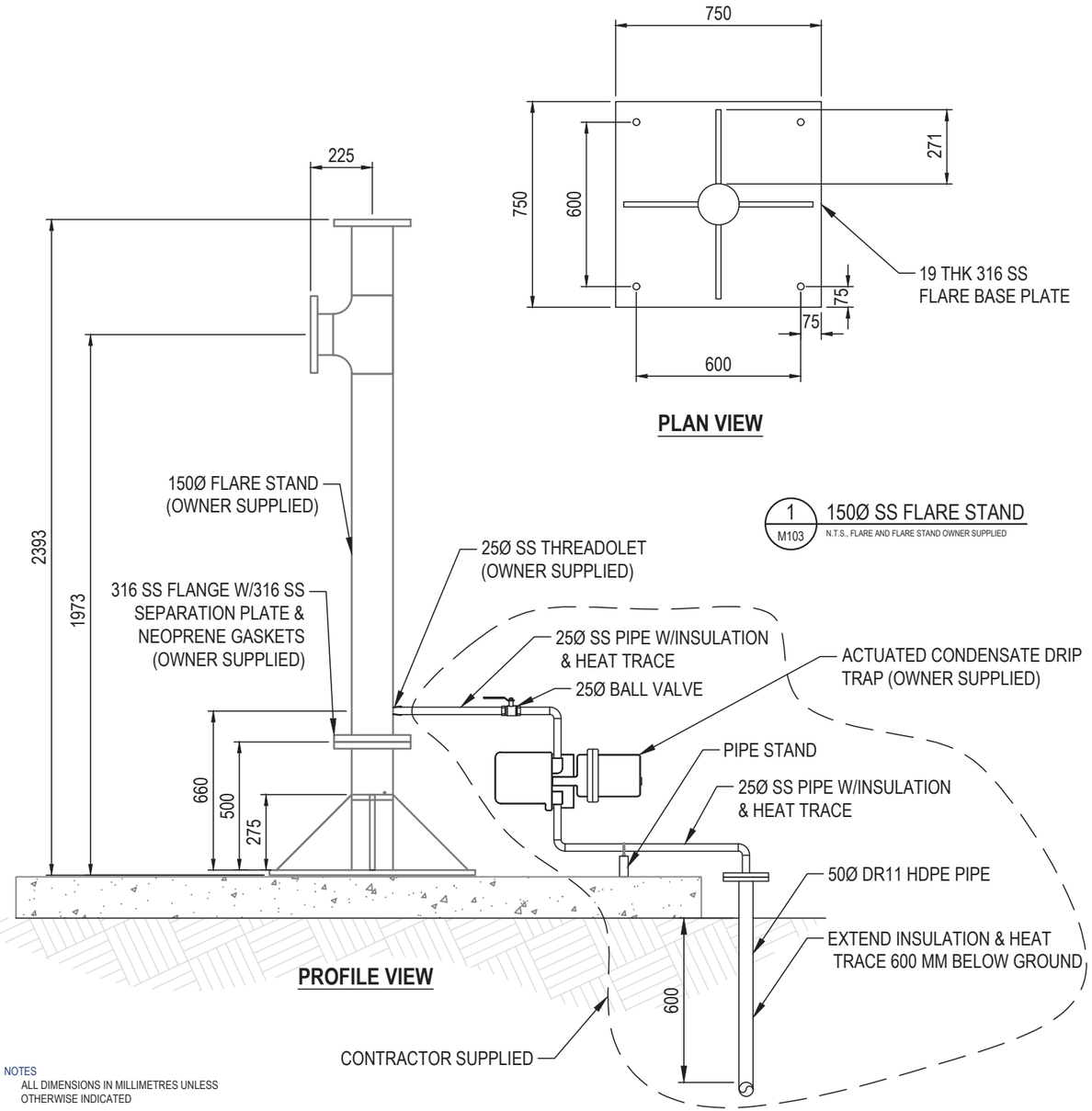
TETRA TECH

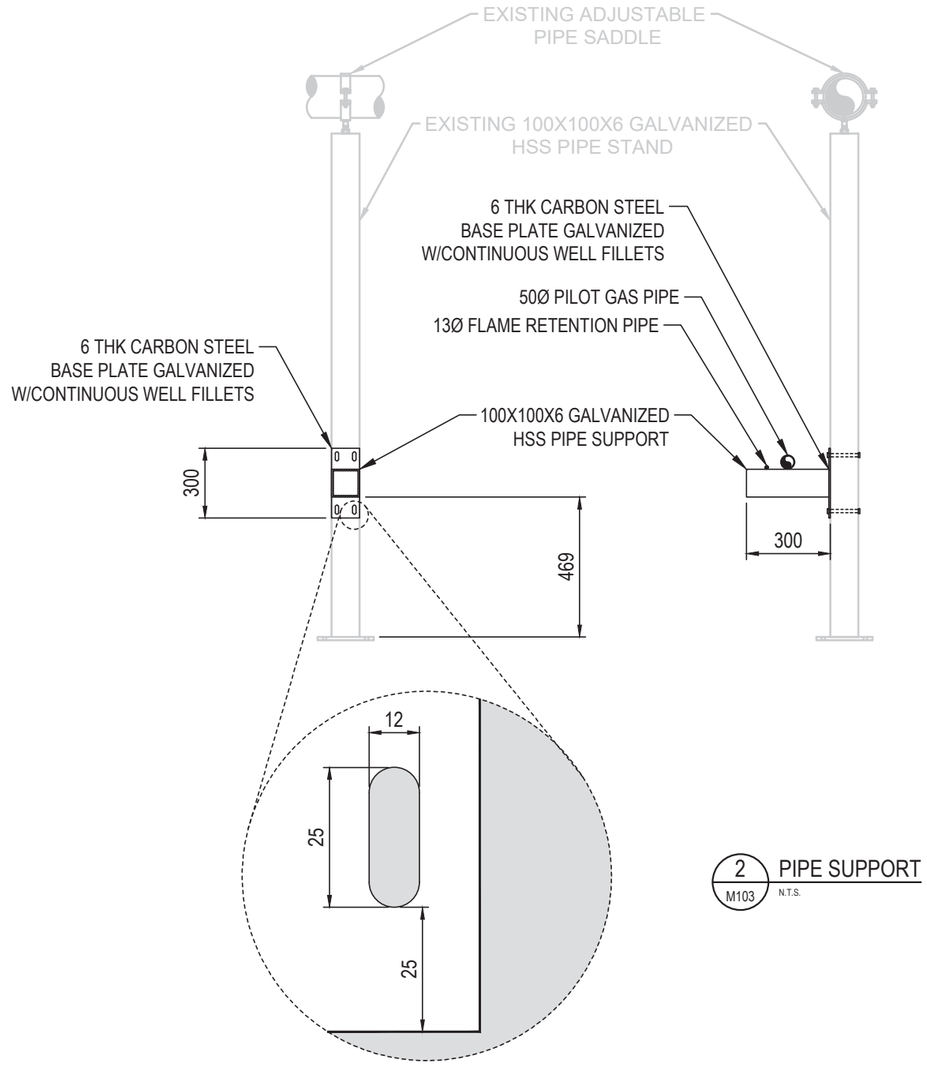
LFG UTILIZATION CONTROL PLANT AND FLARE UPGRADE NANAIMO REGIONAL LANDFILL

PROFILE - PROPOSED CONDITIONS

PROJECT No.	OFFICE	DES	CKD	REV	DRAWING
SWM.SWOP04043-01	EDM	ML	ML	0	M105
DATE: October 18, 2023	SHEET No. 4 of 7	DWN JL	APP ML	STATUS D	

Q:\Edmonton\Drafting\00_MASTER PROJECT BASE PLANS\RDN - Nanaimo Regional Landfill\Production\SWM.SWOP04043-01_RDN Flare Upgrade\FTISWM.SWOP04043-01_RDN Flare Upgrade.dwg [M105] October 27, 2023 - 3:23:43 pm (BY: LING, JOHN)





NOTES
ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE INDICATED

STATUS
ISSUED FOR TENDER

NUM	DATE	APR	DESCRIPTION
0	OCT 25/23	ML	ISSUED FOR TENDER
REVISIONS			
D	JULY 27/23	ML	ISSUED FOR REVIEW - 99%
C	APRIL 28/21	ML	ISSUED FOR REVIEW - 95%
B	APRIL 21/21	ML	ISSUED FOR REVIEW - 90%
A	APRIL 8/21	ML	ISSUED FOR REVIEW - 60%
NUM	DATE	APR	DESCRIPTION
DRAWING STATUS			

PERMIT TO PRACTICE
TETRA TECH CANADA INC.
PERMIT NUMBER: 1001972

PERMIT

2023-12-08
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
M.E. LEFEBVRE
#26071

PROFESSIONAL SEAL

CLIENT
REGIONAL DISTRICT OF NANAIMO

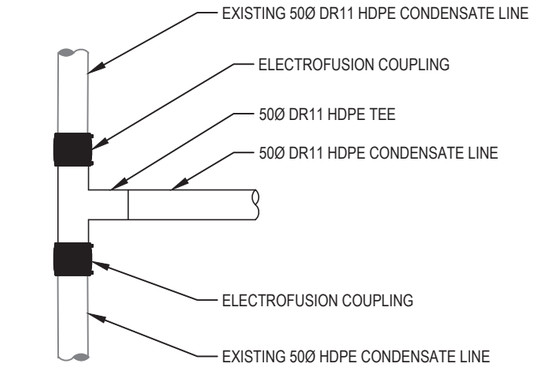
TETRA TECH

LFG UTILIZATION CONTROL PLANT AND FLARE UPGRADE
NANAIMO REGIONAL LANDFILL

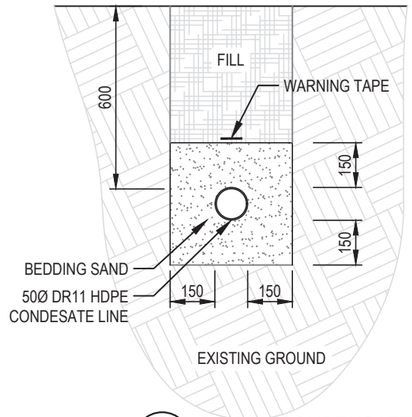
DETAILS - (1/2)

PROJECT No.	OFFICE	DES	CKD	REV	DRAWING
SWM.SWOP04043-01	EDM	ML	ML	0	M106
DATE: October 18, 2023	SHEET No. 5 of 7	DWN JL	APP ML	STATUS D	

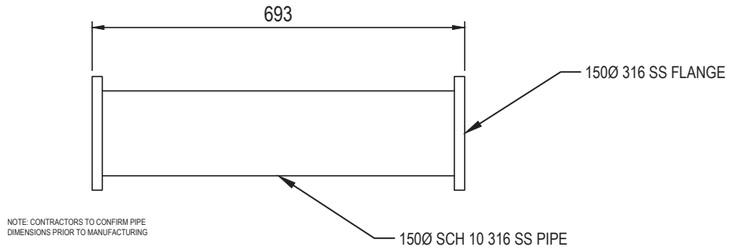
Q:\Edmonton\Drafting\00_MASTER PROJECT BASE PLANS\RDN - Nanaimo Regional Landfill\Production\SWM.SWOP04043-01_RDN Flare Upgrade\dwg\M106] October 27, 2023 - 3:23:47 pm (BY:: LING, JOHN)



1 M103 **ELECTROFUSION TEE CONNECTION** N.T.S.

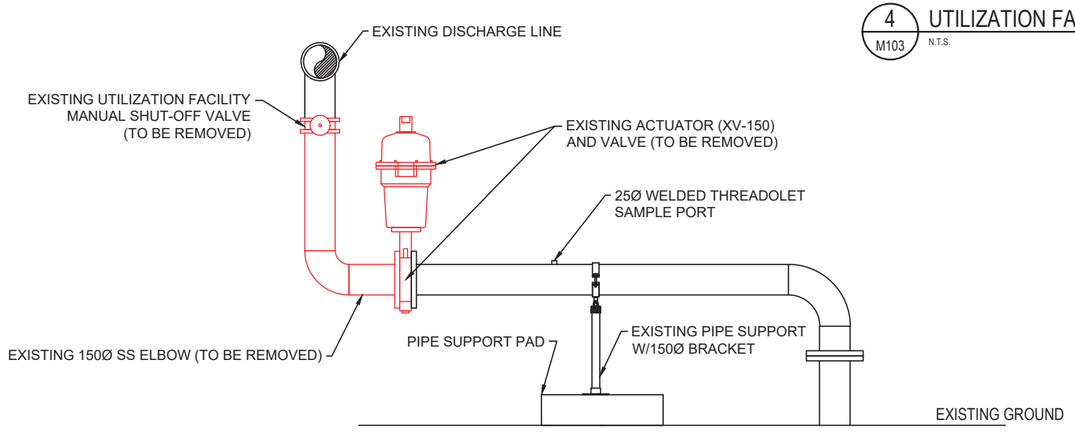


2 M103 **BURIED CONDENSATE LINE** N.T.S.

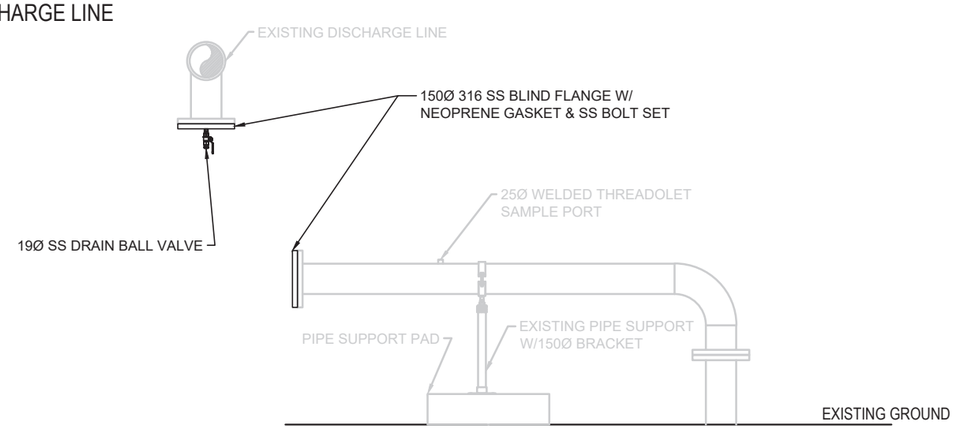


3 M103 **DISCHARGE SPOOL** N.T.S.

4 M103 **UTILIZATION FACILITY DISCHARGE LINE** N.T.S.



EXISTING CONDITIONS



PROPOSED CONDITIONS

NOTES
ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE INDICATED

STATUS
ISSUED FOR TENDER

NUM	DATE	APR	DESCRIPTION
0	OCT 25/23	ML	ISSUED FOR TENDER
REVISIONS			
D	JULY 27/23	ML	ISSUED FOR REVIEW - 99%
C	APRIL 28/21	ML	ISSUED FOR REVIEW - 95%
B	APRIL 21/21	ML	ISSUED FOR REVIEW - 90%
A	APRIL 8/21	ML	ISSUED FOR REVIEW - 60%
NUM	DATE	APR	DESCRIPTION
DRAWING STATUS			

PERMIT TO PRACTICE TETRA TECH CANADA INC.

PERMIT NUMBER: 1001972

PERMIT

2023-12-08

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — M.E. LEFEBVRE #26071

PROFESSIONAL SEAL

CLIENT

REGIONAL DISTRICT OF NANAIMO

TETRA TECH

LFG UTILIZATION CONTROL PLANT AND FLARE UPGRADE NANAIMO REGIONAL LANDFILL

DETAILS - (2/2)

PROJECT No.	OFFICE	DES	CKD	REV	DRAWING
SWM.SWOP04043-01	EDM	ML	ML	0	M107
DATE: October 18, 2023	SHEET No. 6 of 7	DWN JL	APP ML	STATUS D	

Q:\Edmonton\Drafting\00_MASTER PROJECT BASE PLANS\RDN - Nanaimo Regional Landfill\Production\SWM.SWOP04043-01_RDN Flare Upgrade\IFTS\SWM.SWOP04043-01_RDN Flare Upgrade_M107] October 27, 2023 - 3:23:52 pm (BY: LING, JOHN)