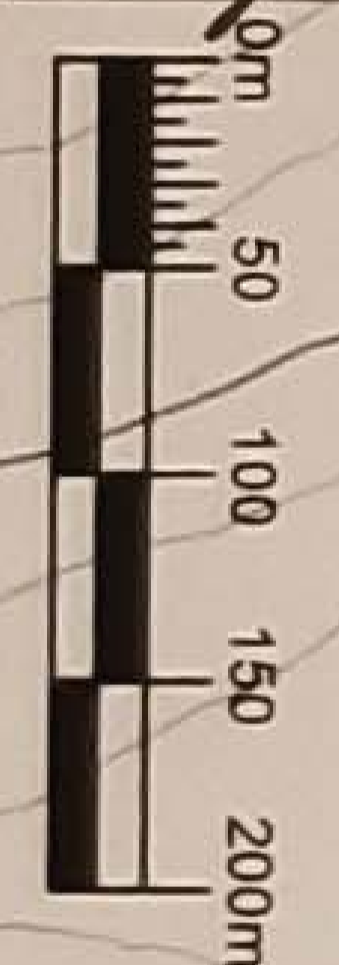
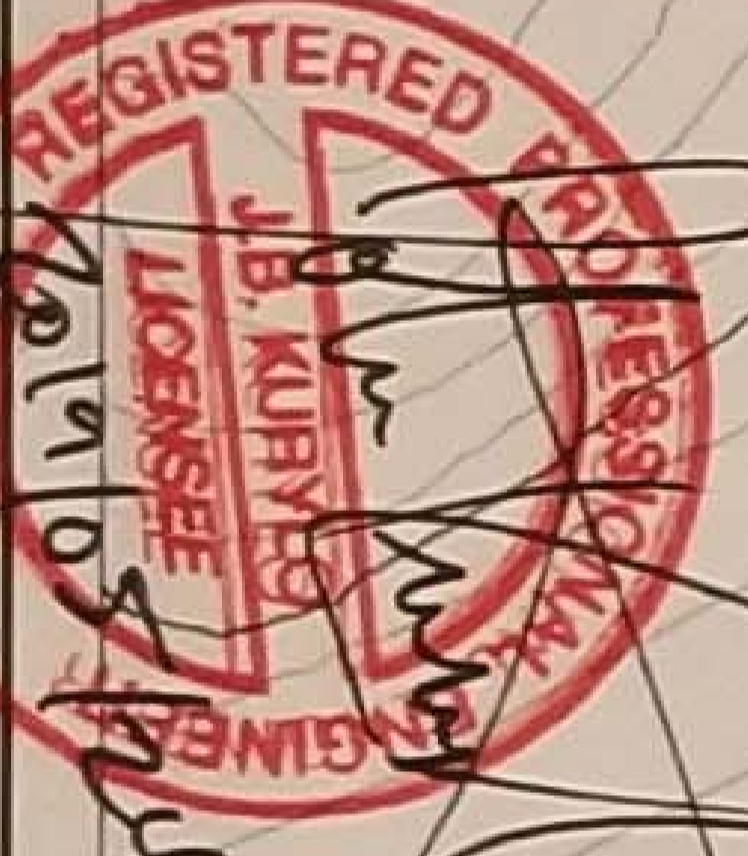
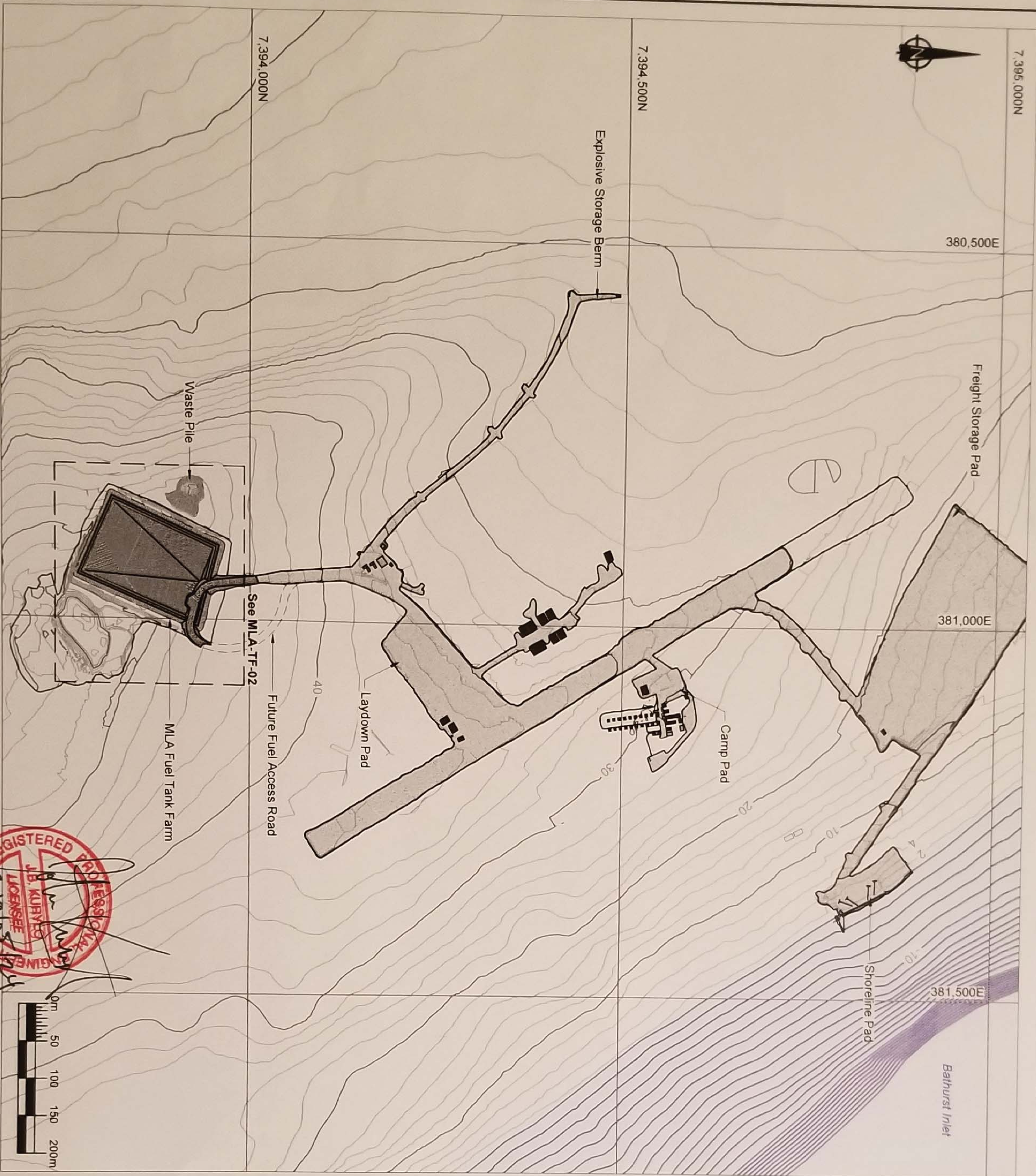




Sabina Gold & Silver Corp. Back River - Marine Laydown Area Engineering Drawings for the MLA Fuel Tank Farm

Drawing Number	Drawing Title	Issue	Date	Revision
MLA-TF-01	Fuel Tank Farm - General Arrangement	Issued for Construction	2019/05/24	0
MLA-TF-02	Plan Layout - Final Arrangement with Fuel Transfer Ramp	Issued for Construction	2019/05/24	0
MLA-TF-03	Foundation Preparation Plan Base Pad	Issued for Construction	2019/05/24	0
MLA-TF-04	Containment Berm Plan	Issued for Construction	2019/05/24	0
MLA-TF-05	Liner Subgrade Plan	Issued for Construction	2019/05/24	0
MLA-TF-06	Subgrade Sections and Details	Issued for Construction	2019/05/24	0
MLA-TF-07	Final Layout Plan - Without Ramp	Issued for Construction	2019/05/24	0
MLA-TF-08	Sections and Details - Sheet 1	Issued for Construction	2019/05/24	0
MLA-TF-09	Typical Cross Sections and Access Ramp Profile	Issued for Construction	2019/05/24	0
MLA-TF-10	Sections and Details - Sheet 2	Issued for Construction	2019/05/24	0
MLA-TF-11	Final Arrangement Survey Layout Points	Issued for Construction	2019/05/24	0



LEGEND

- Fuel Tank Farm Area
- 2018 ML A As-Built

NOTES

1. Regional topographic contour data for the terrain model was provided by the Owner (Sabina). The shown design topography is based on available LIDAR information and the provided August 2018 as-built information. See Reference for additional details on the data sources.
2. Contour intervals are shown at 2m on this figure.
3. All drawings are scaled appropriately for B-size construction drawings. Scales may not be correct if these drawings are reproduced and presented in other size formats.
4. Construction is expected to be in accordance with latest site Technical Specifications - with any variations approved and documented by the Engineer. See the latest issued For Construction (FCO) "Earthworks and Geotechnical Engineering - Back River Gold Project, Nurevaui, Canada" document for more details.
5. Typical details are not to scale (NTS) unless specifically mentioned.
6. These works must be executed in accordance with the standard Sabina health and safety and environmental standards and protocols. It is the Contractor's responsibility to familiarize themselves with these documents.
7. The Contractor and Construction Manager shall familiarize themselves with all appropriate Licenses and / or Permits pertaining to the execution of the Works.
8. The scope of work, for this drawing package, is specifically focused on the earthwork components of the ML A Tank Farm areas only. No other pads or roads have been looked at or designed by SRK. These drawings exclude all electrical and mechanical elements.
9. Before any construction is carried out on site a geotechnical Engineer (or Engineers' representative) need to visit site and confirm the foundation conditions are bedrock, specifically important below the planned tank locations. Proceeding with construction, as noted on this FCO drawing, is contingent on the Engineer conducting a physical inspection of the foundation conditions to confirm that the facility will be founded on a competent bedrock foundation as opposed to unconsolidated fill, frozen sand, or overburden. Construction may only proceed with written approval from the Engineer.
10. All dimensions are in meters unless otherwise stated.
11. Notes on this drawing apply to all other drawings in this issue / package.

REFERENCE

- Coordination system: NAD83 UTM Zone 13.
- Base topographic contours generated from data provided by Sabina Gold and Silver Corp. File name: 'bathurst_inlet_1m_dem_tfile26 to file39_xyz', dated 2012-20-13.
- Available bathymetric data (blue contours) provided by Sabina on 2018/04/19. File name: Bathymetry_Bathurst.dwg. This data set was collected by ERM (formerly Rescan).
- As-Built Shoreline Pad survey provided by Sabina. File name: Site 180818MLA Jetty.dwg dated 2018-08-18.
- As-Built Quarry survey provided by Sabina May 8, 2019. File name: CAB180818 Quarry.dwg dated 2018-08-18.
- As-Built data for existing earthworks (pads and roads) and building and infrastructures provided by Sabina May 8, 2019. File name: Site 180818MLA Status map.dwg dated 2018-08-18.

MATERIALS LIST AND QUANTITIES

Item	Volume or Area	
Crush Material (above and below liner) See 'Surfacing Material' in the Tech Specs	Underliner	9,690m ³
	Overliner	9,870m ³
	Total	19,560m³
Levelling Material See 'Transition Material' description in the Tech Specs	Base Pad	15,110m ³
	Access Ramp	3,010m ³
Total	18,120m³	
Rockfill (Run of Quarry - ROQ)	Berms (bulk fill)	8,750m ³
Geotextile: Non-woven Needle Punched LP 16 or Propex Geotext 1601 or equivalent	Above and Below HDPE	36,300m ²
Liner: HDPE Textured 60mil (~1.5mm thick) or equivalent	Main liner element	18,150m ²

1. All reported volumes are calculated to neat lines. No bulking / shrinking factors or potential settlement issues have been utilized in the volume determination.
2. Areas do not account for overlaps, excess required for installation, or for any deviations from the neat design lines. For the liner quantities an allowance of at least 20% is suggested.
3. All volumes derived from AutoCAD Civil 3D 2018.
4. Note that the materials outlines above should be checked against the Technical Specification and or should get written approval from the engineer to confirm suitability.
5. The required crushed quantities required for the tank pedestals not shown / included in the current design.

MLA-TF-11	Final Arrangement Survey Layout Points
MLA-TF-10	Sections and Details - Sheet 2
MLA-TF-09	Typical Cross Sections and Access Ramp Profile
MLA-TF-08	Sections and Details - Sheet 1
MLA-TF-02	Plan Layout - Final Arrangement with Fuel Transfer Ramp
BRADING MO	DRAWING TITLE

NO	DESCRIPTION	CRWD	APPRD	DATE
0	Issued for Construction	RW	JBK	180524
A	Issued for Permit	RW	JBK	180523

DESIGN	JBK	THRAWN	TH	REVIEWED	VB
CHECKED	RW	APPROVED	JBK	DATE	20180524

srk consulting

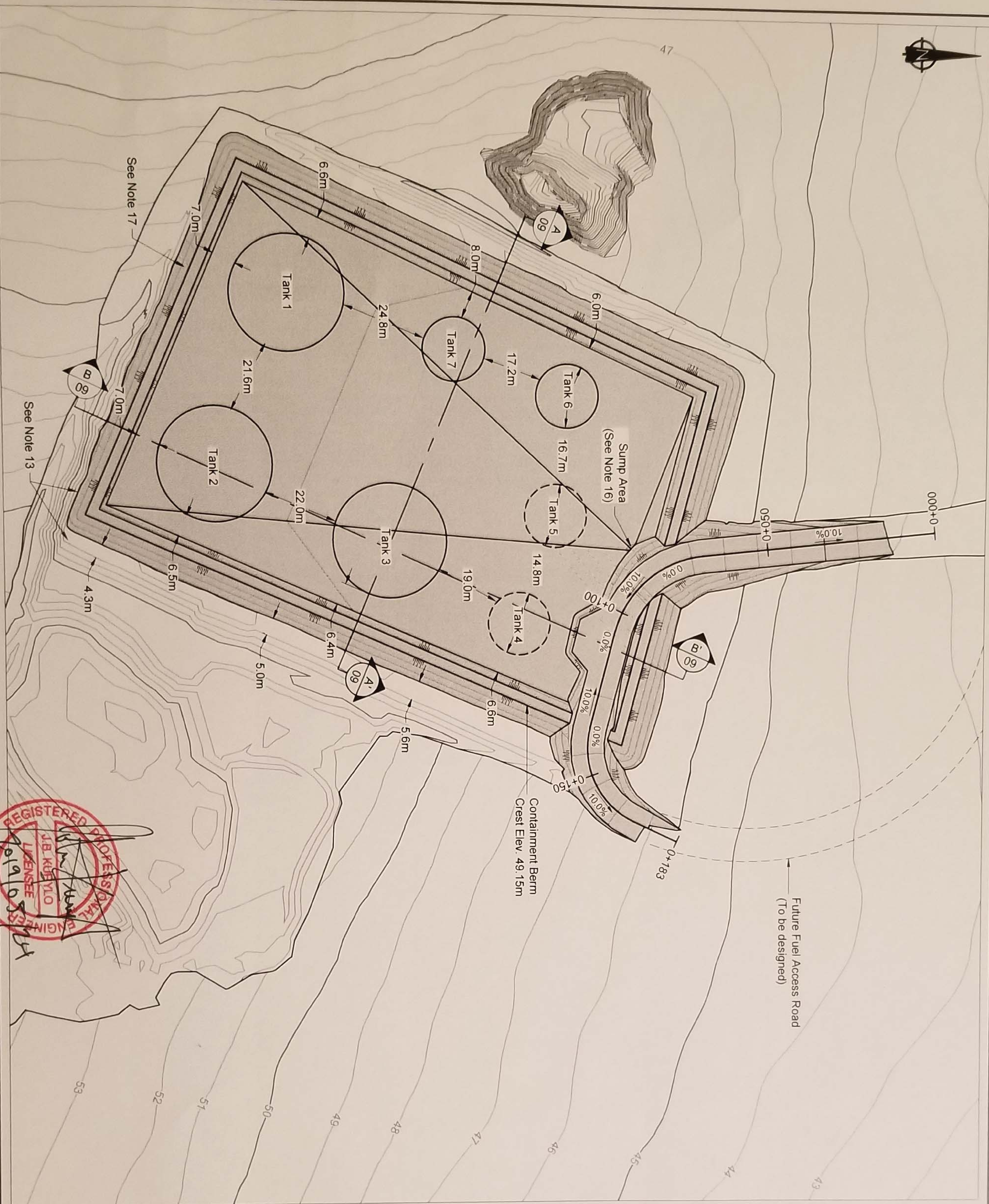
Sabina

Back River Project

Marine Laydown Area

Fuel Tank Farm - General Arrangement

MLA-TF-01 | SHEET 1 OF 11 | REVISION NO 0



srk consulting



Sabina
Back River Project

NO.	DESCRIPTION	CHKD	APPD	DATE	NO.	DESCRIPTION	CHKD	APPD	DATE
0	Issued for Construction								
1	Issued for Permit								

Original Drawings
Stamped and
Signed by Engineer

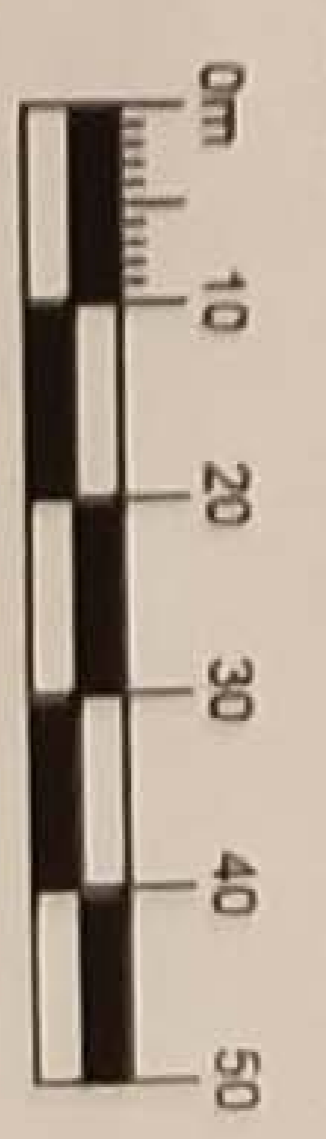
DESIGN	CHKD	APPD	DATE
JBK	RW	JBK	2018/05/24

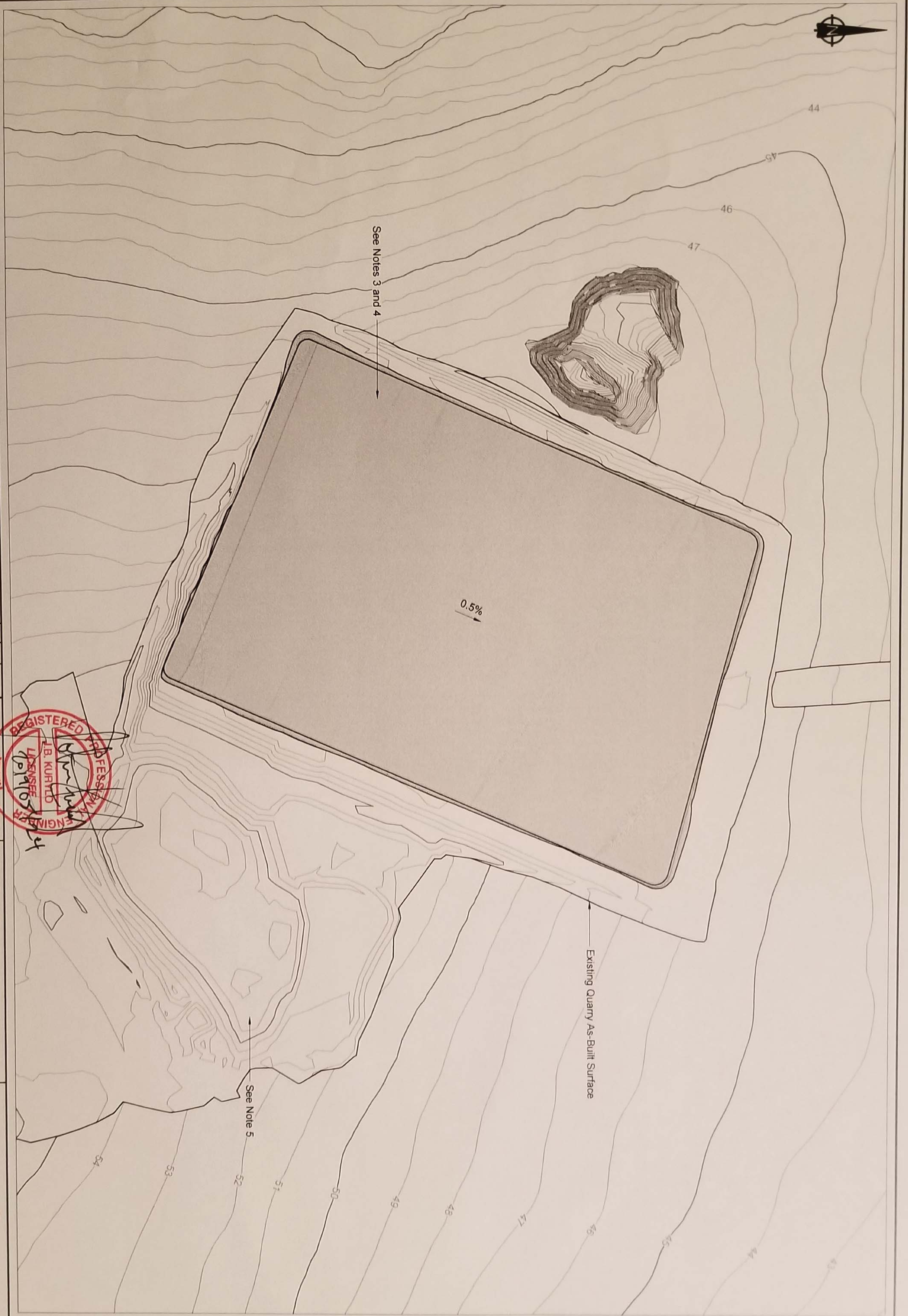
DRIVING TITLE	SHEET	REVISION NO.
Plan Layout - Final Arrangement with Fuel Transfer Ramp	2 OF 11	0

- LEGEND**
- Fuel Tank Farm Area - Final Layout

- NOTES**
- Contour intervals are shown at 1m on this figure
 - Original ground to be re-surveyed on site (at the quarry) prior to construction of the MLA Fuel Tank Farm. This would be done to confirm the design thicknesses, arrangement and geometry presented in these IFC drawings
 - The MLA Fuel Tank Farm is to be constructed on a thin graded engineered fill pad that is constructed immediately over an intact bedrock surface. This foundation pad should be generally sloping from the South to North to help promote better drainage of surface water
 - The Contractor shall aim to ensure that the blasted floor has some form of natural drainage to minimize the potential for ponding water
 - Tanks 1, 2 and 3 are all expected to be 10ML tanks that will be designed and constructed by Others. At this time only one 10ML tank is expected to be erected in 2019 (with the remaining tanks to be erected in future years)
 - Tanks 6 and 7 are expected to be 2.5ML tanks that will also be designed and constructed by Others
 - At the time of this drawing issue, the Owner (Sabina) was unsure as to if Tanks 4 and 5 would be constructed as two 2.5ML tanks or as one 5ML tank. This will be determined at a later date by the Owner. To provide flexibility the current MLA Tank Farm arrangement has been sized to accommodate either of these options in the northeast corner of the bunded area (i.e. could accommodate two 2.5ML tanks or one 5ML tank around the Tanks 4 and 5 area). The Engineer should be notified when the decision on the tank size for this final 5ML of fuel storage is constrained. Checks can then be done to provide final confirmation that the current bund design is suitable
 - The grounding of the tanks will be designed and installed by Others
 - All tanks will only be operational once the appropriate regulatory approvals have been put in place
 - The Owner will install appropriate signage and barricades to prevent a vehicle access within the secondary containment area (bunded area). Once fully constructed the primary access will be only over the designed fuel transfer ramp
 - The MLA Fuel Tank Farm Design (including tank spacing and containment volume) is based on, an meets the standards from the Canadian Council of Ministers of Environment (CCME), National Fire Code of Canada (2015) and the Sabina Gold and Silver Corporation Environmental Standards
 - All drawings should be read in conjunction with the latest IFC technical specifications document (Technical Specifications Earthworks and Geotechnical Engineering - Back River Gold Project, Nunavut, Canada - Issued for Construction)
 - Rockfall safety measures such as rock bolts and mesh may be required pending the final surface of the bedrock highwall. An inspection by the Engineer / an Engineers' representative to inspect and map the quarry highwall should be complete. In consultation with the Owner, proper safety measures should be implemented at or around the high wall. As a preliminary measure a slight offset has been left from the top of the containment berm (bund) crest and the largest highwall to allow for a small 'catch bench' area to be formed
 - If permafrost / overburden is exposed during any quarry development activities (drilling, blasting and excavation) then standard procedures of constructing a minimum 1m thick thermal insulating cover shall be implemented (e.g. at areas such as at the top of the highwall excavation)
 - Before any cranes are used on site (such as within the bunded areas to help place or erect the tanks), calculations should be complete to check that the crane loads are adequately spread as to not negatively impact / damage the underlying HDPE liner
 - Proceeding with construction, as noted on this IFC drawing, is contingent on the Engineer conducting a physical inspection of the foundation conditions to confirm that the facility will be founded on a competent bedrock foundation as opposed to unconsolidated fill, frozen sand, or overburden. Construction may only proceed with written approval from the Engineer. All dimensions are in meters unless otherwise stated
 - Notes on this drawing apply to all other drawings in this issue / package

- REFERENCES**
- Coordination system: NAD83 UTM Zone 13
 - Base topographic contours generated from data provided by Sabina Gold and Silver Corp. File name: 'bedrock_inlet_1m_dem_bie26 to file 39_xyz', dated 2012-20-13
 - As-Built Quarry survey provided by Sabina May 8, 2019. File name: CAB180818 Quarry.dwg, dated 2018-08-18





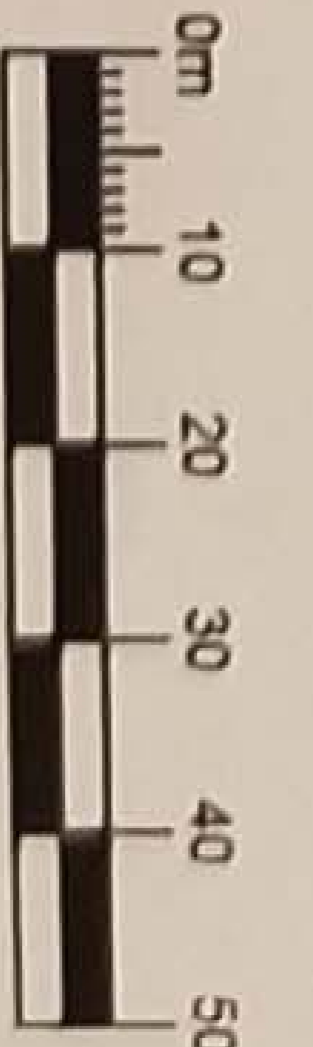
LEGEND
 Fuel Tank Farm - Foundation Base

NOTES

- 1 Contour intervals are shown at 1m on this figure
- 2 The M.A Fuel Tank Farm is to be constructed on a thin graded engineered fill pad that is constructed immediately over an intact bedrock surface. Generally, this foundation pad should be sloping from the South to North to help promote better drainage of surface water
- 3 All blasted material shall be excavated to the exposed intact rock surface for the survey and approval from the Engineer.
- 4 Before any construction (before the foundation preparation pad is constructed) the Engineer (or engineers' representative) must inspect the blasted quarry foundation to confirm that the foundation conditions are in fact bedrock. Proceeding with construction, as noted on this IFC drawing, is contingent on the Engineer conducting a physical inspection of the foundation conditions to confirm that the facility will be founded on a competent bedrock foundation as opposed to unconsolidated fill, frozen sand, or overburden. Construction may only proceed with written approval from the Engineer. All dimensions are in meters unless otherwise stated.
- 5 The stability of stockpiles above the highwall should be checked to ensure that these piles are stable and that a failure of these piles would not negatively impact the tanks / tank farm area. If stockpile are to remain long term above the tank farm areas then a stockpile management plant should be developed.
- 6 All dimensions are in meters unless otherwise stated.
- 7 Notes on this drawing apply to all other drawings in this issue / package.

REFERENCES

- Coordination system: NAD83 UTM Zone 13.
- Base topographic contours generated from data provided by Sabina Gold and Silver Corp. File name: *barhurst_inlet_1m_dem_tle26 to tle39_xyz*, dated 2012-20-13.
- As-Built Quarry survey provided by Sabina May 8, 2019. File name: *CAB180818 Quarry.dwg*, dated 2018-08-18



Marine Laydown Area

Foundation Preparation Plan
 Base Pad

DRAWING NO: MLA-TF-03 SHEET: 3 OF 11 REVISION NO: 0



Back River Project

Original Drawings
 Signed by Engineer



PROFESSIONAL ENGINEERS STAMP

DESIGN	JBK	DRAWN	TH	REVIEWED	VB
CHECKED	RW	APPROVED	JBK	DATE	2019/05/24

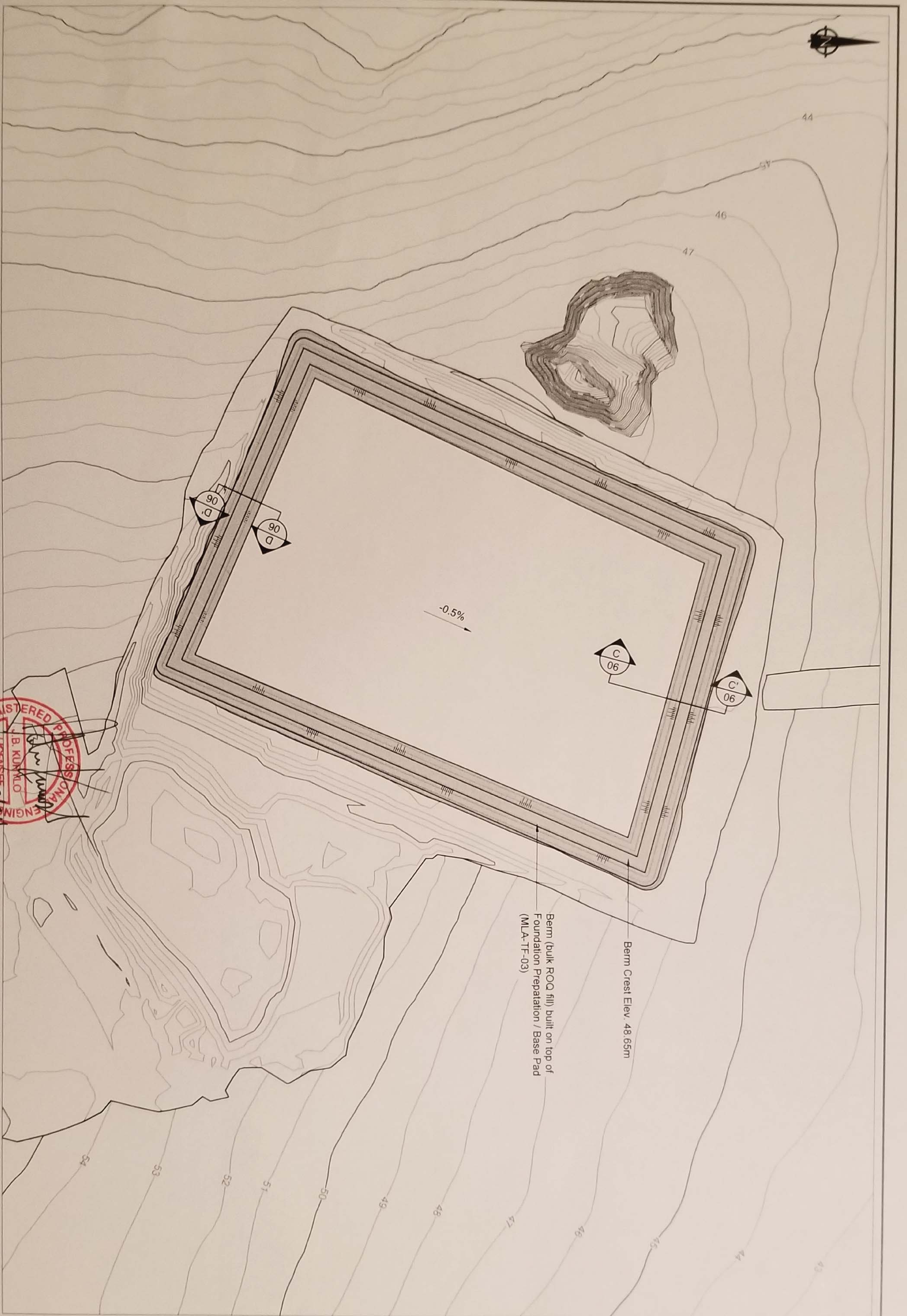
FILE NAME: 10CS020.017 - Foundation Prep.dwg
 SRK JOB NO.: 10CS020.017

NO.	DESCRIPTION	CHD	APPD	DATE	NO.	DESCRIPTION	CHD	APPD	DATE
0	Issued for Construction	RW	JBK	19/05/24					
1	Issued for Permit	RW	JBK	19/05/23					

MLA-TF-03
 DRAWING NO

Subgrade Sections and Details
 Containment Basin Floor (Bak 70)

REFERENCE DRAWINGS



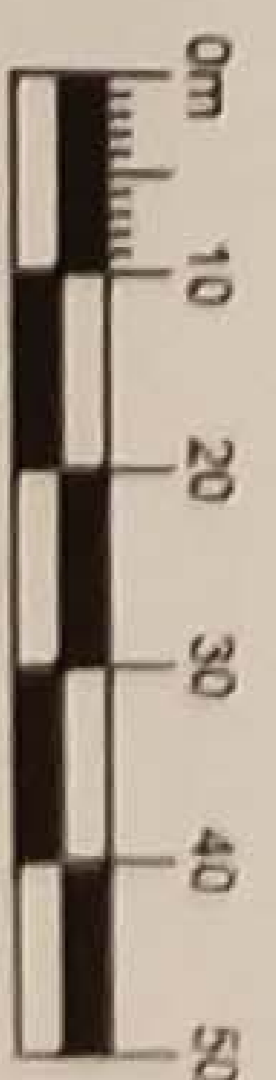
LEGEND
 Fuel Tank Farm - Berm

NOTES

- 1 Contour intervals are shown at 1m on this figure
- 2 All dimensioned are in meters unless otherwise stated
- 3 Proceeding with construction, as noted on this IFC drawing, is contingent on the Engineer conducting a physical inspection of the foundation conditions to confirm that the facility will be founded on a competent bedrock foundation as opposed to unconsolidated fill, frozen sand, or overburden. Construction may only proceed with written approval from the Engineer. All dimensioned are in meters unless otherwise stated.
- 4 Notes on this drawing apply to all other drawings in this issue / package.

REFERENCES

- Coordination system: NAD83 UTM Zone 13
- Base topographic contours generated from data provided by Sabina Gold and Silver Corp. File name: 'bairhurst_inlet_1m_dem_file26 to file39.xyz', dated 2012-20-13.
- As-Built Quarry survey provided by Sabina May 8, 2019. File name: 'CAB180818 Quarry.dwg', dated 2018-08-18



Marine Laydown Area
 Containment Berm Plan
 (Bulk Fill)

NO.	DATE	DESCRIPTION	BY	CHKD
0	18/05/24	Issued for Construction	JBK	JBK
A	18/05/23	Issued for Permit	JBK	JBK

PROFESSIONAL ENGINEERS STAMP
 REGISTERED PROFESSIONAL ENGINEER
 B. KUMILO
 License No. 489165
 MTNU

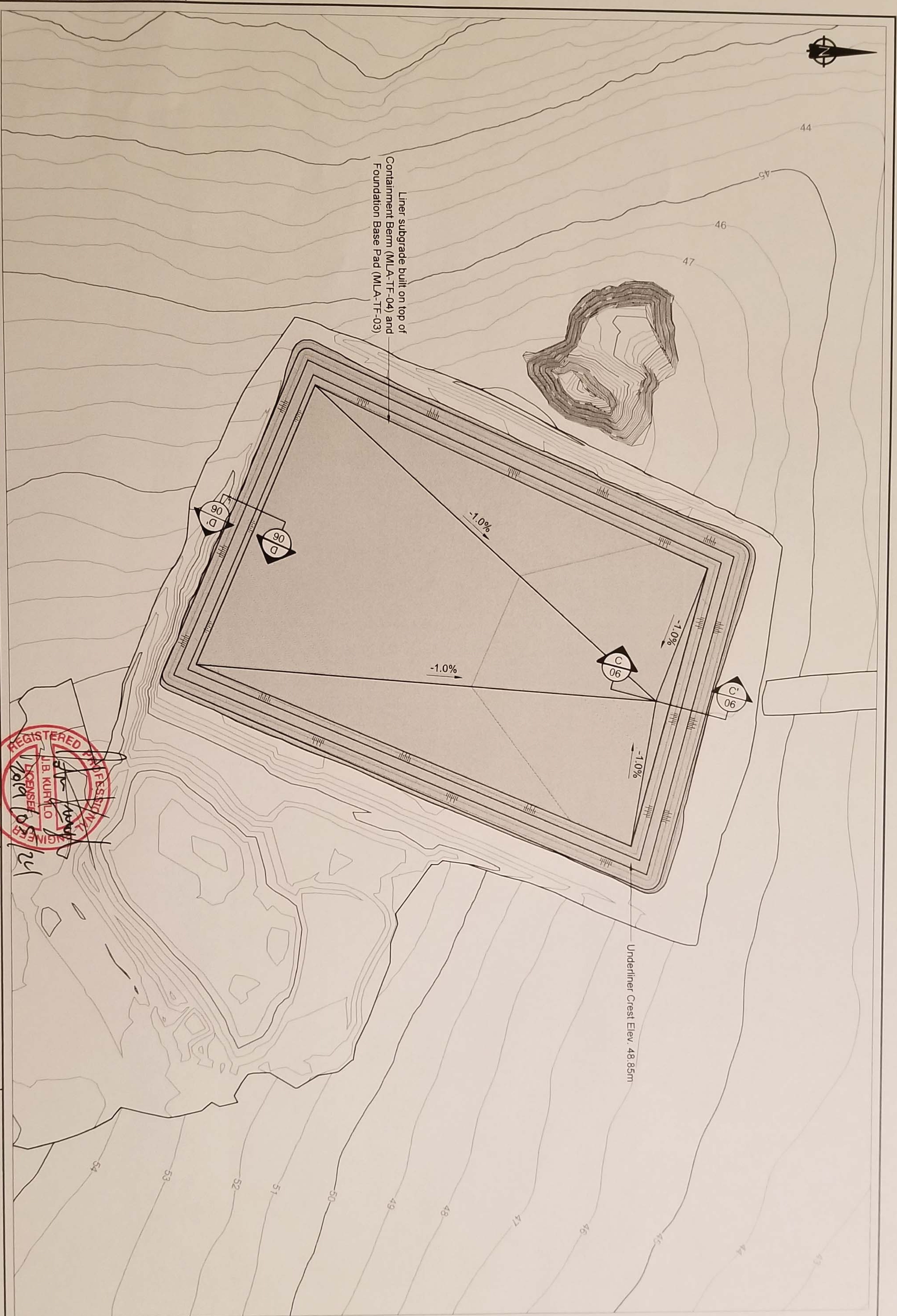
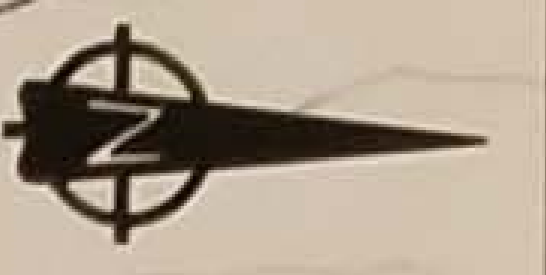
DESIGN	JBK	DRAWN	TH	REVIEWED	VB
CHECKED	RW	APPROVED	JBK	DATE	20/06/24

FILE NAME: 1CS020 017 - Liner Subgrade.dwg

srk consulting

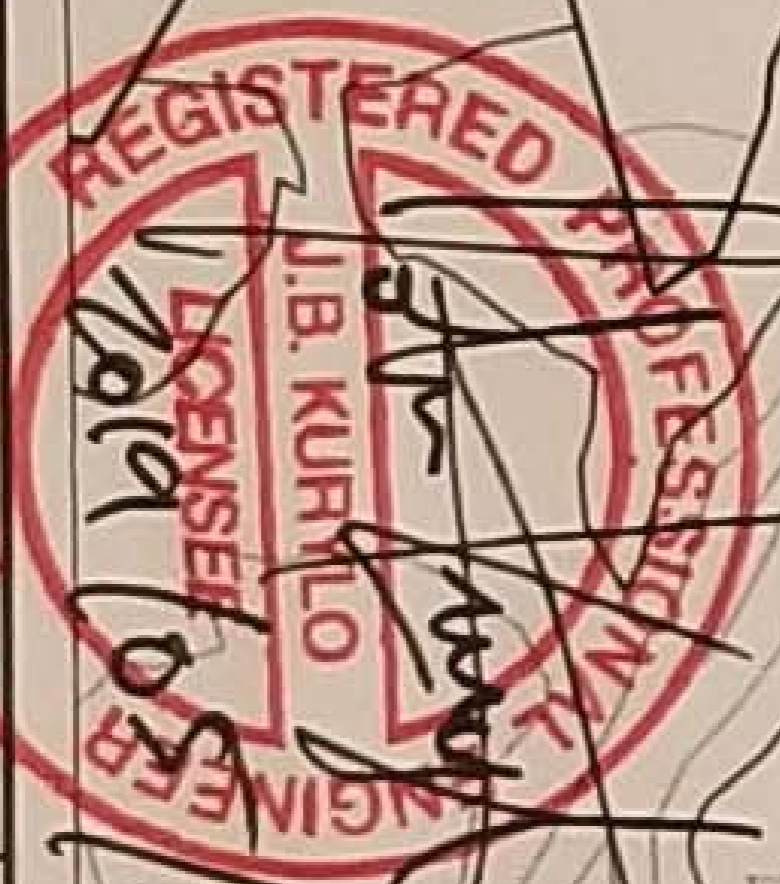
Sabina
 Back River Project

DRAWING NO.	MLA-TF-04	SHEET	4 OF 11	REVISION NO.	0
-------------	-----------	-------	---------	--------------	---



Liner subgrade built on top of Containment Berm (MLA-TF-04) and Foundation Base Pad (MLA-TF-03)

Underliner Crest Elev. 48.85m



Original Drawings Stamped and Signed by Engineer



Marine Laydown Area
Liner Subgrade Plan

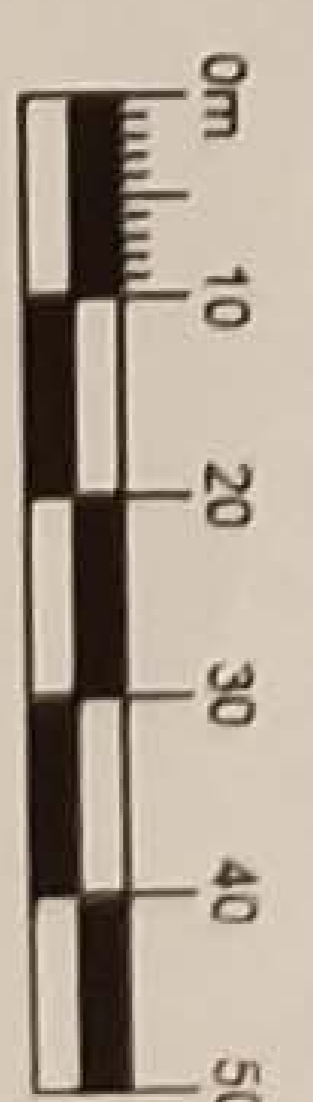
LEGEND
Fuel Tank Farm - Underliner Material

NOTES

1. Contour intervals are shown at 1m on this figure
2. All dimensions are in meters unless otherwise stated
3. Proceeding with construction, as noted on this IFC drawing, is contingent on the Engineer conducting a physical inspection of the foundation conditions to confirm that the facility will be founded on a competent bedrock foundation as opposed to unconsolidated fill, frozen sand, or overburden. Construction may only proceed with written approval from the Engineer. All dimensions are in meters unless otherwise stated.
4. Notes on this drawing apply to all other drawings in this issue / package

REFERENCES

- Coordination system: NAD83 UTM Zone 13
- Base topographic contours generated from data provided by Sabina Gold and Silver Corp. File name: 'bathurst_inlet_1m_dem_the26 to the39_xyz', dated 2012-20-13
- As-Built Quarry survey provided by Sabina May 8, 2019. File name: CAB780818 Quarry.dwg, dated 2018-08-18



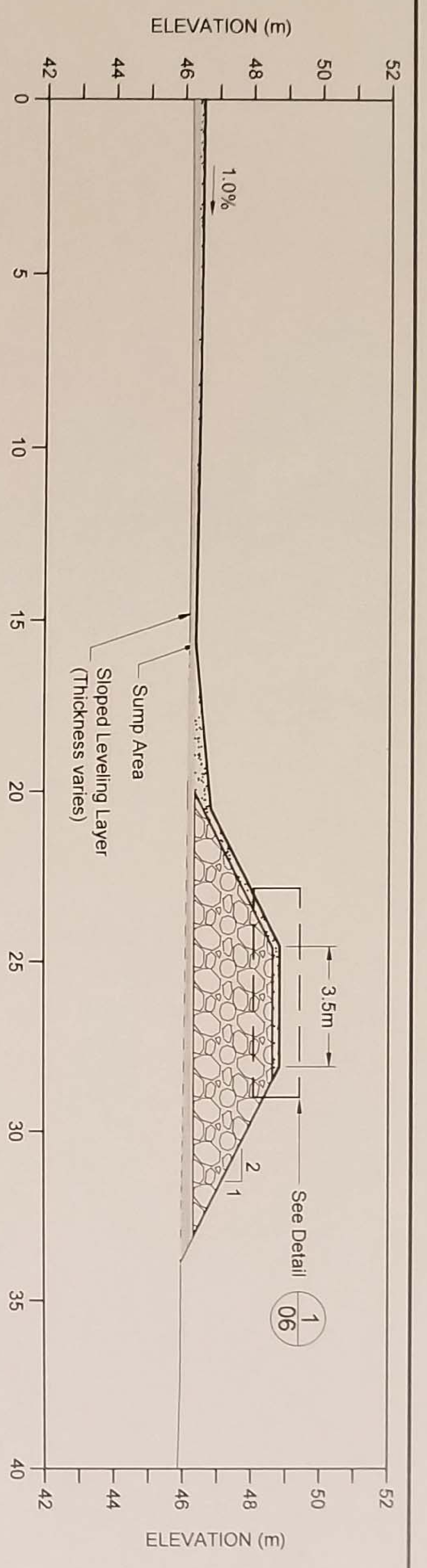
MLA-TF-06	Subgrade Sections and Details	NO.	DATE	DESCRIPTION	CHKD	APPD
MLA-TF-04 <td>Containment Berm Plan (Bulk Fill)</td> <td>0 <td>18/05/24 <td>Issued for Construction <td>RW</td> <td>JBK</td> </td></td></td>	Containment Berm Plan (Bulk Fill)	0 <td>18/05/24 <td>Issued for Construction <td>RW</td> <td>JBK</td> </td></td>	18/05/24 <td>Issued for Construction <td>RW</td> <td>JBK</td> </td>	Issued for Construction <td>RW</td> <td>JBK</td>	RW	JBK
MLA-TF-03 <td>Foundation Preparation Plan Base Pad</td> <td>A <td>18/05/23 <td>Issued for Permit <td>RW</td> <td>JBK</td> </td></td></td>	Foundation Preparation Plan Base Pad	A <td>18/05/23 <td>Issued for Permit <td>RW</td> <td>JBK</td> </td></td>	18/05/23 <td>Issued for Permit <td>RW</td> <td>JBK</td> </td>	Issued for Permit <td>RW</td> <td>JBK</td>	RW	JBK
DRAWING NO.	FOUNDATION PREPARATION PLAN BASE PAD	NO.	DATE	DESCRIPTION	CHKD	APPD

PROFESSIONAL ENGINEERS STAMP

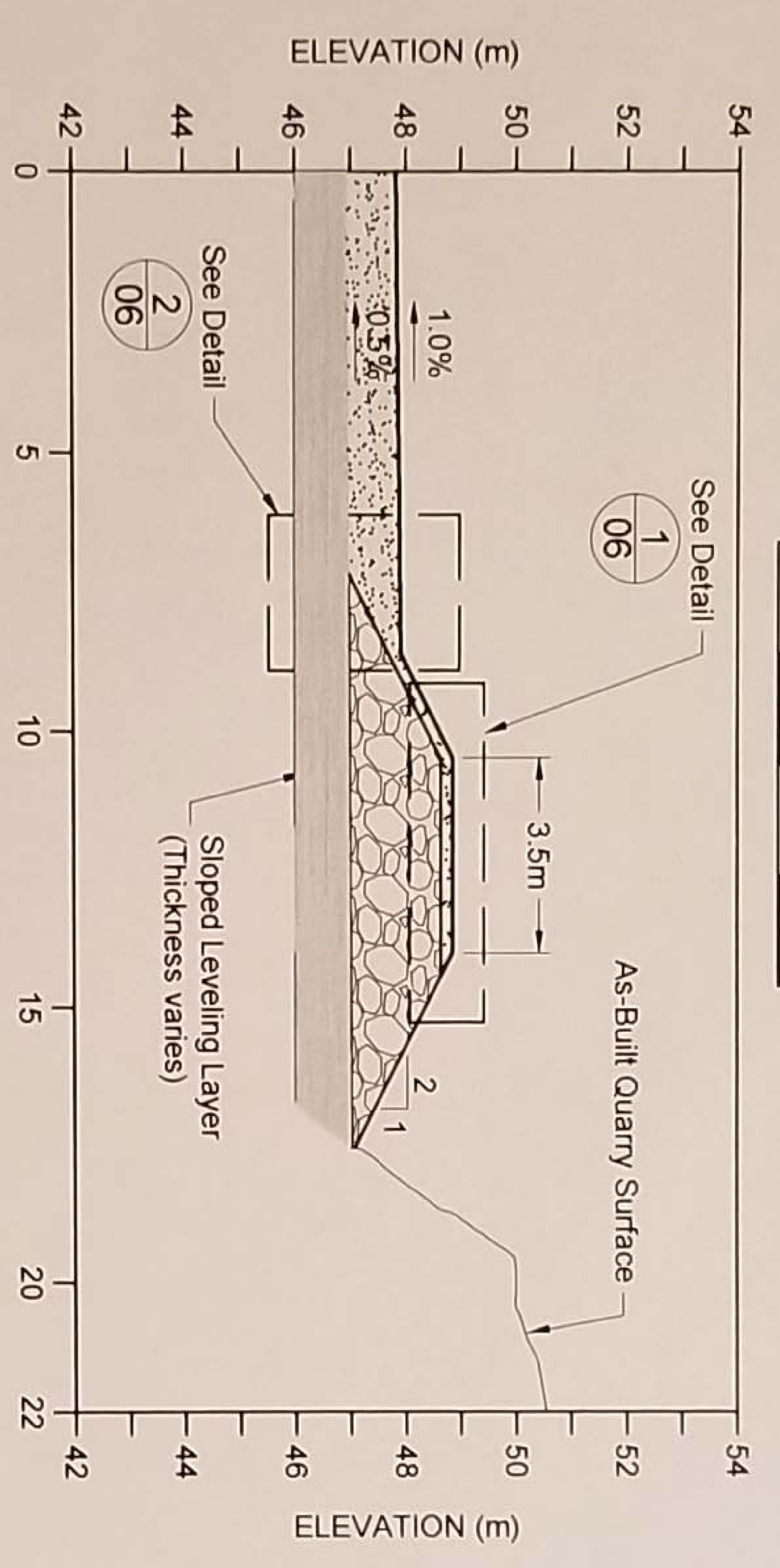
DESIGN	JBK	DRAWN	TH	REVIEWED	VB
CHECKED	RW	APPROVED	JBK	DATE	2018/05/24

FILE NAME: 1CS020.017 - Liner Subgrade.dwg
SRK JOB NO: 1CS020.017

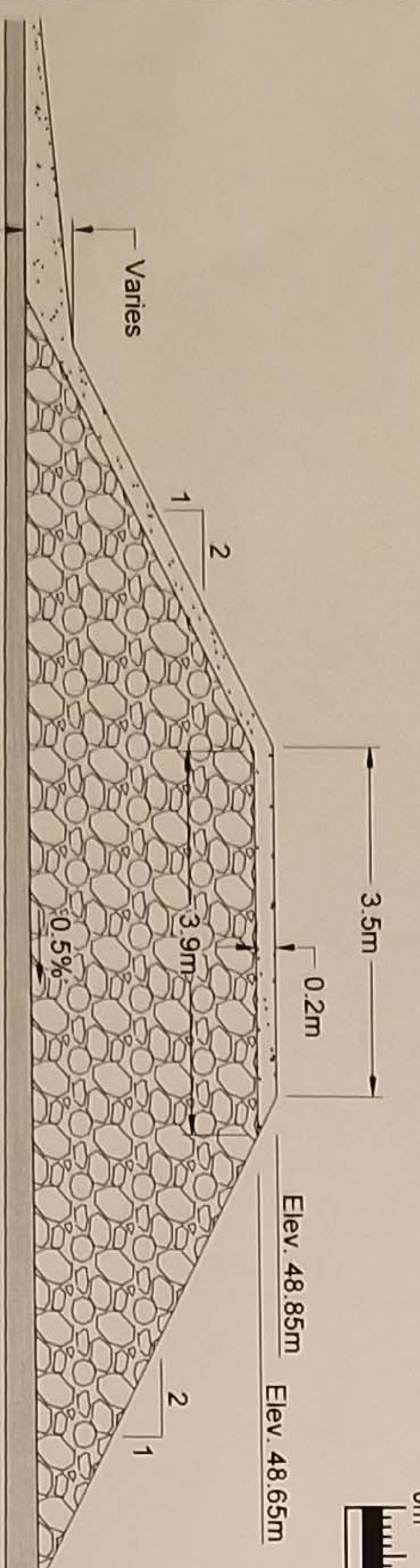
DRAWING NO.	MLA-TF-05	SHEET	5 of 11	REVISION NO.	0
-------------	-----------	-------	---------	--------------	---



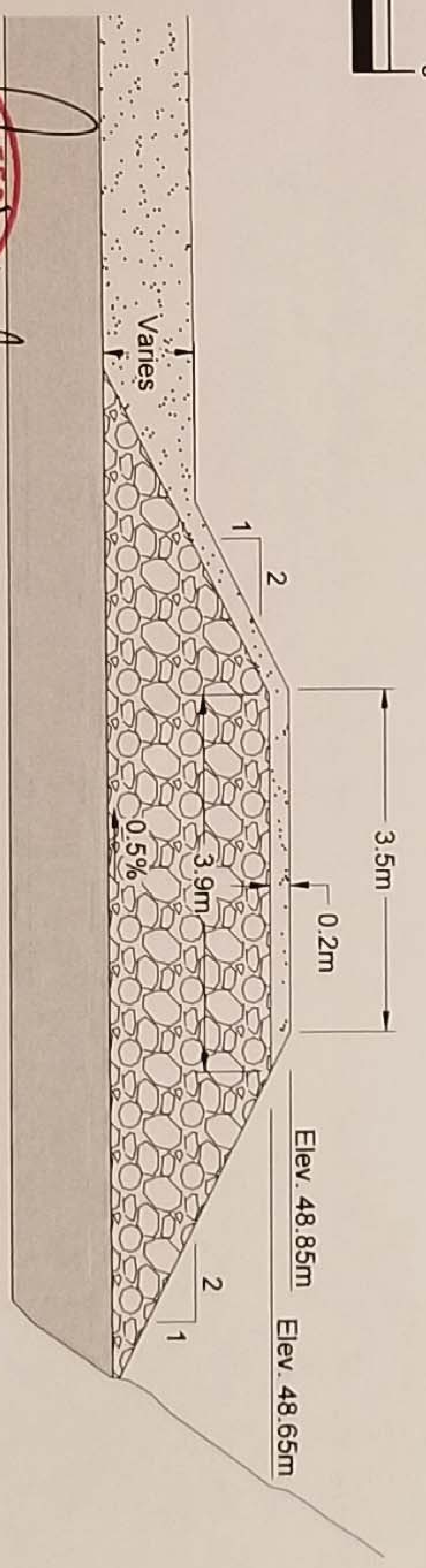
C Cross Section C-C'
04.05
0m 2 4 6 8



D Cross Section D-D'
04.05
0m 2 4 6 8



1 Detail 1 -
06
0m 1 2 3 4



2 Detail 2 -
06
0m 1 2 3 4

LEGEND

	Crushed Rock (underliner / surfacing)
	Levelling Layer (transition)
	Rockfill (RCQ)

- NOTES**
- All dimensions are in meters unless otherwise stated.
 - Proceeding with construction as noted on this IFC drawing, is contingent on the Engineer conducting a physical inspection of the foundation conditions to confirm that the facility will be founded on a competent bedrock foundation as opposed to unconsolidated fill, frozen sand, or overburden. Construction may only proceed with written approval from the Engineer. All dimensions are in meters unless otherwise stated.
 - Notes on this drawing apply to all other drawings in this issue / package.

MLA-TF-06	Liner Subgrade Plan	0	18/05/24	18/05/24	JBK	JBK	18/05/24	18/05/24	JBK	JBK
MLA-TF-04	Containment Berm Plan (Bulk Fill)									
MLA-TF-03	Foundation Preparation Plan (Bulk Fill)									
MLA-TF-02	Foundation Preparation Plan (Bulk Fill)									
MLA-TF-01	Foundation Preparation Plan (Bulk Fill)									

Original Drawings Stamped and Signed by Engineer

REGISTERED PROFESSIONAL ENGINEER
J.B. KURIYO
1019105
MTNNU

srk consulting

DESIGN: JBK
CHECKED: RW
APPROVED: JBK
DATE: 2019/05/24

Sabina

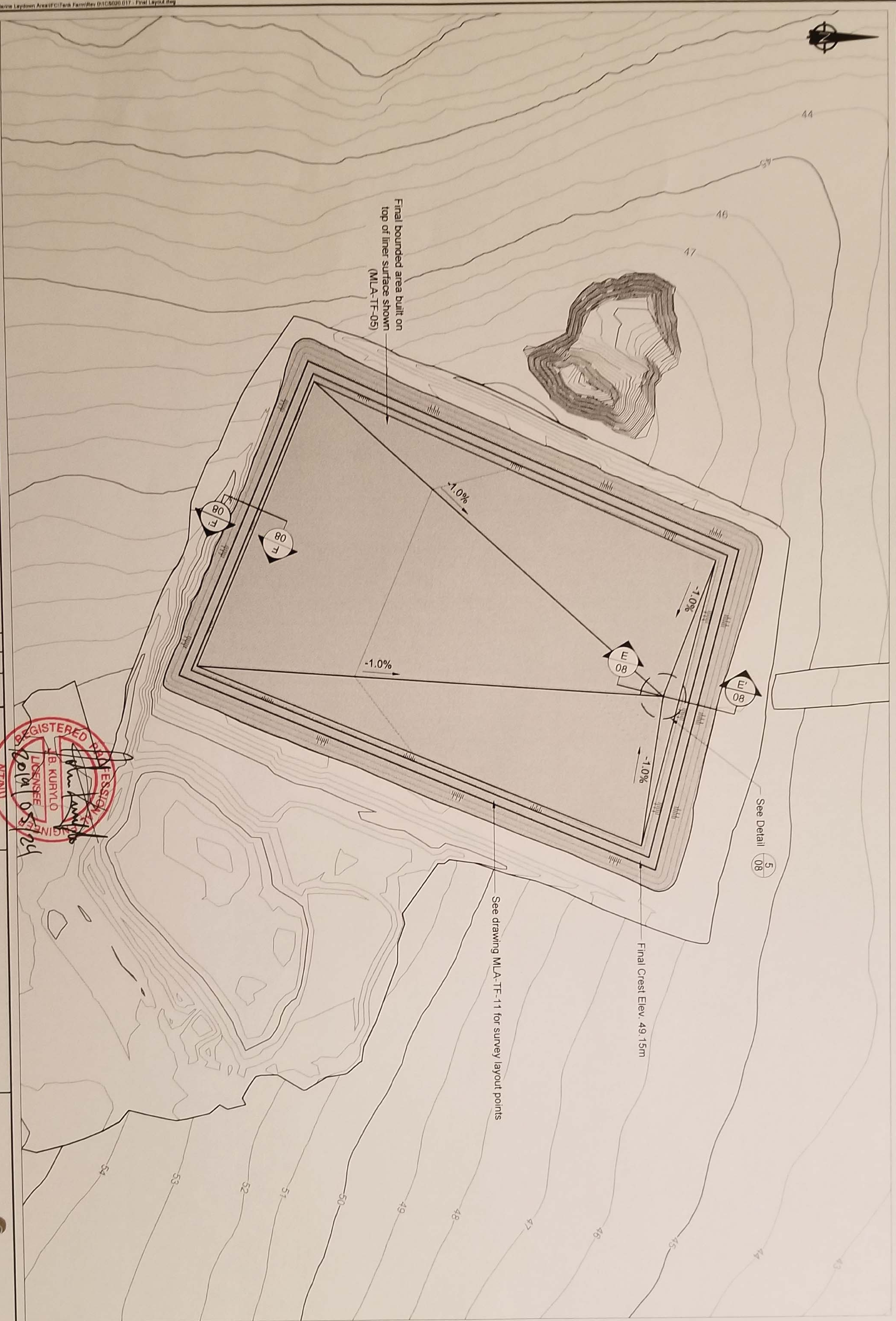
Back River Project

SKK JOB NO. 1CS020.017

Marine Laydown Area

Subgrade Sections and Details

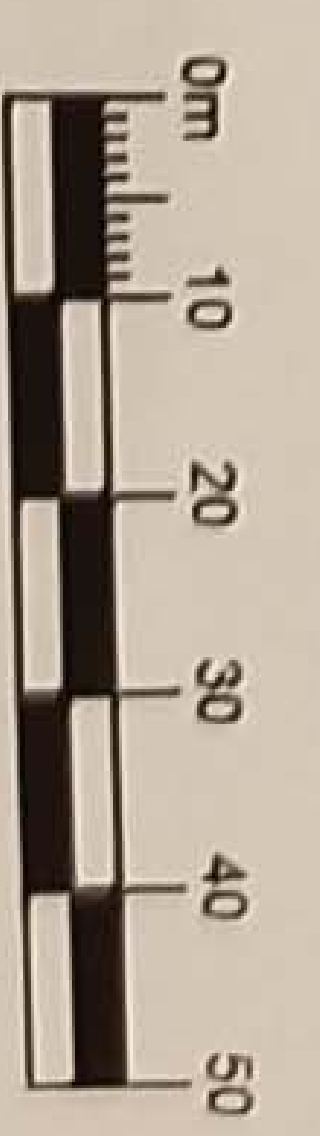
DRAWING NO. MLA-TF-06
SHEET 5 OF 11
REVISION NO. 0



LEGEND
Fuel Tank Farm - Overliner Material

- NOTES**
1. Contour intervals are shown at 1m on this figure.
 2. All dimensions are in meters unless otherwise stated.
 3. Notes on this drawing apply to all other drawings in this package.

- REFERENCES**
- Coordination system: NAD83 UTM Zone 13
 - Base topographic contours generated from data provided by Sabina Gold and Silver Corp. File name: 'bathurst_inlet_1m_dem_tle26 to tle39 xyz', dated 2012-20-13.
 - As-Built Quarry survey provided by Sabina May 8, 2019. File name: CAB180818 Quarry.dwg, dated 2018-08-18



NO.	DESCRIPTION	CHKD	APPD	DATE	NO.	DESCRIPTION	CHKD	APPD	DATE
0	Issued for Construction								
A	Issued for Permit								

Original Drawings
Stamped and
Signed by Engineer
REGISTERED PROFESSIONAL ENGINEER
B. KURYLO
2019 05 24
NTNU

srk consulting

DESIGN	JBK	TH	REVIEWED	VB
CHECKED	RW	APPROVED	JBK	DATE
				2019/05/24

FILE NAME: 1CS020.017 - Final Layout.dwg

Sabina
DATA MANAGEMENT

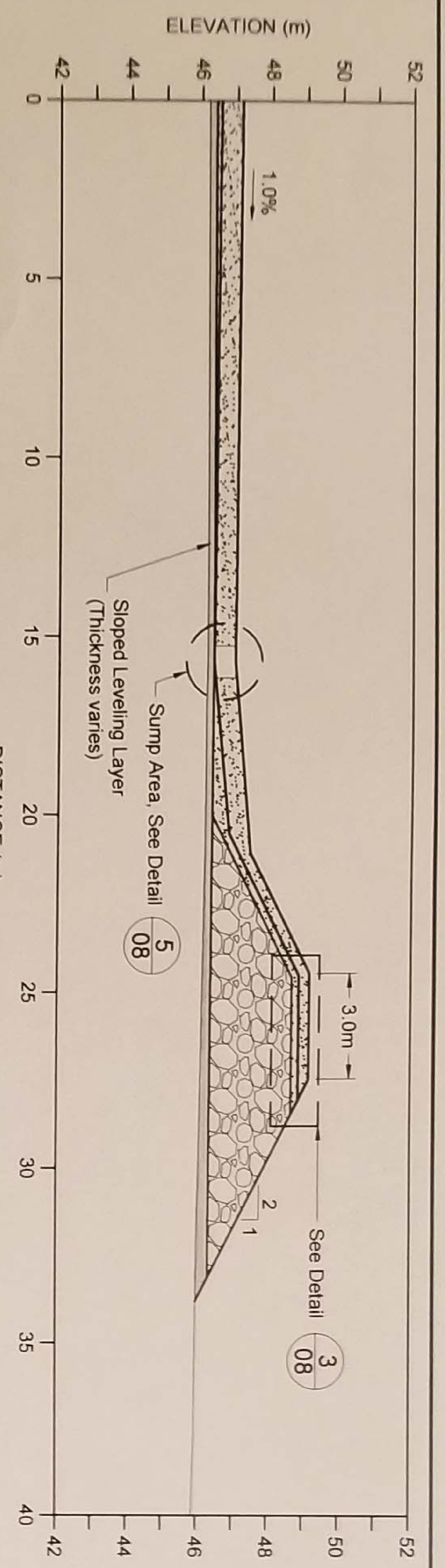
Back River Project

SRV_JOB NO.: 1CS020.017

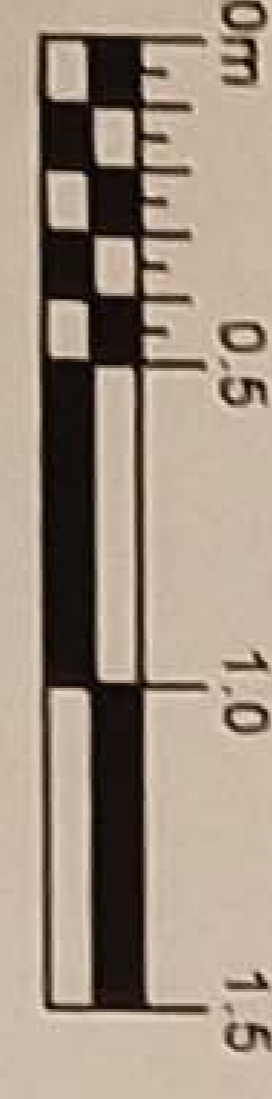
Marine Laydown Area

Final Layout Plan - Without Ramp

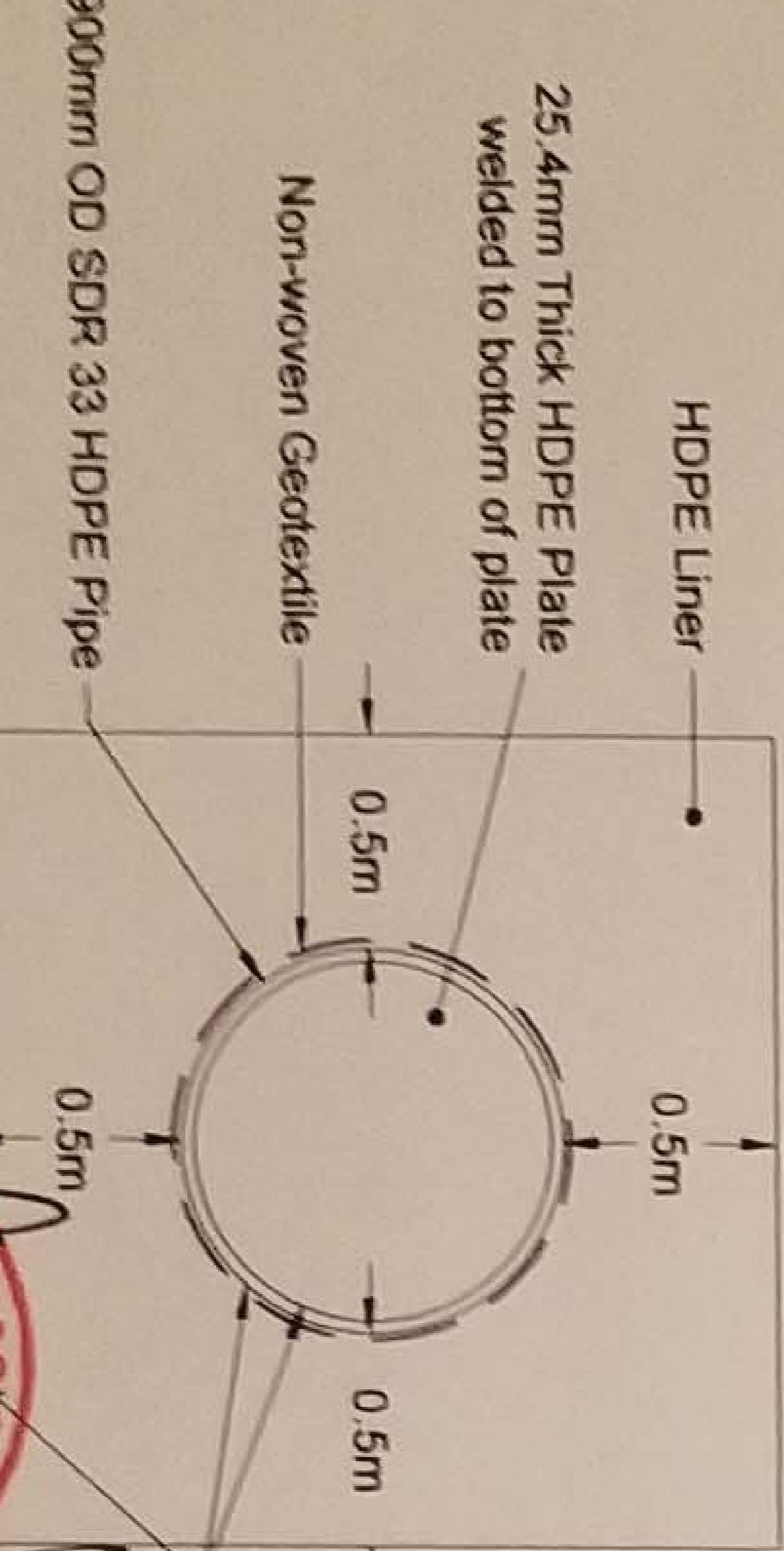
DRAWING NO.	SHEET	REVISION NO.
MLA-TF-07	7 OF 11	0



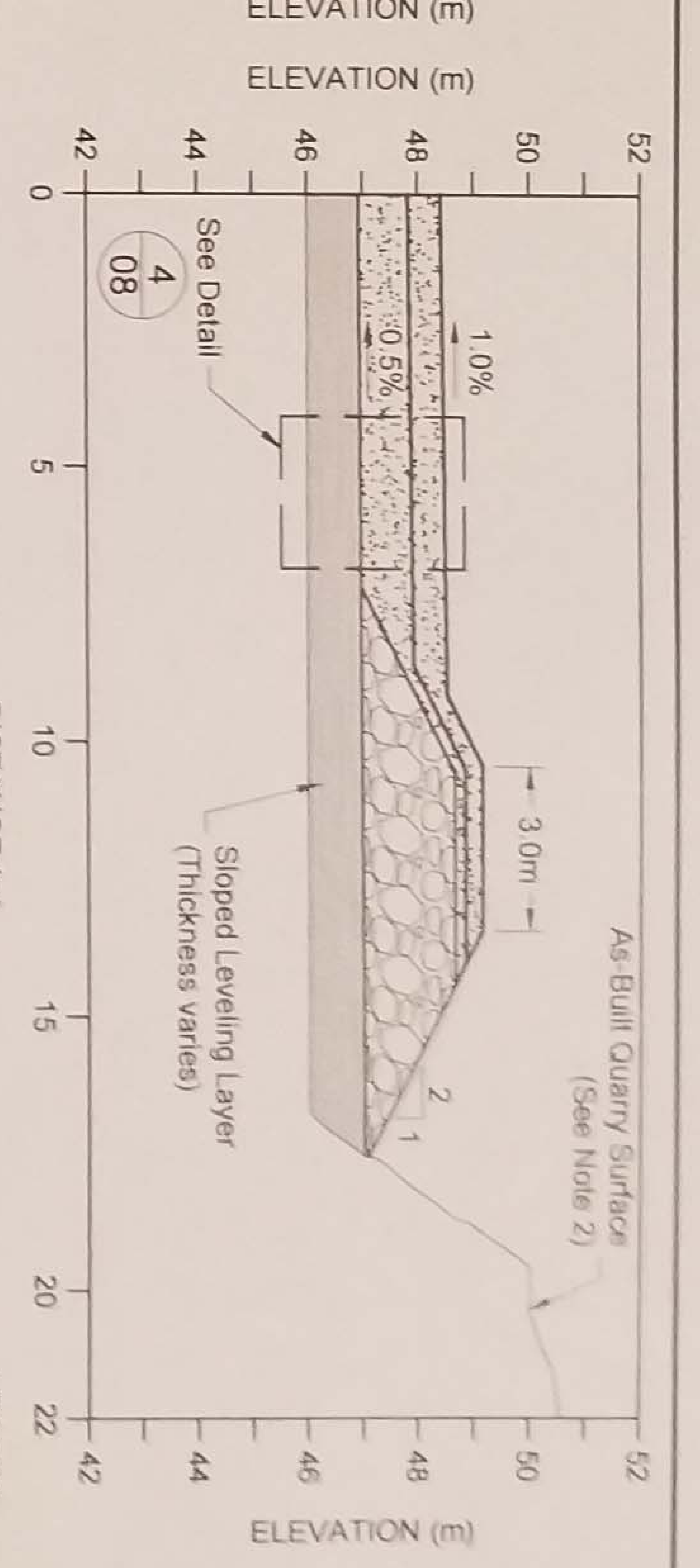
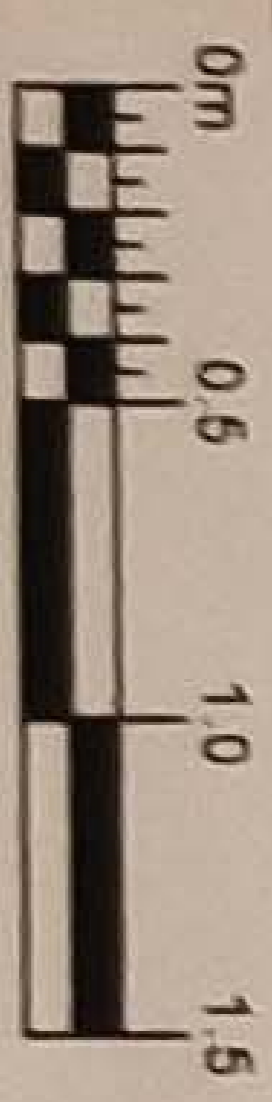
D Cross Section D-D'



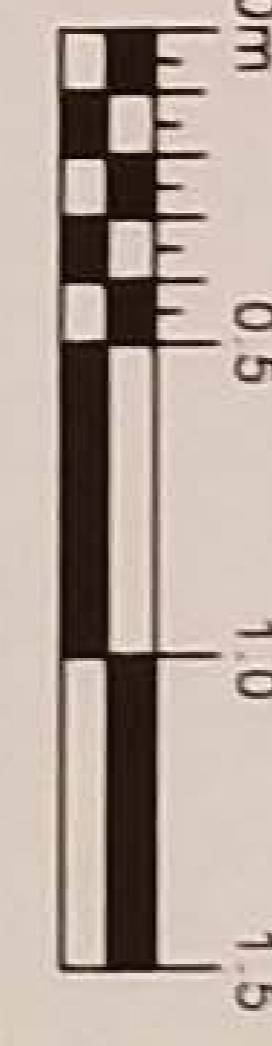
3 Typical Detail 3 - Final Tank Farm Berm Crest & Slope



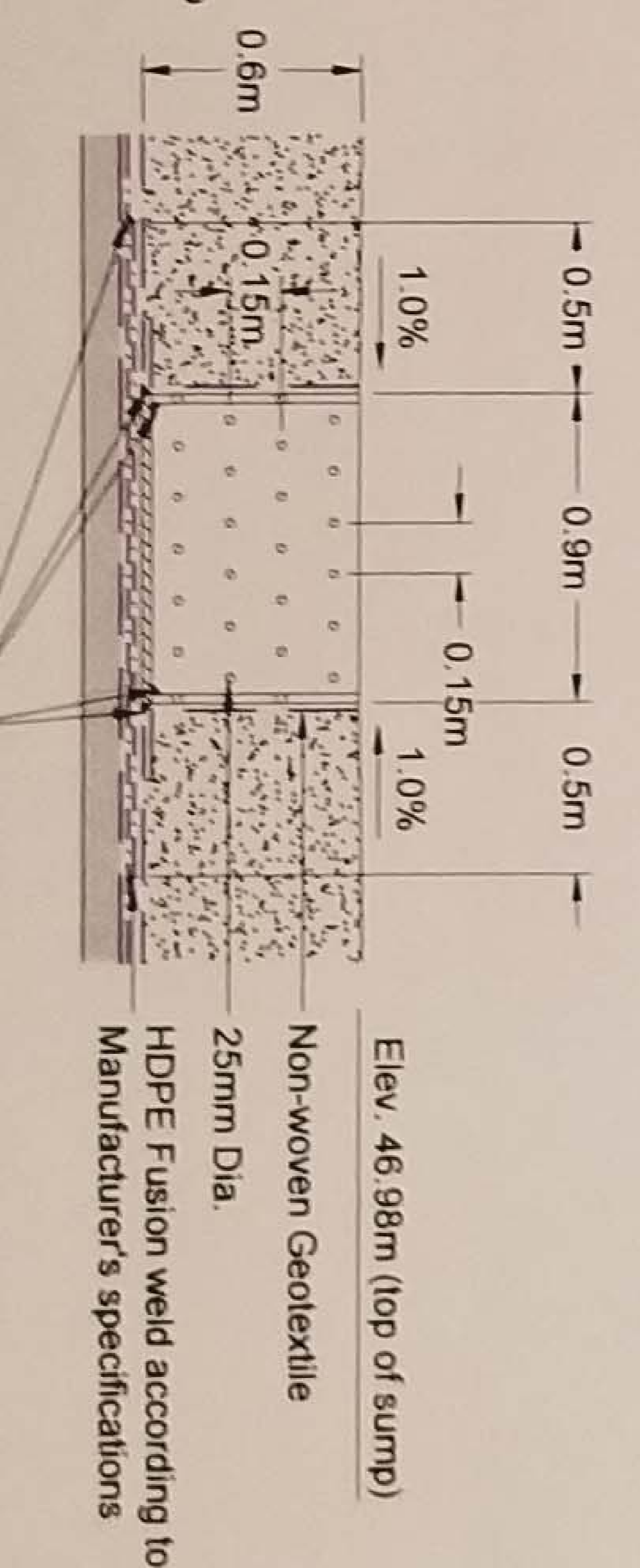
5 Detail 5 - Typical Sump



E Cross Section E-E'



4 Typical Detail 4 - Final Tank Farm Base



LEGEND

	Geotextile (non-woven)
	HDPE Liner
	Crushed Rock (above / below liner)
	Leveling Layer (transition)
	Rockfill (ROO)

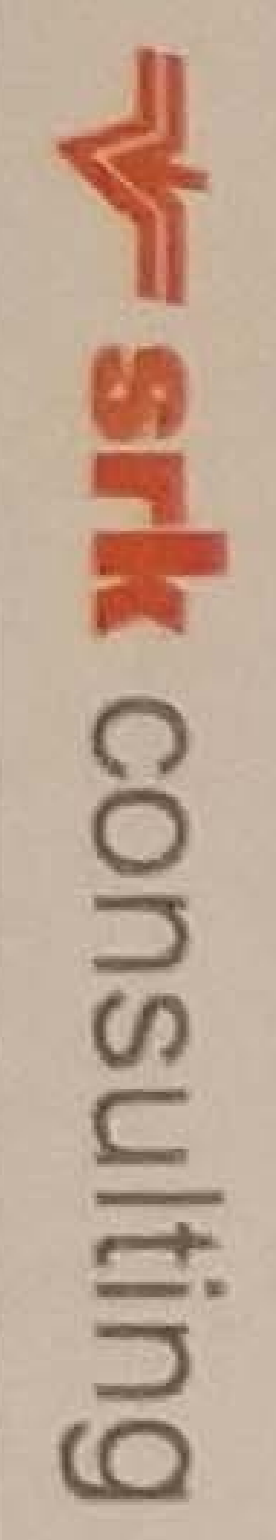
NOTES

- All dimensioned are in meters unless otherwise stated.
- Rockfall safety measures such as rock bolts and mesh may be required pending the final surface of the bedrock highwall in consultation with the Owner, proper safety measures should be implemented at or around the high wall.
- Proceeding with construction, as noted on this IFC drawing, is contingent on the Engineer conducting a physical inspection of the foundation conditions to confirm that the facility will be founded on a competent bedrock foundation as opposed to unconsolidated fill, frozen sand, or overburden. Construction may only proceed with written approval from the Engineer. All dimensioned are in meters unless otherwise stated.
- Notes on this drawing apply to all other drawings in this issue / package.

NO.	DESCRIPTION	DATE	BY	CHKD	DATE	DESCRIPTION
1	ISSUED FOR CONSTRUCTION	18/06/24	JMK	JMK	18/06/24	ISSUED FOR CONSTRUCTION
2						
3						
4						
5						

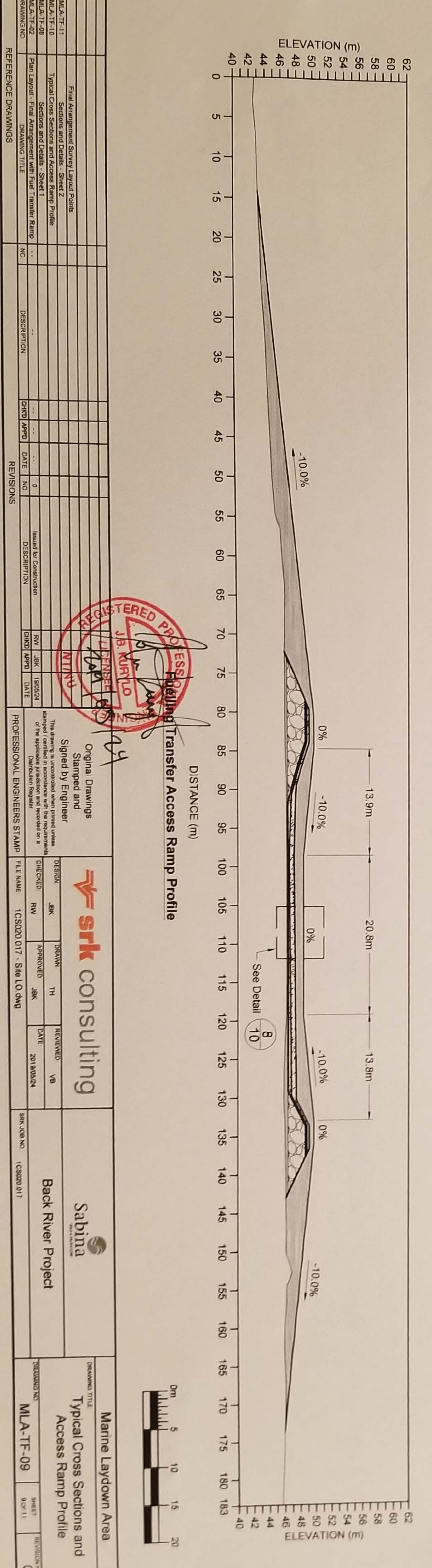
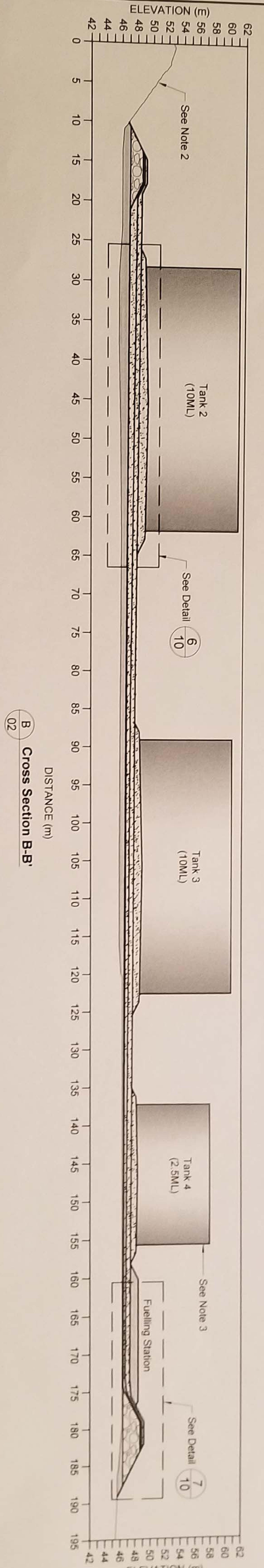
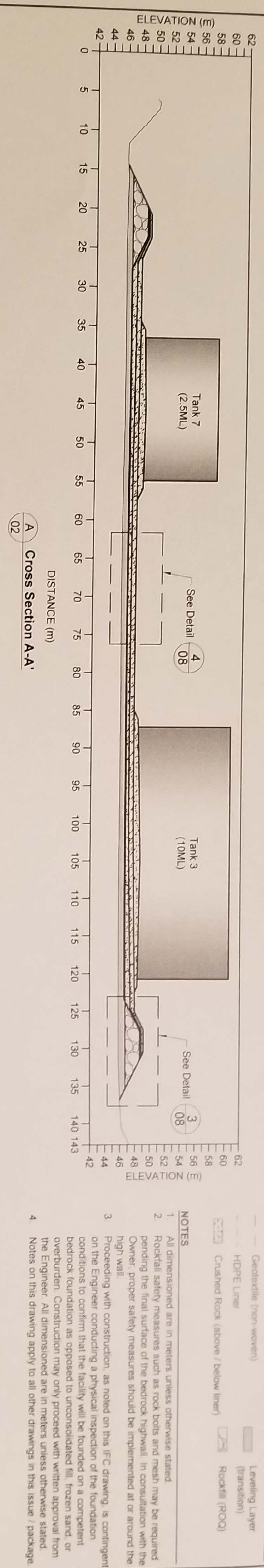
Original Drawings
 Stamped and
 Signed by Engineer

REGISTERED PROFESSIONAL ENGINEER
 B. KURTULU
 LICENSEE NO: 101905
 19/05/2019



DESIGN	JMK	DRAWN	TH	REVIEWED	VB
CHECKED	RW	APPROVED	JMK	DATE	20/06/24
FILE NAME	1CS020 017 - Final Layout.dwg				
SHEET NO.	1	TOTAL SHEETS	8 OF 11		
PROJECT NO.	1CS020 017				
DRAWING TITLE	Marine Laydown Area				
SHEET NO.	MLA-TF-08				
REVISION NO.	0				

Sections and Details - Sheet 1



LEGEND

- Geotextile (non-woven)
- HDPE Liner
- Crushed Rock (above / below liner)
- Leveling Layer (transition)
- Rockfill (ROQ)

- NOTES**
- All dimensions are in meters unless otherwise stated.
 - Rockfall safety measures such as rock bolts and mesh may be required pending the final surface of the bedrock highwall. In consultation with the Owner, proper safety measures should be implemented all or around the high wall.
 - Proceeding with construction, as noted on this IFC drawing, is contingent on the Engineer conducting a physical inspection of the foundation conditions to confirm that the facility will be founded on a competent bedrock foundation as opposed to unconsolidated fill, frozen sand, or overburden. Construction may only proceed with written approval from the Engineer. All dimensions are in meters unless otherwise stated.
 - Notes on this drawing apply to all other drawings in this issue / package.

REFERENCE DRAWINGS

DRAWING NO.	DESCRIPTION	CHKD	APPD	DATE	NO.	DESCRIPTION
MLA-TF-11	Final Arrangement Survey Layout Points					
MLA-TF-10	Sections and Details - Sheet 2					
MLA-TF-08	Typical Cross Sections and Access Ramp Profile					
MLA-TF-02	Sections and Details - Sheet 1					
MLA-TF-02	Plan Layout - Final Arrangement with Fuel Transfer Ramp					

Original Drawings
Stamped and
Signed by Engineer

[Signature]

REGISTERED PROFESSIONAL ENGINEER
J.B. KURILO
L.L.B. 1987
L.L.M. 1988
L.L.S. 1989
L.L.C. 1990
L.L.P. 1991

srk consulting

DESIGN	DRAWN	REVIEWED
JBK	TH	VB
RV	JBK	20/08/24

Sabina
Back River Project

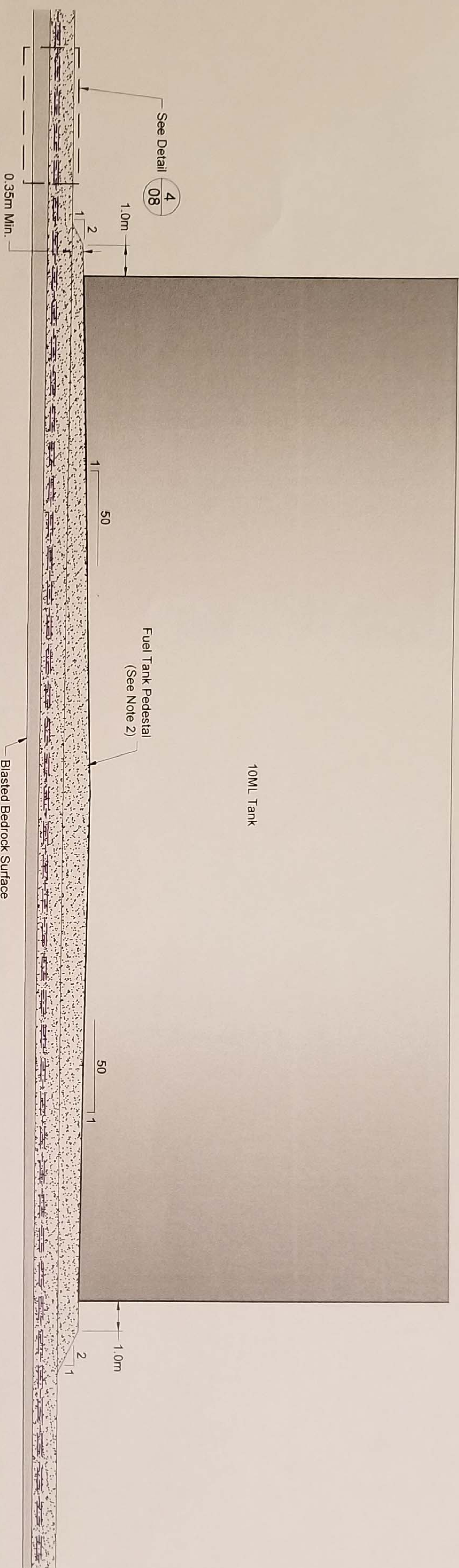
Marine Laydown Area

Typical Cross Sections and Access Ramp Profile

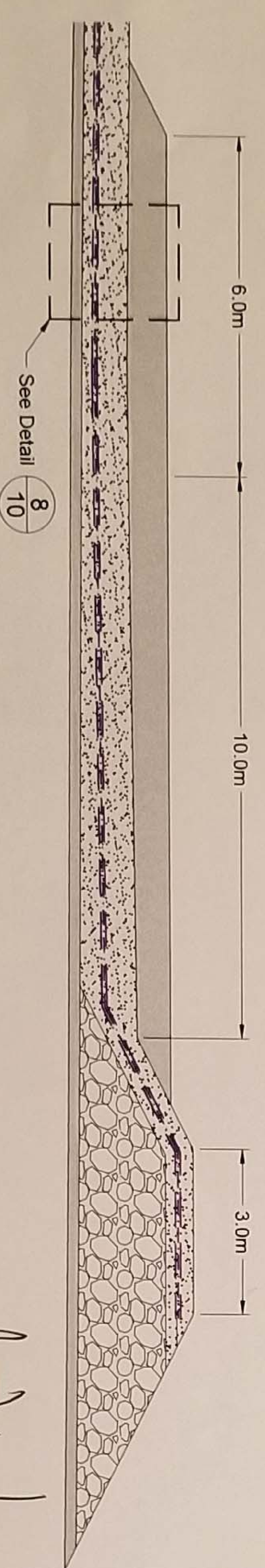
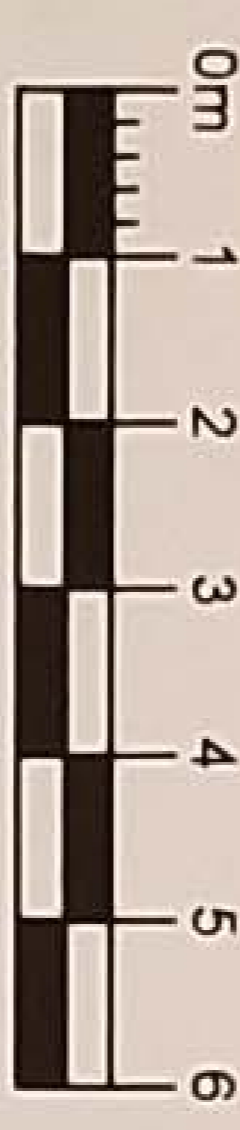
MLA-TF-09

0

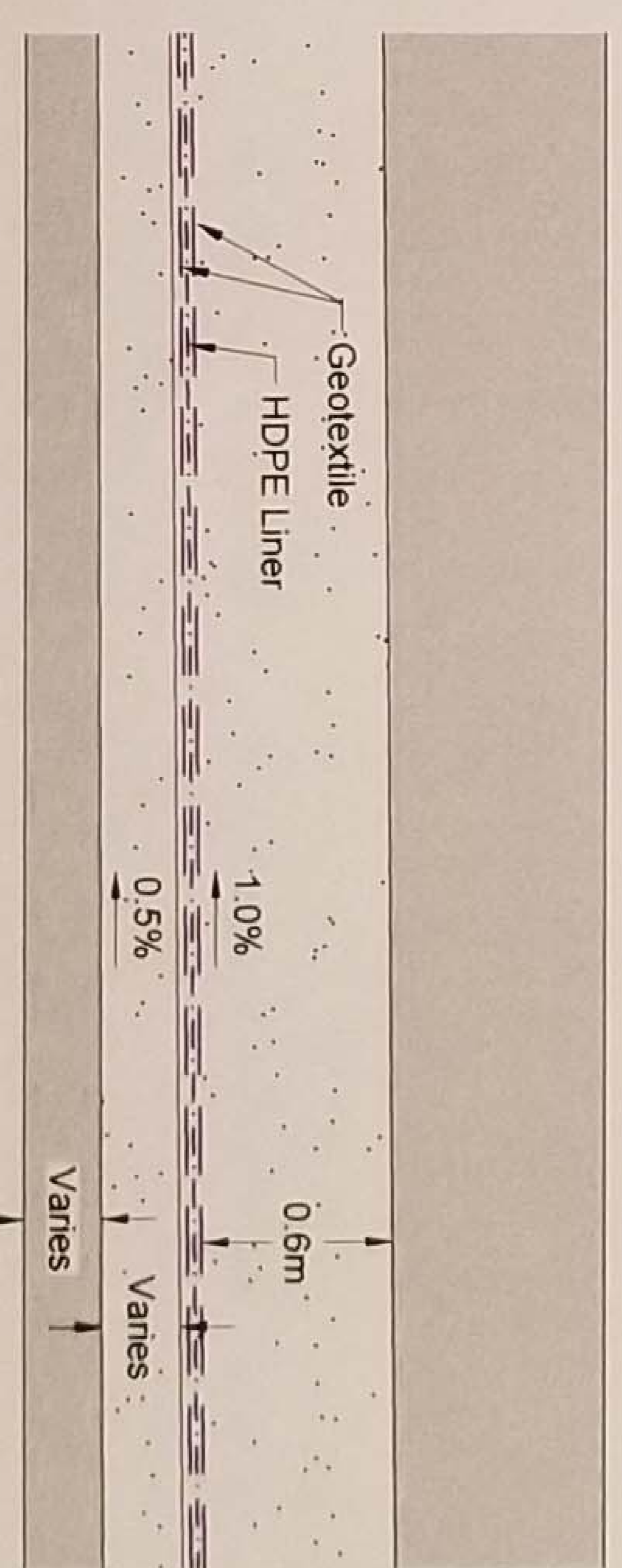




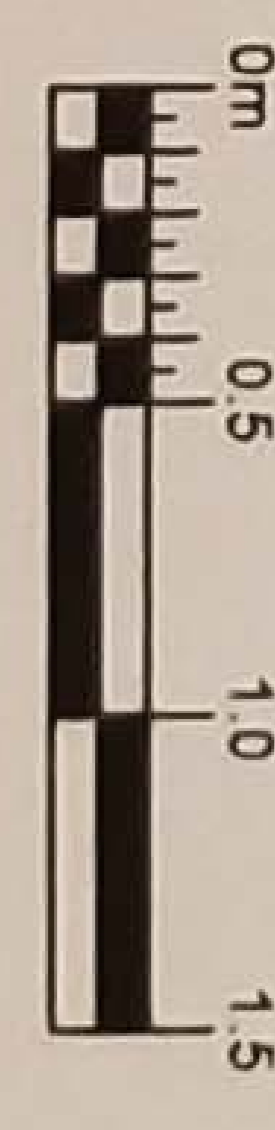
6 Typical Detail 6 - Fuel Tank Pedestal



7 Detail 7 - Fuel Transfer Station



8 Typical Detail 8 - Access Ramp



- LEGEND**
- Geotextile (non-woven)
 - HDPE Liner
 - Crushed Rock (above / below liner)
 - Leveling Layer (transition)
 - Rockfill (ROQ)

- NOTES**
1. All dimensioned are in meters unless otherwise stated.
 2. Pedestals must ensure the Fuel Tank is level. The Contractor is to work with the tank erection team to set the required pedestals.
 3. Proceeding with construction, as noted on this IFC drawing, is contingent on the Engineer conducting a physical inspection of the foundation conditions to confirm that the facility will be founded on a competent bedrock foundation as opposed to unconsolidated fill, frozen sand, or overburden. Construction may only proceed with written approval from the Engineer. All dimensioned are in meters unless otherwise stated.
 4. Notes on this drawing apply to all other drawings in this issue / package.

MLA-TF-11	Final Arrangement Survey/Layout Points				
MLA-TF-09	Typical Cross Sections and Access Ramp Profile				
MLA-TF-08	Sections and Details - Sheet 1				
MLA-TF-02	Plan Layout - Final Arrangement with Fuel Transfer Ramp				
DRAWING NO	DRAWING TITLE	NO	DESCRIPTION	CHKD / APPD	DATE

Original Drawings
Stamped and
Signed by Engineer

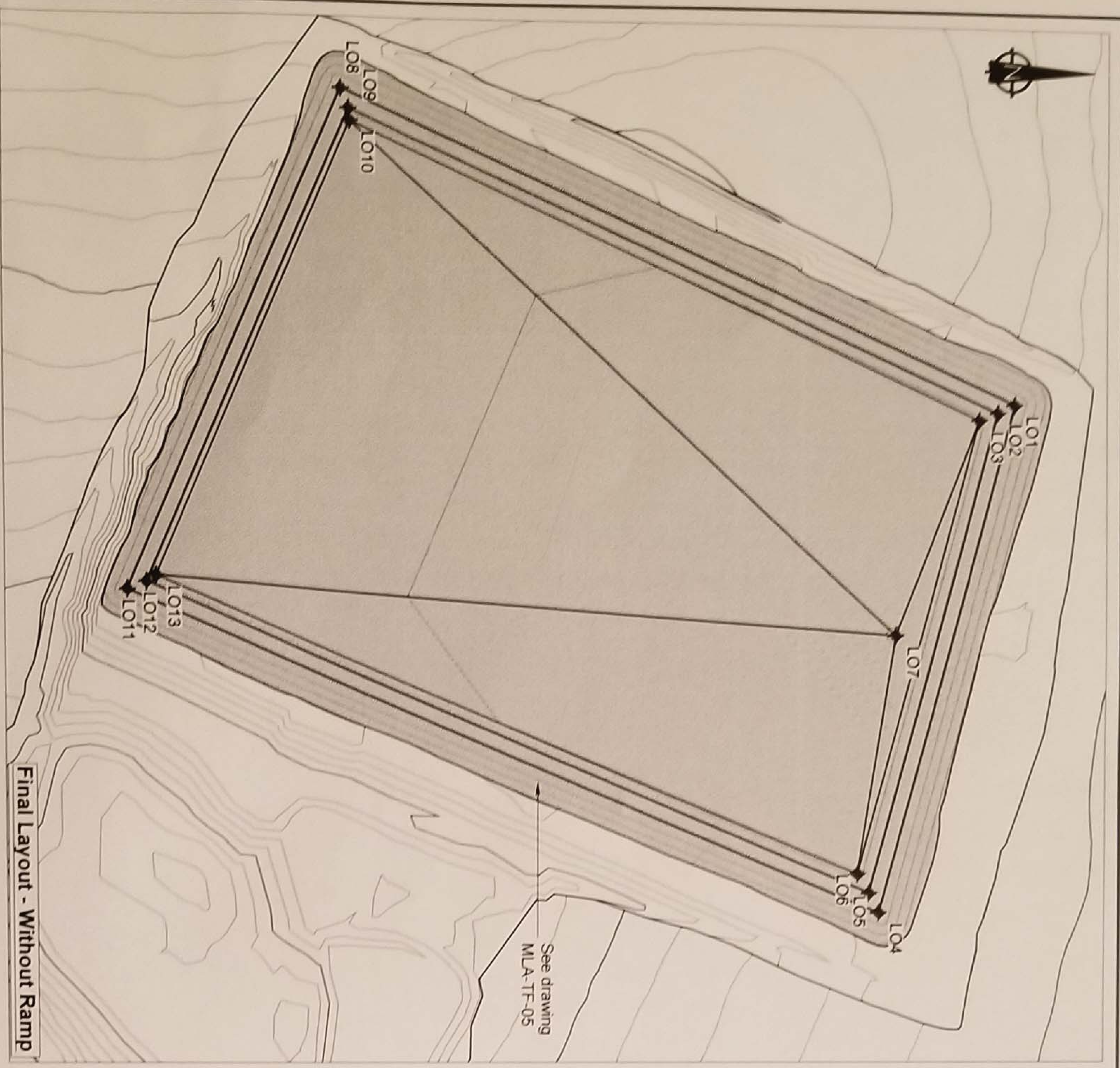
REGISTERED PROFESSIONAL ENGINEER
J.B. KURYLO
LICENCEE
No. 9105
2019/05/24

DESIGN	JBK	DRAWN	TH	REVIEWED	VB
CHECKED	RW	APPROVED	JBK	DATE	2019/05/24

srk consulting

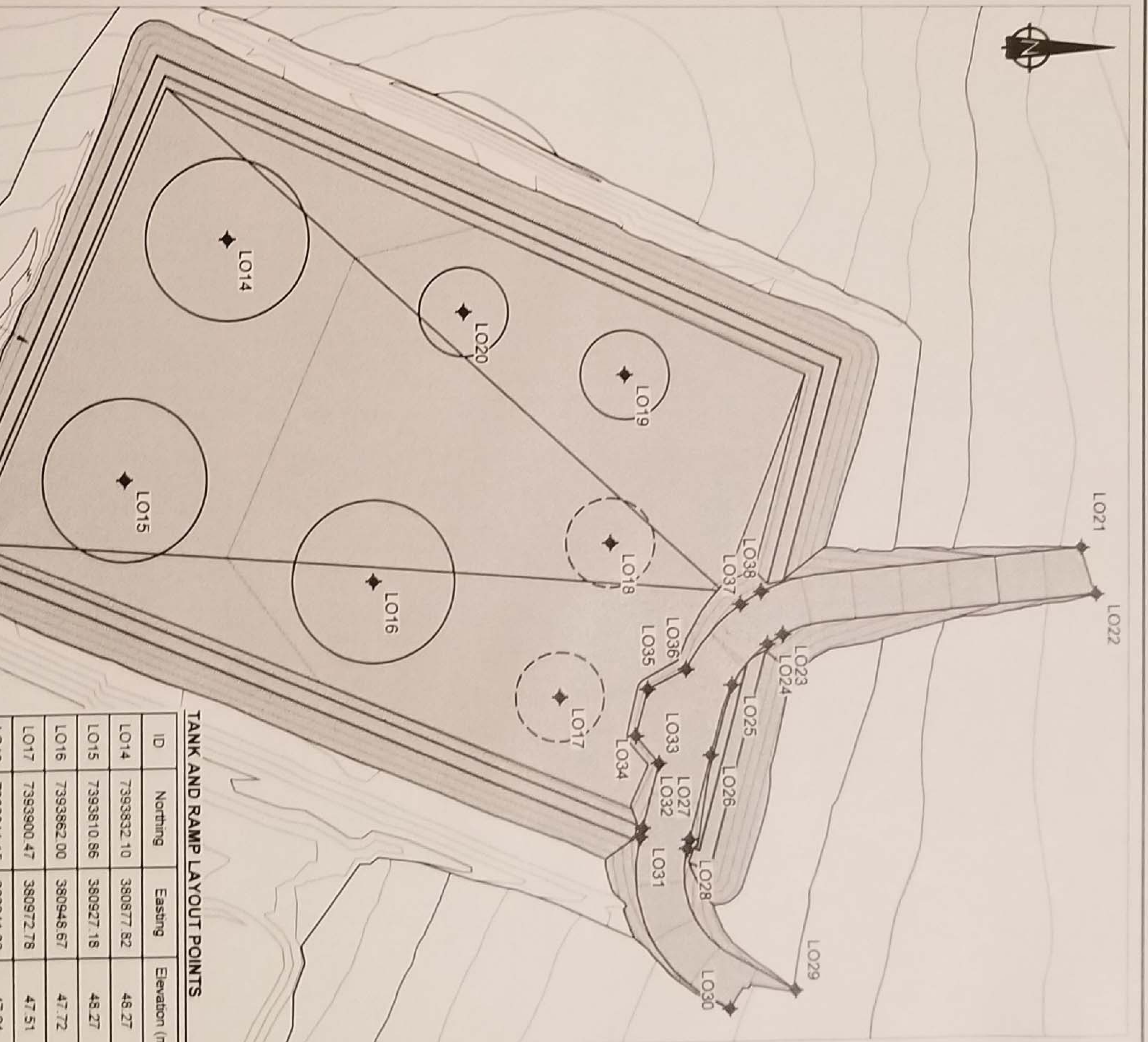
PROFESSIONAL ENGINEERS STAMP	FILE NAME	1CS020 017 - Final Layout.dwg
	SRK_JOB NO.	1CS020 017

DRAWING TITLE	Marine Laydown Area
SECTIONS AND DETAILS - SHEET 2	
DRAWING NO	MLA-TF-10
SHEET	10 OF 11
REVISION NO	0



FINAL LAYOUT POINTS

ID	Northing	Easting	Elevation (m)
LO1	7393959.18	380903.09	49.15
LO2	7393955.63	380904.79	49.15
LO3	7393951.76	380906.33	47.45
LO4	7393931.29	381008.95	49.15
LO5	7393929.27	381004.84	49.15
LO6	7393926.78	381000.82	47.45
LO7	7393934.37	380951.08	46.98
LO8	7393817.94	380844.03	49.15
LO9	7393819.48	380844.01	49.15
LO10	7393819.76	380846.59	48.52
LO11	7393773.42	380842.47	49.16
LO12	7393777.38	380840.88	49.16
LO13	7393779.37	380939.54	48.52

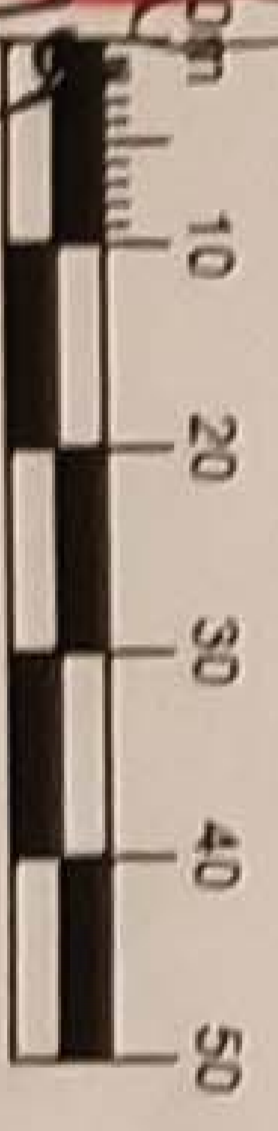


TANK AND RAMP LAYOUT POINTS

ID	Northing	Easting	Elevation (m)
LO14	7393832.10	380877.82	48.27
LO15	7393810.86	380927.18	48.27
LO16	7393862.00	380948.67	47.72
LO17	7393900.47	380972.78	47.51
LO18	7393911.15	380941.06	47.24
LO19	7393914.33	380906.26	47.56
LO20	7393880.89	380893.11	47.80
LO21	7394009.00	380942.27	43.19
LO22	7394012.04	380952.02	42.98
LO23	7393946.92	380960.24	49.75
LO24	7393943.70	380962.19	49.73
LO25	7393956.27	380970.54	48.37
LO26	7393931.73	380985.03	48.37

Marine Laydown Area

ID	Northing	Easting	Elevation (m)
LO27	7393927.21	381002.54	49.75
LO28	7393925.73	381004.39	49.75
LO29	7393949.33	381034.24	45.08
LO30	7393935.56	381037.83	46.13
LO31	7393917.04	381001.89	49.75
LO32	7393917.52	381000.03	49.75
LO33	7393920.97	380986.70	48.37
LO34	7393916.24	380981.02	48.37
LO35	7393918.75	380971.34	48.37
LO36	7393926.71	380967.26	48.37
LO37	7393938.13	380953.88	49.75
LO38	7393942.42	380951.32	49.75



- #### LEGEND
- ◆ Stakeout Point
 - ▭ Fuel Tank Farm Area - Final Layout

- #### NOTES
- Contour intervals are shown at 1m on this figure.
 - All dimensions are in meters unless otherwise stated.
 - Survey layout points (stake-outs) are provided for the final top surface only (i.e. top surface above the liner system). The Contractor must make the appropriate adjustments for the different fill types when setting out the work. To assist with setting out the work, the Surveyors will be provided with digital files of all drawings in this set by the Engineer.
 - Proceeding with construction, as noted on this IFC drawing, is contingent on the Engineer conducting a physical inspection of the foundation conditions to confirm that the facility will be founded on a competent bedrock foundation as opposed to unconsolidated fill, frozen sand, or overburden. Construction may only proceed with written approval from the Engineer. All dimensions are in meters unless otherwise stated.
 - Notes on this drawing apply to all other drawings in this issue / package.

REFERENCES

- Coordination system: NAD83 UTM Zone 13.
- Base topographic contours generated from data provided by Sabina Gold and Silver Corp. File name: *bathurst_inlet_1m_dem_tie26_to_tie39_xyz*, dated 2012-20-13.
- As-Built Quarry survey provided by Sabina May 8, 2019. File name: CAB180818 Quarry.dwg, dated 2018-08-18.

M.A.-TF-11 Typical Cross Sections and Access Ramp Profile Sections and Details - Sheet 2		M.A.-TF-05 Lower Subgrade Plan Final Arrangement with Fuel Transfer Ramp	
DRAWING NO. M.A.-TF-11	SHEET 11 OF 11	REVISION NO. 0	DATE 11/05/11
ORIGINAL DRAWINGS STAMPED AND SIGNED BY ENGINEER This drawing is unauthorised when printed unless stamped / certified in accordance with the requirements of the appropriate jurisdiction and recorded on a Distribution Register.			
DESIGN: JMK CHECKED: RNV FILE NAME: 1CS020 017 - Layout Points.dwg	DRAWN: TH APPROVED: JMK DATE: 2019/05/24	REVIEWED: VB DATE: 2019/05/24	PROFESSIONAL ENGINEER'S STAMP 1CS020 017
srk consulting		Sabina Back River Project	
Marine Laydown Area Final Arrangement Layout Points			