

SEDIMENT POND(S) TO BE CONSTRUCTED AT LOW POINT(S) TO COLLECT RUNOFF. SIZE AND LOCATION TO BE DETERMINED.

WATER SHALL BE PUMPED OR DIRECTED INTO SEDIMENT POND

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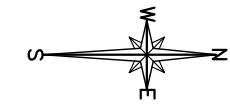
LEGEND:

- EXISTING MINE PERMIT BOUNDARY
- PROPOSED MINE PERMIT BOUNDARY
- DRAINAGE DITCH

NOTE:

- DRAINAGE DITCHES TO BE LOCATED AT BASE OF CUT
- DRAINAGE DITCHES TO BE FILLED WITH 19mm CLEAR CRUSHED GRAVEL

SITE PLAN
1:5000



ORIGINAL PAPER SIZE 11"x17"

REFERENCE:

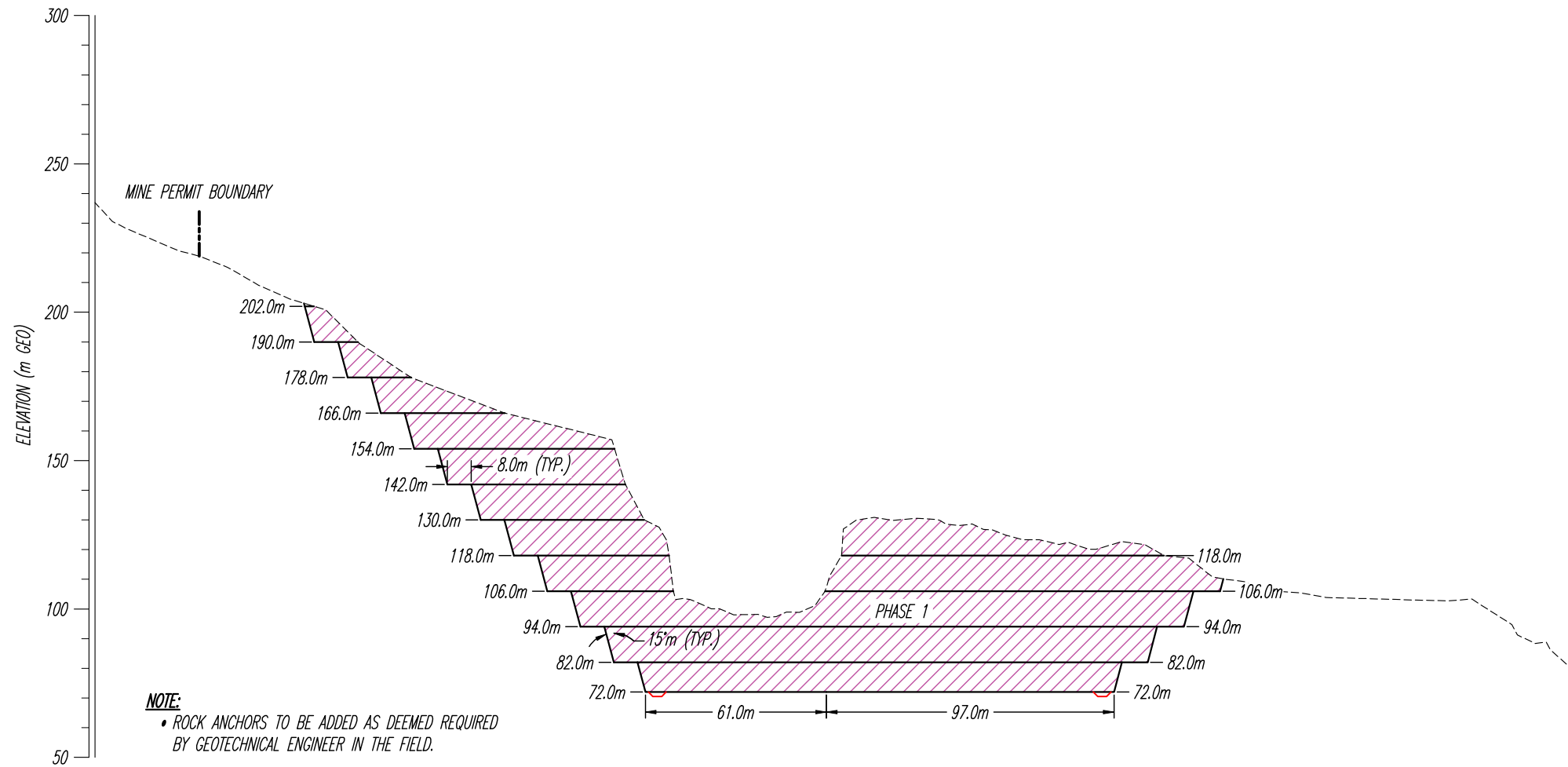


DATE: JULY 25, 2022
 DRAWN BY: NSK APPROVED BY: MJK REVIEWED BY: DK
 SCALE: AS SHOWN

BAMBERTON QUARRY
 1451 TROWSSE ROAD, MILL BAY, BC
PROPOSED MINE CUT & DRAINAGE PLAN

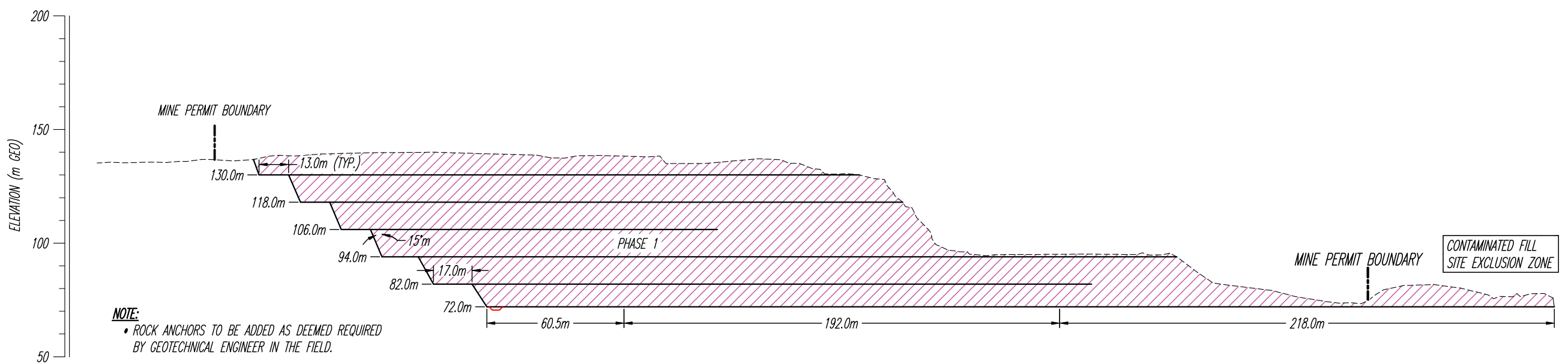
FILE NO.: 18403
 DWG. NO.: G-S1

REVISIONS:
 A. NOVEMBER 29, 2022 - NEW PERMIT AREA
 B. JANUARY 16, 2023 - UPDATED EXCLUSION AREA
 C. MAY 23, 2023 - UPDATED PER NEW PHASING PLAN



NOTE:
 • ROCK ANCHORS TO BE ADDED AS DEEMED REQUIRED BY GEOTECHNICAL ENGINEER IN THE FIELD.

SECTION A
 1:2000



NOTE:
 • ROCK ANCHORS TO BE ADDED AS DEEMED REQUIRED BY GEOTECHNICAL ENGINEER IN THE FIELD.

SECTION B
 1:2000

ORIGINAL PAPER SIZE 11"x17"

REFERENCE:

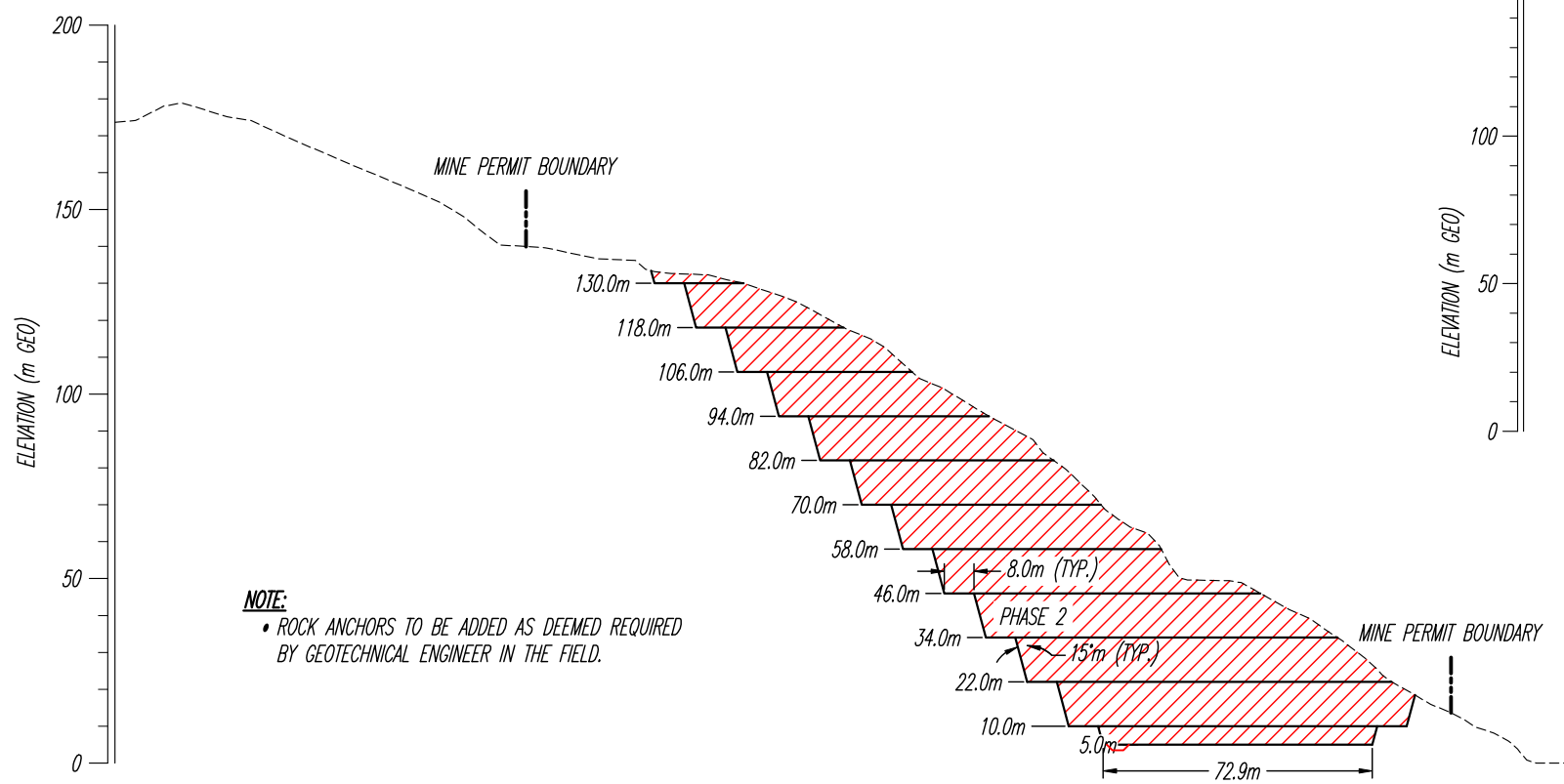


DATE: JULY 25, 2022
 DRAWN BY: NSK APPROVED BY: MJK REVIEWED BY: DK
 SCALE: AS SHOWN

BAMBERTON QUARRY
 1451 TROWSE ROAD, MILL BAY, BC
 SECTIONS A & B

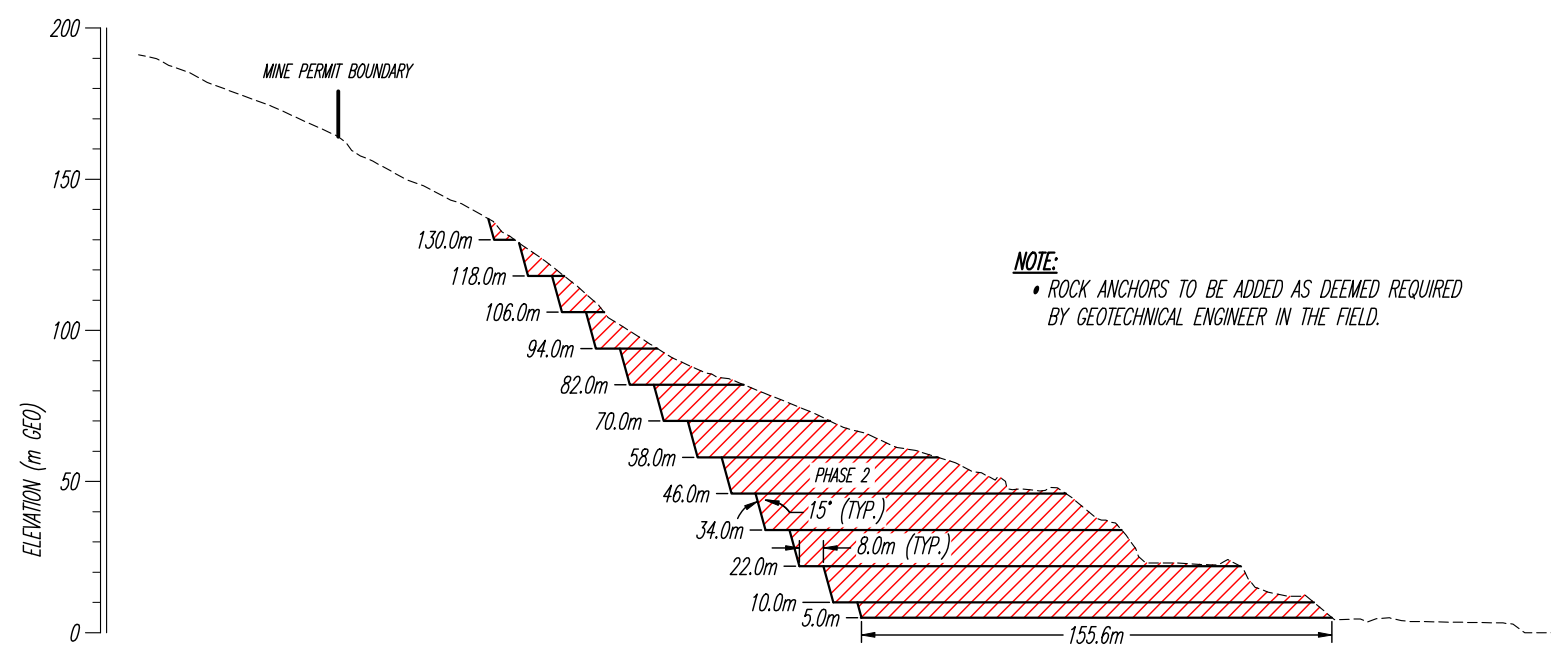
FILE NO.: 18403
 DWG. NO.: G-S2

REVISIONS:
 A. NOVEMBER 29, 2022 - NEW PERMIT AREA
 B. MAY 23, 2023 - UPDATED PER NEW PHASING PLAN
 C.



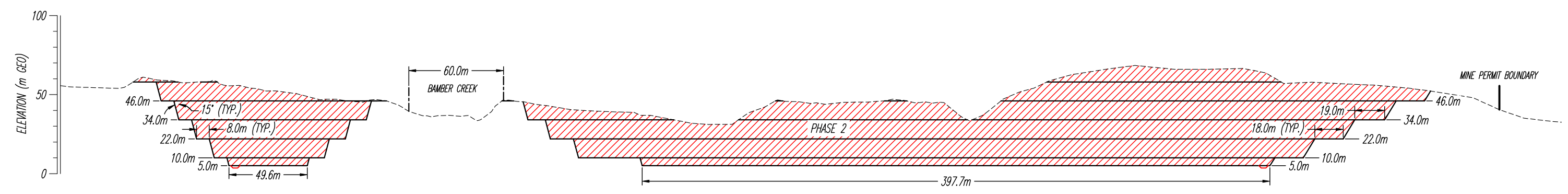
NOTE:
 • ROCK ANCHORS TO BE ADDED AS DEEMED REQUIRED BY GEOTECHNICAL ENGINEER IN THE FIELD.

SECTION C
 1:2000



NOTE:
 • ROCK ANCHORS TO BE ADDED AS DEEMED REQUIRED BY GEOTECHNICAL ENGINEER IN THE FIELD.


SECTION E
 1:2500

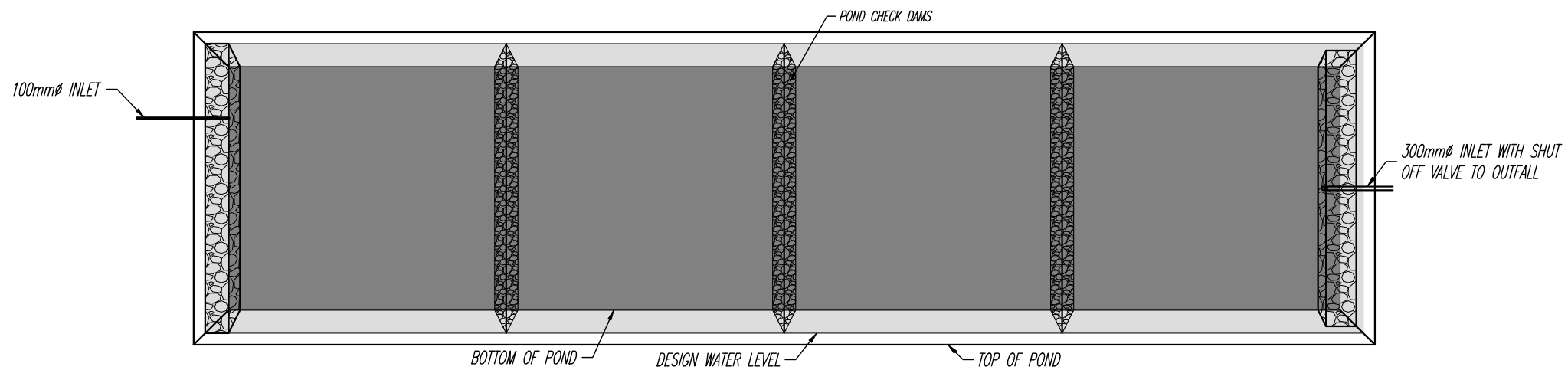


NOTE:
 • ROCK ANCHORS TO BE ADDED AS DEEMED REQUIRED BY GEOTECHNICAL ENGINEER IN THE FIELD.

SECTION D
 1:2500

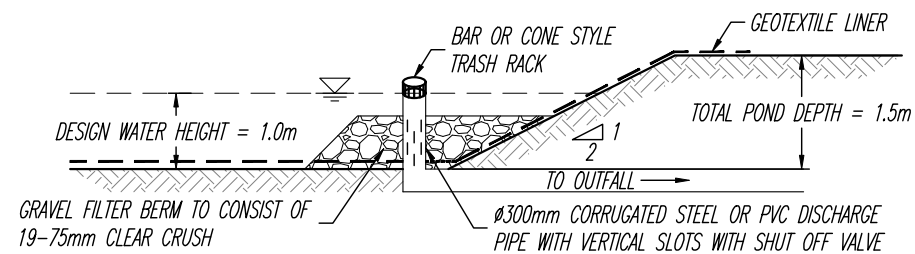
ORIGINAL PAPER SIZE 11"x17"

REFERENCE:		DATE: JULY 25, 2022	BAMBERTON QUARRY 1451 TROWSSE ROAD, MILL BAY, BC SECTIONS C, D & E	FILE NO.: 18403	REVISIONS:	
		DRAWN BY: NSK		APPROVED BY: MJK	REVIEWED BY: DK	A. NOVEMBER 29, 2022 - NEW PERMIT AREA
		SCALE: AS SHOWN		DWG. NO.: G-S3	C. MAY 23, 2023 - UPDATED PER NEW PHASING PLAN	



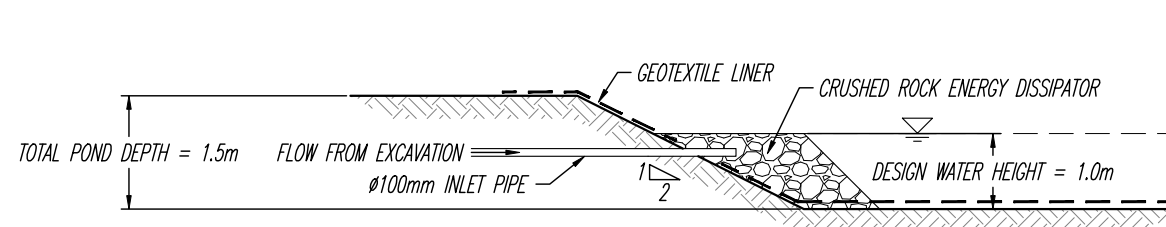
TYPICAL SEDIMENT POND

N.T.S.



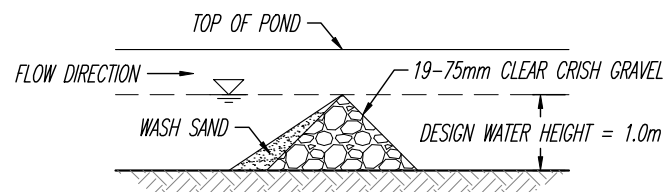
SEDIMENT POND OUTLET DETAIL

1:100



SEDIMENT POND INLET DETAIL

1:100



SEDIMENT POND CHECK DAM DETAIL

1:100

ORIGINAL PAPER SIZE 11"x17"

REFERENCE:



DATE:	JULY 25, 2022		
DRAWN BY:	APPROVED BY:	REVIEWED BY:	
NSK	MJK	DK	
SCALE:	AS SHOWN		

BAMBERTON QUARRY
1451 TROWSSE ROAD, MILL BAY, BC
SEDIMENT POND DETAILS

FILE NO.: **18403**
DWG. NO.: **G-S4**

REVISIONS:
A.
B.
C.

GENERAL NOTES

1. UNDER THIS PLAN, ALL PERSONS INCLUDING BUT NOT LIMITED TO THE DEVELOPER, OWNER OF THE LAND, THE ENGINEER OF RECORD, ESC MONITOR, CIVIL CONTRACTOR, CIVIL SUBCONTRACTOR, BUILDER AND BUILDING SUB-TRADES; ENGAGED ONSITE SHALL COMPLY WITH THE REQUIREMENTS OF ALL REGULATORY AUTHORITIES, FEDERAL, PROVINCIAL AND MUNICIPAL GOVERNMENT DEPARTMENTS PERTAINING TO ONSITE MANAGEMENT AND DISCHARGE ASSOCIATED WITH EROSION AND SEDIMENT CONTROL REGULATIONS.
2. IN ACCORDANCE WITH COWICHAN VALLEY REGIONAL DISTRICT, SCHEDULE C, DEVELOPMENT PERMIT AREAS, THE ESC PERMIT OF WHICH THIS PLAN FORMS A PART THEREOF; DEEMS THE PERMIT HOLDER ULTIMATELY RESPONSIBLE FOR ALL SITE ACTIVITIES THAT RESULT IN A BREACH OF COMPLIANCE WITH THE BYLAW, FOR THE DURATION OF THE PROJECT.
3. THE DEVELOPER/PERSONS RESPONSIBLE SHALL ENSURE THAT CONSTRUCTION ACTIVITIES ARE UNDERTAKEN IN A MANNER THAT ENSURES BEST MANAGEMENT PRACTICES ARE IMPLEMENTED TO CONTAIN ONSITE, SILT LADEN RUNOFF THAT EXCEEDS THE REQUIREMENTS AS SPECIFIED IN THE BYLAW, AND PREVENT ITS ENTERING DOWNSTREAM DRAINAGE INFRASTRUCTURE AND AQUATIC SYSTEMS.
4. THE DEVELOPER/OWNER/PERSONS RESPONSIBLE MUST COMPLY WITH THE ESC PLAN WITHIN THE SPECIFIED TIMEFRAME, AND COMPLY WITH ALL INSTRUCTIONS ISSUED BY THE ESC MONITOR TO RECTIFY DEFICIENCIES THAT RESULT IN NON-COMPLIANCE WITH THE PERMIT.
5. NO PERSON SHALL OBSTRUCT OR IMPEDE THE FLOW OF THE DRAINAGE SYSTEM. NO PERSON SHALL STORE, TRANSPORT OR DISPOSE OF ANY WASTE OR DELETERIOUS SUBSTANCES IN SUCH A MANNER SO AS TO PERMIT THE LIKELY ESCAPE OF THE MATERIALS INTO THE DRAINAGE SYSTEM, OR RELEASE DIRECTLY OR INDIRECTLY DELETERIOUS SUBSTANCES INTO THE DRAINAGE SYSTEM.
6. NO PERSON SHALL CAUSE OR PERMIT TO BE RELEASED INTO THE DRAINAGE SYSTEM, DIRECTLY OR INDIRECTLY, ANY SEDIMENT, EARTH, CONSTRUCTION OR EXCAVATION WASTES, CEMENT, CONCRETE OR OTHER SUBSTANCES WHICH WHEN MIXED WITH WATER WILL RESULT IN A PH AND/OR TURBIDITY VALUE OUTSIDE OF THE DISCHARGE REQUIREMENTS SPECIFIED IN THE BYLAW AND THIS PLAN.
7. THE ESC MONITOR IS RESPONSIBLE TO MONITOR, INSPECT AND REPORT TO THE DEVELOPER, CONTRACTOR AND CITY ON THE EROSION AND SEDIMENT CONTROL FACILITIES, AND SITE DISCHARGE PERFORMANCE IN ACCORDANCE WITH THE CITY'S SEDIMENT CONTROL POLICIES.
8. THE EROSION AND SEDIMENT CONTROL WORKS SHALL REMAIN IN PLACE AND SHALL BE MAINTAINED UNTIL THE SITE NO LONGER POSES A THREAT TO THE DRAINAGE SYSTEM AND APPROVAL TO REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL FACILITIES HAS BEEN OBTAINED FROM THE CITY WITH COORDINATION BY THE ESC MONITOR.

MAINTENANCE

1. UPON INSTRUCTION/NOTIFICATION BY ENGINEER OF RECORD OR ESC MONITOR, PERSONS RESPONSIBLE ARE REQUIRED TO UNDERTAKE MAINTENANCE ACTIVITIES TO MODIFY OR MAINTAIN ESC FACILITIES.
2. SHOULD ANY PART OF THE SEDIMENT CONTROL FACILITIES BECOME DAMAGED, BLOCKED OR IN ANY WAY NOT FUNCTION PROPERLY, THE CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO REPAIR AND/OR REMOVE SUCH DAMAGE, BLOCKAGE OR CAUSE OF MALFUNCTION.
3. ACCUMULATED SEDIMENT REMOVED DURING MAINTENANCE OF THE SEDIMENT CONTROL FACILITIES SHALL BE DISPOSED OF IN SUCH A MANNER AS TO PREVENT ITS ENTRY INTO THE SITE DRAINAGE SYSTEM, AND/OR INTO ANY STORM SEWER OR WATERCOURSE.

4. STREETS ARE TO BE INSPECTED DAILY AT MINIMUM AND SWEEPED TO ENSURE THAT NO SEDIMENT OR DEBRIS ENTERS THE STORM SYSTEM. FLUSHING IS NOT PERMITTED.
5. PAVED ROAD SURFACES ARE TO BE CLEANED OF ANY ACCUMULATED SEDIMENT AT THE END OF EACH DAY AS REQUIRED. NO MATERIAL WITH HIGH SEDIMENT CONTENT IS TO BE DEPOSITED OR PILED NEAR CATCH BASINS, LAWN BASINS OR OUTSIDE OF PROPERTY BOUNDARIES.
6. CATCH BASINS ARE TO BE INSPECTED DAILY AND FOLLOWING STORM EVENTS. SEDIMENT SACKS ARE TO BE REMOVED AND CLEANED WHEN THEY REACH APPROXIMATELY ONE THIRD CAPACITY.
7. SOIL DISTURBING CONSTRUCTION TO BE AVOIDED DURING PERIODS OF HEAVY OR PERSISTENT RAINFALL WHERE POSSIBLE.
8. STOCKPILED MATERIAL AND ALL EXPOSED SLOPES TO BE COVERED WITH 6 MIL THICK POLYETHYLENE SHEETING ANCHORED WITH WEIGHTS.
9. SILT FENCES AND BARRIERS ARE TO BE INSPECTED AND REPAIRED PRIOR TO FORECASTED RAIN EVENTS, AND FOLLOWING SIGNIFICANT RAINFALL EVENTS OR PERIODS OF EXTENDED RAIN. SEDIMENT TO BE REMOVED WHEN IT HAS REACHED APPROXIMATELY ONE THIRD THE HEIGHT OF THE FENCE.
10. SITE ACCESS PADS TO BE INSPECTED DAILY TO ENSURE FUNCTIONALITY AND ADDITIONAL ROCK IS TO BE ADDED AS REQUIRED.
11. NO CONCRETE WASH WATER IS TO BE DIRECTED INTO THE SEDIMENT CONTROL SYSTEM OR THE STORM SEWERS. ALL CONCRETE TRUCKS ARE TO BE EQUIPPED WITH A RECIRCULATORY WASH SYSTEM. NO DISCHARGE FROM CONCRETE TRUCKS IS PERMITTED ON THE STREET OR TO ENTER THE ONSITE DRAINAGE SYSTEM.
12. AN ADDITIONAL SUPPLY OF MATERIALS SHALL BE STORED ONSITE TO ENABLE A SUITABLE RESPONSE TO ANY MAINTENANCE ACTIONS REQUIRED.
13. WET WEATHER SHUT DOWN PROCEDURES TO INCLUDE SUSPENDING ANY HAULING OR MAJOR EARTHWORK ACTIVITIES USING UNPAVED ROAD SURFACES PRIOR TO FORECASTED RAIN EVENTS EXCEEDING 25mm IN 24 HOURS. ALL ERODIBLE SURFACES MUST BE STABILIZED, OR COVERED WITH POLY SHEETING, PRIOR TO SIGNIFICANT RAINFALL EVENT. ANY WATER POOLING ONSITE MUST BE DIRECTED TO SUMP AND TREATED BY WATER TREATMENT SYSTEM PRIOR TO DISCHARGE. NO UNTREATED WATER IS TO ENTER THE STORM SYSTEM.

MONITORING, SAMPLING AND TESTING PROGRAM

1. THE ESC MONITOR WILL INSPECT ALL ESC FACILITIES, RECOMMEND NEW ESC MEASURES AND/OR MAINTENANCE REQUIREMENTS, AND TEST WATER QUALITY AT THE DESIGNATED SAMPLING POINTS.
2. ALL DISCHARGE TO MUST MEET THE PH RANGE REQUIREMENT OF 6-9. WATER QUALITY REQUIREMENTS TO BE CONFIRMED BY THE COWICHAN VALLEY REGIONAL DISTRICT.
3. THE TOTAL SUSPENDED SOLIDS OF ALL DISCHARGE MUST NOT EXCEED 25mg/L. WATER QUALITY REQUIREMENTS TO BE CONFIRMED BY THE COWICHAN VALLEY REGIONAL DISTRICT.
4. WHERE ANY WASTE, DELETERIOUS SUBSTANCE, OR WATER RELEASED DIRECTLY OR INDIRECTLY INTO THE DRAINAGE SYSTEM EXCEEDS THE ALLOWABLE PH, TURBIDITY AND/OR TOTAL SUSPENDED SOLIDS LEVELS, ALL DISCHARGE IS TO BE CEASED AND CORRECTIVE MEASURES ARE TO BE IMPLEMENTED IMMEDIATELY. THE CITY IS TO BE NOTIFIED OF ANY DISCHARGE QUALITY EXCEEDANCES WITHIN 24 HOURS.

5. A LOGBOOK OF ALL INSPECTIONS SHALL BE MAINTAINED ONSITE AND BE MADE AVAILABLE TO THE CITY UPON REQUEST.
6. WATER QUALITY MONITORING AND ESC FACILITIES INSPECTIONS BY THE ESC MONITOR MUST BE CONDUCTED AT THE MIN. FREQUENCY NOTED BELOW.

	<u>MIN. MONITORING FREQUENCY</u>	<u>MIN. REPORTING FREQUENCY</u>
YEAR ROUND	MONTHLY	7 DAYS
SIGNIFICANT RAINFALL EVENT (SRE)	WITHIN 48 HOURS	7 DAYS

7. ADDITIONAL MONITORING INSPECTIONS ARE NOT REQUIRED IF SIGNIFICANT RAINFALL EVENTS OCCUR WITHIN 48 HOURS OF EACH OTHER.
8. INSPECTION REPORTS SHALL BE SUBMITTED TO THE DEVELOPER AND CONTRACTORS.
9. THE ESC MONITOR WILL NOTIFY THE CITY IF THEY ARE NO LONGER RETAINED FOR THE PROJECT.


DECOMMISSIONING

1. BUILDING CONSTRUCTION MUST BE AT STREET LEVEL OR HIGHER WITH ALL EXPOSED SURFACES STABILIZED PRIOR TO BEGINNING THE PROCESS OF DECOMMISSIONING ANY ESC FACILITIES.
2. APPROVAL TO ALTER AND/OR REMOVE ANY COMPONENT OF THE WATER TREATMENT SYSTEM MUST BE OBTAINED FROM THE CITY WITH THE COORDINATION OF THE ESC MONITOR.
3. PRIOR TO SUBMITTING THE REQUEST FOR APPROVAL TO REMOVE COMPONENTS OF THE WATER TREATMENT SYSTEM, WATER QUALITY TESTING OF THE UNTREATED WATER IN THE BUILDING SUMP WILL BE CONDUCTED TO ENSURE ALLOWABLE TURBIDITY AND/OR PH LEVELS CAN BE MAINTAINED WITHOUT ADDITIONAL TREATMENT. THE PH TREATMENT COMPONENT OF THE SYSTEM MUST REMAIN ONSITE UNTIL ALL MAJOR CONCRETE POURS HAVE BEEN COMPLETED AT MINIMUM.
4. THE DECOMMISSIONING OF ANY ESC FACILITIES WITHOUT PRIOR APPROVAL MAY RESULT IN FINES AND/OR A STOP WORK ORDER.

ENFORCEMENT

1. FAILURE TO IMPLEMENT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN OR TO COMPLY WITH MUNICIPAL REGULATIONS MAY RESULT IN FINES AND/OR A STOP WORK ORDER.
2. FEDERAL ENVIRONMENTAL OFFENCES ARE STRICT LIABILITY OFFENCES AND CAN RESULT IN FINES AND/OR INCARCERATION.

ORIGINAL PAPER SIZE 11"x17"

REFERENCE:		DATE: JULY 25, 2022	BAMBERTON QUARRY 1451 TROWSE ROAD, MILL BAY, BC DRAINAGE SPECIFICATIONS	FILE NO.: 18403	REVISIONS:
		DRAWN BY: NSK APPROVED BY: MJK REVIEWED BY: DK		DWG. NO.: G-S5	A. DECEMBER 1, 2022
		SCALE: AS SHOWN			B. C.