2.9 Airstrip

The airstrip was initially constructed in 1997 on an esker north of the exploration camp (Drawing 1, Appendix A) to be 1000 m long by approximately 30 m wide taxi and takeoff surface (total width 223 m). The strip was extended in 2006 to 1374 m length and widened on the extension to 360 m. Strip extension was accomplished by leveling the existing esker surface and adding fill of crushed mine rock where required. The airstrip is equipped with runway lights powered by a small generator at the airstrip. Two 62,000 L bermed tanks are located at the south apron for refueling of aircraft if required.

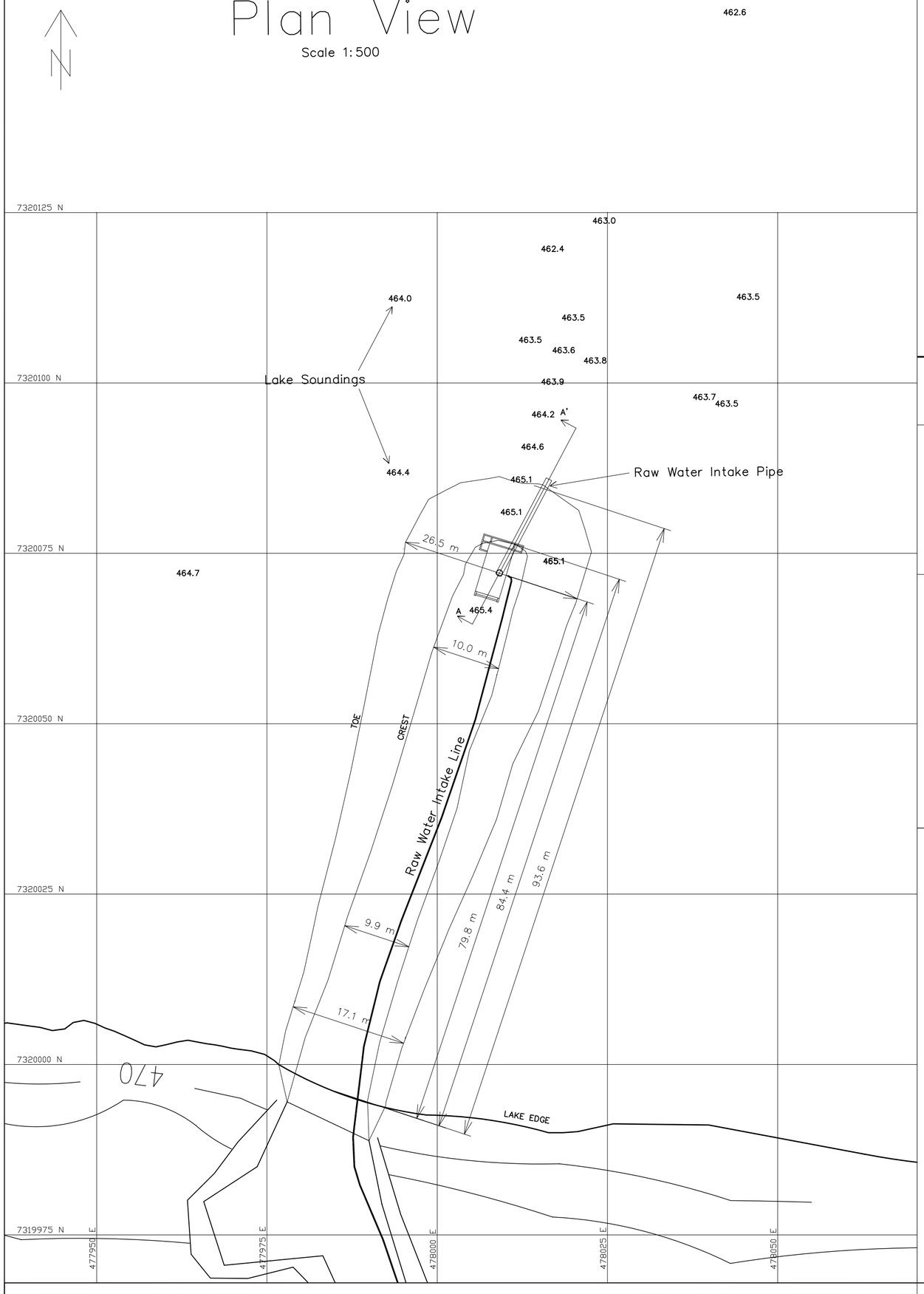
2.10 Water Intake Causeway

This section is based on the information contained in the causeway design plan (SRK 2005). Figure 2-19 shows the as-built construction details and Figure 2-20 shows design cross sections and water intake detail, both figures from Tahera (2006). Photo 1, below, shows the completed intake causeway.

Photo 1: Completed Water Intake Causeway

Plan View

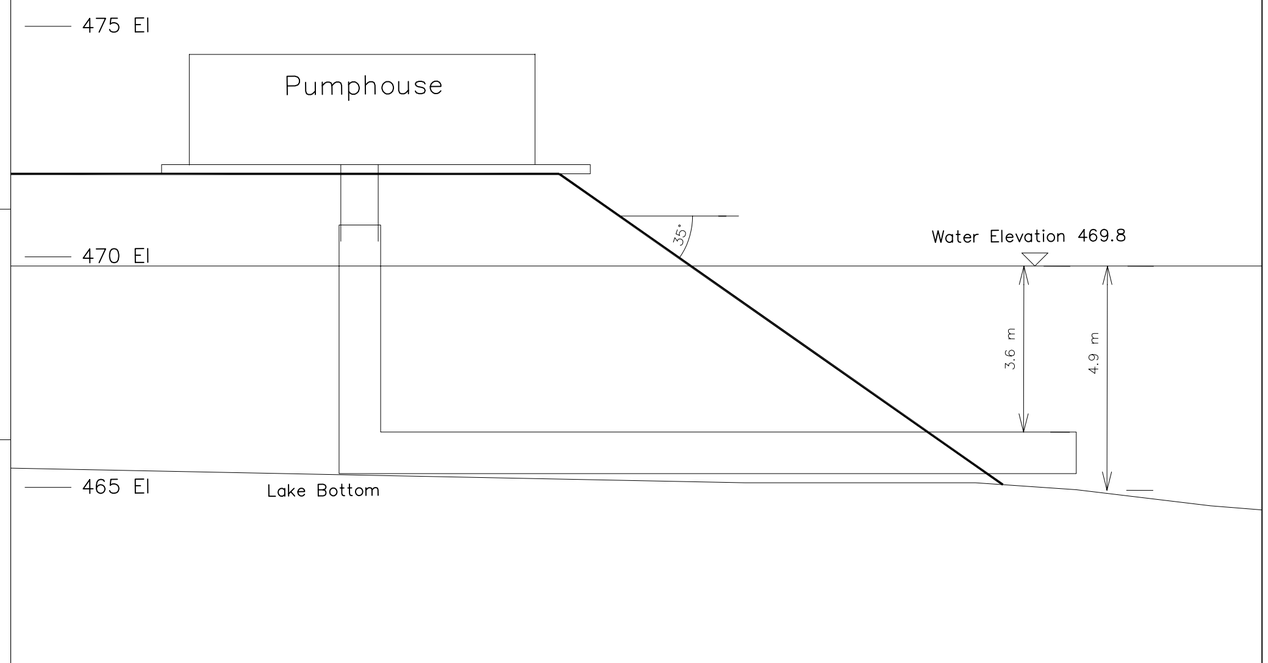
Scale 1:500



Section A–A'

0 m 2.5m 5 m 7.5m 10 m

Scale 1:100



Notes:

Causeway footprint in Carat Lake 2,000 sq m.
Causeway toe calculated from crest survey and angle of repose of granular material (35 deg). Visually inspected at pipe inlet.
Measured points:
- crest of causeway fill.
- lake soundings.
- ends of intake pipe.
- depth of water and of pipe at inlet of intake pipe.

Lake edge and 1 m contours from 1997 photogrammetry.
As a reference, the vertical distance from the base plate of the pump to the bottom of the intake pipe was measured - 7.02 m on Oct 24, 2006.

No	Description	Date
B	Final for seal.	06-Oct-24
A	Draft for client review.	06-Oct-22

Revisions

Seal

Original Signed and Sealed

Anthony Bayduza, P. Eng.
9807 - 69 Ave
Edmonton, AB
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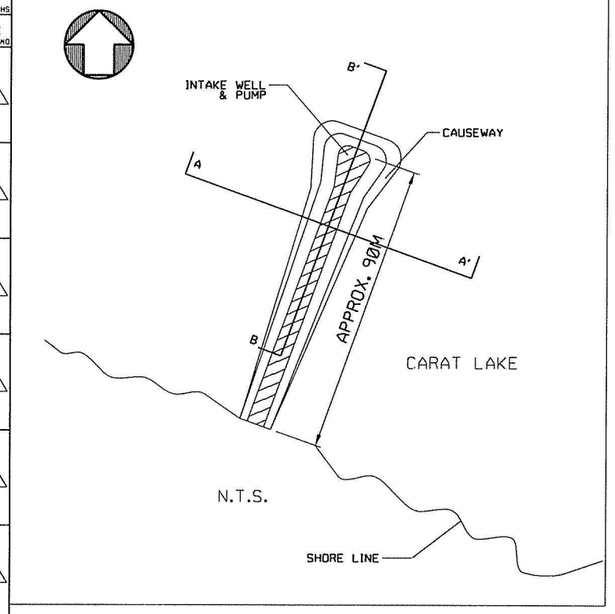
Tahera Diamond Corp.

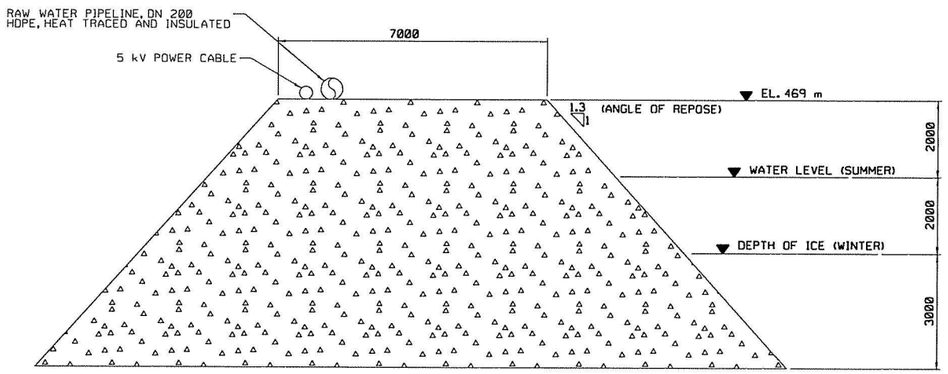
Jericho Mine

Dwn	Date	Drawing Name
AEB	Oct 24, 2006	Raw Water Intake As Built
Scale	Sheet Size	Drawing # / Rev
as shown	ANSI C	TDC-06001-RWIAB FIGURE 2-19 B

DWG NO. 316996-SK-P-1000

SHEET NO.





CAUSEWAY SECTION A-A'

NTS

NOTES:

1- FISH SCREEN DESIGN BASED ON DEPARTMENT OF FISHERIES AND OCEANS "FRESHWATER INTAKE END-OF-PIPE FISH SCREEN GUIDELINE" -1995 AND THE FOLLOWING CRITERIA:

A) FISH SWIMMING MODE: SUBCARANGIFORM

B) WATER INTAKE DESIGN FLOWRATES:
1. 50 M3/HR (CONTINUOUS AVERAGE)
2. 100 M3/HR (INSTANTANEOUS MAXIMUM)

C) REQUIRED AREA, BASED ON 50 M3/HR
1. OPEN SCREEN AREA: 0.13 SQ.M
2. EFFECTIVE SCREEN AREA: 0.22 SQ.M.

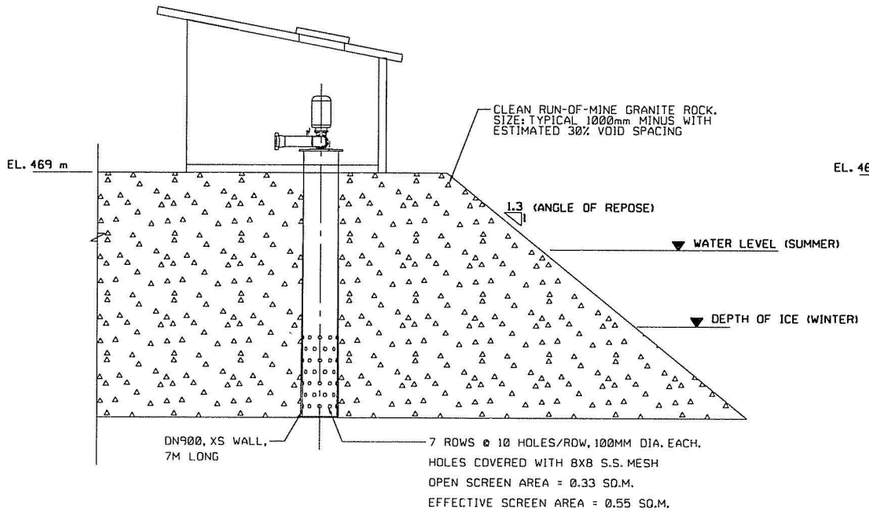
D) REQUIRED AREA, BASED ON 100 M3/RH
1. OPEN SCREEN AREA: 0.26 SQ.M.
2. EFFECTIVE SCREEN AREA: 0.43 SQ.M.

E) FOR ACTUAL PHYSICAL EFFECTIVE AND OPEN SCREEN AREAS, REFER TO NOTES ON EACH ALTERNATIVE SECTION.

F) SCREEN MATERIAL: 8x8 STAINLESS STEEL ALLOY MESH. ALL PIPE OPENINGS TO BE WRAPPED WITH MESH AND SECURED WITH S.S. SELF-TAPPING SCREWS AS REQUIRED.

G) SCREEN MAINTENANCE TO BE DONE MANUALLY, EITHER BY BACK-FLUSHING THE INTAKE OR BY PHYSICALLY REMOVING TRAPPED DEBRIS.

H) PUMP: WEIR/FLOWAY 10 JKM, 6 STAGES, 50 HP MOTOR

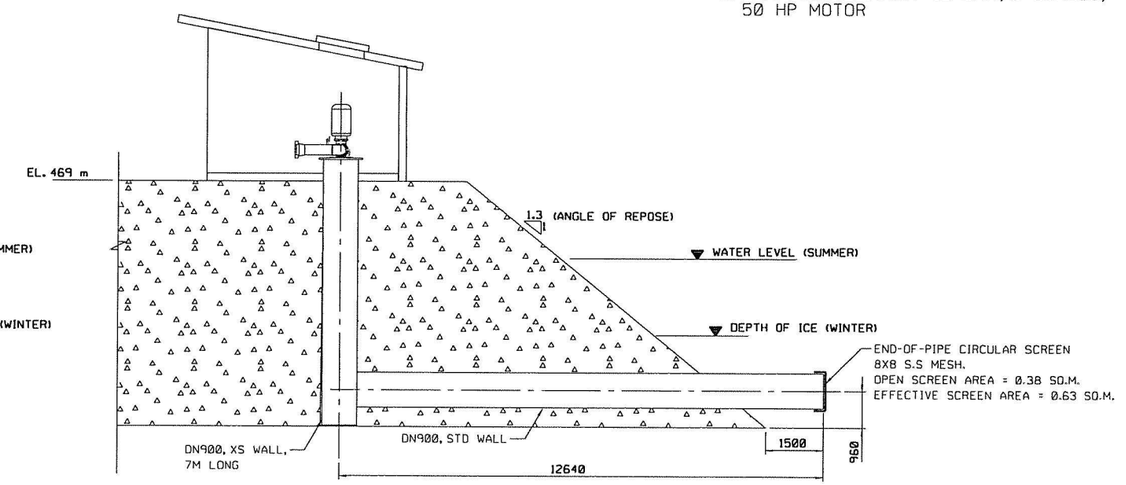


VELOCITIES BASED ON AVERAGE FLOW (50M3/HR):

A) AT SCREEN: 0.046 M/S
B) AT EDGE OF ROCKS:
1. WINTER CONDITIONS: 0.000125 M/S
2. SUMMER CONDITIONS: 0.000075 M/S

CAUSEWAY AND INTAKE WELL - SECTION B-B'

ALTERNATIVE 1



VELOCITY BASED ON AVERAGE FLOW (50M3/HR):

A) AT SCREEN: 0.037 M/S

CAUSEWAY AND INTAKE WELL - SECTION B-B'

ALTERNATIVE 2

FOR WATER LICENSE APPLICATION

Figure 2-20

P2	REVISED WITH CLIENT'S COMMENTS	JCH	23/11/84
NO.	DESCRIPTION	CHK. APPR.	DATE

REVISIONS

P2	INFORMATION	JCH	JCH 23/11/84
REV.	ISSUE FOR	AUTH BY	DATE

ISSUE AUTHORIZATION

HATCH

DESIGNED BY J.-C. PARADIS DATE: 23/11/84
DRAWN BY J.-C. PARADIS DATE: 23/11/84
CHECKED BY DISCIPLINE ENG. DATE:
PROJ. DES. COORD. PROJECT ENG. DATE:
PROJECT MGR. DATE:

TAHERA DIAMOND CORPORATION

PROJECT TITLE: JERICHO DIAMOND PROJECT

CARAT LAKE WATER INTAKE
PLAN AND SECTIONS
FOR LICENSE APPLICATION

HA PROJECT NO. 316996

SCALE: N.T.S. DWG NO.: 316996-SK-P-1000 SHEET NO. REV. P2

REFERENCE DRAWINGS

DRAWING NO. | DRAWING TITLE

The following description is from the SRK (*op. cit.*) report:

The fresh water intake causeway [was] constructed in order to provide water for the Jericho kimberlite processing plant and potable camp water. The causeway [was] constructed of clean coarse rock fill and [extends] approximately 90 m into Carat Lake. A steel intake well [was] installed within the rock fill. The intake well [is] comprised of a vertical section, the base of which [is] located in [4.5 m] depth of water to allow operation under the ice during winter, and an approximately horizontal section that [extends] beyond the limits of the rock fill. A stainless steel fish screen [is] set at the end of the intake pipe.

1.6 Causeway Materials

Clean, non acid generating (NAG), run-of-mine granitic waste rock obtained from the development of the open pit will be used in the construction of the causeway. Select granitic waste rock, which is somewhat finer than the average run-of-mine granitic waste rock, will be used immediately adjacent to the intake well. The contractor will be responsible for developing, hauling and placing all waste rock.

Design drawings submitted in the detail design plan indicated a causeway with a minimum roadway surface of 5m extending 100m into Carat Lake with a widened area surrounding the pump house. Upon detail bathymetric data taken as part of the field construction the following field modification were made to the design:

- The length of the causeway was shortened to 93.6m which corresponded to the minimum length possible to insure that the intake pipe would be 0.5m off the lake bottom as well as being 2m below the design bottom of the maximum ice thickness.
- The widened area surrounding the pump house was eliminated
- The causeway width was constructed to provide a minimum 5 m maintenance roadway surface plus room for a pipeline and power cable as well as suitable safety barriers.

During a site inspection conducted by DFO on August 18, 2005 the top dressing on the Carat Causeway was identified as a potential source of sedimentation into Carat Lake. A layer of clean rock has been added as cover material to contain and prevent erosion of the fines into Carat Lake.

2.11 Stream C1 Diversion

The following information is taken from EBA Engineering letter report to Tahera (30 August 2005).

Figure 2-21 [EBA Figure 1] shows the layout of the C1 Diversion.

The diversion consists of three reaches and a diversion section at the upsteam end to divert the natural drainage from Lake C1 to the diversion facility.

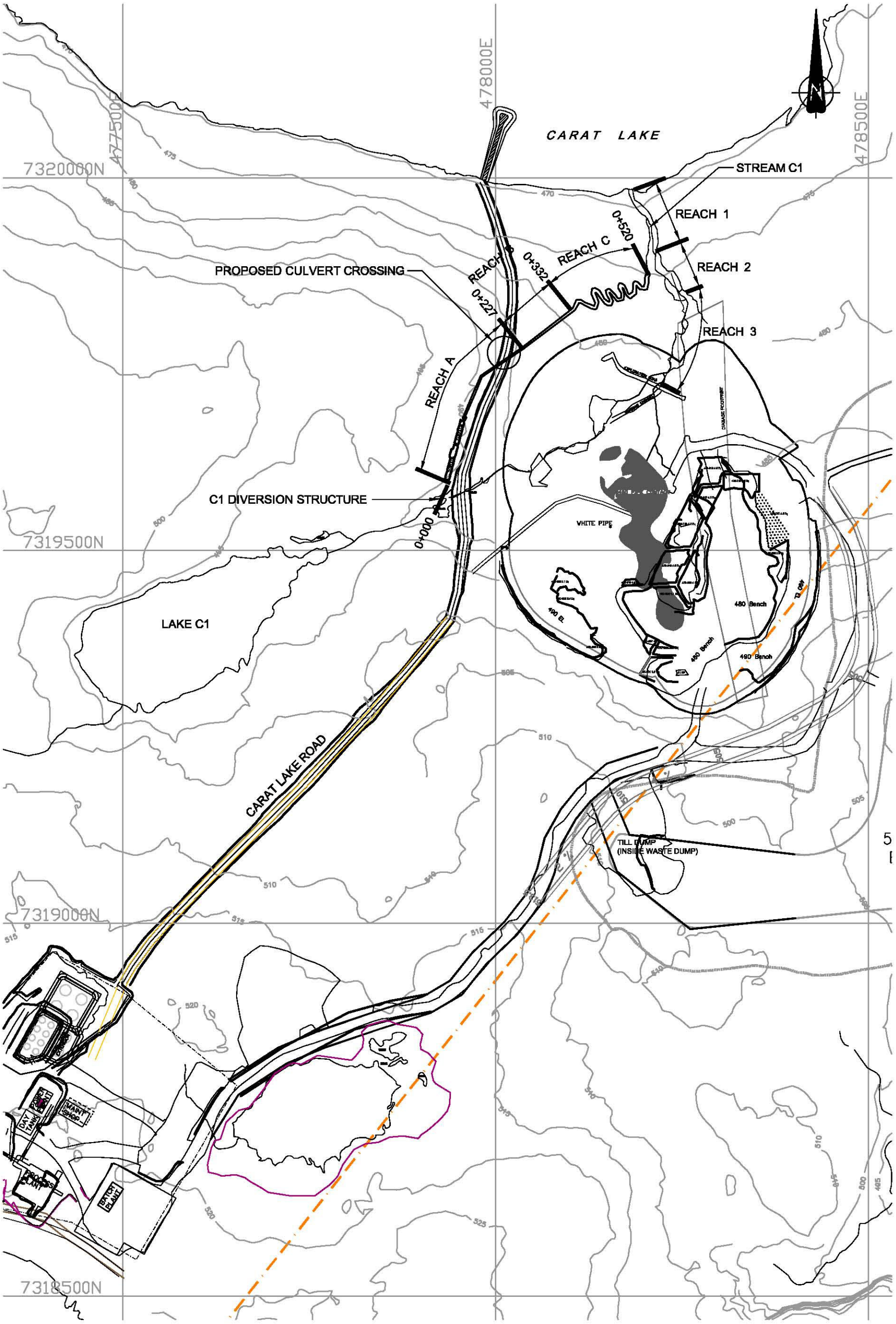


Figure 2-21

General Site Plan

1100060006R04B.dwg