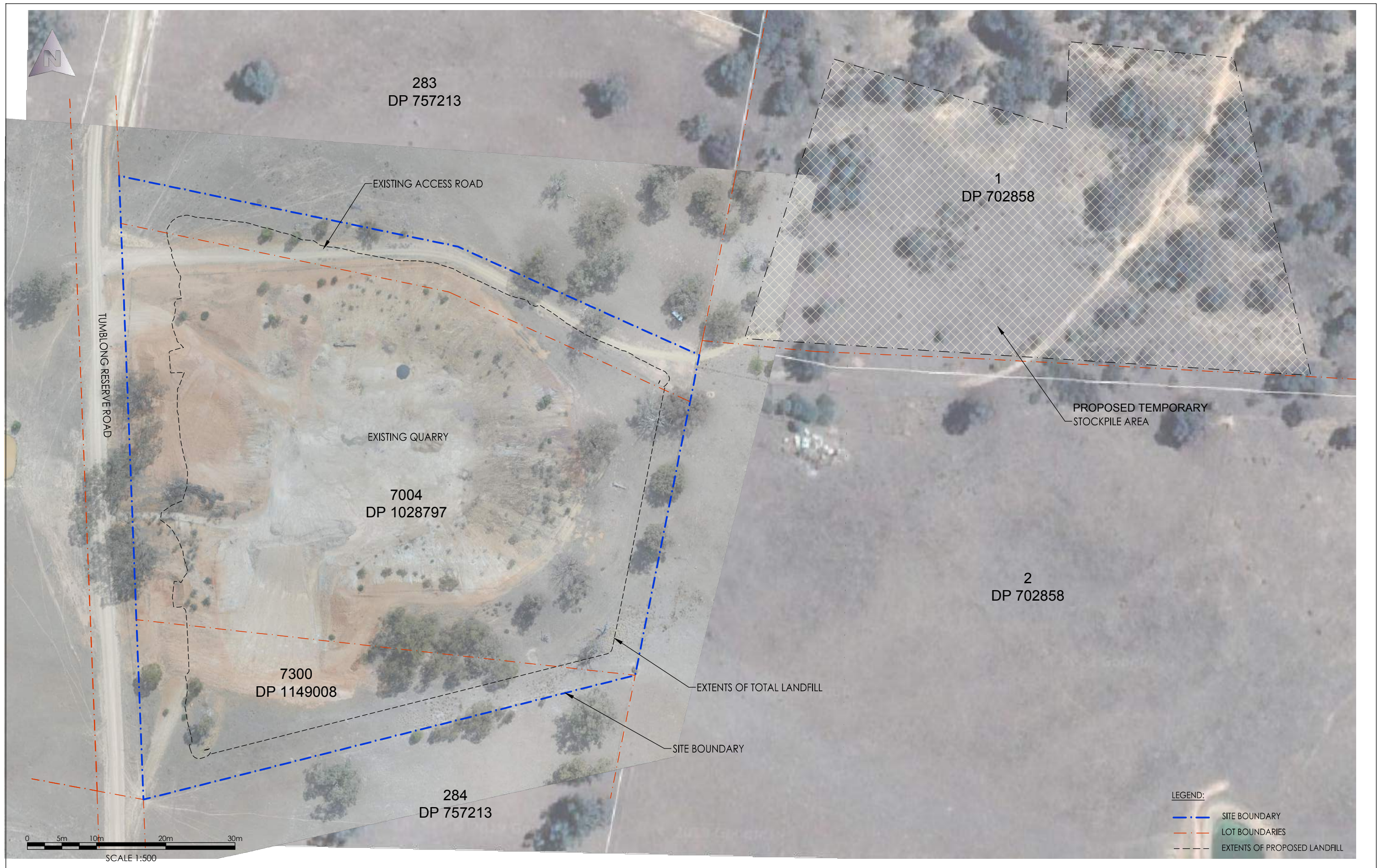
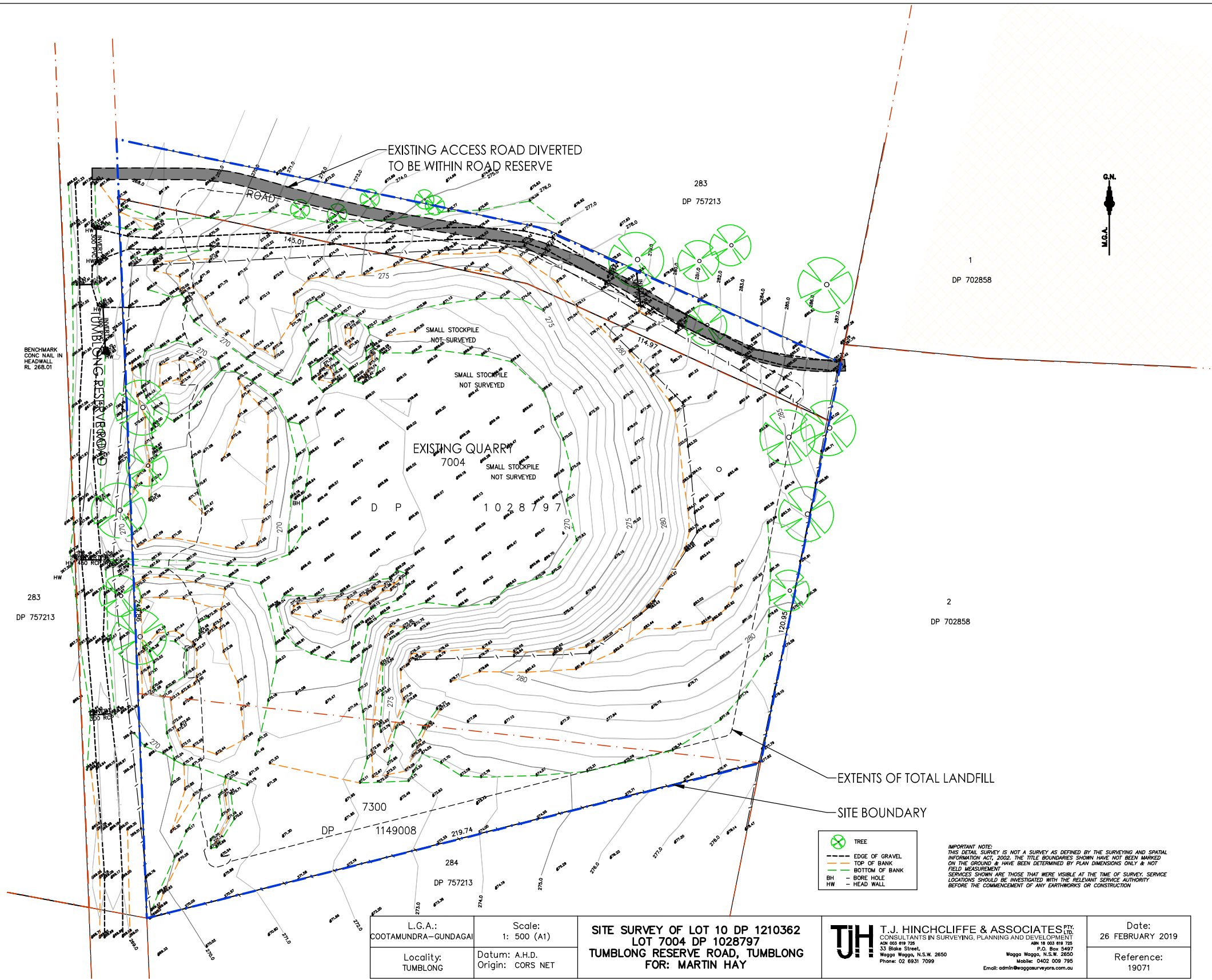




Sheet List Table	
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Figure 03	Existing Site Survey
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Figure 05	Engineered Sub-Base and Bunds Layout Plan
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Figure 20	Stormwater Management Infrastructure Layout Plan







0 5m 10m 20m 30m
SCALE 1:500

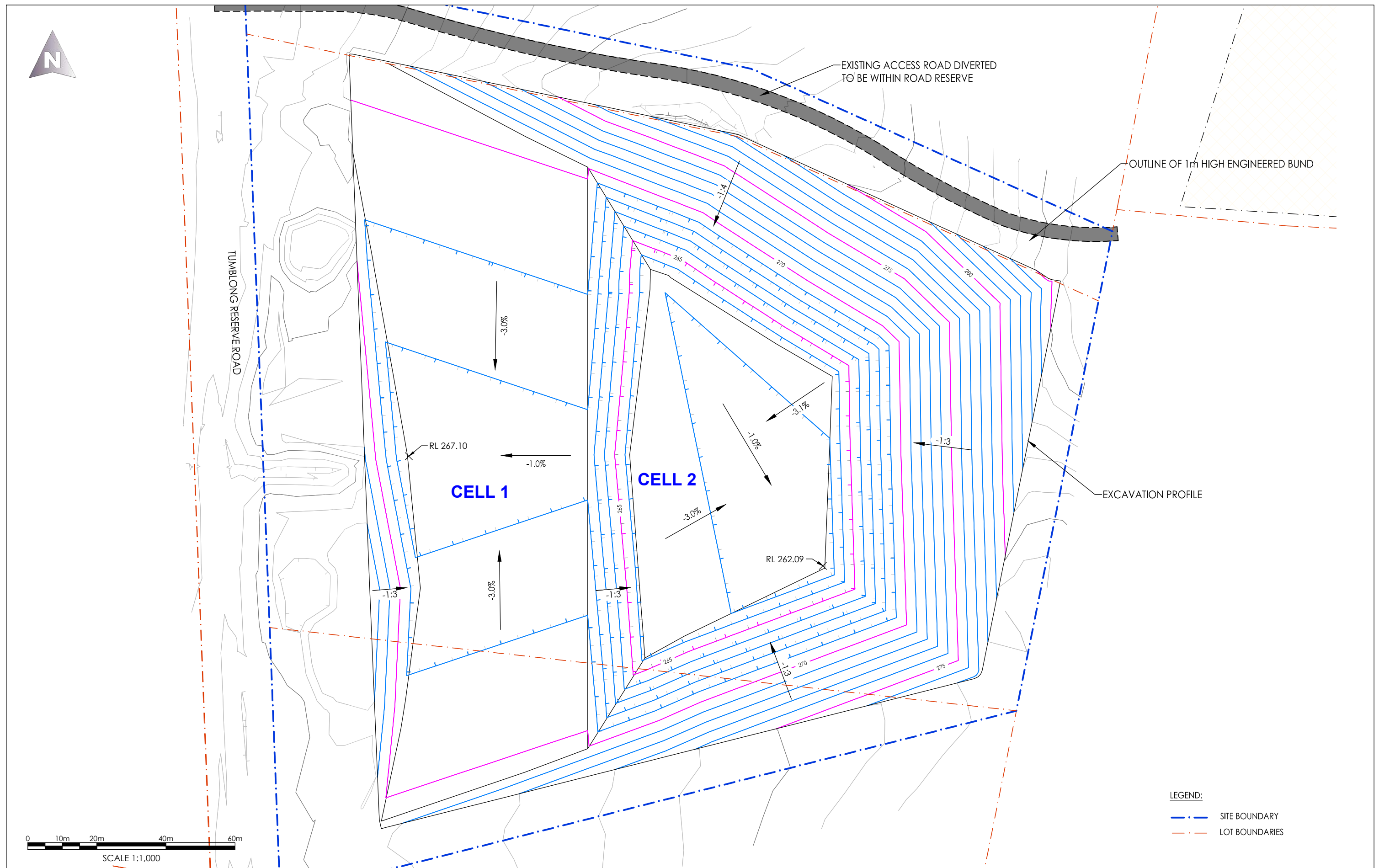


CLIENT:
SITE:
TITLE:

**MH EARTHMOVING
TUMBLONG QUARRY
EXISTING SITE SURVEY**

DATE: **07.03.2019** SCALE: **1:1,500** PAPERSIZE: **A3** DWG: **FIGURE 03**

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TUMBLONG RESERVE ROAD

EXISTING ACCESS ROAD DIVERTED
TO BE WITHIN ROAD RESERVE

1m HIGH ENGINEERED BUND TO TIE INTO
EXISTING GROUND LEVELS

A
FIG 7

CELL 1

B
FIG 7

CELL 2

C
FIG 7

D
FIG 7

LEGEND:

- SITE BOUNDARY
- LOT BOUNDARIES
- 200mm SUBBASE LAYER
- ENGINEERED BUNDS

0 10m 20m 40m 60m
SCALE 1:1,000



TUMBLONG RESERVE ROAD

EXISTING ACCESS ROAD DIVERTED
TO BE WITHIN ROAD RESERVE

GEOSYNTHETICS FORMED INTO
MID BUND ANCHOR TRENCH

GEOSYNTHETICS FORMED INTO
GROUND LEVEL ANCHOR TRENCH

CELL 1

CELL 2

A
FIG 7

B
FIG 7

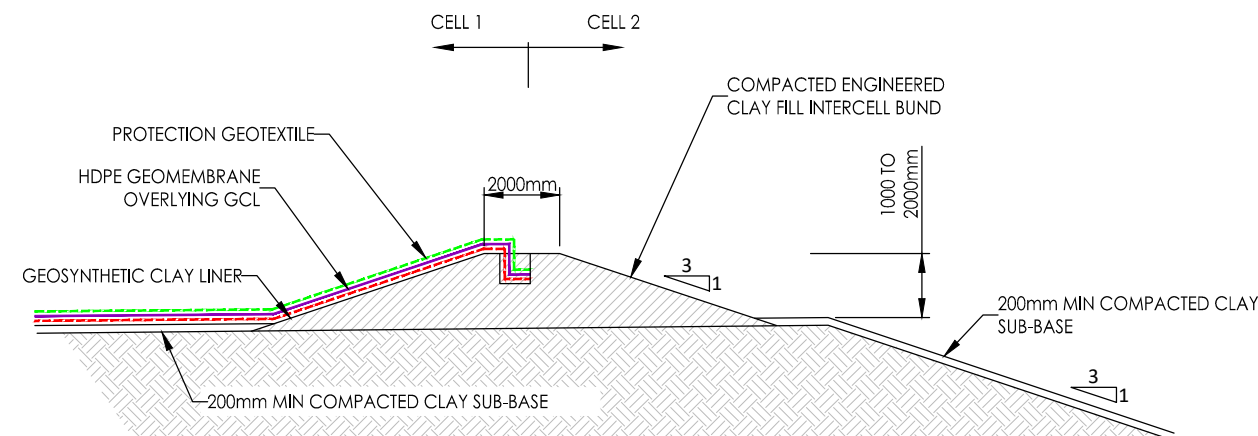
C
FIG 7

D
FIG 7

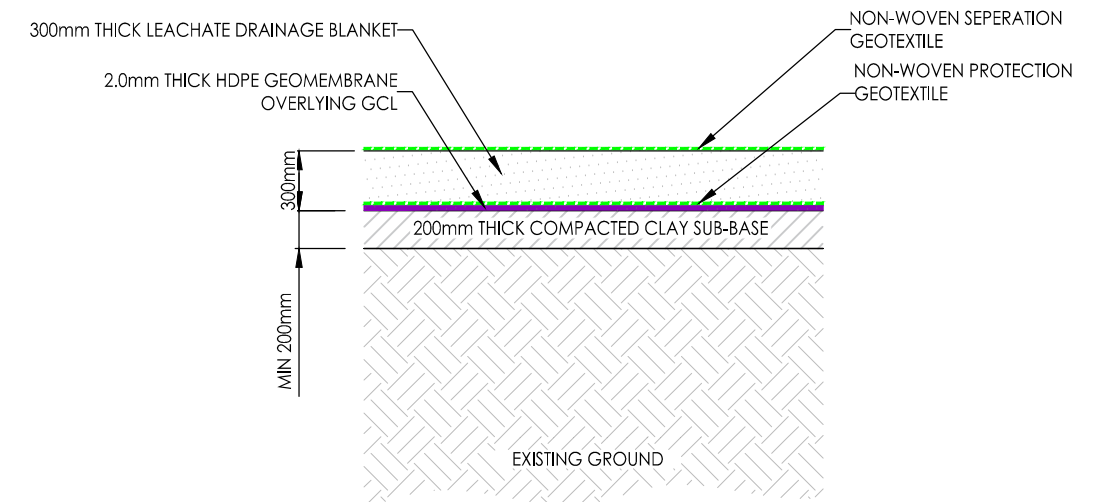
LEGEND:

- SITE BOUNDARY
- LOT BOUNDARIES
- EXTENT OF GCL, HDPE, PROTECTION GEOTEXTILE

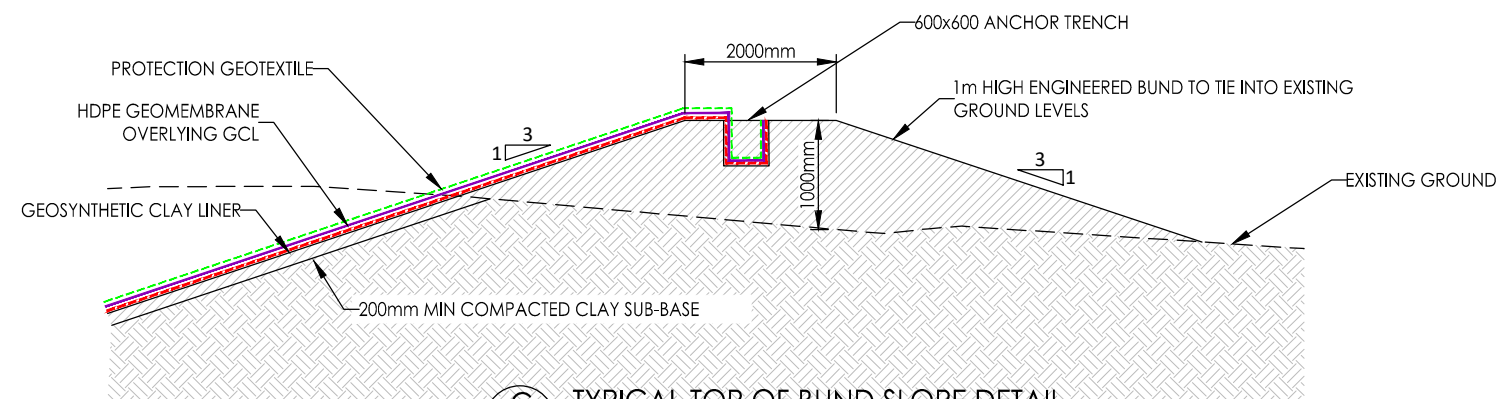
0 10m 20m 40m 60m
SCALE 1:1,000



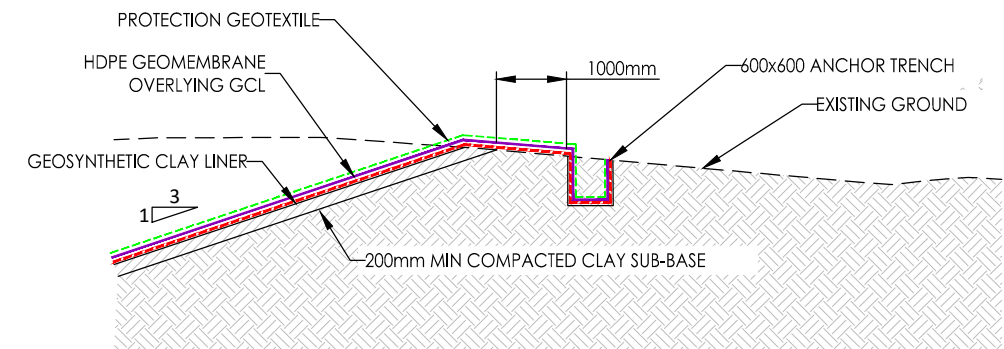
A TYPICAL SECTION THROUGH CELL 1 CELL 2 INTERCELL BUND
FIG 06 SCALE 1:200



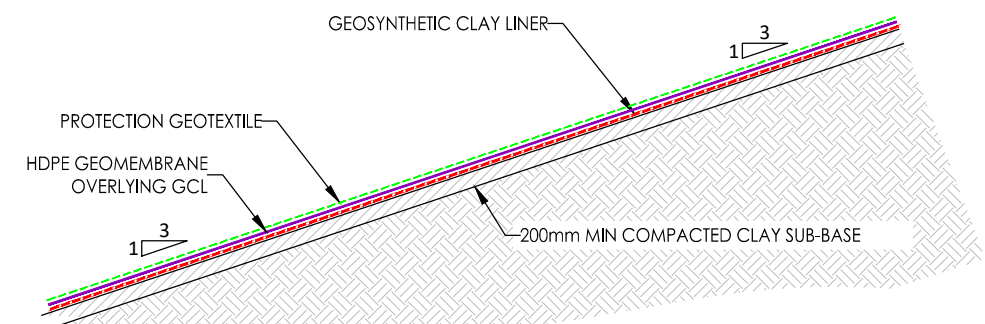
B TYPICAL SECTION THROUGH BASAL LINING SYSTEM
FIG 06 SCALE 1:50



C TYPICAL TOP OF BUND SLOPE DETAIL
FIG 06 SCALE 1:100



D TYPICAL TOP OF SLOPE DETAIL
FIG 06 SCALE 1:100



TYPICAL SIDEWALL DETAIL
SCALE 1:100



MIN 150mm ID SLOTTED
HDPE COLLECTION DRAIN

300mm THICK LEACHATE
DRAINAGE BLANKET

MIN 400mm ID SLOTTED HDPE
SIDE RISER PIPE
(LOWER 1000mm SLOTTED)

PROPOSED SUMP

MIN 250mm ID SLOTTED
HDPE SPINE DRAIN

MIN 150mm ID SLOTTED
HDPE COLLECTION DRAIN

E
FIG 9

3.0%

3.0%

D
FIG 9

25 (TYP)

3.0%

3.0%

300mm THICK LEACHATE
DRAINAGE BLANKET

MIN 250mm ID SLOTTED
HDPE SPINE DRAIN

PROPOSED SUMP

MIN 150mm ID SLOTTED
HDPE COLLECTION DRAIN

MIN 400mm ID SLOTTED HDPE
SIDE RISER PIPE
(LOWER 1000mm SLOTTED)

LEGEND:

- SITE BOUNDARY
- - - LOT BOUNDARIES
- PIPE ENDCAPS

0 10m 20m 40m 60m
SCALE 1:1,000

CLIENT:

SITE:

TITLE:

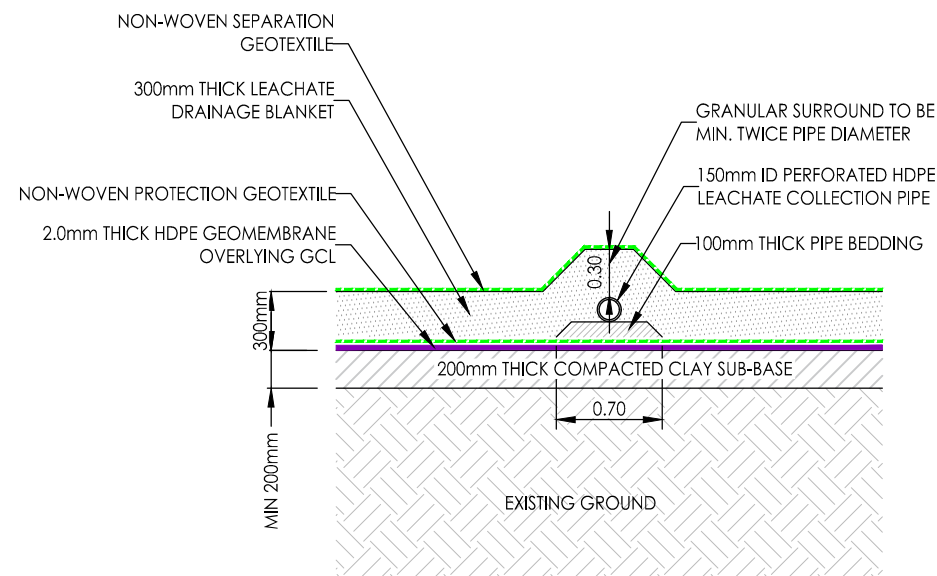
DATE: 07.03.2019

SCALE: 1:1,000

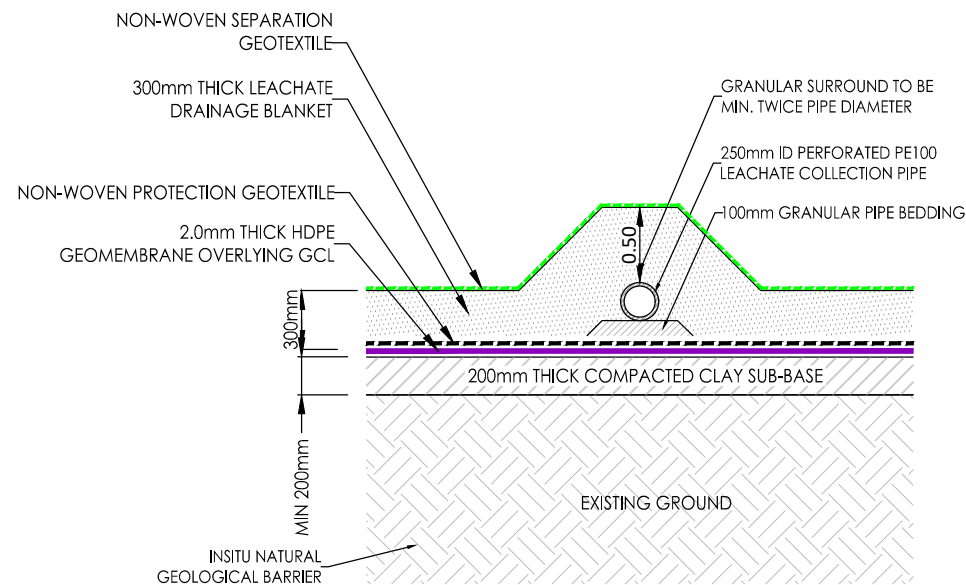
PAPERSIZE: A3

DWG: FIGURE 08

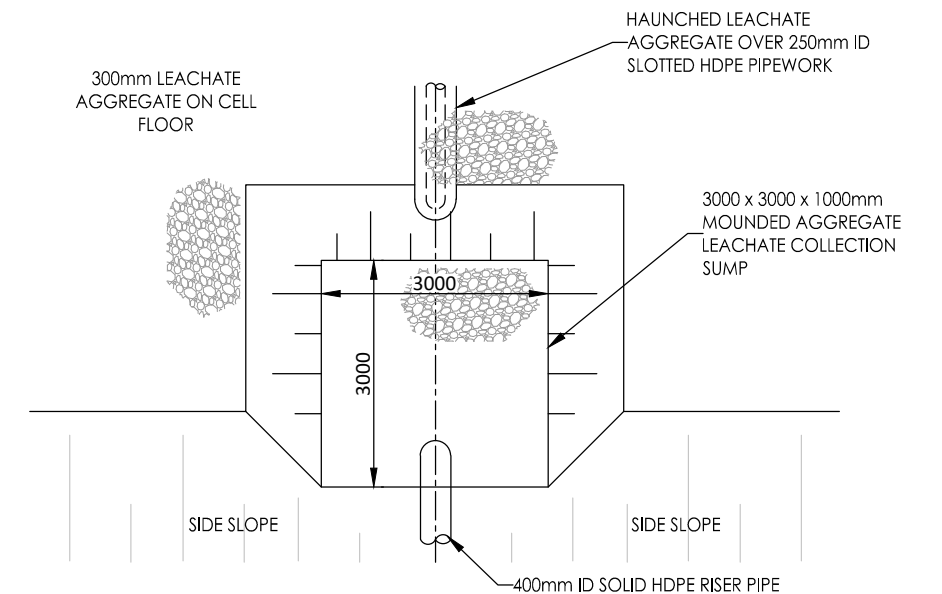
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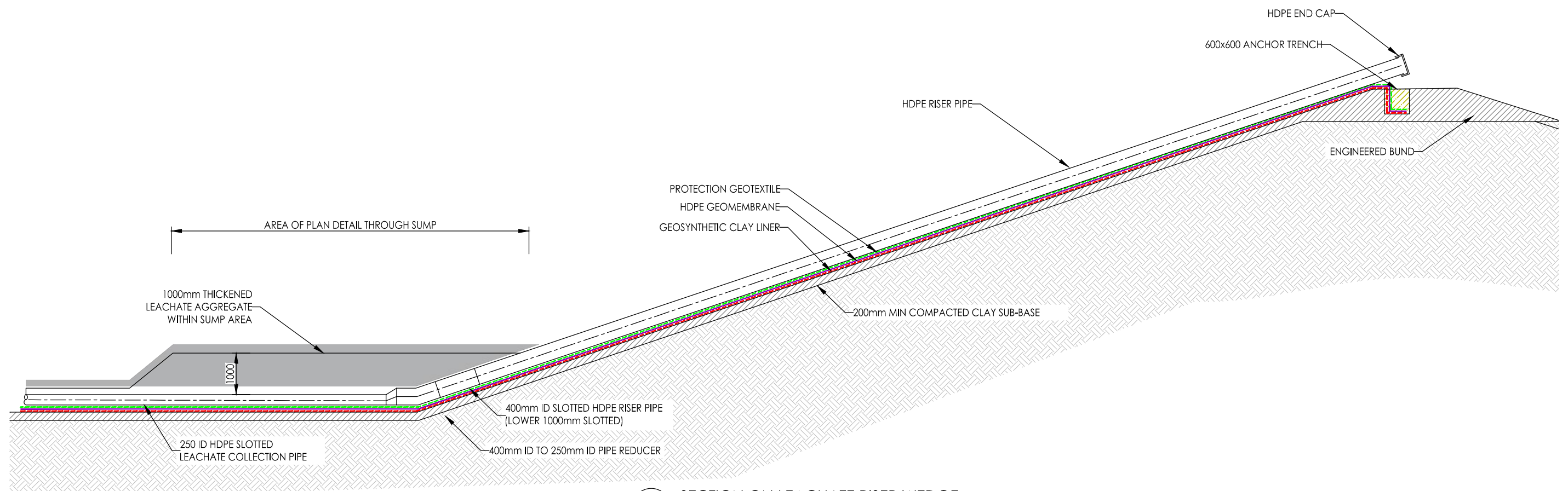
E SECTION THROUGH LEACHATE SPUR DRAIN
FIG 08 SCALE 1:50



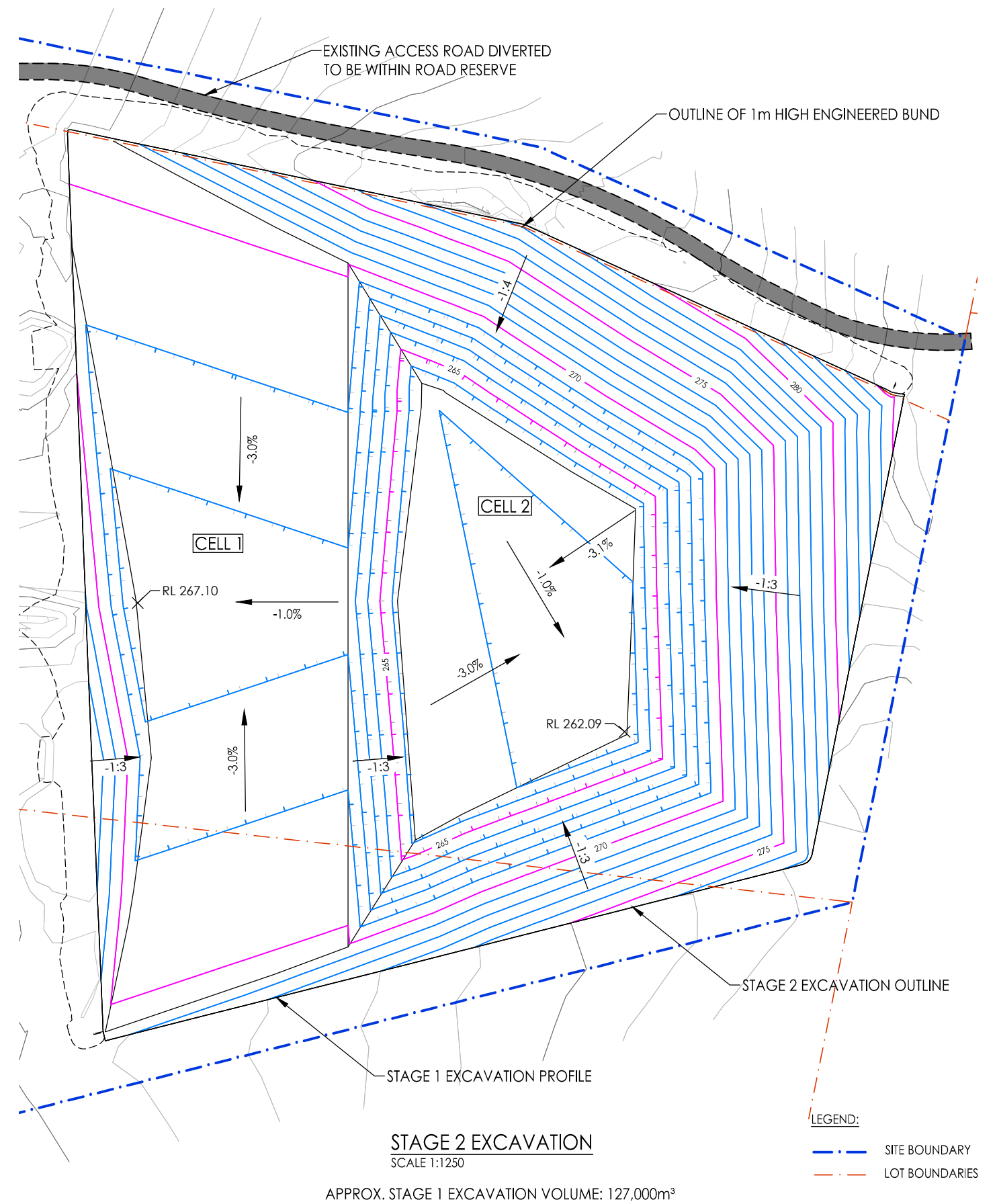
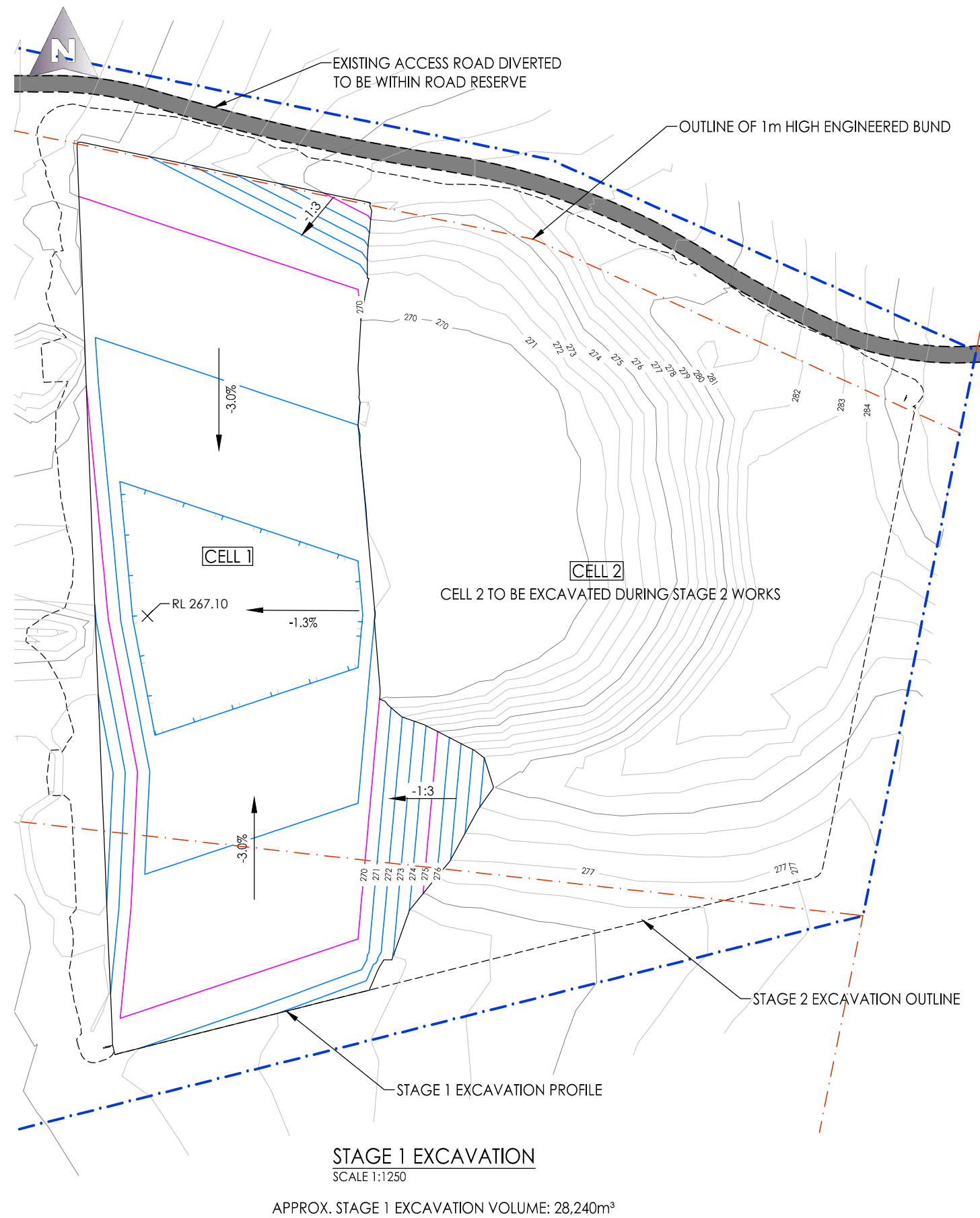
D SECTION THROUGH LEACHATE SPINE DRAIN
FIG 08 SCALE 1:50



PLAN OF LEACHATE COLLECTION SUMP AND PIPEWORK
SCALE 1:100



F SECTION ON LEACHATE RISER WEDGE
FIG 08 SCALE 1:100





TUMBLONG RESERVE ROAD

G
FIG 12

EXISTING ACCESS ROAD DIVERTED
TO BE WITHIN ROAD RESERVE

1m HIGH ENGINEERED BUND TO TIE INTO
EXISTING GROUND LEVELS

-1:5

-1:5

-1:5

-1:5

H
FIG 12

0 10m 20m 40m 60m
SCALE 1:1,000

CLIENT:

SITE:

TITLE:

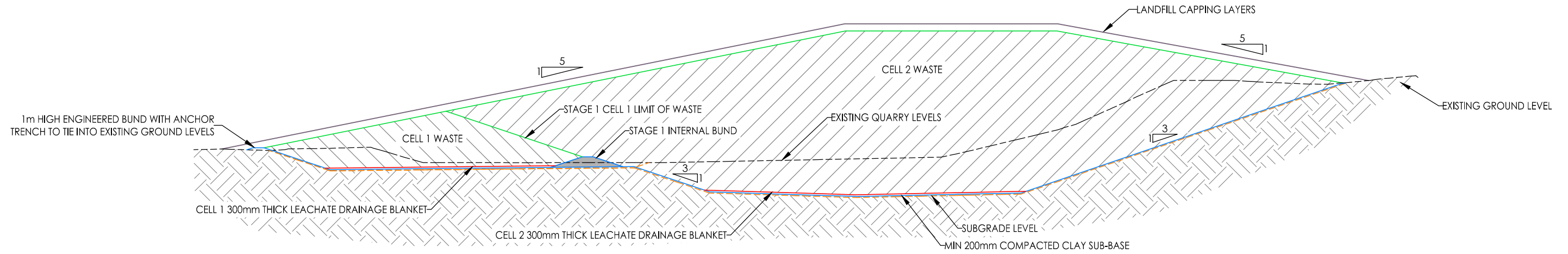
DATE: 07.03.2019

SCALE: 1:1,000

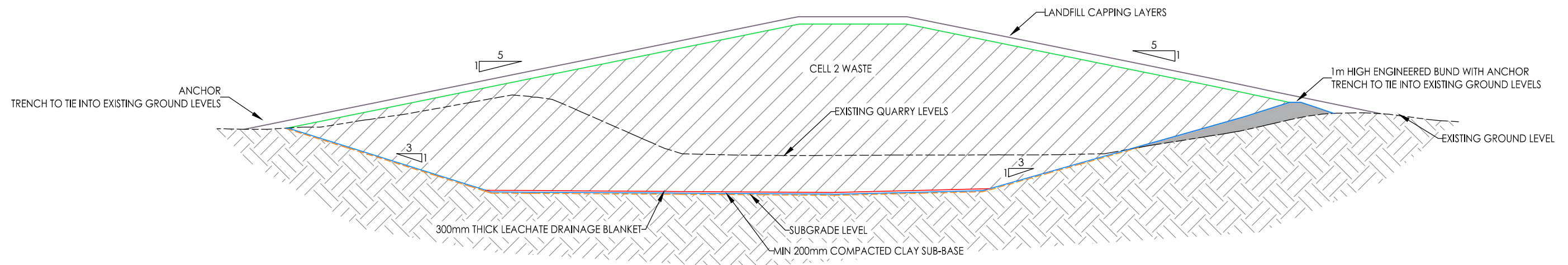
PAPERSIZE: A3

DWG: FIGURE 11

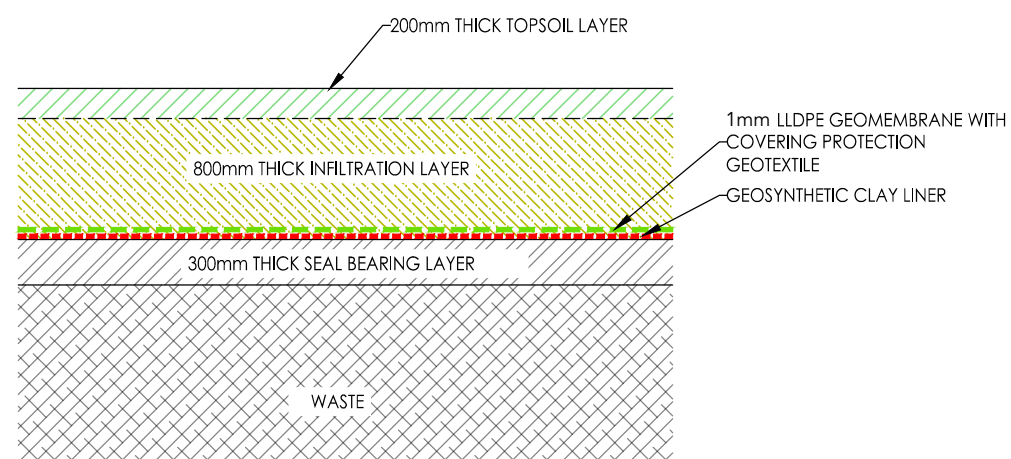
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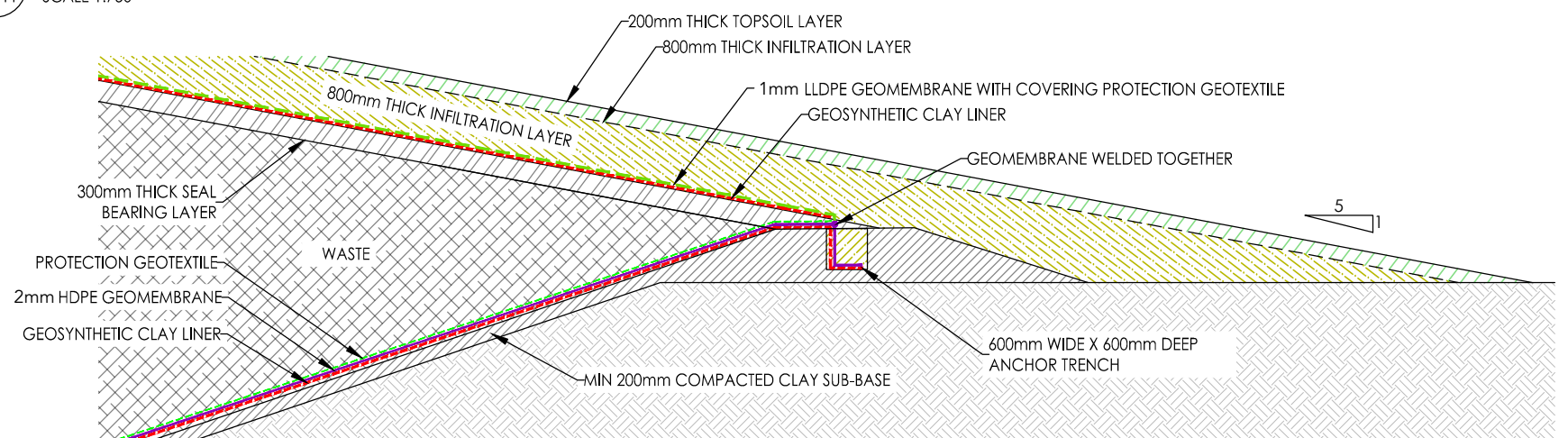
G
FIG 11
TYPICAL LONG SECTION
SCALE 1:750



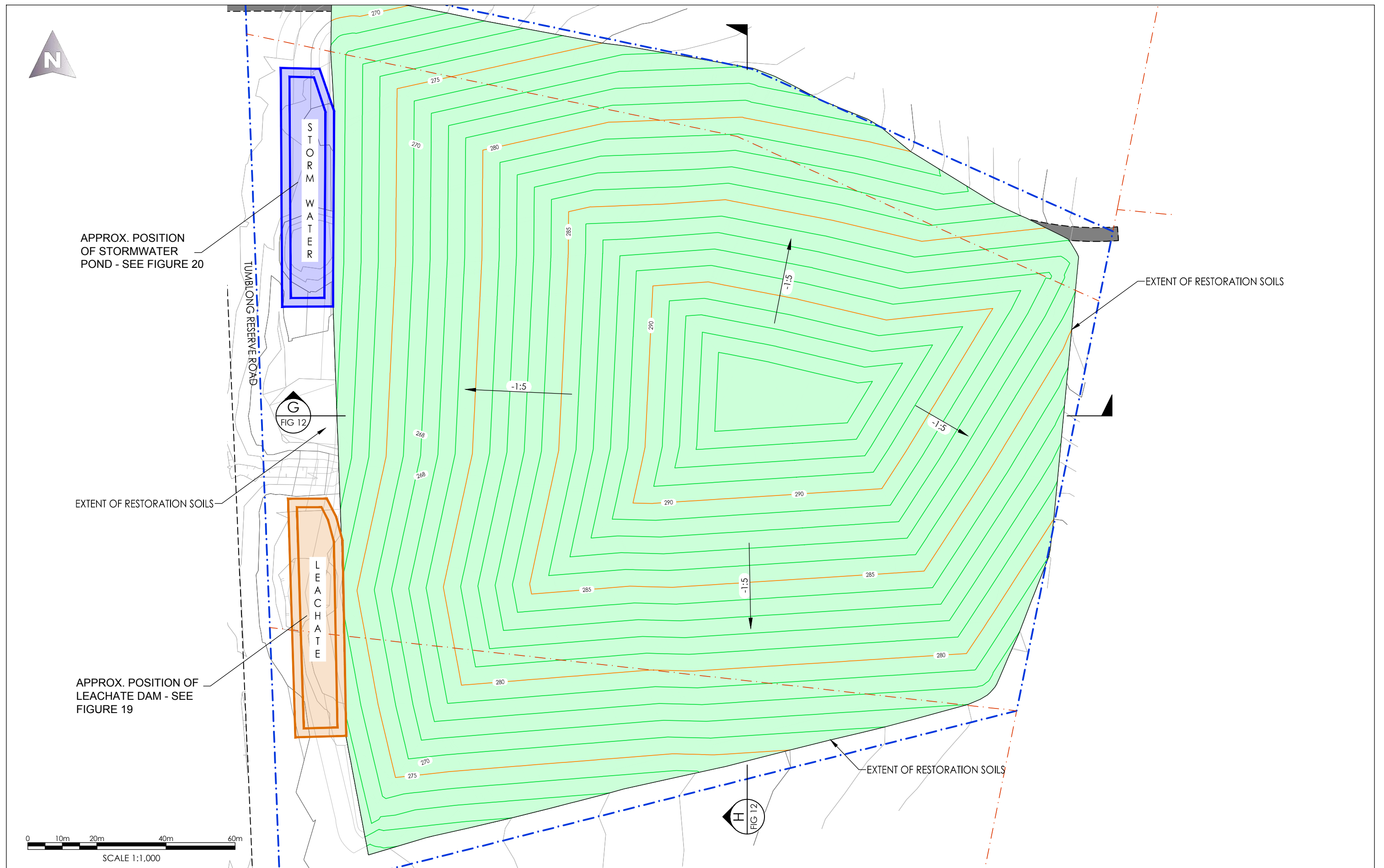
H
FIG 11
TYPICAL LONG SECTION
SCALE 1:750



TYPICAL SECTION THROUGH CAPPING LAYERS
SCALE 1:50



TYPICAL SECTION THROUGH EDGE OF CAP (NORTH & WEST)
SCALE 1:100





1m HIGH ENGINEERED CLAY
PERIMETER BUND TO TIE INTO
EXISTING GROUND LEVELS

TUMBLONG RESERVE ROAD

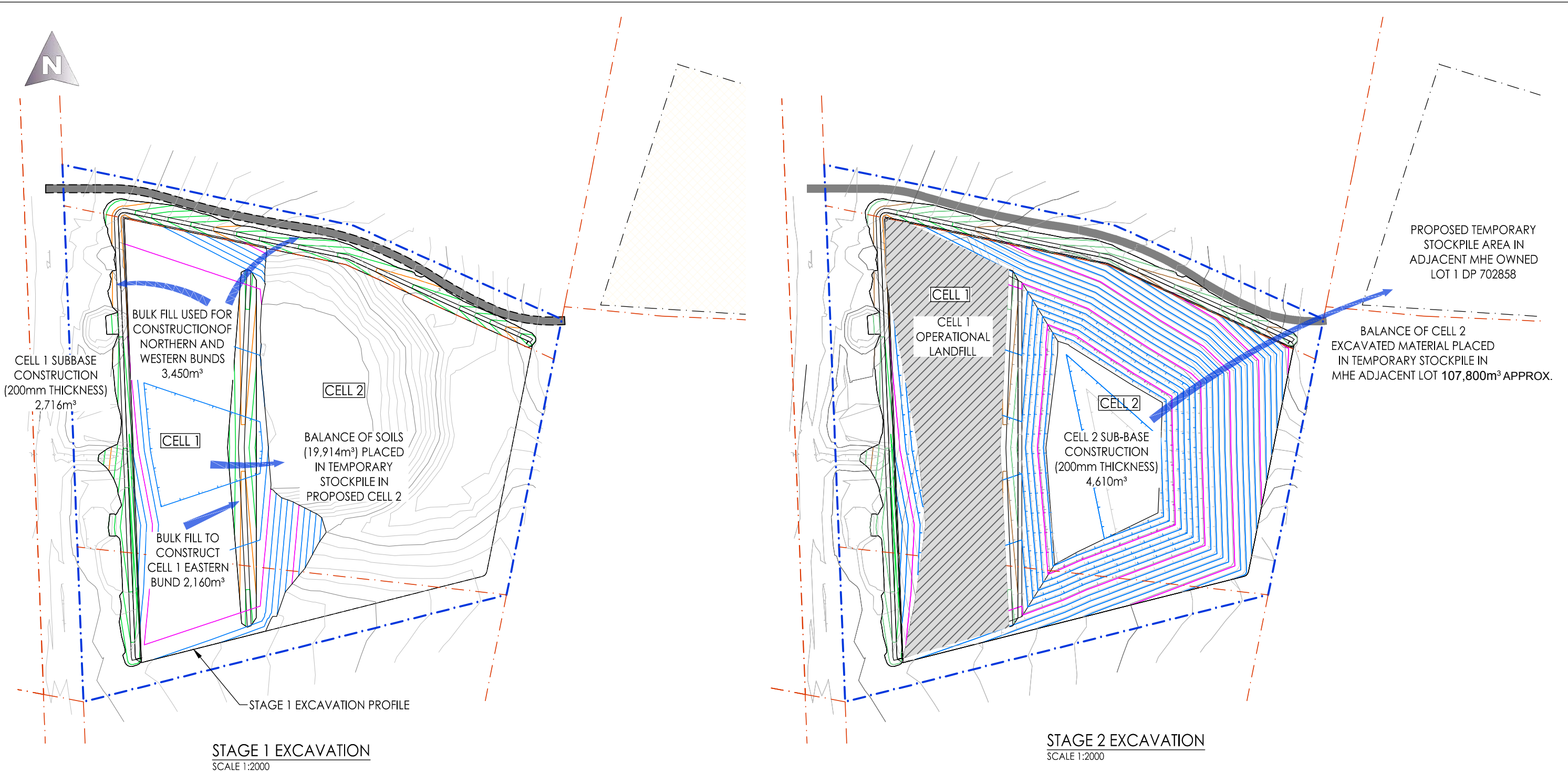
PROPOSED LANDFILL

1m HIGH ENGINEERED CLAY
PERIMETER BUND TO TIE INTO
EXISTING GROUND LEVELS

CELL 1 & CELL 2
EXCAVATION

TUMBLONG RESERVE ROAD

0 10m 20m 40m 60m
SCALE 1:1,000



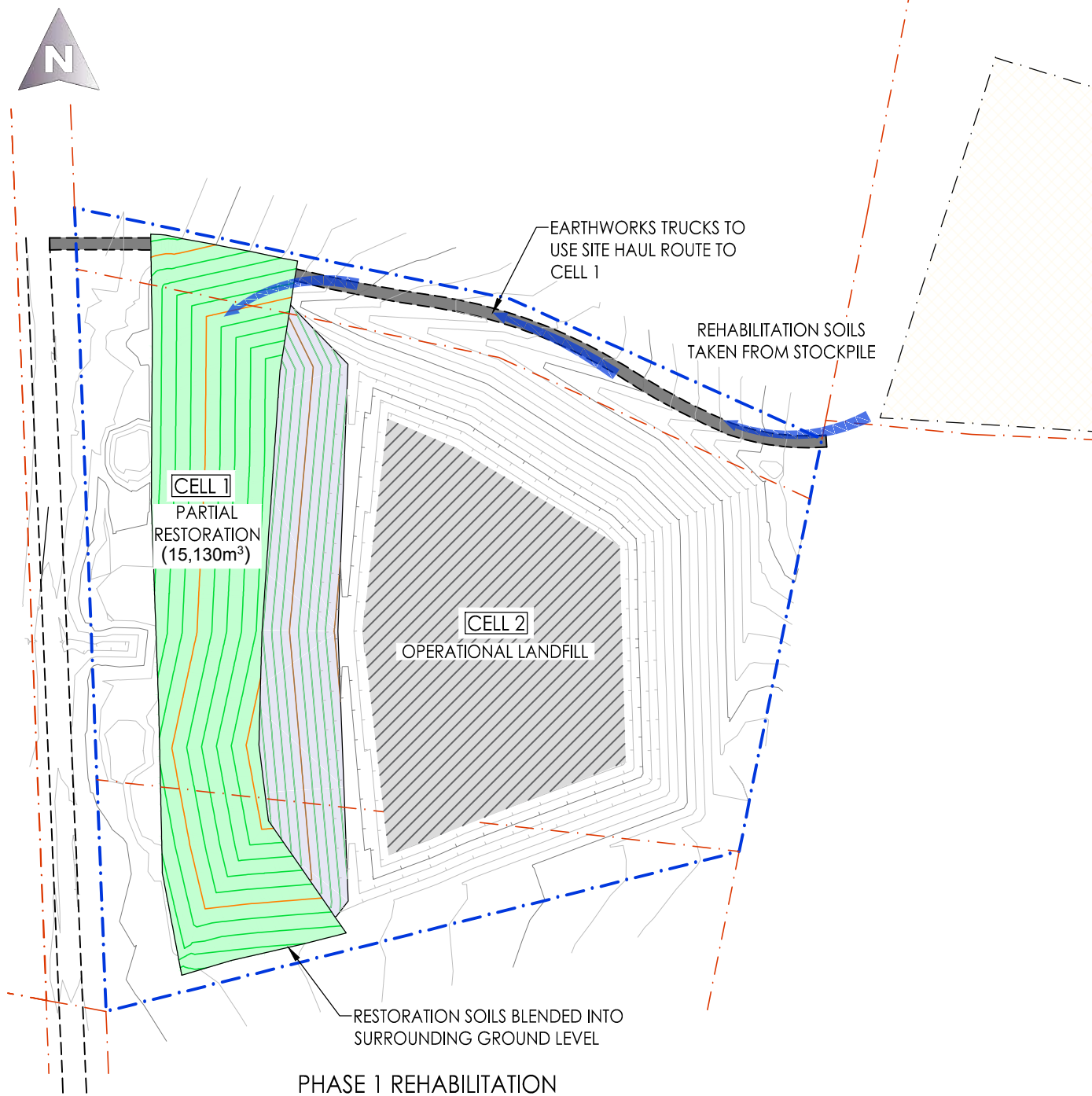
Approximate Volumes	
TOTAL CELL 1 EXCAVATION VOLUME	28,240m ³
PERIMETER BUNDS	-3,450m ³
CELL 1 INTERCELL BUND	-2,160m ³
CELL 1 SUBBASE	-2,716m ³
BALANCE STORED IN CELL 2 AFTER COUNCIL NEEDS	9,914m ³

Approximate Volumes	
BULK EXCAVATION CELL 2	127,000m ³
ADD PREVIOUSLY STORED FILL FROM CELL 2	9,914m ³
CELL 2 SUBBASE	-4,610m ³
DAILY COVER AND COUNCIL QUARRY MATERIAL NEEDS	-24,500m ³
BALANCE OF MATERIAL PLACED IN TEMPORARY STOCKPILE	107,800m ³

LEGEND:

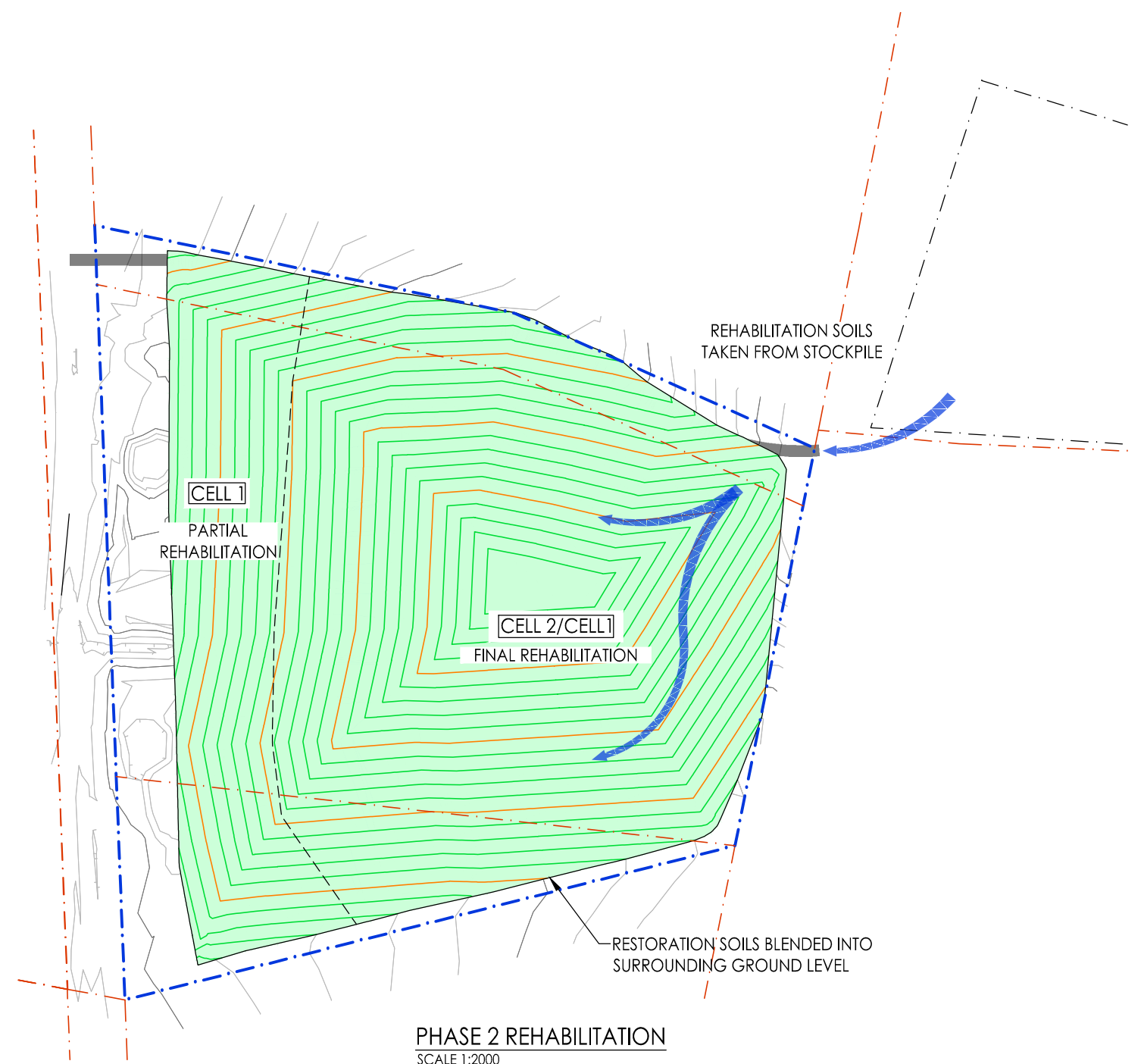
— · — SITE BOUNDARY

— · — LOT BOUNDARIES



PHASE 1 REHABILITATION
SCALE 1:2000

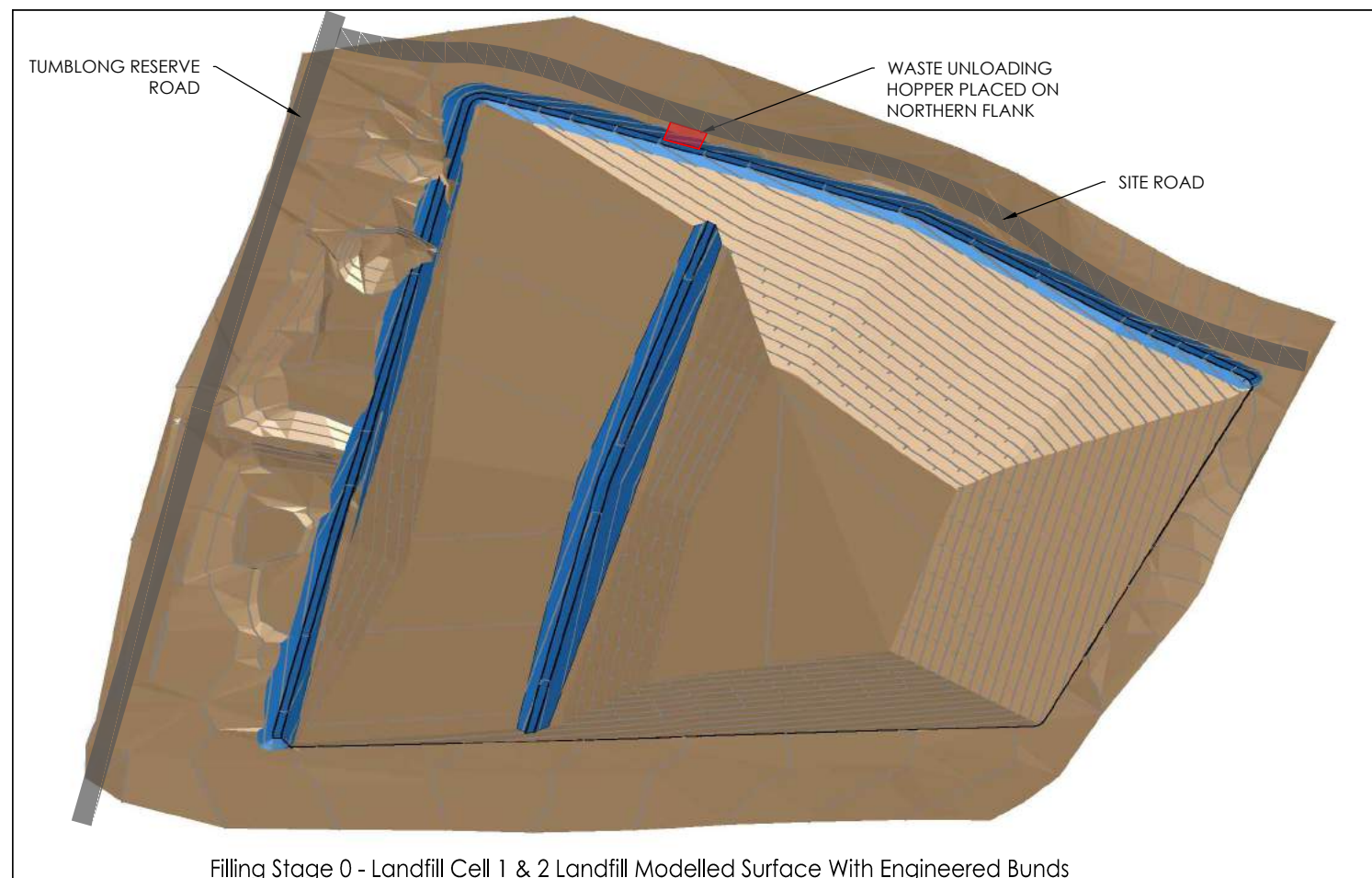
APPROX. VOLUMES	
VOLUME OF STOCKPILED SOILS	107,800m ³
REHABILITATION OF CELL 1	-15,130m ³
BALANCE OF SOILS IN STOCKPILE	92,674m ³



PHASE 2 REHABILITATION
SCALE 1:2000

APPROX. VOLUMES	
VOLUME OF STOCKPILED SOILS	92,674m ³
REHABILITATION OF CELL 2	-38,260m ³
WASTE COVER SOILS REQUIRED FOR CELL 2	-19,500m ³
COUNCIL REMOVAL OF QUARRIED FILL DURING CELL 2 OPERATION	-34,914m ³
TOTAL SOILS BALANCE IN TEMPORARY STOCKPILE AT COMPLETION	0m ³

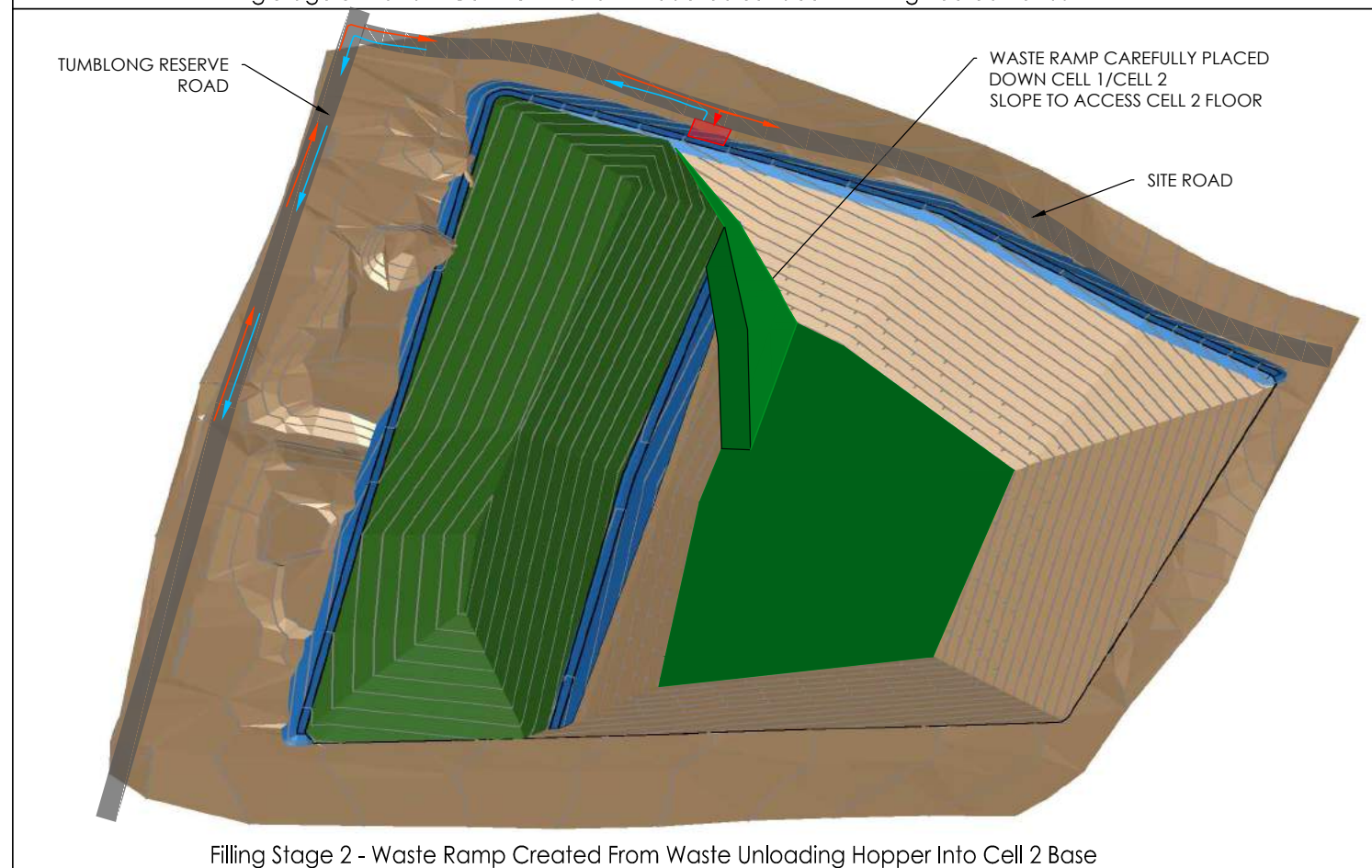
LEGEND:
 - - - SITE BOUNDARY
 - - - LOT BOUNDARIES



Filling Stage 0 - Landfill Cell 1 & 2 Landfill Modelled Surface With Engineered Bunds



Filling Stage 1 - Waste Emplacement Within Cell 1 From Waste Emplacement Hopper



Filling Stage 2 - Waste Ramp Created From Waste Unloading Hopper Into Cell 2 Base



Filling Stage 3 - Completed Landfill Profile

