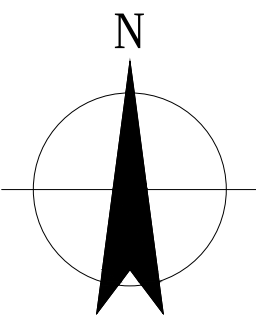


Appendix 4: Concept Design Plans

DUNEDIN CITY COUNCIL

SMOOTH HILL LANDFILL

51-12506381-01



MAIN INTERSECTION
WITH SH1

SITE

LOCALITY PLAN
SCALE 1:2000

DRAWING LIST	
DRG No.	DRAWING TITLE
51-12506381-01-G001	COVER SHEET, LOCALITY PLAN AND DRAWING LIST
51-12506381-01-C101	VOID
51-12506381-01-C102	GENERAL ARRANGEMENTS MCLAREN ROAD ACCESS OPTION
51-12506381-01-C103	EXISTING CONTOURS
51-12506381-01-C201	LANDFILL LINER PLAN
51-12506381-01-C202	LANDFILL CAPPING PLAN
51-12506381-01-C203	LANDFILL STAGING PLAN
51-12506381-01-C204	LANDFILL LONG SECTION A
51-12506381-01-C205	LANDFILL CROSS SECTIONS B AND C
51-12506381-01-C206	STOCKPILE LOCATION PLAN
51-12506381-01-C207	TYPICAL LINER/ CAPPING DETAILS
51-12506381-01-C208	TEMPORARY WORKS
51-12506381-01-C209	BULK EARTHWORKS CUT AND FILL PLAN
51-12506381-01-C301	STORMWATER CATCHMENT PLAN
51-12506381-01-C302	TYPICAL SWALE DRAIN DETAILS
51-12506381-01-C303	SWALE DRAIN AND CATCHMENT
51-12506381-01-C304	SWALE DRAIN LONGSECTIONS (CHANNEL 2)
51-12506381-01-C305	SWALE DRAIN LONGSECTIONS (CHANNELS 3 AND 4)
51-12506381-01-C306	ATTENUATION BASIN PLAN
51-12506381-01-C307	ATTENUATION BASIN SECTIONS
51-12506381-01-C308	GROUNDWATER DRAINAGE PLAN
51-12506381-01-C309	WATER MONITORING LOCATIONS
51-12506381-01-C401	LEACHATE DRAINAGE PLAN
51-12506381-01-C402	TYPICAL LEACHATE DRAINAGE DETAILS
51-12506381-01-C403	LEACHATE TANKFARM AND LOAD OUT BAY
51-12506381-01-C404	VOID
51-12506381-01-C501	LANDFILL GAS MANAGEMENT CONCEPTUAL SYSTEM LAYOUT
51-12506381-01-C502	LANDFILL GAS MANAGEMENT - DETAILS SHEET
51-12506381-01-C503	LANDFILL GAS MANAGEMENT - BORE MONITORING NETWORK (INITIAL)

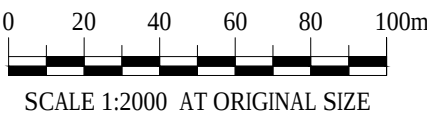
51-12506381-01-C504	LANDFILL GAS MANAGEMENT - BORE MONITORING NETWORK (REVISED)
51-12506381-01-C505	LANDFILL GAS MANAGEMENT - TYPICAL DETAIL
51-12506381-01-C601	SH1/ MCLAREN GULLY ROAD INTERSECTION PLAN
51-12506381-01-C602	MCLAREN GULLY ROAD IMPROVEMENTS PLAN
51-12506381-01-C603	MCLAREN GULLY ROAD IMPROVEMENTS PLAN
51-12506381-01-C604	MCLAREN GULLY ROAD IMPROVEMENTS PLAN
51-12506381-01-C605	MCLAREN GULLY ROAD IMPROVEMENTS PLAN
51-12506381-01-C606	MCLAREN GULLY ROAD IMPROVEMENTS PLAN
51-12506381-01-C607	MCLAREN GULLY ROAD IMPROVEMENTS PLAN
51-12506381-01-C608	VOID
51-12506381-01-C609	VOID
51-12506381-01-C610	VOID
51-12506381-01-C611	MCLARENS GULLY ROAD IMPROVEMENTS PLAN
51-12506381-01-C612	MCLARENS GULLY ROAD IMPROVEMENTS PLAN
51-12506381-01-C701	VOID
51-12506381-01-C702	LANDFILL FACILITIES AND BIG STONE ROAD ACCESS OPTION
51-12506381-01-C801	VOID
51-12506381-01-C802	VOID
51-12506381-01-C803	EXAMPLE OF STAGE 1 EROSION AND SEDIMENT CONTROL PLAN
51-12506381-01-C804	EXAMPLE OF SEDIMENT CONTROL - STANDARD DETAILS

NOTE:

1. THIS DRAWING SET MUST BE READ IN CONJUNCTION WITH SPECIFICATION AND CONTRACT DOCUMENTS.

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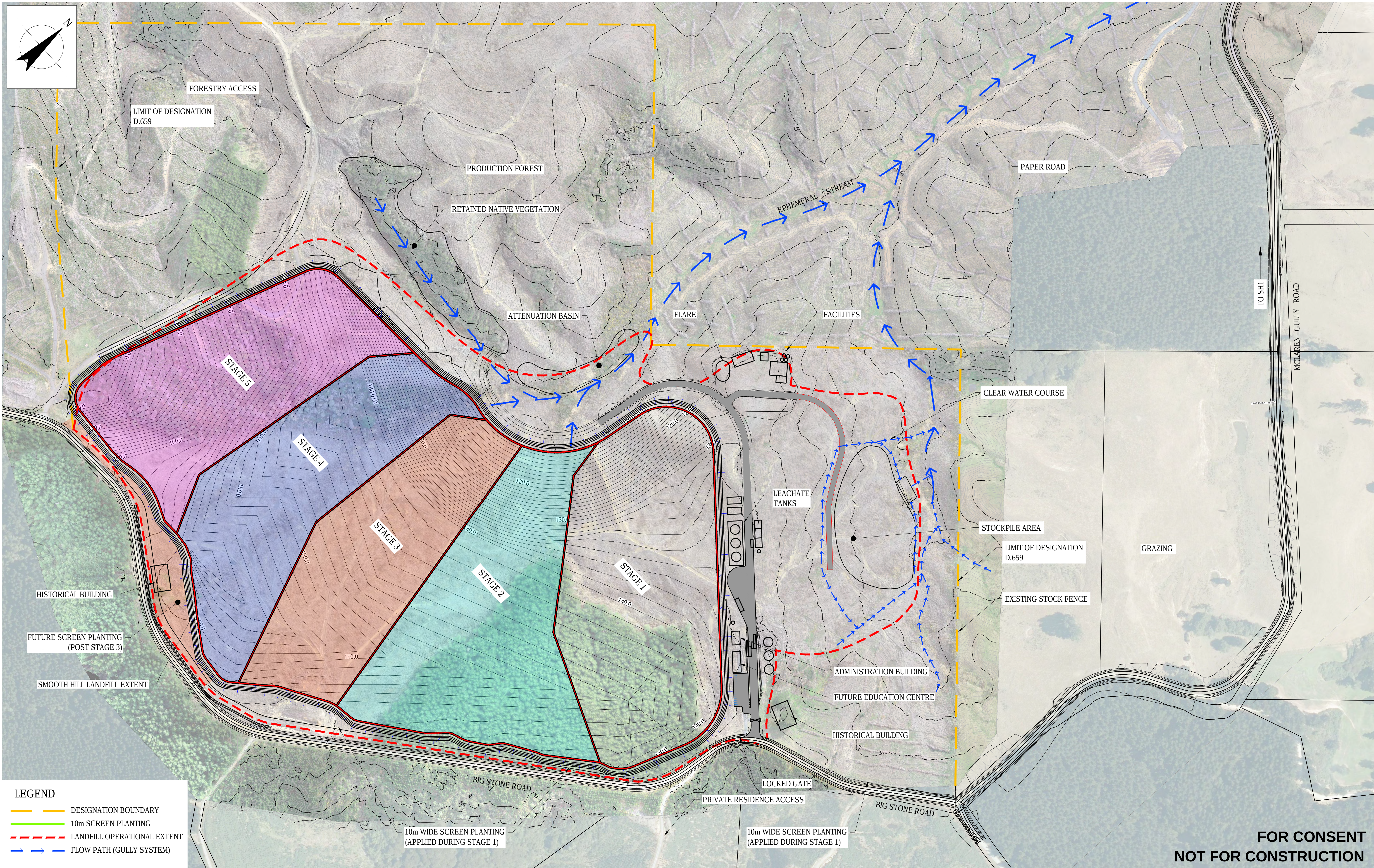
1	FOR CONSENT	ST	RC*	SD*	14.08.20
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director



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	Design Check N.ELDRED*
Approved (Project Director)	S.DOUGLAS*
	Date 14.08.20
Scale AS SHOWN	This Drawing must not be used for Construction unless signed as Approved

Client	DUNEDIN CITY COUNCIL
Project	SMOOTH HILL LANDFILL
Title	COVER SHEET, LOCALITY PLAN AND DRAWING LIST
Original Size	A1
Drawing No:	51-12506381-01-G001
Rev:	1



LEGEND

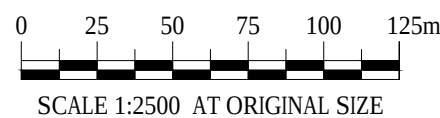
DESIGNATION BOUNDARY

10m SCREEN PLANTING

LANDFILL OPERATIONAL EXTENT

FLOW PATH (GULLY SYSTEM)

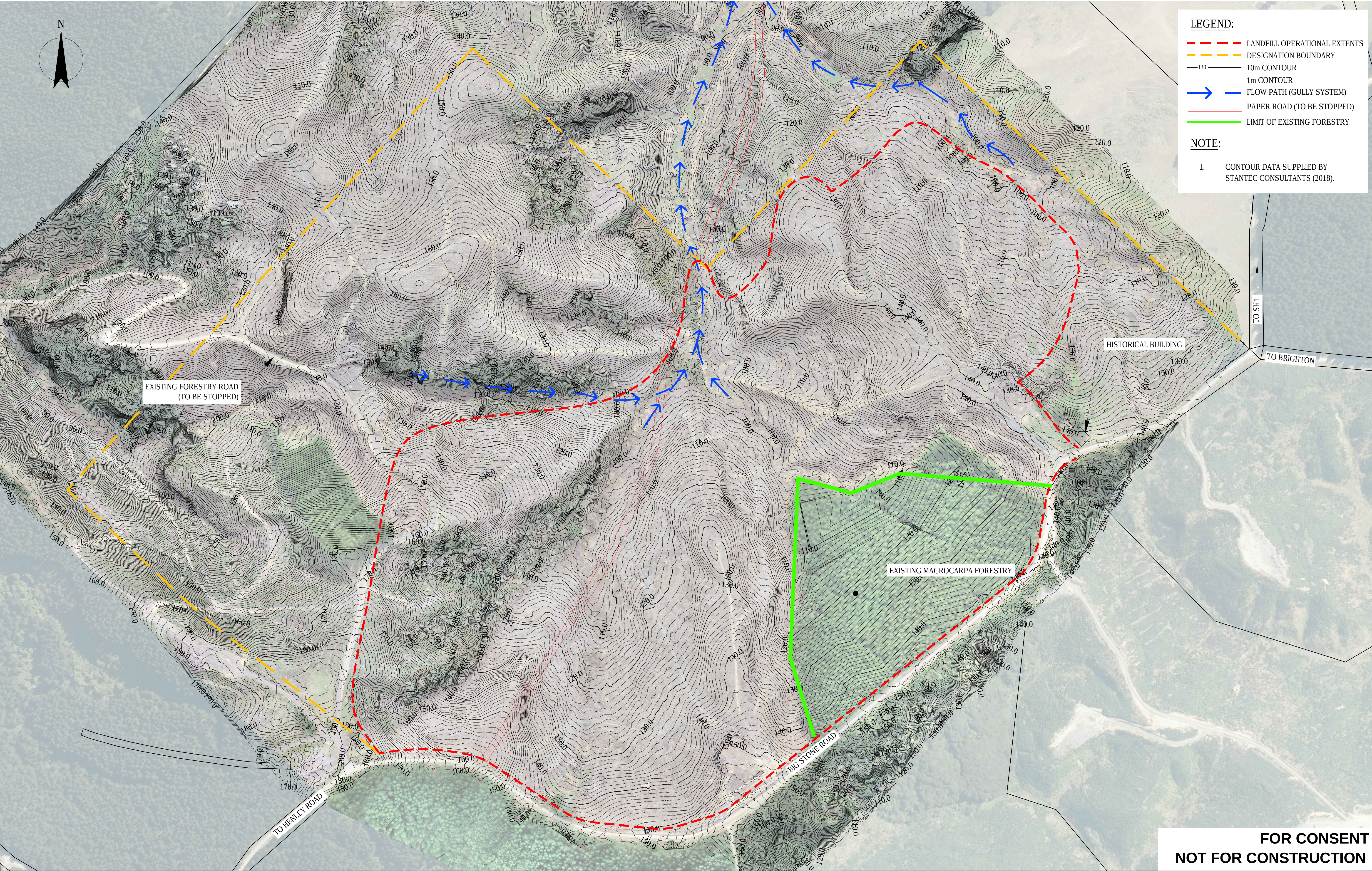
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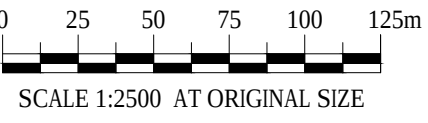
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Project	SMOOTH HILL LANDFILL				
Title	GENERAL ARRANGEMENT PLAN				
	MCLAREN GULLY ROAD OPTION				
Original Size	A1	Drawing No:	51-12506381-01-C102		
		Rev:	1		



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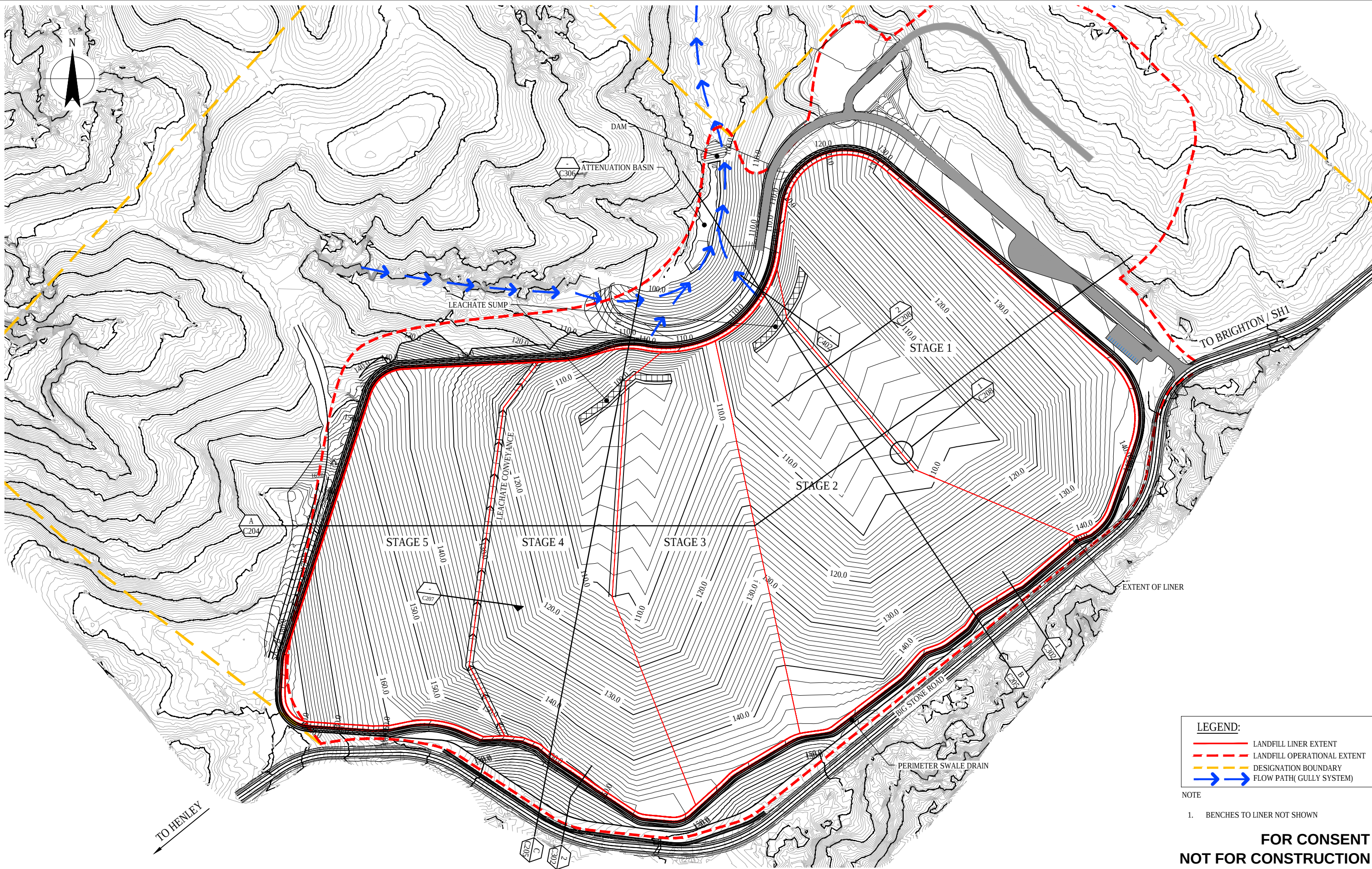
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Client	DUNEDIN CITY COUNCIL		
Project	SMOOTH HILL LANDFILL		
Title	EXISTING CONTOURS		
Original Size	A1	Drawing No:	51-12506381-01-C103
		Rev:	1



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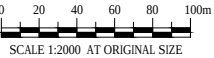
- LANDFILL LINER EXTENT
- - - LANDFILL OPERATIONAL EXTENT
- - - DESIGNATION BOUNDARY
- FLOW PATH(GULLY SYSTEM)

NOTE

1. BENCHES TO LINER NOT SHOWN

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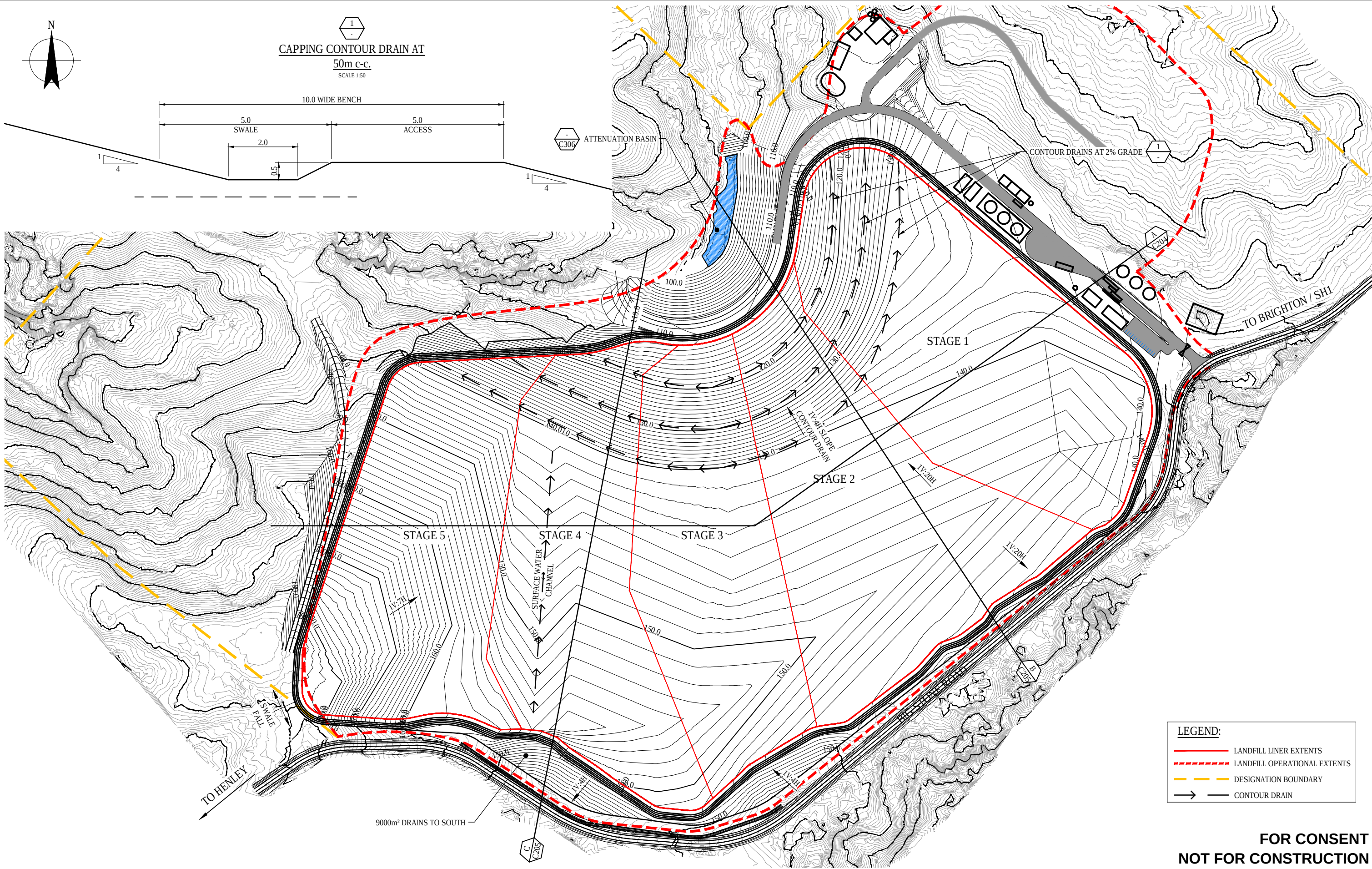


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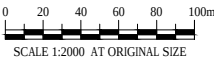
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Project	SMOOTH HILL LANDFILL
Title	LANDFILL LINER PLAN
Original Size	A1
Drawing No:	51-12506381-01-C201
Rev:	1



- LEGEND:**
- LANDFILL LINER EXTENTS
 - LANDFILL OPERATIONAL EXTENTS
 - DESIGNATION BOUNDARY
 - CONTOUR DRAIN

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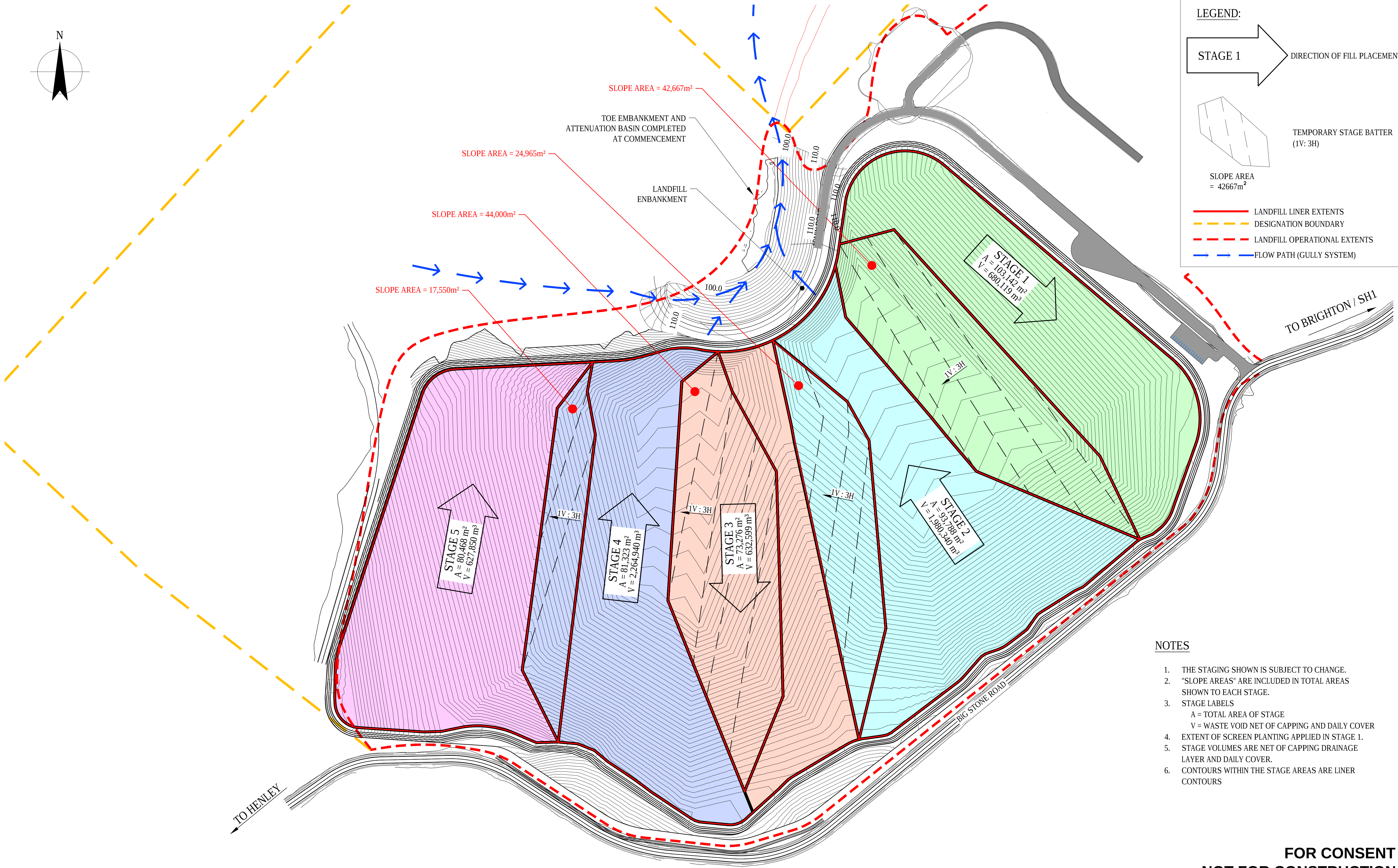
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Scale	AS SHOWN	This Drawing must not be used for Construction unless signed as Approved	

Client	DUNEDIN CITY COUNCIL
Project	SMOOTH HILL LANDFILL
Title	LANDFILL CAPPING PLAN

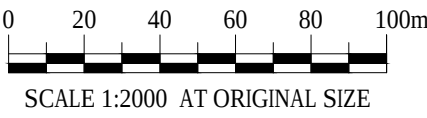
Original Size
A1 Drawing No: **51-12506381-01-C202** Rev: **1**



- NOTES**
1. THE STAGING SHOWN IS SUBJECT TO CHANGE.
 2. "SLOPE AREAS" ARE INCLUDED IN TOTAL AREAS SHOWN TO EACH STAGE.
 3. STAGE LABELS
A = TOTAL AREA OF STAGE
V = WASTE VOID NET OF CAPPING AND DAILY COVER
 4. EXTENT OF SCREEN PLANTING APPLIED IN STAGE 1.
 5. STAGE VOLUMES ARE NET OF CAPPING DRAINAGE LAYER AND DAILY COVER.
 6. CONTOURS WITHIN THE STAGE AREAS ARE LINER CONTOURS

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1	FOR CONSENT		ST	RC*	SD*	14.08.20
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date

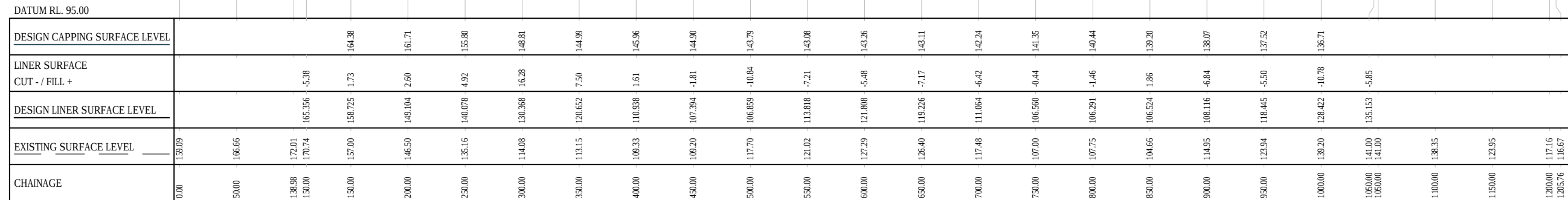


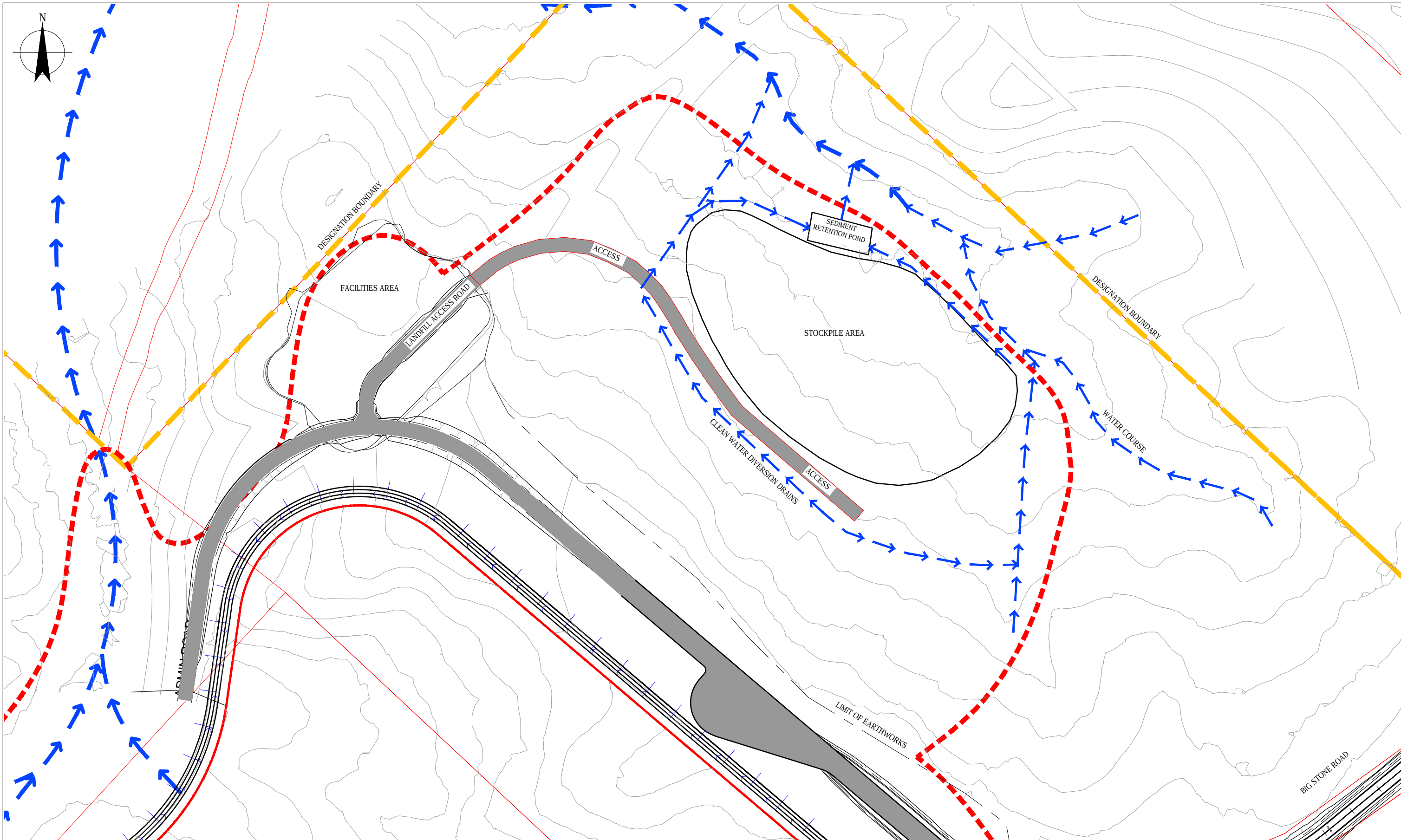
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Client	DUNEDIN CITY COUNCIL
Project	SMOOTH HILL LANDFILL
Title	LANDFILL STAGING PLAN
Original Size	A1
Drawing No:	51-12506381-01-C203
Rev:	1

1. FOR GENERAL ARRANGEMENT PLAN, REFER TO DRAWING 51-12506381-01-C102.
2. SECTION LOCATION SHOWN ON 51-12506381-01-C201.

 FINAL CAPPING
 TOP OF WASTE
 LANDFILL LINER
 EXISTING SURFACE LEVEL
 AVERAGE LINER SLOPE
 STAGE INTERMEDIATE CAPPING

[illegible]

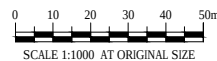


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Plot Date: 17 August 2020 - 1:31 PM
Plotted by: Sulu Tuivonovono

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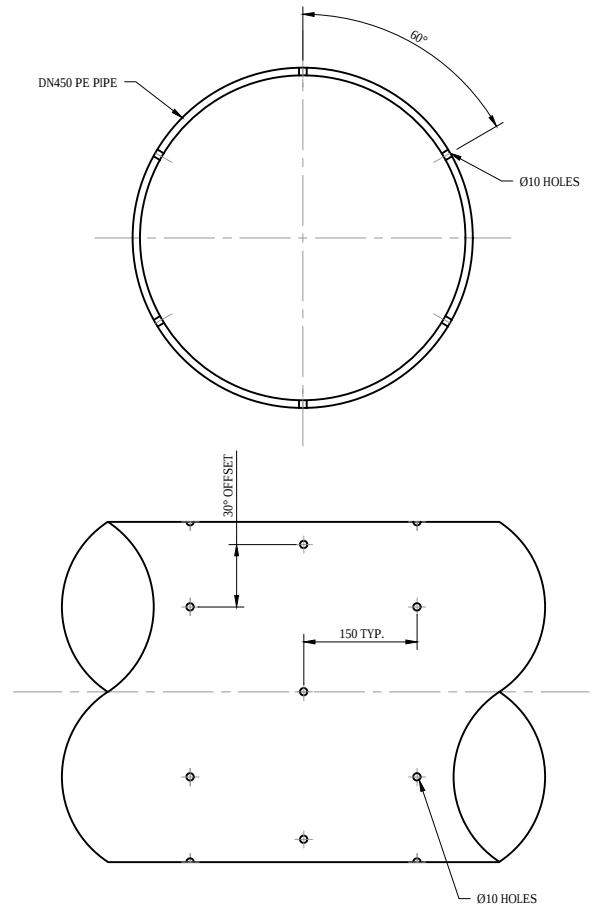
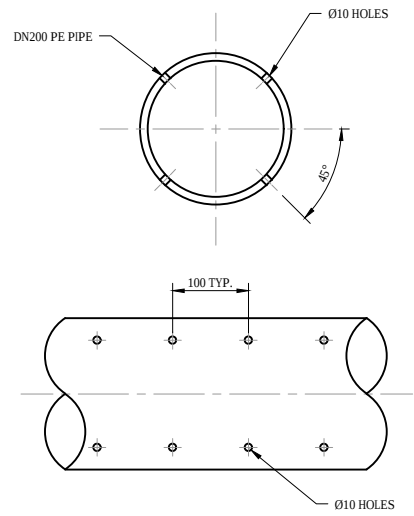
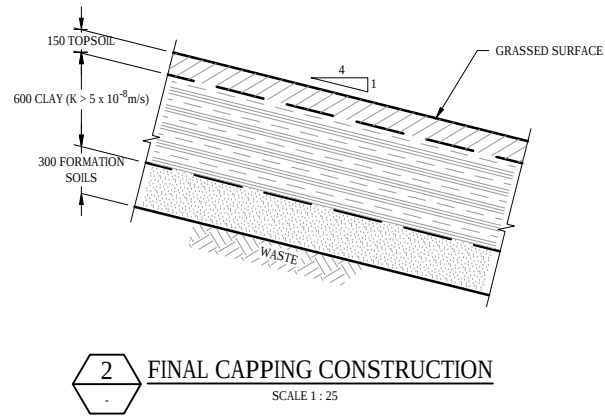
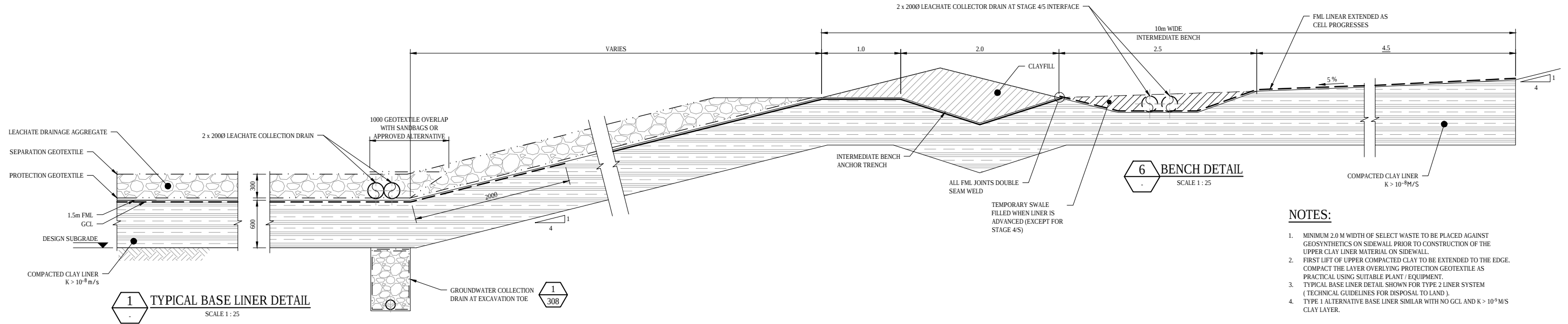
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Approved (Project Director)	S.DOUGLAS*
Date	14.08.20
Scale	AS SHOWN

Designer	R.COOMBE
Design Check	N.ELDRED*
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Client	DUNEDIN CITY COUNCIL
Project	SMOOTH HILL LANDFILL
Title	STOCK PILE LOCATION PLAN

Original Size
A1 Drawing No: **51-12506381-01-C206** Rev: **1**

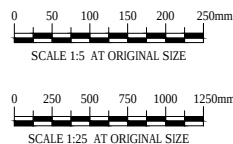


TYPICAL LEACHATE COLLECTION PIPE PERFORATION DETAIL

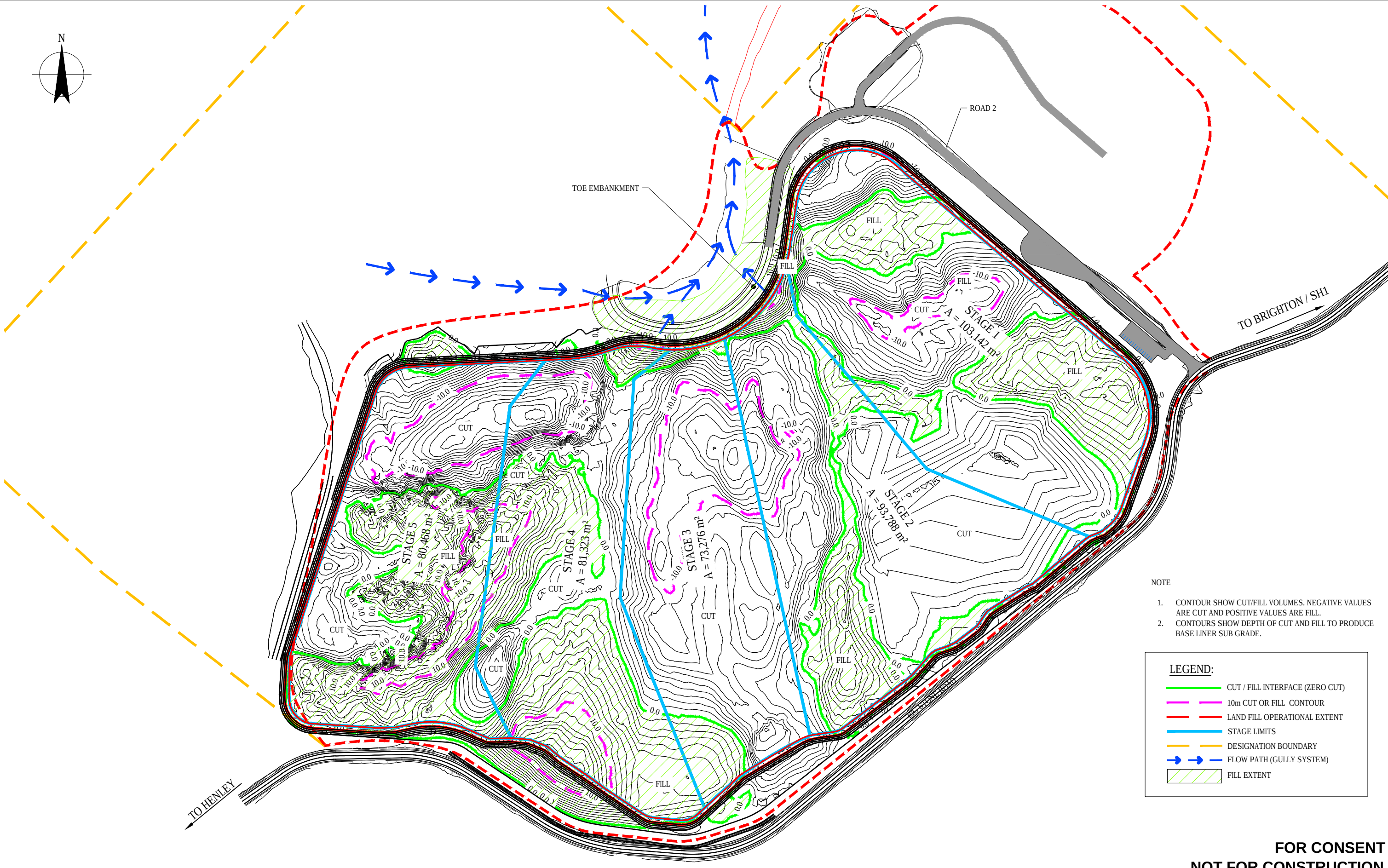
TYPICAL LEACHATE RISER PIPE PERFORATION DETAIL

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	Approved (Project Director) S.DOUGLAS*	Date 14.08.20	Original Size	
	Scale AS SHOWN	This Drawing must not be used for Construction unless signed as Approved	A1	
Drawing No: 51-12506381-01-C207				Rev: 1



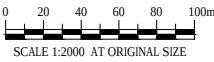
- NOTE
1. CONTOUR SHOW CUT/FILL VOLUMES. NEGATIVE VALUES ARE CUT AND POSITIVE VALUES ARE FILL.
 2. CONTOURS SHOW DEPTH OF CUT AND FILL TO PRODUCE BASE LINER SUB GRADE.

LEGEND:

- CUT / FILL INTERFACE (ZERO CUT)
- 10m CUT OR FILL CONTOUR
- LAND FILL OPERATIONAL EXTENT
- STAGE LIMITS
- DESIGNATION BOUNDARY
- FLOW PATH (GULLY SYSTEM)
- FILL EXTENT

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No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date



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	Approved (Project Director) S.DOUGLAS*	
	Date 14.08.20	
	Scale AS SHOWN	This Drawing must not be used for Construction unless signed as Approved

Client	DUNEDIN CITY COUNCIL
Project	SMOOTH HILL LANDFILL
Title	BULK EARTHWORKS CUT/FILL PLAN
Original Size	A1
Drawing No:	51-12506381-01-C209
Rev:	1