



THE GOVERNMENT OF NUNAVUT COMMUNITY AND GOVERNMENT SERVICES

NAUJAAT WASTEWATER TREATMENT CELL

ISSUED FOR 99% REVIEW
JANUARY 2023

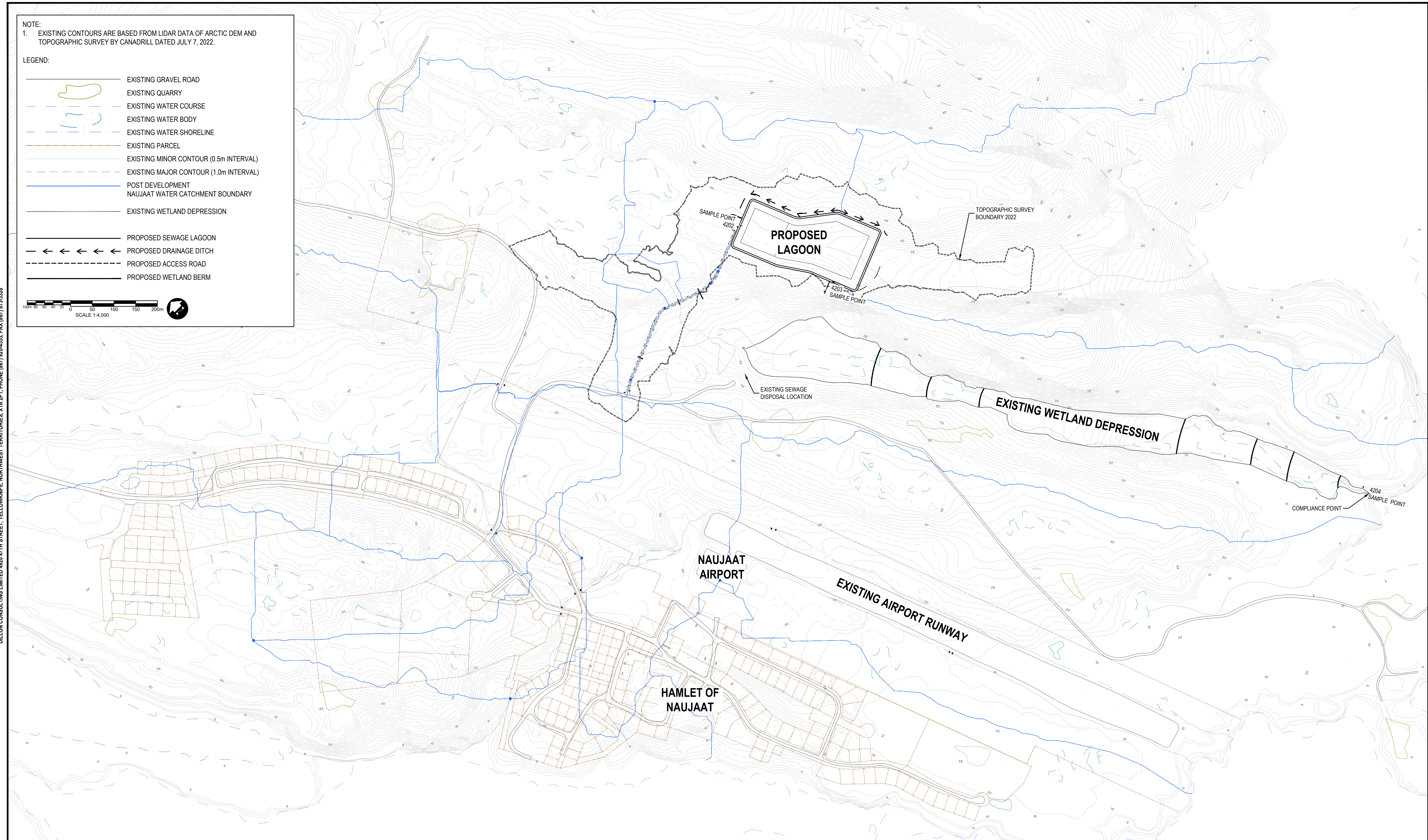
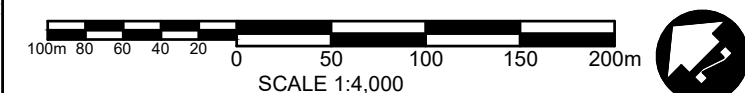
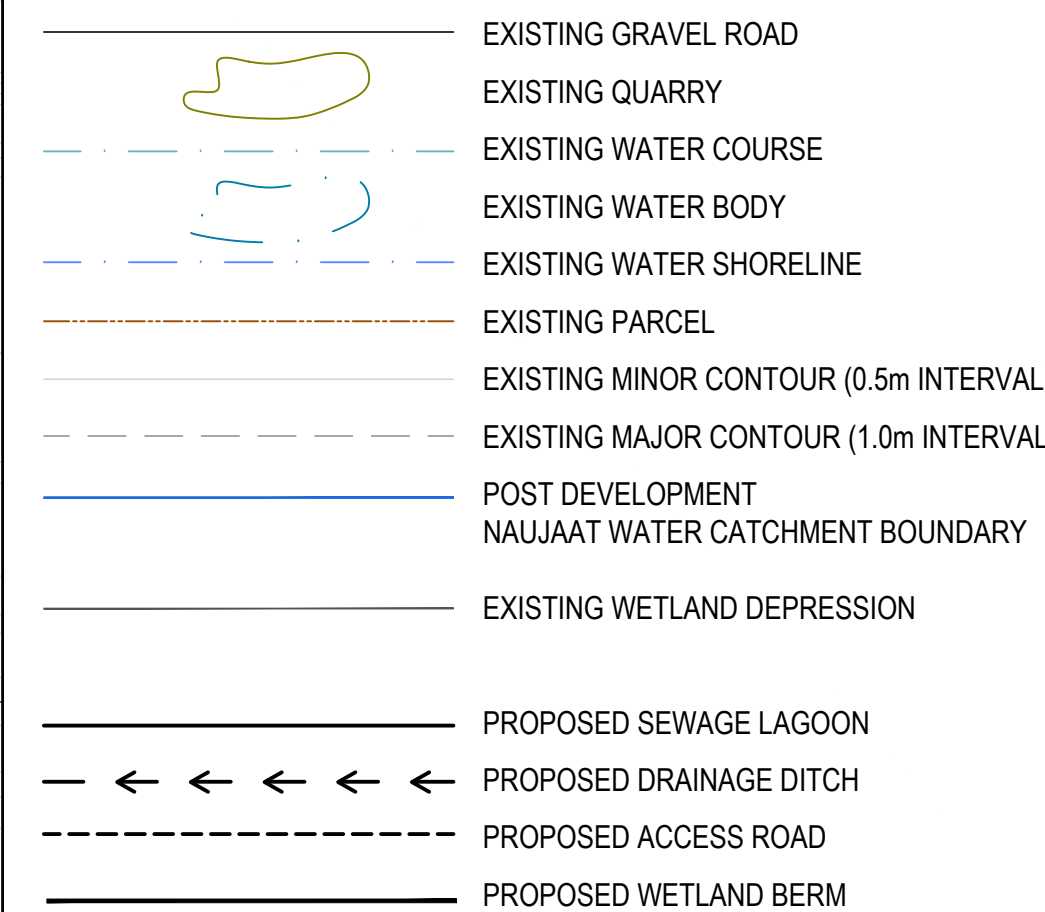
GN PROJECT NO. 11325-00155
DILLON PROJECT NO. 21-2233

DRAWING INDEX	
DRAWING NUMBER	DRAWING DESCRIPTION
	COVER
100	EXISTING CATCHMENTS AND PROPOSED SITE OVERVIEW
101	LAGOON AND ACCESS ROAD SITE PLAN
102	LAGOON CELL DESIGN PLAN
103	LAGOON CELL GRADING PLAN
104	TYPICAL LAGOON CELL SECTIONS
105	SITE DRAINAGE PROFILE AND CULVERT DETAIL
106	ROAD ACCESS PLAN AND PROFILE
107	PERIMETER BERM SECTIONS
108	PERIMETER BERM SECTIONS 2
109	ACCESS ROAD SECTIONS
110	WTA ATTENUATION BERMS
111	WTA ATTENUATION BERM SECTIONS
200	TYPICAL BERM DETAILS
201	DRAIN PIPE DETAILS
202	LINER VENT PIPE DETAILS
203	DISCHARGE FLUME DETAILS
204	EMERGENCY OVERFLOW WEIR AND FENCE DETAILS
205	FENCING AND BOLLARD DETAILS
206	PUMP AND DEWATERING DETAILS
207	WETLAND ATTENUATION BERM DETAILS



1. EXISTING CONTOURS ARE BASED FROM LIDAR DATA OF ARCTIC DEM AND TOPOGRAPHIC SURVEY BY CANADRILL DATED JULY 7, 2022.

LEGEND:



Conditions of Use

Verify elevations and/or dimensions on drawing prior to use.
Report any discrepancies to Dillon Consulting Limited.

Do not scale dimensions from drawing.

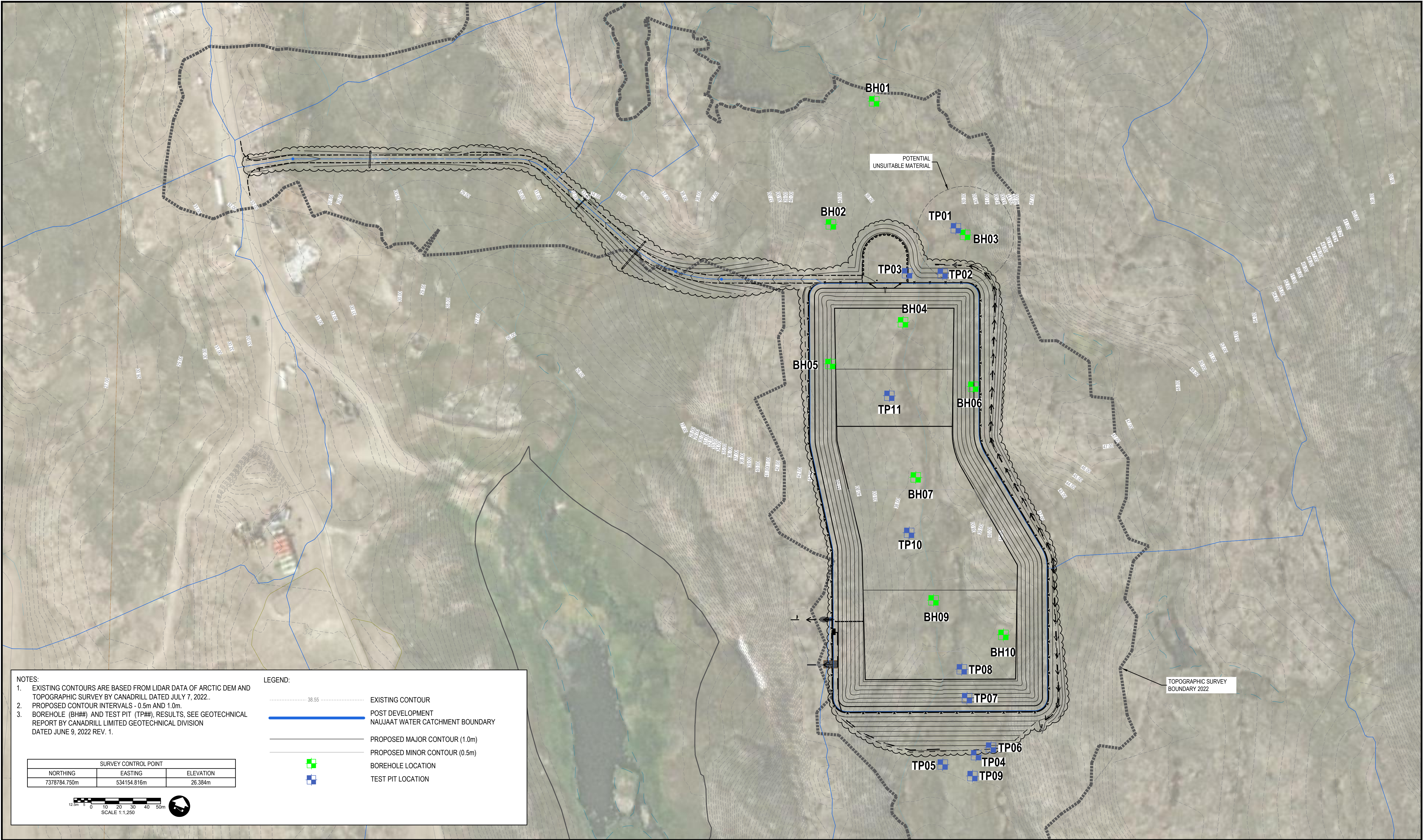
Do not modify drawing, re-use it, or use it for purposes other than those intended at the time of its preparation without prior written permission from Dillon Consulting Limited.

NOT FOR CONSTRUCTION

FOR REVIEW



						DESIGN CP	REVIEWED BY KB	NAUJAAT WASTEWATER TREATMENT CELL GOVERNMENT OF NUNAVUT	PROJECT NO. 21-2233	
						DRAWN SC/TPW	CHECKED BY CP		ISSUED FOR 99% REVIEW EXISTING CATCHMENTS AND PROPOSED SITE OVERVIEW	SHEET NO. 100
						DATE	JANUARY 2023			
3	ISSUED FOR 99% REVIEW	01/13/2023	KB			SCALE	AS SHOWN			
2	ISSUED FOR 75% REVIEW	10/14/2022	KB							
1	ISSUED FOR 50% REVIEW	08/26/2022	KB							
No.	ISSUED FOR	DATE	BY							



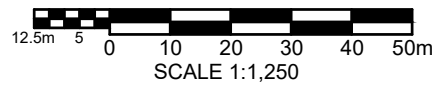
NOTES:

1. EXISTING CONTOURS ARE BASED FROM LIDAR DATA OF ARCTIC DEM AND TOPOGRAPHIC SURVEY BY CANADRILL DATED JULY 7, 2022..
2. PROPOSED CONTOUR INTERVALS - 0.5m AND 1.0m.
3. BOREHOLE (BH##) AND TEST PIT (TP##), RESULTS, SEE GEOTECHNICAL REPORT BY CANADRILL LIMITED GEOTECHNICAL DIVISION DATED JUNE 9, 2022 REV. 1.

LEGEND:

- 38.55 --- EXISTING CONTOUR
- POST DEVELOPMENT NAUJAAT WATER CATCHMENT BOUNDARY
- PROPOSED MAJOR CONTOUR (1.0m)
- PROPOSED MINOR CONTOUR (0.5m)
- BOREHOLE LOCATION
- TEST PIT LOCATION

SURVEY CONTROL POINT		
NORTHING	EASTING	ELEVATION
7378784.750m	534154.816m	26.384m



Conditions of Use

Verify elevations and/or dimensions on drawing prior to use. Report any discrepancies to Dillon Consulting Limited.

Do not scale dimensions from drawing.

Do not modify drawing, re-use it, or use it for purposes other than those intended at the time of its preparation without prior written permission from Dillon Consulting Limited.

NOT FOR CONSTRUCTION

FOR REVIEW



3	ISSUED FOR 99% REVIEW	01/13/2023	KB		
2	ISSUED FOR 75% REVIEW	10/14/2022	KB		
1	ISSUED FOR 50% REVIEW	08/26/2022	KB		
No.	ISSUED FOR	DATE	BY		

DESIGN	CP	REVIEWED BY	KB
DRAWN	SC/TPW	CHECKED BY	CP
DATE	JANUARY 2023		
SCALE	AS SHOWN		

NAUJAAT WASTEWATER TREATMENT CELL
GOVERNMENT OF NUNAVUT

ISSUED FOR 99% REVIEW
LAGOON AND ACCESS ROAD SITE PLAN

PROJECT NO.
21-2233

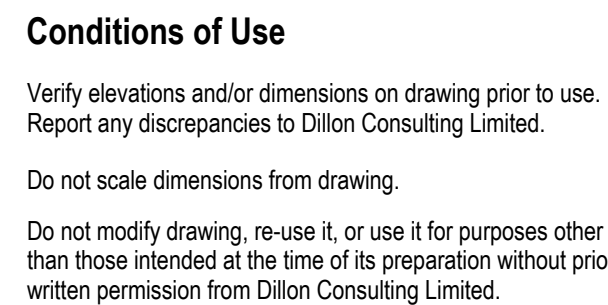
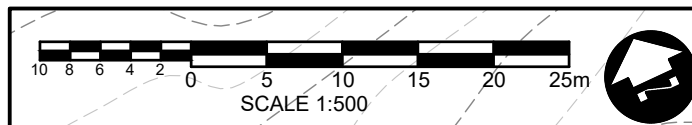
SHEET NO.

101

9. DESIGN CONTOURS SHOWN ARE FINAL GRADE AND REPRESENT SAND AND TYPE II GRANULAR OR EXCAVATED SURFACE.

TYPE I MATERIAL: 19mm MINUS GRANULAR
TYPE II MATERIAL: 75mm MINUS GRANULAR
TYPE III MATERIAL: SAND BEDDING
BORROW MATERIAL: LOCAL SOURCE OR EXCAVATED FROM SITE
(AS APPROVED BY ENGINEER)
10. PREPARED FOOTPRINT OF THE BERM TO EXTEND AT LEAST 2.0m BEYOND THE TOE OF THE SLOPES. THE EXPANDED FOOTPRINT SHOULD BE STRIPPED OF ANY SURFICIAL BOULDERS, ORGANIC/PEAT LAYER, ICE-RICH CLAYEY SAND AND/OR ANY OTHER SOFT SATURATED MATERIAL ENCOUNTERED TO EXPOSE A STRUCTURALLY STABLE SUBGRADE OF EITHER UNFROZEN WELL-GRADED SAND AND GRAVEL, OR BEDROCK AS EVALUATED AND APPROVED BY A QUALIFIED GEOTECHNICAL PERSONNEL ONSITE.
11. CONTRACTOR TO EXCAVATE EXPLORATORY TESTPITS AT NEW BERM FOOTPRINT TO DETERMINE EXTENTS OF UNSUITABLE MATERIAL.

EX. MAJOR CONTOUR (1.0m)
EX. MINOR CONTOUR (0.5m)
PROP. MAJOR CONTOUR (1.0m)
PROP. MINOR CONTOUR (0.5m)
TOE OF SLOPE
TOP OF BERM
CONTAINMENT LEVEL
HDPE AIR VENT PIPING
HDPE DRAINAGE PIPE
BARRIER FENCE
DRAINAGE










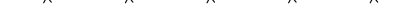



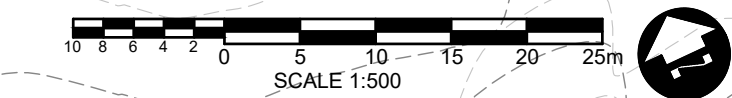
FOR REVIEW



						DESIGN CP	REVIEWED BY KB	NAUJAAT WASTEWATER TREATMENT CELL GOVERNMENT OF NUNAVUT	PROJECT NO. 21-2233		
						DRAWN SC/TPW	CHECKED BY CP		ISSUED FOR 99% REVIEW LAGOON CELL DESIGN PLAN	SHEET NO.	
										102	
3	ISSUED FOR 99% REVIEW		01/13/2023	KB	DATE JANUARY 2023						
2	ISSUED FOR 75% REVIEW		10/14/2022	KB							
1	ISSUED FOR 50% REVIEW		08/26/2022	KB							
No	ISSUED FOR		DATE	BY	SCALE AS SHOWN						

LEGEND:

	EX. MAJOR CONTOUR (1.0m)
	EX. MINOR CONTOUR (0.5m)
	EX. ELEVATION
	PROP. MAJOR CONTOUR (1.0m)
	PROP. MINOR CONTOUR (0.5m)
	PROP. ELEVATION
	PROP. SLOPE
	TOE OF SLOPE
	TOP OF BERM
	BARRIER FENCE
	DRAINAGE
TOTAL CUT MATERIAL VOLUME	= 60,581 m ³
TOTAL FILL MATERIAL VOLUME	= 28,290 m ³



Do not modify drawing, re-use it, or use it for purposes other than those intended at the time of its preparation without prior written permission from Dillon Consulting Limited.

FOR REVIEW



DILLON
CONSULTING

				DESIGN	REVIEWED BY	NAUJAAT WASTEWATER TREATMENT CELL GOVERNMENT OF NUNAVUT	PROJECT NO.
				CP	KB		21-2233
				DRAWN	CHECKED BY		
				SC/TPW	CP		
				DATE		ISSUED FOR 99% REVIEW LAGOON CELL GRADING PLAN	SHEET NO.
3	ISSUED FOR 99% REVIEW	01/13/2023	KB	JANUARY 2023			103
2	ISSUED FOR 75% REVIEW	10/14/2022	KB				
1	ISSUED FOR 50% REVIEW	07/21/2022	KB				
No.	ISSUED FOR	DATE	BY	SCALE	AS SHOWN		

PROPOSED DISCHARGE PUMPING OPERATION

PROPOSED SELF PRIMING CENTRIFUGAL PUMP
GORMAN RUPP MODEL T6A60S C2.2T FT4 OR EQUIVALENT
(FOR VISUAL PURPOSES ONLY)

COMBINATION AIR RELEASE VALVE

PROPOSED 200mmØ DISCHARGE PIPE
LENGTH = 30.0m (APPROX.)
(FOR VISUAL PURPOSES ONLY)

RIP-RAP

PROPOSED 200mmØ INTAKE PIPE
AS PART OF DISCHARGE PUMPING OPERATION
LENGTH = 20m (APPROX.)
(FOR VISUAL PURPOSES ONLY)

CONTRACTOR TO SUPPLY ENGINEER
WITH PRODUCT LITERATURE
FOR FOOT VALVE,
AIR RELEASE VALVE, PUMP,
TRAILER AND DISCHARGE HOSE
FOR PRE-APPROVAL

SEE DISCHARGE PIPE DETAIL **3**
104

WATER LEVEL ELEVATION AT 40.5m

TOP OF BERM ELEVATION AT 42.0m

4.0

3.5

3

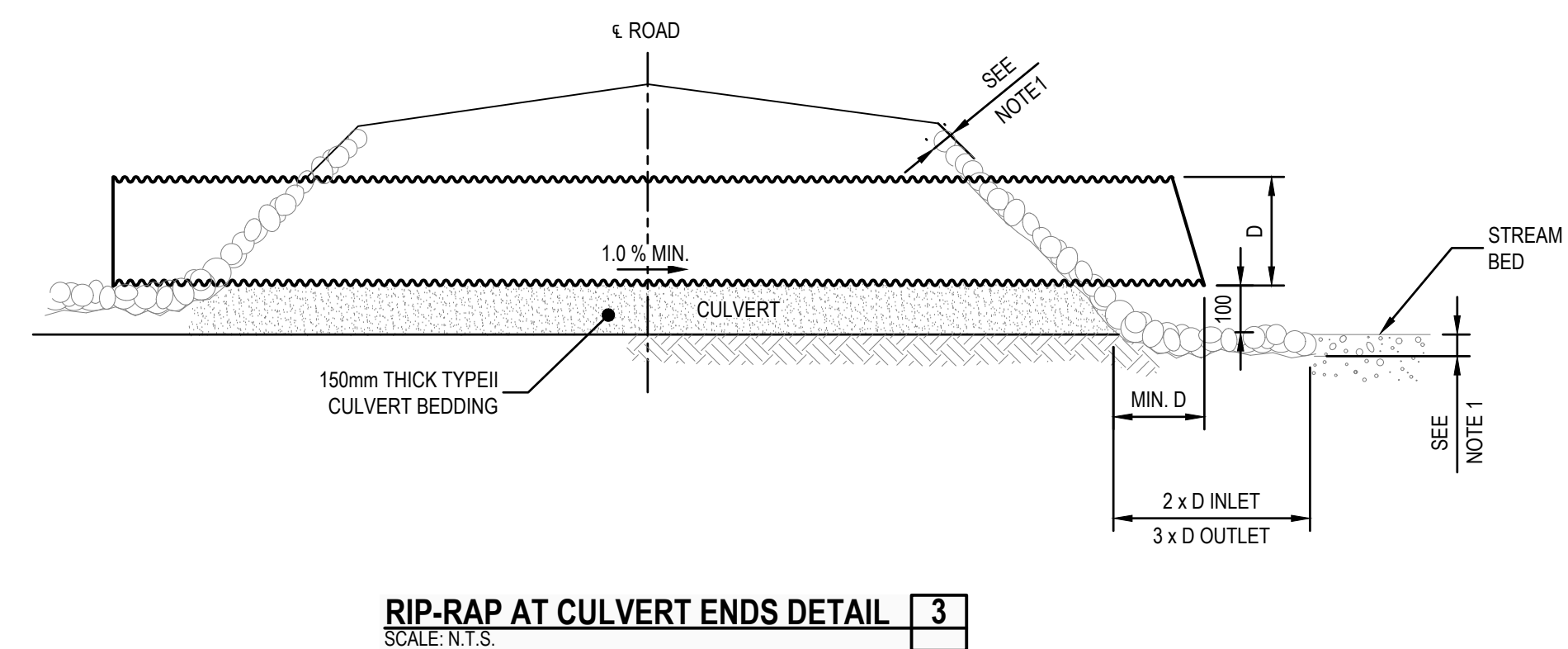
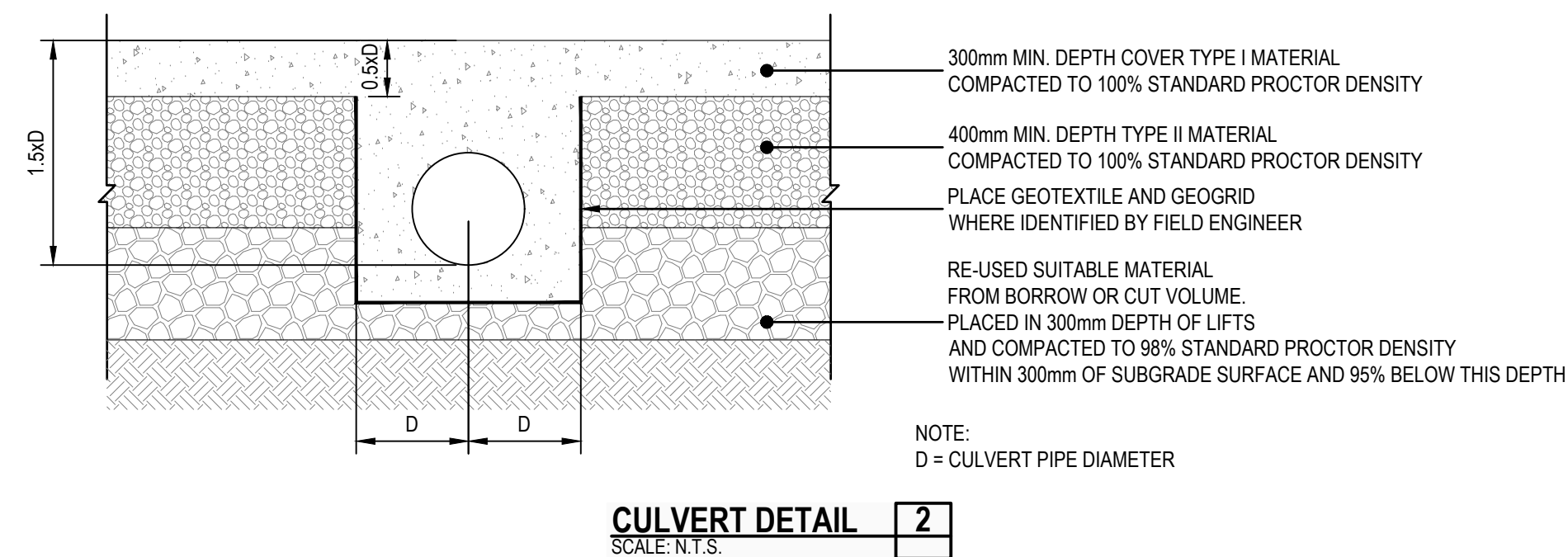
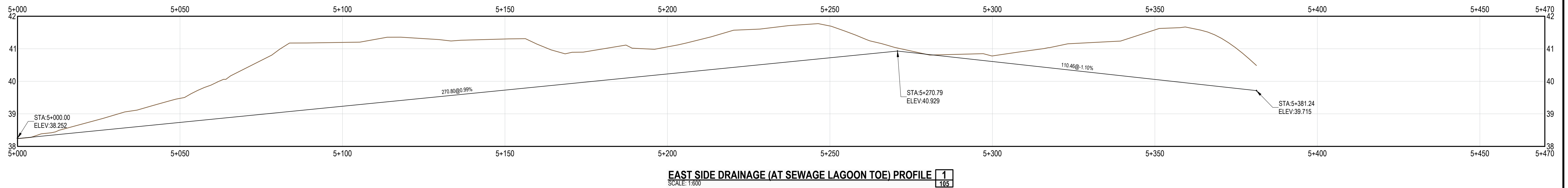
1

0.82

0.43

42.0m

PROJECT NO.	21-2233
SHEET NO.	104



- NOTES:
1. 300mm DEPTH.
 2. RIP RAP SHALL BE HAND PLACED ROCK COBBLE OR BAGGED CONCRETE AS SPECIFIED BY THE ENGINEER.
 3. 100 mm DROP FROM BOTTOM OF CULVERT TO RIP RAP IS FOR OUTLET END ONLY

LEGEND:

 EXISTING GROUND
 PROPOSED DRAINAGE

Conditions of Use

Verify elevations and/or dimensions on drawing prior to use.
Report any discrepancies to Dillon Consulting Limited.

Do not scale dimensions from drawing.

Do not modify drawing, re-use it, or use it for purposes other than those intended at the time of its preparation without prior written permission from Dillon Consulting Limited.

NOT FOR CONSTRUCTION

FOR REVIEW



DILLON
CONSULTING

3	ISSUED FOR 99% REVIEW	01/13/2023	KB
2	ISSUED FOR 75% REVIEW	10/14/2022	KB
1	ISSUED FOR 50% REVIEW	08/26/2022	KB
No.	ISSUED FOR	DATE	BY

DESIGN	REVIEWED BY
CP	KB
DRAWN	CHECKED BY
SC/TPW	CP
DATE	
JANUARY 2023	
SCALE	
AS SHOWN	

NAUJAAT WASTEWATER TREATMENT CELL
GOVERNMENT OF NUNAVUT

ISSUED FOR 99% REVIEW

SITE DRAINAGE PROFILE AND CULVERT DETAIL

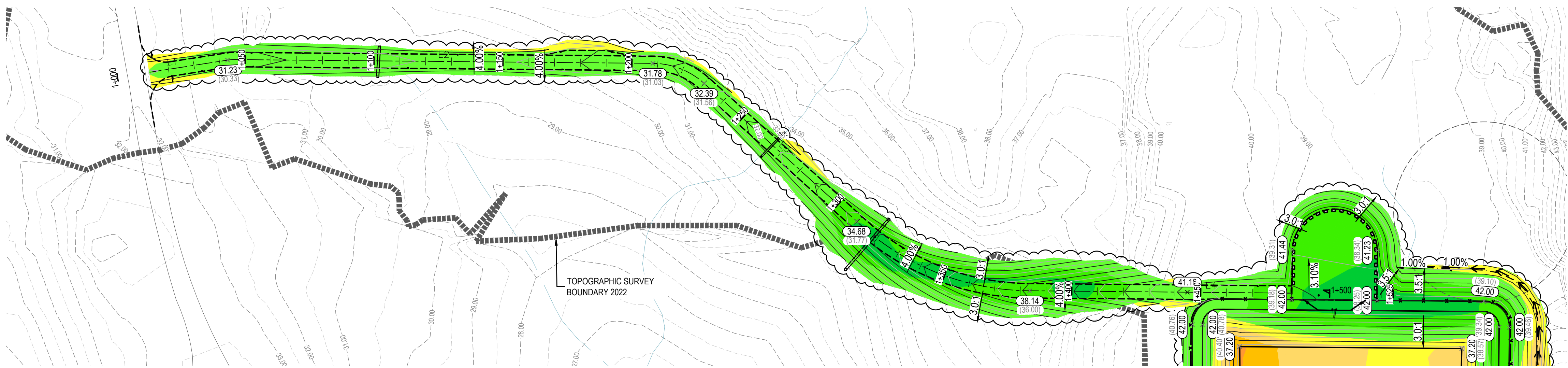
PROJECT NO.

21-2233

NO.

105

DILLON CONSULTING LIMITED 4920 47TH STREET, YELLOWKNIFE, NORTHWEST TERRITORIES, X1A 2P1, PHONE (867) 920-4555, FAX (867) 973-3328



LEGEND:

EXISTING GROUND
PROPOSED ROAD CENTERLINE

Elevations Table				
Number	Color	Minimum Elevation	Maximum Elevation	Area
1		-5.585	-5.000	119.74
2		-5.000	-4.000	938.50
3		-4.000	-3.000	3033.64
4		-3.000	-2.000	6254.63
5		-2.000	-1.000	13587.62
6		-1.000	0.000	11484.91
7		0.000	1.500	12328.80
8		1.500	3.000	5378.50
9		3.000	4.500	2581.83
10		4.500	7.399	1969.43

ROAD QUANTITIES:

TOTAL CUT MATERIAL VOLUME = 76.0 m³
TOTAL FILL MATERIAL VOLUME = 7135.0 m³

ROAD ALIGNMENT HORIZONTAL GEOMETRY TABLE								
LINE	START STATION	END STATION	LENGTH (m)	DIRECTION (dd°mm'ss")	START NORTHING (m)	START EASTING (m)	END NORTHING (m)	END EASTING (m)
L1	1+000	1+043.183	43.183	N59°27'09"E	7379052.5571	534337.4198	7379074.5051	534374.6096
L2	1+046.0389	1+208.137	162.098	N68°48'06"E	7379075.7499	534377.1761	7379134.3637	534528.3055
L3	1+229.9191	1+309.601	79.682	S69°35'48"E	7379134.5115	534549.6121	7379106.7322	534624.2952
L4	1+383.7235	1+524.607	140.883	N68°48'13"E	7379106.5688	534696.6808	7379157.5076	534828.0326

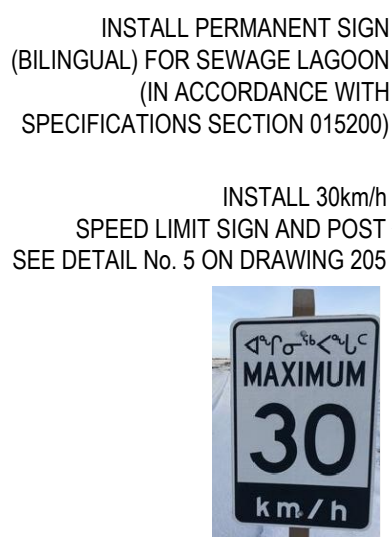
CURVE	START STATION	END STATION	LENGTH (m)	CHORD LENGTH (m)	ENDING RADIUS (m)	DELTA (dd°mm'ss")	LINE/CHORD DIRECTION (dd°mm'ss")
C1	1+043.18	1+046.04	2.86	2.85	17.50	9°20'57"	N64°07'38"E
C2	1+208.14	1+229.92	21.78	21.31	30.00	41°36'05"	N89°36'09"E
C3	1+309.60	1+383.72	74.12	72.39	98.50	43°06'50"	S89°52'15"E

HORIZONTAL ALIGNMENT ABBREVIATION:

Δ: CURVE ANGLE
R: CURVE RADIUS
ST: CURVE TANGENT
LC: CURVE LENGTH

VERTICAL ALIGNMENT ABBREVIATION:

BVCS: BEGINNING OF VERTICAL CURVE
EVCE: END OF VERTICAL CURVE
K: RATE OF CURVATURE
LVC: LENGTH OF VERTICAL CURVE
E: DIFFERENCE IN ELEVATION BETWEEN THE VPI (VERTICAL POINT OF INTERSECTION) AND THE PROFILE LINE AT THE VPI STATION



INSTALL PERMANENT SIGN (BILINGUAL) FOR SEWAGE LAGOON (IN ACCORDANCE WITH SPECIFICATIONS SECTION 015200)

INSTALL 30km/h SPEED LIMIT SIGN AND POST SEE DETAIL No. 5 ON DRAWING 205

INSTALL 11.9m - Ø900mm CSP CULVERT WITH RIP-RAP

INSTALL POLYPOSTS AT 20.0m INTERVALS BETWEEN 1+030 AND 1+450 ON BOTH SIDES OF ROAD
2.0m WIDE PASSING LANE WITH 15.0m LENGTH @ 10:1 TAPER
CLEARING AND GRUBBING EXTENTS

INSTALL 13.0m - Ø900mm CSP CULVERT WITH RIP-RAP

INSTALL 25.5m - Ø900mm CSP CULVERT WITH RIP-RAP

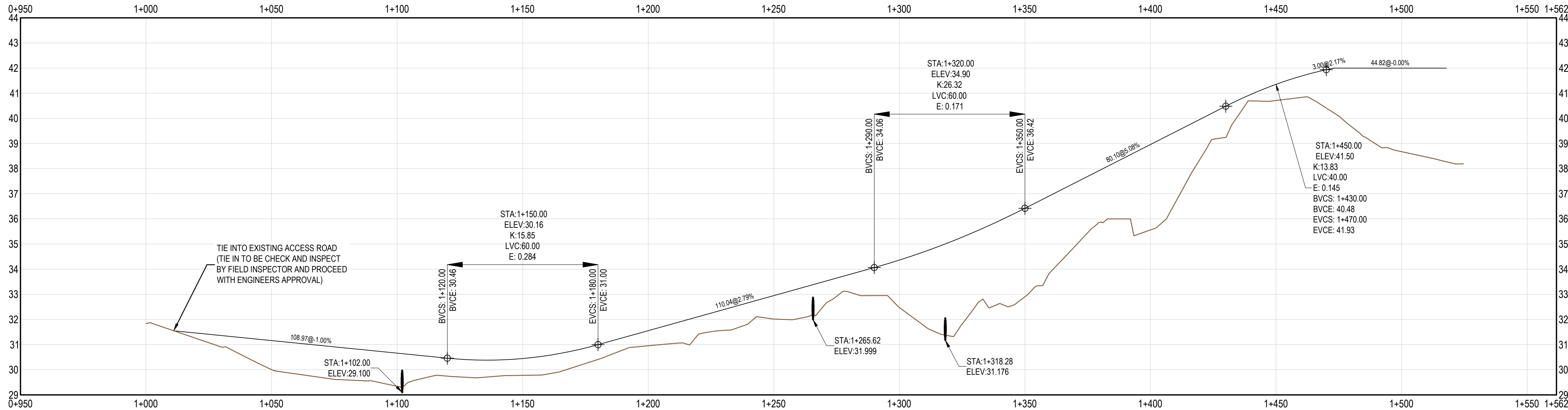
STRIP 2.0m ACTIVE LAYER ALONG TOE OF BERM TO BEDROCK AND REPLACE WITH CLEAN GRANULAR

PROPOSED ROCK BOULDERS ALONG TRUCK TURNAROUND PAD (TYP.)

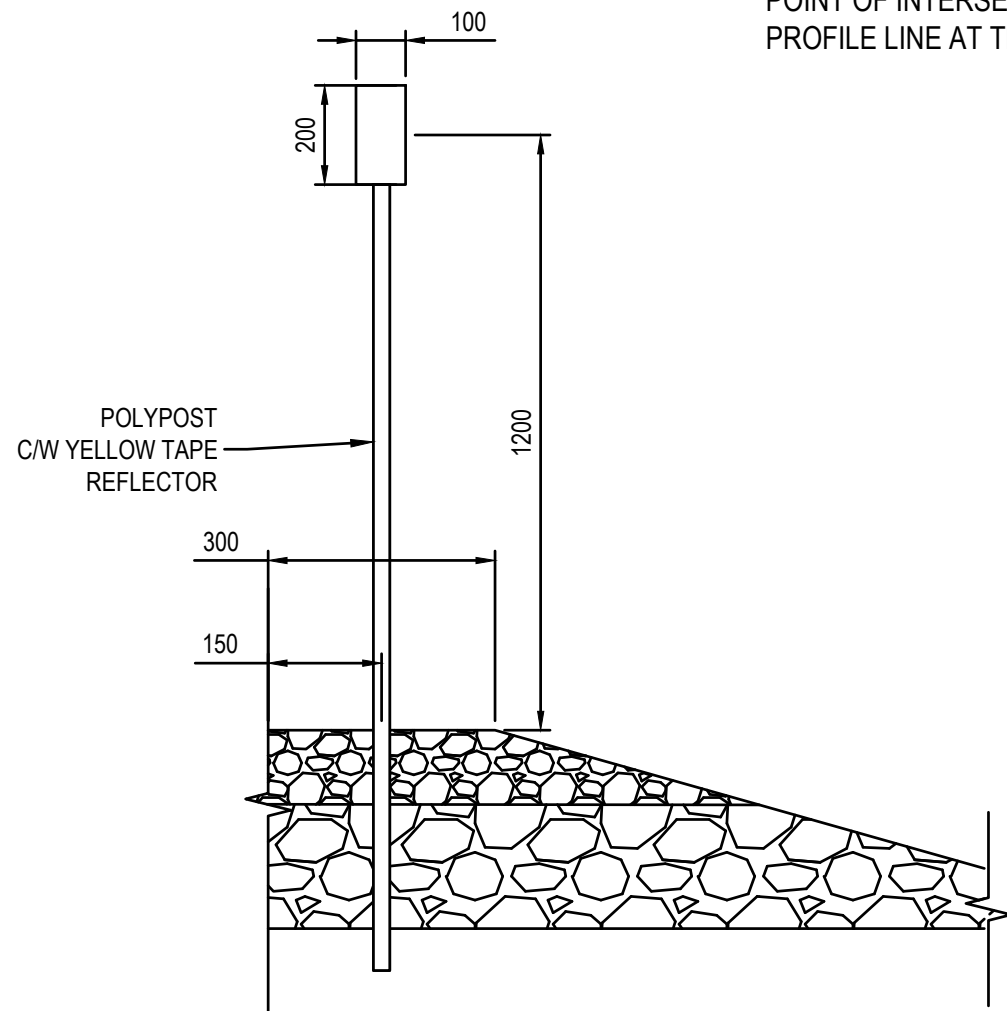
PROPOSED TRUCK TURNAROUND PAD

BH 03 (35.0m RADIUS) EXISTING AREA WITH POOR SOILS (SHOWN FOR VISUAL PURPOSES)

SEWAGE LAGOON ROAD ACCESS PLAN
SCALE: 1:1000



SEWAGE LAGOON ROAD ACCESS PROFILE
SCALE: H 1:1000 V 1:100



POLYPOST DETAIL 1
SCALE: N.T.S.

25m 20 15 10 5 0 10 20 30 40 50m
SCALE 1:1,000

Conditions of Use

Verify elevations and/or dimensions on drawing prior to use. Report any discrepancies to Dillon Consulting Limited.

Do not scale dimensions from drawing.

Do not modify drawing, re-use it, or use it for purposes other than those intended at the time of its preparation without prior written permission from Dillon Consulting Limited.

NOT FOR CONSTRUCTION

FOR REVIEW



No.	ISSUED FOR	DATE	BY
3	ISSUED FOR 99% REVIEW	01/13/2023	KB
2	ISSUED FOR 75% REVIEW	10/14/2022	KB
1	ISSUED FOR 50% REVIEW	08/26/2022	KB

DESIGN	REVIEWED BY
CP	KB
DRAWN	CHECKED BY
SC/TPW	CP
DATE	JANUARY 2023
SCALE	AS SHOWN

NAUJAAT WASTEWATER TREATMENT CELL
GOVERNMENT OF NUNAVUT

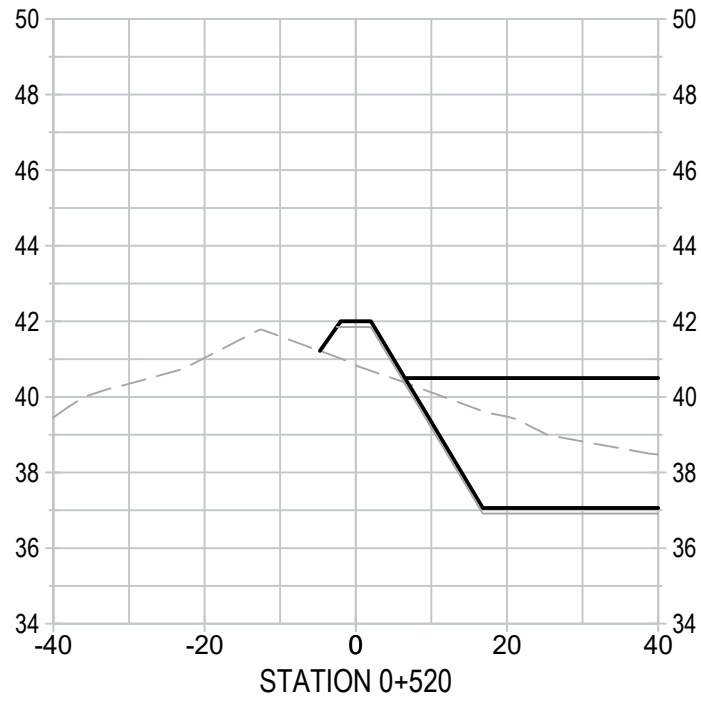
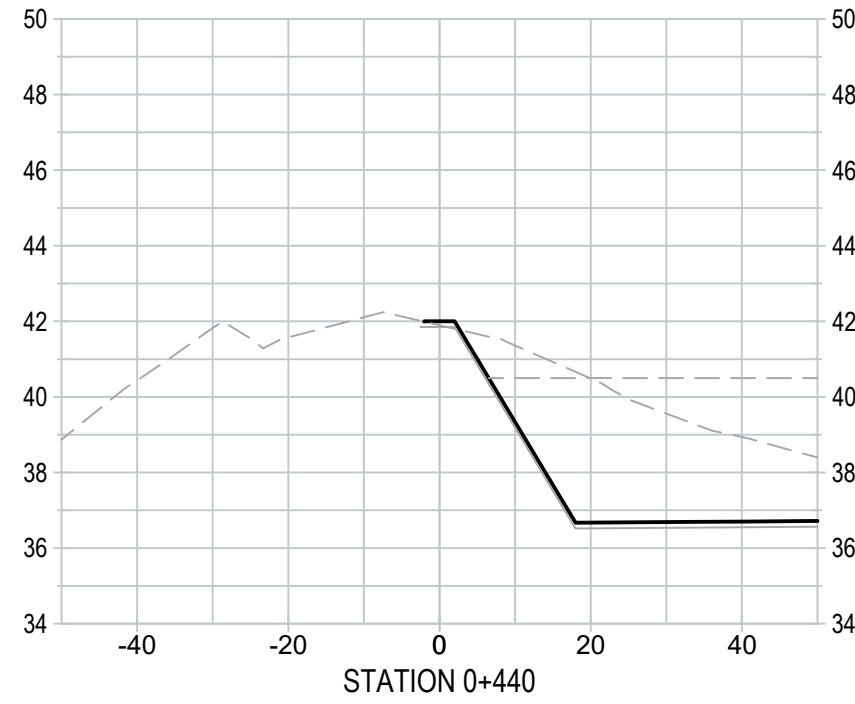
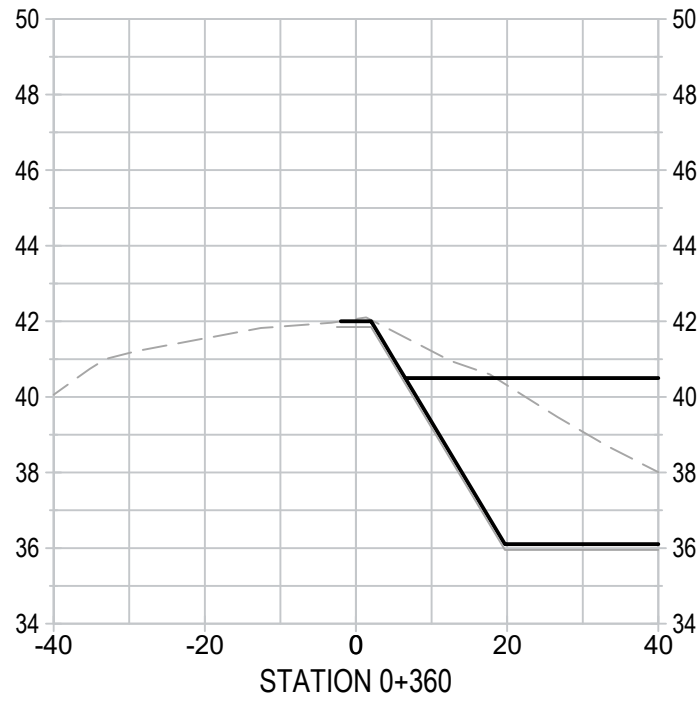
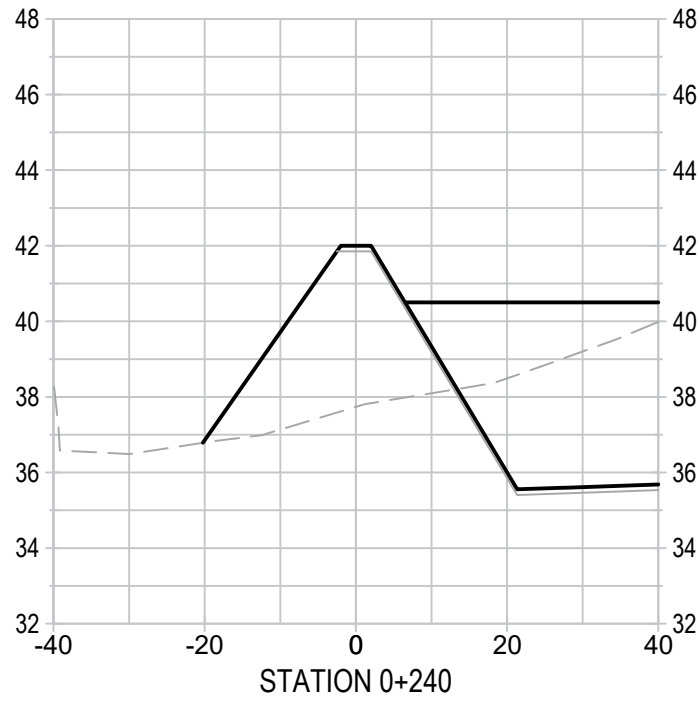
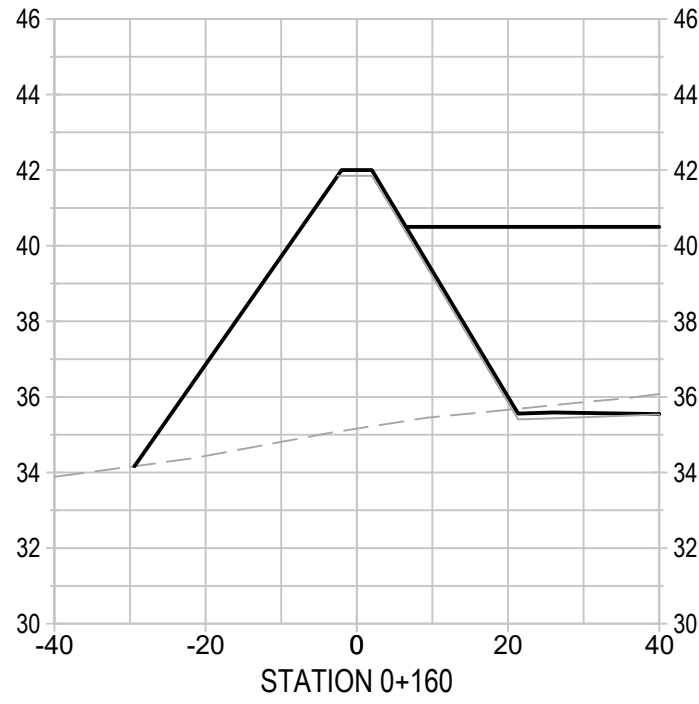
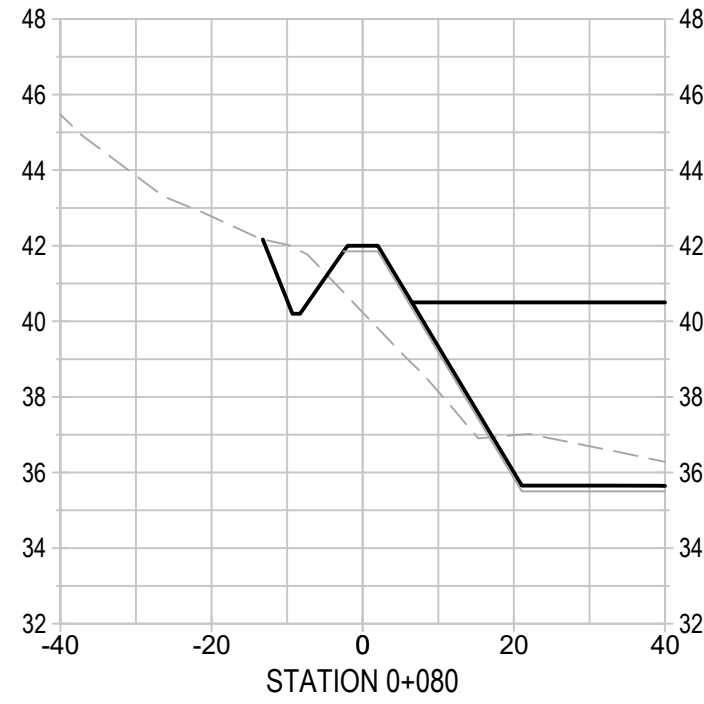
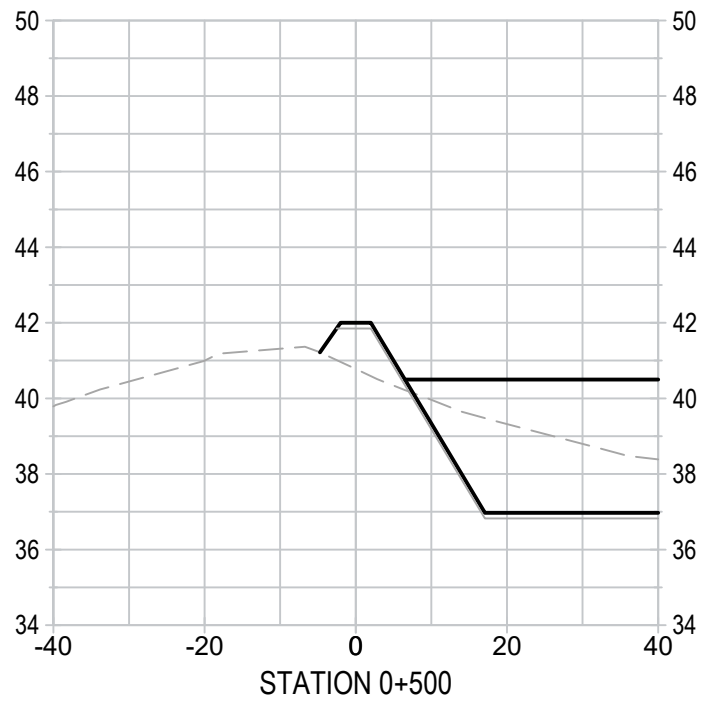
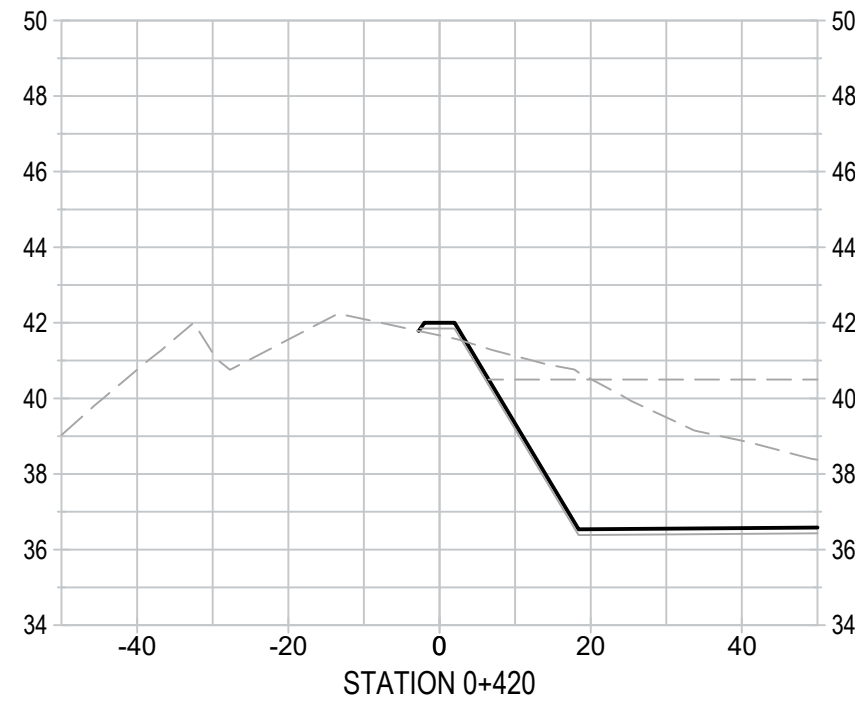
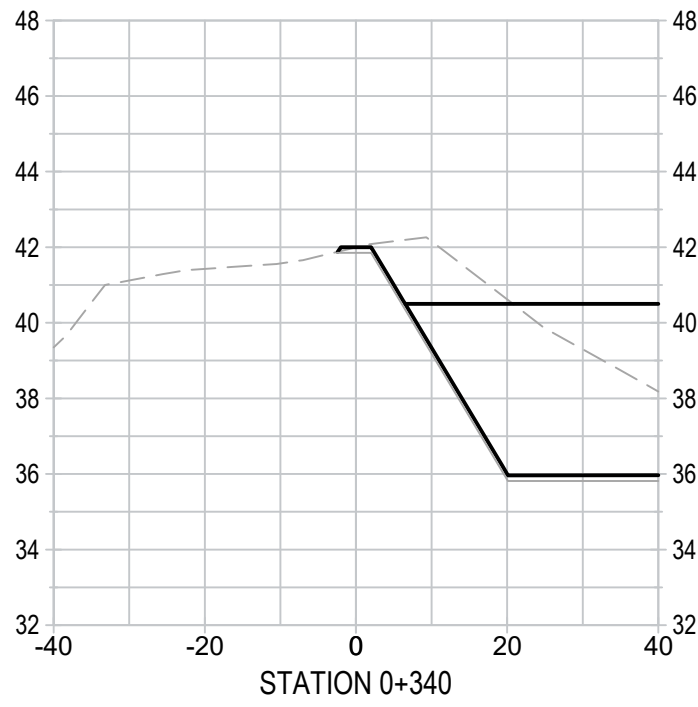
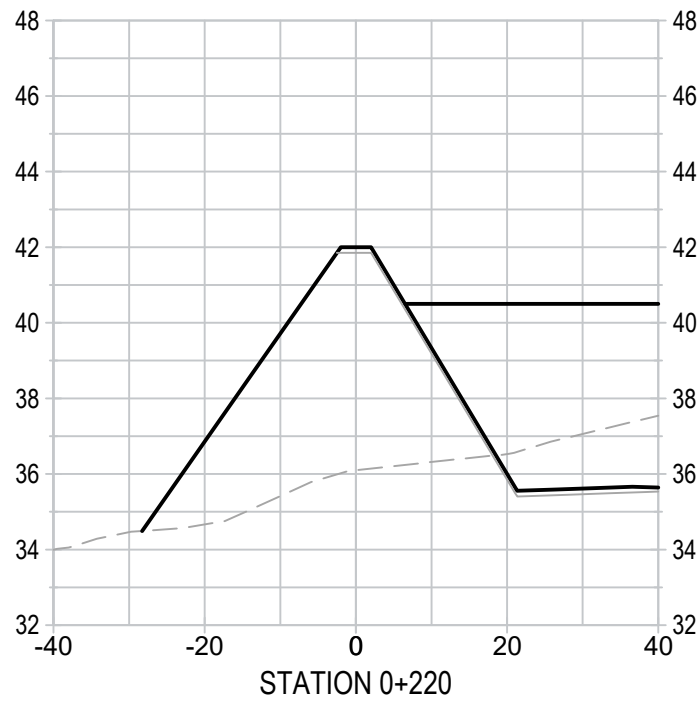
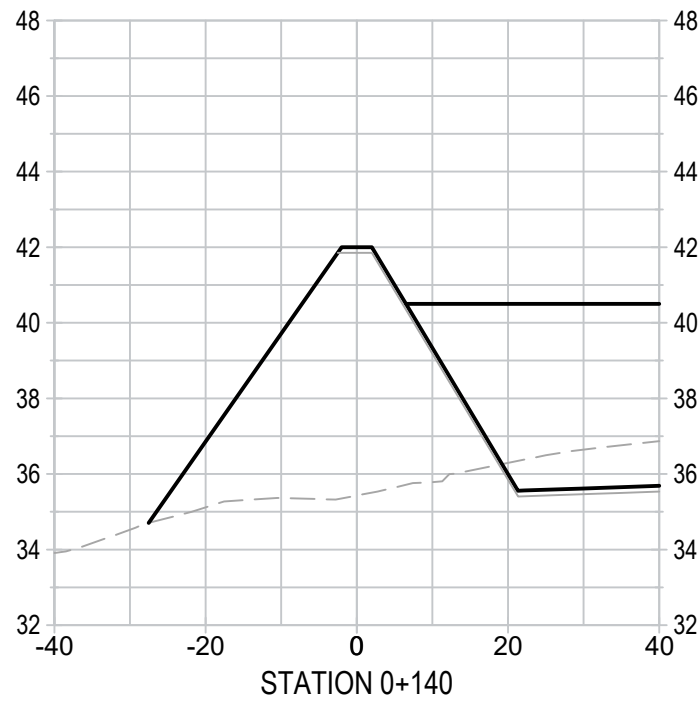
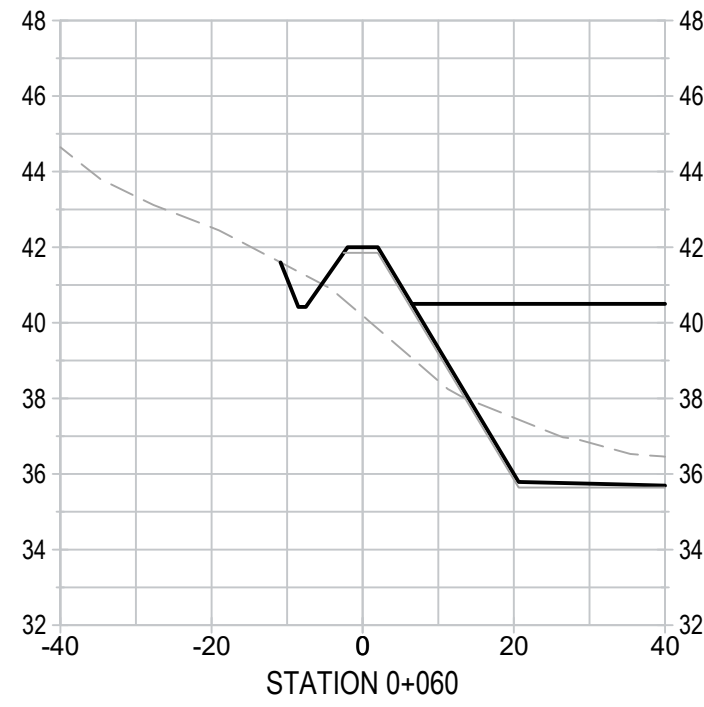
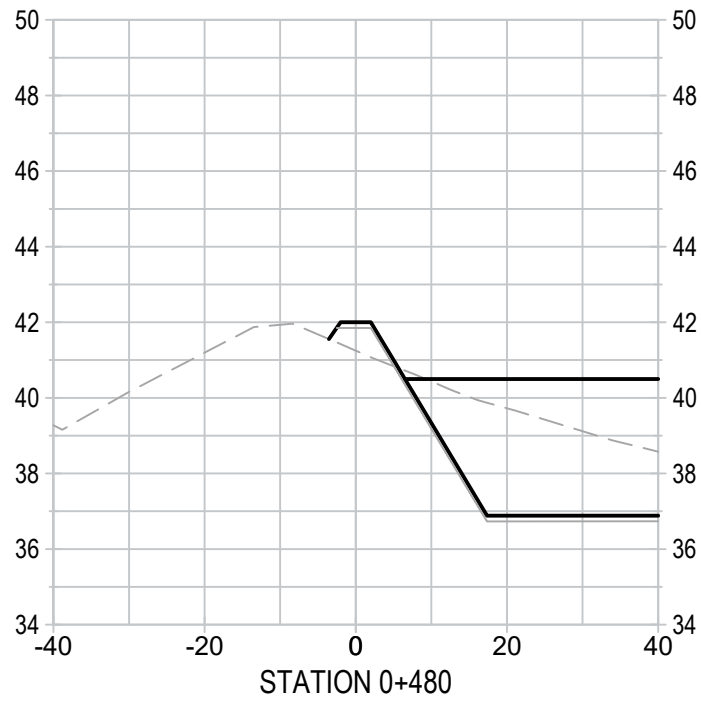
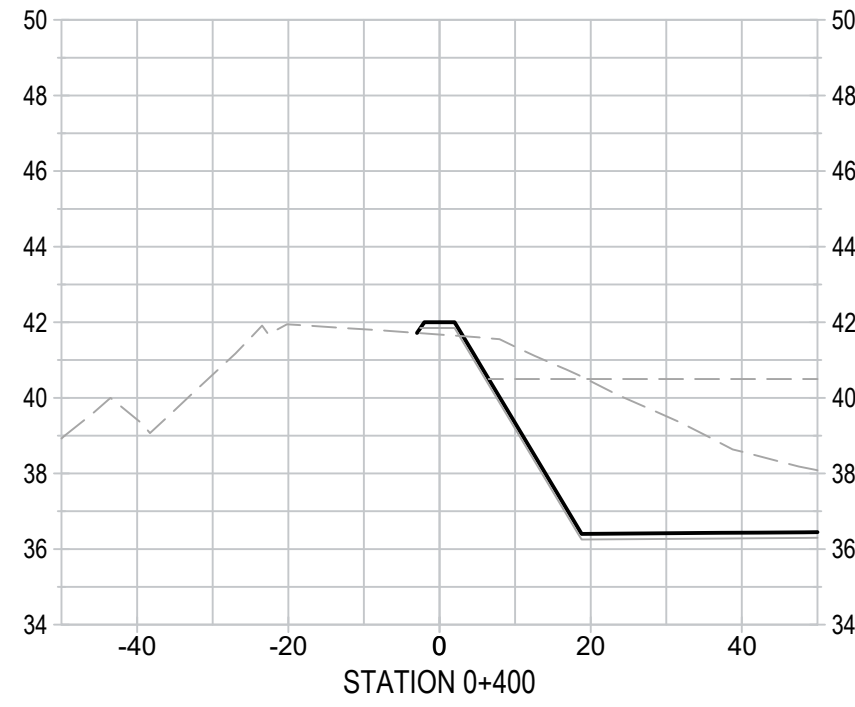
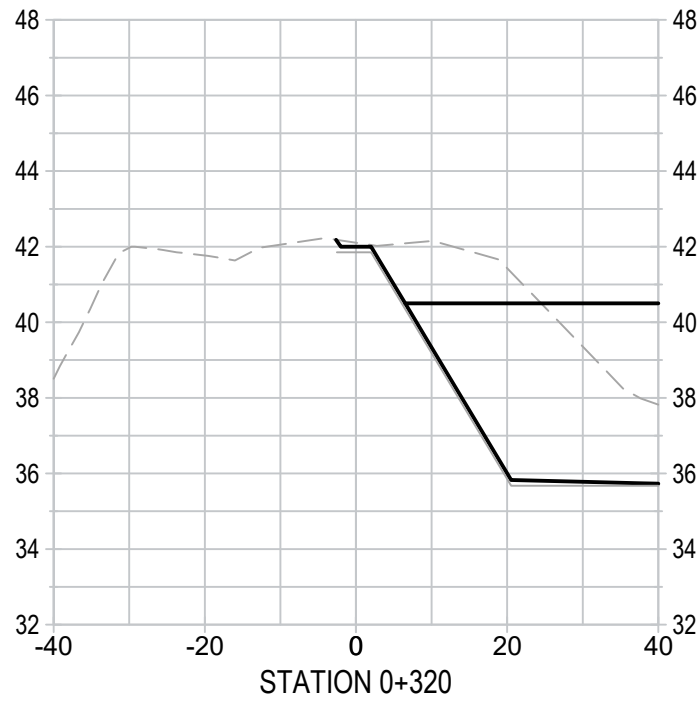
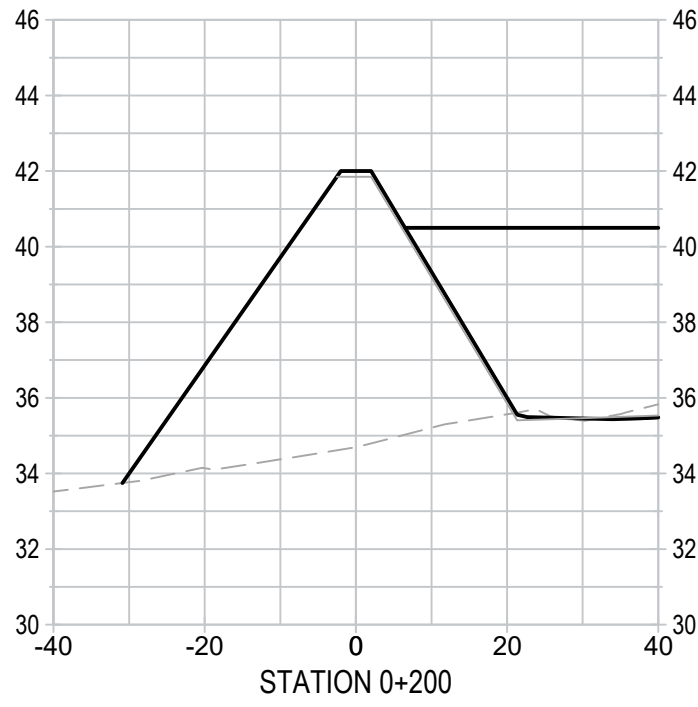
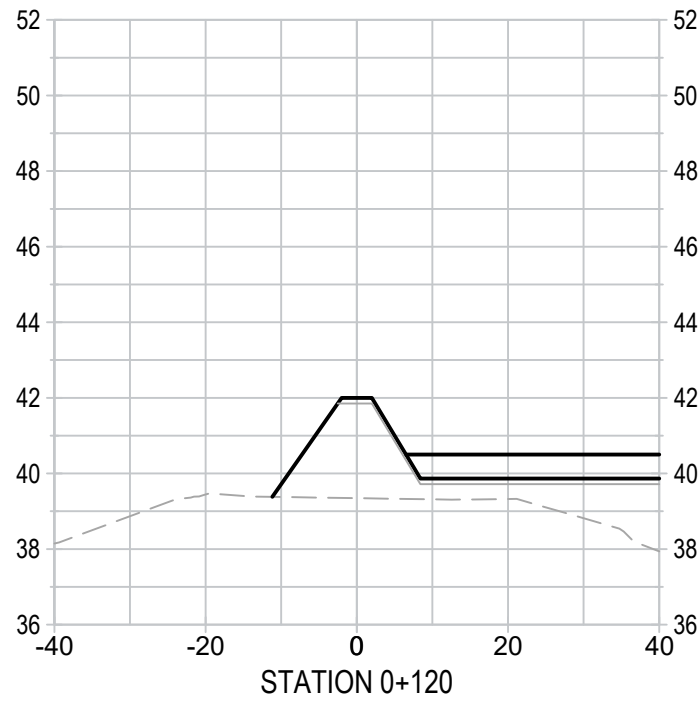
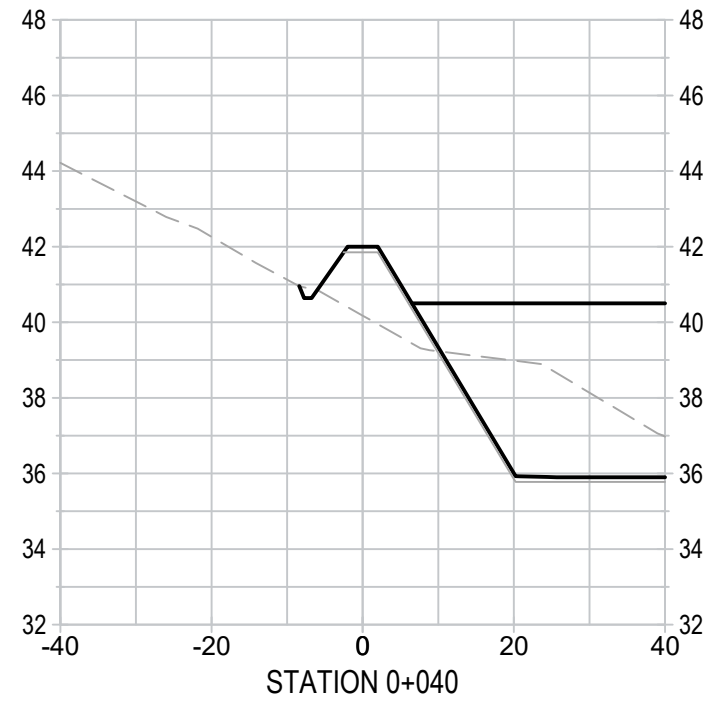
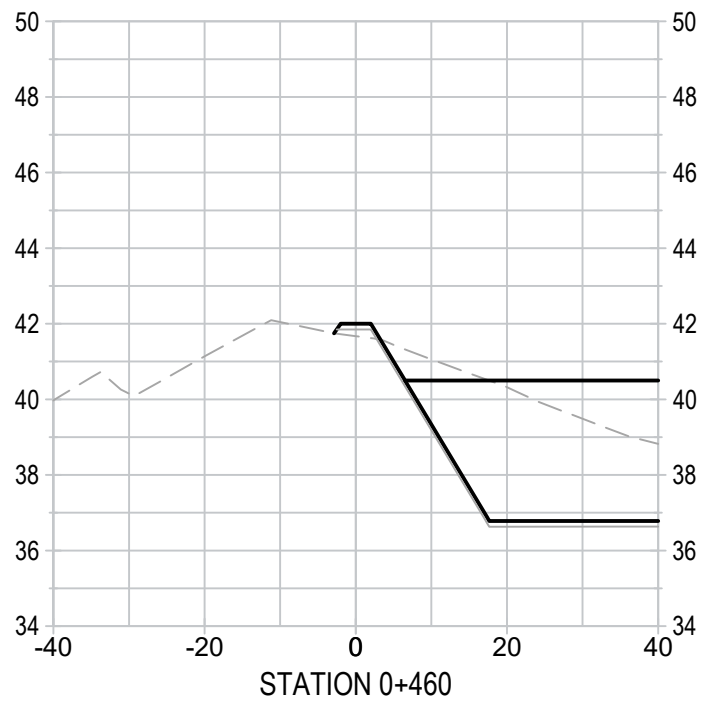
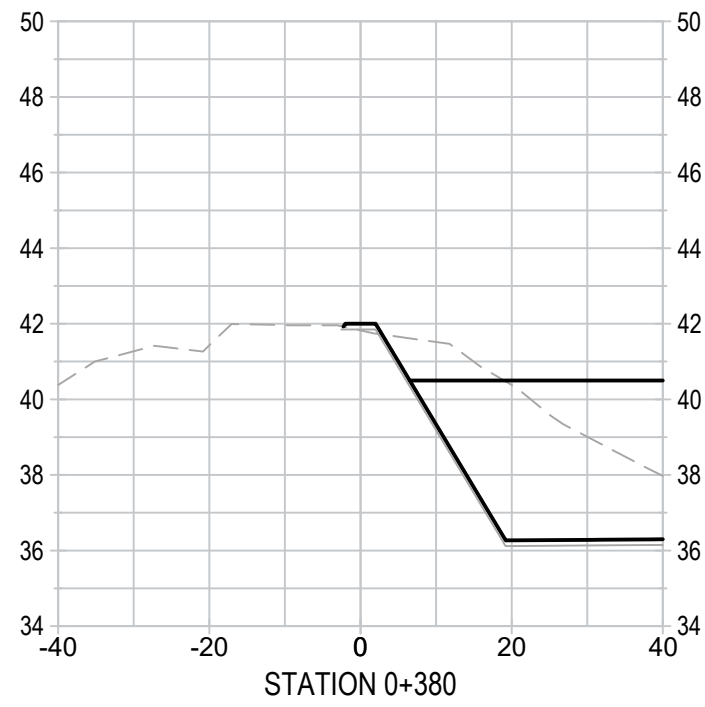
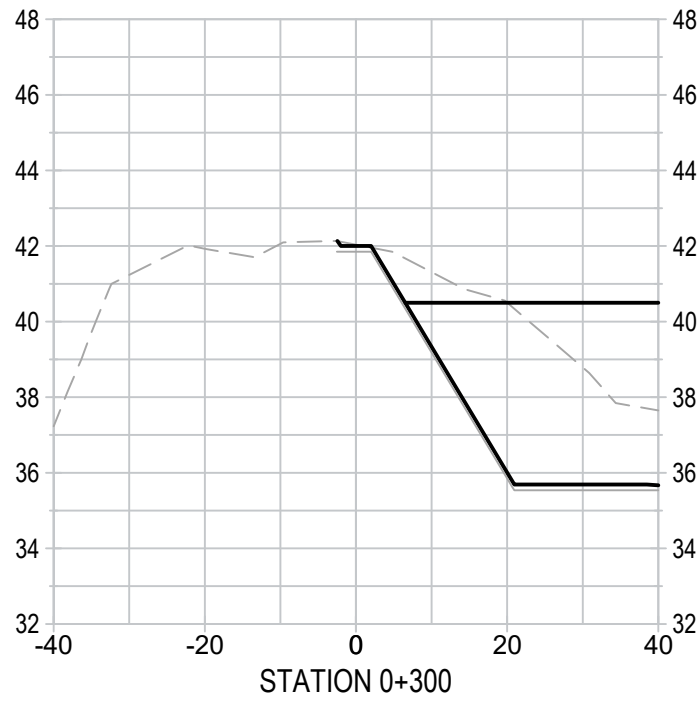
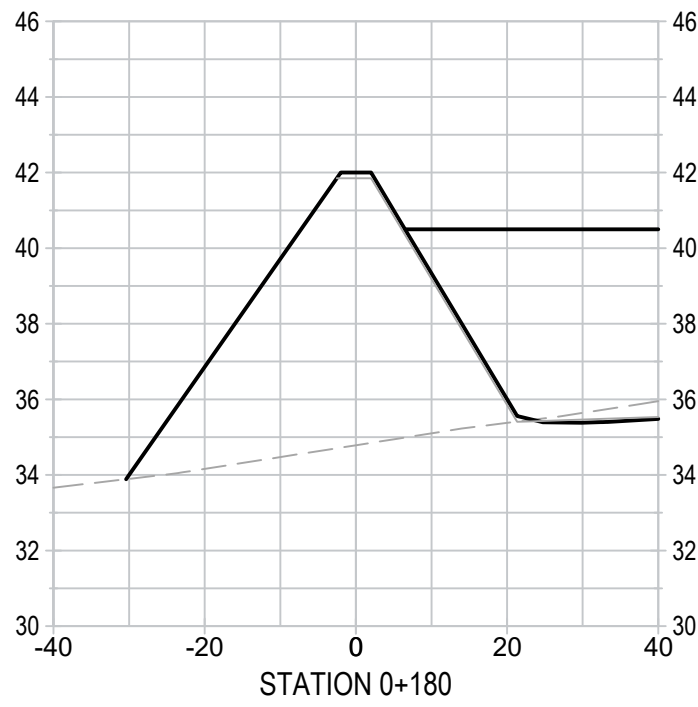
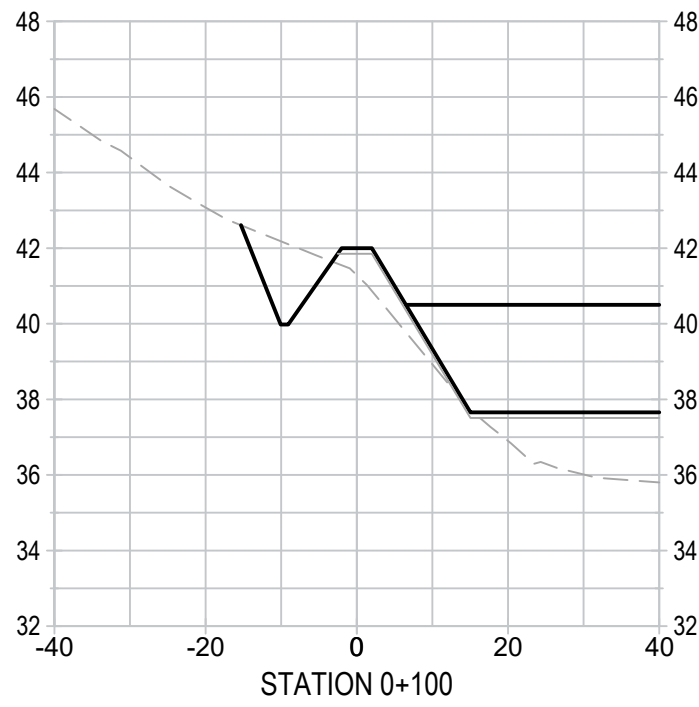
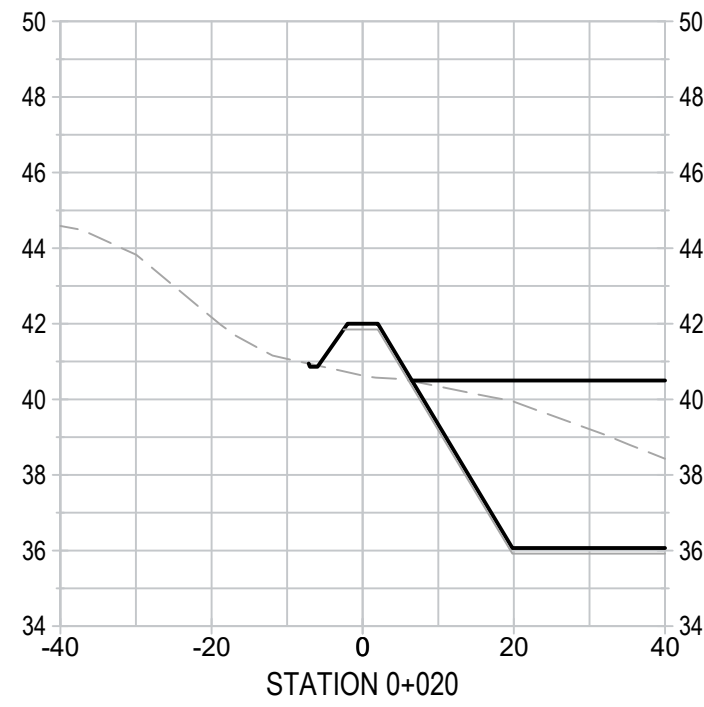
ISSUED FOR 99% REVIEW
ROAD ACCESS PLAN AND PROFILE

PROJECT NO.
21-2233

SHEET NO.

106

DILLON CONSULTING LIMITED 4920 47TH STREET, YELLOWKNIFE, NORTHWEST TERRITORIES, X1A 2P1, PHONE (867) 920-4555, FAX (867) 973-3328



Conditions of Use

Verify elevations and/or dimensions on drawing prior to use.
Report any discrepancies to Dillon Consulting Limited.

Do not scale dimensions from drawing.

Do not modify drawing, re-use it, or use it for purposes other
than those intended at the time of its preparation without prior
written permission from Dillon Consulting Limited.

NOT FOR CONSTRUCTION

FOR REVIEW



3	ISSUED FOR 99% REVIEW	01/13/2023	KB		
2	ISSUED FOR 75% REVIEW	10/14/2022	KB		
1	ISSUED FOR 50% REVIEW	08/26/2022	KB		
No.	ISSUED FOR	DATE	BY		

DESIGN	CP	REVIEWED BY	KB
DRAWN	SC/TPW	CHECKED BY	CP
DATE	JANUARY 2023		
SCALE	AS SHOWN		

NAUJAAT WASTEWATER TREATMENT CELL
GOVERNMENT OF NUNAVUT

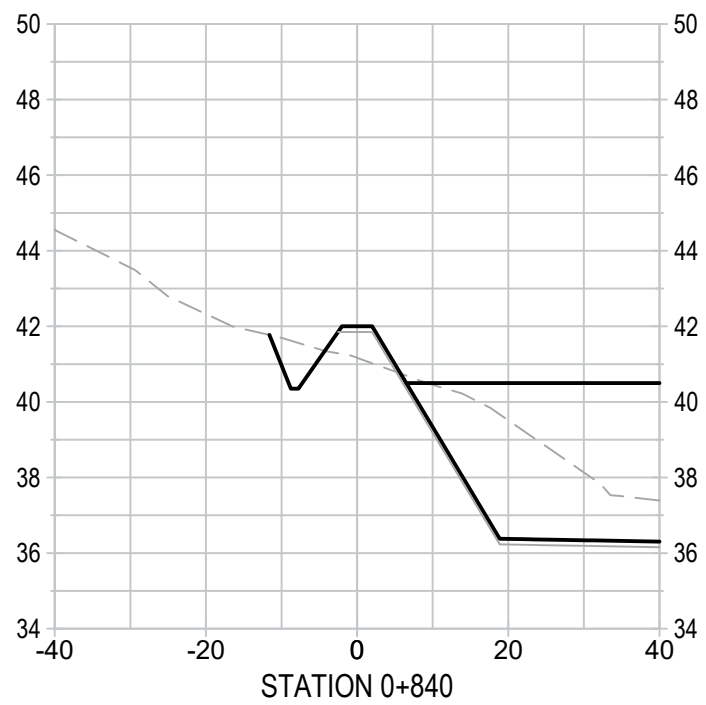
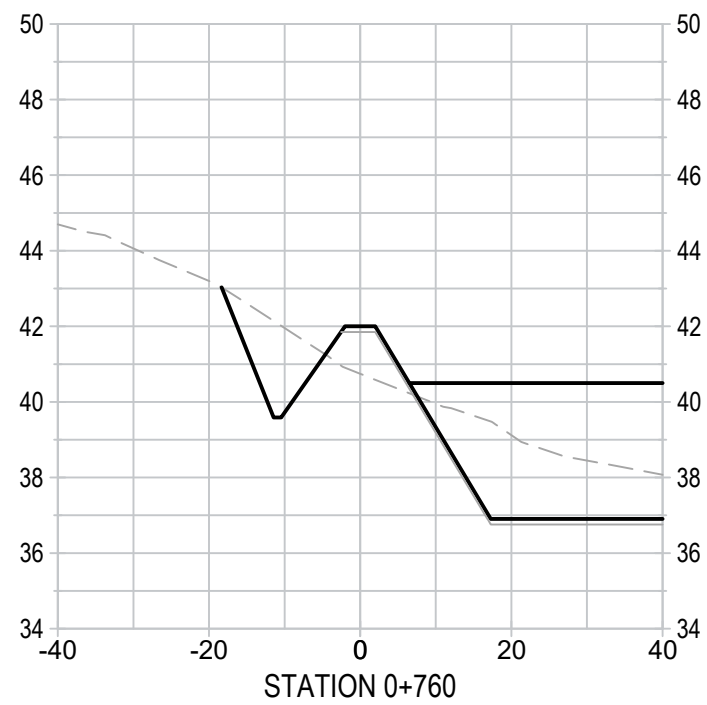
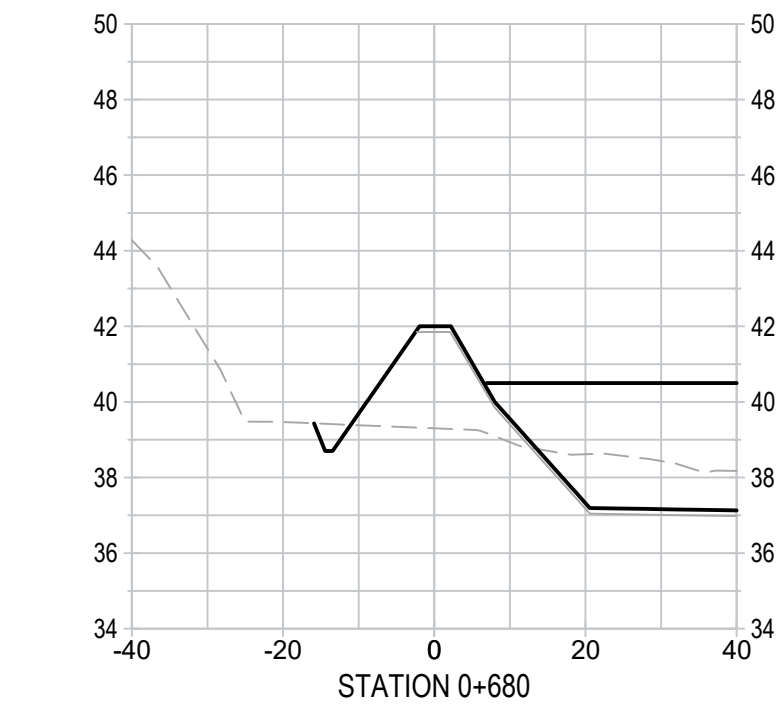
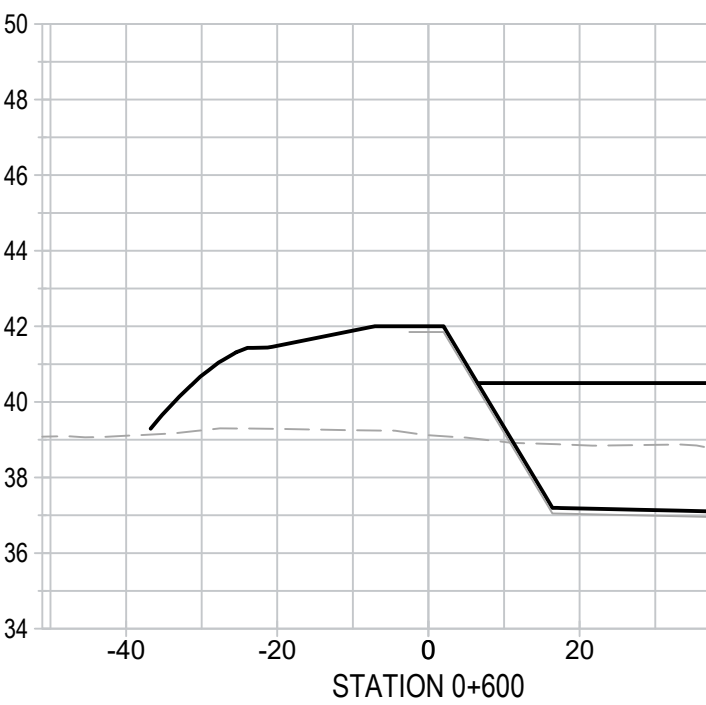
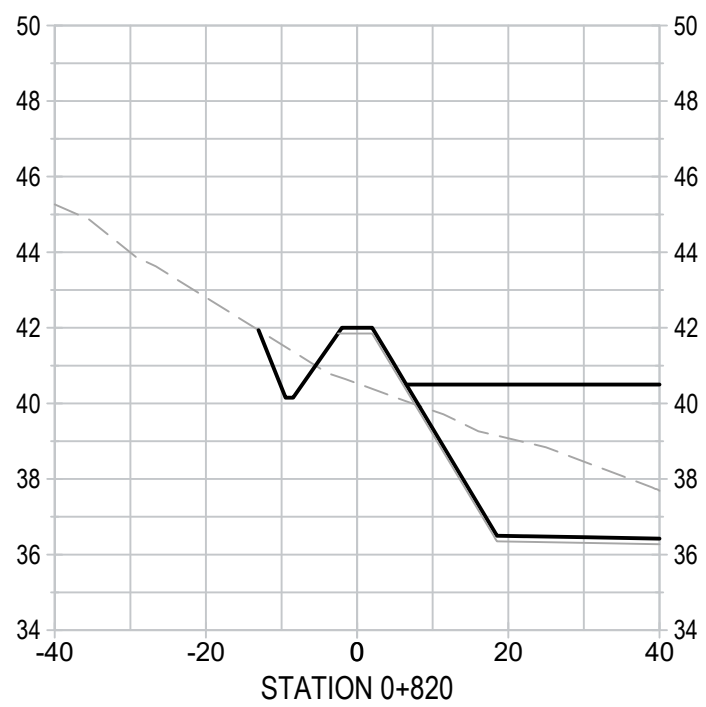
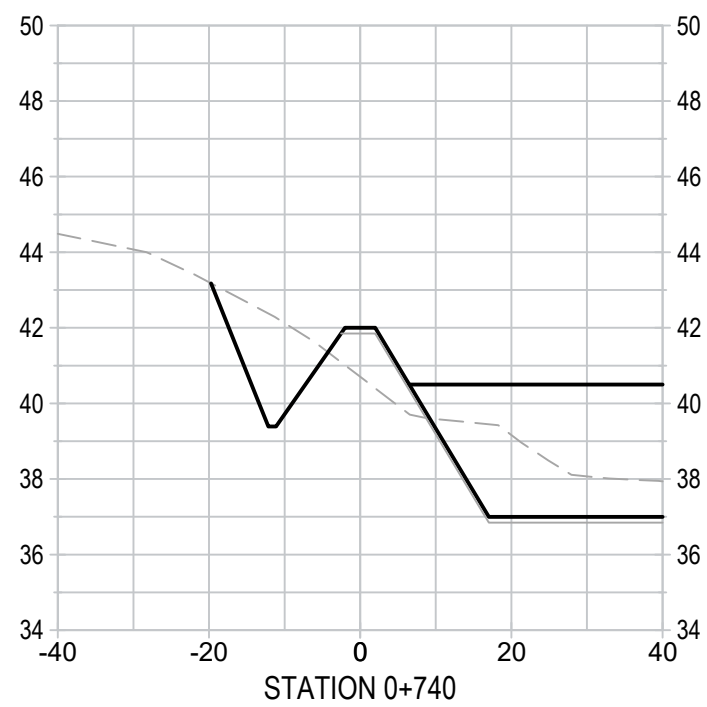
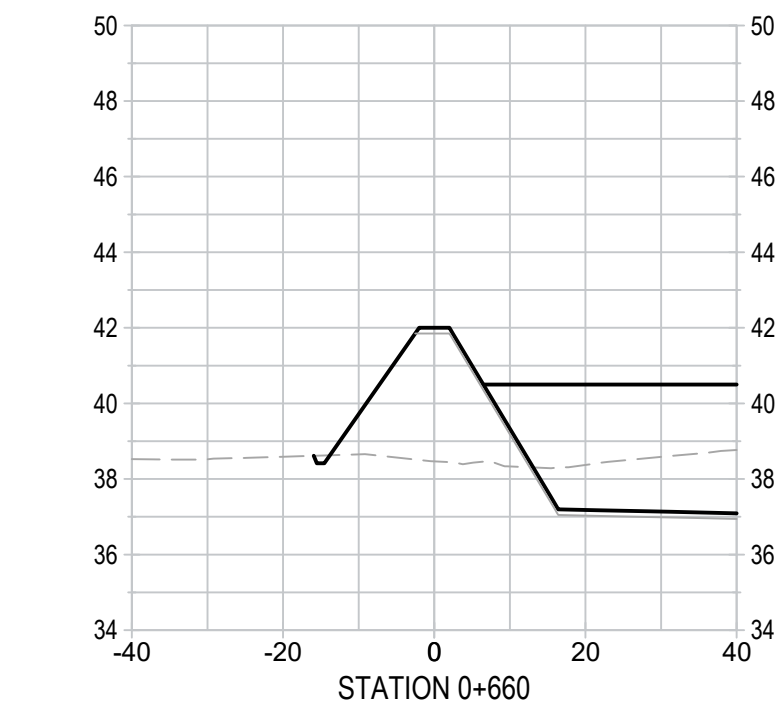
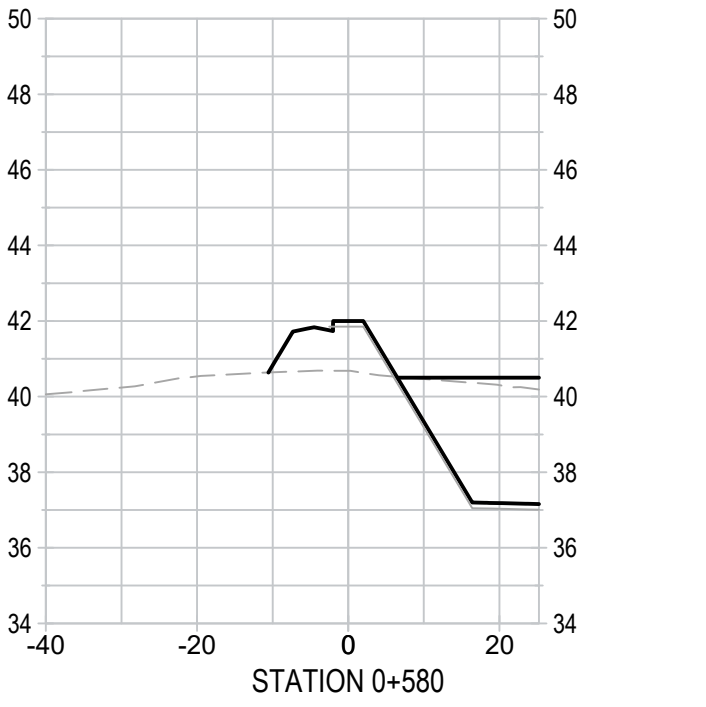
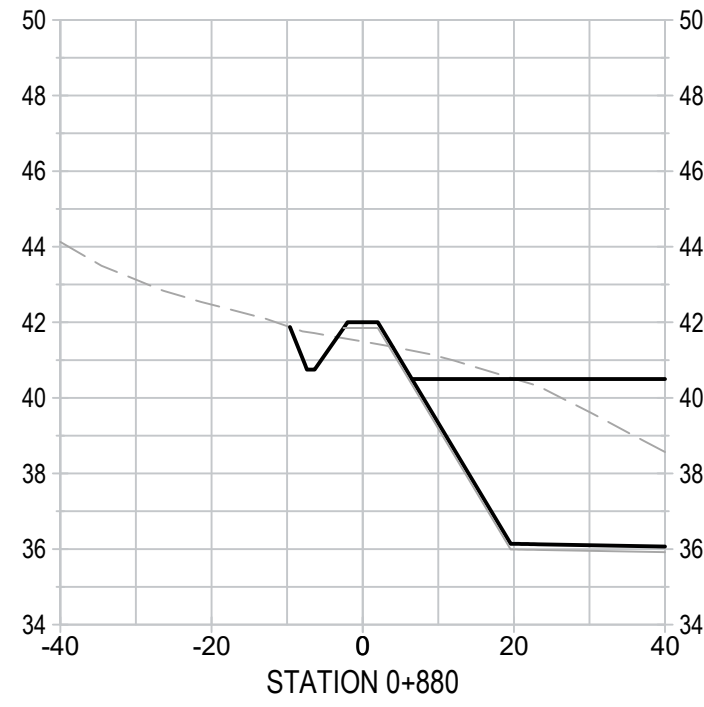
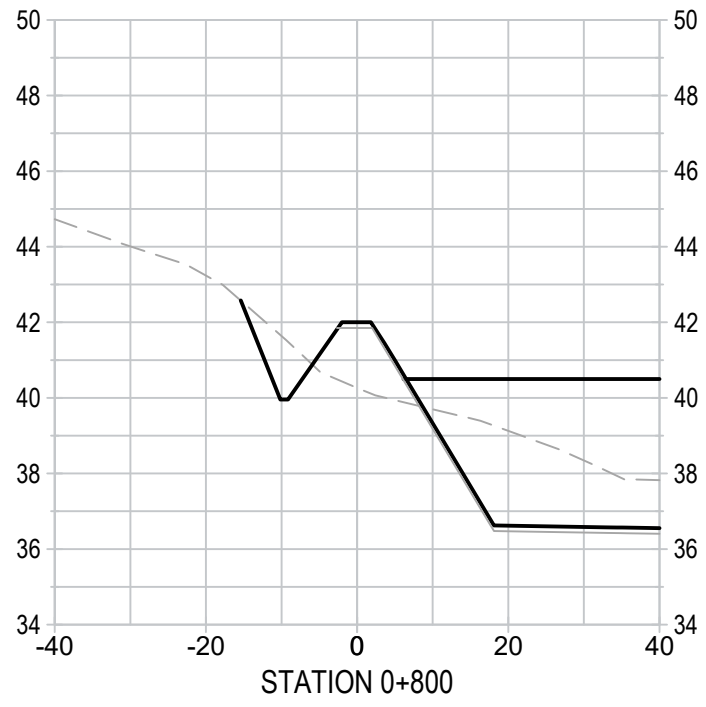
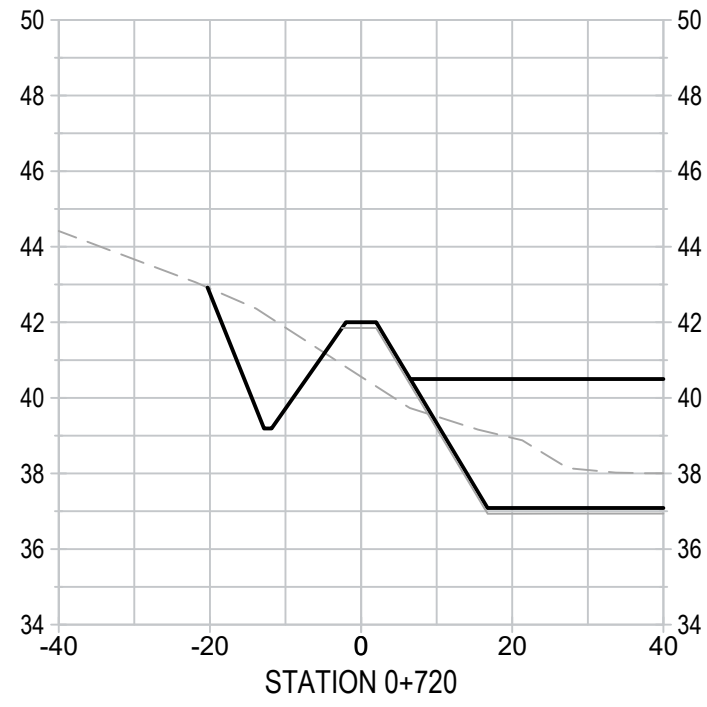
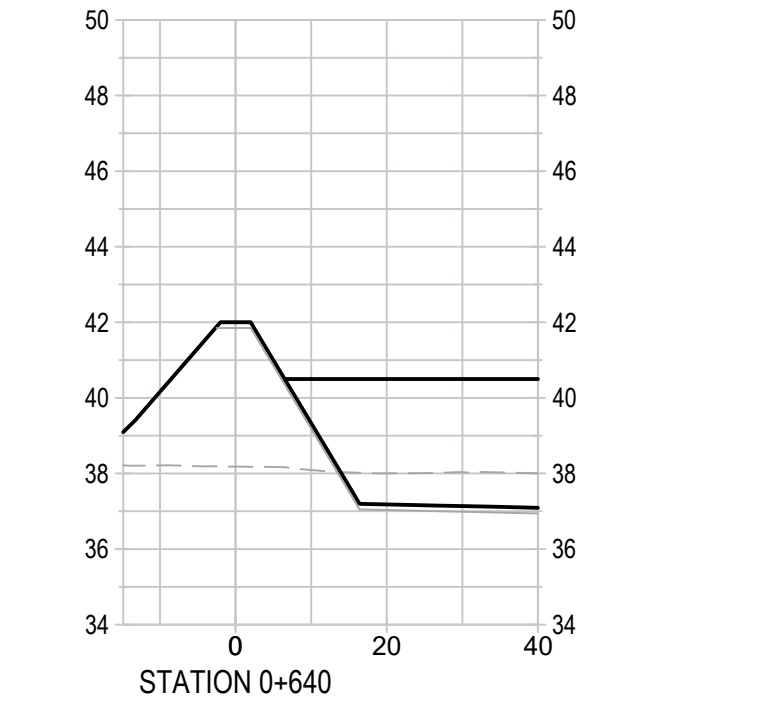
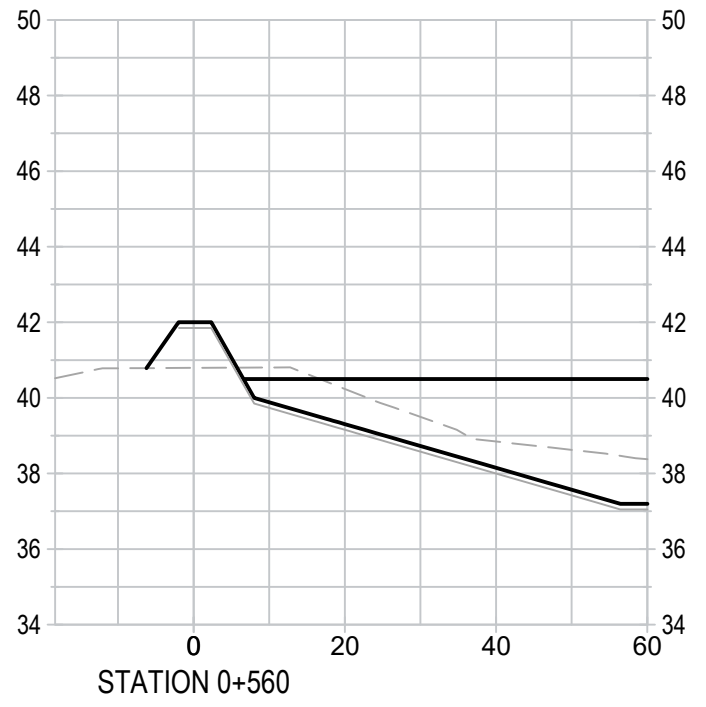
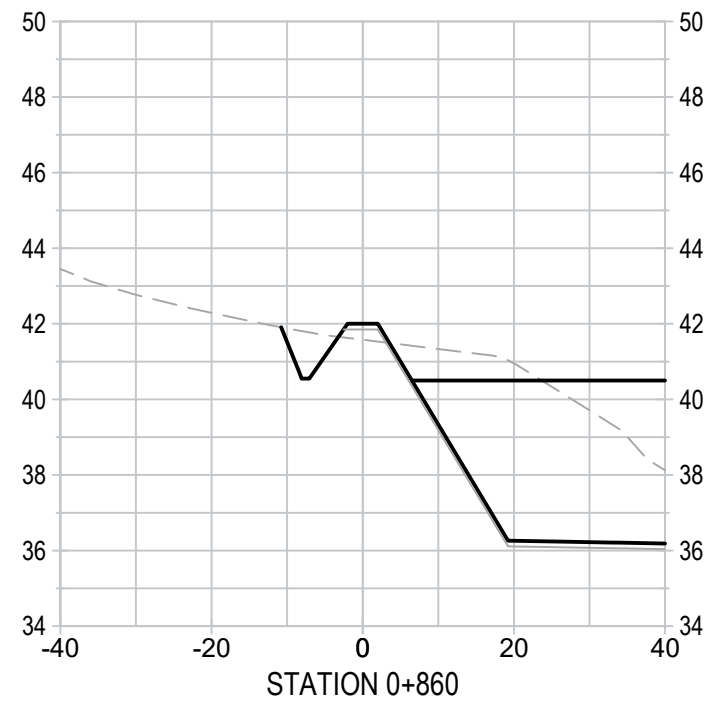
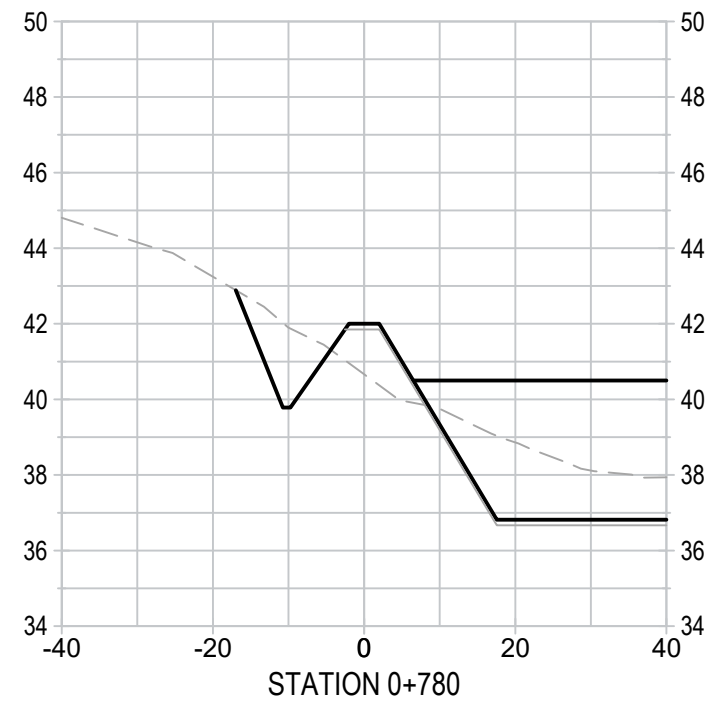
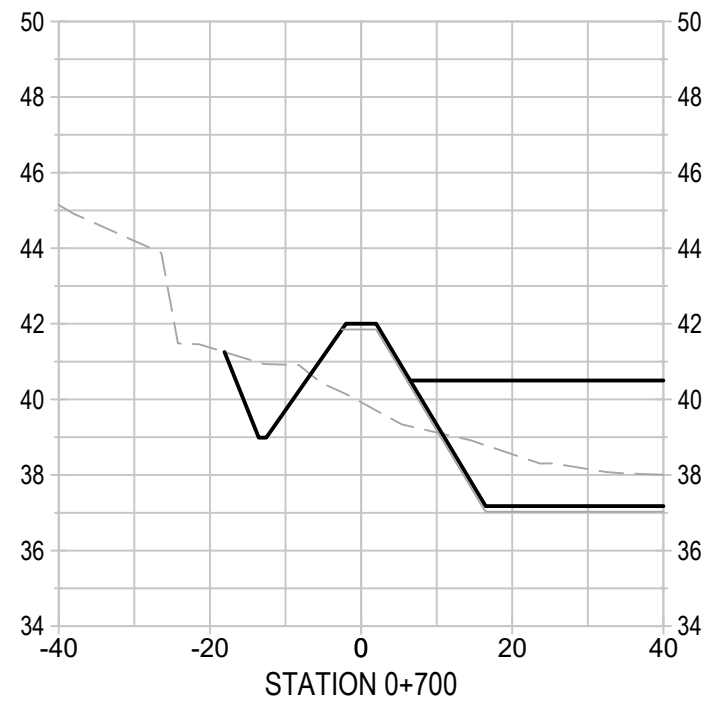
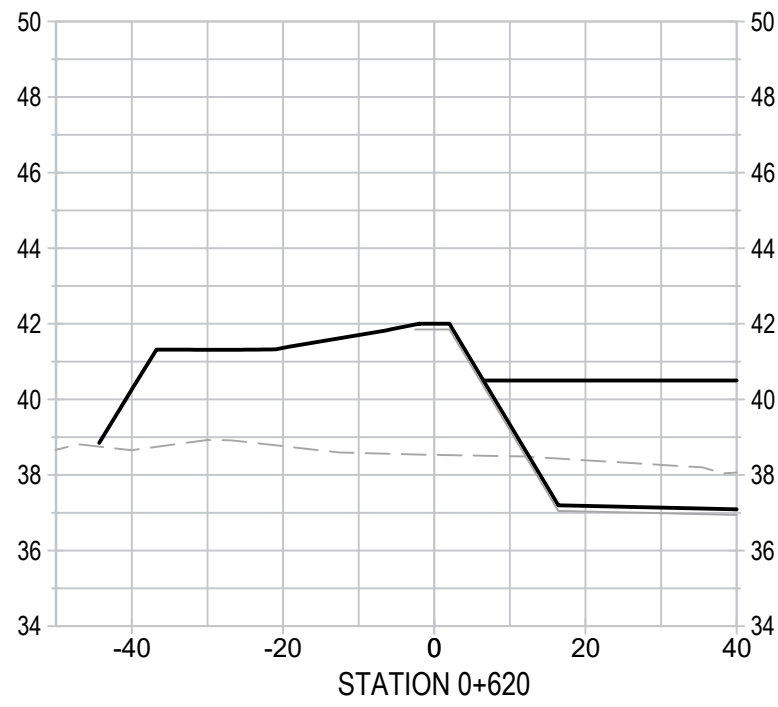
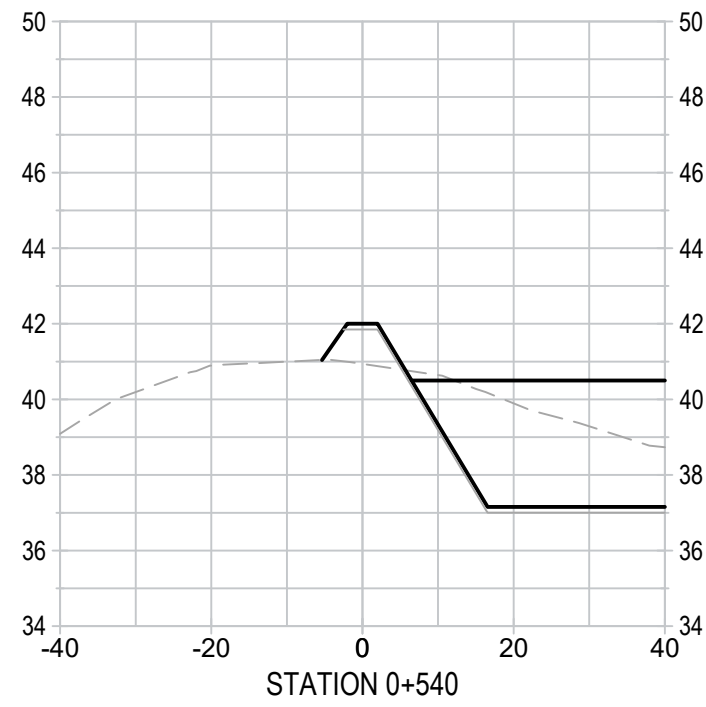
ISSUED FOR 99% REVIEW
PERIMETER BERM SECTIONS

PROJECT NO.
21-2233

SHEET NO.

107

DILLON CONSULTING LIMITED 4920 47TH STREET, YELLOWKNIFE, NORTHWEST TERRITORIES, X1A 2P1, PHONE (867) 920-4555, FAX (867) 973-3328



Conditions of Use

Verify elevations and/or dimensions on drawing prior to use.
Report any discrepancies to Dillon Consulting Limited.

Do not scale dimensions from drawing.

Do not modify drawing, re-use it, or use it for purposes other
than those intended at the time of its preparation without prior
written permission from Dillon Consulting Limited.

NOT FOR CONSTRUCTION

FOR REVIEW



3	ISSUED FOR 99% REVIEW	01/13/2023	KB		
2	ISSUED FOR 75% REVIEW	10/14/2022	KB		
1	ISSUED FOR 50% REVIEW	08/26/2022	KB		
No.	ISSUED FOR	DATE	BY		

DESIGN	CP	REVIEWED BY	KB
DRAWN	SC/TPW	CHECKED BY	CP
DATE	JANUARY 2023		
SCALE	AS SHOWN		

NAUJAAT WASTEWATER TREATMENT CELL
GOVERNMENT OF NUNAVUT

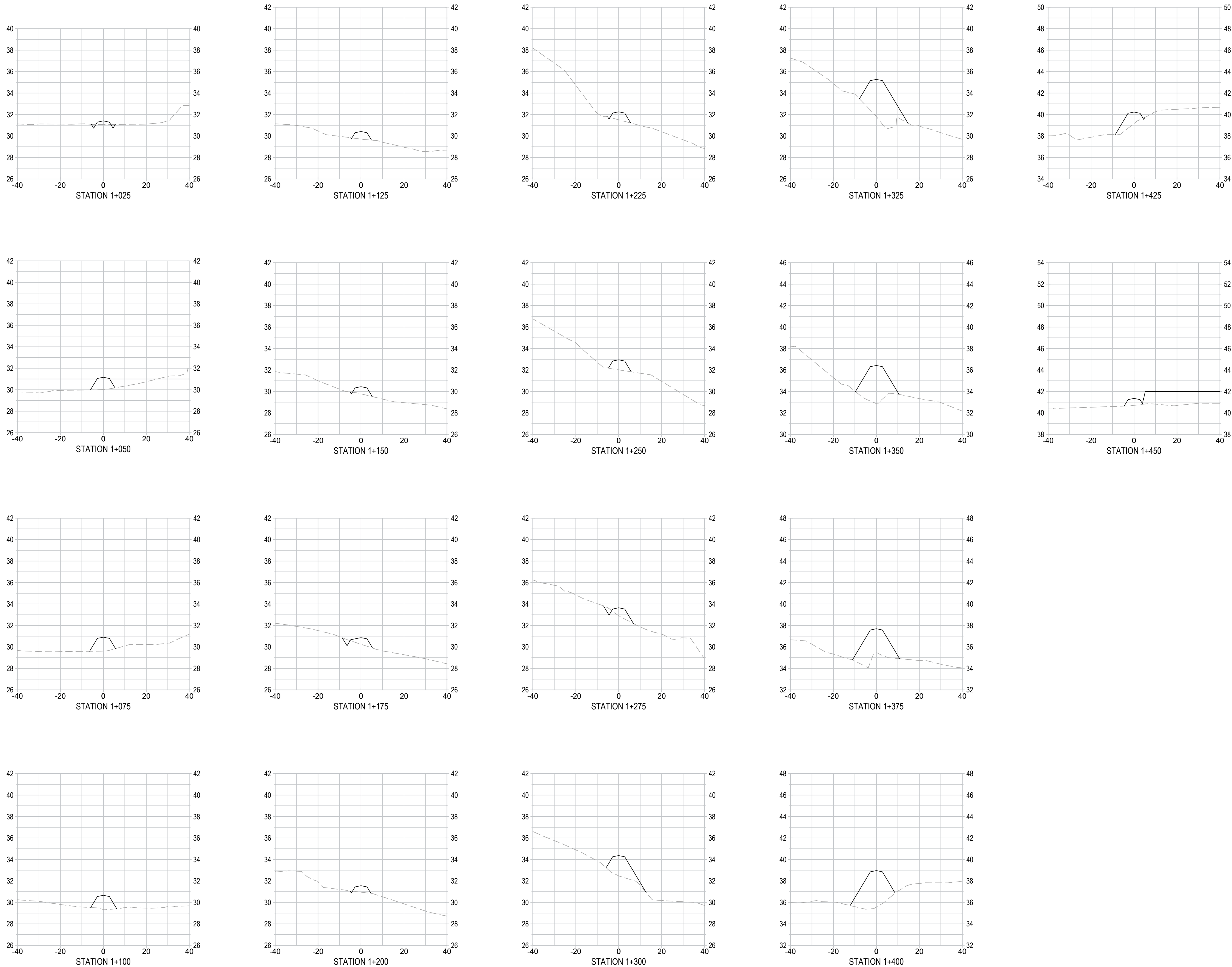
ISSUED FOR 99% REVIEW
PERIMETER BERM SECTIONS 2

PROJECT NO.
21-2233

SHEET NO.

108

DILLON CONSULTING LIMITED 4920 47TH STREET, YELLOWKNIFE, NORTHWEST TERRITORIES, X1A 2P1, PHONE (867) 920-4555, FAX (867) 973-3328



Conditions of Use

Verify elevations and/or dimensions on drawing prior to use.
Report any discrepancies to Dillon Consulting Limited.

Do not scale dimensions from drawing.

Do not modify drawing, re-use it, or use it for purposes other than those intended at the time of its preparation without prior written permission from Dillon Consulting Limited.

NOT FOR CONSTRUCTION

FOR REVIEW



3	ISSUED FOR 99% REVIEW	01/13/2023	KB
2	ISSUED FOR 75% REVIEW	10/14/2022	KB
1	ISSUED FOR 50% REVIEW	08/26/2022	KB
No.	ISSUED FOR	DATE	BY

DESIGN	CP	REVIEWED BY	KB
DRAWN	SC/TPW	CHECKED BY	CP
DATE	JANUARY 2023		
SCALE	AS SHOWN		

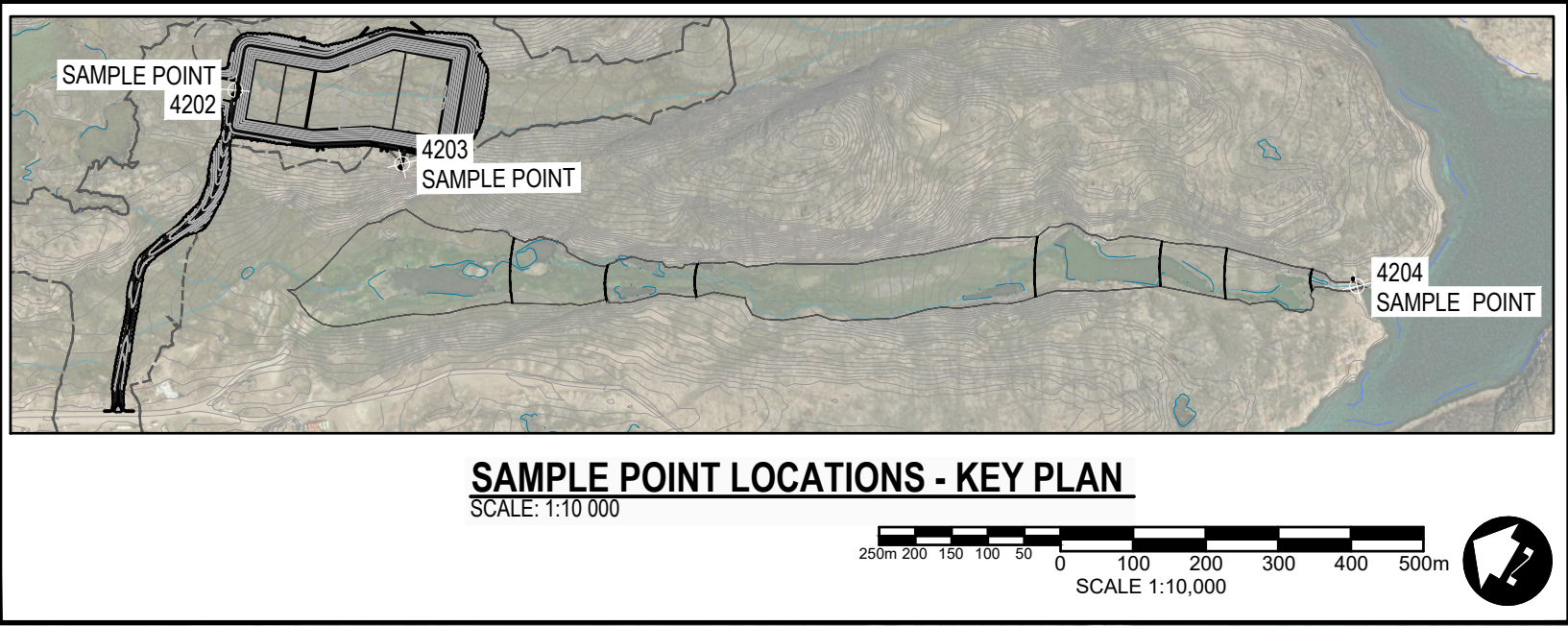
NAUJAAT WASTEWATER TREATMENT CELL
GOVERNMENT OF NUNAVUT

ISSUED FOR 99% REVIEW
ACCESS ROAD SECTIONS

PROJECT NO.
21-2233

SHEET NO.
109

DILLON CONSULTING LIMITED 4920 47TH STREET, YELLOWKNIFE, NORTHWEST TERRITORIES, X1A 2P1, PHONE (867) 920-4555, FAX (867) 973-3328



NOTES:

- SEE DRAWING 207 FOR ATTENUATION BERM DETAILS.
- TOTAL WETLAND AREA = 11.1 ha.
- TOTAL No. OF BERM = 7
- ATTENUATION BERM MATERIALS ARE PIT RUN AND/OR 200mm MINUS GRAVEL.
- ALL BERM SHALL BE NOT MORE THAN 100m IN LENGTH.
- CONSTRUCTION EQUIPMENT SHALL REMAIN OUTSIDE OF WETLAND AREA TO MINIMIZE DISTURBANCE.
- CONTRACTOR TO PROVIDE ATTENUATION BERM INSTALLATION PLAN TO ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.

BERM CENTERLINE COORDINATES TABLE			
No.	NORTHING (m)	EASTING (m)	DESCRIPTION
4195	7378696.1230	534791.8998	BERM CL
4200	7377851.2744	535296.8208	BERM CL
4201	7377745.4886	535350.3993	BERM CL
4196	7378575.5236	534845.1452	BERM CL
4197	7378471.1734	534911.6295	BERM CL
4198	7378080.0415	535169.6308	BERM CL
4199	7377934.8591	535262.2268	BERM CL

SAMPLING POINT COORDINATES TABLE			
No.	NORTHING (m)	EASTING (m)	DESCRIPTION
4202	7379148.3346	534808.9923	SAMPLE POINT
4203	7378899.1361	534840.8454	SAMPLE POINT
4204	7377685.8141	535376.1377	SAMPLE POINT

Conditions of Use

Verify elevations and/or dimensions on drawing prior to use. Report any discrepancies to Dillon Consulting Limited.

Do not scale dimensions from drawing.

Do not modify drawing, re-use it, or use it for purposes other than those intended at the time of its preparation without prior written permission from Dillon Consulting Limited.

NOT FOR CONSTRUCTION

FOR REVIEW



3	ISSUED FOR 99% REVIEW	01/13/2023	KB		
2	ISSUED FOR 75% REVIEW	10/14/2022	KB		
1	ISSUED FOR 50% REVIEW	08/26/2022	KB		
No.	ISSUED FOR	DATE	BY		

DESIGN	CP	REVIEWED BY	KB
DRAWN	SC/TPW	CHECKED BY	CP
DATE	JANUARY 2023		
SCALE	AS SHOWN		

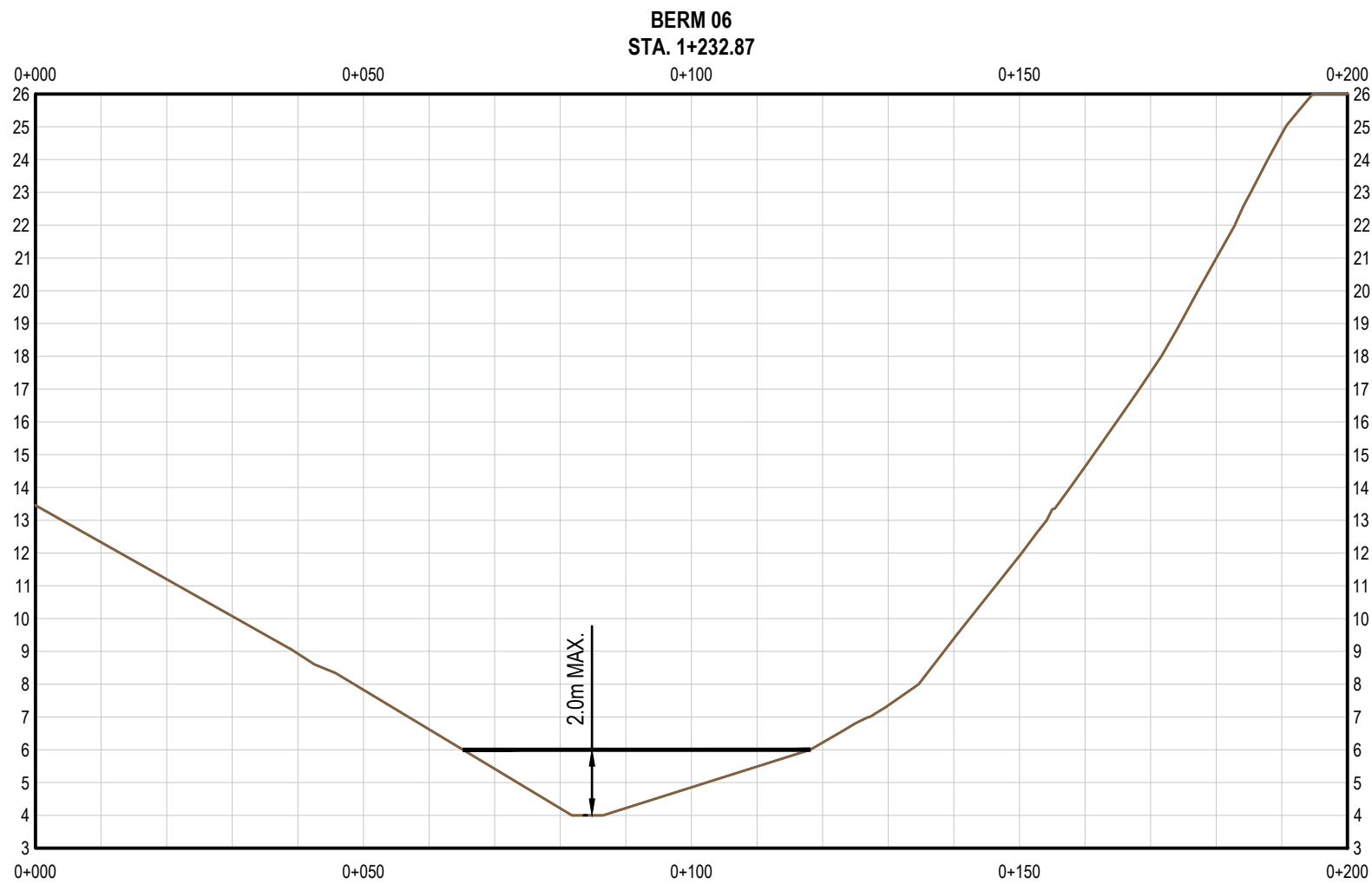
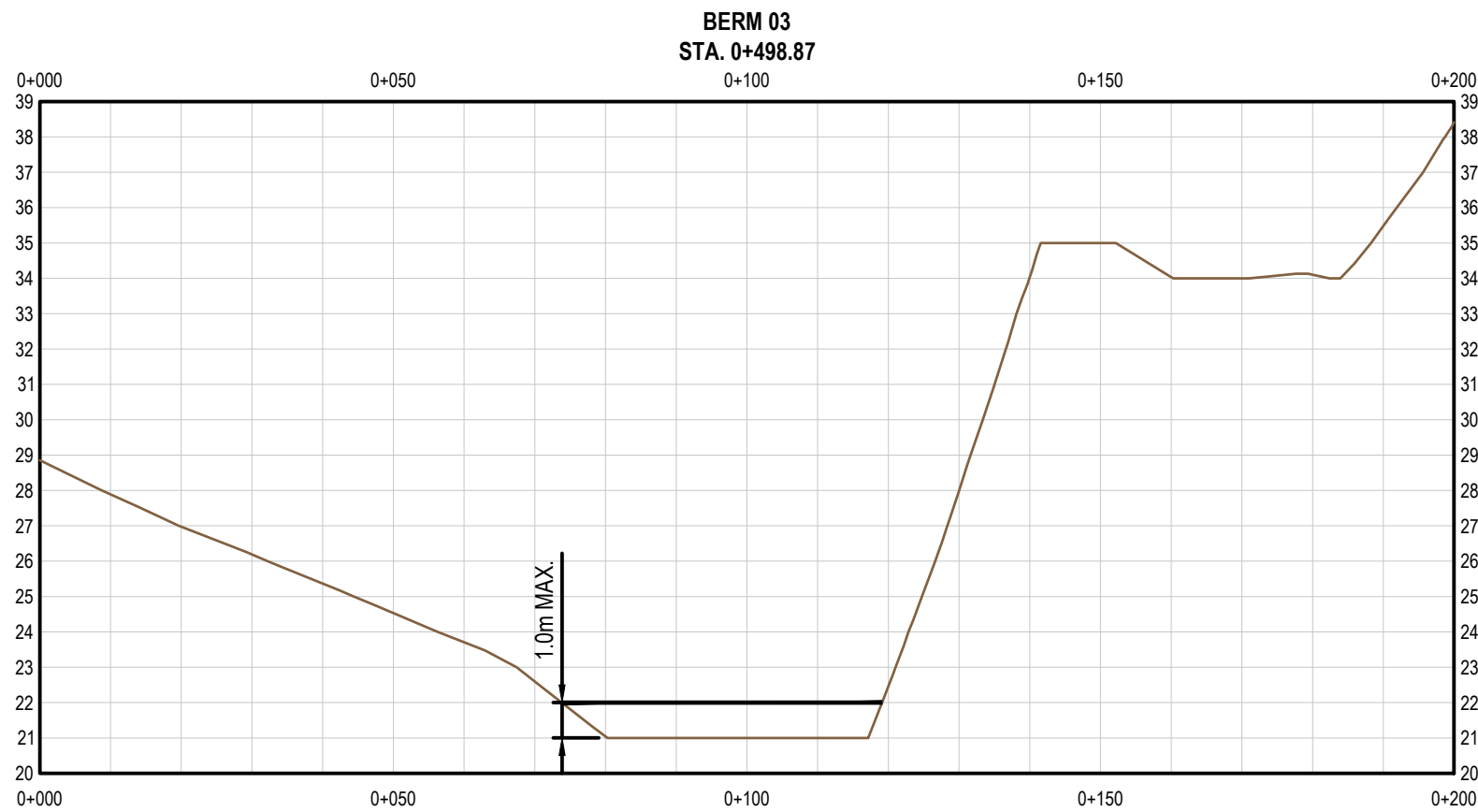
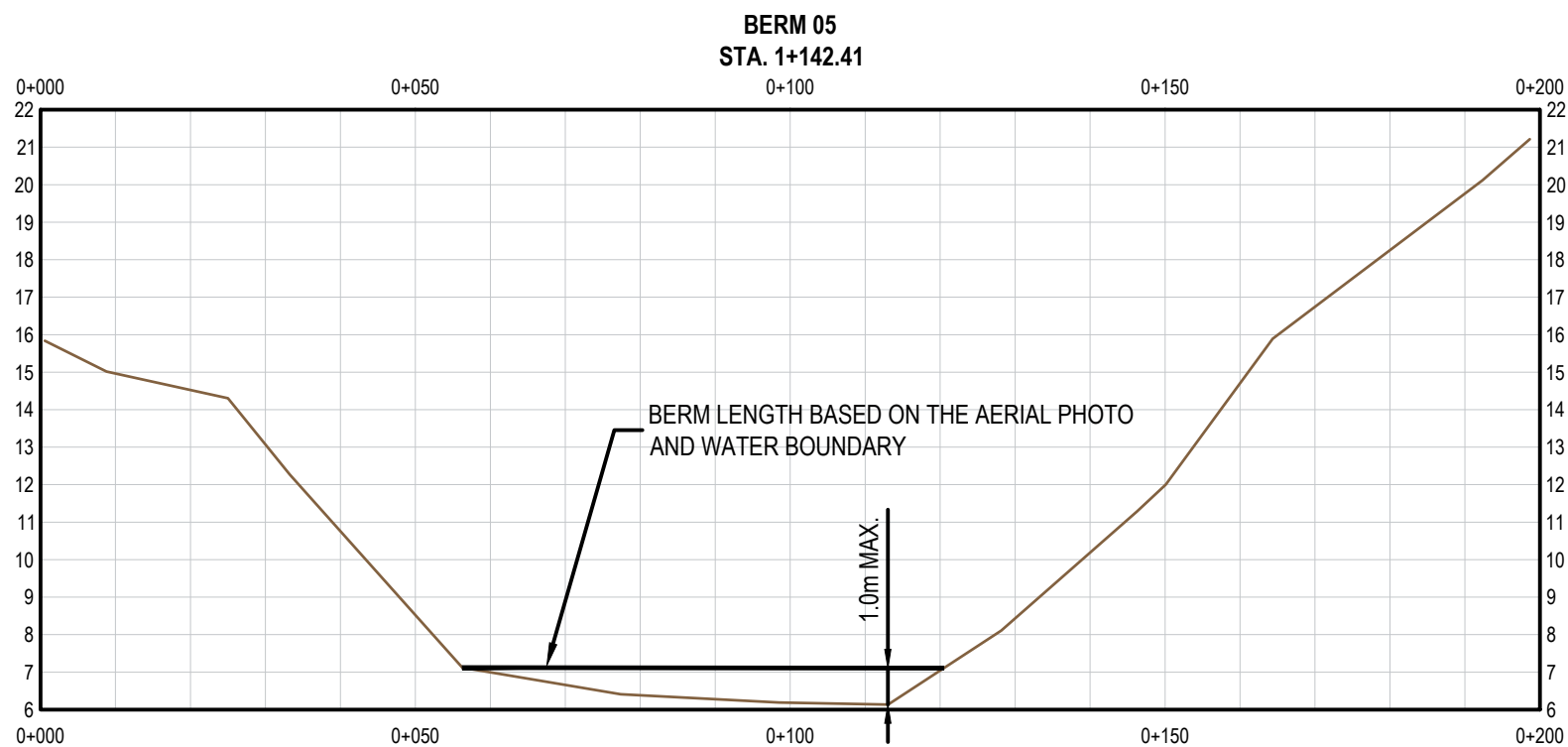
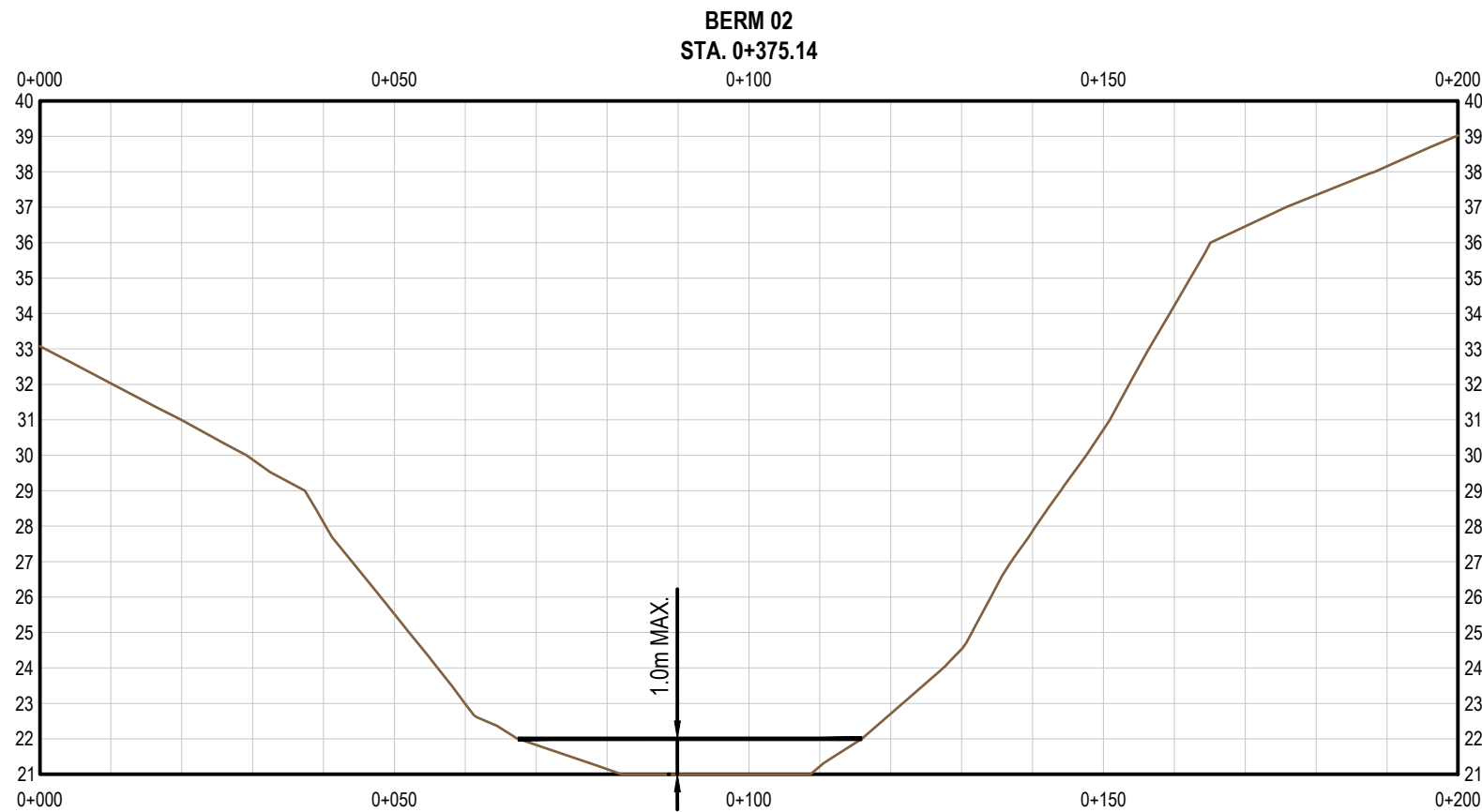
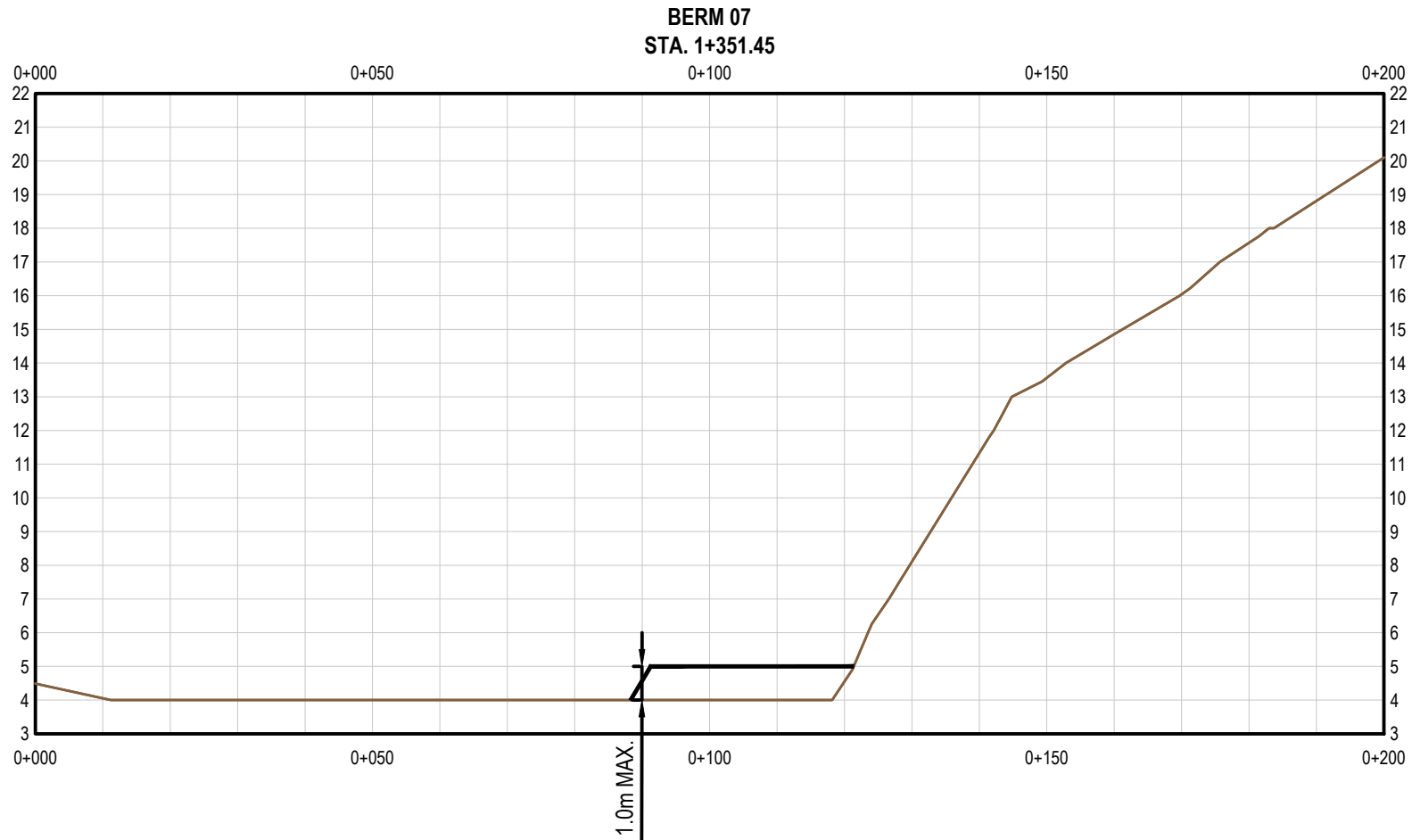
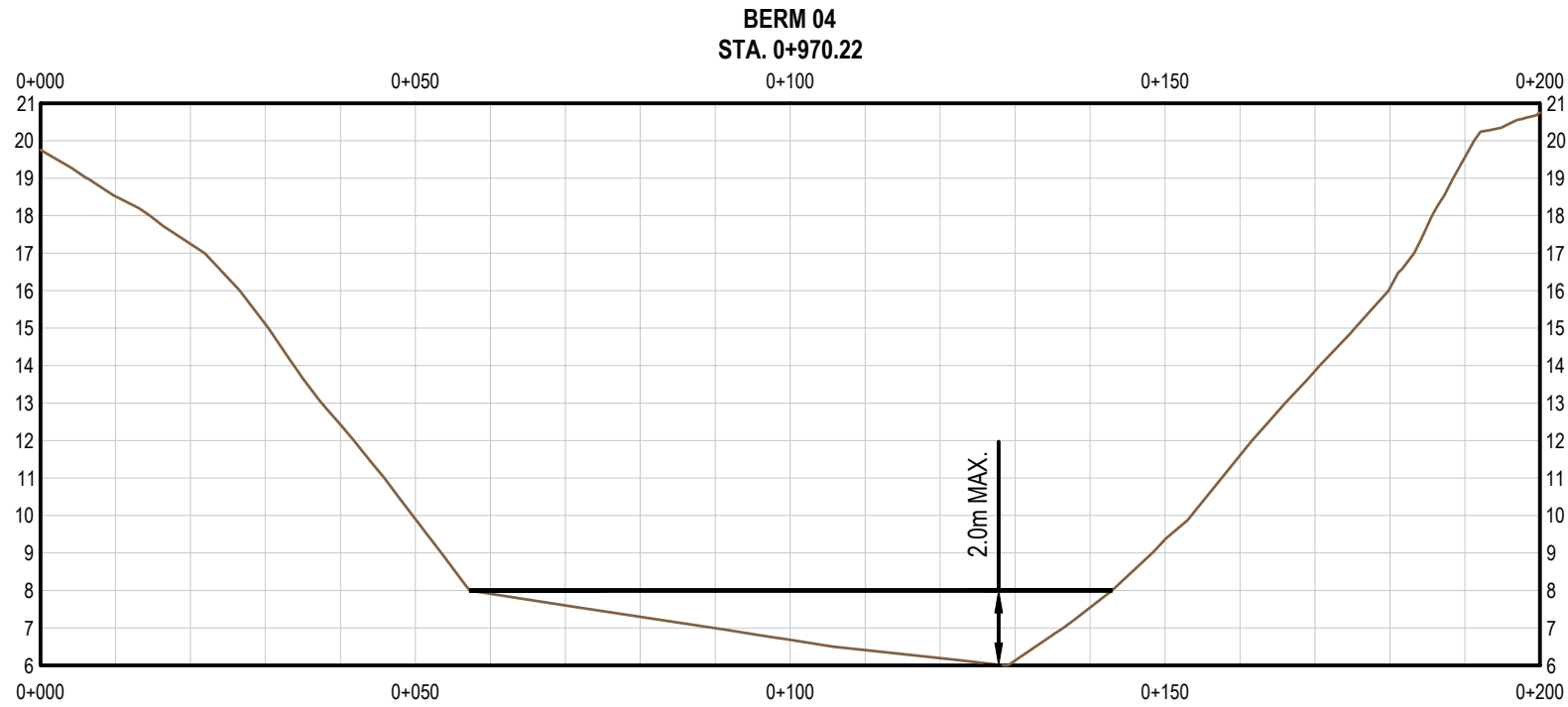
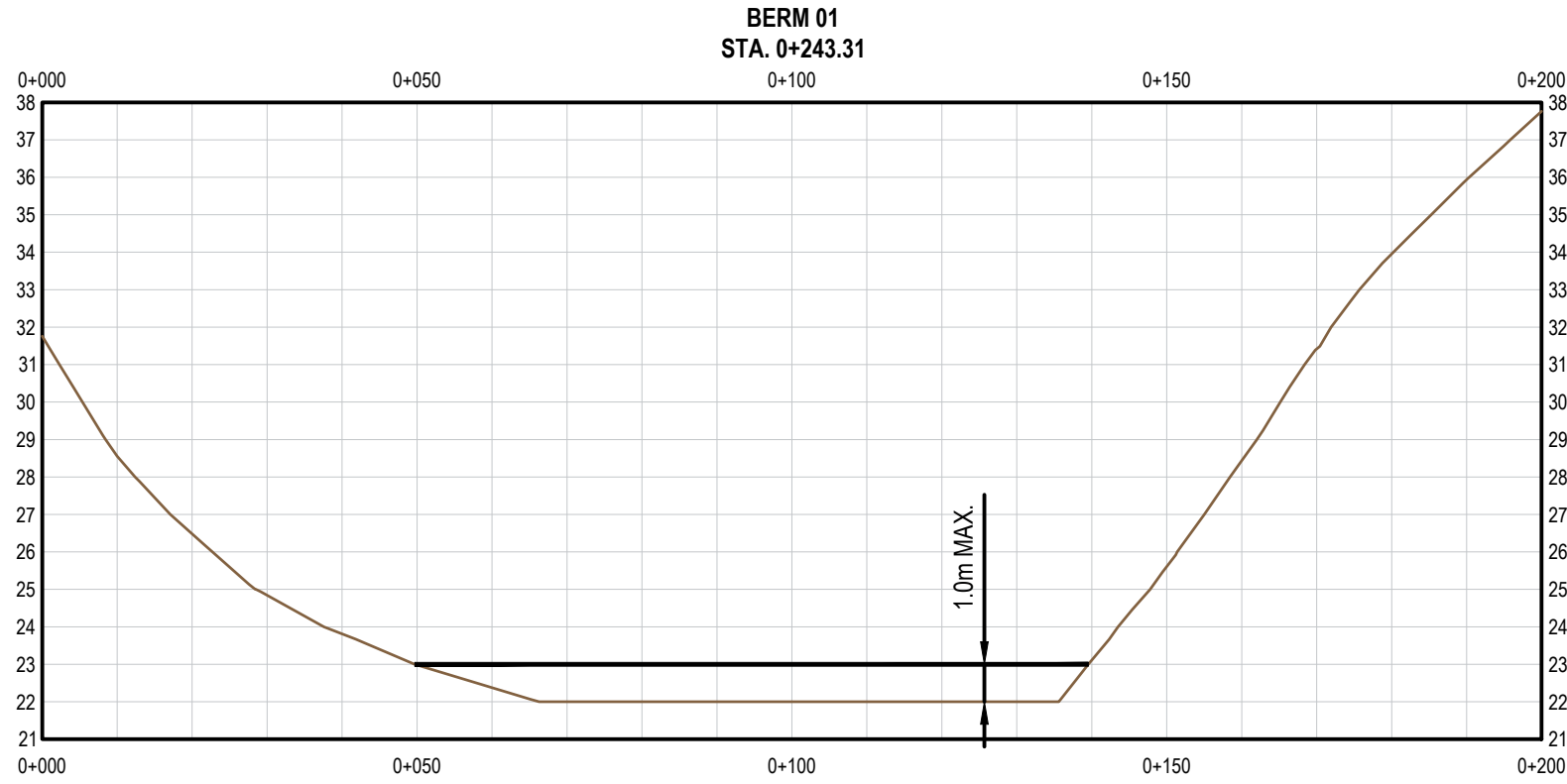
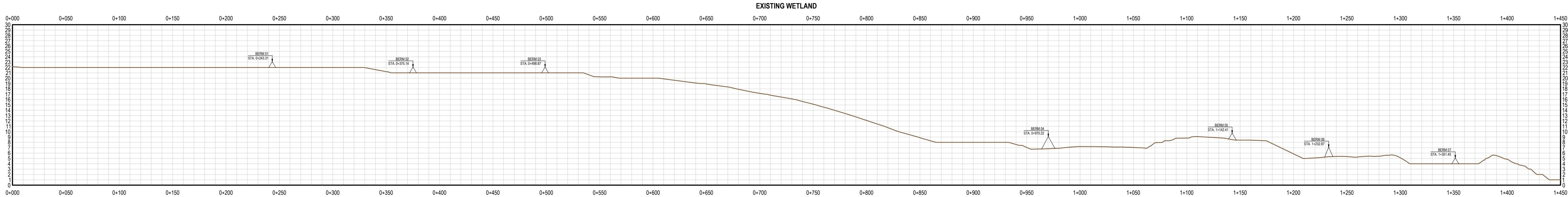
NAUJAAT WASTEWATER TREATMENT CELL
GOVERNMENT OF NUNAVUT

ISSUED FOR 99% REVIEW
WTA ATTENUATION BERMS

PROJECT NO.
21-2233

SHEET NO.

110



- NOTES:
1. MAXIMUM LENGTH OF BERM = 100.0m
 2. REFER TO DRAWING 110 FOR BERM CENTERLINE COORDINATES AND CHAINAGES.

Conditions of Use

Verify elevations and/or dimensions on drawing prior to use.
Report any discrepancies to Dillon Consulting Limited.

Do not scale dimensions from drawing.

Do not modify drawing, re-use it, or use it for purposes other
than those intended at the time of its preparation without prior
written permission from Dillon Consulting Limited.

NOT FOR CONSTRUCTION

FOR REVIEW



3	ISSUED FOR 99% REVIEW	01/13/2023	KB		
2	ISSUED FOR 75% REVIEW	10/14/2022	KB		
1	ISSUED FOR 50% REVIEW	08/26/2022	KB		
No.	ISSUED FOR	DATE	BY		

DESIGN	CP	REVIEWED BY	KB
DRAWN	SC/TPW	CHECKED BY	CP
DATE	JANUARY 2023		
SCALE	AS SHOWN		

NAUJAAT WASTEWATER TREATMENT CELL
GOVERNMENT OF NUNAVUT

ISSUED FOR 99% REVIEW
WTA ATTENUATION BERM SECTIONS

PROJECT NO.
21-2233

SHEET NO.

111

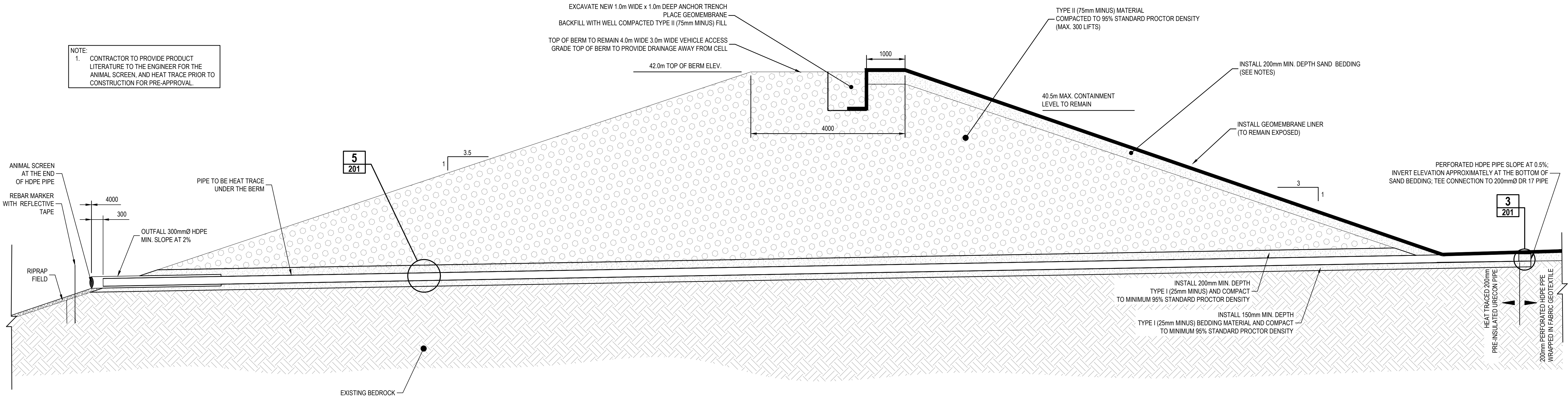


1. THE SUB-BASE SHALL BE UNIFORM AND FREE OF SHARP ROCK FRAGMENTS OR STONES, LARGE STONES AND OTHER DELETERIOUS MATTER SUCH AS CONSTRUCTION DEBRIS AND METALLIC OBJECTS. THE SURFACE SHALL NOT HAVE ANY NATURAL OR FOREIGN OBJECT THAT PROTRUDES ABOVE THE SURFACE OF THE SUB-BASE.
2. COMPACT SUB-BASE TO 95% SPD.
3. ANCHOR TRENCH TO HAVE ROUNDED EDGES TO ACCOMMODATE LINER BENDING/INSTALLATION.
4. LINER INSTALLERS TO APPROVE SAND BASE PREPARATION.
5. LINER MANUFACTURER TO PROVIDE LINER LAYOUT PLAN.
6. LINER MANUFACTURER TO APPROVE LINER PENETRATION.
7. THE PREPARED FOOTPRINT OF THE BERM EXTEND AT LEAST 2.0m BEYOND THE TOE OF THE SLOPES. THE EXPANDED FOOTPRINT SHOULD BE STRIPPED OF ANY SURFICIAL BOULDERS, ORGANIC/PEAT LAYER, ICE-RICH CLAYEY SAND AND/OR ANY OTHER SOFT SATURATED MATERIALS ENCOUNTERED TO EXPOSE A STRUCTURALLY STABLE SUB-GRADE OF EITHER UNFROZEN WELL-GRADED SAND AND GRAVEL, OR BEDROCK AS EVALUATED AND APPROVED BY QUALIFIED GEOTECHNICAL PERSONNEL ON SITE AT THE TIME OF CONSTRUCTION.

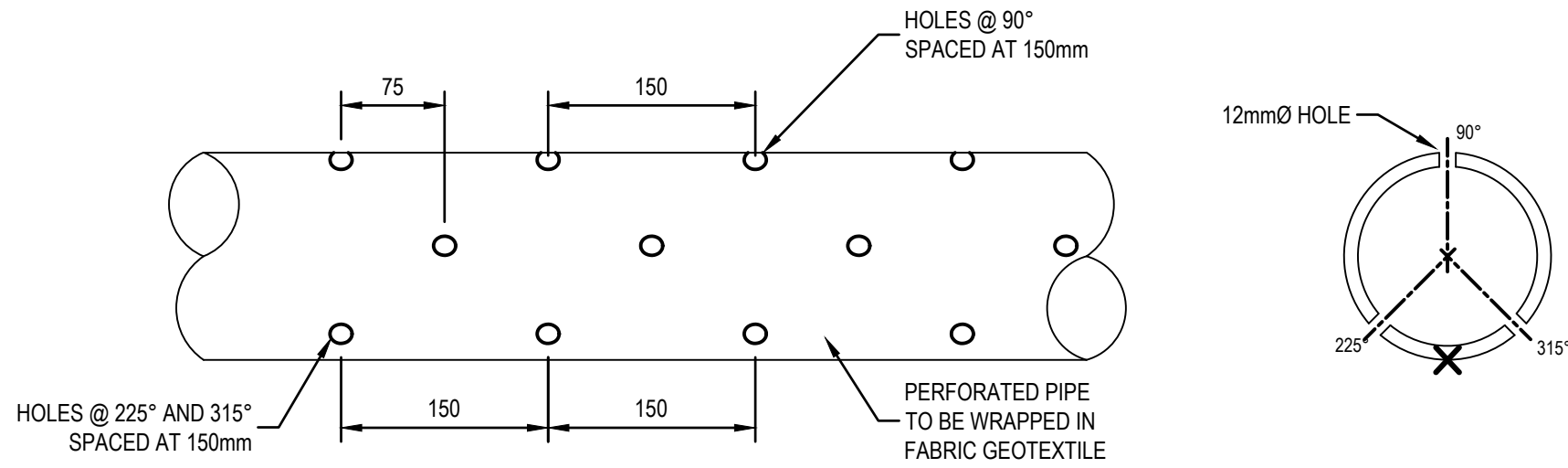
<div>Conditions of Use</div> <div>Verify elevations and/or dimensions on drawing prior to use. Report any discrepancies to Dillon Consulting Limited.</div> <div>Do not scale dimensions from drawing.</div> <div>Do not modify drawing, re-use it, or use it for purposes other than those intended at the time of its preparation without prior written permission from Dillon Consulting Limited.</div>	<div>NOT FOR CONSTRUCTION</div> <div>FOR REVIEW</div>									DESIGN	REVIEWED BY	NAUJAAT WASTEWATER TREATMENT CELL GOVERNMENT OF NUNAVUT	PROJECT NO:			
											CP		KB	21-2233		
											DRAWN		CHECKED BY	ISSUED FOR 99% REVIEW TYPICAL BERM DETAILS	SHEET NO: 200	
											TPW		CP			
											DATE		JANUARY 2023			
				3	ISSUED FOR 99% REVIEW	01/13/2023	KB	SCALE		AS SHOWN						
				2	ISSUED FOR 75% REVIEW	10/14/2022	KB									
1	ISSUED FOR 50% REVIEW	08/26/2022	KB													
No.		ISSUED FOR		DATE		BY										

DILLON CONSULTING LIMITED 4920 47TH STREET, YELLOWKNIFE, NORTHWEST TERRITORIES, X1A 2P1, PHONE (867) 920-4555, FAX (867) 973-3328

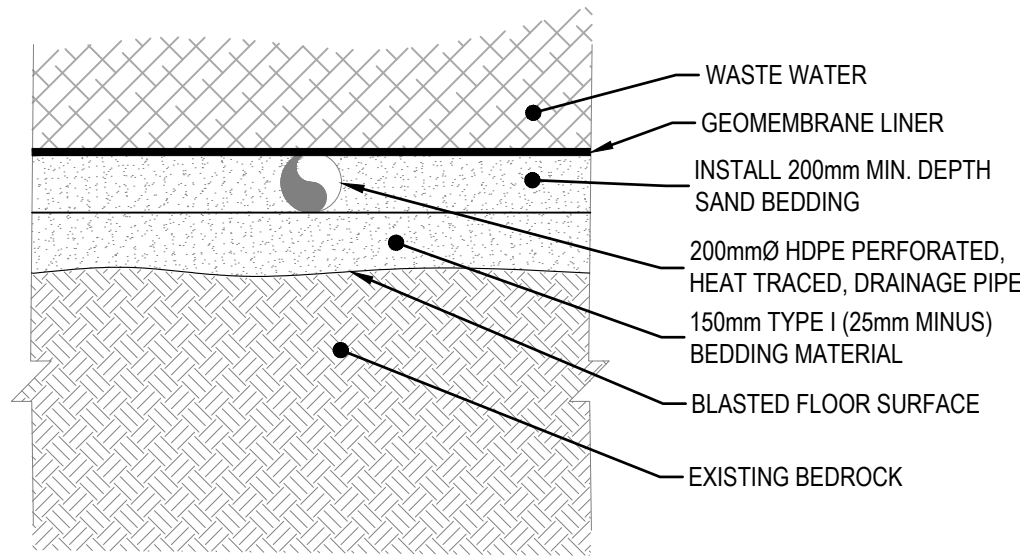
FILENAME: C:\PW\WORKING\DIRECTOR\PROJECTS\2021\4850\DWG\41087\212233_DETAILS.DWG
PLOT DATE: 2023-01-18 @ 8:25:04 AM PLOT SCALE: 1:25.4 PLOT STYLE: DILLON-STANDARD.CTB



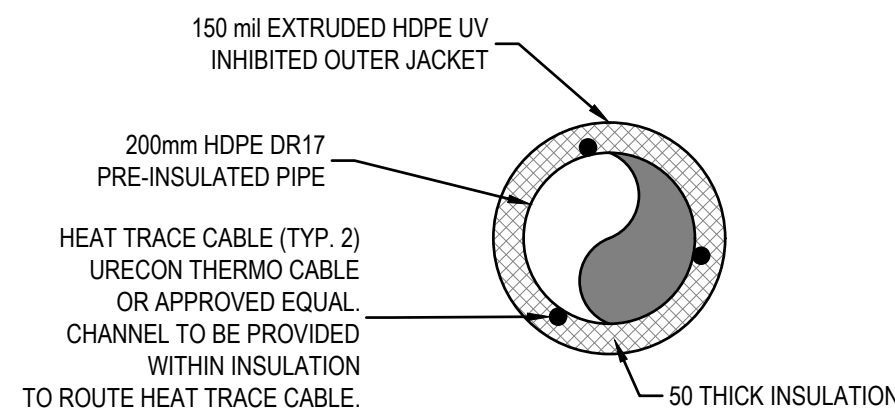
LAGOON DRAINAGE OUTFALL SECTION VIEW 1/201
SCALE: N.T.S.



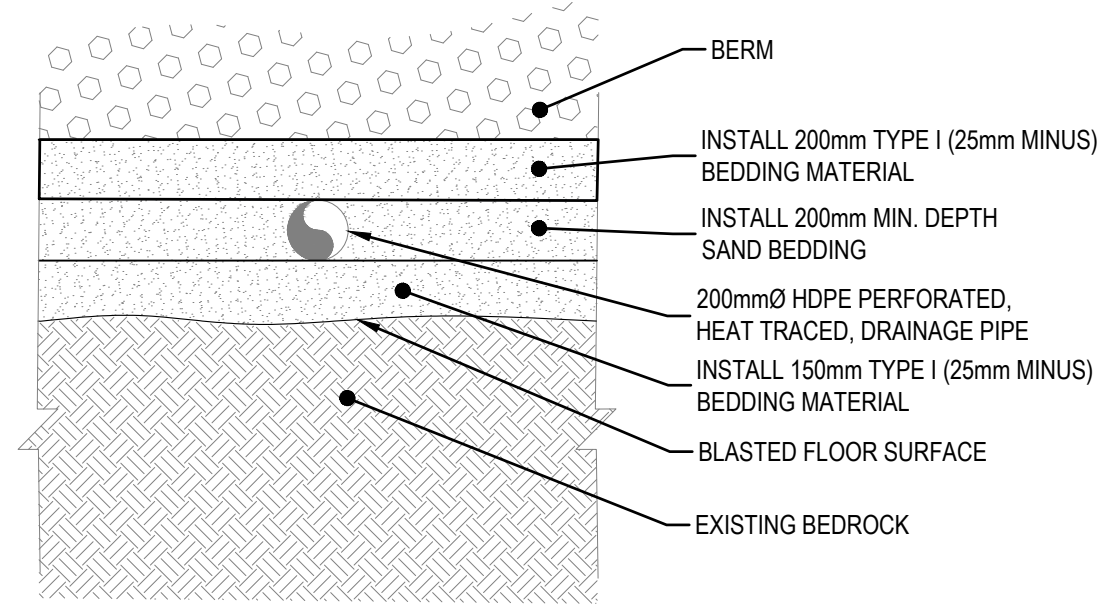
DRAINAGE AND VENT PIPE PERFORATION DETAIL 2/201
SCALE: 1:5



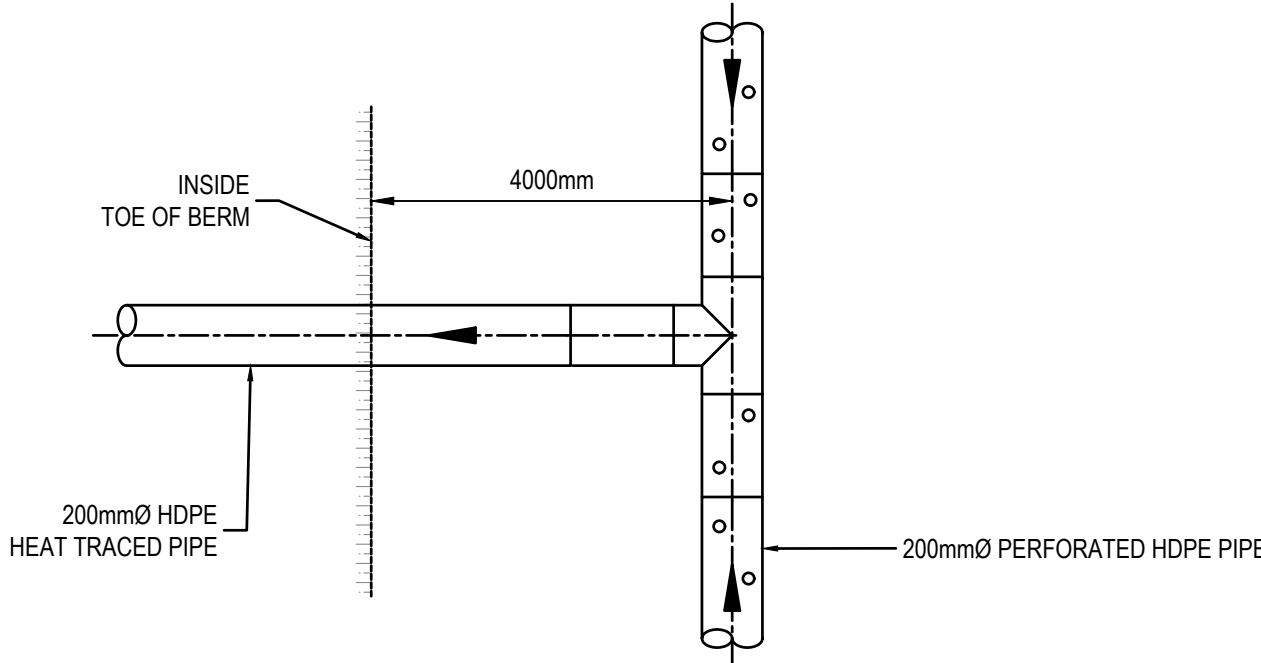
PERFORATED DRAINAGE PIPE CROSS SECTION 3/201
SCALE: 1:25



PIPE INSULATION 4/201
SCALE: 1:25



DRAINAGE PIPE CROSS SECTION 5/201
SCALE: 1:25



PIPE CONNECTION DETAILS 7/201
SCALE: N.T.S.

Conditions of Use

Verify elevations and/or dimensions on drawing prior to use.
Report any discrepancies to Dillon Consulting Limited.
Do not scale dimensions from drawing.
Do not modify drawing, re-use it, or use it for purposes other than those intended at the time of its preparation without prior written permission from Dillon Consulting Limited.

NOT FOR CONSTRUCTION

FOR REVIEW



DESIGN	CP	REVIEWED BY	KB
DRAWN	SC/TPW	CHECKED BY	CP
DATE	JANUARY 2023		
SCALE	AS SHOWN		
No.	ISSUED FOR		
		DATE	BY
3	ISSUED FOR 99% REVIEW	01/13/2023	KB
2	ISSUED FOR 75% REVIEW	10/14/2022	KB
1	ISSUED FOR 50% REVIEW	08/26/2022	KB

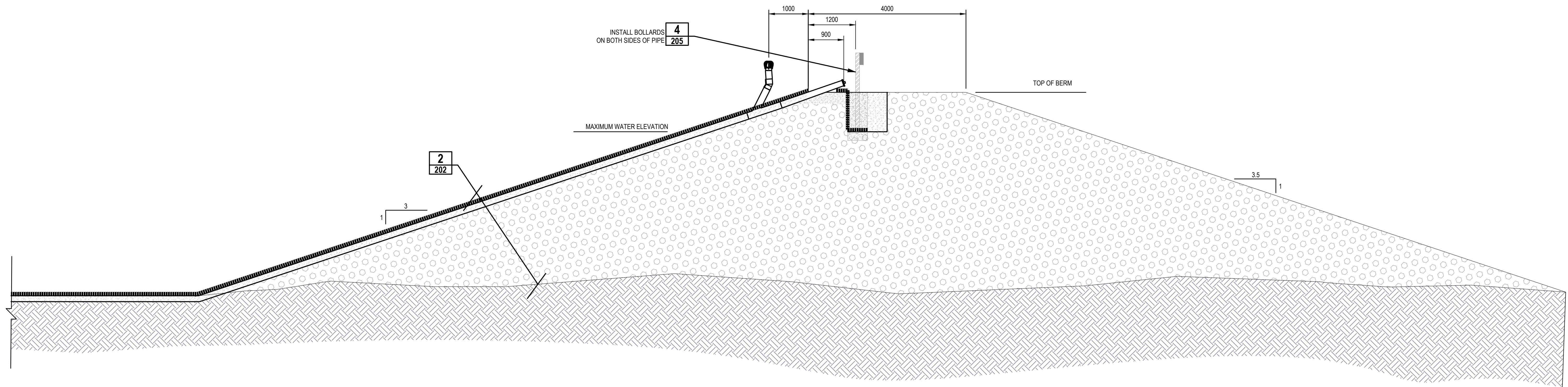
NAUJAAT WASTEWATER TREATMENT CELL
GOVERNMENT OF NUNAVUT

PROJECT NO.
21-2233

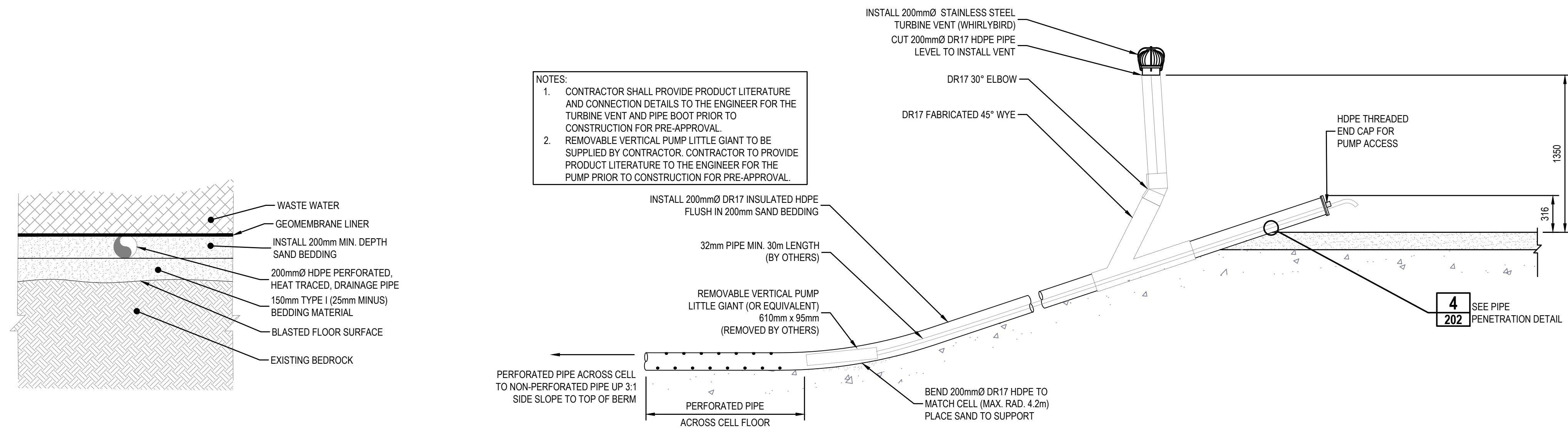
ISSUED FOR 99% REVIEW
DRAIN PIPE DETAILS

SHEET NO.

201

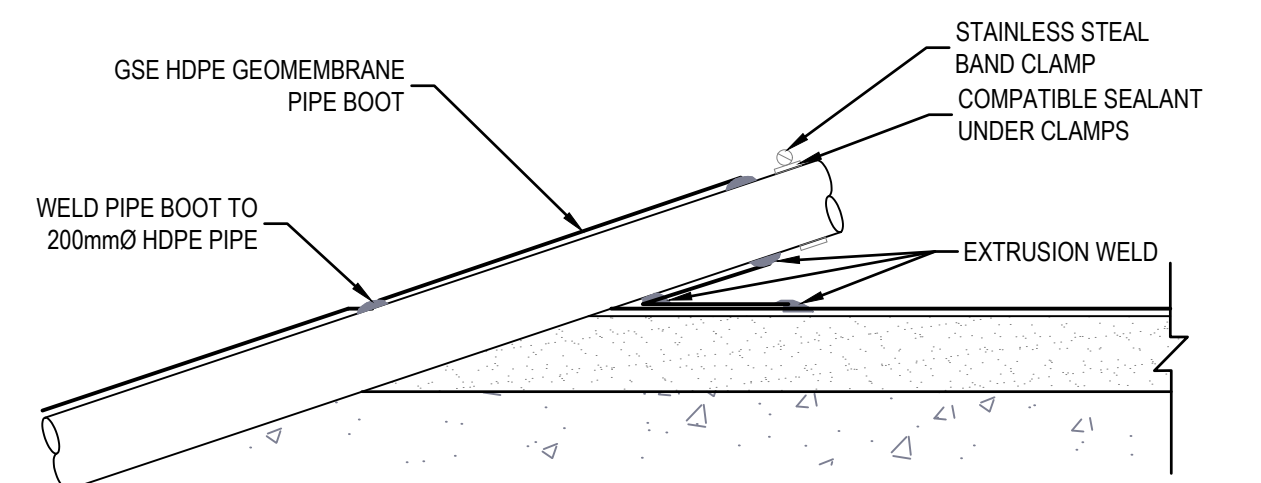


AIR VENT PIPE DETAIL	1
SCALE: 1:50	202



PERFORATED AIR VENT PIPE CROSS SECTION 2
 SCALE: 1:25 202

AIR VENT PIPE SECTION	3
SCALE: 1:50	202



INTAKE PIPE PENETRATION DETAIL 4
SCALE: 1:15 202

Conditions of Use

Verify elevations and/or dimensions on drawing prior to use.
Report any discrepancies to Dillon Consulting Limited.

Do not scale dimensions from drawing.

Do not modify drawing, re-use it, or use it for purposes other than those intended at the time of its preparation without prior written permission from Dillon Consulting Limited.

NOT FOR CONSTRUCTION

FOR REVIEW



						DESIGN	REVIEWED BY	NAUJAAT WASTEWATER TREATMENT CELL GOVERNMENT OF NUNAVUT	PROJECT NO.	
						CP	KB		21-2233	
						DRAWN	CHECKED BY		ISSUED FOR 99% REVIEW LINER VENT PIPE DETAILS	SHEET NO. 202
						TPW	CP			
						DATE	JANUARY 2023			
3	ISSUED FOR 99% REVIEW				01/13/2023		KB	SCALE AS SHOWN		
2	ISSUED FOR 75% REVIEW				10/14/2022		KB			
1	ISSUED FOR 50% REVIEW				07/21/2022		KB			
No.	ISSUED FOR				DATE		BY			



Do not modify drawing, re-use it, or use it for purposes other than those intended at the time of its preparation without prior written permission from Dillon Consulting Limited.

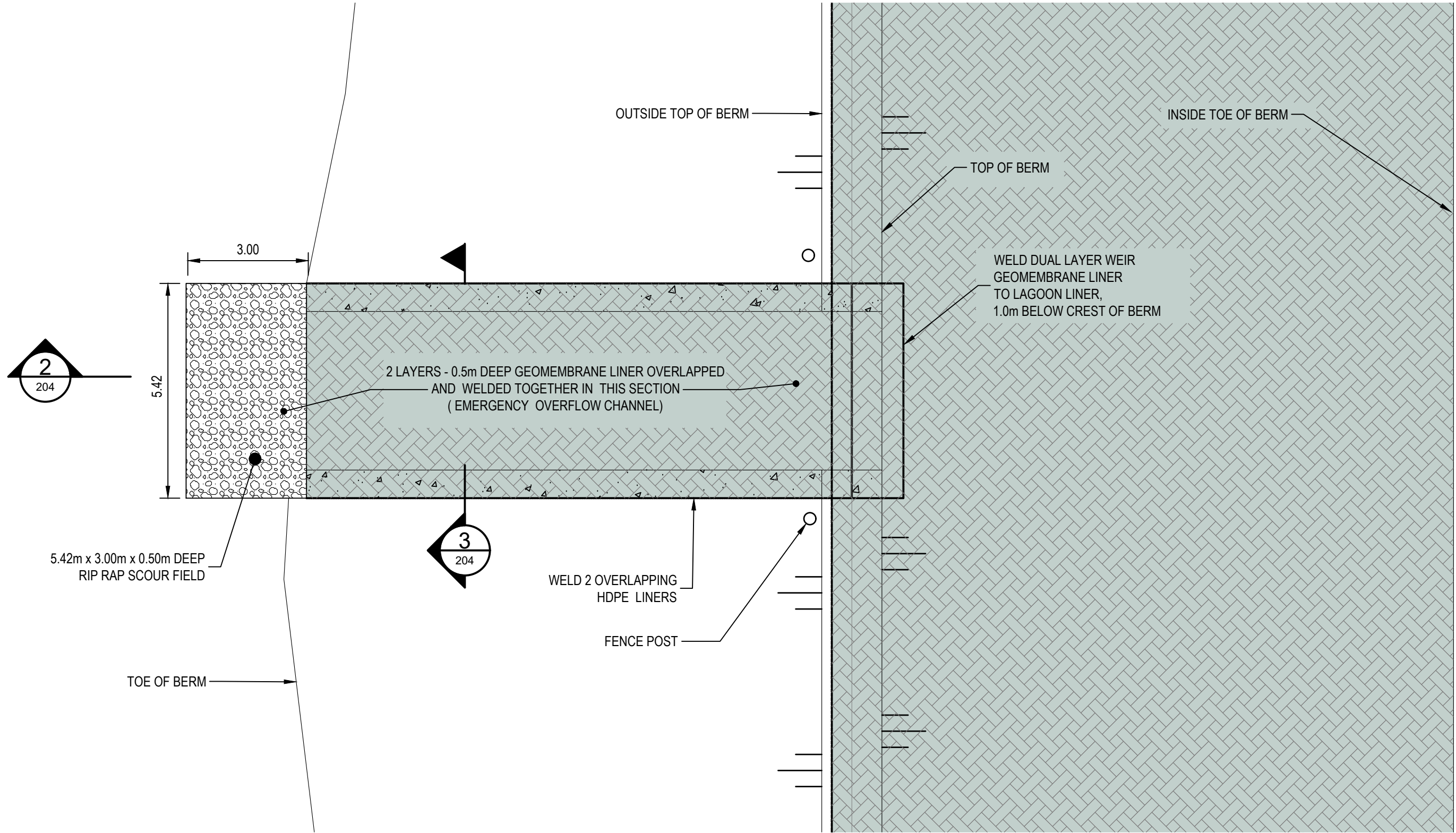
FOR REVIEW



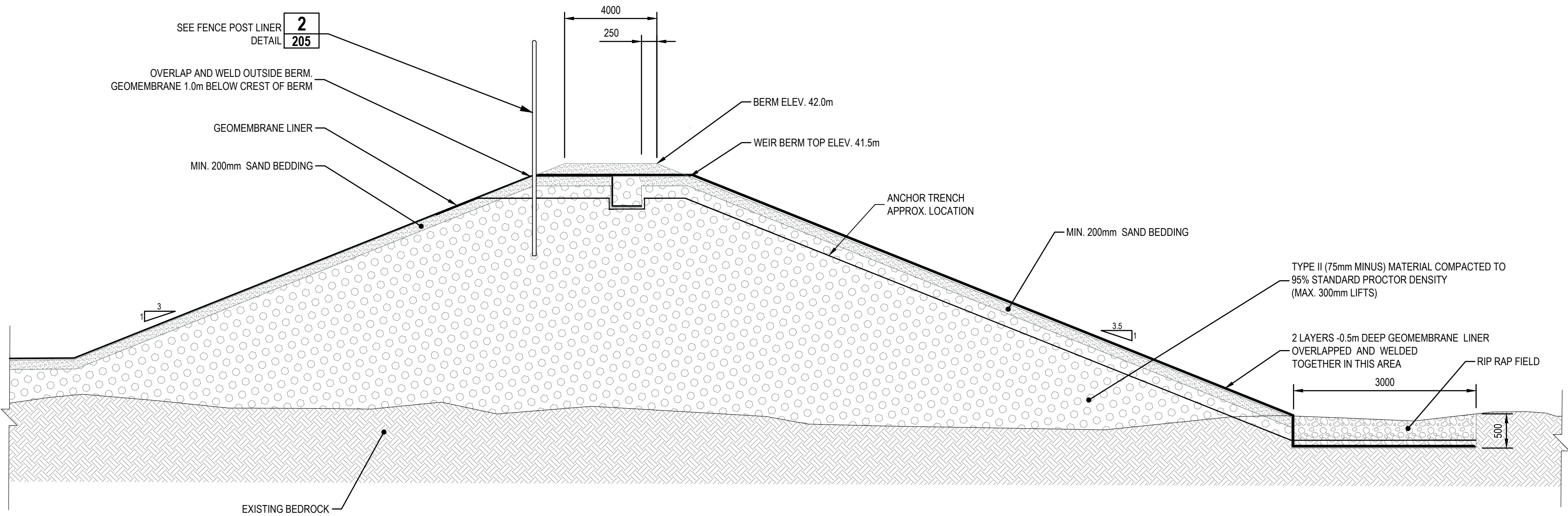
					DESIGN	REVIEWED BY	NAUJAAT WASTEWATER TREATMENT CELL GOVERNMENT OF NUNAVUT	PROJECT NO.	
					CP	KB		21-2233	
					DRAWN	CHECKED BY		ISSUED FOR 99% REVIEW DISCHARGE FLUME DETAILS	SHEET NO. 203
					SC/TPW	CP			
					DATE	JANUARY 2023			
					SCALE	AS SHOWN			
3	ISSUED FOR 99% REVIEW	01/13/2023	KB						
2	ISSUED FOR 75% REVIEW	10/14/2022	KB						
1	ISSUED FOR 50% REVIEW	08/26/2022	KB						
No.	ISSUED FOR	DATE	BY						

DILLON CONSULTING LIMITED 4920 47TH STREET, YELLOWKNIFE, NORTHWEST TERRITORIES, X1A 2P1, PHONE (867) 920-4555, FAX (867) 973-3328

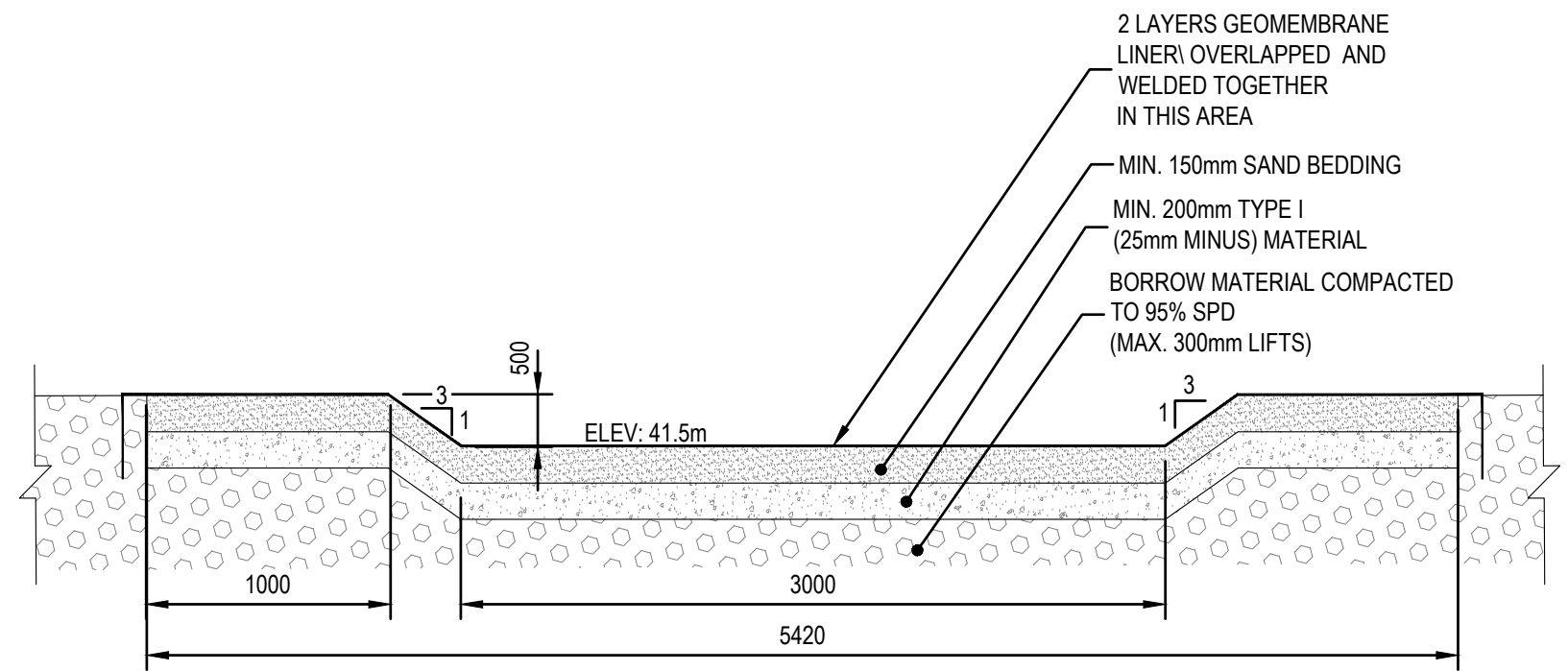
FILENAME: C:\P\WORKING DIRECTORIES\PROJECTS\2021\4650\DWG\41087\212233 DETAILS.DWG
PLOT DATE: 2023-01-18 @ 8:25:36 AM PLOT SCALE: 1:25.4 PLOT STYLE: DILLON-STANDARD.CTB



EMERGENCY OVERFLOW / DECAT WEIR PLAN 1
SCALE: 1:100 204



EMERGENCY OVERFLOW DECAT WEIR PROFILE 2
SCALE: 1:50 204



EMERGENCY OVERFLOW / DECAT WEIR SECTION 3
SCALE: 1:30 204

Conditions of Use

Verify elevations and/or dimensions on drawing prior to use.
Report any discrepancies to Dillon Consulting Limited.

Do not scale dimensions from drawing.

Do not modify drawing, re-use it, or use it for purposes other
than those intended at the time of its preparation without prior
written permission from Dillon Consulting Limited.

NOT FOR CONSTRUCTION

FOR REVIEW



No.	ISSUED FOR	DATE	BY
3	ISSUED FOR 99% REVIEW	12/16/2022	KB
2	ISSUED FOR 75% REVIEW	10/14/2022	KB
1	ISSUED FOR 50% REVIEW	08/26/2022	KB

DESIGN	CP	REVIEWED BY	KB
DRAWN	SC/TPW	CHECKED BY	CP
DATE	JANUARY 2023		
SCALE	AS SHOWN		

NAUJAAT WASTEWATER TREATMENT CELL
GOVERNMENT OF NUNAVUT

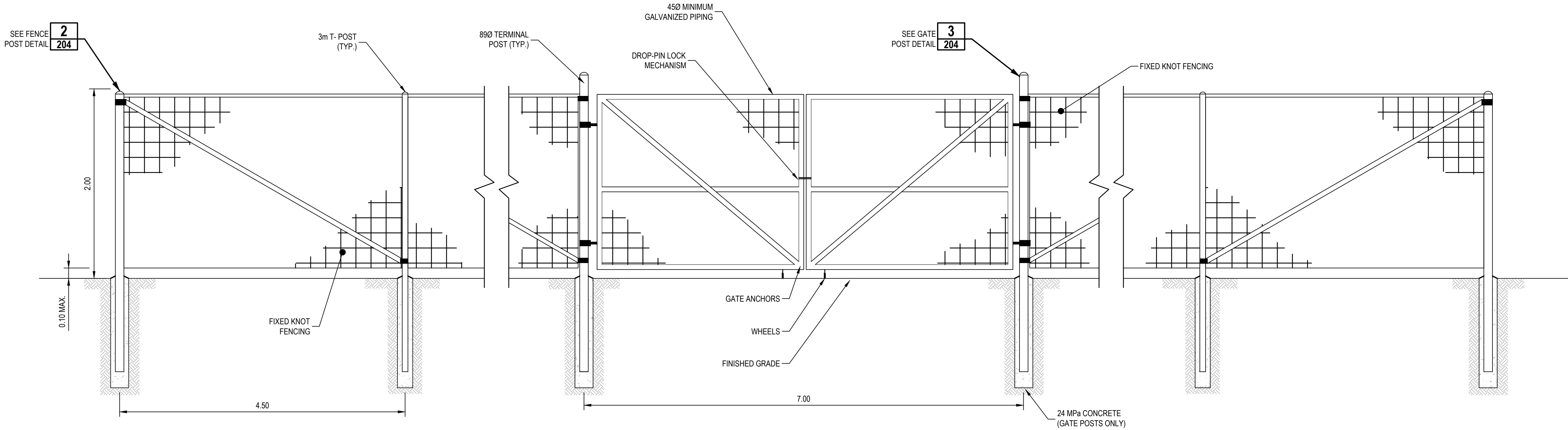
ISSUED FOR 99% REVIEW
EMERGENCY OVERFLOW WEIR AND FENCE DETAILS

PROJECT NO.
21-2233

SHEET NO.

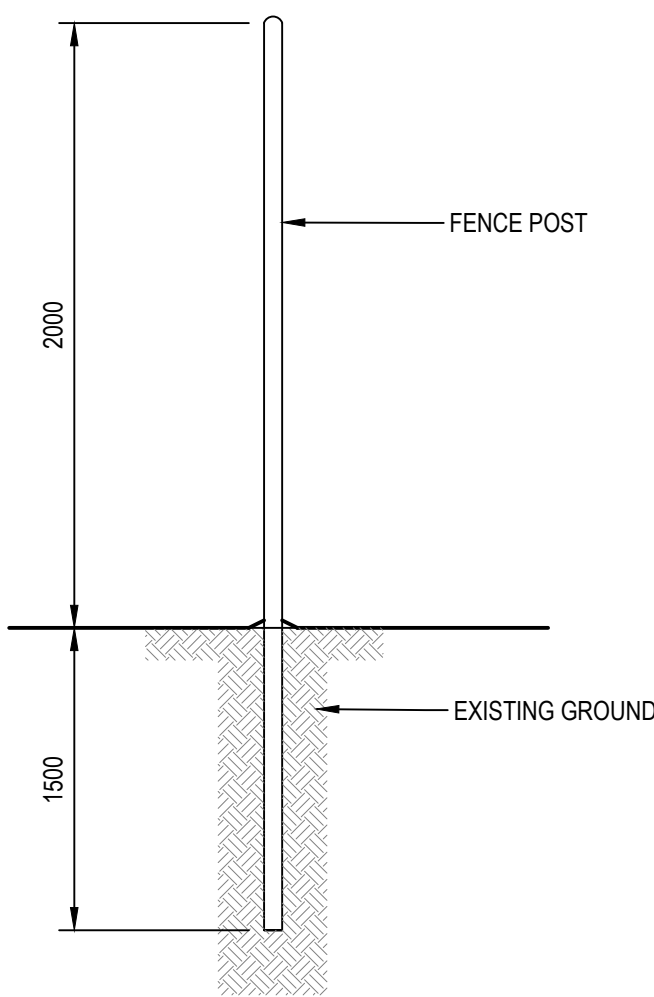
204

DILLON CONSULTING LIMITED 4920 47TH STREET, YELLOWKNIFE, NORTHWEST TERRITORIES, X1A 2P1, PHONE (867) 920-4555, FAX (867) 973-3328
FILENAME: C:\P\WORKING DIRECTORIES\PROJECTS 2021\4650\DWG41087\212233 DETAILS.DWG
PLOT DATE: 2023-01-18 @ 8:26:29 AM PLOT SCALE: 1:25.4 PLOT STYLE: DILLON-STANDARD.CTB

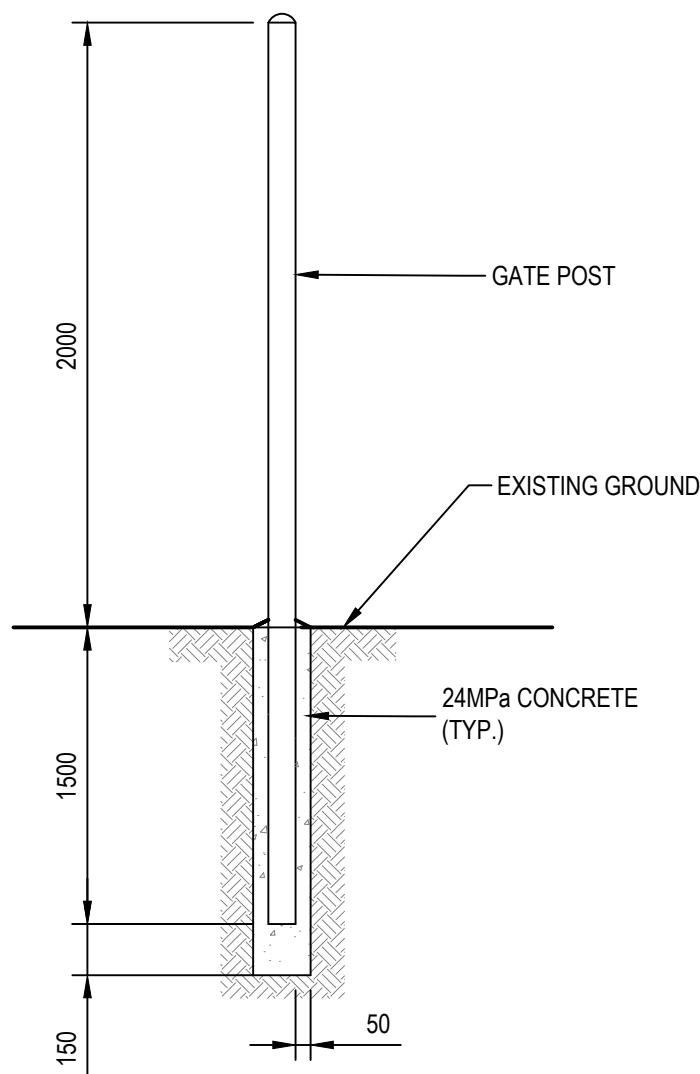


BARRIER FENCE DETAIL 1 205
SCALE: N.T.S.

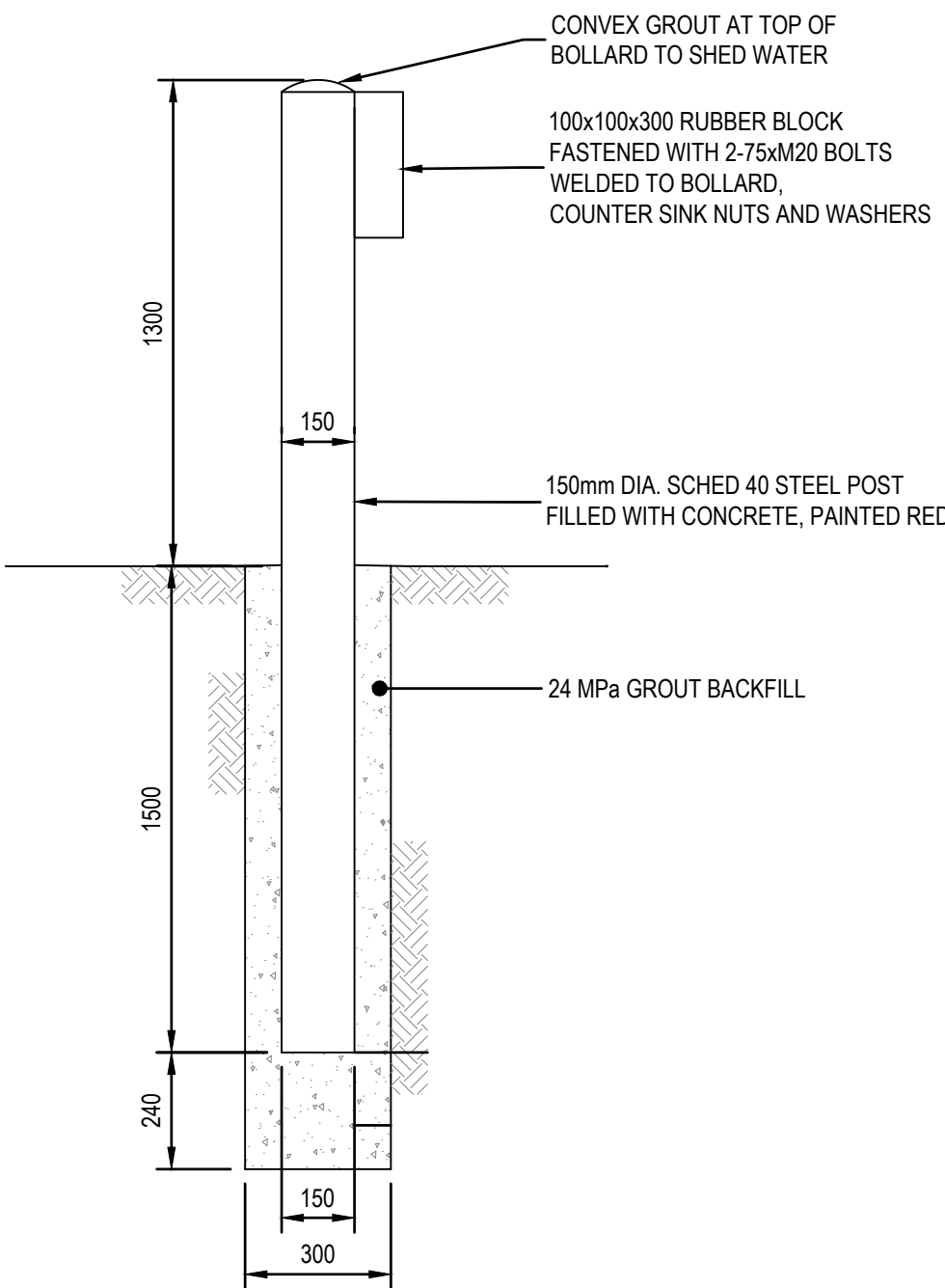
NOTE:
FIXED KNOT FENCING IS 17/75/6 WIRE FABRIC,
PHOENIX FENCE OR APPROVED ALTERNATIVE



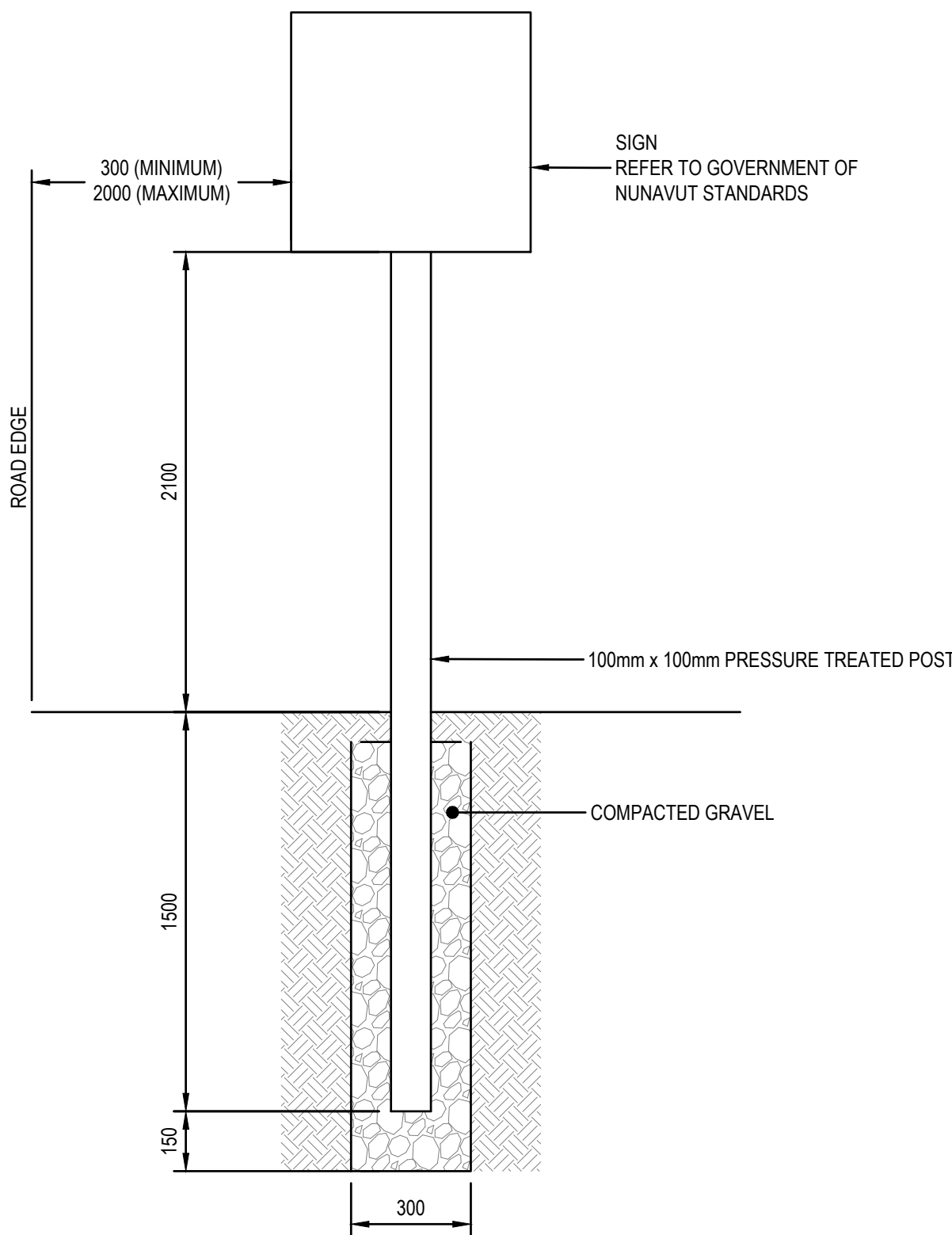
FENCE POST DETAIL 2 205
SCALE: N.T.S.



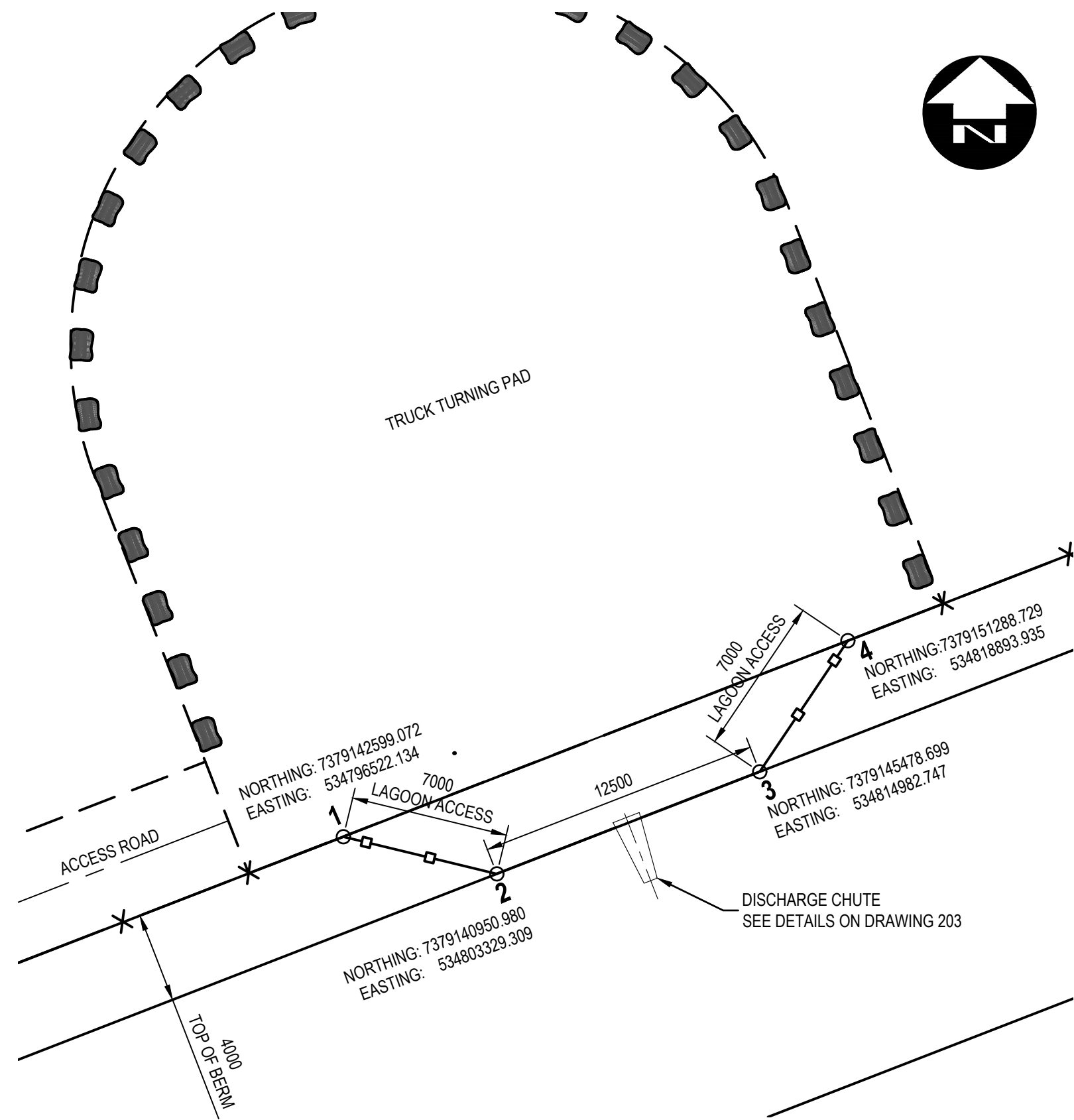
GATE POST DETAIL 3 205
SCALE: N.T.S.



BOLLARD DETAIL 4 205
SCALE: N.T.S.



SIGN POST DETAIL 5 205
SCALE: N.T.S.



GATE LOCATION 6 205
SCALE: N.T.S.

Conditions of Use

Verify elevations and/or dimensions on drawing prior to use.
Report any discrepancies to Dillon Consulting Limited.

Do not scale dimensions from drawing.

Do not modify drawing, re-use it, or use it for purposes other
than those intended at the time of its preparation without prior
written permission from Dillon Consulting Limited.

NOT FOR CONSTRUCTION

FOR REVIEW



No.	ISSUED FOR	DATE	BY
3	ISSUED FOR 99% REVIEW	01/13/2023	KB
2	ISSUED FOR 75% REVIEW	10/14/2022	KB
1	ISSUED FOR 50% REVIEW	07/21/2022	KB

DESIGN	CP	REVIEWED BY	KB
DRAWN	SC/TPW	CHECKED BY	CP
DATE	JANUARY 2023		
SCALE	AS SHOWN		

**NAUJAAT WASTEWATER TREATMENT CELL
GOVERNMENT OF NUNAVUT**

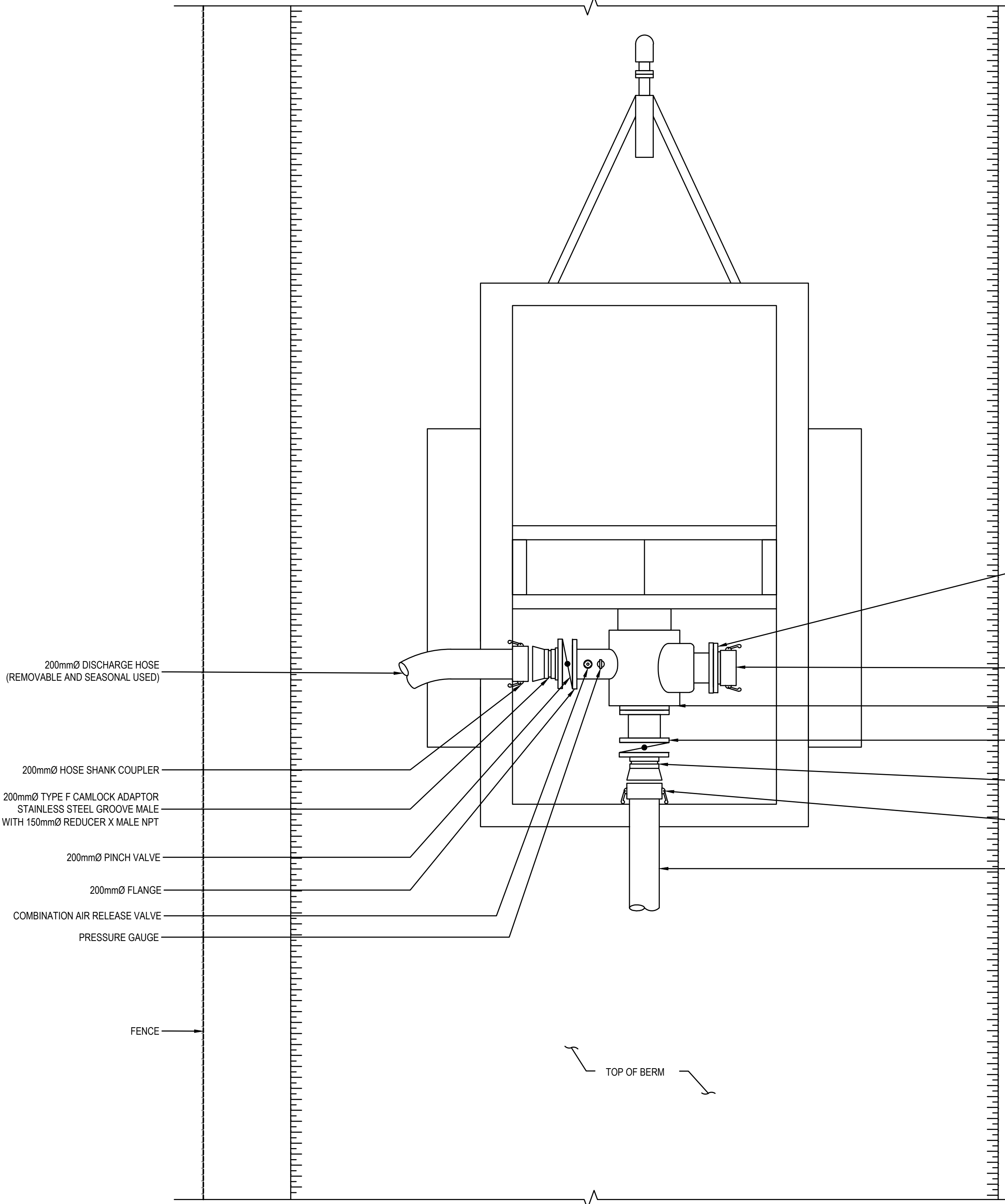
**ISSUED FOR 99% REVIEW
FENCING AND BOLLARD DETAILS**

PROJECT NO.
21-2233

SHEET NO.

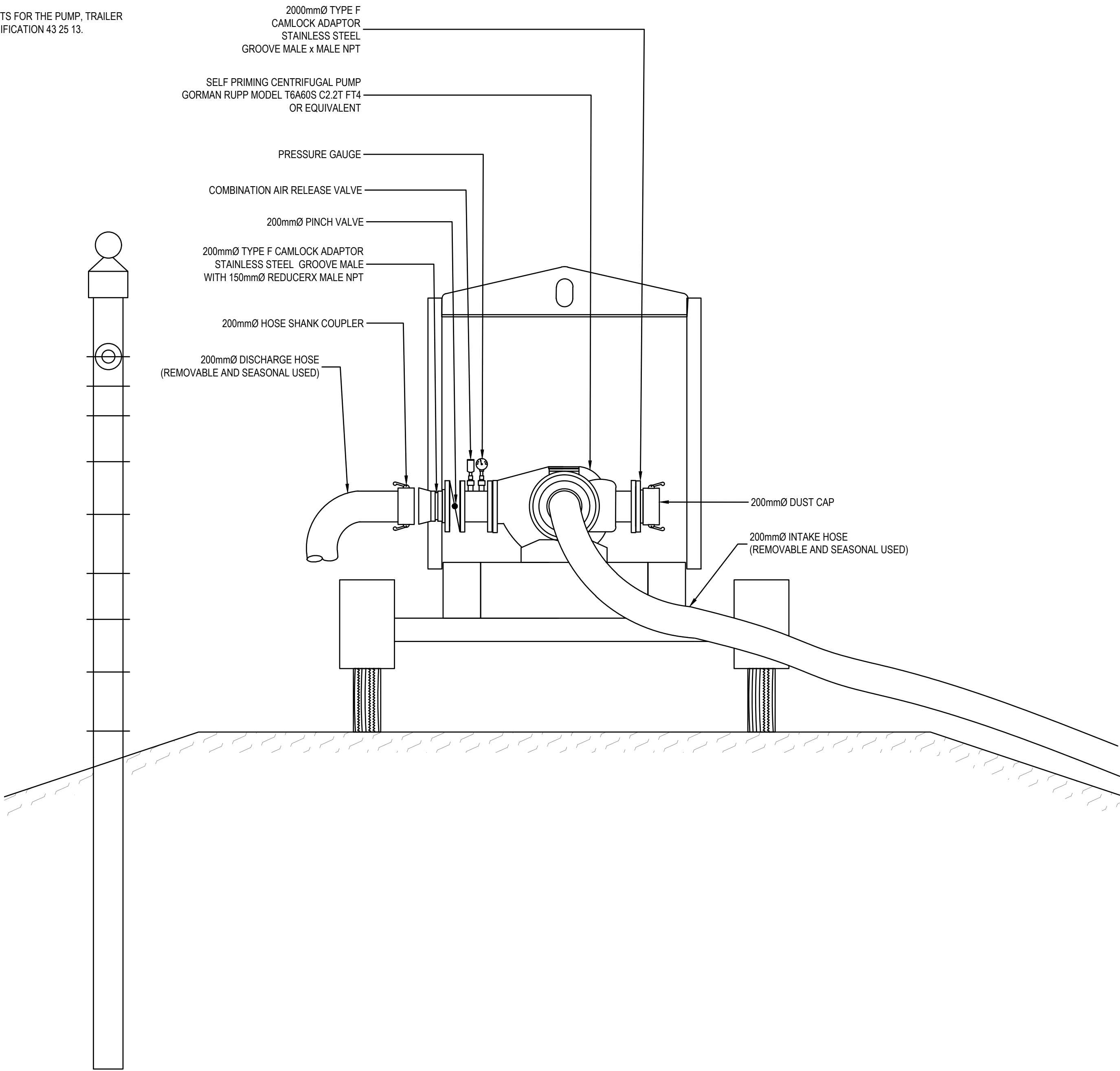
205

DILLON CONSULTING LIMITED 4920 47TH STREET, YELLOWKNIFE, NORTHWEST TERRITORIES, X1A 2P1, PHONE (867) 920-4555, FAX (867) 973-3328



LAGOON DEWATERING PUMP PLAN 1
SCALE: 1:15 205

- NOTES:
1. PUMPING INLET AND OUTLET ARRANGEMENT MAY BE DIFFERENT AS SHOWN DEPENDING ON PUMP MODEL.
 2. PUMP, HOSES AND TRAILER ARE TO BE SUPPLIED BY THE CONTRACTOR.
 3. CONTRACTOR TO SUBMIT SHOP DRAWINGS AND PRODUCT LITERATURE FOR ALL SUPPLIED PRODUCTS.
 4. CONTRACTOR SHALL SUPPLY SPARE PARTS FOR THE PUMP, TRAILER AND ANCILLARY COMPONENTS PER SPECIFICATION 43 25 13.



LAGOON DEWATERING PUMP SECTION 2
SCALE: 1:15 205

Conditions of Use

Verify elevations and/or dimensions on drawing prior to use.
Report any discrepancies to Dillon Consulting Limited.

Do not scale dimensions from drawing.

Do not modify drawing, re-use it, or use it for purposes other than those intended at the time of its preparation without prior written permission from Dillon Consulting Limited.

NOT FOR CONSTRUCTION

FOR REVIEW



3	ISSUED FOR 99% REVIEW	01/13/2023	KB		
2	ISSUED FOR 75% REVIEW	10/14/2022	KB		
1	ISSUED FOR 50% REVIEW	08/26/2022	KB		
No.	ISSUED FOR	DATE	BY		

DESIGN	CP	REVIEWED BY	KB
DRAWN	SC/TPW	CHECKED BY	CP
DATE	JANUARY 2023		
SCALE	AS SHOWN		

NAUJAAT WASTEWATER TREATMENT CELL
GOVERNMENT OF NUNAVUT

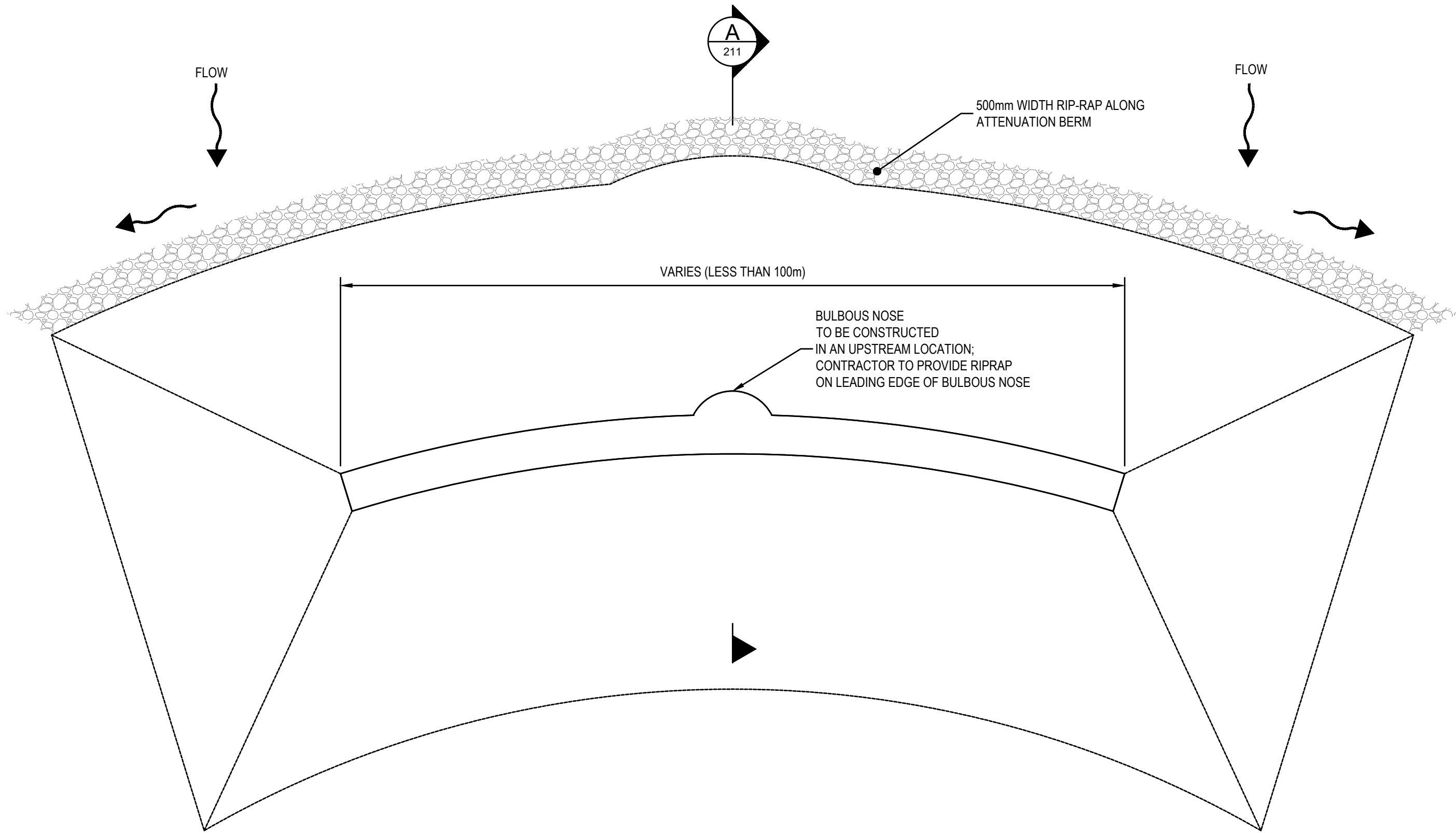
ISSUED FOR 99% REVIEW
PUMP AND DEWATERING DETAILS

PROJECT NO.
21-2233

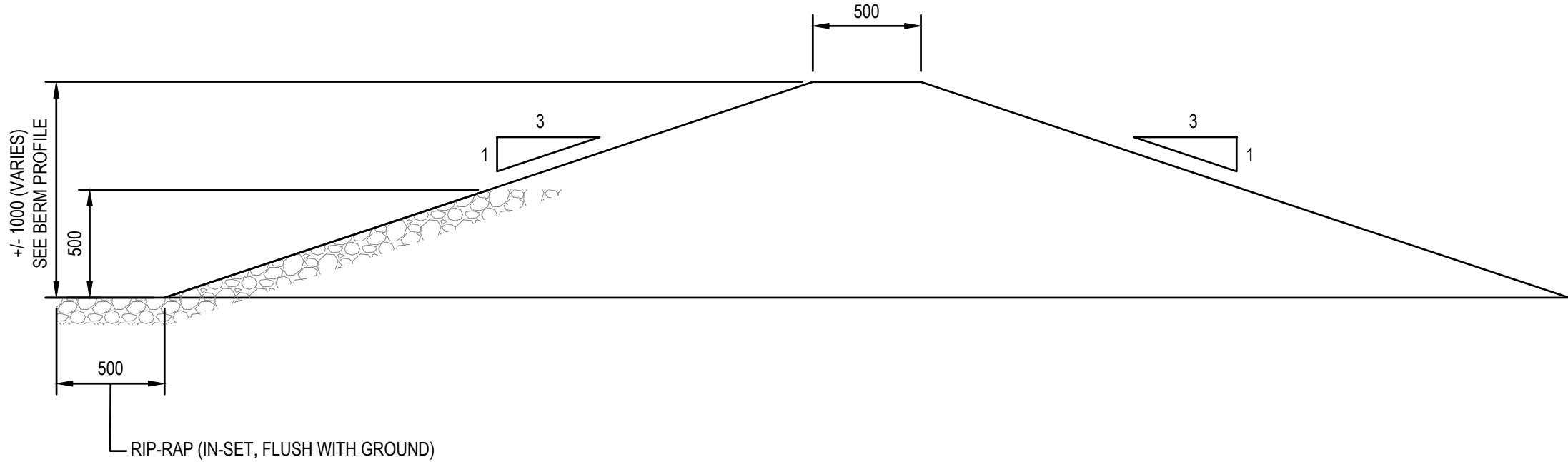
SHEET NO.

206

DILLON CONSULTING LIMITED 4920 47TH STREET, YELLOWKNIFE, NORTHWEST TERRITORIES, X1A 2P1, PHONE (867) 920-4555, FAX (867) 973-3328

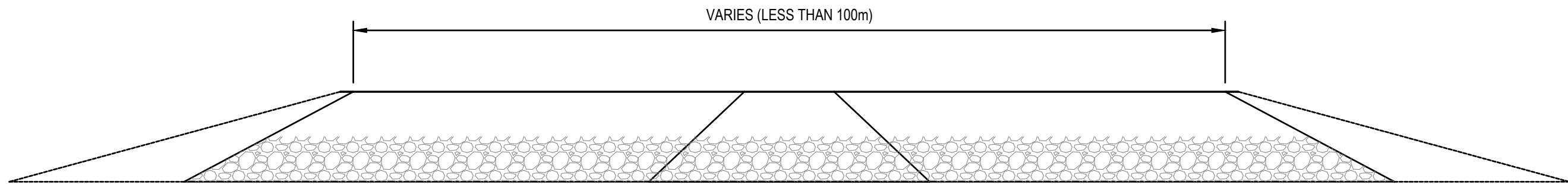


ATTENUATION BERM PLAN 1 206

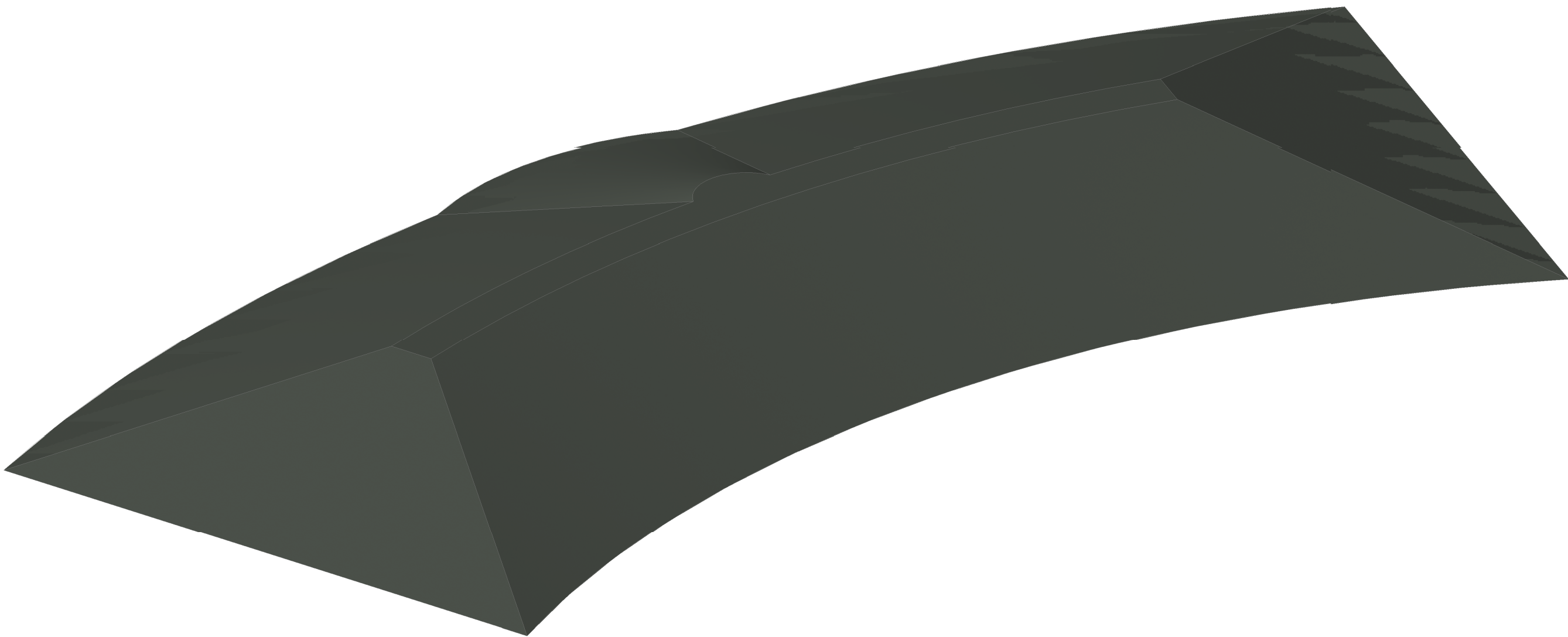


ATTENUATION BERM SECTION A 3 206

NOTE:
• MATERIALS TO BE PIT RUN OR 200mm MINUS GRAVEL



ATTENUATION BERM FRONT VIEW 2 206



ATTENUATION BERM 3D VIEW

Conditions of Use

Verify elevations and/or dimensions on drawing prior to use. Report any discrepancies to Dillon Consulting Limited.

Do not scale dimensions from drawing.

Do not modify drawing, re-use it, or use it for purposes other than those intended at the time of its preparation without prior written permission from Dillon Consulting Limited.

NOT FOR CONSTRUCTION

FOR REVIEW



DILLON CONSULTING

No.	ISSUED FOR	DATE	BY
3	ISSUED FOR 99% REVIEW	01/13/2023	KB
2	ISSUED FOR 75% REVIEW	10/14/2022	KB
1	ISSUED FOR 50% REVIEW	08/26/2022	KB

DESIGN	CP	REVIEWED BY	KB
DRAWN	SC/TPW	CHECKED BY	CP
DATE	JANUARY 2023		
SCALE	AS SHOWN		

NAUJAAT WASTEWATER TREATMENT CELL
GOVERNMENT OF NUNAVUT

ISSUED FOR 99% REVIEW
WETLAND ATTENUATION BERM DETAILS

PROJECT NO.
21-2233

SHEET NO.

207