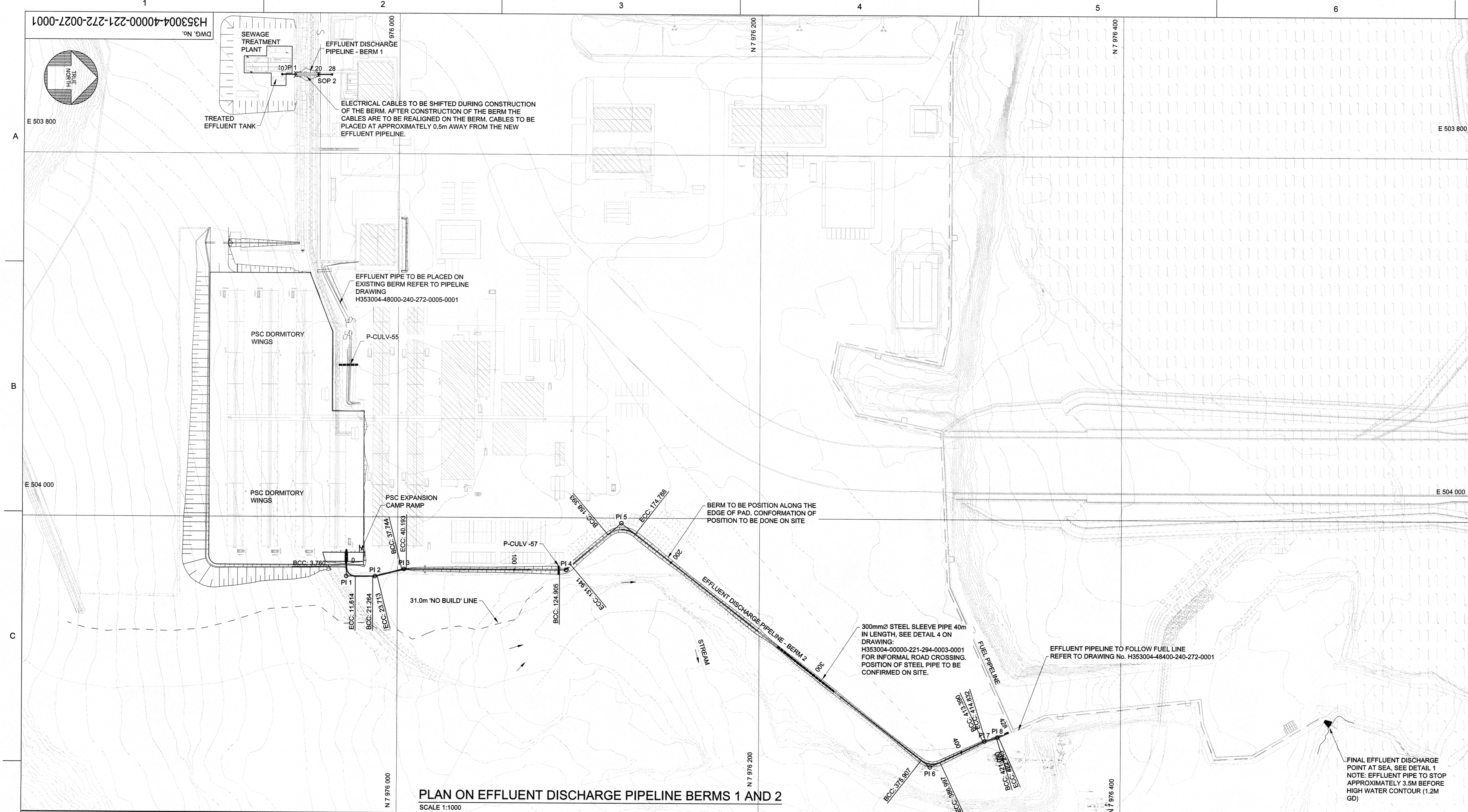


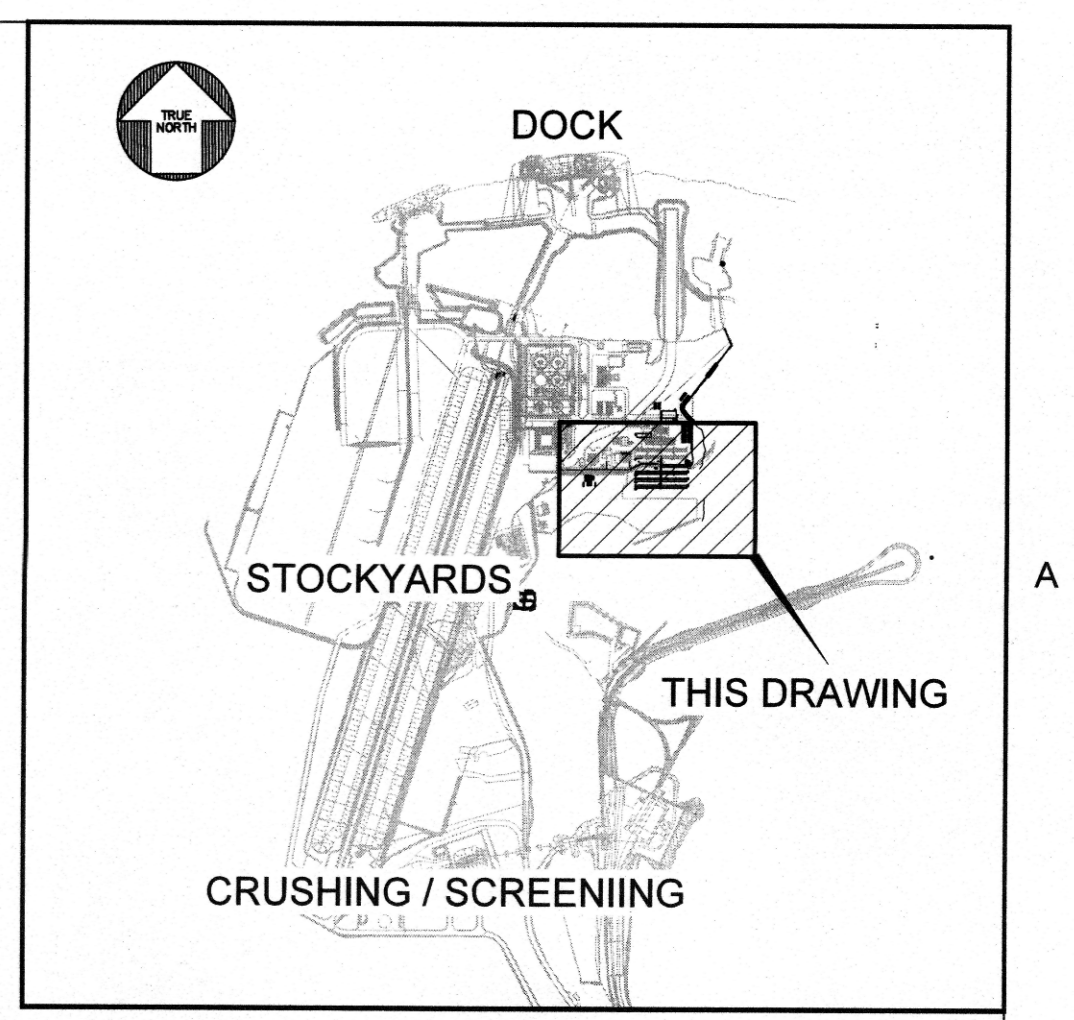
Attachment 18.3

Milne Port Utilities Plan

(1 Page)



SETTING OUT POINTS			
POINT	E	N	EL
SOP 1	503 756.513	7 975 943.064	14.058
SOP 2	503 756.522	7 975 954.216	12.353
SOP 3	504 019.586	7 975 979.061	12.436
SOP 4	504 019.584	7 975 972.359	12.806
SOP 5	504 019.584	7 975 971.159	12.806
SOP 6	504 024.579	7 975 971.159	12.806
SOP 7	504 024.579	7 975 972.359	12.806
SOP 8	504 018.103	7 975 971.748	11.857
SOP 9	504 025.937	7 975 971.759	11.857
SOP 10	504 109.523	7 976 513.330	2.129
SOP 11	504 110.322	7 976 516.932	1.306
SOP 12	504 113.181	7 976 515.218	1.216
SOP 13	504 110.381	7 976 512.816	2.022

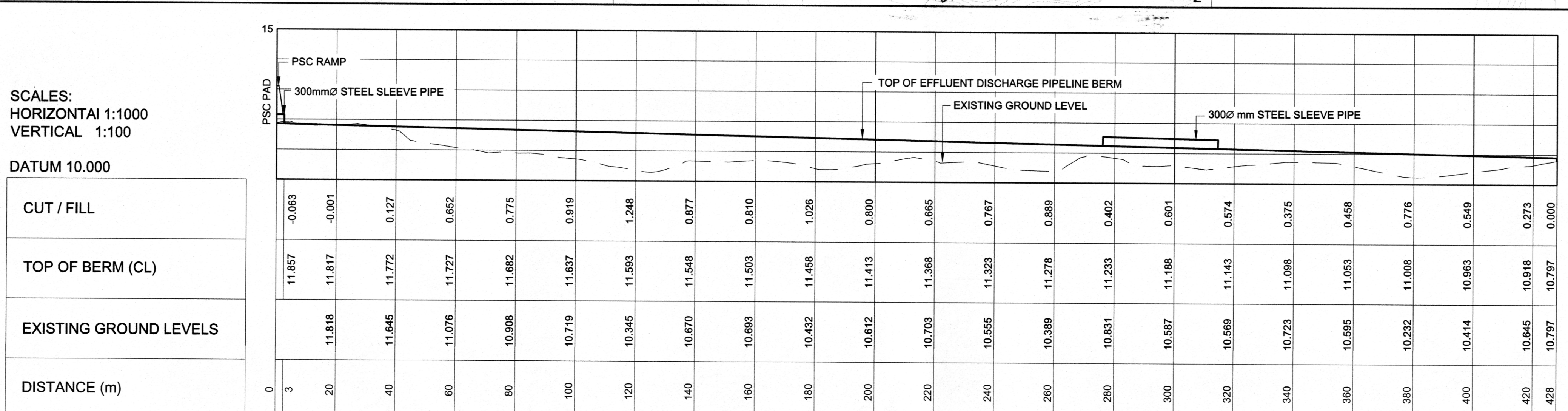
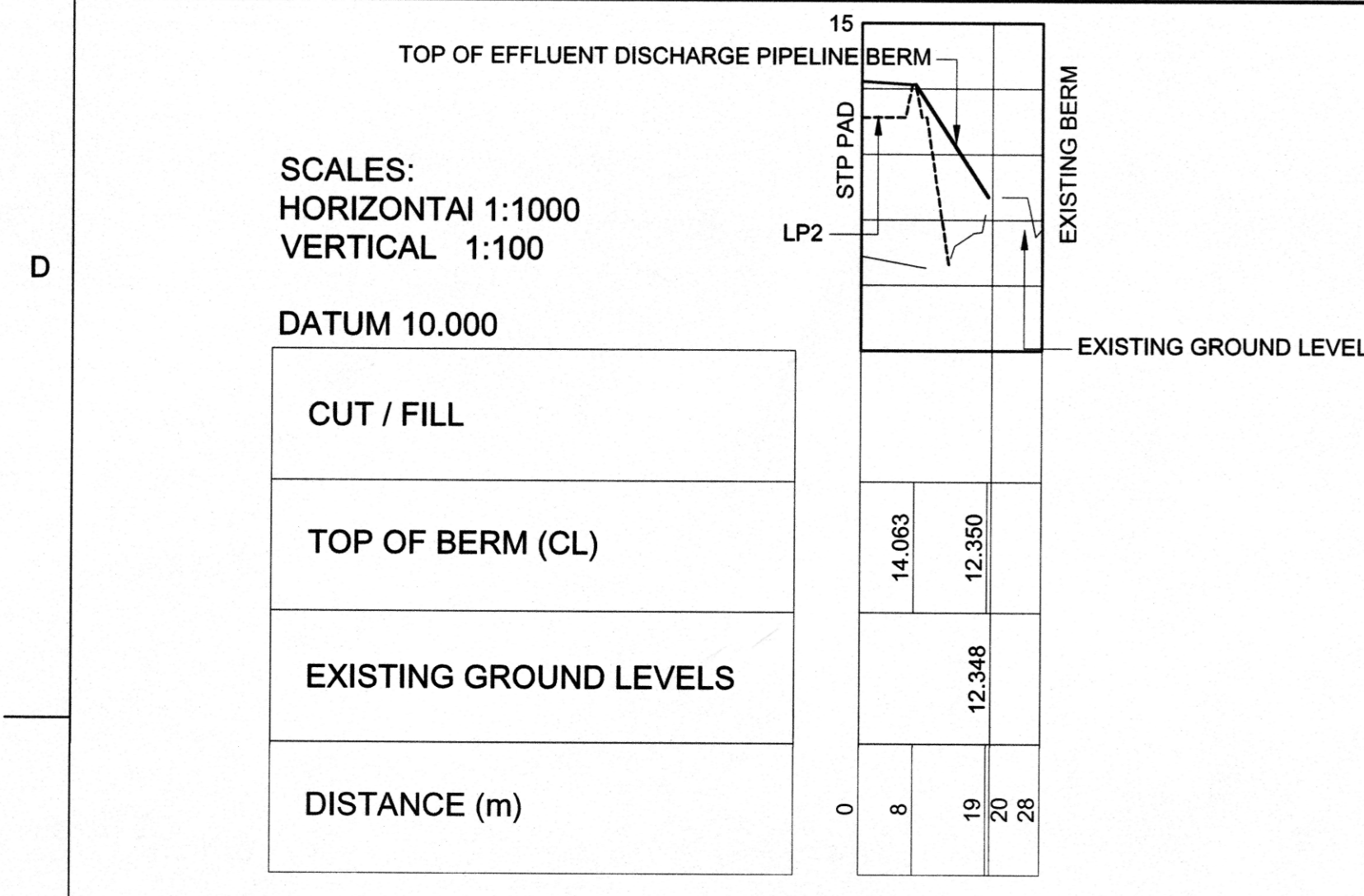


- NOTES:**
- LIDAR SURVEY PROVIDED BY PHOTOSAT (2016). LEVELS BASED ON GEODETIC DATUM.
 - CO-ORDINATE GRID IS SHOWN IN UTM (NAD83) ZONE 17 AND IS IN METERS. CONTOURS ARE IN METERS. CONTOUR INTERVAL IS 0.5m.
 - ALL DIMENSIONS SHOWN ARE IN METERS.
 - BULK LAYERWORKS TO BE AS PER DETAILS SHOWN ON DRAWING No. H353004-00000-221-294-0002-0001.
 - FOR THE DRAINAGE PLAN REFER TO DRAWING No. H353004-00000-228-272-0018-0001.
 - THE PLACEMENT AND COMPACTATION OF TYPE 5, 6 AND 12 SHALL FOLLOW THE REQUIREMENTS IN THE SPECIFICATION OF 'PLACEMENT OF FILL, H353004-00000-221-078-0001'.
 - PROVIDE TYPE 12 MATERIAL ALONGSIDE THE PIPELINE BERM IN AREAS WHERE THE BERM IS LESS THAN 600MM ABOVE THE EXISTING PAD, TO ENSURE PIPE PROTECTION.

SETTING OUT DATA-PIPELINE BERM 2				
NAME	CH	E	N	DETAILS
START	0.000	504 023.895	7 975 971.759	L 3.760m
BCC1	3.760	504 027.655	7 975 971.759	R 5.000m
PI1	11.614	504 032.655	7 975 971.759	DA 8°0'00"00"
ECC1		504 032.655	7 975 978.759	TL 5.000m
				AL 7.854m
BCC2	21.264	504 032.655	7 975 986.409	R 10.000m
PI2	23.713	504 032.655	7 975 987.840	DA 14°02'10"
ECC2		504 032.356	7 975 988.834	TL 1.231m
				AL 2.450m
BCC3	37.744	504 028.364	7 976 002.445	R 10.000m
PI3	40.193	504 028.655	7 976 003.840	DA 14°02'10"
ECC3		504 028.655	7 976 004.871	TL 1.231m
				AL 2.450m
BCC4	124.905	504 028.655	7 976 089.582	R 10.000m
PI4	131.941	504 028.655	7 976 093.253	DA 78°1'50"40"
ECC4		504 028.280	7 976 096.052	TL 3.671m
				AL 7.036m
BCC5	158.393	504 009.166	7 976 116.222	R 12.000m
PI5	174.788	504 002.848	7 976 123.669	DA 78°1'50"40"
ECC5		504 008.555	7 976 131.388	TL 8.766m
				AL 16.395m
BCC6	375.907	504 132.577	7 976 289.929	R 10.000m
PI6	386.997	504 136.387	7 976 294.812	DA 63°32'40"
ECC6		504 133.713	7 976 300.398	TL 6.183m
				AL 11.090m
BCC7	413.390	504 122.317	7 976 324.205	R 10.000m
PI7	414.832	504 122.006	7 976 324.856	DA 8°15'30"
ECC7		504 121.791	7 976 325.545	TL 0.722m
				AL 1.442m
BCC8	421.030	504 119.845	7 976 331.463	R 10.000m
PI8	422.243	504 119.765	7 976 332.042	DA 6°56'50"
ECC8		504 119.515	7 976 332.596	TL 0.607m
				AL 1.215m
END	427.950	504 117.170	7 976 337.798	L 5.707m

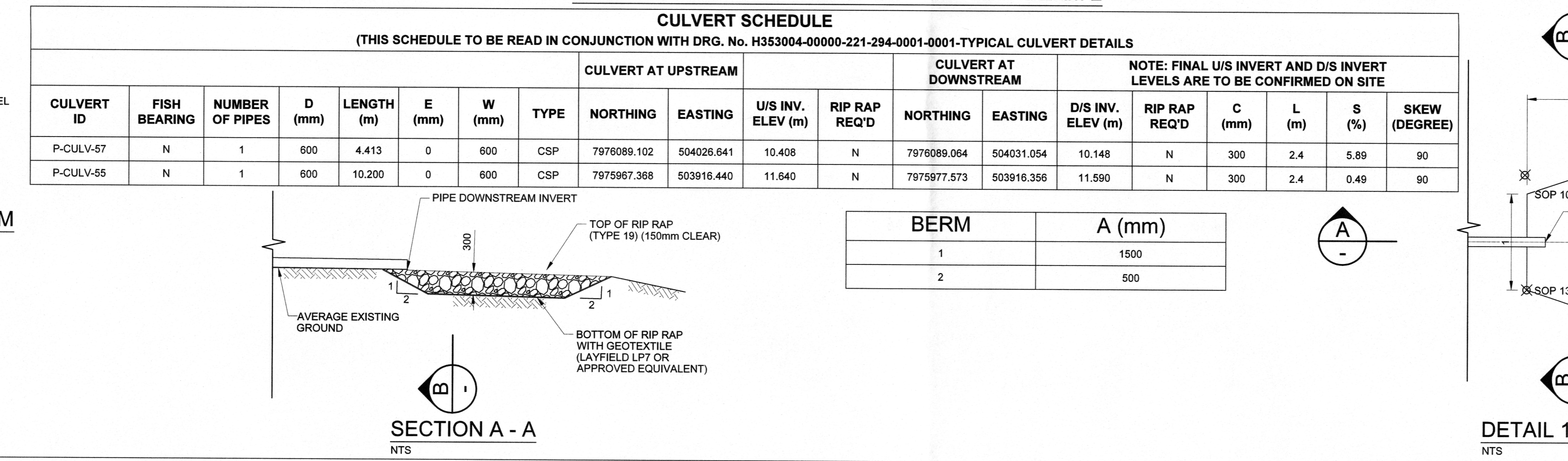
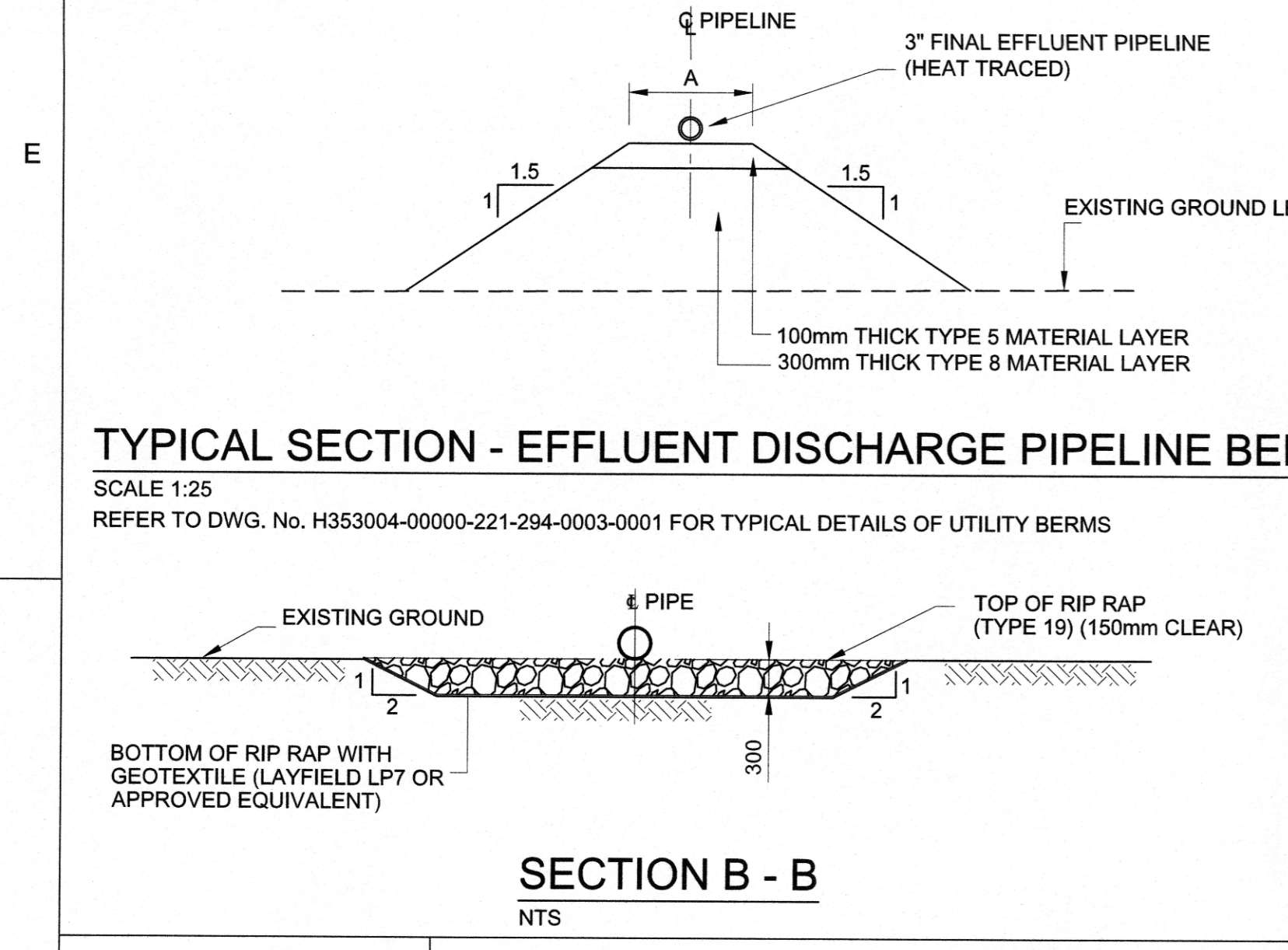
LEGEND

IL - INVERT LEVEL
TOB - TOP OF BERM
EL - ELEVATION
GD - GEODETIC DATUM

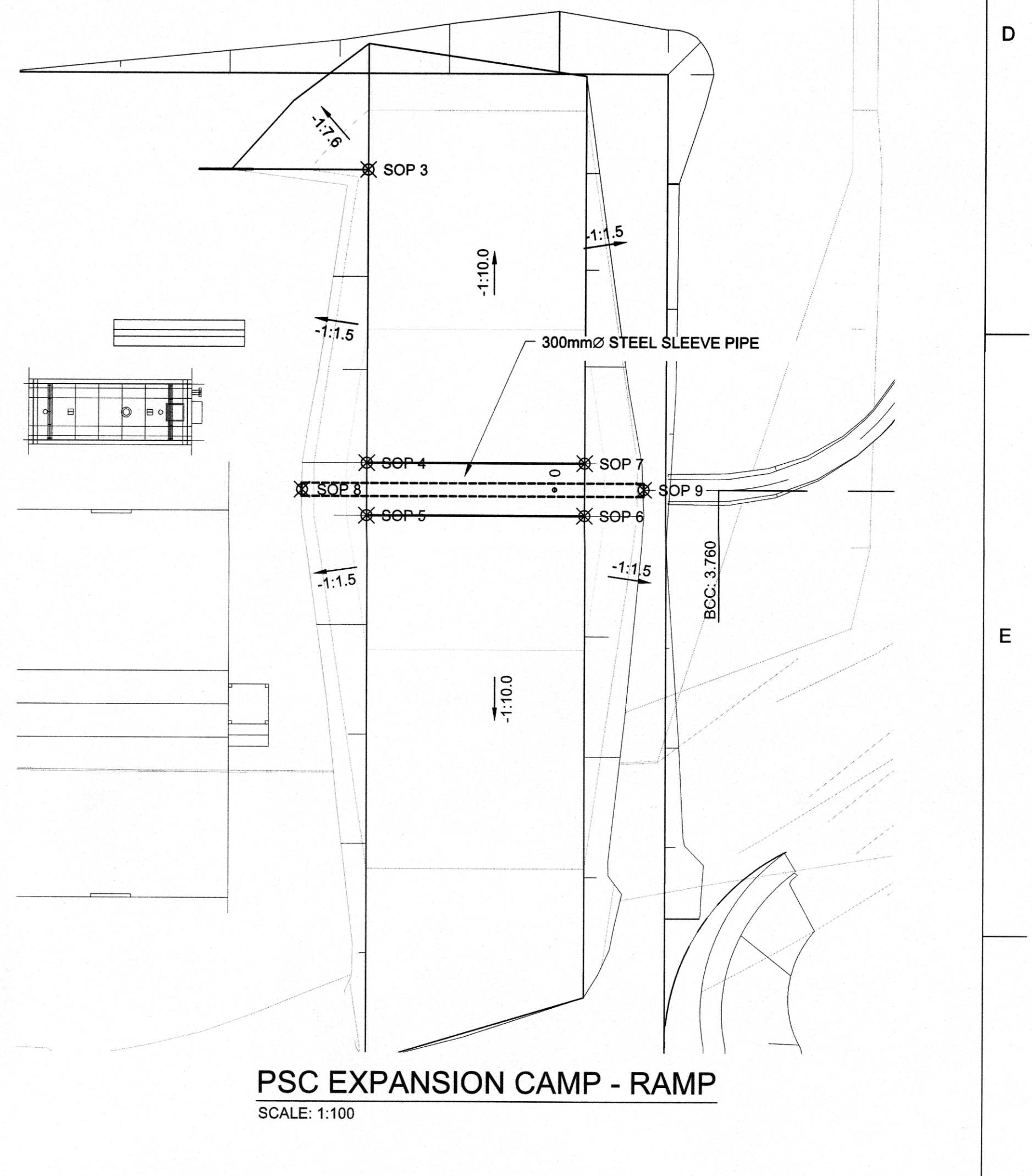
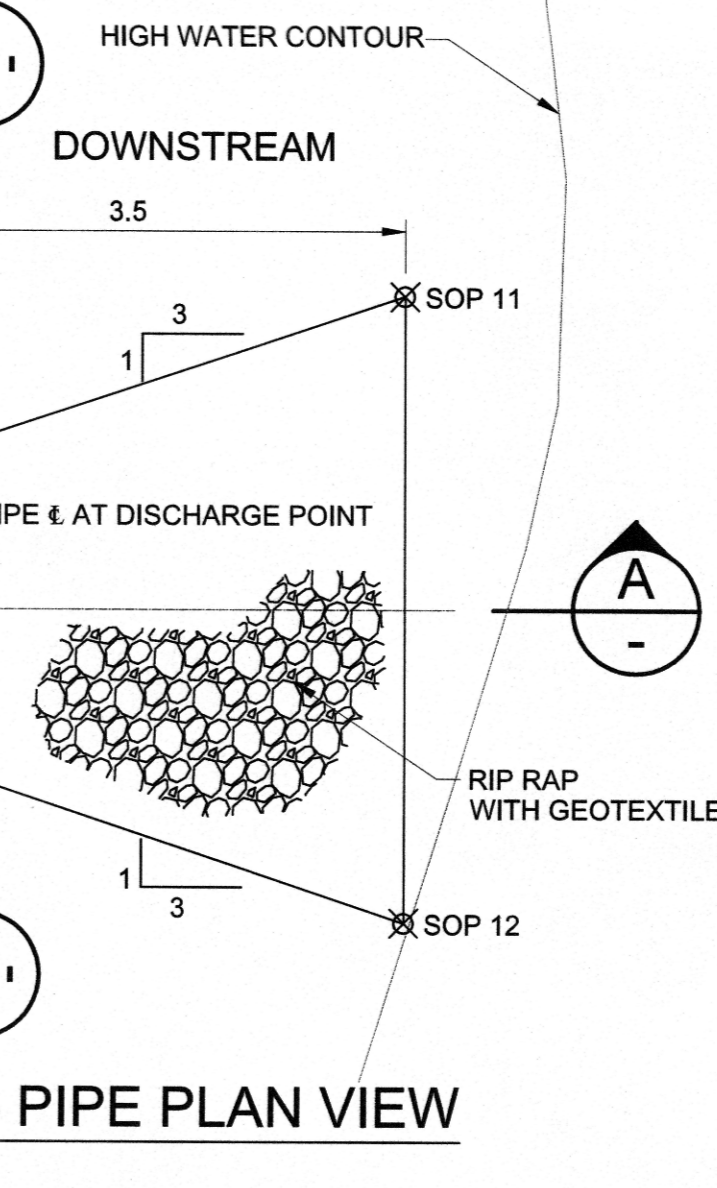


EFFLUENT DISCHARGE PIPELINE PROFILE - BERM 1

EFFLUENT DISCHARGE PIPELINE PROFILE - BERM 2

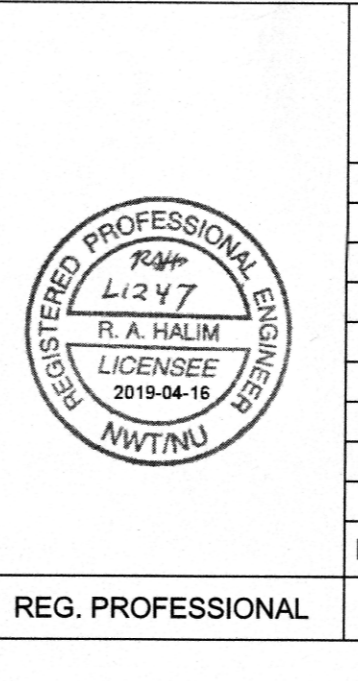


PERMIT TO PRACTICE
HATCH LTD.
Signature: _____
Date: 2019-04-15
PERMIT NUMBER: P 512
The Association of Professional Engineers, Geologists and Geophysicists of NWYTNU



DRAWING No.	DRAWING TITLE
H353004-00000-221-294-0001-0001	STANDARD DRAWING - TYPICAL CULVERT DETAILS
H353004-48000-240-272-0001	OVERALL LAYOUT
H353004-48000-240-272-0005-0001	PORT SITE - PORT TREATED EFFLUENT PIPELINE
H353004-40000-228-272-0018-0001	PORT SITE COMPLEX PAD EXPANSION - DRAINAGE PLAN
H353004-00000-221-294-0003-0001	STANDARD DRAWING - EARTHWORKS AND DRAINAGE DETAILS
H353004-40000-221-272-0026-0001	PORT SITE - EXISTING AND NEW FACILITIES - LAYOUT PLAN
H353004-40000-221-272-0013-0001	PORT SITE COMPLEX PAD EXPANSION - LAYOUT PLAN

REFERENCE DRAWINGS
H353004-00000-221-294-0001-0001
H353004-48000-240-272-0001
H353004-48000-240-272-0005-0001
H353004-40000-228-272-0018-0001
H353004-00000-221-294-0003-0001
H353004-40000-221-272-0026-0001
H353004-40000-221-272-0013-0001



FOR CONSTRUCTION			
No.	0	APPROVED FOR CONSTRUCTION	
No.		DESCRIPTION	
No.		REVISIONS	

HATCH			
DRAFTSPERSON	I BARNARD	NR	
DESIGNER	K RUGHOOONANDAN	NR	
CHECKER	F HUGO		2019-04-15
DESIGN COORD.	R GOOSEN		2019-04-13
RESP. ENG.	R HALIM		2019-04-15
LEAD DISC. ENG.	A GROBBELAAR		2019-04-15
AREA LEAD	V LAVRIC		2019-04-13
ENG. MANAGER	R GOOSEN		2019-04-13
AREA MANAGER	T ATIBA		2019-04-13
ROLE	NAME	SIGNATURE	DATE

Baffinland			
BAFFINLAND IRON MINES LP MARY RIVER EXPANSION PROJECT			
PORT SITE PSC EFFLUENT DISCHARGE PIPELINE BERM - PLAN AND PROFILE			
SCALE	1:1000 OR AS NOTED	REV	0
DWG. No.	H353004-40000-221-272-0027-0001		

SHEET SIZE: E