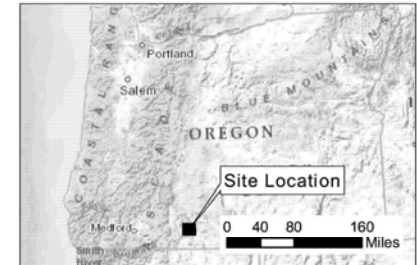
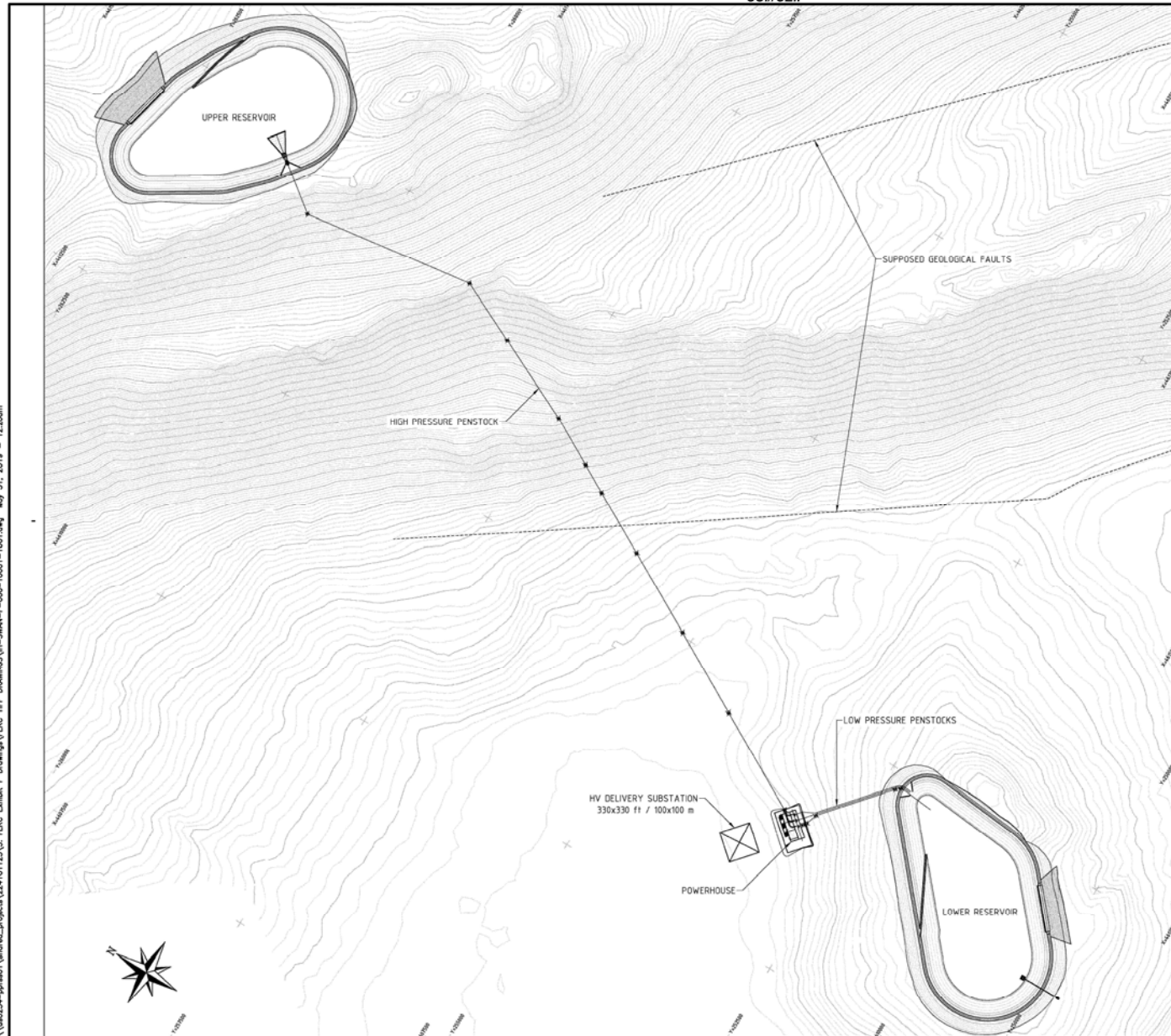


Exhibit F

Project Drawings

CUI//CEII



Ech : A1 1/20000 - A3 1/40000

0 200 500 1000 feet

0 100 200 400 meters

The drawing unit is the foot.

SWAN LAKE NORTH HYDRO LLC SWAN LAKE NORTH PUMPED STORAGE HYDROELECTRIC PROJECT FERC LICENSE NO. 13318		
GENERAL LAYOUT OF PSP SCHEME - PLAN VIEW		
DATE: APRIL 30, 2019	SCALE: AS NOTED	EXHIBIT F DWG: IH-SWAN-F-000-10001

CUI/CEII



KEYPLAN



- DRAINAGE NETWORK
- Perforated PVC pipes - 0.5% slope minimum
 - \varnothing peripheral drain pipe = 10in / 0.25m
 - \varnothing collector pipes = 25 in / 0.63m

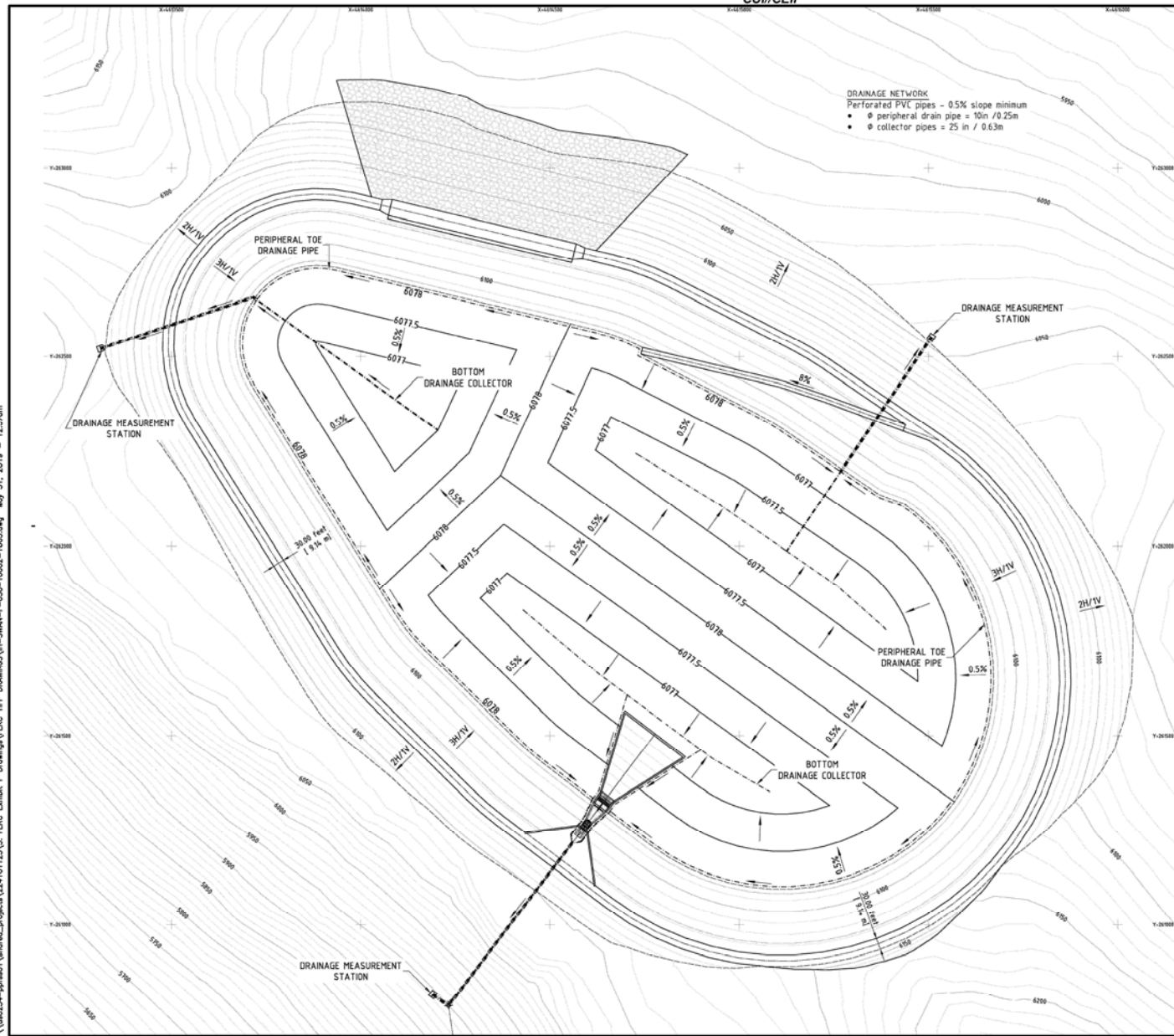
Ech : A1 1/5000 - A3 1/10000

0 50 100 200 feet

0 10 50 100 meters

The drawing unit is the foot.

\\u0224-spfm01\shared_projects\224101125\A_FERC Exhibit F Drawings\FERC TFF DRAWINGS\IH-SWAN-F-030-10002-1003.dwg May 31, 2019 = 12:27am

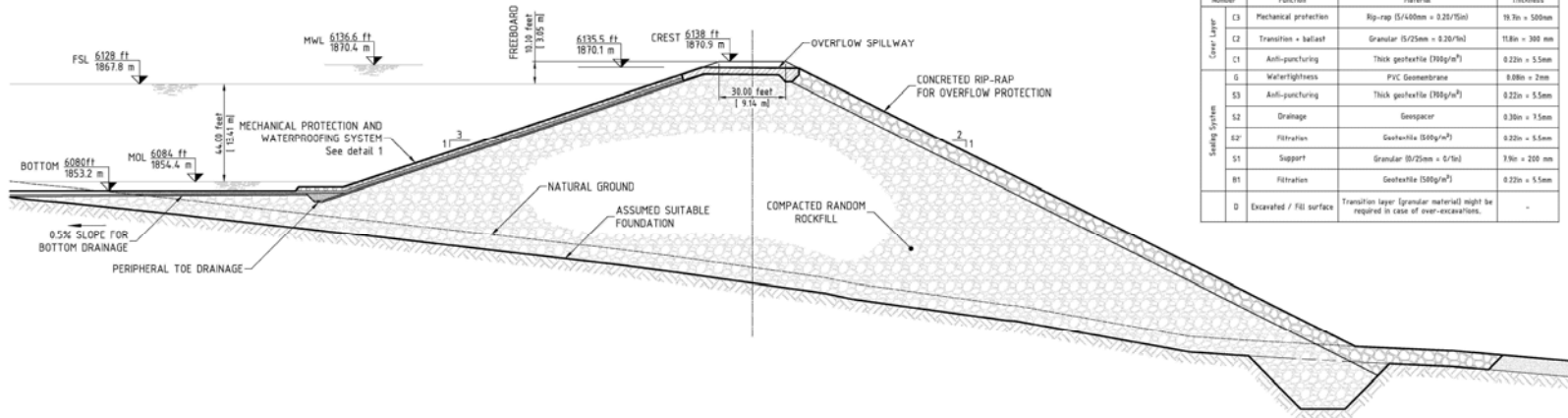


<p>SWAN LAKE NORTH HYDRO LLC SWAN LAKE NORTH PUMPED STORAGE HYDROELECTRIC PROJECT FERC LICENSE NO. 13318 FERC DWG NO. P-13318-1003</p>		
<p>UPPER RESERVOIR - DRAINAGE SYSTEM - PLAN VIEW</p>		
DATE: APRIL 30, 2019	SCALE: AS NOTED	EXHIBIT F DWG: IH-SWAN-F-030-10002
<p></p>		

CUI/CEII

NOTE : the positions of the sections A-A, B-B and C-C are indicated on drawing IH-SWAN-F-030-10001

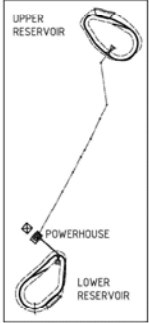
SECTION A-A



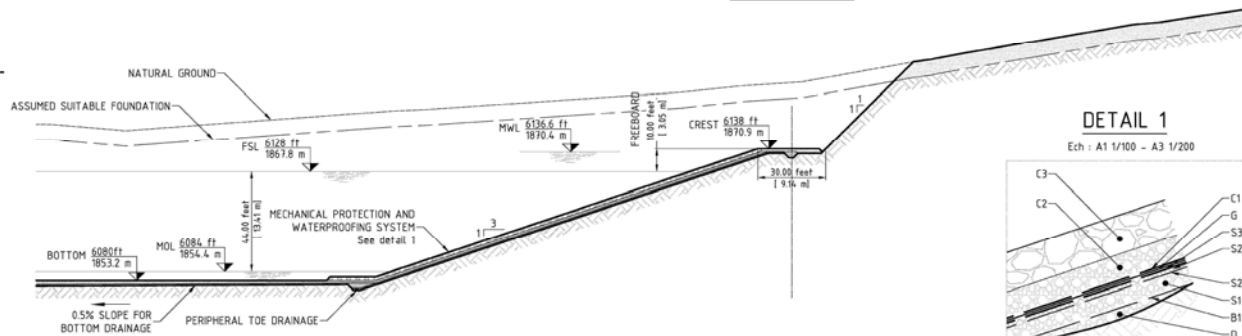
DETAIL 1 - WATERPROOFING SYSTEM DESCRIPTION

Number	Function	Material	Thickness
C3	Mechanical protection	Rip-rap (5/160mm x 0.25/15in)	18.7in x 500mm
C2	Transition + ballast	Granular (10/25mm x 0.20/16in)	15.8in x 300 mm
C1	Anti-puncturing	Thick geotextile (300g/m ²)	0.22in x 5.5mm
G	Watertightness	PVC Geomembrane	0.08in x 2mm
S3	Anti-puncturing	Thick geotextile (300g/m ²)	0.22in x 5.5mm
S2	Drainage	Geospacer	0.30in x 7.5mm
S2'	Filtration	Geotextile (500g/m ²)	0.22in x 5.5mm
S1	Support	Granular (10/25mm x 0.15in)	7.9in x 200 mm
B1	Filtration	Geotextile (500g/m ²)	0.22in x 5.5mm
0	Excavated / Fill surface	Transition layer (granular material) might be required in case of over-excavations.	-

KEYPLAN

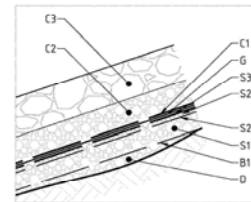


SECTION B-B



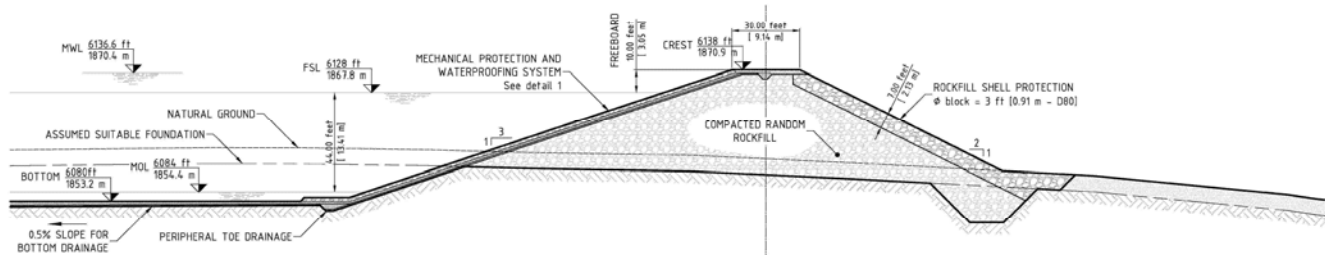
DETAIL 1

Ech : A1 1/100 - A3 1/200

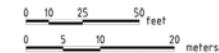


NOTE : This watertightness complex is applied on the slopes; at the bottom the mechanical protection (C3 layer) is deleted.

SECTION C-C

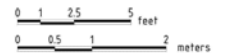


Ech : A1 1/1000 - A3 1/2000



The drawing unit is the foot.

Ech : A1 1/100 - A3 1/200



SWAN LAKE NORTH HYDRO LLC
SWAN LAKE NORTH
PUMPED STORAGE HYDROELECTRIC PROJECT
FERC LICENSE NO. 13318 FERC DWG NO. P-13318-1004

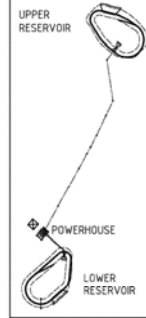
UPPER RESERVOIR - TYPICAL CROSS SECTIONS

DATE: APRIL 30, 2019 SCALE: AS NOTED EXHIBIT F DWG: IH-SWAN-F-030-10003

CUI/CEII



KEYPLAN



- DRAINAGE NETWORK
- Perforated PVC pipes - 0.5% slope minimum
 - \varnothing peripheral drain pipe = 10in / 0.25m
 - \varnothing collector pipes = 25 in / 0.63m

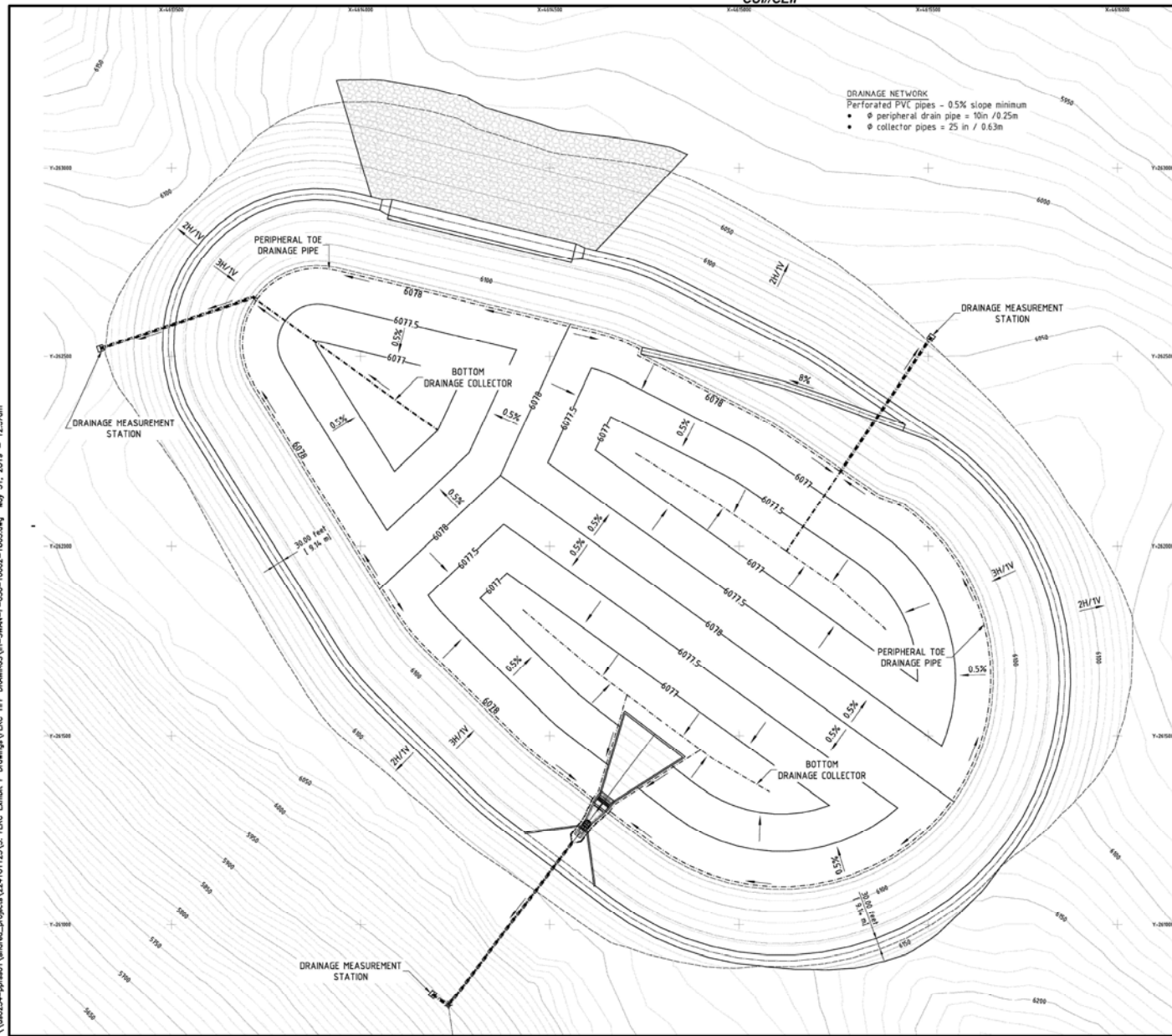
Ech : A1 1/5000 - A3 1/10000

0 50 100 200 feet

0 10 50 100 meters

The drawing unit is the foot.

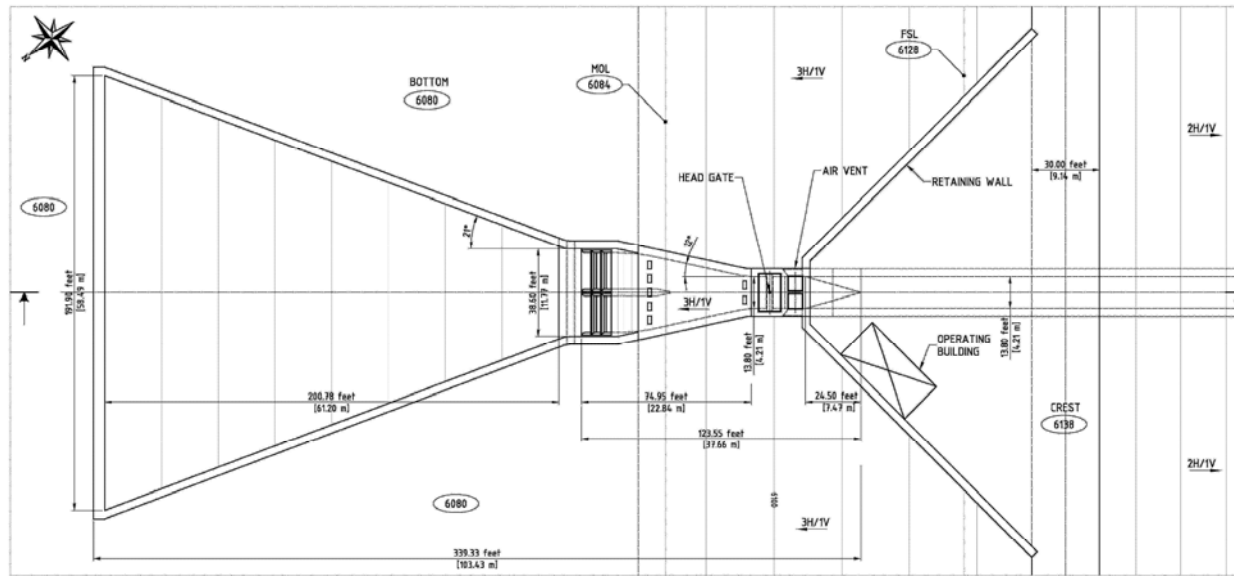
\\u0224-spfm01\shared_projects\224101125\A. FERC Exhibit F Drawings\FERC TFF DRAWINGS\IH-SWAN-F-030-10002-1003.dwg May 31, 2019 = 12:27am



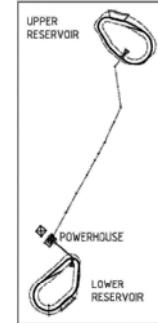
<p>SWAN LAKE NORTH HYDRO LLC SWAN LAKE NORTH PUMPED STORAGE HYDROELECTRIC PROJECT <small>FERC LICENSE NO. 13318</small> <small>FERC DWG NO. P-13318-1003</small></p>		
<p>UPPER RESERVOIR - DRAINAGE SYSTEM - PLAN VIEW</p>		
<p>DATE: APRIL 30, 2019</p>	<p>SCALE: AS NOTED</p>	<p>EXHIBIT F DWG: IH-SWAN-F-030-10002</p>

CUI/CEII

WATER INTAKE - PLAN VIEW

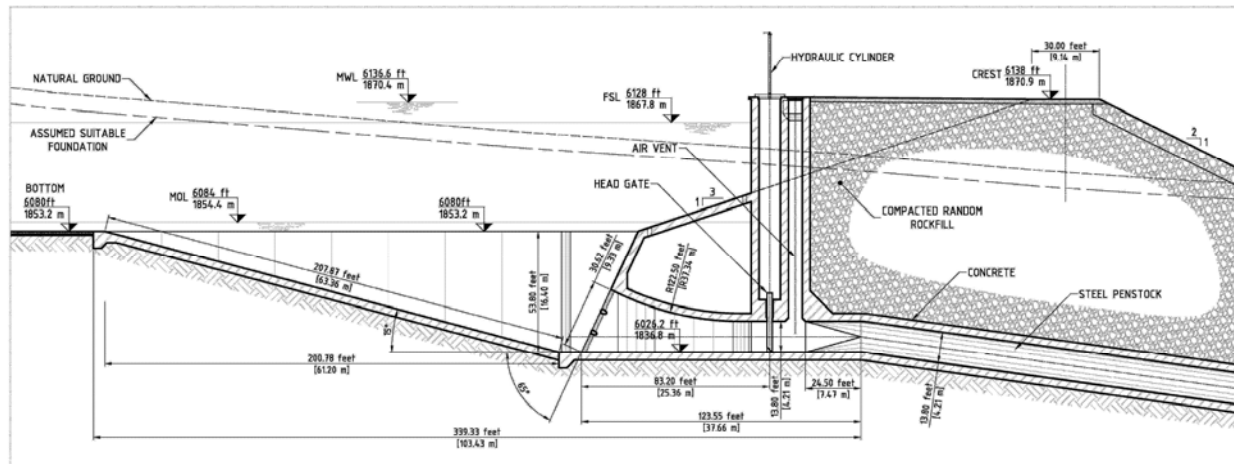


KEYPLAN



Ech : A1 1/1000 - A3 1/2000
 0 10 25 50 feet
 0 5 10 20 meters
 The drawing unit is the foot.

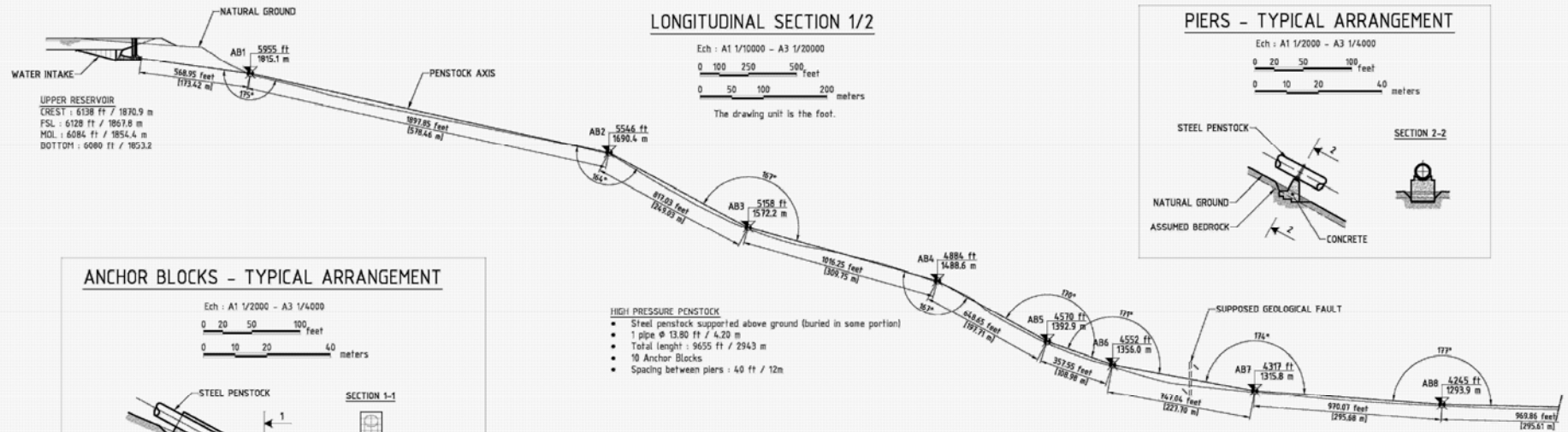
WATER INTAKE - CROSS SECTION



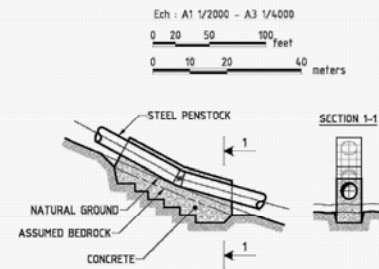
SWAN LAKE NORTH HYDRO LLC SWAN LAKE NORTH PUMPED STORAGE HYDROELECTRIC PROJECT <small>FERC LICENSE NO. 13318</small>		
UPPER RESERVOIR - WATER INTAKE - PLAN VIEW AND X-SECTION		
DATE: APRIL 30, 2019	SCALE: AS NOTED	EXHIBIT F DWG: IH-SWAN-F-030-10004

LONGITUDINAL SECTION 1/2

Ech : A1 1/10000 - A3 1/20000
 0 100 250 500 feet
 0 50 100 200 meters
 The drawing unit is the foot.



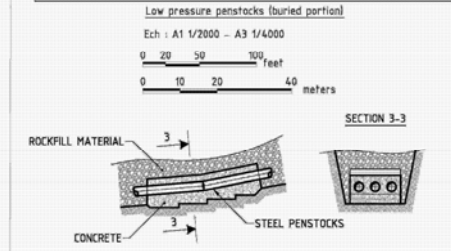
ANCHOR BLOCKS - TYPICAL ARRANGEMENT



HIGH PRESSURE PENSTOCK

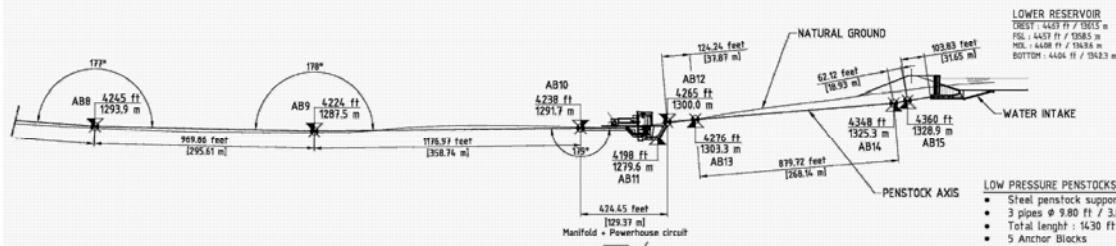
- Steel penstock supported above ground (buried in some portion)
- 1 pipe ϕ 13.80 ft / 4.20 m
- Total length : 9655 ft / 2943 m
- 10 Anchor Blocks
- Spacing between piers : 40 ft / 12m

ANCHOR BLOCKS - TYPICAL ARRANGEMENT



LONGITUDINAL SECTION 2/2

Ech : A1 1/10000 - A3 1/20000
 0 100 250 500 feet
 0 50 100 200 meters



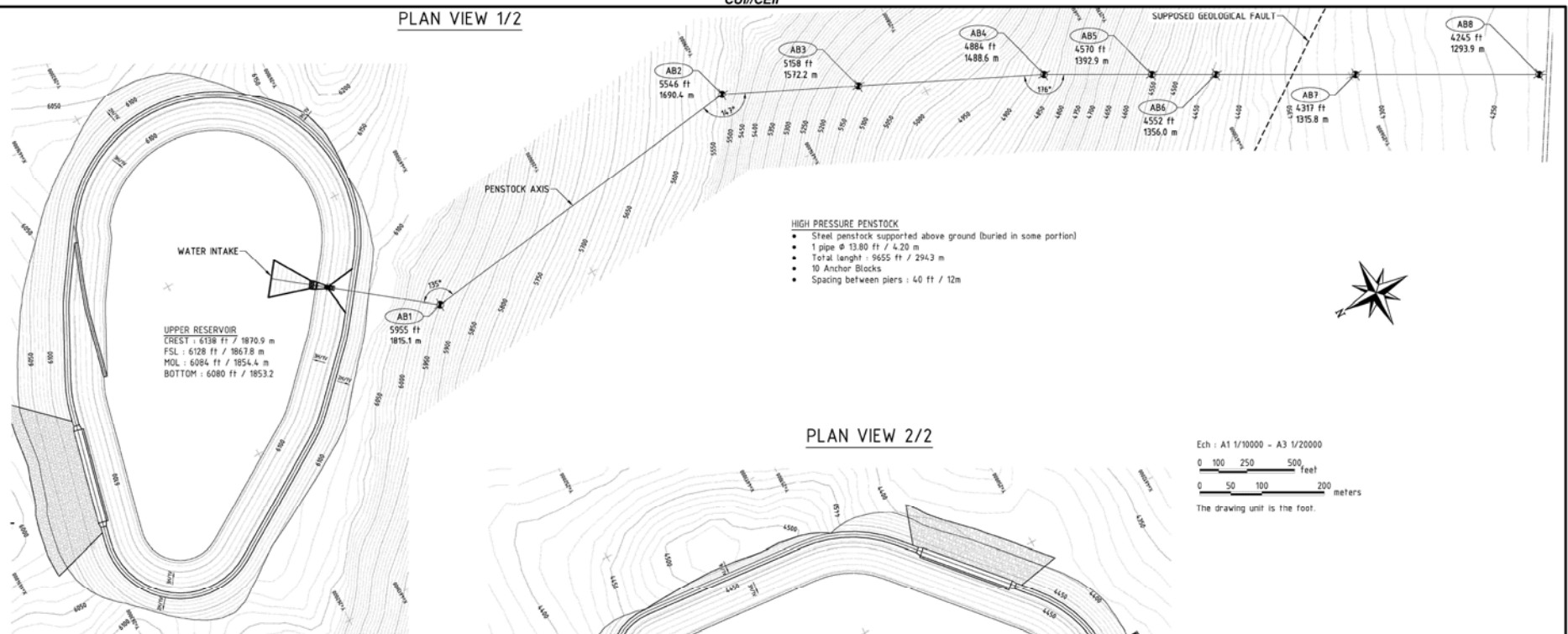
SWAN LAKE NORTH HYDRO LLC
 SWAN LAKE NORTH
 PUMPED STORAGE HYDROELECTRIC PROJECT
 FERC LICENSE NO. 13318 FERC DWG NO. P-13318-1007

HYDRAULIC CIRCUIT - GENERAL LAYOUT -
 LONG. & TYP. X-SECTIONS

DATE: APRIL 30, 2019 SCALE: AS NOTED EXHIBIT F DWG: IH-SWAN-F-040-10002

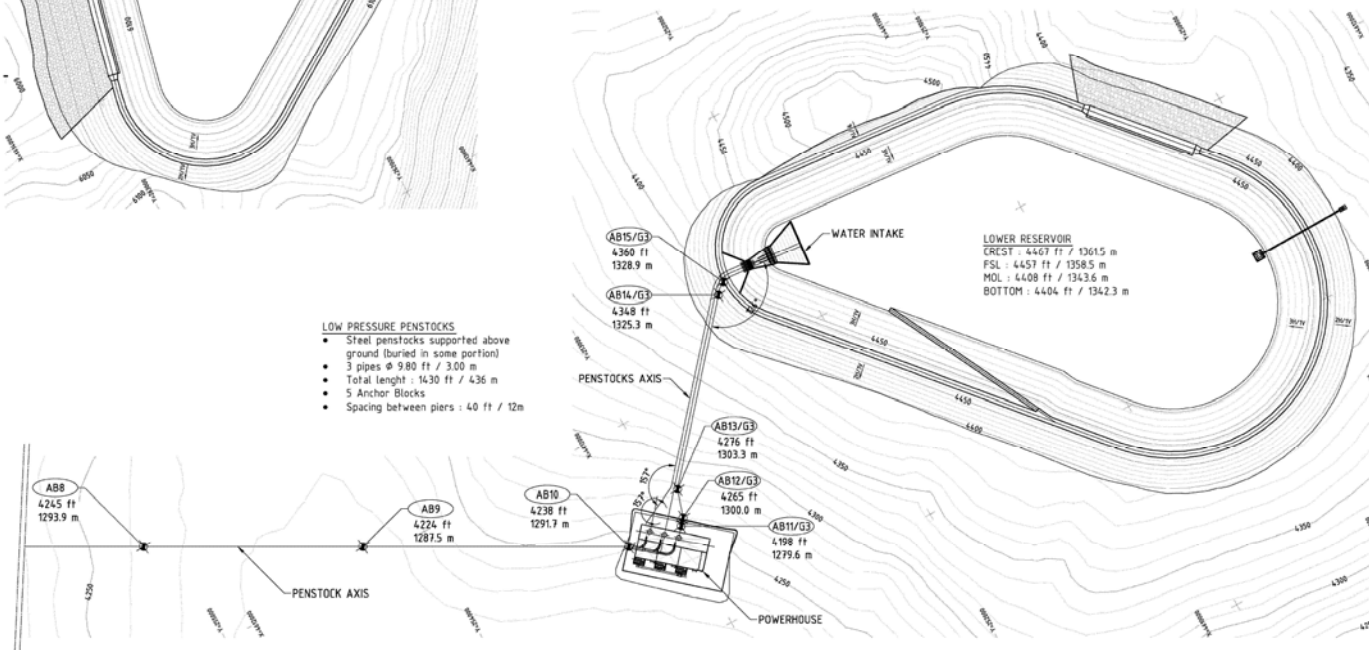
\\u0224-spfm01\shared_projects\224101125\A_FERC Exhibit F Drawings\FERC TFF Drawings\IH-SWAN-F-040-10001-1006.dwg May 31, 2019 = 12:34am

PLAN VIEW 1/2



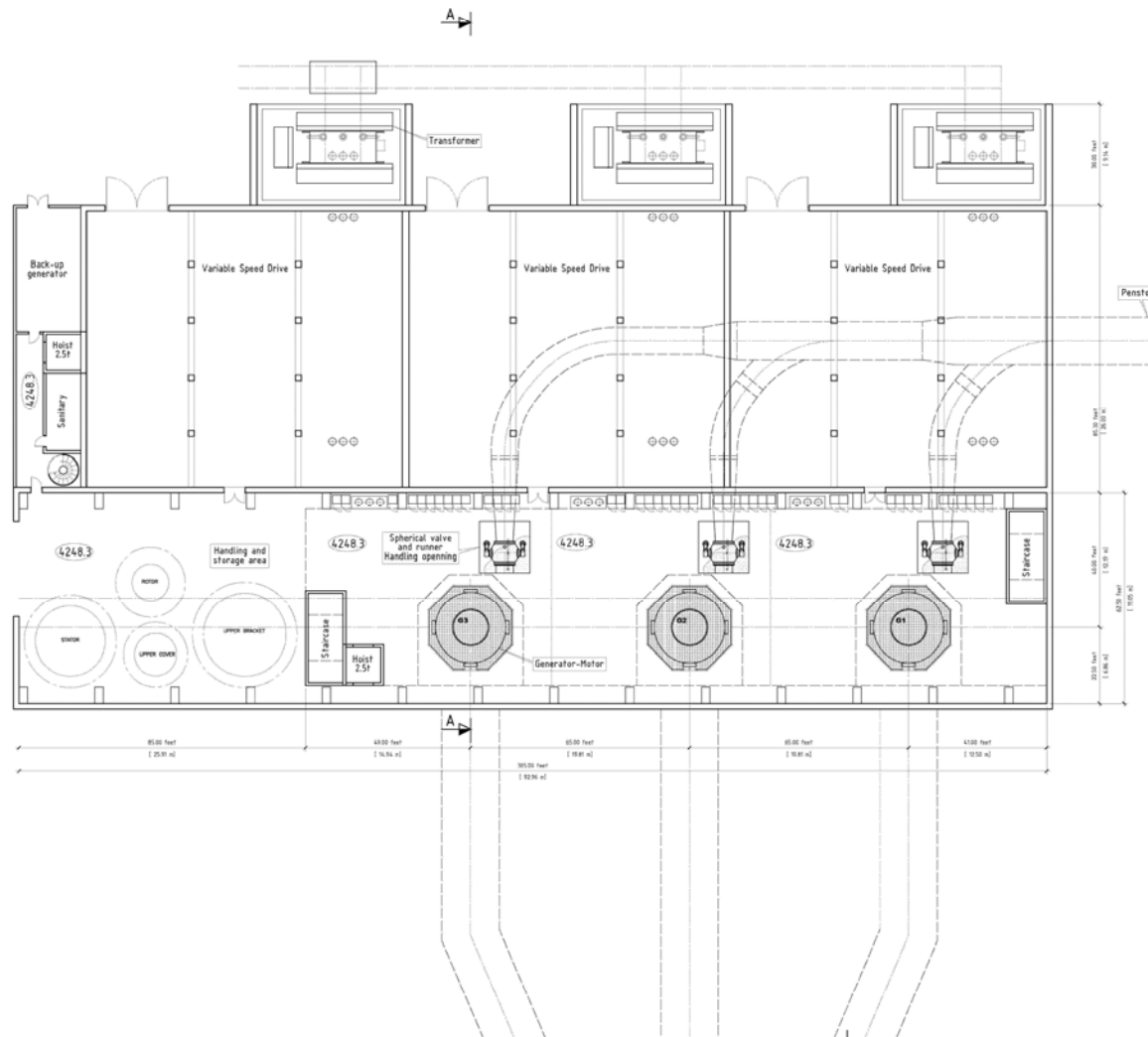
PLAN VIEW 2/2

Ech : A1 1/10000 - A3 1/20000
0 100 250 500 feet
0 50 100 200 meters
The drawing unit is the foot.

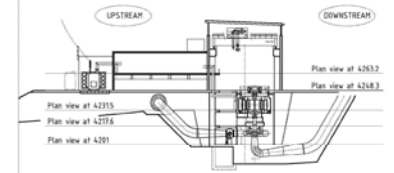


SWAN LAKE NORTH HYDRO LLC SWAN LAKE NORTH PUMPED STORAGE HYDROELECTRIC PROJECT FERC LICENSE NO. 13318		FERC DWG NO. P-13318-1006	
HYDRAULIC CIRCUIT - GENERAL LAYOUT - PLAN VIEW			
DATE: APRIL 30, 2019	SCALE: AS NOTED	EXHIBIT F DWG: IH-SWAN-F-040-10001	

Handling and storage area level 4248.3



KEYPLAN



DRAWINGS LIST EM:

IH-SWAN-F-050-0001 - PLAN VIEW AT ELEVATION 4248.30
 IH-SWAN-F-050-0002 - PLAN VIEW AT ELEVATION 42315
 IH-SWAN-F-050-0003 - PLAN VIEW AT ELEVATIONS 4217.6 and 4201
 IH-SWAN-F-050-0004 - TRANSVERSAL CROSS SECTION A-A
 IH-SWAN-F-050-0005 - PLAN VIEW AT ELEVATION 4263.2

SWAN LAKE:

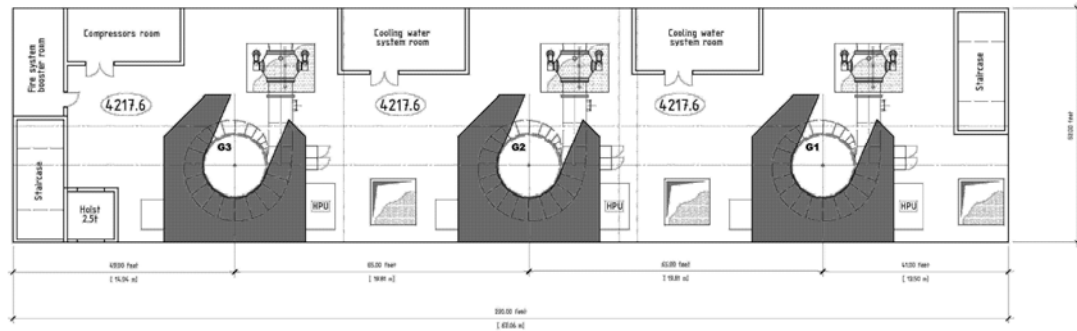
3 reversible units - $P_{max} \text{ tur} = 3 \times 134 \text{ MW}$ - $Q_{max} = 3 \times 296 \text{ m}^3/\text{s}$ - $N_{max} = 720 \text{ rpm}$ - $H_{gross} = 524 \text{ m}$

SWAN LAKE NORTH HYDRO LLC
 SWAN LAKE NORTH
 PUMPED STORAGE HYDROELECTRIC PROJECT
 FERC LICENSE NO. 13318 FERC DWG NO. P-13318-1008

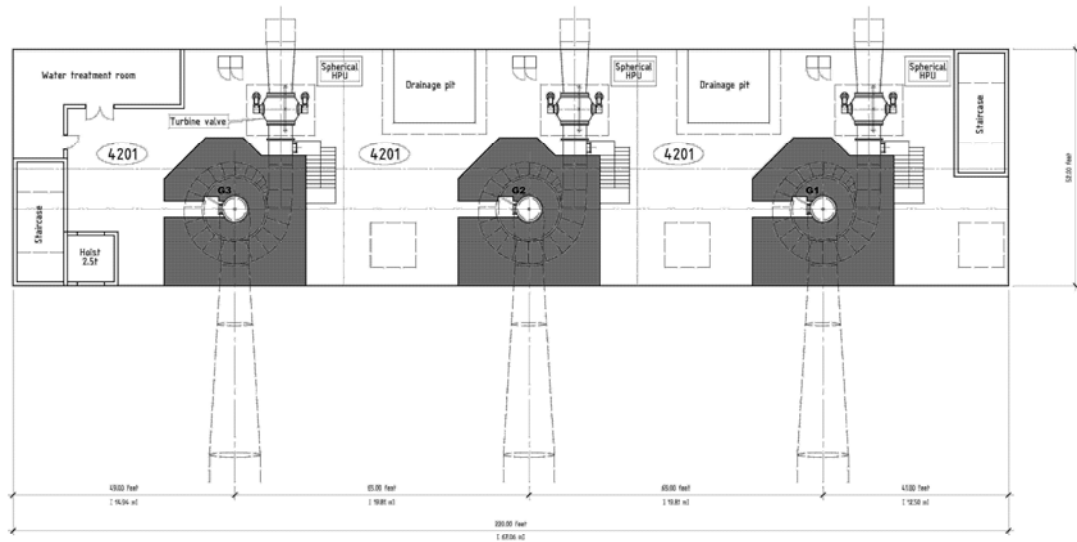
PLAN VIEW AT ELEVATION 4248.30

DATE: APRIL 30, 2019 SCALE: AS NOTED EXHIBIT F DWG: IH-SWAN-F-050-10001

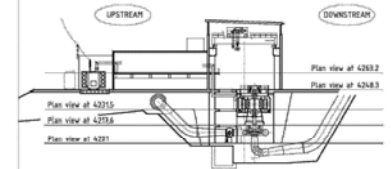
Pump Turbine level 4217.6



Valve & Auxiliaries level 4201



KEYPLAN



DRAWINGS LIST EM:

IH-SWAN-F-050-0001 - PLAN VIEW AT ELEVATION 4248.30
 IH-SWAN-F-050-0002 - PLAN VIEW AT ELEVATION 4231.5
 IH-SWAN-F-050-0003 - PLAN VIEW AT ELEVATIONS 4217.6 and 4201
 IH-SWAN-F-050-0004 - TRANSVERSAL CROSS SECTION A-A
 IH-SWAN-F-050-0005 - PLAN VIEW AT ELEVATION 4205.2

SWAN LAKE:

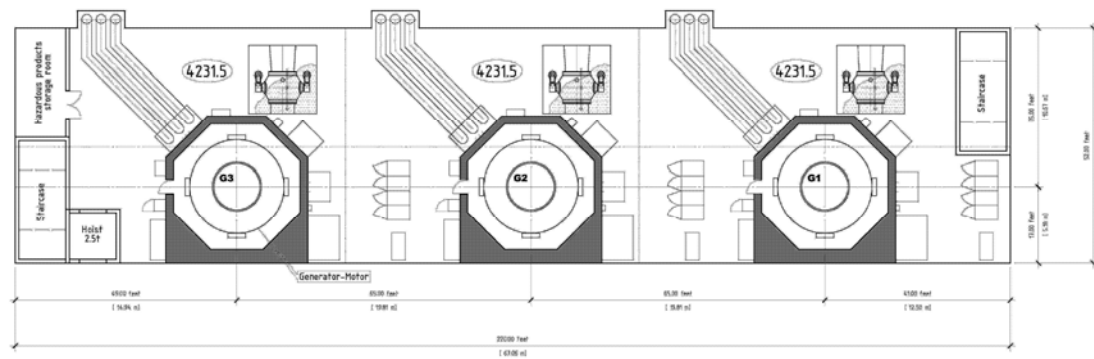
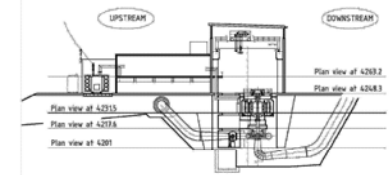
3 reversible units - P_{max} (r) = 3 x 134MW - Q_{max} = 3 x 29m³/s - N_{max} = 720rpm - H_{gross} = 524m

SWAN LAKE NORTH HYDRO LLC
 SWAN LAKE NORTH
 PUMPED STORAGE HYDROELECTRIC PROJECT
 FERC LICENSE NO. 13318 FERC DWG NO. P-13318-1010

PLAN VIEW AT ELEVATION 4217.6 AND 4201

DATE: APRIL 30, 2019 SCALE: AS NOTED EXHIBIT F DWG: IH-SWAN-F-050-10003

KEYPLAN



DRAWINGS LIST EM :

H-SWAN--F-050--0001 - PLAN VIEW AT ELEVATION 4248.30
H-SWAN--F-050--0002 - PLAN VIEW AT ELEVATION 4231.5
H-SWAN--F-050--0003 - PLAN VIEW AT ELEVATIONS 4219.6 and 4201
H-SWAN--F-050--0004 - TRANSVERSAL CROSS SECTION A-A
H-SWAN--F-050--0005 - PLAN VIEW AT ELEVATION 4263.2

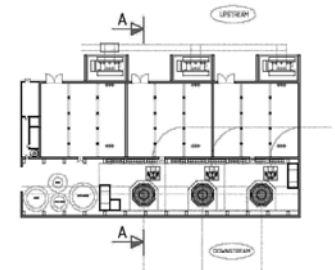
SWAN LAKE :
3 reversible units - $P_{max} \text{ tur} = 3 \times 134 \text{ MW}$ - $Q_{max} = 3 \times 29 \text{ m}^3/\text{s}$ - $N_{max} = 720 \text{ rpm}$ - $H_{gross} = 524 \text{ m}$

SWAN LAKE NORTH HYDRO LLC
SWAN LAKE NORTH
PUMPED STORAGE HYDROELECTRIC PROJECT
CENSE NO. 13318 FERC DWG NO. P-13318-1009

PLAN VIEW AT ELEVATION 4231.5

DATE: APRIL 30, 2019	SCALE: AS NOTED	EXHIBIT F DWG: IH-SWAN-F-050-10002
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KEYPLAN



<p>H-SWAN--F-050--0001 = PLAN VIEW AT ELEVATION 4248.30</p> <p>H-SWAN--F-050--0002 = PLAN VIEW AT ELEVATION 4231.5</p> <p>H-SWAN--F-050--0003 = PLAN VIEW AT ELEVATIONS 4217.6 and 4217.5</p> <p>H-SWAN--F-050--0004 = TRANSVERSAL CROSS SECTION A-A</p> <p>H-SWAN--F-050--0005 = PLAN VIEW AT ELEVATION 4263.2</p>

SWAN LAKE :
3 reversible units - Pressur = 3 x 134MW - Q_{max} = 3 x 29m³/s - N_{max} = 720rpm - H_{press} = 524m

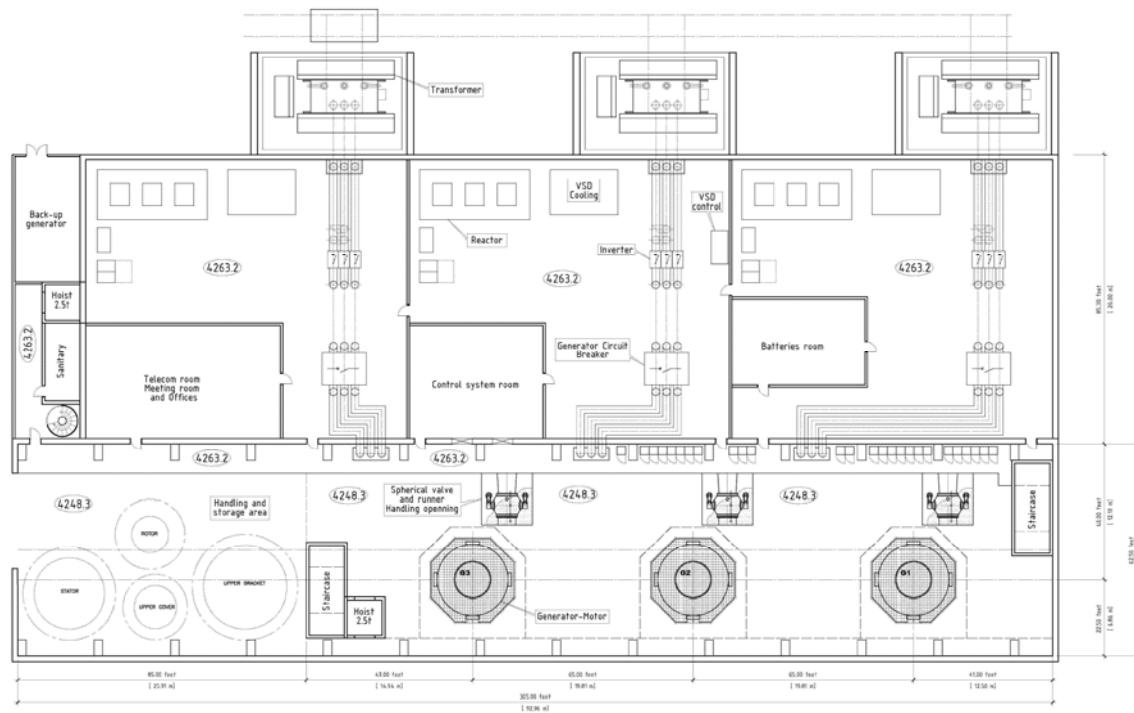
SWAN LAKE NORTH HYDRO LLC
SWAN LAKE NORTH
JUMPED STORAGE HYDROELECTRIC PROJECT

FERC LICENSE NO. 13318 FERC DWG NO. P-13318-1011

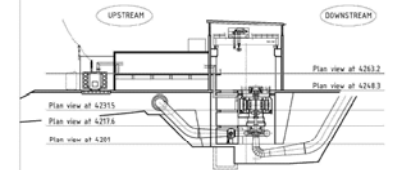
TRANSVERSAL CROSS SECTION A-A

DATE: APRIL 30, 2019	SCALE: AS NOTED	EXHIBIT F DWG: IH-SWAN-F-050-10004
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Electrotech level 4263.2



KEYPLAN



DRAWINGS LIST EM:

IH-SWAN-F-050-2001 - PLAN VIEW AT ELEVATION 4248.30
 IH-SWAN-F-050-2002 - PLAN VIEW AT ELEVATION 42715
 IH-SWAN-F-050-2003 - PLAN VIEW AT ELEVATIONS 4271.6 and 4201
 IH-SWAN-F-050-2004 - TRANSVERSAL CROSS SECTION A-A
 IH-SWAN-F-050-2005 - PLAN VIEW AT ELEVATION 4263.2

SWAN LAKE:

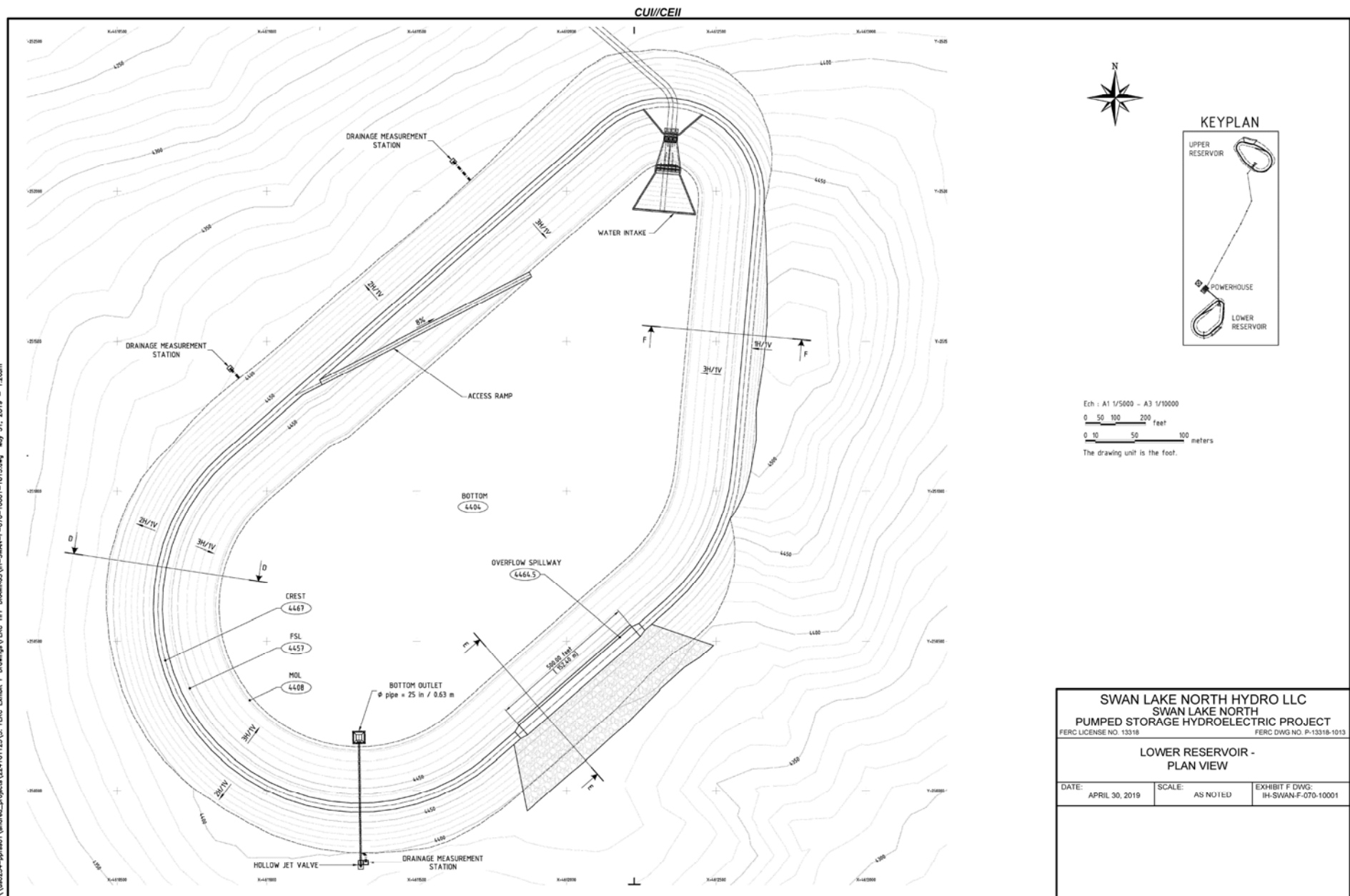
3 reversible units - P_{max} to = 3 x 134MW - Q_{max} = 3 x 29m³/s - N_{max} = 720rpm - H_{gross} = 524m

SWAN LAKE NORTH HYDRO LLC
SWAN LAKE NORTH
PUMPED STORAGE HYDROELECTRIC PROJECT
 FERC LICENSE NO. 13318 FERC DWG NO. P-13318-1012

PLAN VIEW AT ELEVATION 4263.2

DATE: APRIL 30, 2019 SCALE: AS NOTED EXHIBIT F DWG: IH-SWAN-F-050-10005

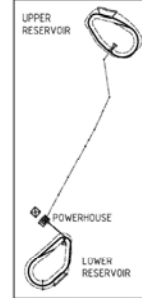
\\u0224-spfm01\shared_projects\224101125\A_FERC Exhibit F Drawings\IH-SWAN-F-070-10001-1013.dwg May 31, 2019 = 1:26pm



CUI/CEII

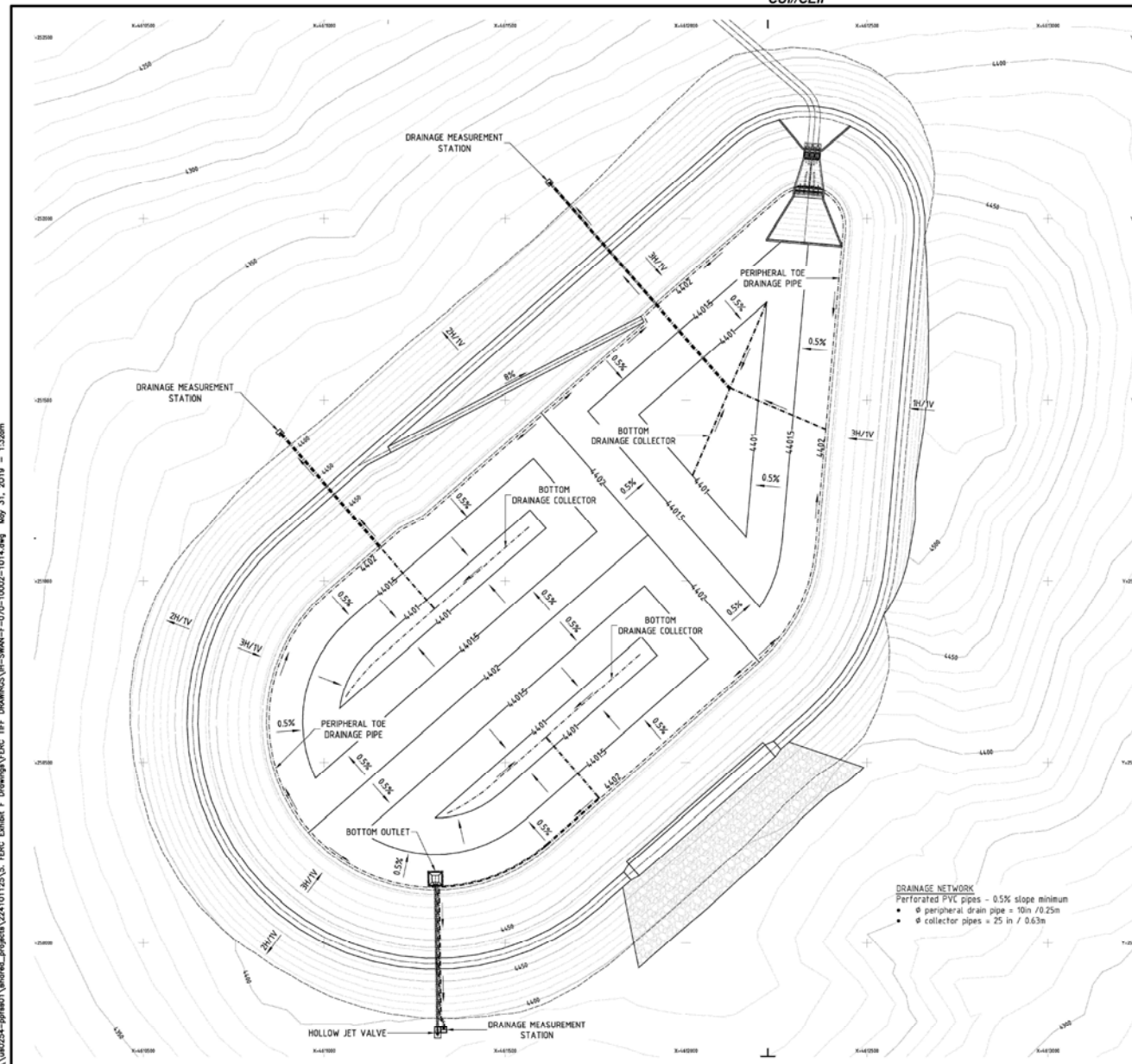


KEYPLAN



Ech : A1 1/5000 - A3 1/10000
 0 50 100 200 feet
 0 10 50 100 meters
 The drawing unit is the foot.

SWAN LAKE NORTH HYDRO LLC SWAN LAKE NORTH PUMPED STORAGE HYDROELECTRIC PROJECT <small>FERC LICENSE NO. 13318</small>		
LOWER RESERVOIR - DRAINAGE SYSTEM - PLAN VIEW		
DATE: APRIL 30, 2019	SCALE: AS NOTED	EXHIBIT F DWG: IH-SWAN-F-070-10002



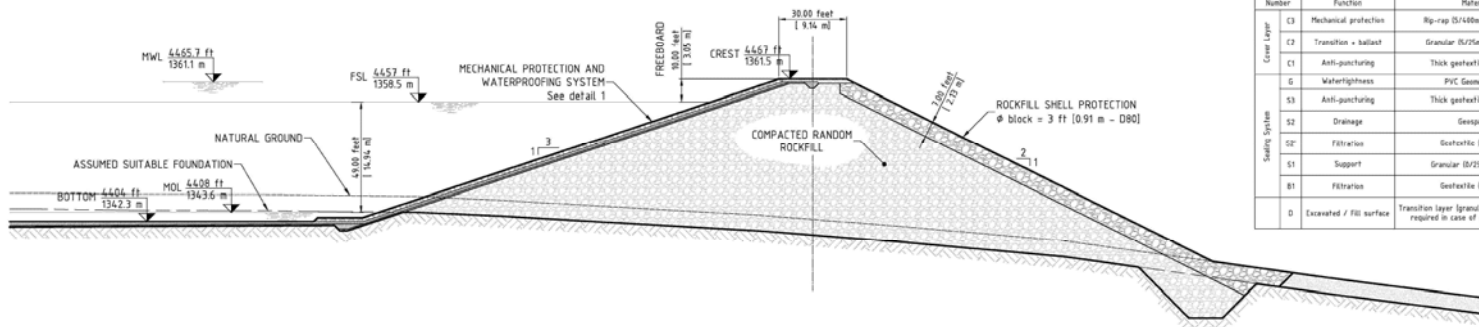
DRAINAGE NETWORK
 Perforated PVC pipes - 0.5% slope minimum
 • ϕ peripheral drain pipe = 10in / 0.25m
 • ϕ collector pipes = 25 in / 0.63m

\\u0224-spfm01\shared_projects\224101125\A_FERC Exhibit F Drawings\FERC TFF Drawings\IH-SWAN-F-070-10002-1014.dwg May 31, 2019 = 1:32am

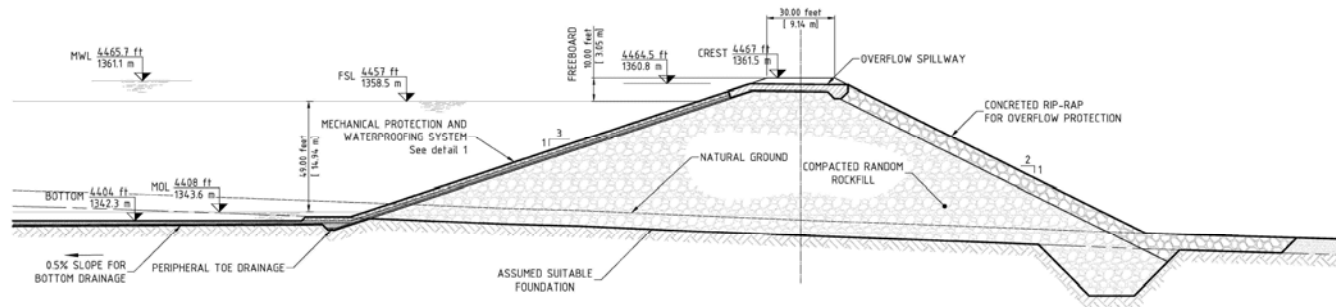
CUI/CEII

NOTE : the positions of the sections D-D, E-E and F-F are indicated on drawing n° IH-SWAN-F-070-10001

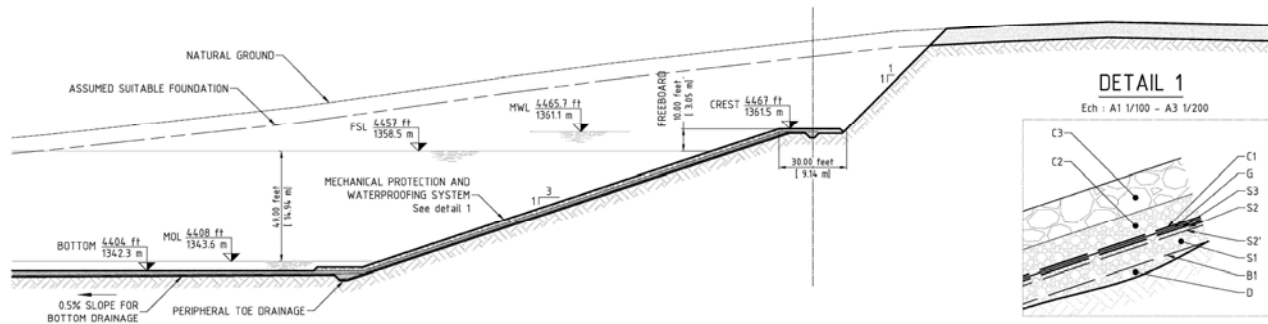
SECTION D-D



SECTION E-E

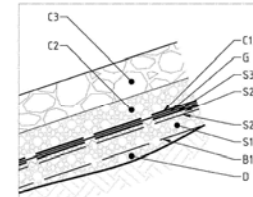


SECTION F-F



DETAIL 1

Ech : A1 1/100 - A3 1/200

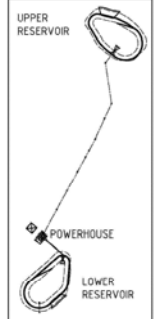


NOTE : This waterlightness complex is applied on the slopes; at the bottom the mechanical protection (C3 layer) is deleted.

DETAIL 1 - WATERPROOFING SYSTEM DESCRIPTION

Number	Function	Material	Thickness
C3	Mechanical protection	Rip-rap (D/150mm + 0.20/150)	15.7in + 500mm
C2	Transition + ballast	Granular (D/25mm + 0.20/50)	11.8in + 300 mm
C1	Anti-puncturing	Thick geotextile (700g/m²)	0.22in + 5.5mm
G	Waterlightness	PVC Geomembrane	0.08in + 2mm
S3	Anti-puncturing	Thick geotextile (700g/m²)	0.22in + 5.5mm
S2	Drainage	Geospace	0.30in + 7.5mm
S2'	Filtration	Geotextile (500g/m²)	0.22in + 5.5mm
S1	Support	Granular (D/25mm + 0/10)	7.8in + 200 mm
B1	Filtration	Geotextile (500g/m²)	0.22in + 5.5mm
D	Excavated / Fill surface	Transition layer (granular material) might be required in case of over-excavations.	-

KEYPLAN



Ech : A1 1/1000 - A3 1/2000

0 10 25 50 feet

0 5 10 20 meters

The drawing unit is the foot.

Ech : A1 1/100 - A3 1/200

0 1 2.5 5 feet

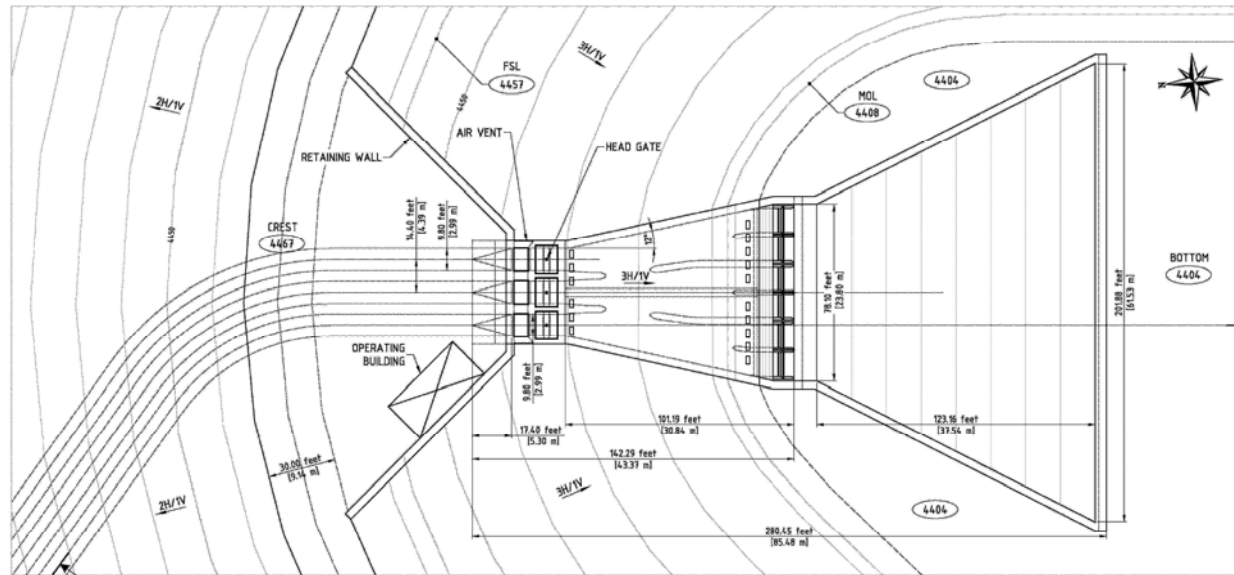
0 0.5 1 2 meters

SWAN LAKE NORTH HYDRO LLC
SWAN LAKE NORTH
PUMPED STORAGE HYDROELECTRIC PROJECT
FERC LICENSE NO. 13318 FERC DWG NO. P-13318-1015

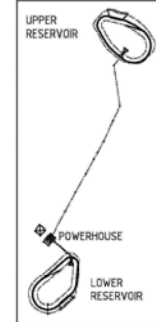
LOWER RESERVOIR - TYPICAL CROSS SECTIONS

DATE: APRIL 30, 2019 SCALE: AS NOTED EXHIBIT F DWG: IH-SWAN-F-070-10003

WATER INTAKE - PLAN VIEW



KEYPLAN

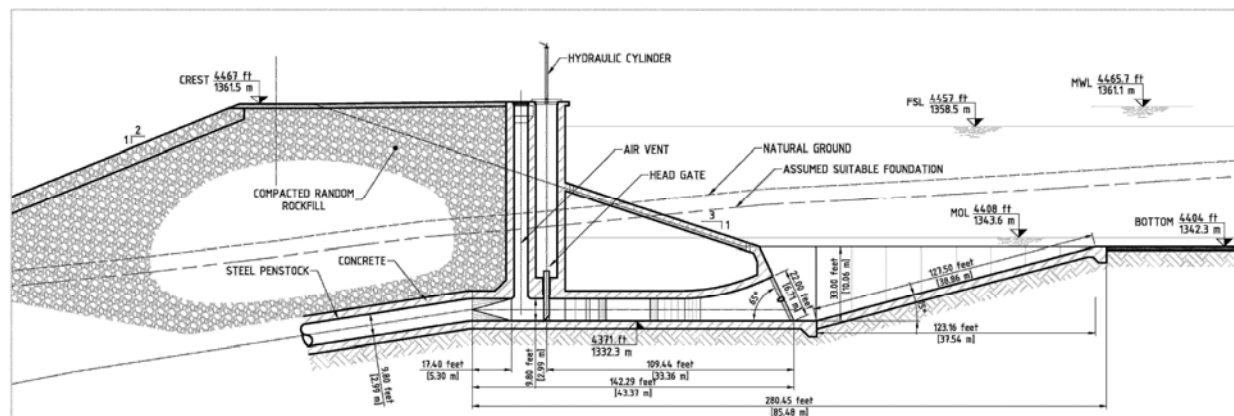


Ech : A1 1/1000 - A3 1/2000

0 10 25 50 feet
0 5 10 20 meters

The drawing unit is the foot.

WATER INTAKE - CROSS SECTION



SWAN LAKE NORTH HYDRO LLC
SWAN LAKE NORTH
PUMPED STORAGE HYDROELECTRIC PROJECT

FERC LICENSE NO. 13318

FERC DWG NO. P-13318-1018

LOWER RESERVOIR - WATER INTAKE -
PLAN VIEW AND CROSS SECTION

DATE:

APRIL 30, 2019

SCALE:

AS NOTED

EXHIBIT F DWG:

IH-SWAN-F-070-10004