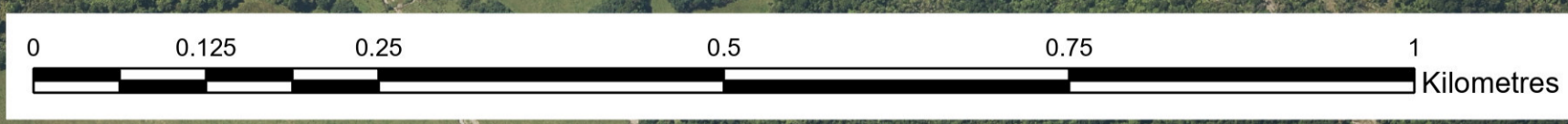
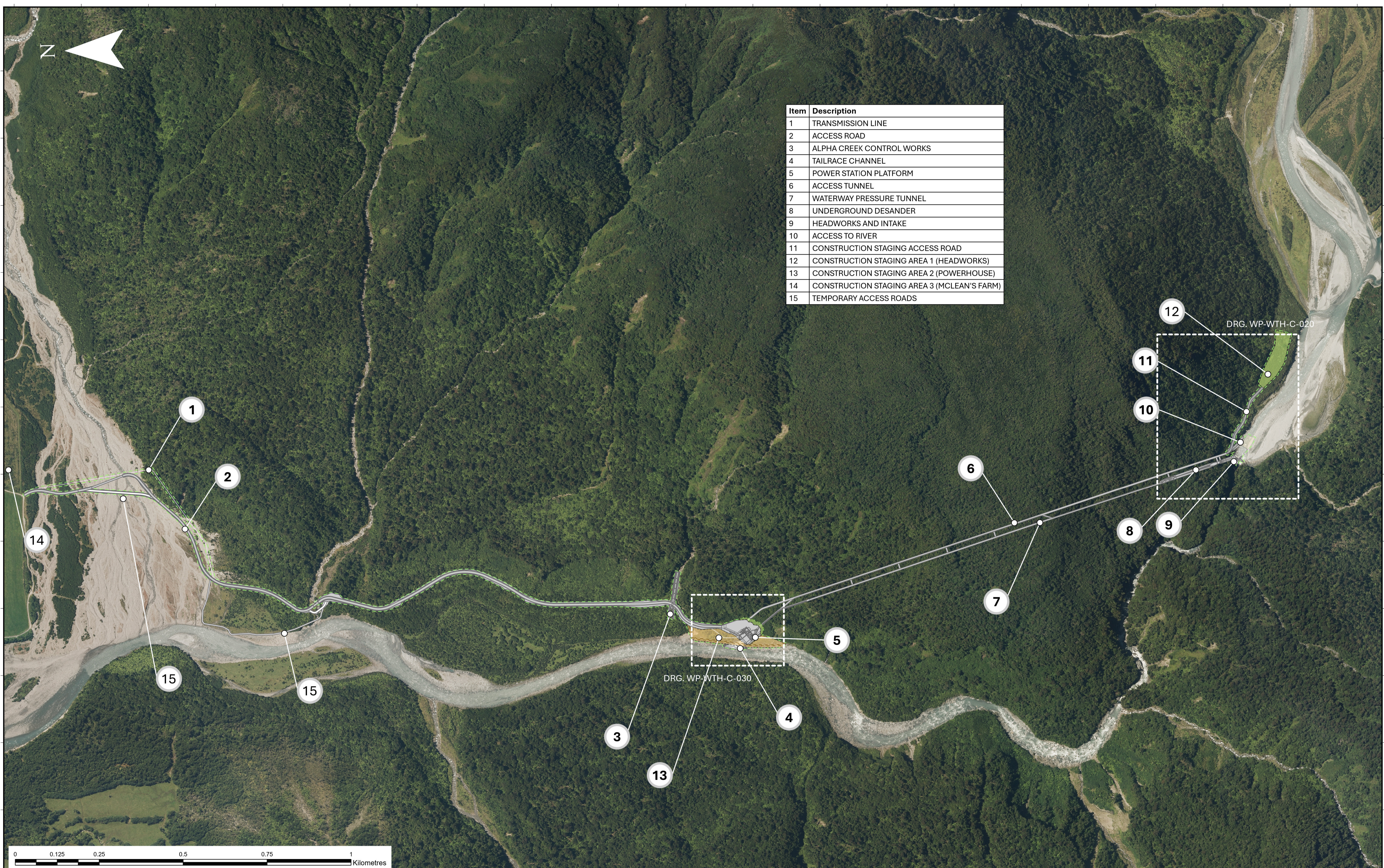


Item	Description
1	TRANSMISSION LINE
2	ACCESS ROAD
3	ALPHA CREEK CONTROL WORKS
4	TAILRACE CHANNEL
5	POWER STATION PLATFORM
6	ACCESS TUNNEL
7	WATERWAY PRESSURE TUNNEL
8	UNDERGROUND DESANDER
9	HEADWORKS AND INTAKE
10	ACCESS TO RIVER
11	CONSTRUCTION STAGING ACCESS ROAD
12	CONSTRUCTION STAGING AREA 1 (HEADWORKS)
13	CONSTRUCTION STAGING AREA 2 (POWERHOUSE)
14	CONSTRUCTION STAGING AREA 3 (MCLEAN'S FARM)
15	TEMPORARY ACCESS ROADS



**AusHydro**



DESIGN ENGINEER	WWW		
LEAD ENGINEER	DC		
PROJECT MANAGER	JKJ		
SHEET SIZE	A1	SCALE	1:5000
Drawing Number	WP-WTH-C-010		Revision
			H

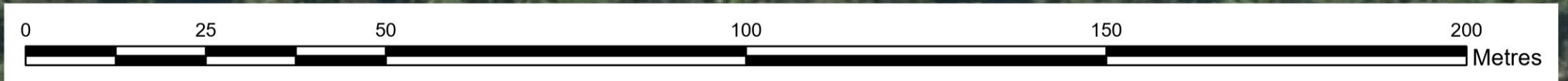
**WAITAHA HYDRO PROJECT  
PRELIMINARY DESIGN  
GENERAL ARRANGEMENT  
SITE LAYOUT**

REV	REVISION DESCRIPTION	DRN	CHK	APP	DATE
A	FOR CLIENT REVIEW	WWW	DC	JKJ	28.08.24
H	FOR INFORMATION	WWW	DC	JKJ	06.08.25



Item	Description
1	WATERWAY PRESSURE TUNNEL
2	HEAD GATE AND STOPLOG
3	HEAD GATE ACCESS ADIT
4	SEDIMENT BYPASS PIPE
5	ACCESS TUNNEL
6	UNDERGROUND DESANDER
7	INTAKE GATES
8	INTAKE SCREEN / SKIMMER WALL
9	MORGAN GORGE
10	SLUICE CHANNEL / SLUICE GATE / ENVIRO GATE
11	KŌARO REFUGE AND MIGRATION PATHWAY
12	MAIN WEIR / TRAINING WALL
13	INTAKE CHANNEL EXCAVATION
14	GRAVEL BED CHANNEL SHAPING
15	MAINTENANCE TUNNEL
16	INTAKE GATE TUNNEL
17	ACCESS TUNNEL PORTAL
18	ACCESS TO RIVER
19	CONSTRUCTION STAGING ACCESS ROAD
20	CONSTRUCTION STAGING AREA 1 (HEADWORKS)

2m DISTURBANCE BUFFER



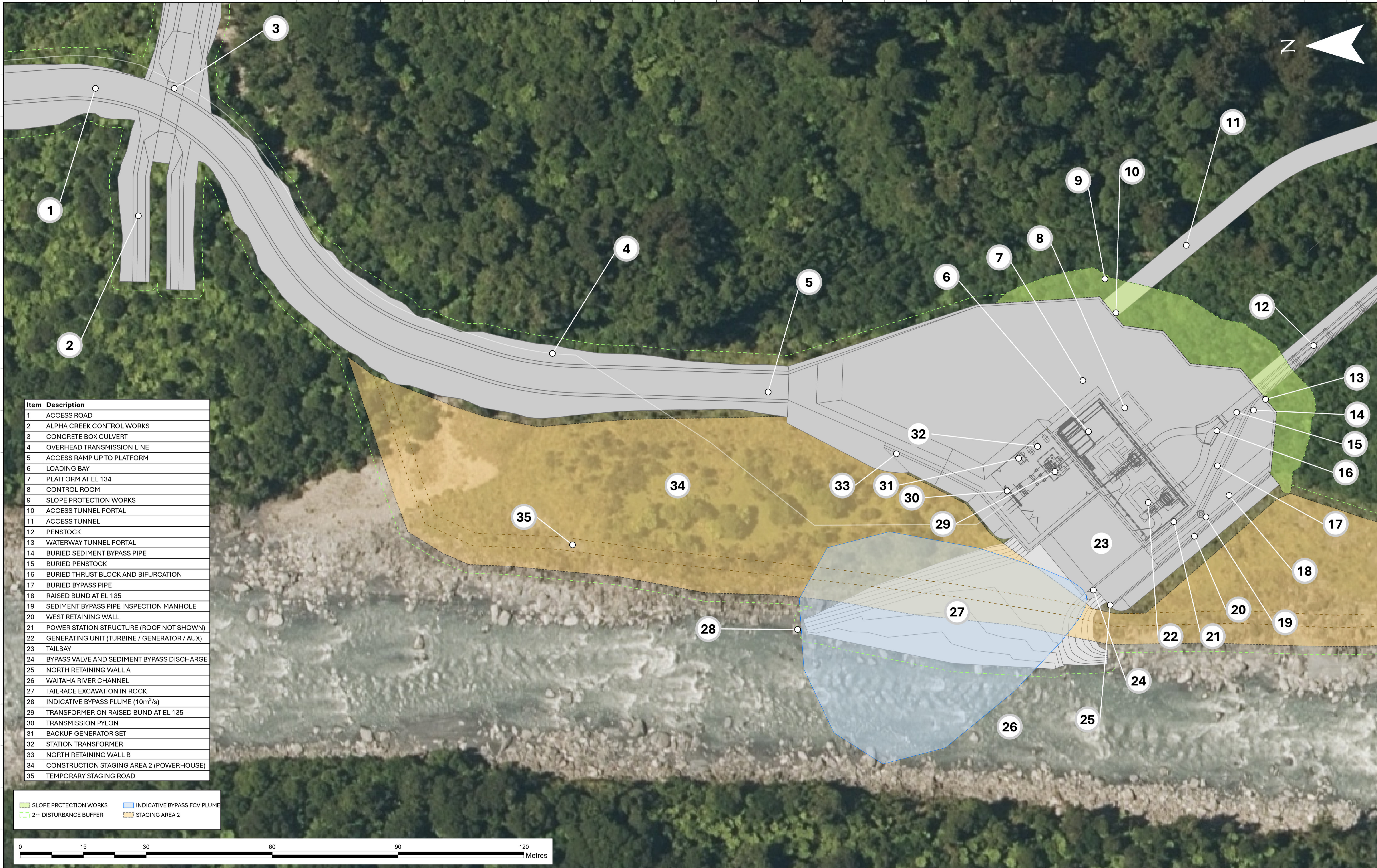
**AusHydro**



DESIGN ENGINEER	WWW		
LEAD ENGINEER	DC		
PROJECT MANAGER	JKJ		
SHEET SIZE	A1	SCALE	1:750
Drawing Number	WP-WTH-C-020	Revision	F

**WAITAHA HYDRO PROJECT  
PRELIMINARY DESIGN  
GENERAL ARRANGEMENT  
HEADWORKS LAYOUT**

REV	REVISION DESCRIPTION	DRN	CHK	APP	DATE
A	FOR CLIENT REVIEW	WWW	DC	JKJ	28.08.24
F	FOR INFORMATION	WWW	DC	JKJ	06.06.25



Item	Description
1	ACCESS ROAD
2	ALPHA CREEK CONTROL WORKS
3	CONCRETE BOX CULVERT
4	OVERHEAD TRANSMISSION LINE
5	ACCESS RAMP UP TO PLATFORM
6	LOADING BAY
7	PLATFORM AT EL 134
8	CONTROL ROOM
9	SLOPE PROTECTION WORKS
10	ACCESS TUNNEL PORTAL
11	ACCESS TUNNEL
12	PENSTOCK
13	WATERWAY TUNNEL PORTAL
14	BURIED SEDIMENT BYPASS PIPE
15	BURIED PENSTOCK
16	BURIED THRUST BLOCK AND BIFURCATION
17	BURIED BYPASS PIPE
18	RAISED BUND AT EL 135
19	SEDIMENT BYPASS PIPE INSPECTION MANHOLE
20	WEST RETAINING WALL
21	POWER STATION STRUCTURE (ROOF NOT SHOWN)
22	GENERATING UNIT (TURBINE / GENERATOR / AUX)
23	TAILBAY
24	BYPASS VALVE AND SEDIMENT BYPASS DISCHARGE
25	NORTH RETAINING WALL A
26	WAITAHA RIVER CHANNEL
27	TAILRACE EXCAVATION IN ROCK
28	INDICATIVE BYPASS PLUME (10m <sup>3</sup> /s)
29	TRANSFORMER ON RAISED BUND AT EL 135
30	TRANSMISSION PYLON
31	BACKUP GENERATOR SET
32	STATION TRANSFORMER
33	NORTH RETAINING WALL B
34	CONSTRUCTION STAGING AREA 2 (POWERHOUSE)
35	TEMPORARY STAGING ROAD

	SLOPE PROTECTION WORKS		INDICATIVE BYPASS FCV PLUME
	2m DISTURBANCE BUFFER		STAGING AREA 2



**AusHydro**

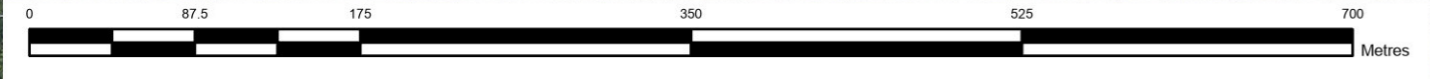


DESIGN ENGINEER	WWW		
LEAD ENGINEER	DC		
PROJECT MANAGER	JKJ		
SHEET SIZE	A1	SCALE	1:400
Drawing Number	WP-WTH-C-030	Revision	F

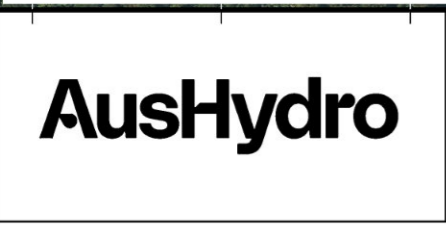
**WAITAHA HYDRO PROJECT  
PRELIMINARY DESIGN  
GENERAL ARRANGEMENT  
POWER STATION LAYOUT**

REV	REVISION DESCRIPTION	DRN	CHK	APP	DATE
A	FOR CLIENT REVIEW	WWW	DC	JKJ	28.08.24
F	FOR INFORMATION	WWW	DC	JKJ	02.05.25

Name	EASTING	NORTHING	GROUND (EL m)
BH-H01	1,415,847	5,222,176	241.2
BH-H02	1,415,783	5,222,357	302.5
BH-H03	1,415,830	5,222,249	280.4
BH-PS01	1,415,331	5,223,599	130.8
BH-PS02	1,415,404	5,223,549	196.6
BH-M01a	1,415,570	5,223,040	377.6
BH-M02a	1,415,721	5,222,563	368.1



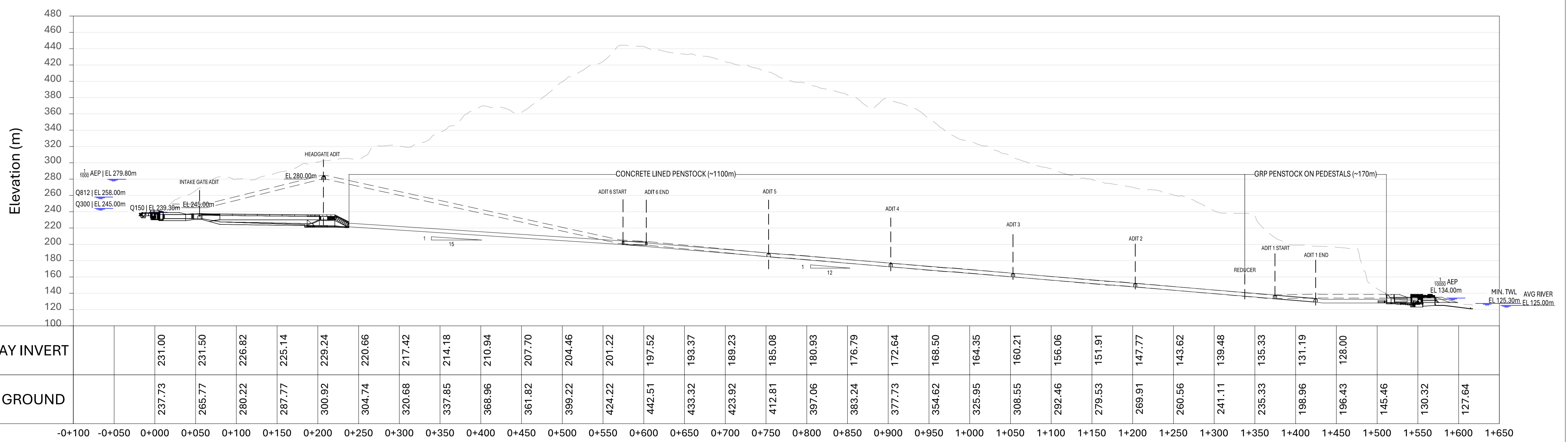
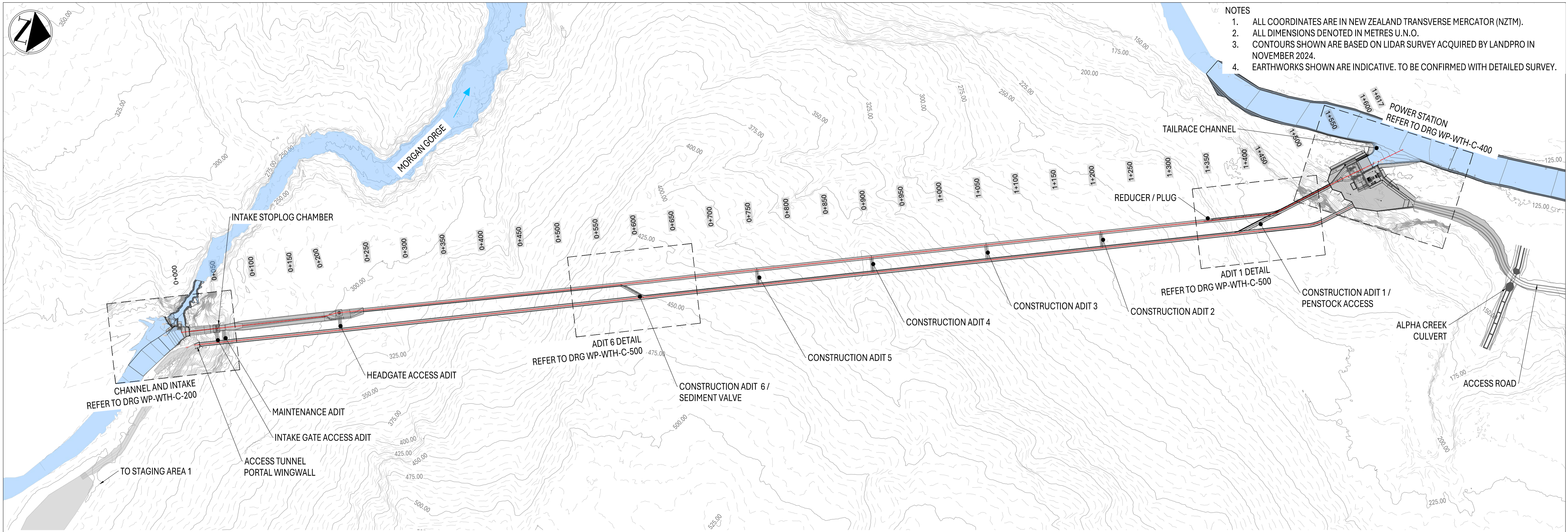
○ PROPOSED DRILLING LOCATIONS  
 □ DRILLING PLATFORMS (10 X 10m)



DESIGN ENGINEER	WWW		
LEAD ENGINEER	DC		
PROJECT MANAGER	JKJ		
SHEET SIZE	A3	SCALE	1:4,000
Drawing Number	WP-WTH-G-011		Revision A

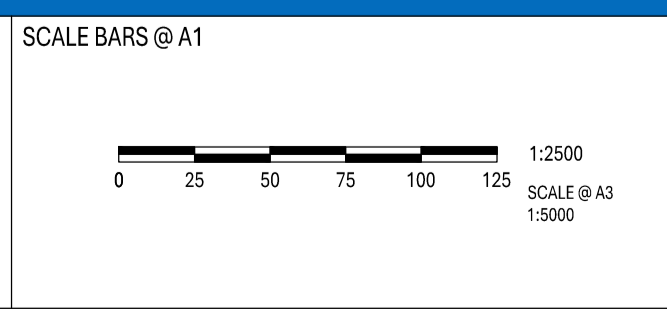
WAITAHA HYDRO PROJECT  
 PRELIMINARY DESIGN  
 PROPOSED DRILLING INVESTIGATIONS  
 SCHEME

REV	REVISION DESCRIPTION	DRN	CHK	APP	DATE
A	FOR INFORMATION	DC	CC	JKJ	02.05.25

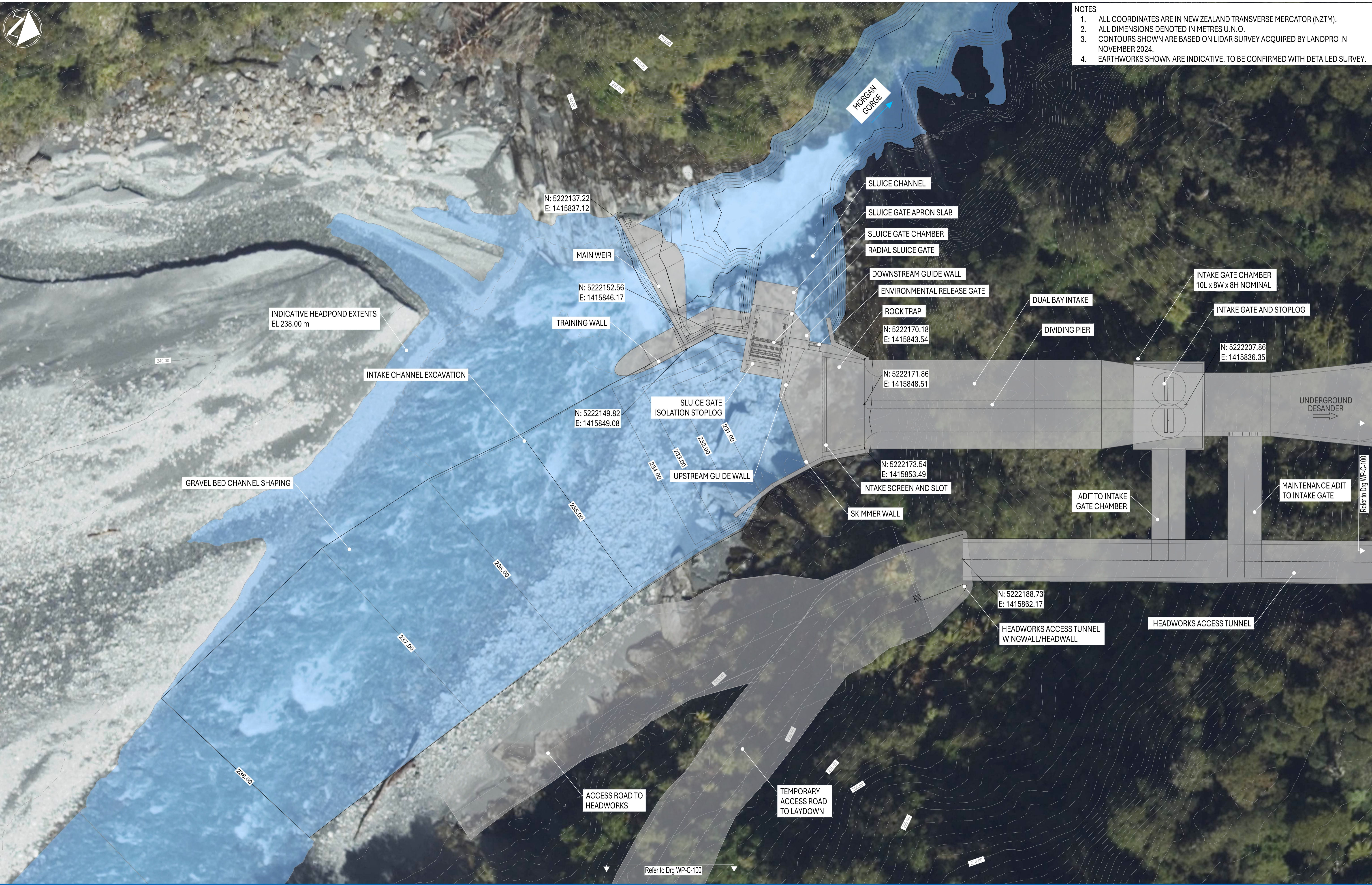


DESIGNER	CLIENT	DATE PLOTTED	WAITAHA HYDROPOWER PROJECT	
		Thursday, 24 July 2025	PRELIMINARY DESIGN	
		DRAWN BY: KBA	PROJECT OVERVIEW	
		DESIGN ENGINEER: WWW	POWER WATERWAY SCHEMATIC LONGSECTION	
		LEAD ENGINEER: DC	DRAWING NUMBER: WP-WTH-C-100	REVISION: F
		PROJECT MANAGER: JKI		

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REV	REVISION DESCRIPTION	APPROVED	DATE
A	FOR CLIENT REVIEW	JKI	11/10/2024
B	UPDATED FOR CLIENT REVIEW	JKI	20/12/2024
C	CONCEPT DESIGN - PREFERRED ARRANGEMENT	JKI	17/01/2025
D	MINOR REVISION	JKI	28/02/2025
E	PRELIMINARY DESIGN - FOR INFORMATION	JKI	02/05/2025
F	PRELIMINARY DESIGN - MINOR CORRECTION	JKI	27/04/2025



- NOTES**
1. ALL COORDINATES ARE IN NEW ZEALAND TRANSVERSE MERCATOR (NZTM).
  2. ALL DIMENSIONS DENOTED IN METRES U.N.O.
  3. CONTOURS SHOWN ARE BASED ON LIDAR SURVEY ACQUIRED BY LANDPRO IN NOVEMBER 2024.
  4. EARTHWORKS SHOWN ARE INDICATIVE. TO BE CONFIRMED WITH DETAILED SURVEY.

Drawing File Location: F:\Australian Hydropower\PROJECT - External - Documents\General\Waitaha\02\_Drawings\WP-C-AND-SECT R1.dwg

DESIGNER **AusHydro**

CLIENT **Westpower**

DATE PLOTTED	Friday, May 2, 2025
DRAWN BY	KBA
DESIGN ENGINEER	WWW
LEAD ENGINEER	DC
PROJECT MANAGER	JKJ

**WAITAHA HYDROPOWER PROJECT**  
**CONCEPT DESIGN - PREFERRED ARRANGEMENT**  
**HEADWORKS GENERAL ARRANGEMENT**  
**CHANNEL AND INTAKE**

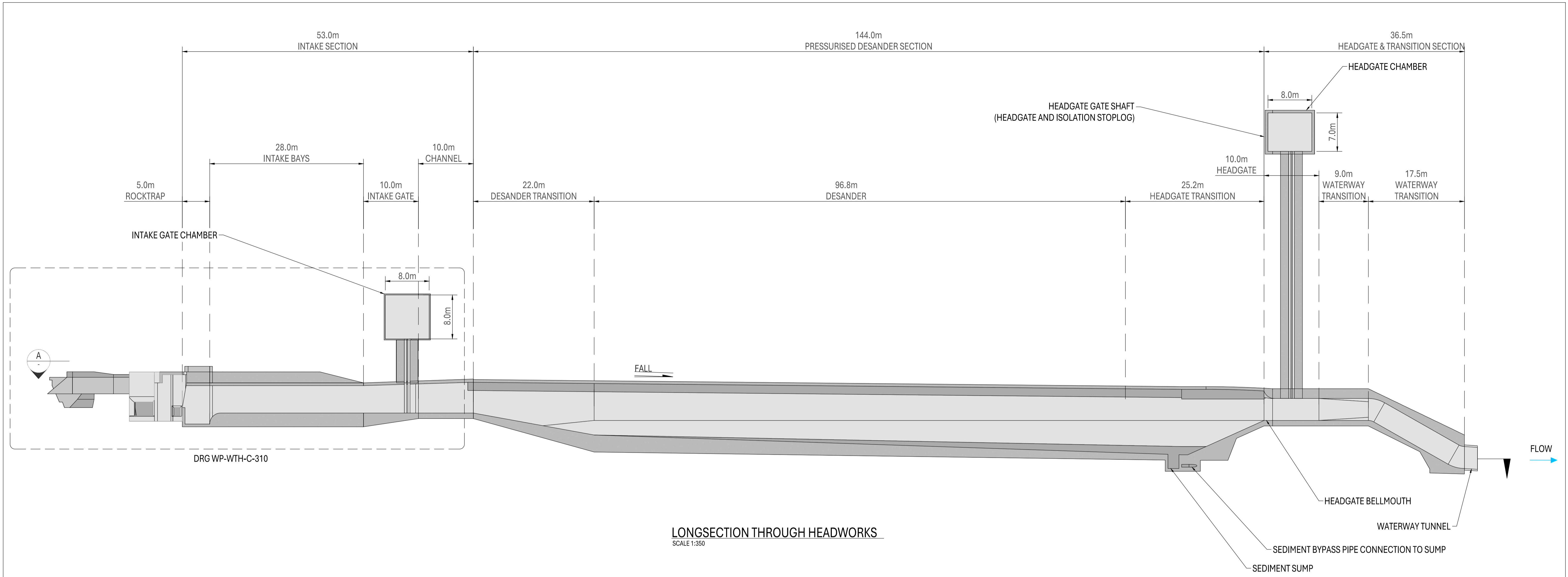
DRAWING NUMBER **WP-WTH-C-200** REVISION **E**

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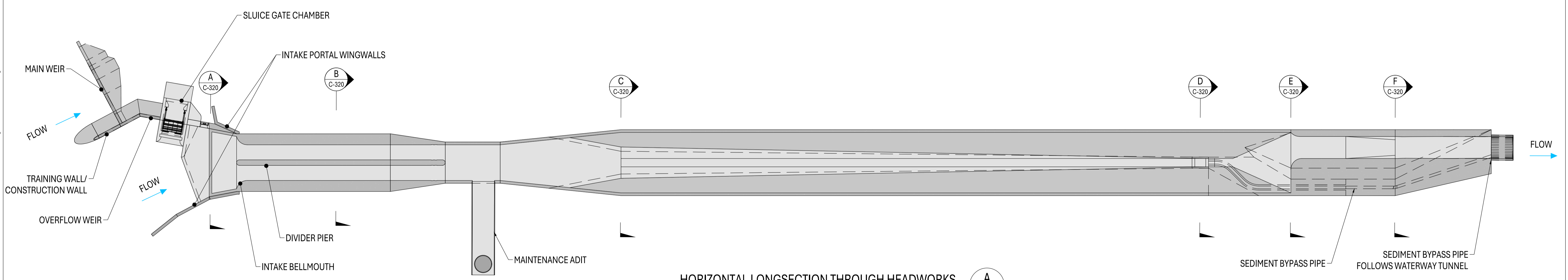
SCALE BARS @ A1

1:200 SCALE @ A3  
1:400

REV	REVISION DESCRIPTION	APPROVED	DATE
A	FOR CLIENT REVIEW	JKJ	11/10/2024
B	UPDATED DESIGN FOR CLIENT REVIEW	JKJ	20/12/2024
C	CONCEPT DESIGN - PREFERRED ARRANGEMENT	JKJ	17/01/2025
D	MINOR REVISION	JKJ	28/02/2025
E	PRELIMINARY DESIGN - FOR INFORMATION	JKJ	02/05/2025



LONGSECTION THROUGH HEADWORKS  
SCALE 1:350



HORIZONTAL LONGSECTION THROUGH HEADWORKS  
SCALE 1:350

DESIGNER

CLIENT

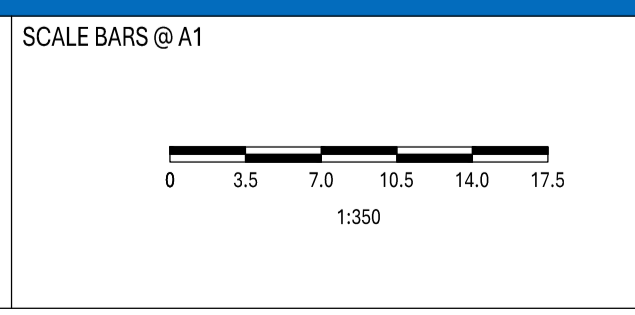
DATE PLOTTED	Thursday, 24 July 2025
DRAWN BY	KBA
DESIGN ENGINEER	WWW
LEAD ENGINEER	DC
PROJECT MANAGER	JKJ

WAITAHA HYDROPOWER PROJECT  
PRELIMINARY DESIGN  
HEADWORKS GENERAL ARRANGEMENT  
LONGSECTIONS

DRAWING NUMBER WP-WTH-C-300

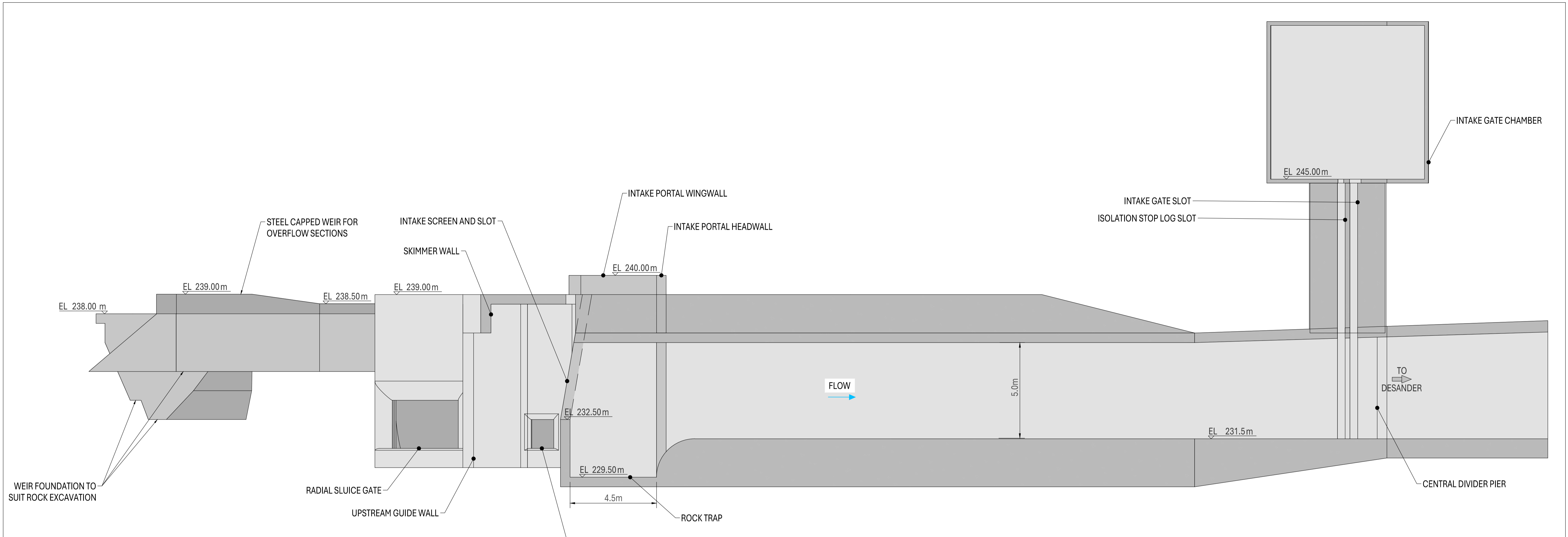
REVISION E

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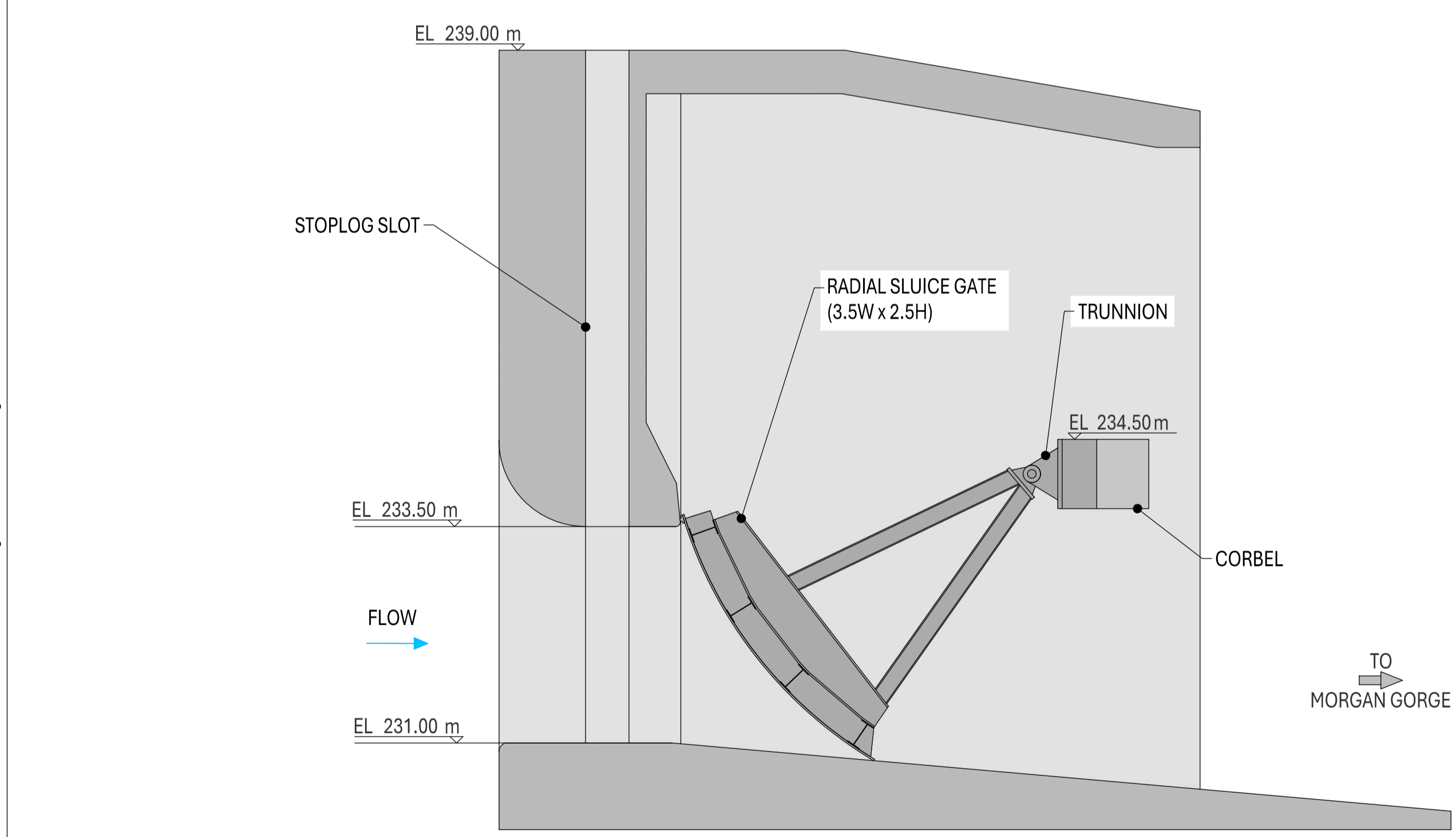


REV	REVISION DESCRIPTION	APPROVED	DATE
A	FOR CLIENT REVIEW	JKJ	4/11/2024
B	UPDATED DESIGN FOR CLIENT REVIEW	JKJ	20/12/2024
C	CONCEPT DESIGN - PREFERRED ARRANGEMENT	JKJ	17/01/2024
D	PRELIMINARY DESIGN - FOR INFORMATION	JKJ	02/05/2025
E	PRELIMINARY DESIGN - MINOR CORRECTION	JKJ	24/07/2025

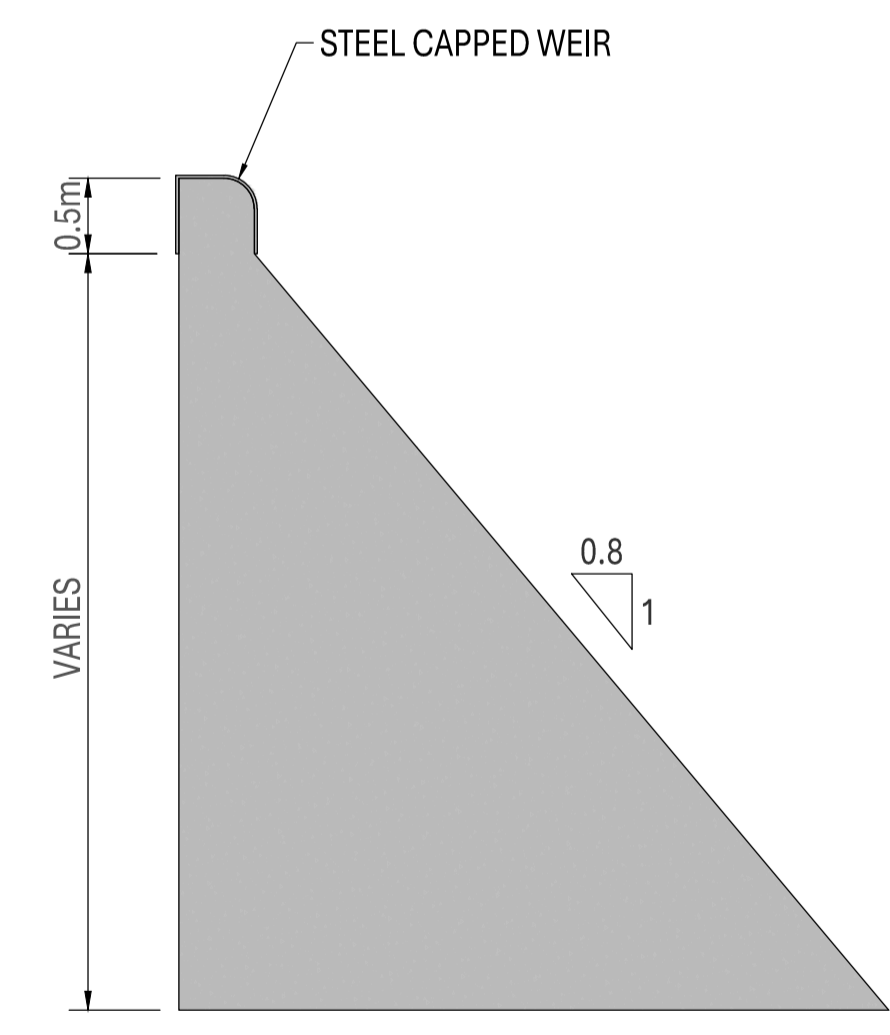
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**INTAKE ARRANGEMENT DETAIL**  
SCALE 1:100



**SECTION THROUGH SLUICE GATE CHAMBER**  
SCALE 1:50



**TYPICAL WEIR SECTION**  
SCALE 1:50

DESIGNER

CLIENT

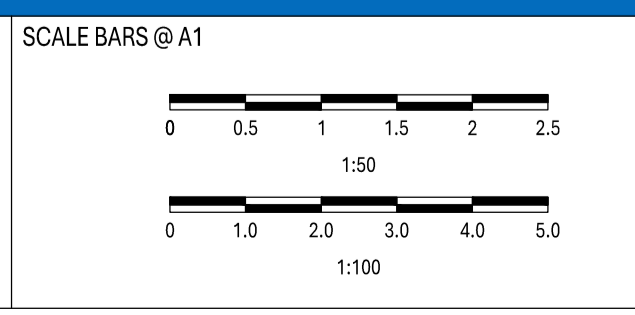
DATE PLOTTED	Thursday, 24 July 2025
DRAWN BY	KBA
DESIGN ENGINEER	WWW
LEAD ENGINEER	DC
PROJECT MANAGER	JKJ

**WAITAHA HYDROPOWER PROJECT**  
**PRELIMINARY DESIGN**  
**HEADWORKS GENERAL ARRANGEMENT**  
**SECTION AND DETAILS**

DRAWING NUMBER WP-WTH-C-310

REVISION E

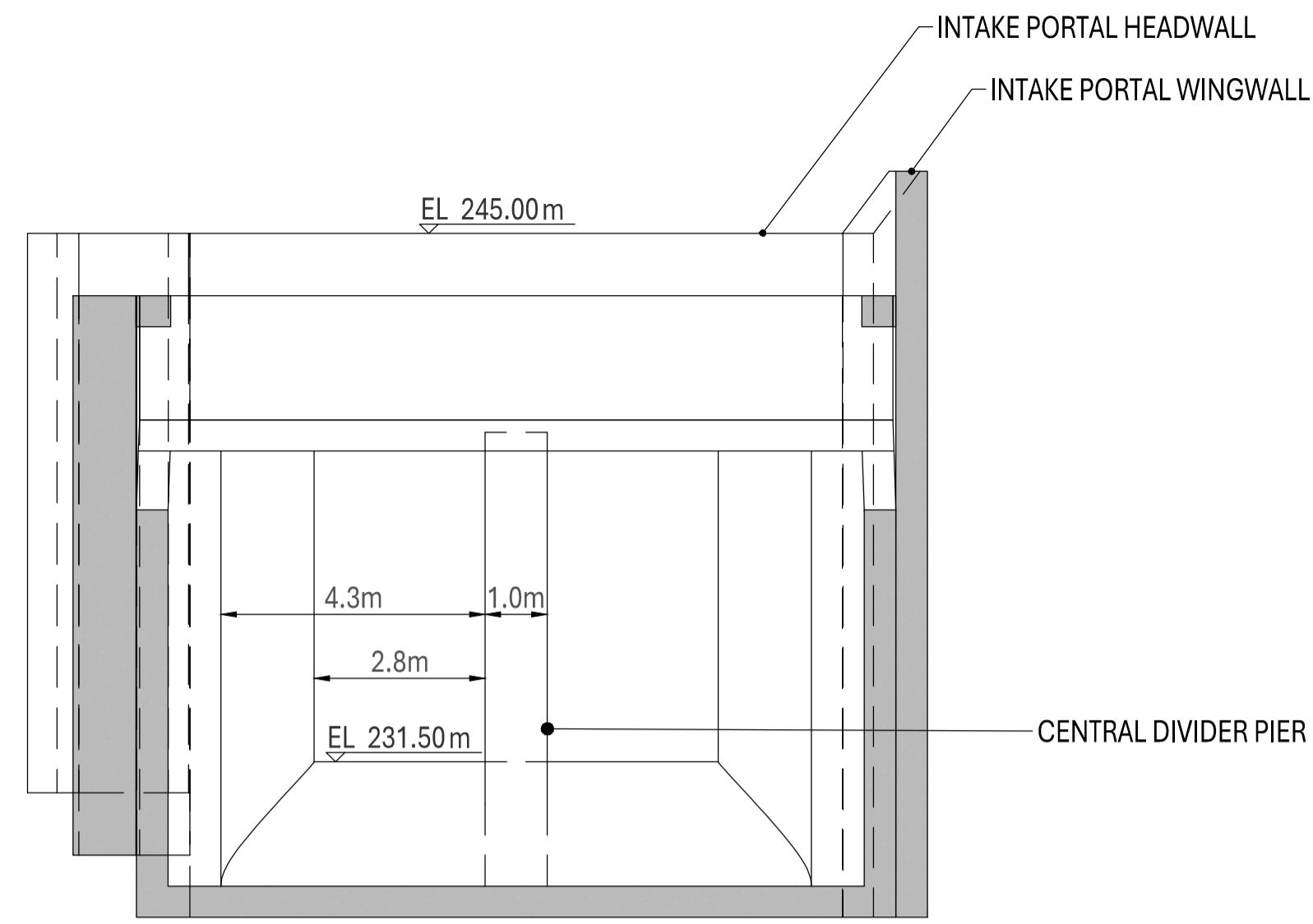
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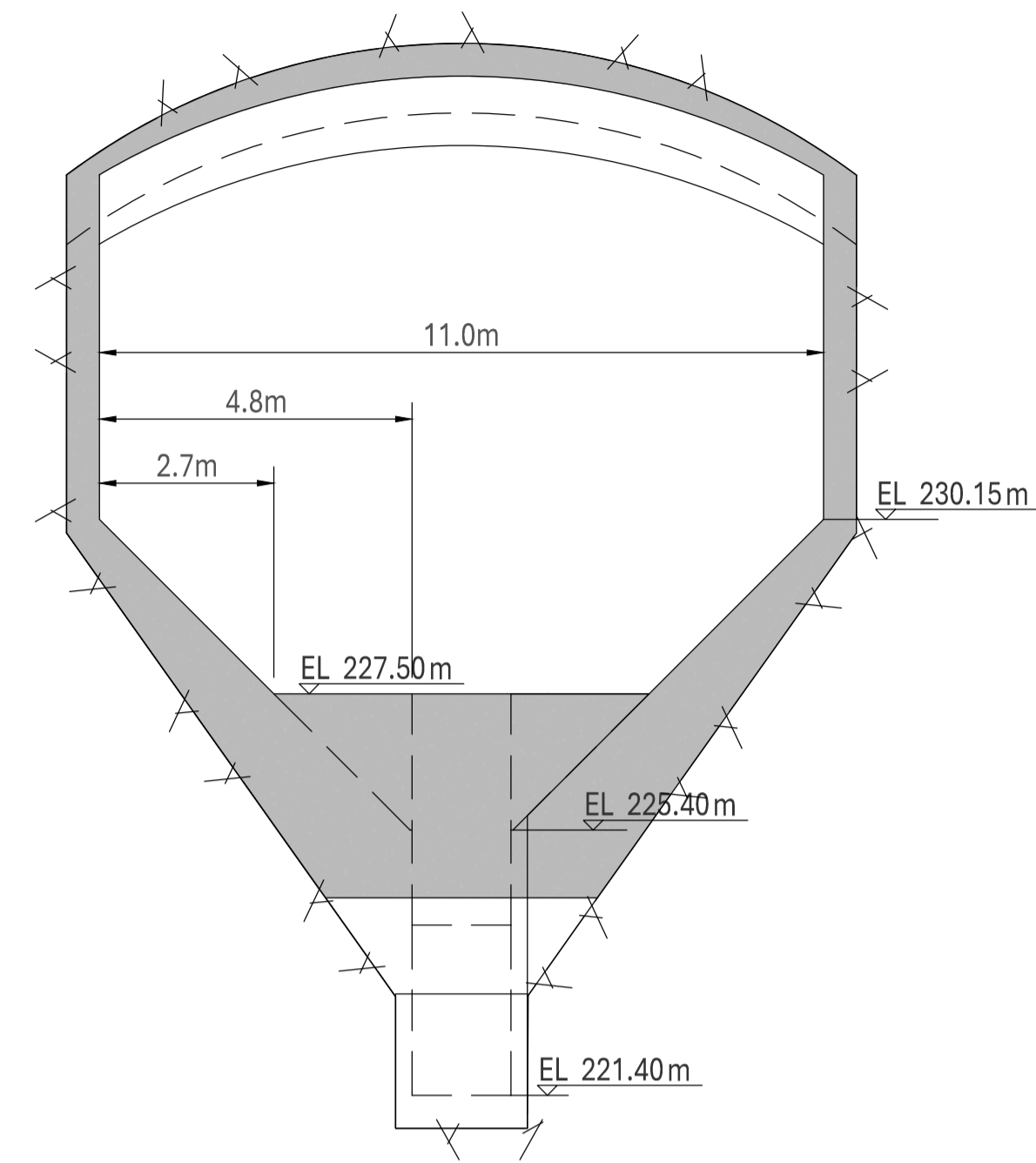
REV	REVISION DESCRIPTION	APPROVED	DATE
A	FOR CLIENT REVIEW	JKJ	4/11/2024
B	UPDATED DESIGN FOR CLIENT REVIEW	JKJ	20/12/2024
C	CONCEPT DESIGN - PREFERRED ARRANGEMENT	JKJ	17/01/2024
D	PRELIMINARY DESIGN - FOR INFORMATION	JKJ	02/05/2025
E	PRELIMINARY DESIGN - MINOR CORRECTION	JKJ	24/07/2025

Drawing File Location: D:\Australian Hydropower\PROJECT - External - Documents\General\Waitaha\02\_Drawings\WHP-LS-DETAILS.dwg

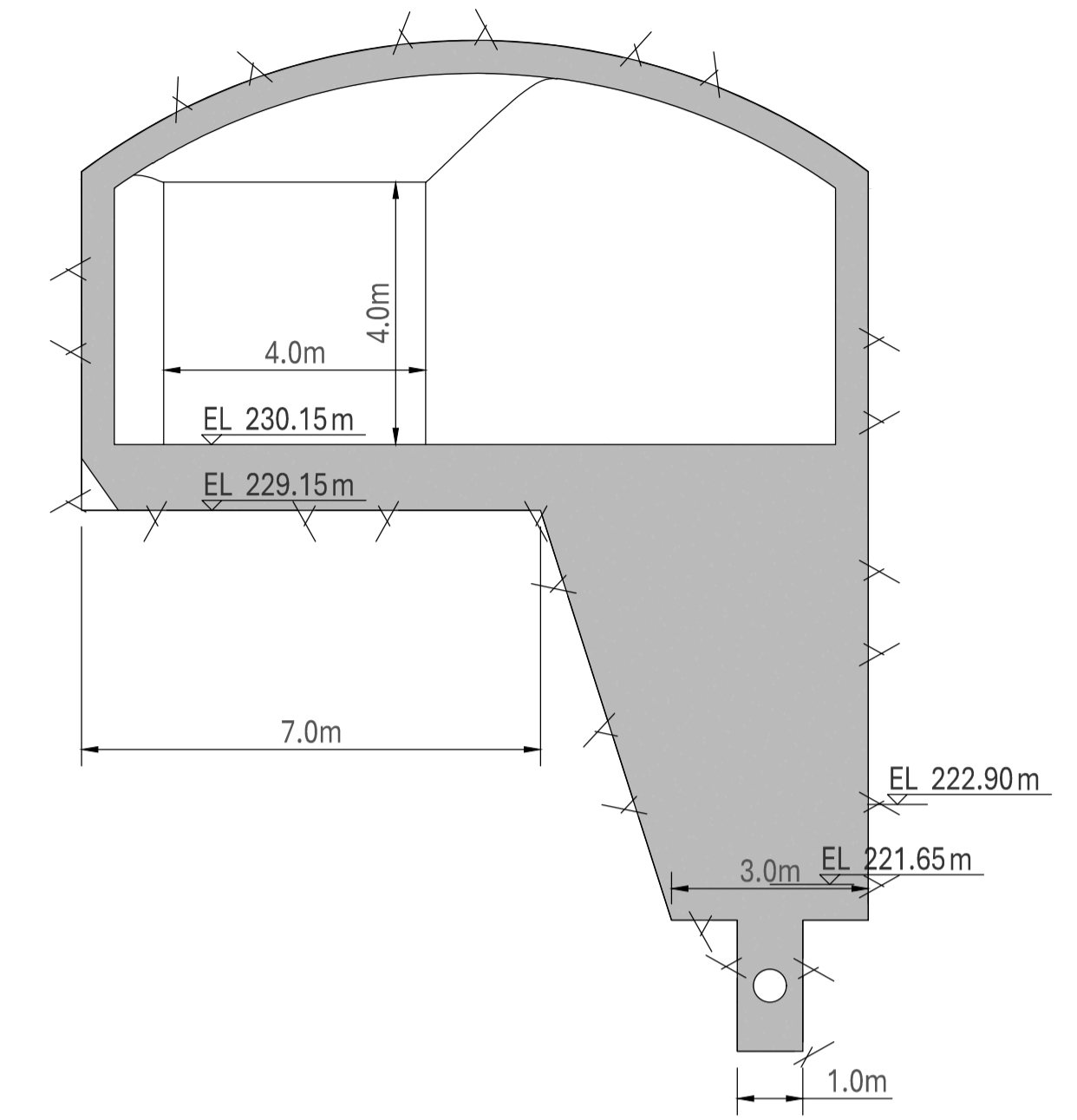




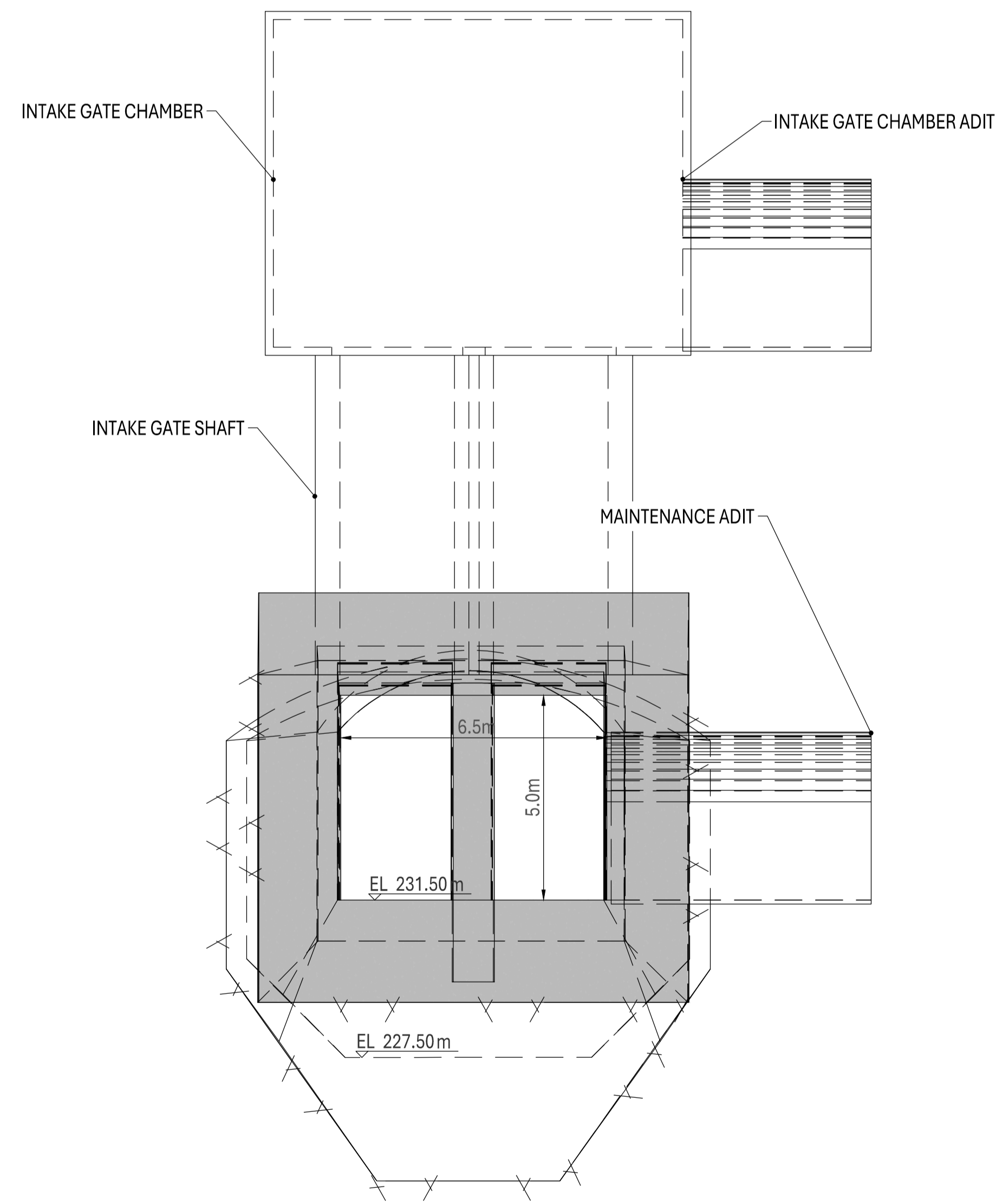
SECTION AT INTAKE A  
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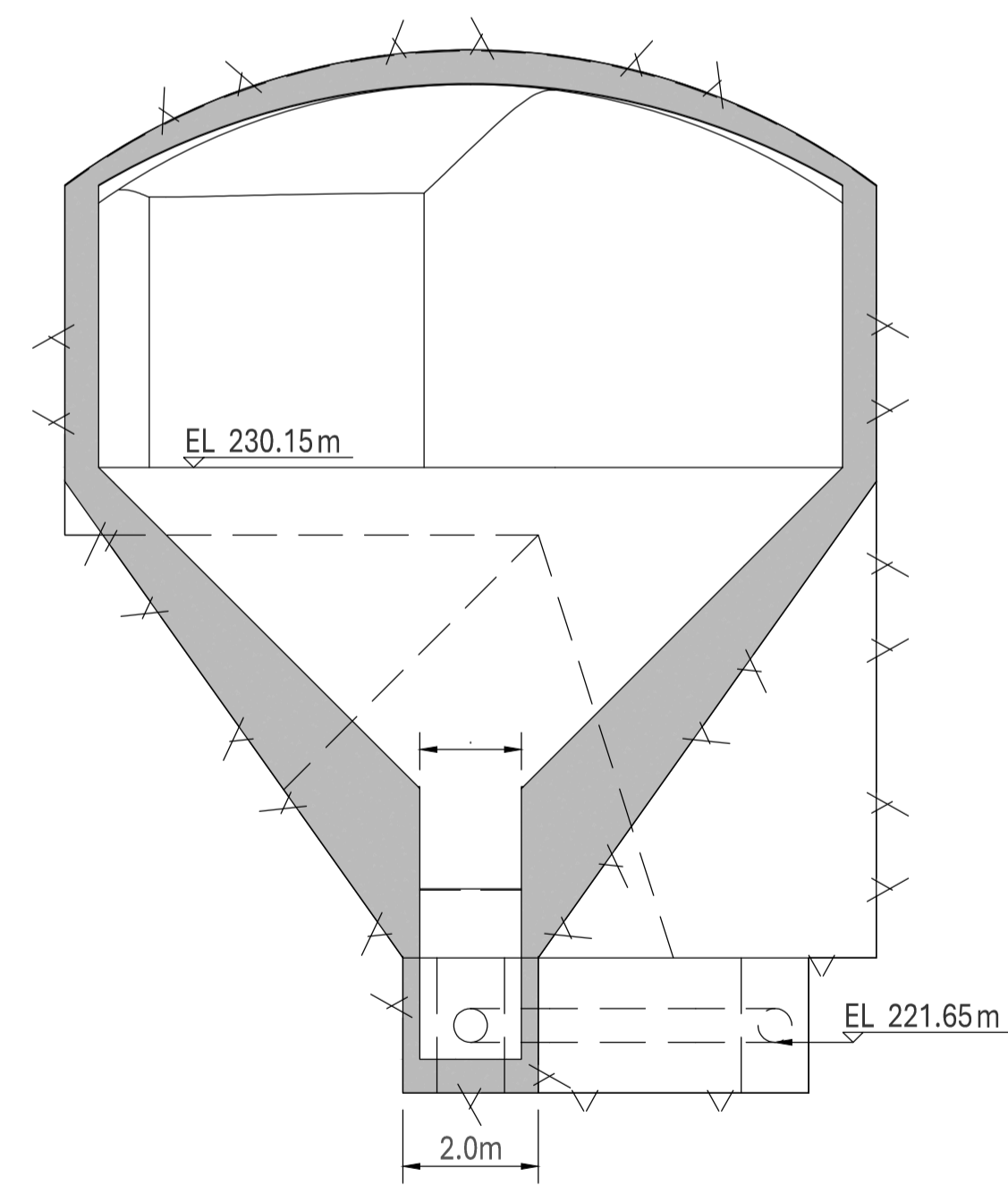
SECTION AT START OF DESANDER C  
SCALE 1:100 C-300



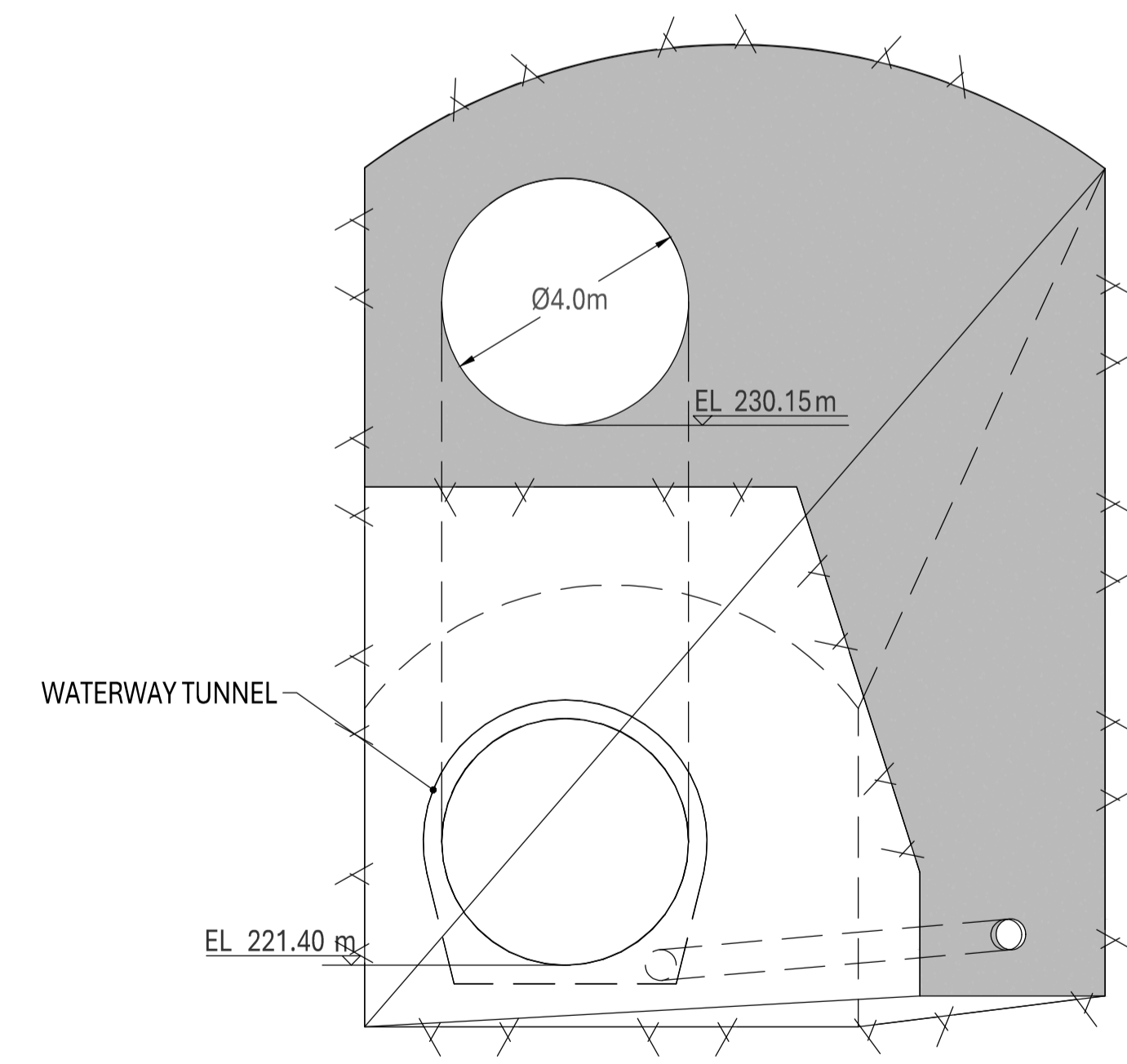
SECTION AT HEADGATE BELLMOUTH E  
SCALE 1:100 C-300



SECTION AT TRANSITION TO DESANDER B  
SCALE 1:100 C-300

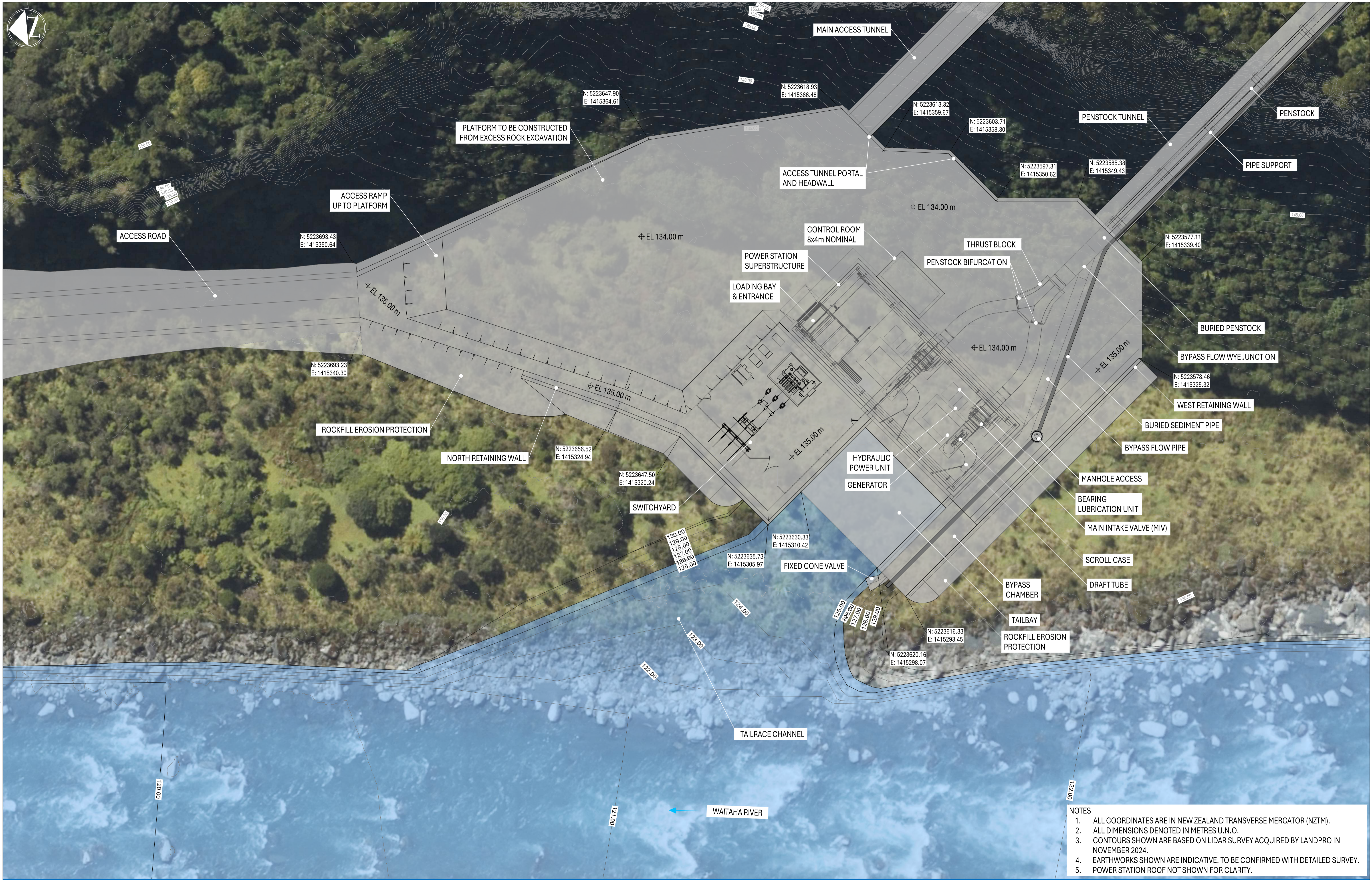


SECTION AT DESANDER SUMP D  
SCALE 1:100 C-300



SECTION AT TRANSITION TO WATERWAY F  
SCALE 1:100 C-300

Drawing File Location: F:\Australian Hydropower\PROJECT - External\General\Waitaha\02\_Drawings\WHP-LS-DETAILS.dwg



- NOTES**
1. ALL COORDINATES ARE IN NEW ZEALAND TRANSVERSE MERCATOR (NZTM).
  2. ALL DIMENSIONS DENOTED IN METRES U.N.O.
  3. CONTOURS SHOWN ARE BASED ON LIDAR SURVEY ACQUIRED BY LANDPRO IN NOVEMBER 2024.
  4. EARTHWORKS SHOWN ARE INDICATIVE. TO BE CONFIRMED WITH DETAILED SURVEY.
  5. POWER STATION ROOF NOT SHOWN FOR CLARITY.

DESIGNER

CLIENT

DATE PLOTTED	Friday, May 2, 2025
DRAWN BY	KBA
DESIGN ENGINEER	WWW
LEAD ENGINEER	DC
PROJECT MANAGER	JKJ

**WAITAHA HYDROPOWER PROJECT**  
**PRELIMINARY DESIGN**  
**POWER STATION GENERAL ARRANGEMENT**  
**GENERAL LAYOUT**

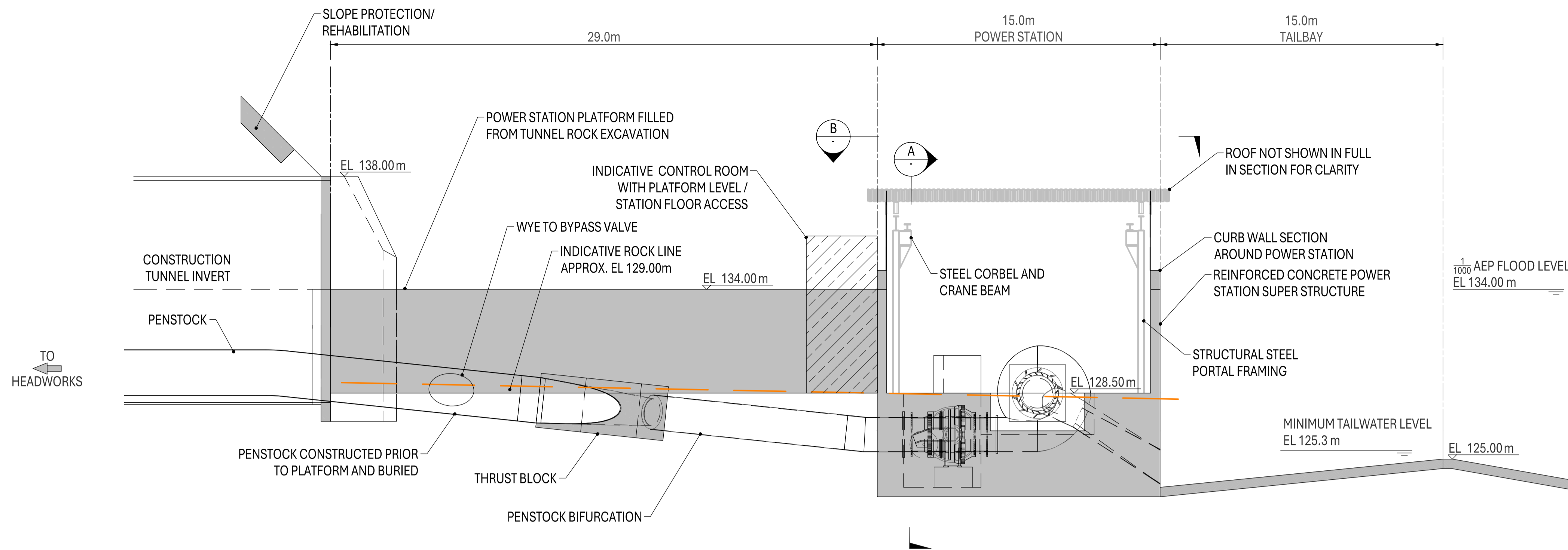
DRAWING NUMBER WP-WTH-C-400      REVISION E

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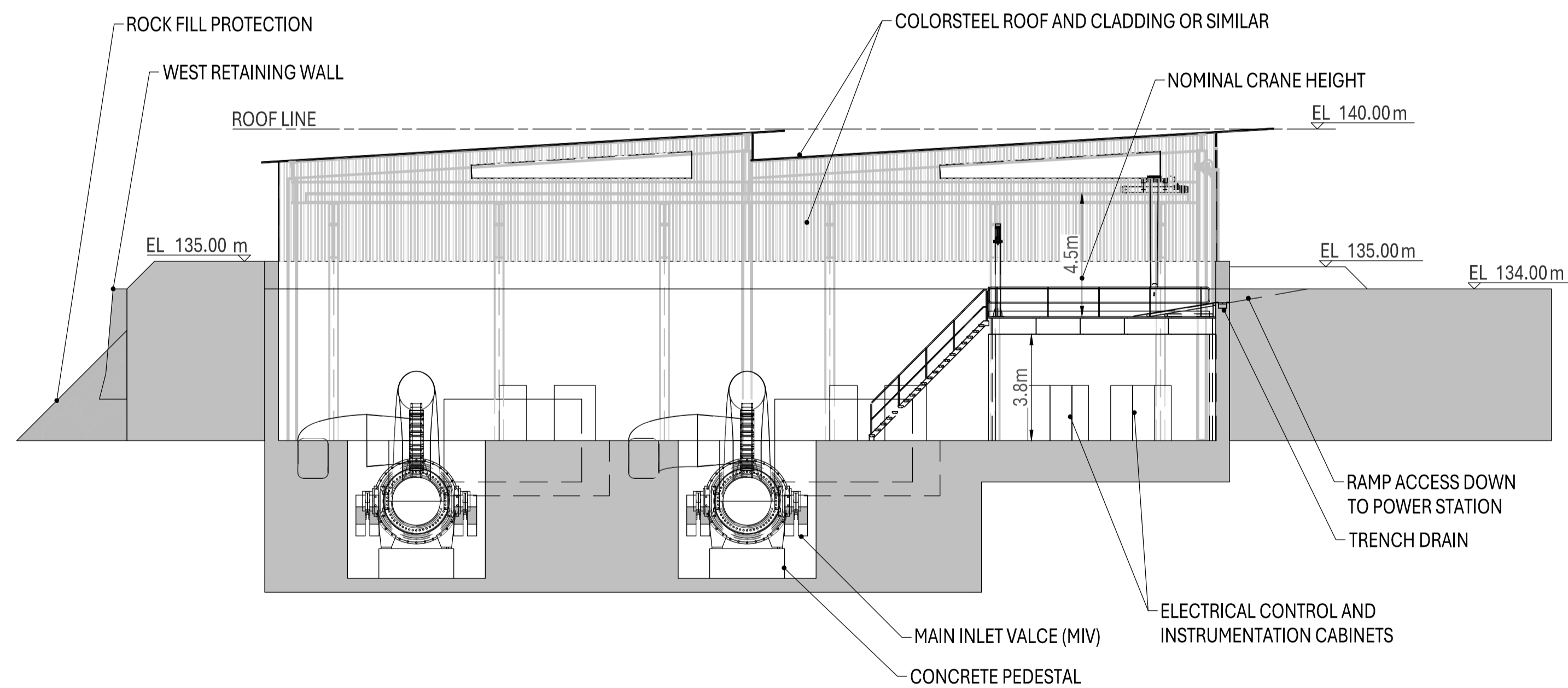
SCALE BARS @ A1

REV	REVISION DESCRIPTION	APPROVED	DATE
A	FOR CLIENT REVIEW	JKJ	11/10/2024
B	UPDATED DESIGN FOR CLIENT REVIEW	JKJ	20/12/2024
C	CONCEPT DESIGN - PREFERRED ARRANGEMENT	JKJ	17/01/2025
D	MINOR REVISION	JKJ	28/02/2025
E	PRELIMINARY DESIGN - FOR INFORMATION	JKJ	02/05/2025

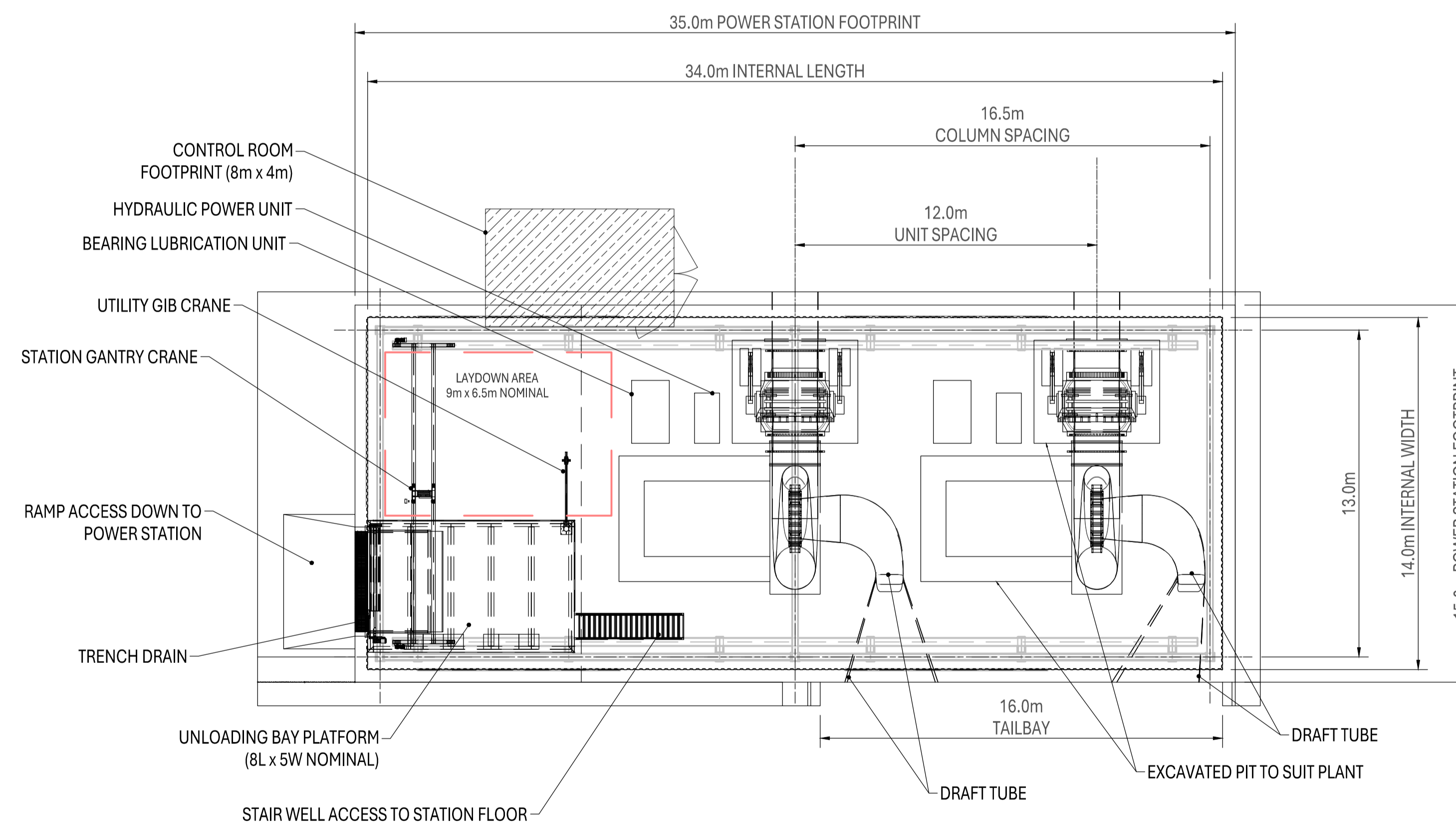
Drawing File Location: F:\Australian Hydropower\PROJECT - External - Documents\General\Waitaha\02\_Drawings\WHP-GA-AND-SECT R1.dwg



SECTION THROUGH POWER STATION ALONG WATERWAY  
SCALE 1:150



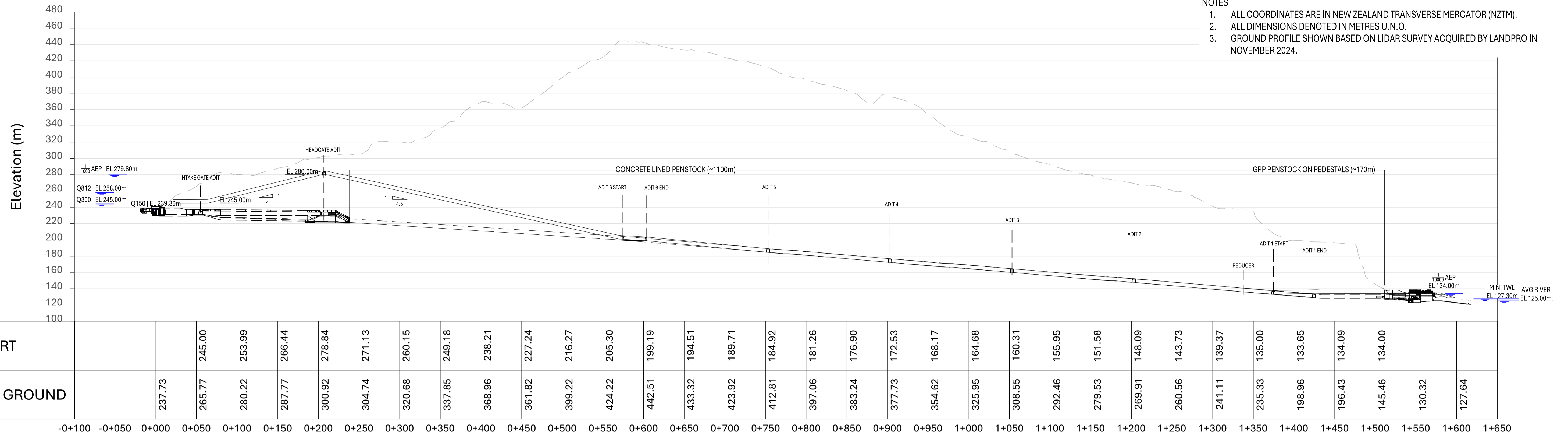
LONGSECTION THROUGH POWER STATION A  
SCALE 1:150



POWER STATION FLOOR SECTION B  
SCALE 1:150

- NOTES
1. EXTENT OF POWER STATION EXCAVATION IS SHOWN INDICATIVELY. TO BE DETERMINED BASED ON RESULT OF GEOLOGICAL INVESTIGATION.
  2. E&M PLANT SHOWN FOR ILLUSTRATIVE PURPOSES - INFORMATION TO BE SUPPLANTED BY SUPPLIER.
  3. POWER STATION STRUCTURE SHOWN INDICATIVELY FOR SPACE-ROOFING.

- NOTES
1. ALL COORDINATES ARE IN NEW ZEALAND TRANSVERSE MERCATOR (NZTM).
  2. ALL DIMENSIONS DENOTED IN METRES U.N.O.
  3. GROUND PROFILE SHOWN BASED ON LIDAR SURVEY ACQUIRED BY LANDPRO IN NOVEMBER 2024.



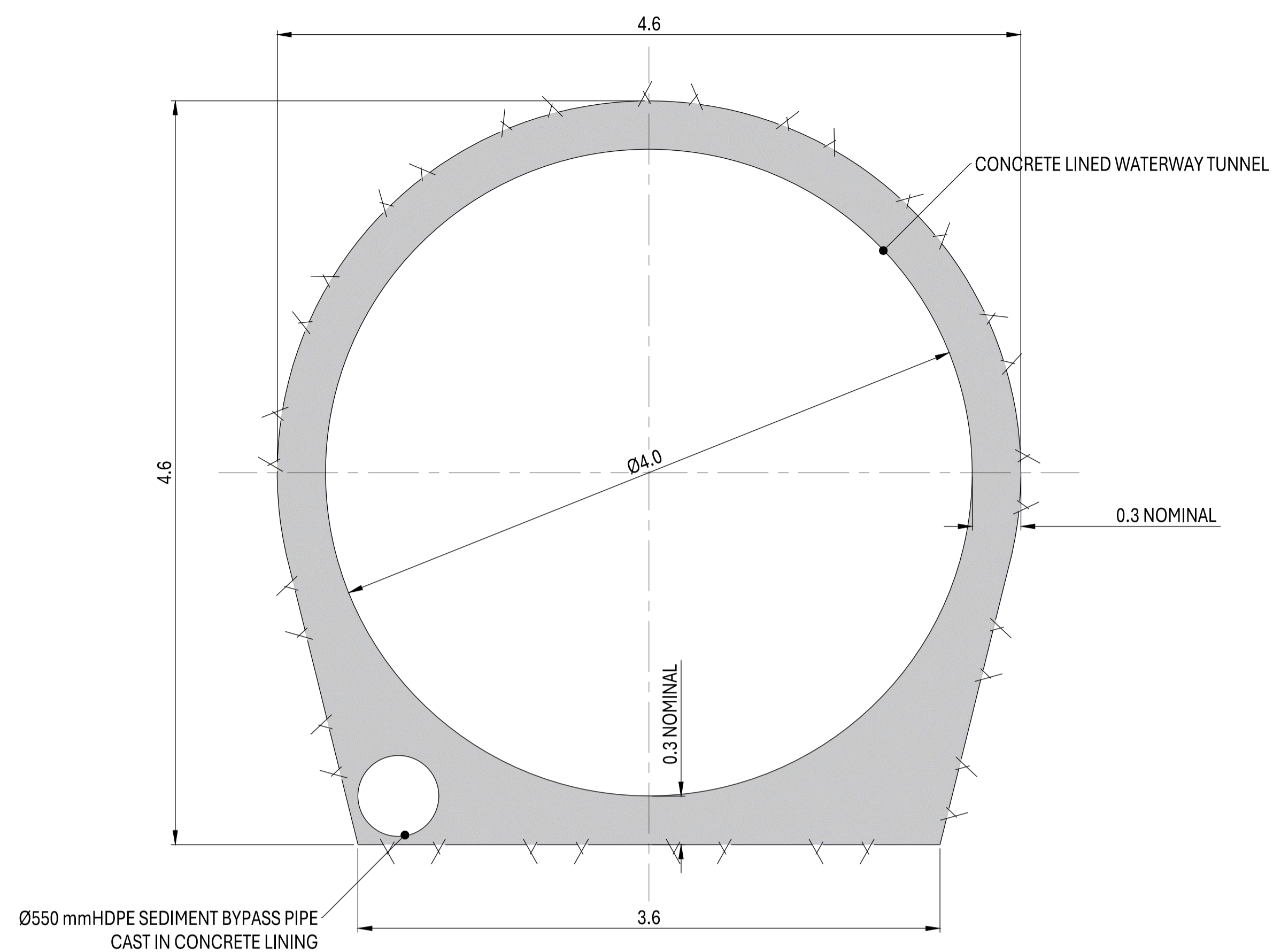
SCHMATIC ACCESS TUNNEL LONGSECTION  
SCALE 1:2500



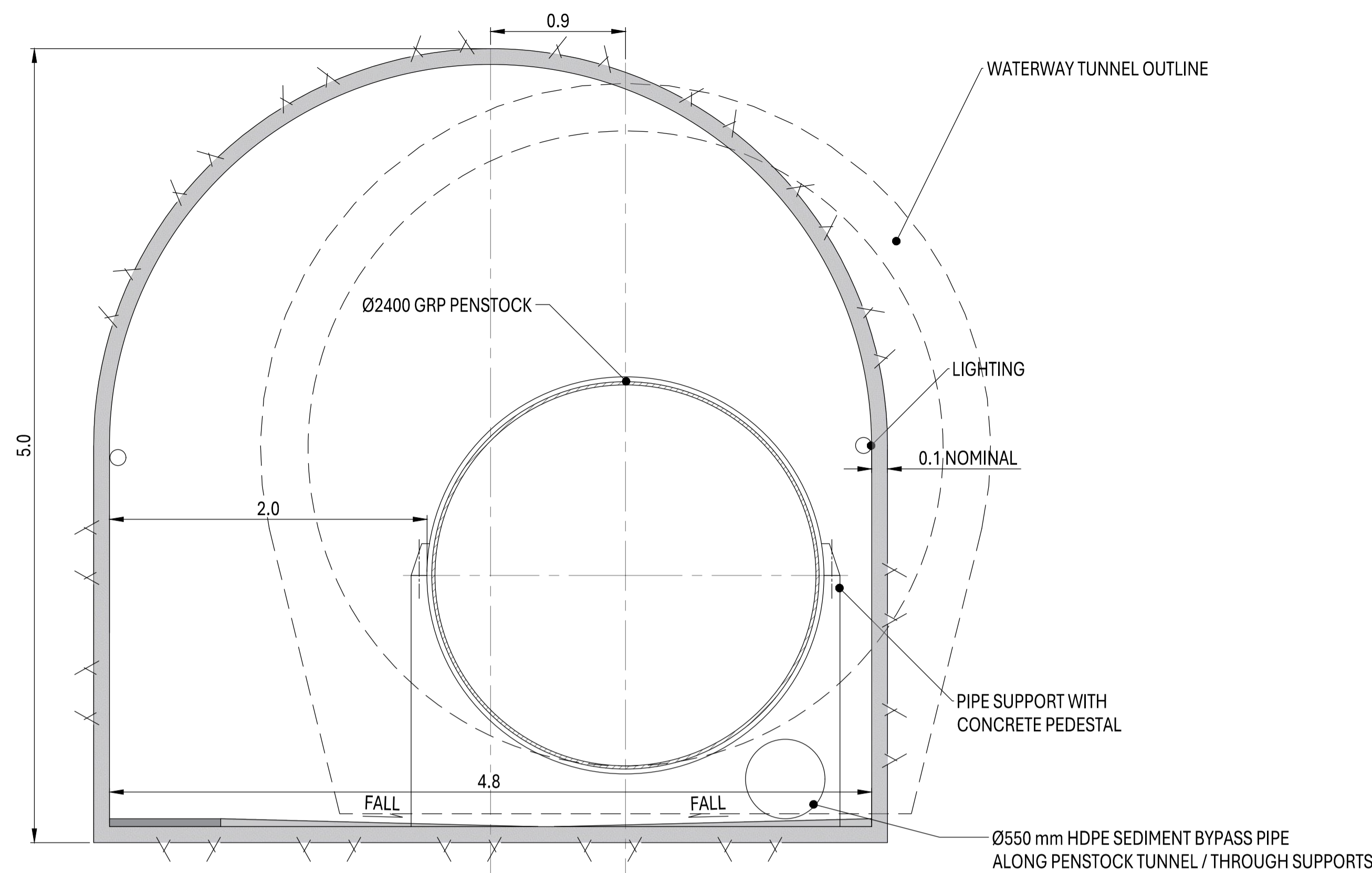
ADIT 1 CONNECTION TO WATERWAY  
SCALE 1:500



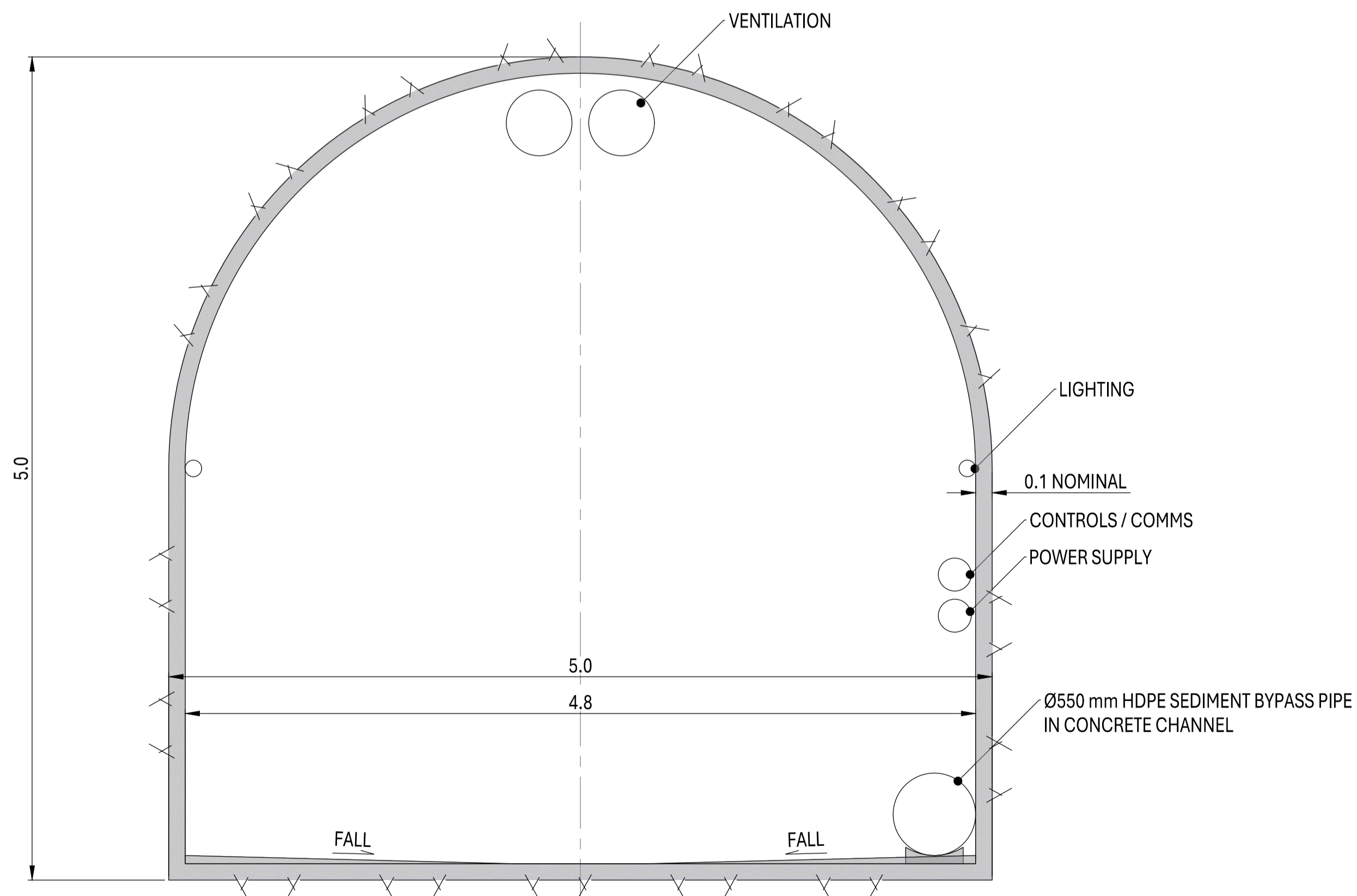
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SCALE 1:500



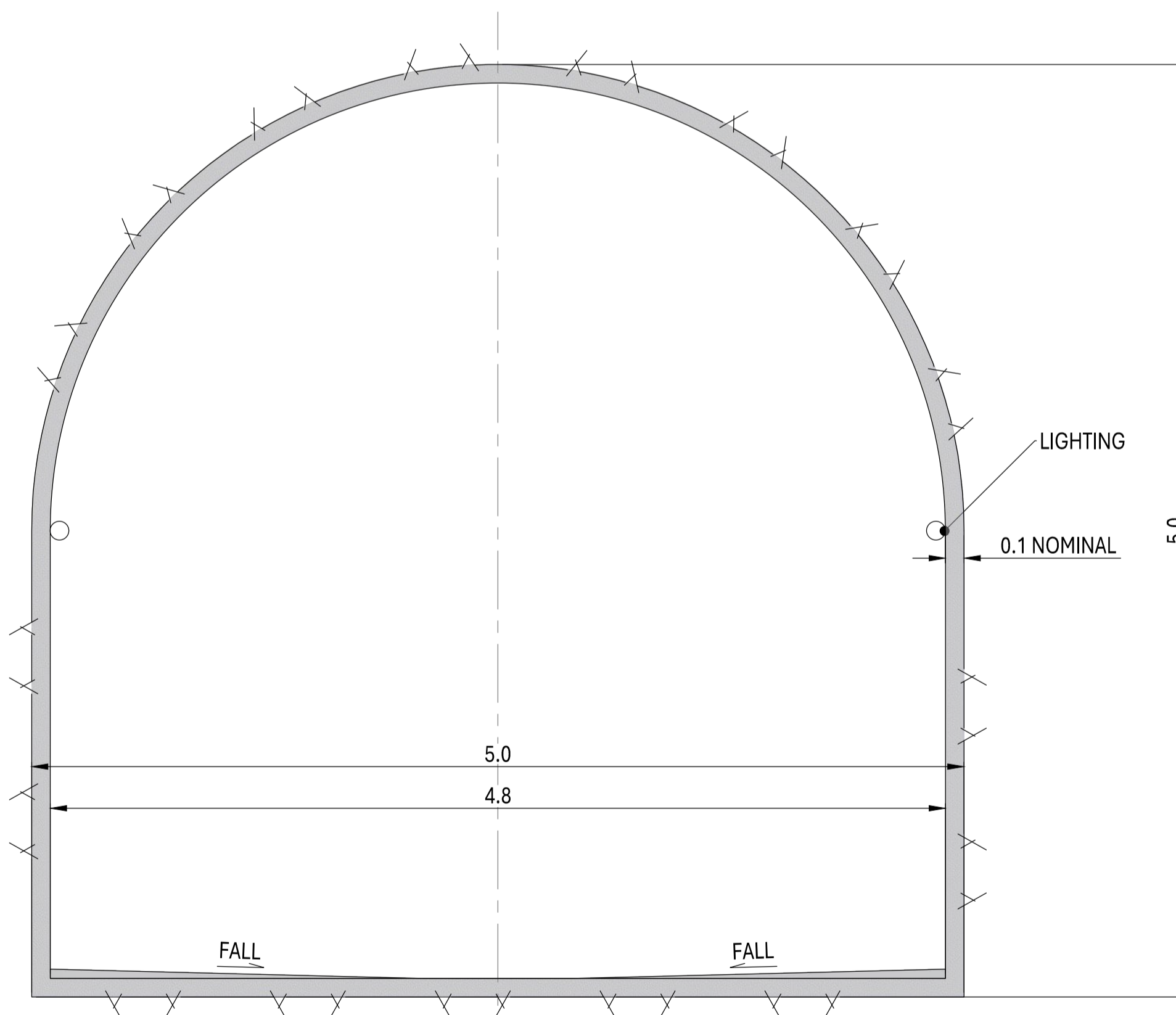
TYPICAL WATERWAY SECTION  
SCALE 1:25



EXPOSED PENSTOCK WATERWAY TUNNEL SECTION  
SCALE 1:25



ACCESS TUNNEL SECTION  
SCALE 1:25



TYPICAL ADIT SECTION  
SCALE 1:25

- NOTES
1. ALL MEASUREMENTS DENOTED IN METRES U.N.O.
  2. TUNNEL SUPPORT REQUIREMENTS AND LINING THICKNESS ARE SUBJECT TO THE RESULT OF GEOLOGICAL INVESTIGATIONS.
  3. ALL TUNNEL SECTIONS ARE LOOKING FROM DOWNSTREAM (POWER STATION) TOWARDS UPSTREAM (HEADWORKS).

Drawing File Location: F:\Australian Hydropower\PROJECT - External - Documents\General\Waitaha\02\_Drawings\WHP-LS-DETAILS.dwg

DESIGNER

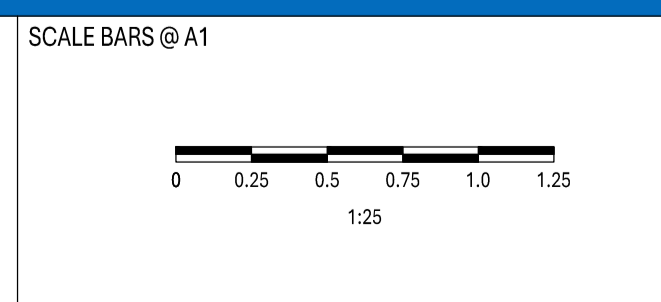
CLIENT

DATE PLOTTED	Friday, May 2, 2025
DRAWN BY	KBA
DESIGN ENGINEER	WWW
LEAD ENGINEER	DC
PROJECT MANAGER	JKJ

WAITAHA HYDROPOWER PROJECT  
PRELIMINARY DESIGN  
WATERWAY GENERAL ARRANGEMENT  
TYPICAL TUNNEL SECTIONS

DRAWING NUMBER WP-WTH-C-510 REVISION D

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REV	REVISION DESCRIPTION	APPROVED	DATE
A	FOR CLIENT REVIEW	JKJ	11/10/2024
B	UPDATED DESIGN FOR CLIENT REVIEW	JKJ	20/12/2024
C	CONCEPT DESIGN - PREFERRED ARRANGEMENT	JKJ	17/01/2024
D	PRELIMINARY DESIGN - FOR INFORMATION	JKJ	02/05/2025



- NOTES**
1. ALL COORDINATES ARE IN NEW ZEALAND TRANSVERSE MERCATOR (NZTM).
  2. ALL DIMENSIONS DENOTED IN METRES U.N.O.
  3. CONTOURS SHOWN ARE BASED ON LIDAR SURVEY ACQUIRED BY LANDPRO IN NOVEMBER 2024.

Drawing File Location: F:\Australian Hydropower\PROJECT - External - Documents\General\Waitaha\02\_Drawings\WHP-GA-AND-SECT R1.dwg

DESIGNER



CLIENT

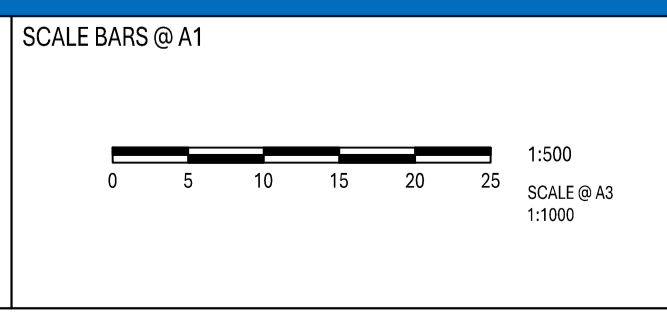


DATE PLOTTED	Friday, May 2, 2025
DRAWN BY	WW
DESIGN ENGINEER	JKJ
LEAD ENGINEER	DC
PROJECT MANAGER	JKJ

**WAITAHA HYDROPOWER PROJECT**  
**PRELIMINARY DESIGN**  
**POWER STATION GENERAL ARRANGEMENT**  
**INDICATIVE FCV PLUME SPRAY ZONE**

DRAWING NUMBER WP-WTH-C-610      REVISION A

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REV	REVISION DESCRIPTION	APPROVED	DATE
A	PRELIMINARY DESIGN - FOR INFORMATION	JKJ	02/05/2025



ACCESS ROAD

MAIN ACCESS TUNNEL

WATERWAY TUNNEL

CONCRETE SAFETY BARRIER

EXCAVATION KEEP OUT ZONE

CONSTRUCTION STAGING AREA

CONSTRUCTION STAGING AREA

TEMPORARY CONSTRUCTION ACCESS ROAD

TAILRACE EXCAVATED AT END OF CONSTRUCTION (FOR FLOOD PROTECTION)

**LEGEND**

- LOWBED TRUCK TRAILER - FOR TRANSPORTING TRANSFORMER / UNITS
- KOMATSU HM400 - FOR TRANSPORTING SPOIL / FILL
- LARGE RIGID VEHICLE - GENERAL SITE PLANT AND MATERIALS

- NOTES**
1. ALL COORDINATES ARE IN NEW ZEALAND TRANSVERSE MERCATOR (NZTM).
  2. ALL DIMENSIONS DENOTED IN METRES U.N.O.
  3. CONTOURS SHOWN ARE BASED ON LIDAR SURVEY ACQUIRED BY LANDPRO IN NOVEMBER 2024.
  4. EARTHWORKS SHOWN ARE INDICATIVE. TO BE CONFIRMED WITH DETAILED SURVEY.

DESIGNER



CLIENT

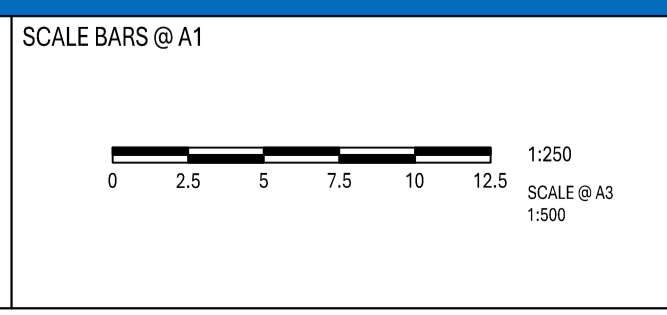


DATE PLOTTED	Friday, May 2, 2025
DRAWN BY	WW
DESIGN ENGINEER	WW
LEAD ENGINEER	DC
PROJECT MANAGER	JKJ

**WAITAHA HYDROPOWER PROJECT**  
**PRELIMINARY DESIGN**  
**POWER STATION GENERAL ARRANGEMENT**  
**INDICATIVE CONSTRUCTION LAYOUT**

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