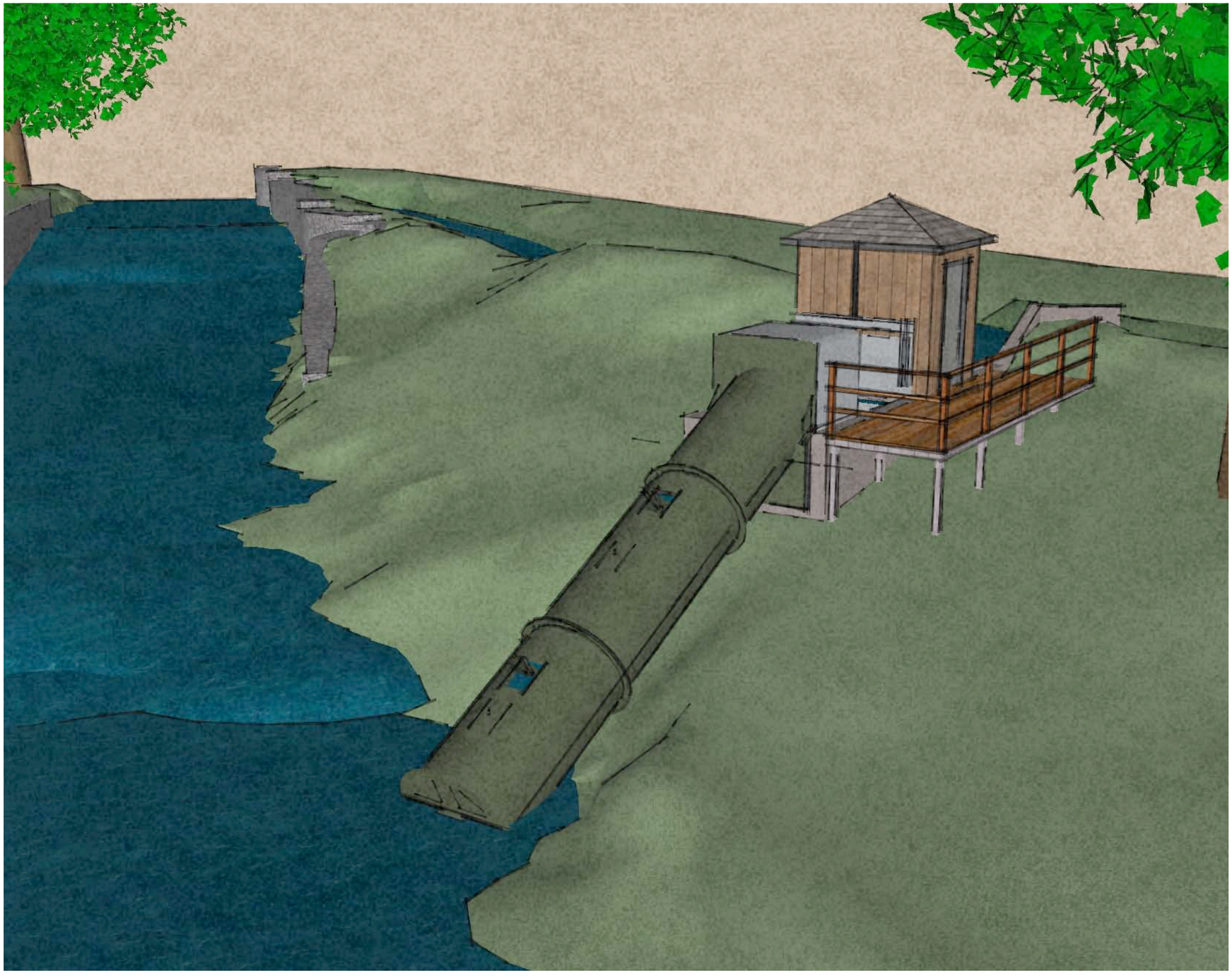
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DRAWINGS IN SET:

- Cover Page
- Change Page & Notes

1. Top view
2. Aligned top view of screw system
3. South face
4. North face
5. West & East faces (in and outflow)
6. Section - North face
7. Leat intake
8. Leat cross section - typical
9. Misc views - 1
10. Misc views - 2
11. Misc views - 3
12. Misc views of Control Building
13. Concrete structure - oblique
14. Concrete structure - top & side
15. Concrete section & end views
16. Walkway details
17. Archimedes screw - representative
18. Sluice gate
19. Grating

Changes:

April 4, 2011
1. First Release

Notes:

Known future updates
1. Level of screw upper mounting point (concrete level)
2. Level of mesh walkway under screw generator enclosure

On site decisions
1. Height of concrete at entrance (to match embankment). Currently drawn at maximum height
2. Control building flooring detail (concrete, wood, other, TBD)

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A3 Paper

Top View

In this view it is difficult to see details of the sluice gate and grating

North

Area of old leat filled in to block water flow

Control Building

Old laat excavated for new flow.
Typical cross section on Sheet 8

Intake structure in high bank of leat

Filled in area behind old intake

Old intake at top of weir.
Details for modifications on Sheet 7

Archimedes screw

Approximate Extent of Weir

River flow

Old intake
Must be blocked
(if not already)

New fish pass extends along left side of the weir face.
Details of fish pass shown in a separate drawing

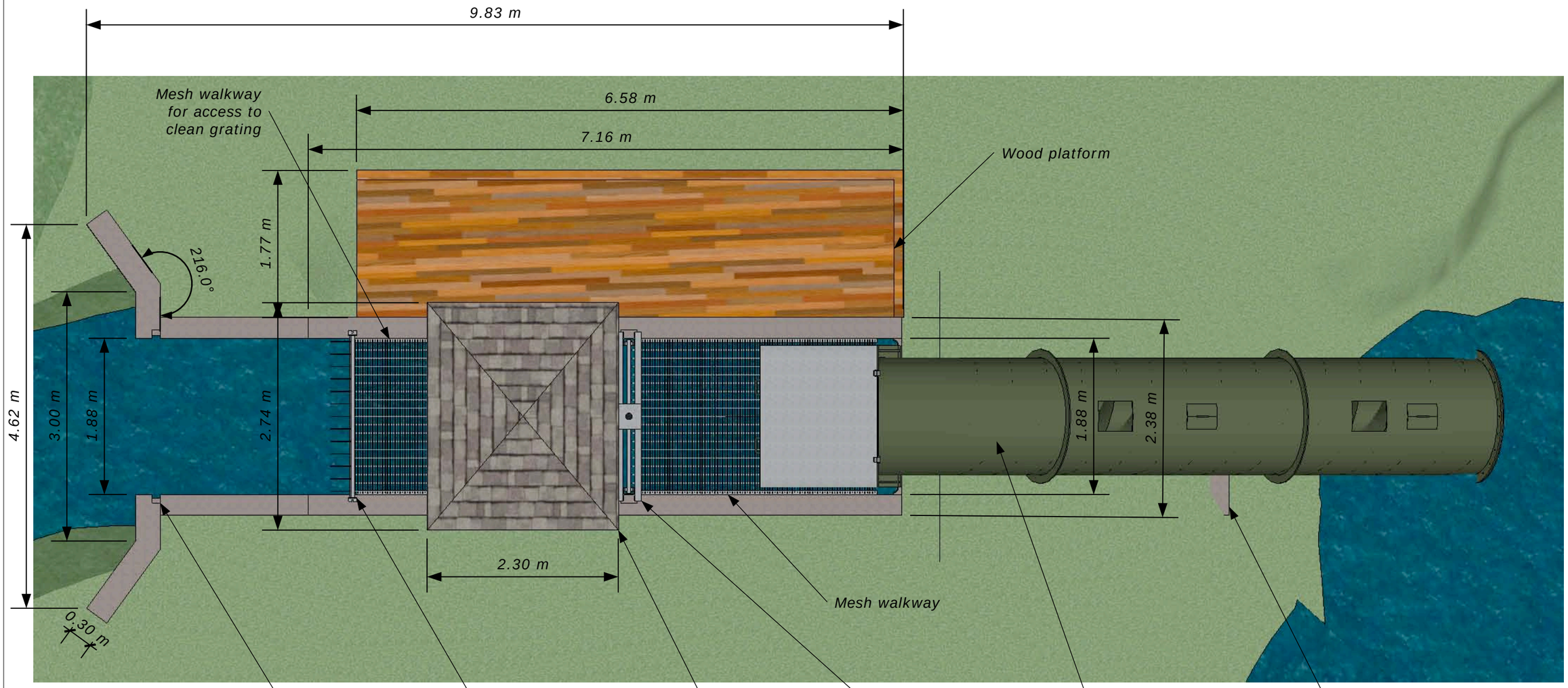
25 m

SHEET 1

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Aligned Top View of Screw System



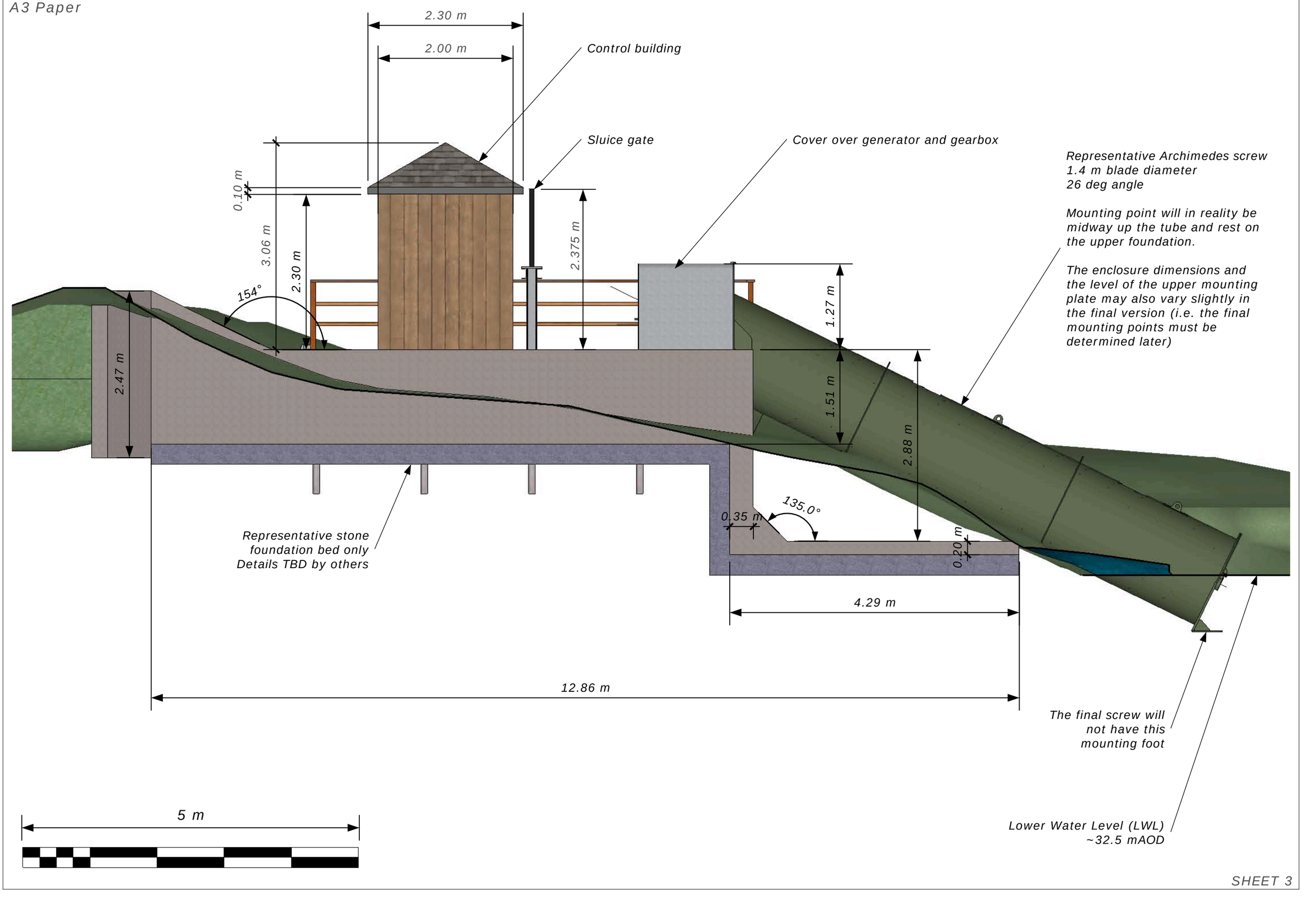
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SHEET 2

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South Face



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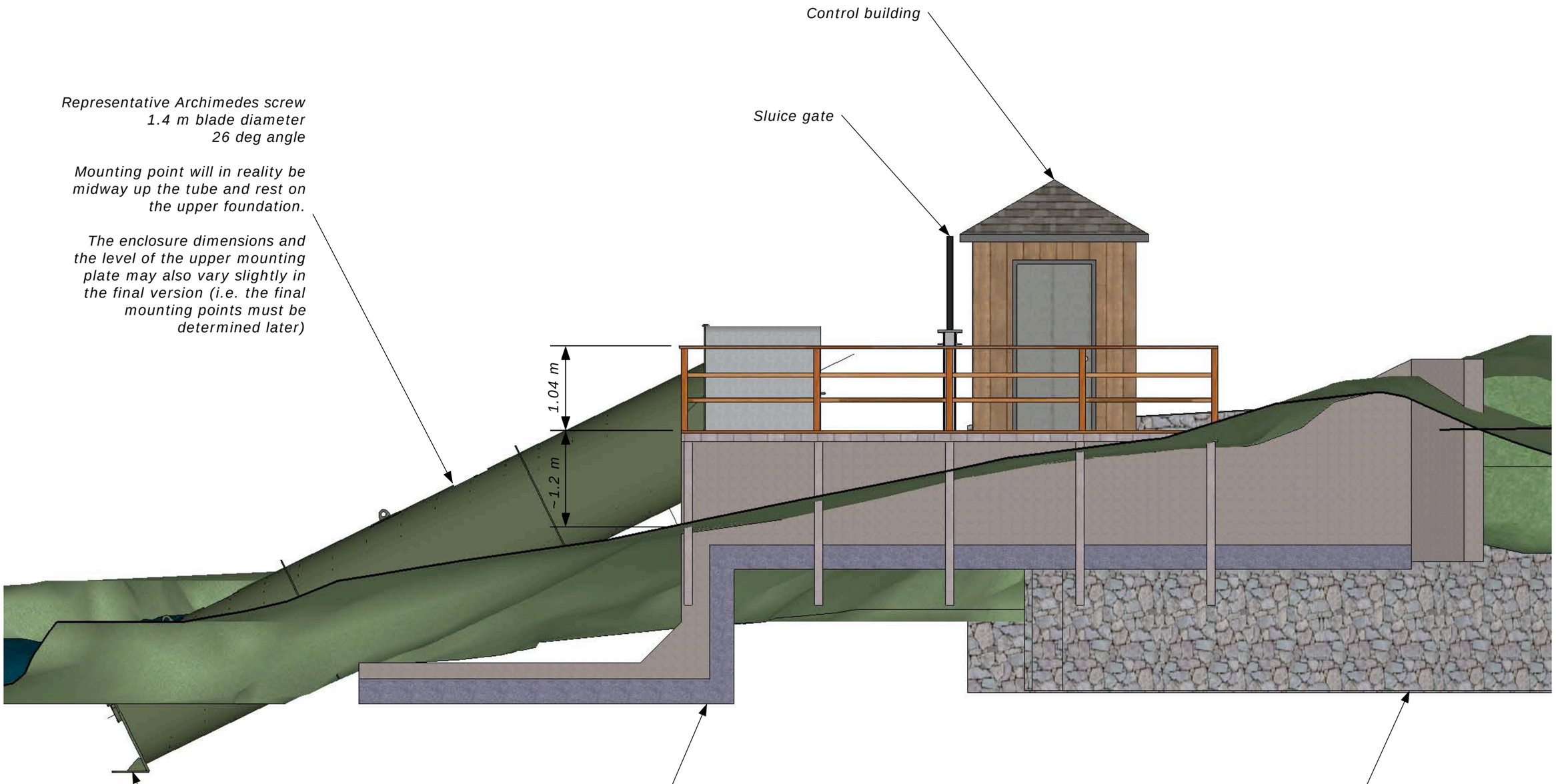
North Face

See Sheet 2 for additional dimensions

Representative Archimedes screw
1.4 m blade diameter
26 deg angle

Mounting point will in reality be midway up the tube and rest on the upper foundation.

The enclosure dimensions and the level of the upper mounting plate may also vary slightly in the final version (i.e. the final mounting points must be determined later)



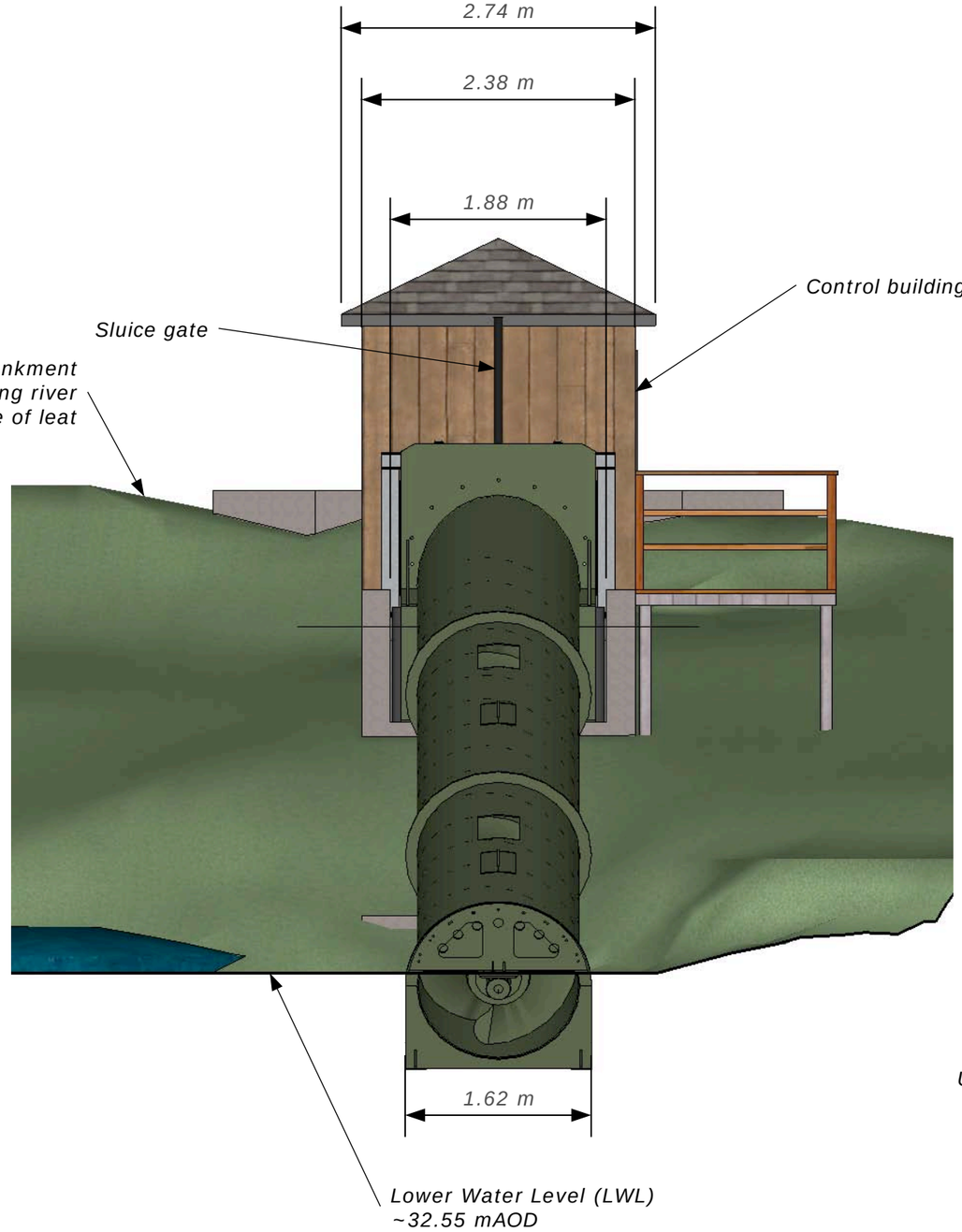
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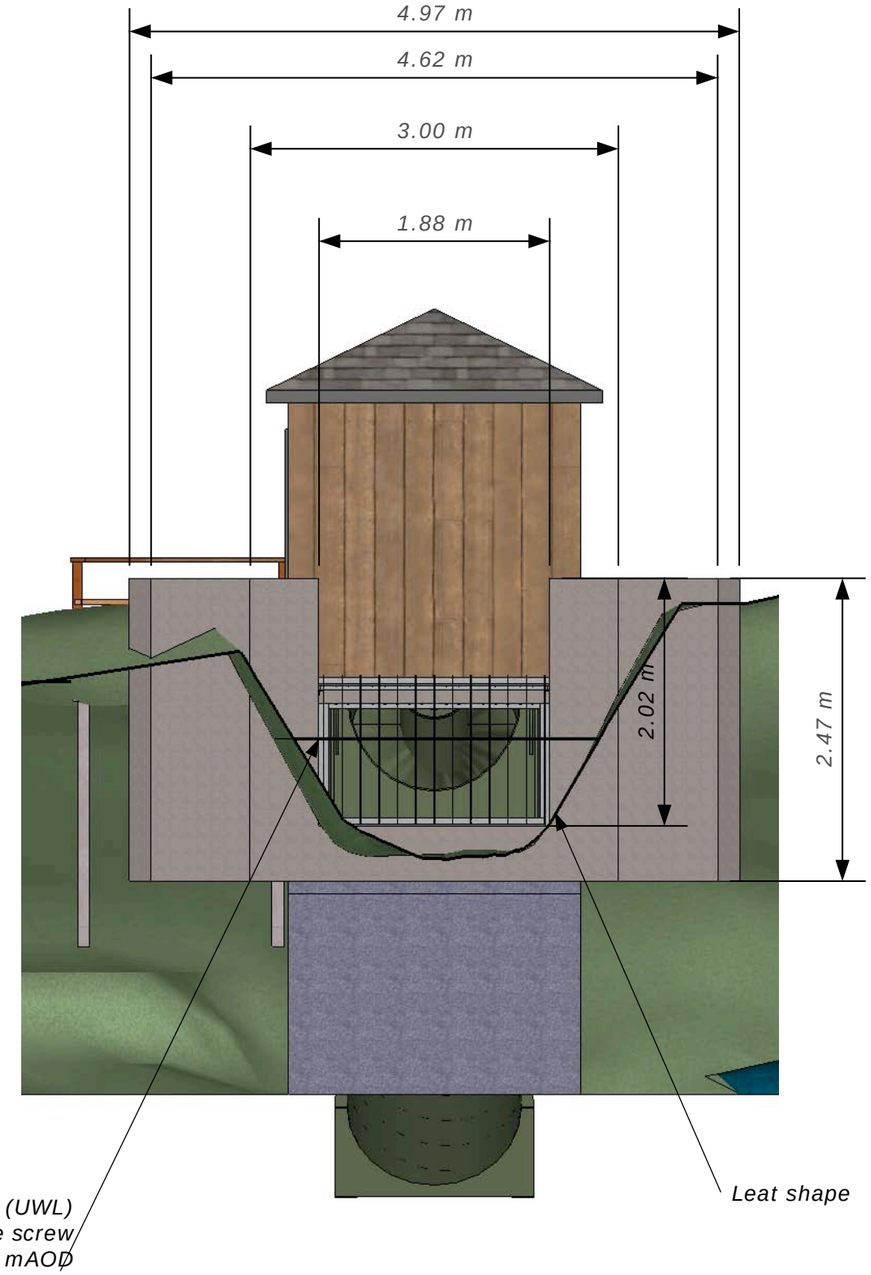
SHEET 4

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West and East Face (In & Outflow)





5 m

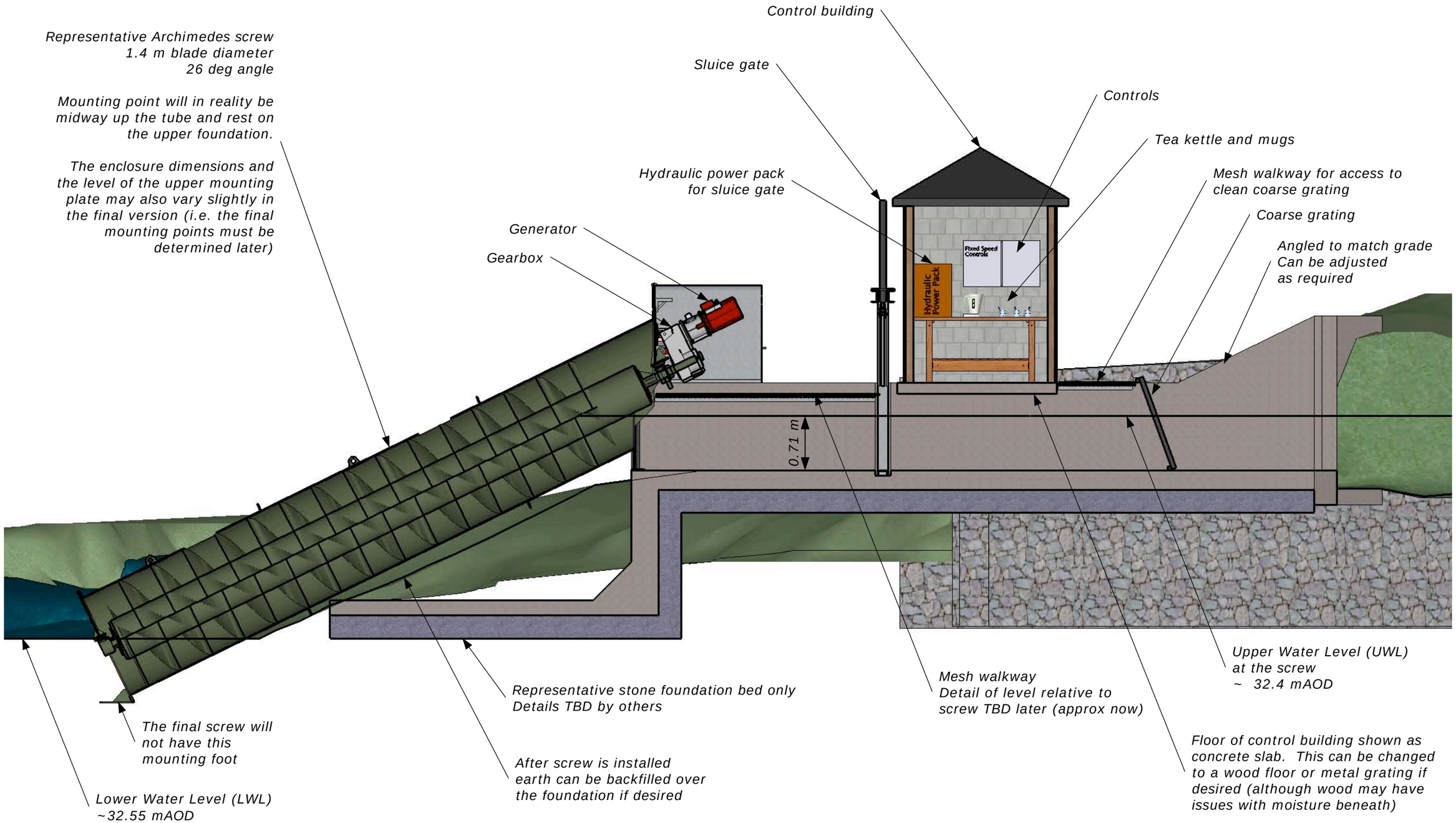
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Section - North Face

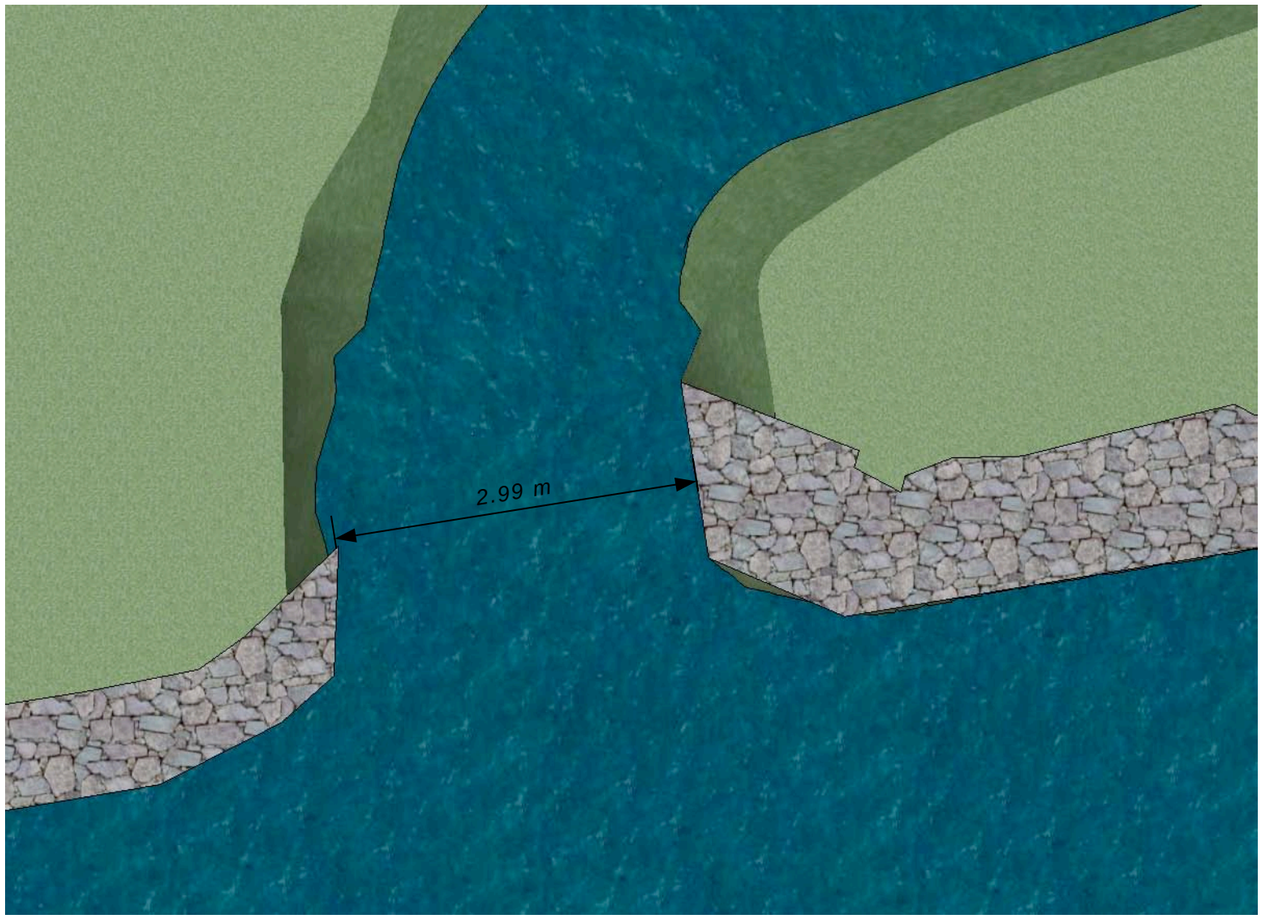
See Sheet 2 for additional dimensions

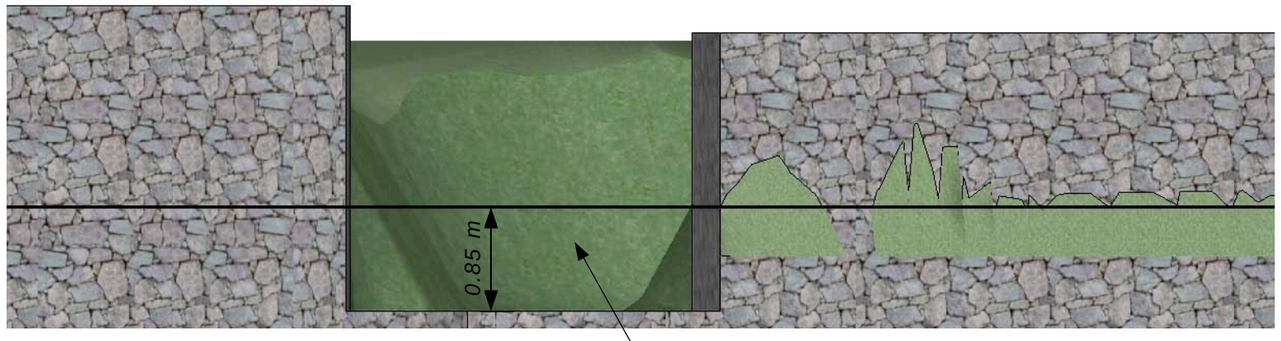


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Leat Intake





5 m

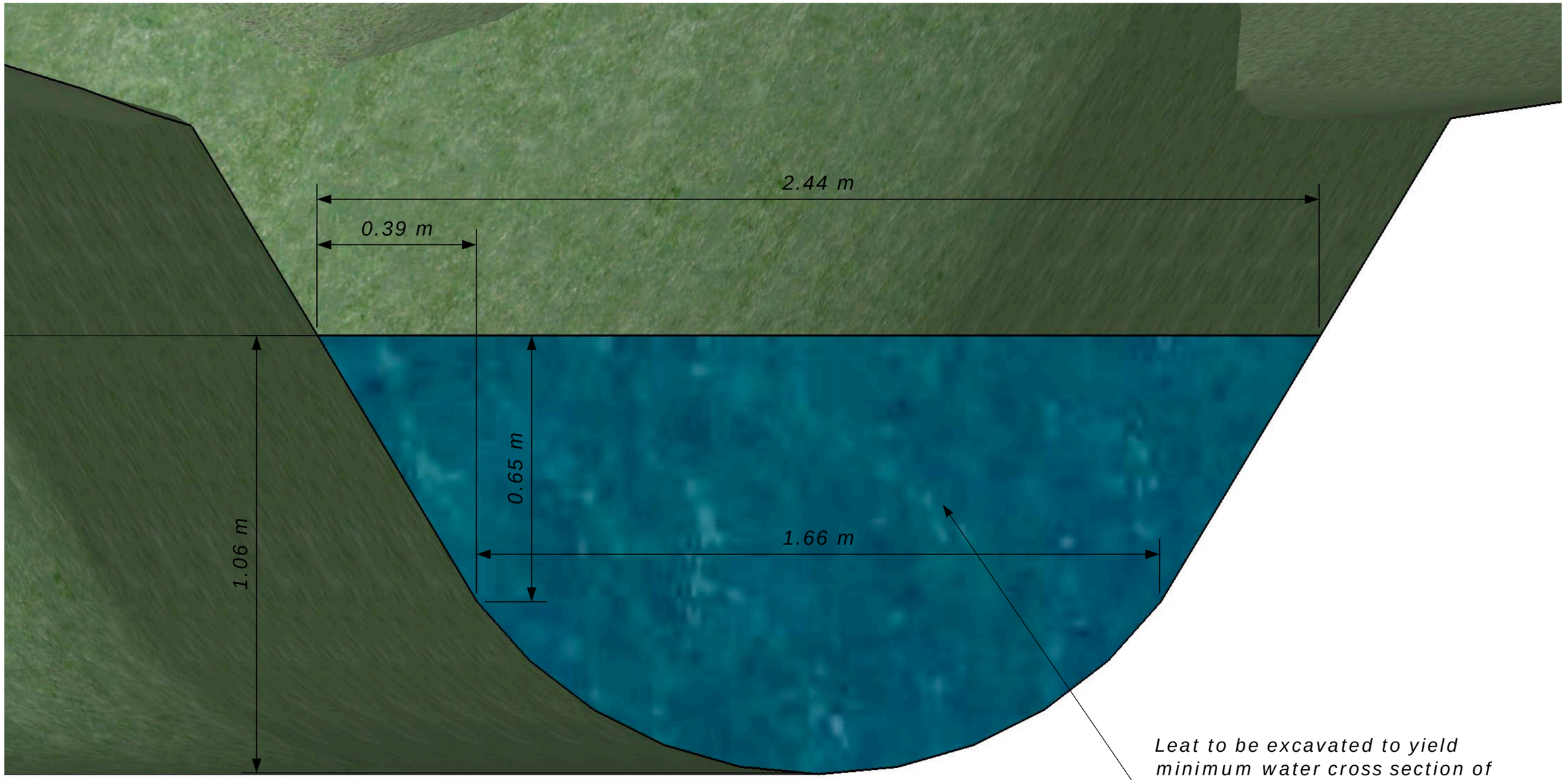
Leat intake currently is a small hole in the wall.

For the system, we have shown a proposed opening of this entrance.

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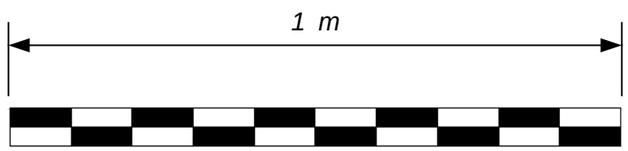
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Leat Cross Section - Typical



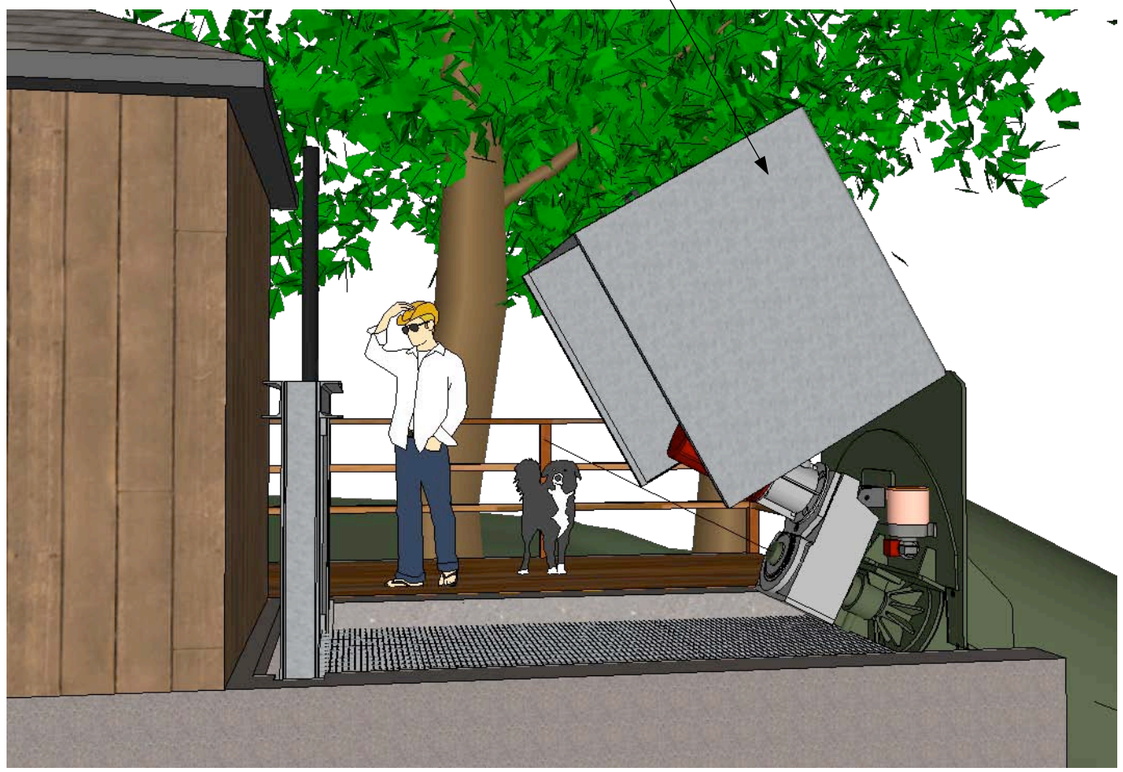
Leat to be excavated to yield minimum water cross section of 1.8 m^2 (resulting in average water velocity of ~0.33 m/s)

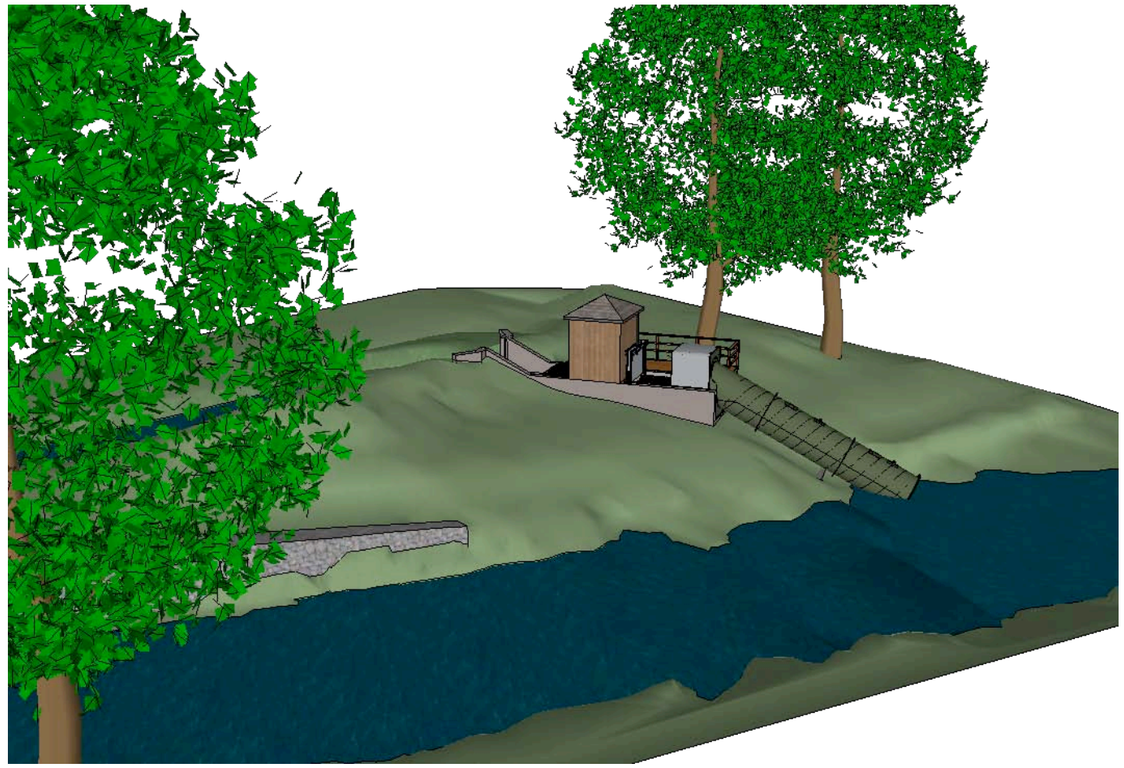
Profile here is a "suggested" profile.

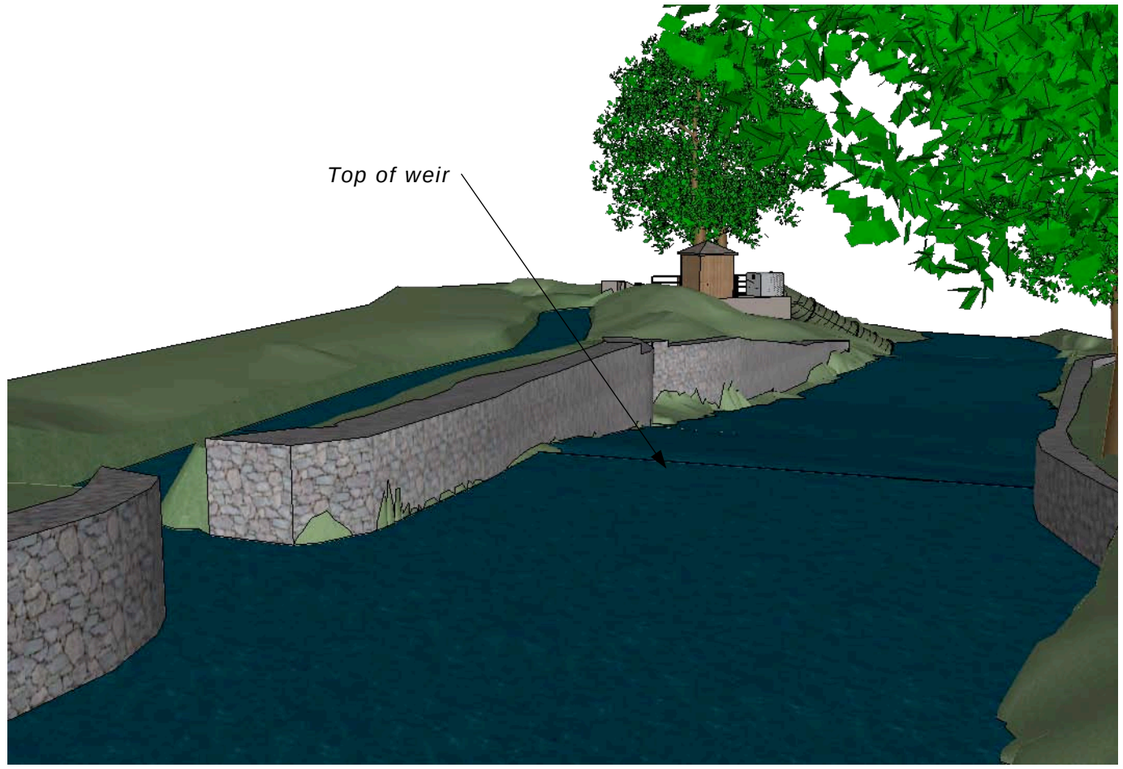


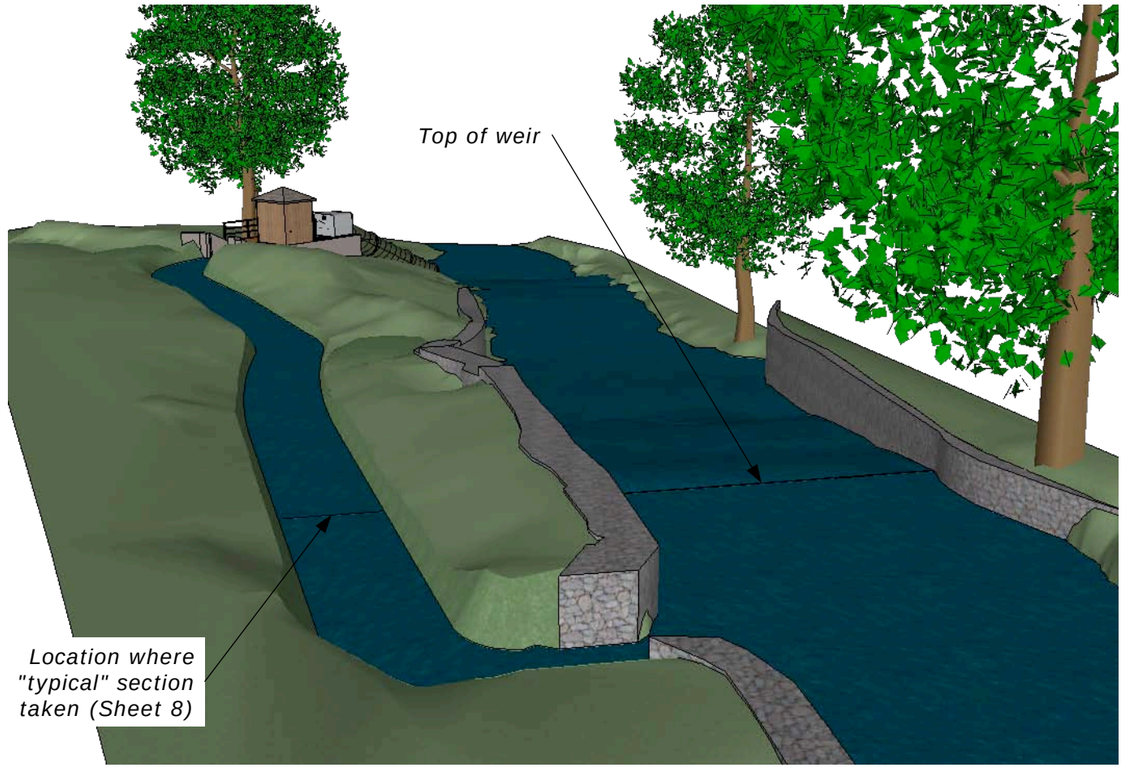
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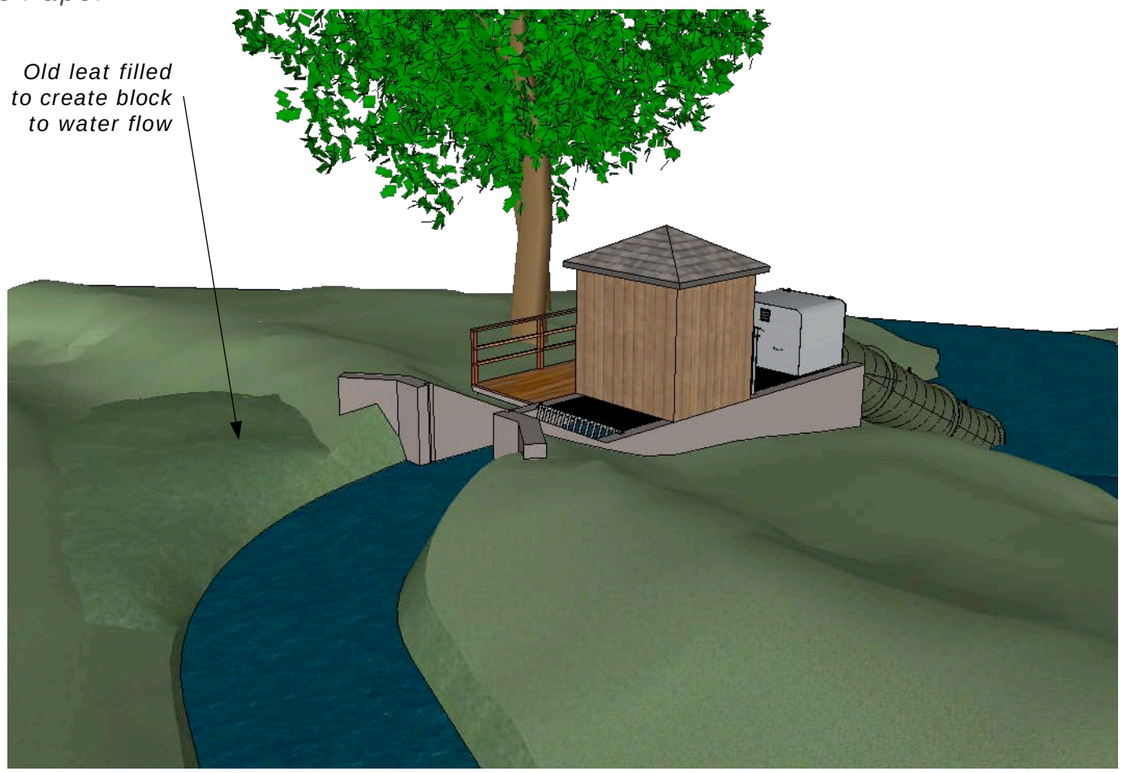


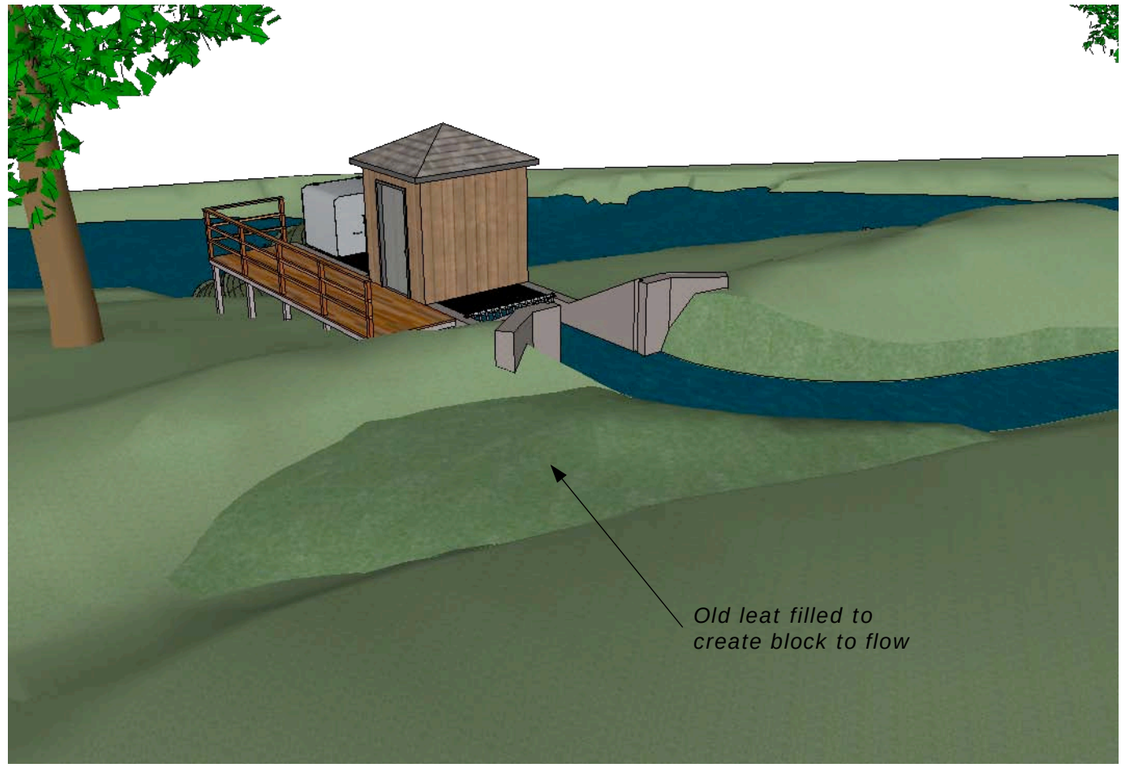


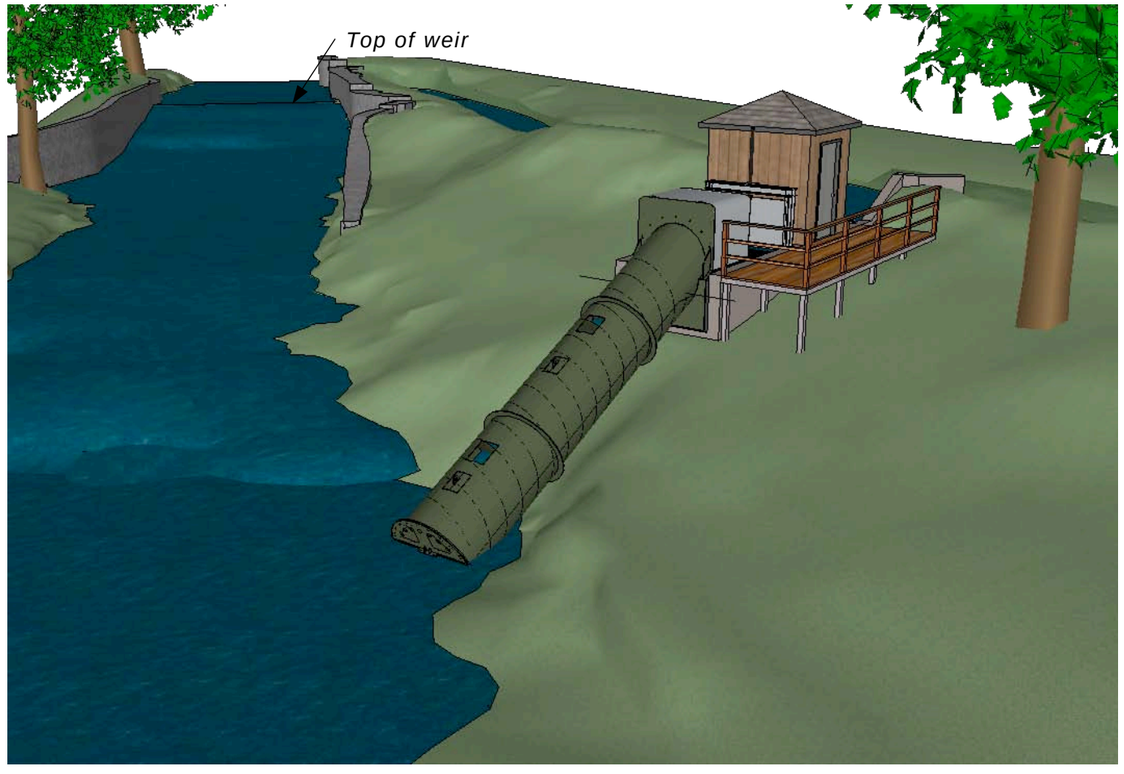


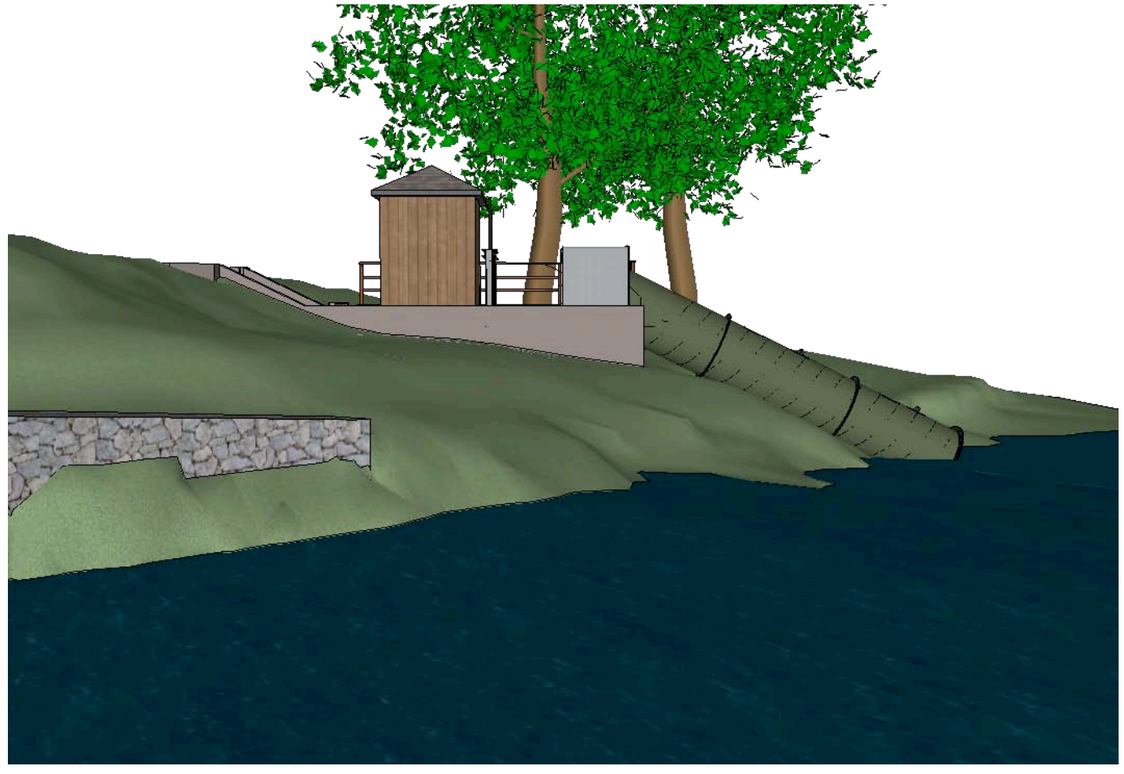
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Misc Views - 2







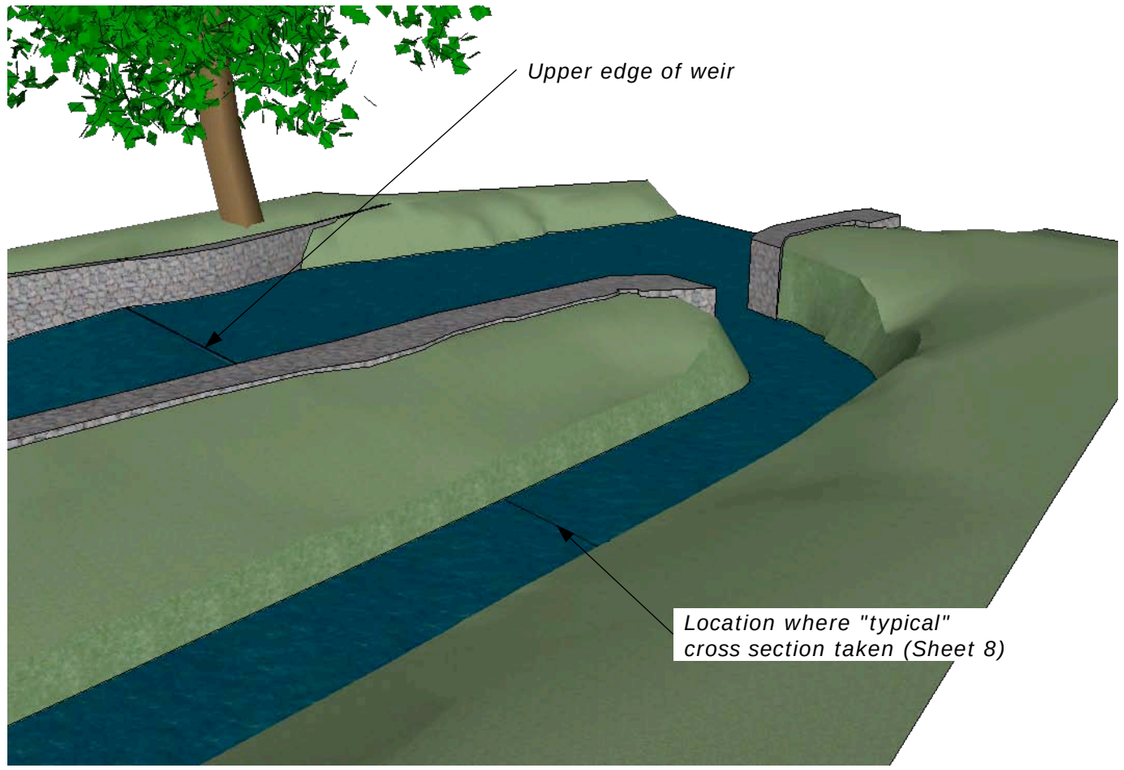


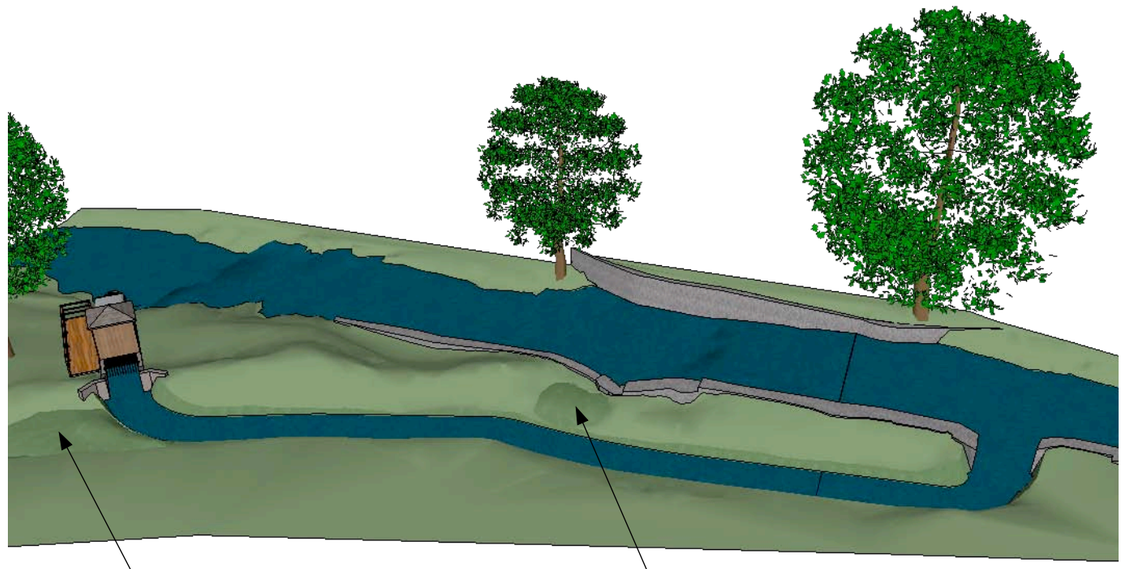
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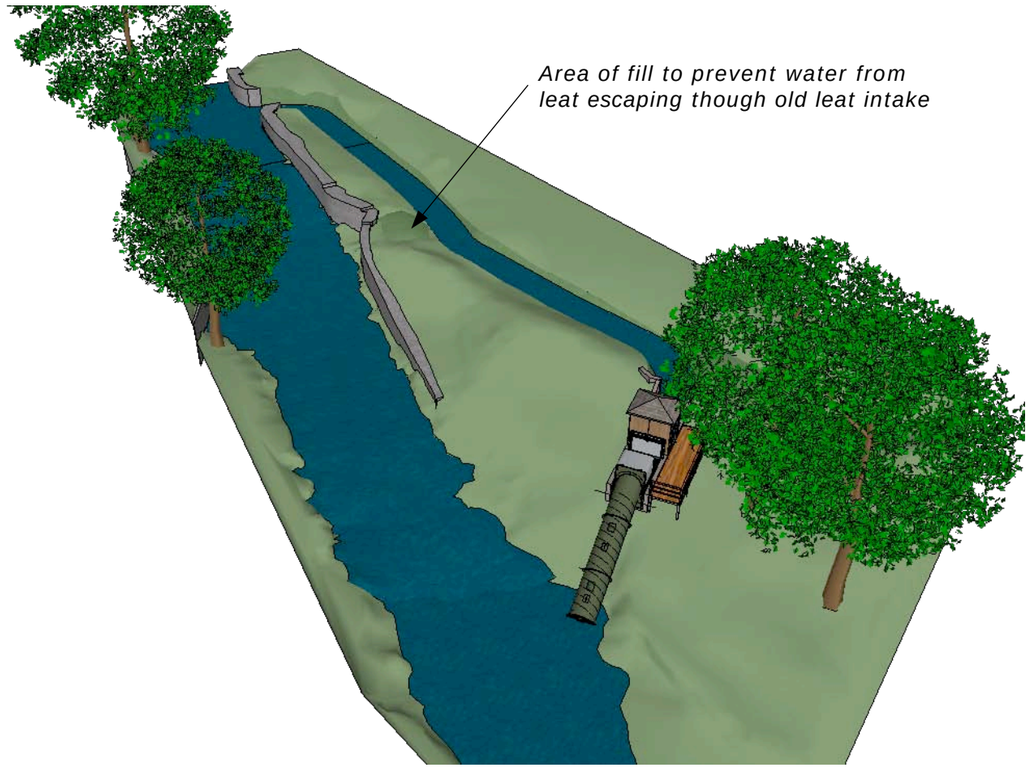
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Misc Views - 3

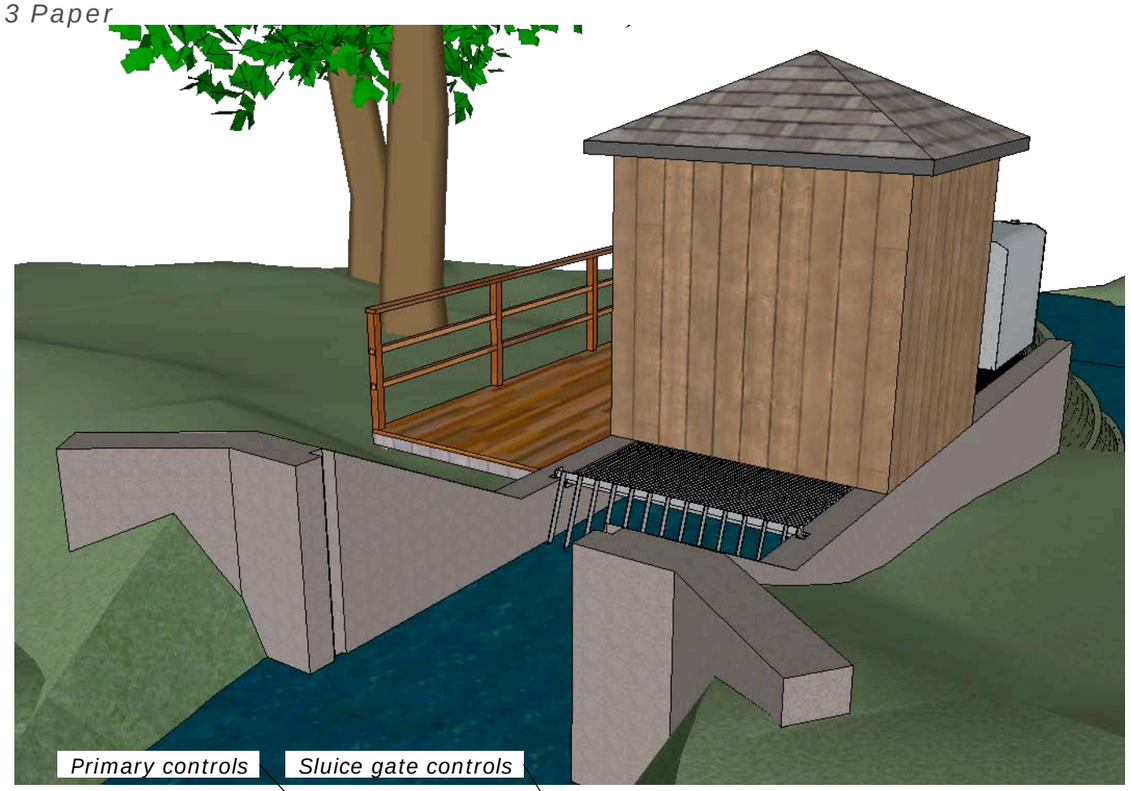


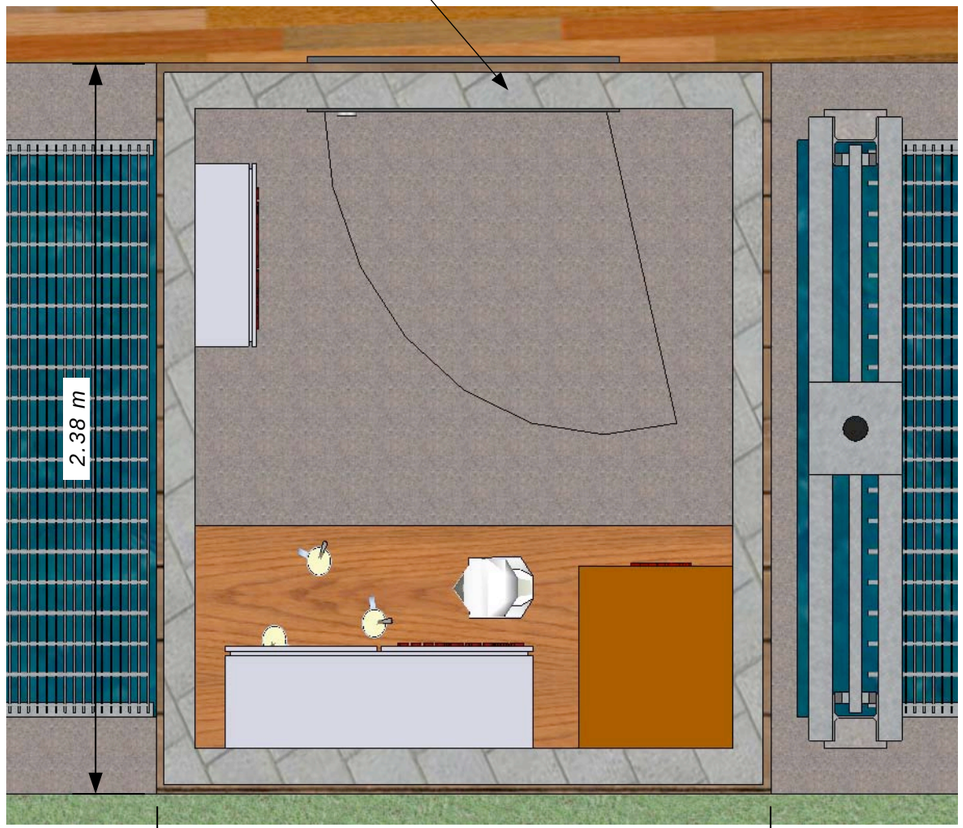




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Misc Views of Control Building





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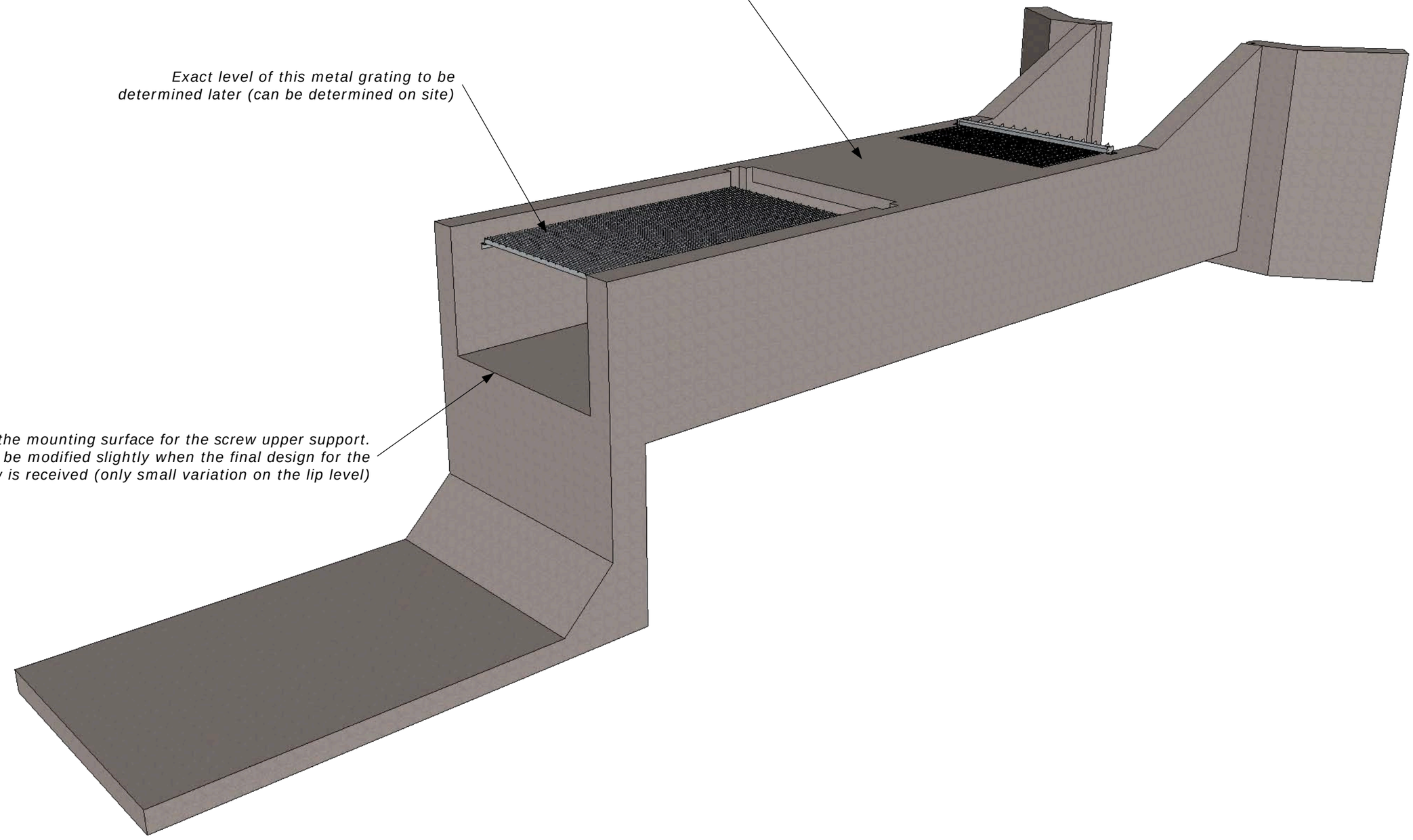
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Concrete Structure - Oblique

Floor of control building shown as concrete slab. This can be changed to a wood floor or metal grating if desired (although wood may have issues with moisture beneath)

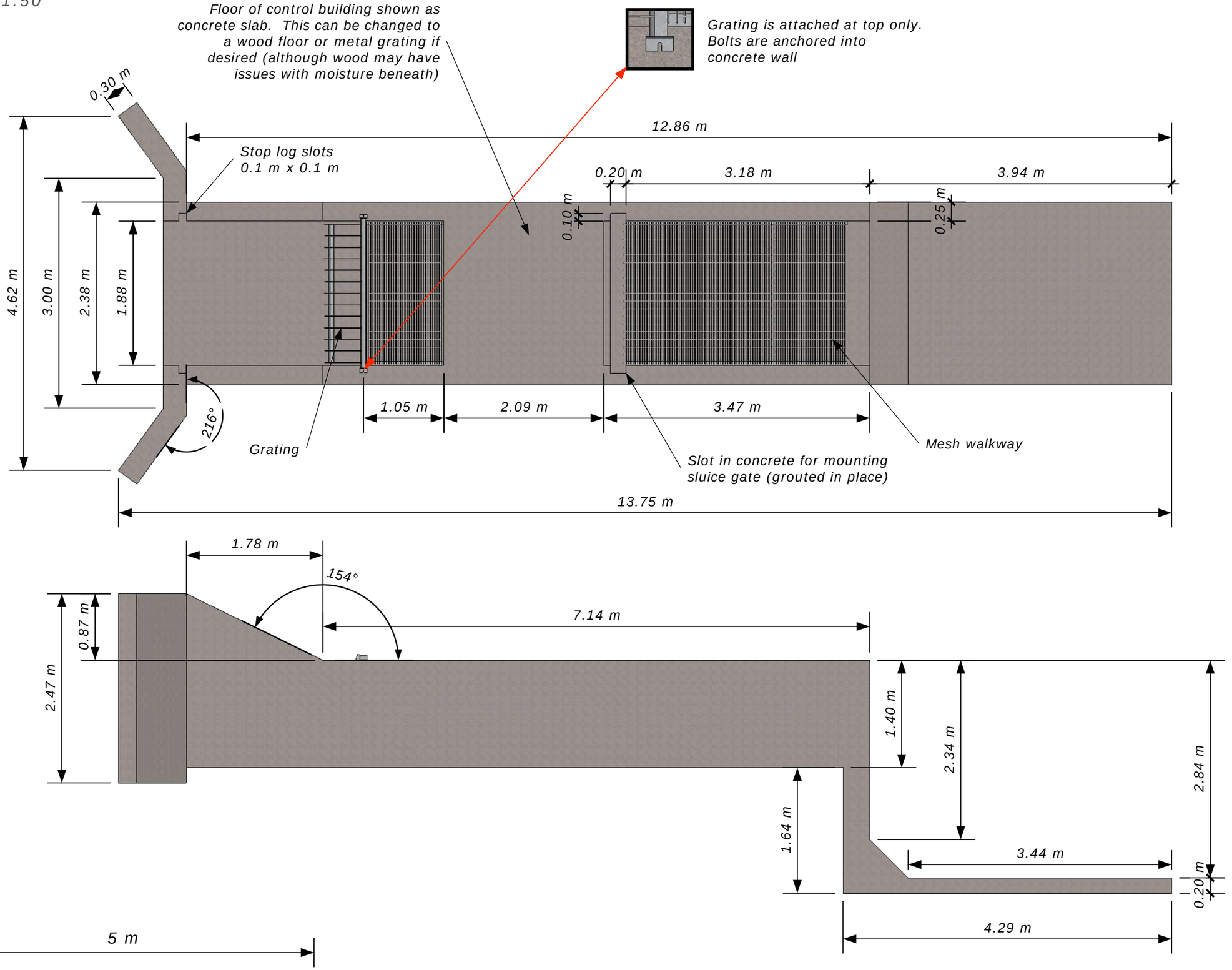
Exact level of this metal grating to be determined later (can be determined on site)



This is the mounting surface for the screw upper support. This may be modified slightly when the final design for the screw is received (only small variation on the lip level)

Concrete Structure - Top and Side

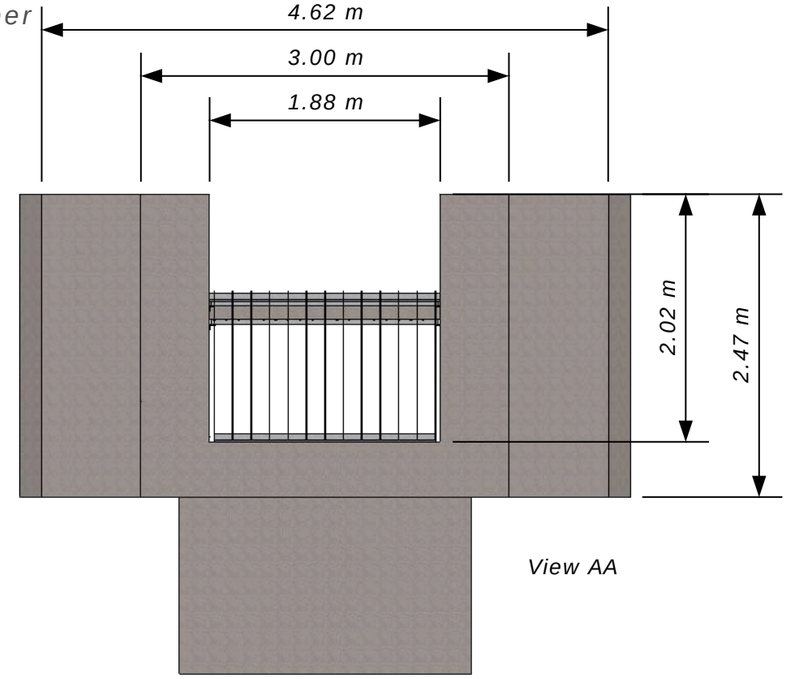
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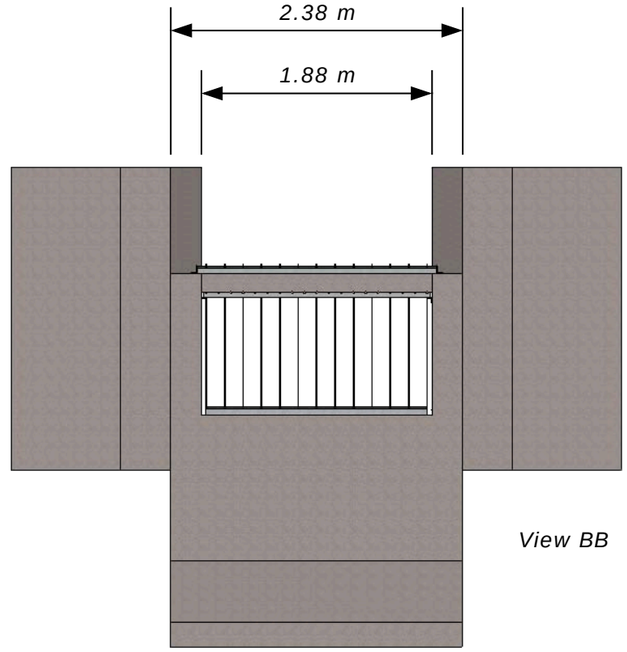
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Concrete Structure Section and End Views

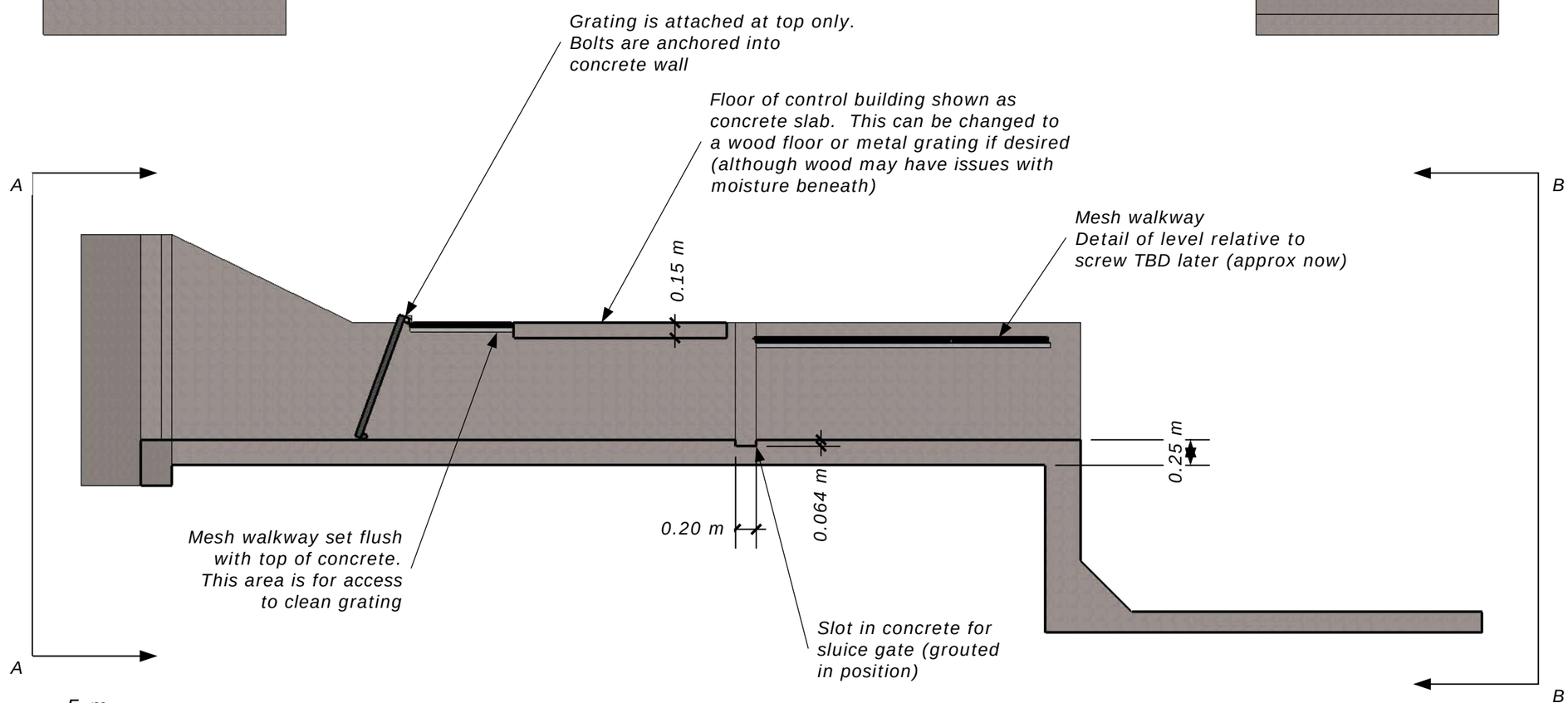
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View AA



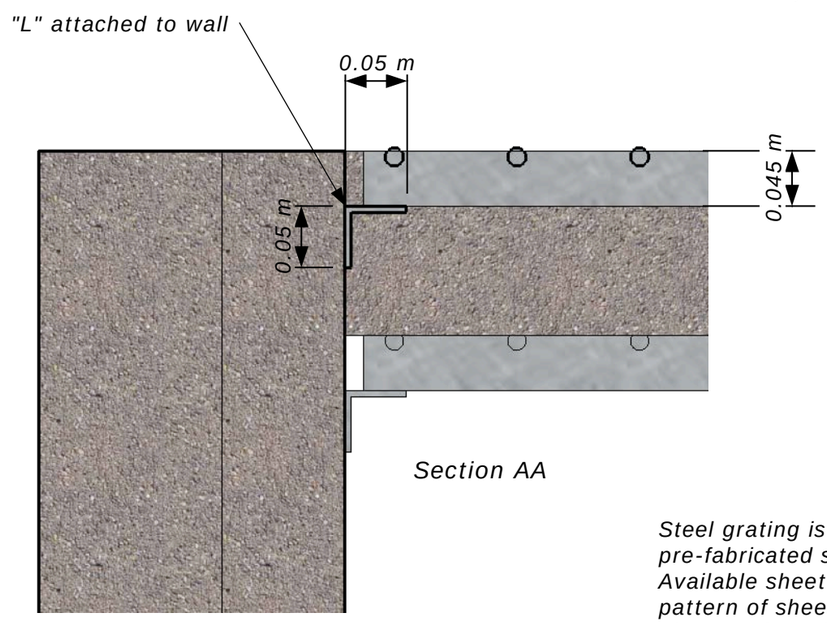
View BB



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Walkway Details

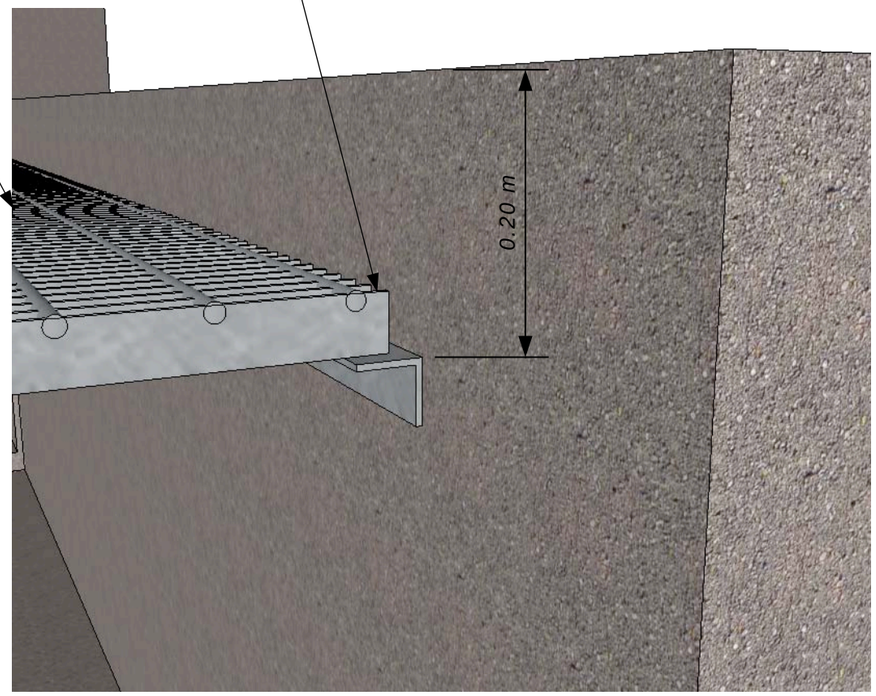
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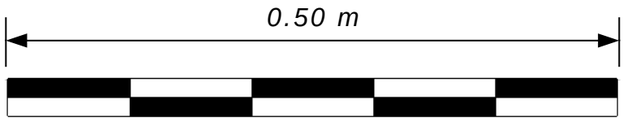
Section AA

Minimum bearing bar dimensions:
45 mm x 5 mm Cross bars (round stock) shown at 0.1 m spacing

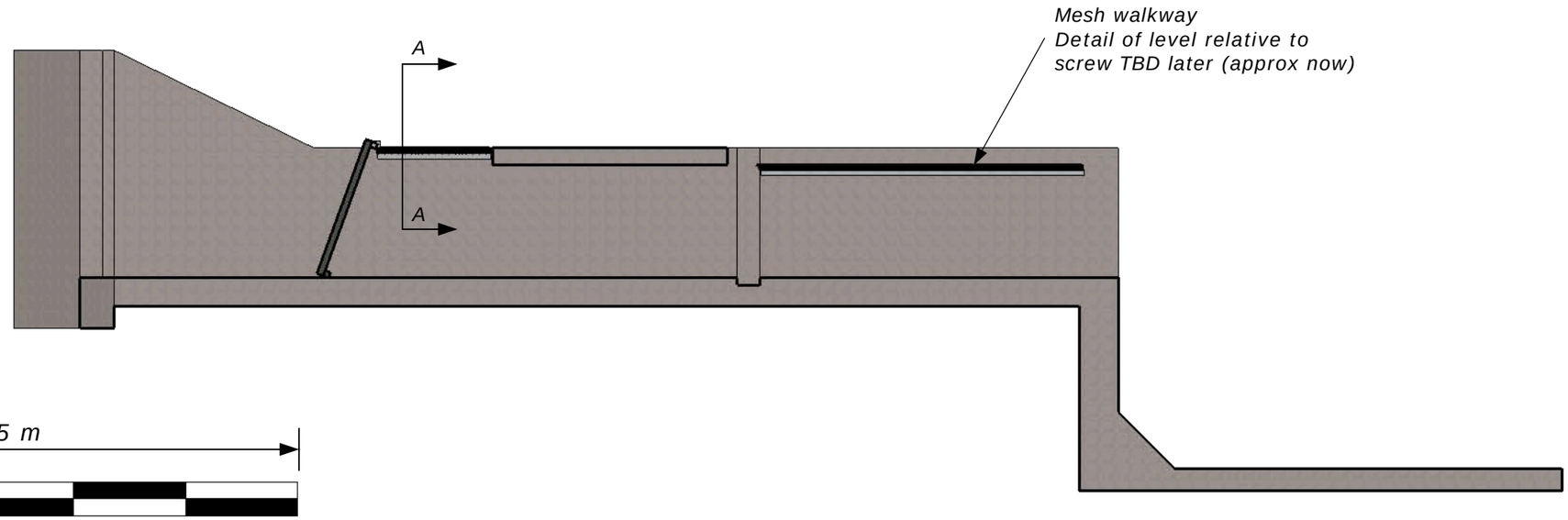
Mesh walkway
Detail of level relative to screw TBD later (approx now)



Steel grating is fabricated out of sections of pre-fabricated steel mesh grating.
Available sheet sizes will dictate the final pattern of sheets to form this total walkway.
The metal grating will rest on the steel frame



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A3 Paper



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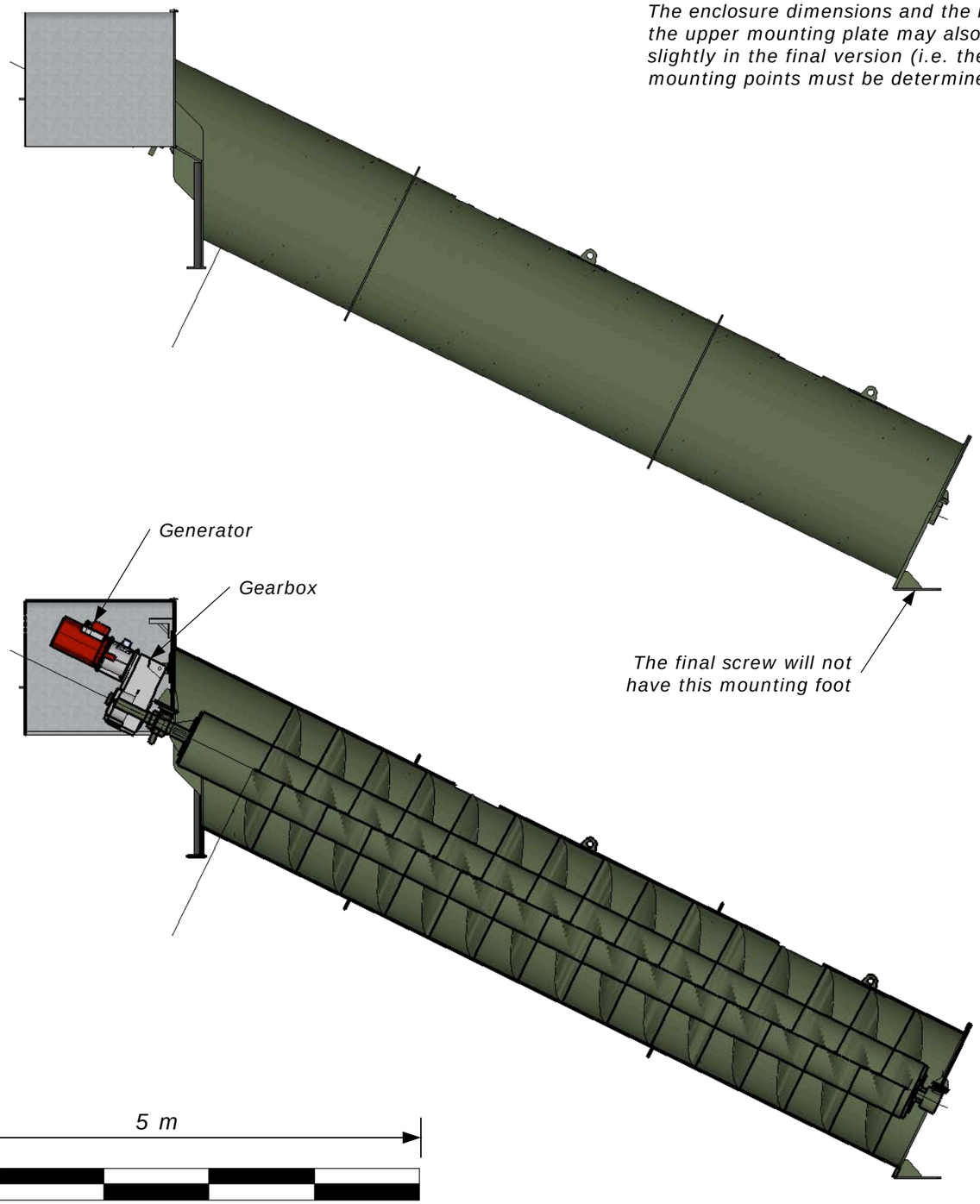
Archimedes Screw - Representative

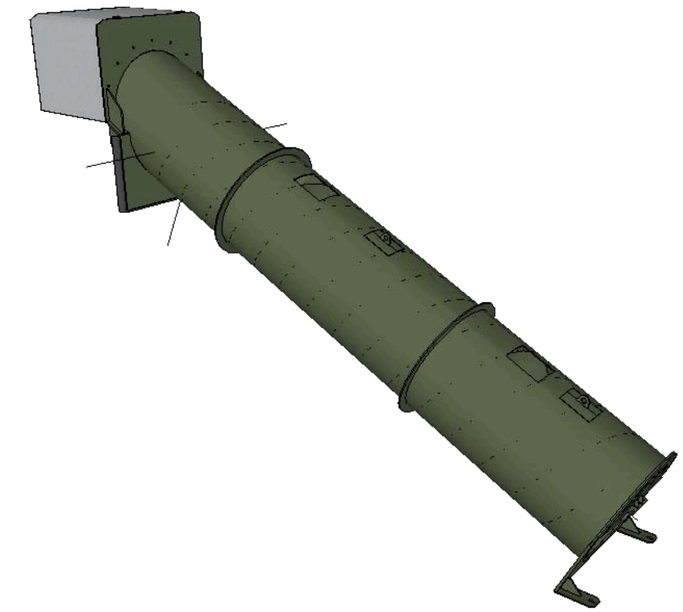
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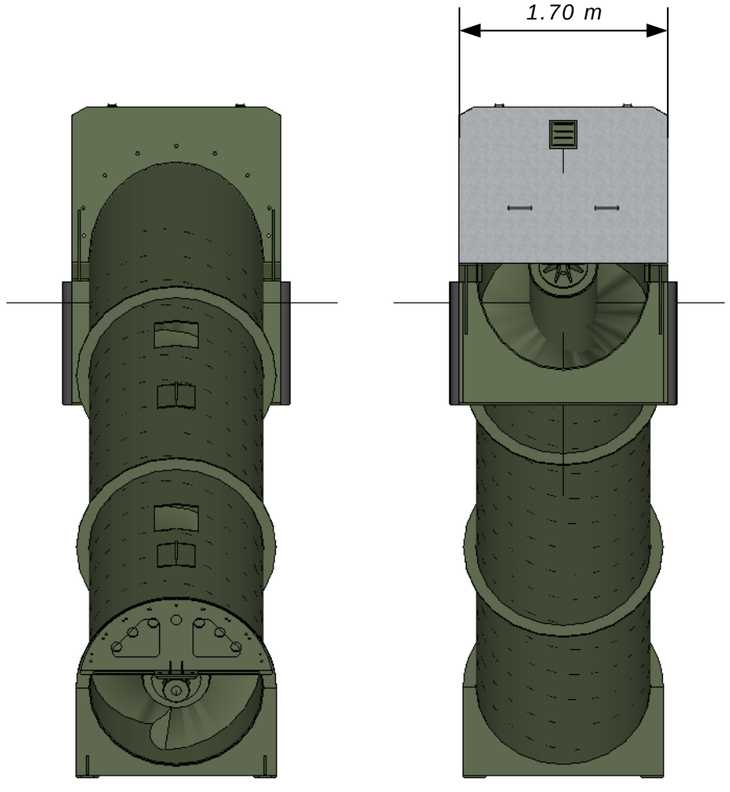
Representative Archimedes screw
1.4 m blade diameter
26 deg angle

Mounting point will in reality be midway up the tube and rest on the upper foundation.

The enclosure dimensions and the level of the upper mounting plate may also vary slightly in the final version (i.e. the final mounting points must be determined later)



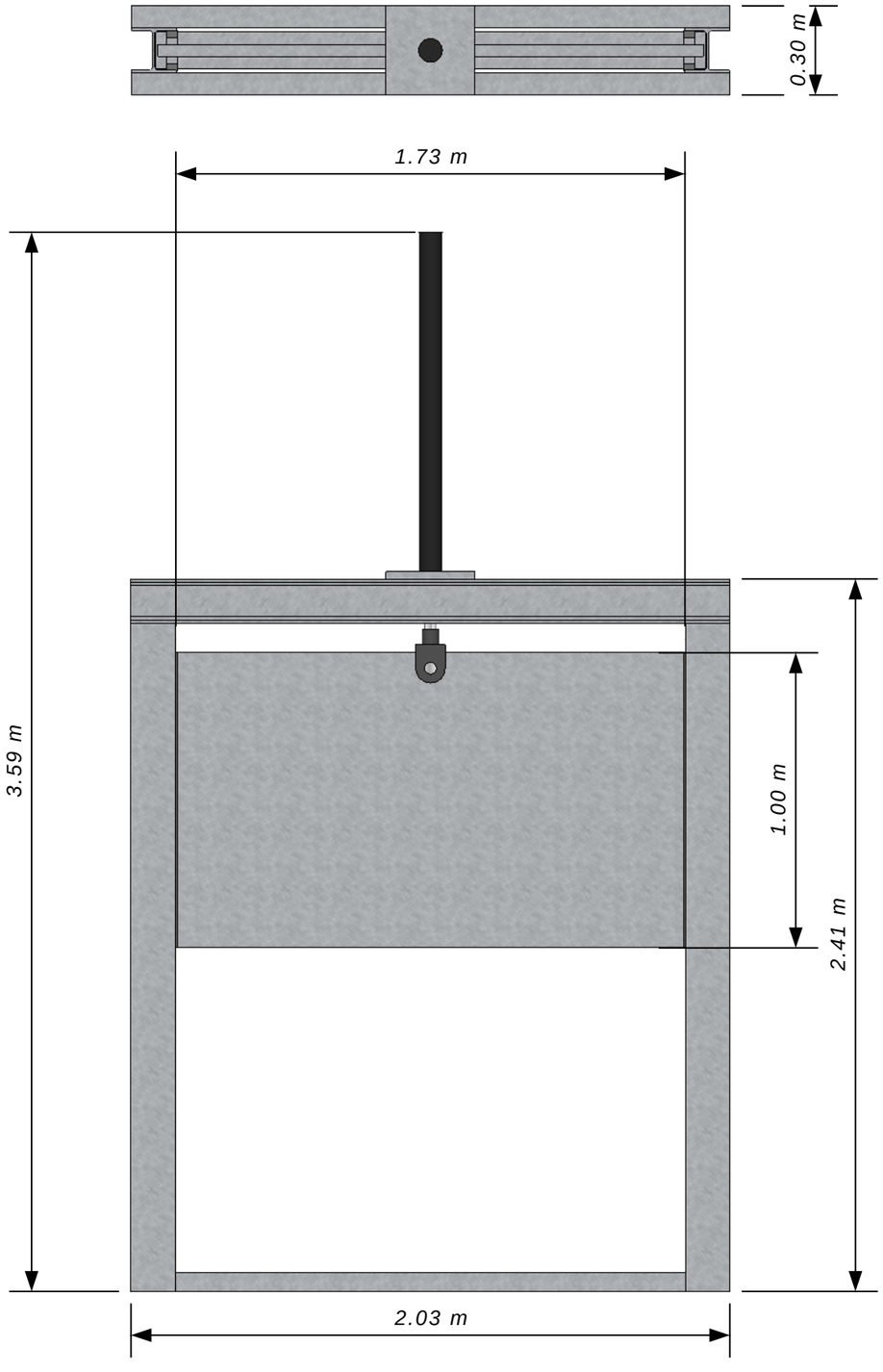


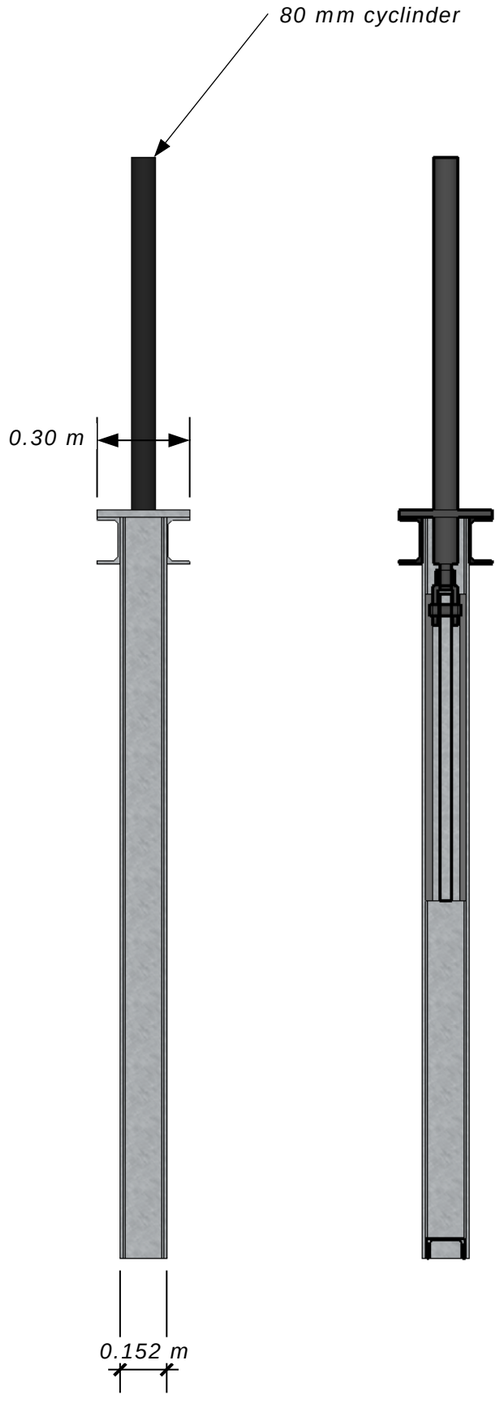


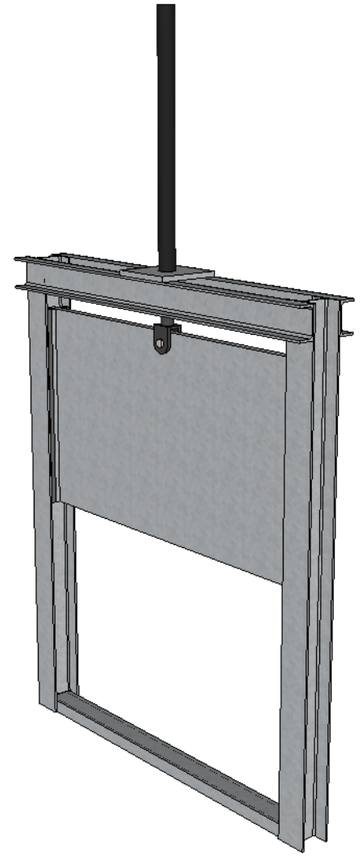
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Sluice Gate





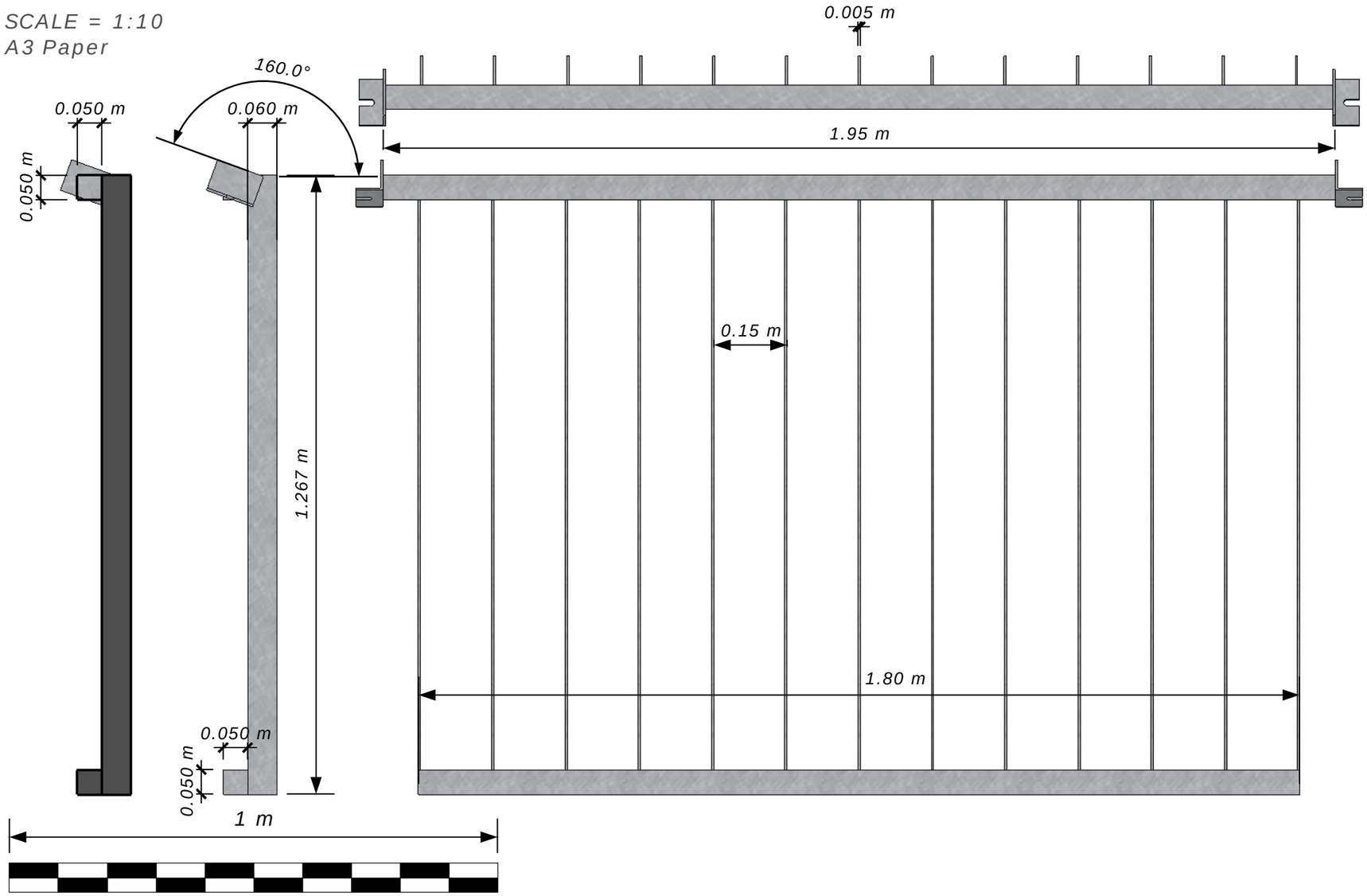


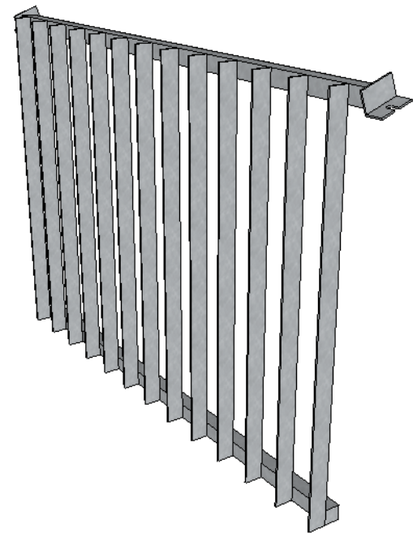
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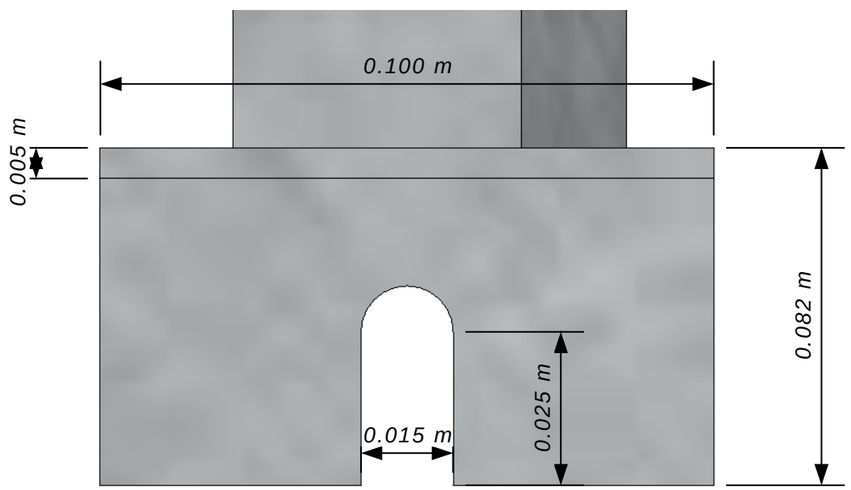
Grating

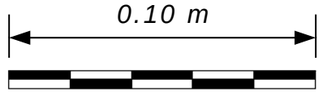
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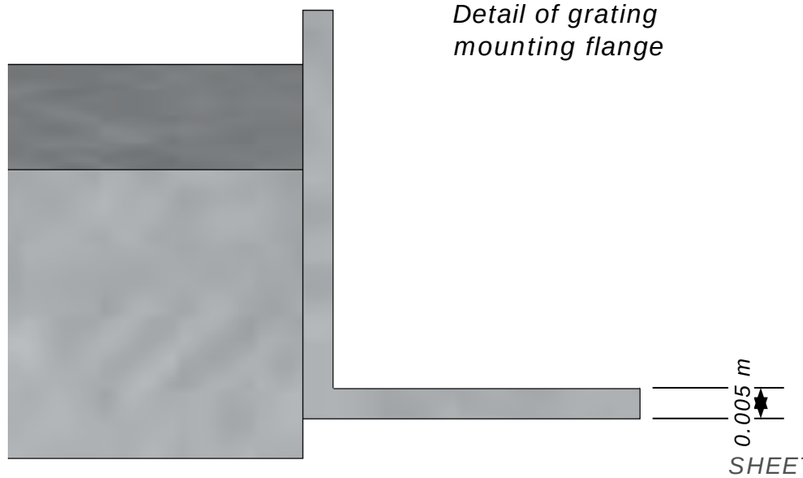


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Detail of grating mounting flange



SHEET 19

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