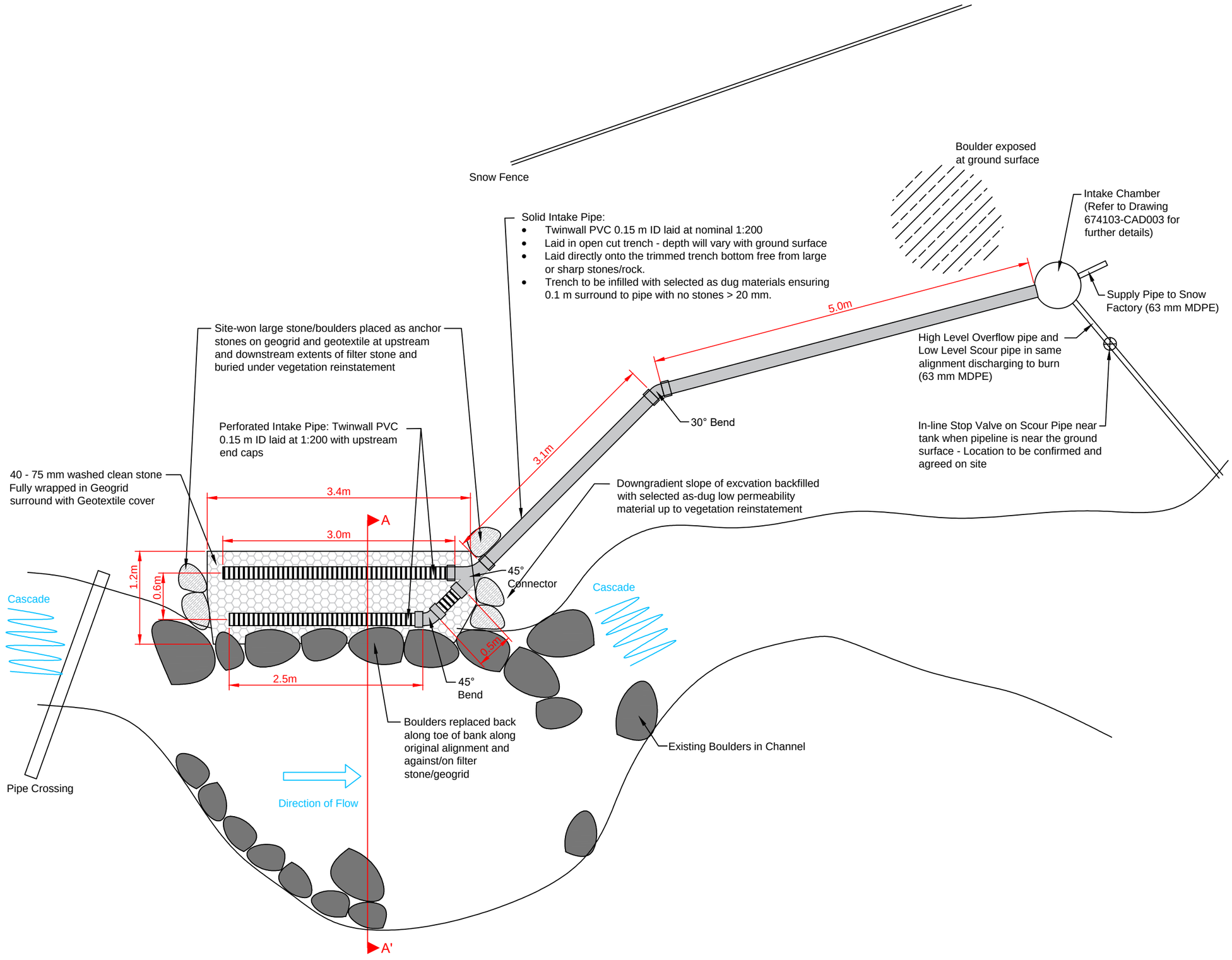
Agenda item 5

Appendix 1b

2022/0307/DET

Plans



Intake Arrangement Plan

Scale 1:50

Legend:

1. Specification is Specification for Highway Works.
2. For site setting refer to Drawing 674103-GIS001
3. Presence of services to be confirmed by client prior to works - high voltage cable at pipe crossing should be decommissioned.
4. Levels are from client UAV survey. Contractor is responsible for ensuring required pipe falls can be met on site. Alignment can be micro-sited due to levels or ground conditions if required.
5. Intake pipes to chamber are 150 mm ID perforated/solid twin wall PVC pipes laid at a nominal fall (1:200).
6. Existing bank to be excavated to allow placement of intake arrangement and reinstated to pre-works condition.
7. Perforated intake pipe to have soffit level no higher than existing bed of burn.
8. Intake filter stone to be wrapped in geogrid (apart from landward side) and geotextile (apart from burn-side) and packed with larger stone to anchor edges.
9. Bank to be reinstated to pre-works profile and vegetation replaced.
10. Refer to Drawing 674103-CAD002 for Cross Section A - A'
11. Refer to Drawing 674103-CAD003 for Intake Chamber and pipeline trench and bedding details.

Do not scale this drawing

Client
Cairngorm Mountain (Scotland) Ltd.

Project
Snow Factory New Water Supply

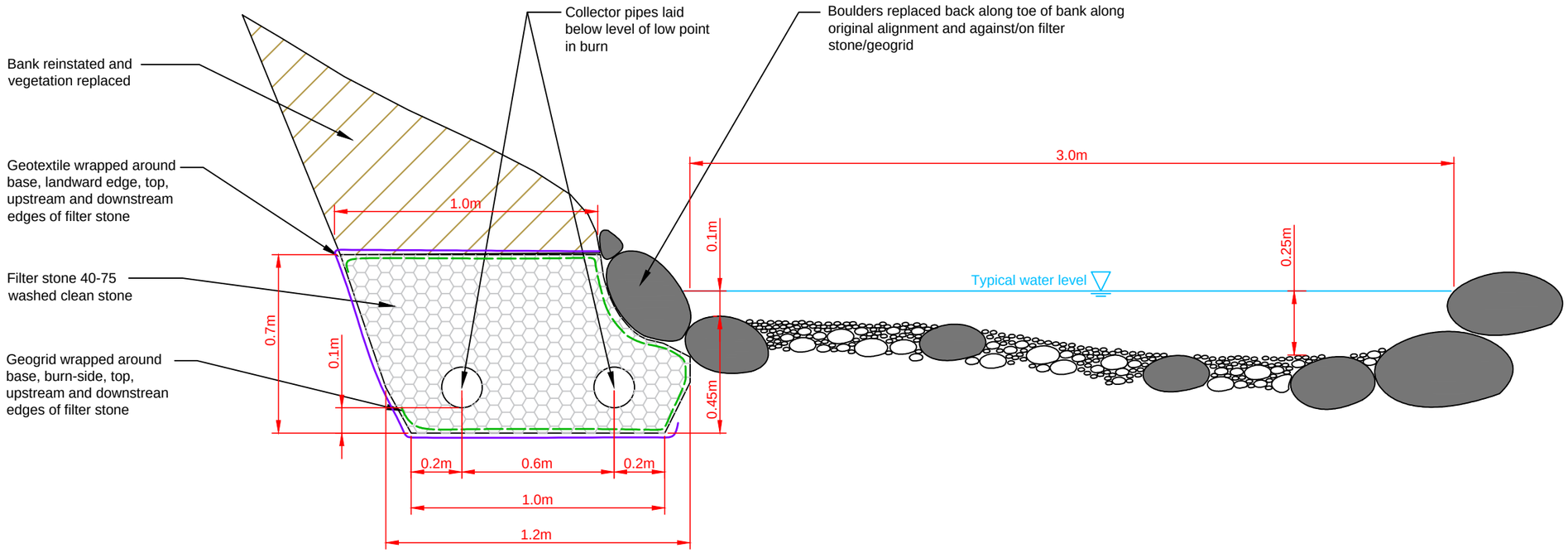
Title
Intake Arrangement Plan

Status
DESIGN

Drawing No.	Revision	Date
674103-CAD001		20 Dec 2021
Drawn	**Checked**	**Approved**
KMD	JS	KMD

Scale
1:50 @A3

Rev	Date	Amendment	Initials



Legend:

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2. For site setting refer to Drawing 674103-GIS001
3. Presence of services to be confirmed by client prior to works - high voltage cable at pipe crossing should be decommissioned.
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8. Intake filter stone to be wrapped in geogrid (apart from landward side) and geotextile (apart from burn-side) and packed with larger stone to anchor edges.
9. Bank to be reinstated to pre-works profile and vegetation replaced.
10. Refer to Drawing 674103-CAD001 for location of Cross Section A - A'

Intake Arrangement
Section A - A'

Scale 1:20

Proposed Construction Methodology

- Existing vegetation to be carefully removed with large turfs set aside for reinstatement.
- Excavate bank to formation as shown - approx 0.45 m below bed level at bank next to intake.
- Lay non-woven Geotextile in base of excavation from the burn in towards and up the bank (to wrap outer edge of filter stone).
- Lay Geogrid in base of excavation out towards the burn and place 40-75 mm washed clean stone to 0.1 m depth.
- Position Collector Pipes 1 and 2, with their soffit to be 0.05 m lower than lowest point in bed level - approx. 0.3 m below bed at bed of burn next to intake and cover with min. 0.1 m of filter stone.
- Complete filter stone placement.
- Wrap the Geogrid over filter stone covering the burn side, upstream and downstream sides, anchoring in the landward side of the top of the filter stone.
- Replace larger bankside stone to bottom of bank, covering all geogrid.
- Wrap Geotextile over Geogrid and pack upstream and downstream edges with larges stones.
- Place selected lower permeability excavated material along downstream edge of filter stone beyond Geotextile.
- Reinstate sub-soil and turfs to restore the bank.

Materials Specification and Approximate Quantities:

Collector Pipes [6 m]:	150 mm ID Perforated Twin Wall PVC pipes
Connector Pipe [8.1 m]:	150 mm ID Solid Twin Wall PVC pipe
Geogrid [15 m^2]:	Geogrid 20/20 (max. 40 mm openings)
Geotextile [15 m^2]:	Non-woven Terram 1000 or similar specification
Filter Stone [3 m^3]:	40-75 mm washed clean stone

Do not scale this drawing

Client
Cairngorm Mountain (Scotland) Ltd.

Project
Snow Factory New Water Supply

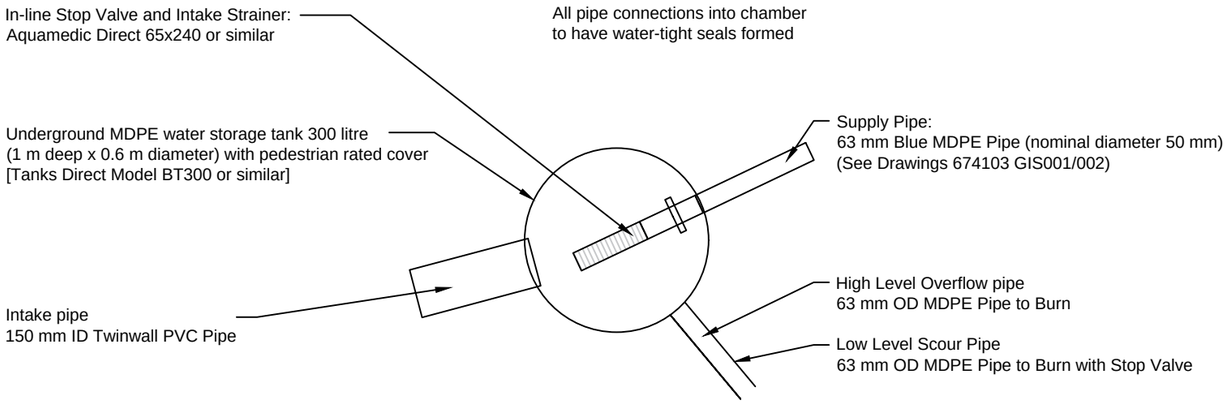
Title
Intake Arrangement
Section A - A'

Status
DESIGN

Drawing No.	Revision	Date
674103-CAD002		20 Dec 2021
Drawn	**Checked**	**Approved**
KMD	JS	KMD

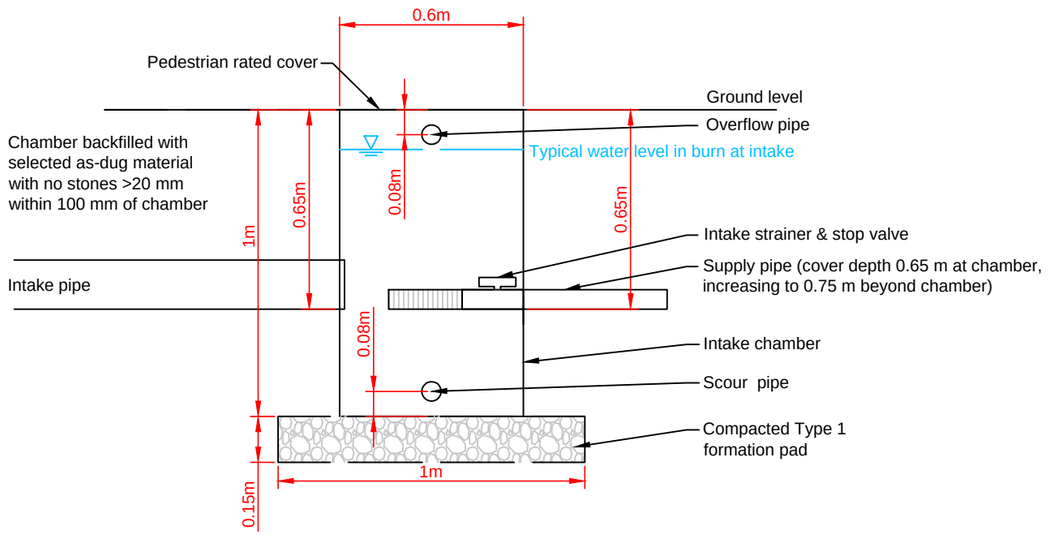
Scale
1:20 @A3

Rev	Date	Amendment	Initials



Intake Chamber Plan

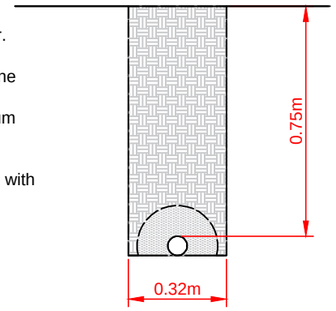
Scale 1:20



Intake Chamber Elevation

Scale 1:20

- Pipe to be laid in trench with 0.75 m cover.
- Pipe can be laid directly onto the trimmed trench bottom where the soil is uniform, fine grained and free from large or sharp stones/rock. Otherwise allow for a minimum 100mm bed of stone < 20 mm.
- Trench to be infilled with selected as dug materials ensuring 0.1 m surround to pipe with no stones > 20 mm.



Supply Pipe Trench and Bedding Details

Scale 1:20

Legend:

1. Specification is Specification for Highway Works.
2. For site setting and supply pipeline route refer to Drawing 674103-GIS001
3. Presence of services to be confirmed by client prior to works.
4. Levels are from client UAV survey. Contractor is responsible for ensuring required pipe falls can be met on site. Alignment can be micro-sited due to levels or ground conditions if required.
5. Following works, ground to be reinstated to pre-works condition.
6. Refer to Drawing 674103-CAD001 for Intake Chamber location.

Do not scale this drawing

Client
Cairngorm Mountain (Scotland) Ltd.

Project
Snow Factory New Water Supply

Title
Intake Chamber and Supply Pipe Details

Status
DESIGN

Drawing No.	Revision	Date
674103-CAD003		20 Dec 2021
Drawn	**Checked**	**Approved**
KMD	JS	KMD

Scale
1:20 @A3

Rev	Date	Amendment	Initials

CAUTION
9'6" HIGH
CONTAINER

Sealed! No entry! Please
enter from the other door!

KTIU 000195 6

CAIRNGORM
MOUNTAIN SCOTLAND

THE CAIRNGO

THE CAS BAR & SHOP