

**Culvert Sizing Calculation**

Upstream catchment (shown in green) determined by assessment of topographic survey.  
**Total Catchment = 13,570m<sup>2</sup>**

Using the Wallingford online calculator, this suggests a soil factor of 2, however given this is a clay area this has been increased to 5 for a conservative assessment of existing flows.

The flow generated by the upstream catchment has been estimated to be **42.3 l/s**.

Using causeway flow, adding the flow above and the proposed invert levels, this results in a **minimum pipe diameter of 225mm**.

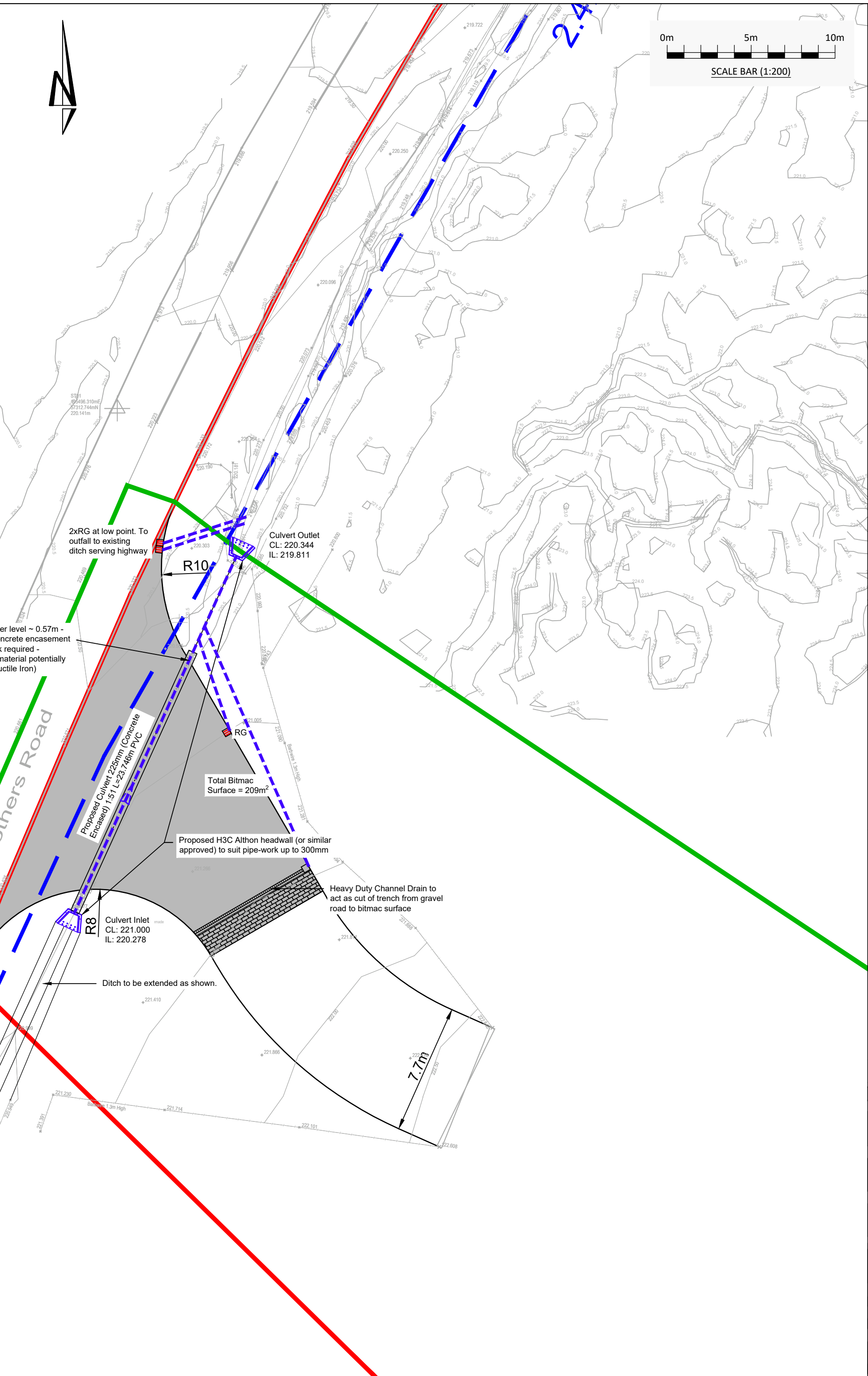
Given the low levels of cover and the likely heavy vehicles, it is recommended that the culvert is concrete encased and/or of ductile iron material.

**Site Boundary** (Red line)

**Upstream Catchment** (Green line)

**Drainage Legend**

- Proposed surface water sewer (Blue dashed line)
- Proposed surface water sewer (Concrete Encased) (Blue dashed line with hatching)
- Proposed headwall (Blue dashed line with trapezoid)
- Linear drainage channel with sump unit and rodding access (Black dashed line with rectangle)
- Road Gully (Red rectangle)



- KEY PLAN**
- NOTES**
- All dimensions are to be checked on site before the commencement of works. Any discrepancies are to be reported to the Architect & Engineer for verification. Figured dimensions only are to be taken from this drawing.
  - This drawing is to be read in conjunction with all relevant Engineers' and Service Engineers' drawings and specifications. This drawing is copyright.
  - All levels are shown in metres above ordnance datum.
  - Use figured dimensions only. No liability is accepted for errors incurred through scaling from this drawing.

**REVISIONS**

REV	NO	DATE	APPROVED BY	DATE

**Advance**  
Consulting Engineers Ltd

**CLIENT**  
Cornish Lithium

**PROJECT**  
TRELAVOUR QUARRY, ST. DENNIS,  
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**DRAWING TITLE**  
PROPOSED DRAINAGE PLAN

**PROJECT NO.** C23105      **SCALE @ A3** 1:200

**DRAWING STATUS** PRELIMINARY

**DRAWING NO.** C23105-C001      **REVISION** A