

Schedule 3 – Statement of Requirements (Specification)

P24/6 – McRobies Gully Waste Management Centre Supply and Delivery of Geosynthetic Clay Liner (GCL), Geotextile and Gas and/or Water Grid

1. Statement of Requirements

The contractor will supply in bulk GCL and the geotextile drainage fabric (Geotextile fabric supplied to be installed by Council between drainage layer and mulch layer).

2. Term Further Terms

The term of the Contract will, unless earlier terminated, be for a period of three (3) years. Council may, in its absolute discretion, extend the Contract by offering up to one (1) further term of three (3) years (a “Further Term”).

3. Adjustment for CPI

The Contractor may elect to receive an adjustment for the Consumer Price Index (CPI) on the yearly anniversary of the commencement date in accordance with clause 12 of the Contract. The Contractor should take into account the timing and frequency of CPI adjustments (should it elect to receive them) when pricing the Tender.

4. Council’s Contacts and Representatives under the Contract

Council’s Contract Managers

Name	Position	Email
Roderick Blair	Supervisor Waste Management Centre	blairr@hobartcity.com.au

Council’s Representatives

A Council Representative is a person empowered with the delegated power to request goods or services and carry out Contractor management activities on behalf of the Council.

5. Scope of Works

The scope of works under this contract includes:-

- (a) GCL consisting of a reinforced multi-layered system comprising two layers of geotextiles encapsulating a layer of dry bentonite.
 - Geotextile material for the drainage layer
 - Gas and water Geotex type of material
- (b) Supply of all consumables, adhesives, tapes and other general supplies as necessary for installation of the Goods in accordance with the manufacturer’s recommendations
- (c) Insurance, packaging, loading and freight and trucking of the Goods to the delivery place and unloading of the Goods upon delivery.
- (d) Supply of suitable weatherproof and waterproof storage containers for the entire duration of the contract
- (e) Supply of any items of plant or Goods necessary for trucking, unloading, storage and installation of the Goods.

6. GCL Product Minimum Properties

Property	Test Method (Reference to Standard)	Units	Value
Bentonite Mass (@ 0% moisture content)	ASTM D5993	g/m ²	≥3800
Bentonite Particle size	AS 1289-3.6.2	% passing 75 micron sieve	≥ 55
Minimum permeability (hydraulic conductivity- k value)	ASTM D5887	m/s	≤1x10 ⁻⁹
GCL Total Mass (@ 0% moisture content)	ASTM D5993	g/m ²	≥ 3800
CBR Strength (geotextiles)	AS 3706.4	N	≥ 1300
CBR Elongation (geotextiles)	AS 3706.4	%	≥ 10
Free swell index	ASTM 5890	mL/2g	≥24
Strip Tensile Strength (Roll Machine Direction)	ASTM D6768-04	kN/m	7
Cover (non-woven geotech mass)	AS 3706.1	g/m ²	≥ 200
Carrier (geotech mass)	AS 3706.1	g/m ²	As advised by tenderer

7. Product Certification

- (a) The Contractor must provide evidence of manufacturer's tests proving compliance in accordance with the certification requirements and standards required by the Specification at the time of quotation and before installation.
- (b) No materials will be accepted for delivery, or payment authorized, unless all compliance certification data has been provided in sufficient time for review and approval prior to installation.

8. Standards

- (a) The Goods and any work methods and practices used in its delivery, handling, packaging and storage must comply with the current editions of the relevant ASTM Standards, accepted best industry practices and standards and any Australian or other standards and codes of practice commonly deemed relevant by those sectors of industry involved and considered established and expert in the manufacture, supply and installation of GCL and geotextile products. Also the Geosynthetic Research Institute document/standard entitled **GRI-GCL3 (latest edition)** shall be considered a standard reference document for GCL material.
- (b) The whole of the Goods must be of the same manufacturer and batch and must be of consistent type, size, quality and appearance.
- (c) The Contract is for the supply of a composite GCL product suitable for the required slope requiring rehabilitation, that consists of a layer of dry sodium bentonite clay encapsulated between a dual layer of durable geotextile material and which is shear reinforced by needle punching through the layer of bentonite and across the entire surface area of the product.
- (d) Use of glues, adhesives or other non-mechanical bonding processes in lieu of the needle punching process shall not be accepted.

The bentonite within the GCL will, at minimum, comply with the specifications as listed in the Table at Section 6 of this specification.

- (e) The GCL must have proven performance in the capping of required slopes of the landfill site. The Table at Clause 6 lists some of the minimum technical performance requirements required of the GCL. However it should be noted that product compliance alone with these specified technical values will not in itself ensure the GCL is considered suitable for the Council's needs.

9. Background

- (a) The Goods will be progressively supplied and installed by Council at locations where filling of the landfill site has reached its ultimate finished level. The Goods will be installed on prepared and leveled sub-grade surface and Council proposes to cover the Goods with a nominal 100 mm thick drainage layer over which a mulch layer of 200mm and topsoil layer of nominal thickness of 150 mm will be placed. Planting and re-vegetation with appropriate low level plants (e.g. poa grass) will be undertaken in conjunction with placement of the topsoil.
- (b) Where the Goods to be supplied under this contract are to be used it is envisaged that the final use of rehabilitated areas shall be for passive recreation purposes. The likely maximum vehicle loads on the GCL and Geotextile material will be negligible from construction traffic during placement of the drainage and topsoil layers over the GCL liner and Geotextile. In the long term vehicle loads should be limited to an occasional light vehicle.

10. Mode of Delivery

- (a) The Contractor must transport, deliver and handle the Goods in accordance with the current written recommendations and instructions of the manufacturer or Contractor. Further, the mode of delivery (and transport) must prevent water ingress or other contamination of the Goods and must not adversely affect the Goods condition or use or the condition of the manufacturer's or Contractor's packaging.
- (b) Deliver the Goods to the delivery place in the manufacturer's bags or other watertight, sealed packaging material as provided by the manufacturer. The manufacture's packaging must remain undamaged and intact and must be complete with the manufacturer's labeling clearly showing the place and other particulars of manufacture, date of manufacture, dimensions and weight, batch number and quality assurance certification.

Without limiting clause 6 (Delivery) of the Contract Conditions any damaged or defective Goods, including Goods contained in packaging damaged in transit or during unloading, will be collected and replaced by the Contractor at no cost to the Council within one week of the Council notifying the Contractor of the damage or defect.

11. Storage

- (a) Delivery includes the provision of appropriate weather and water proof containers for use in storage of the Goods at the Delivery Place from the time of delivery and for the entire duration of the contract.
- (b) The Contractor will, at no additional cost to the Council, collect and remove the water proof containers from the Delivery Place progressively as requested by the Council.

12. Indicative Quantities

The quantities stated below are indicative only. The Council will be liable to accept only the quantities ordered.

Product	Bulk Per annum
Geosynthetic Clay Liner	2,500m ² Per Annum
Geotextile	2,500m ² Per Annum
Joining Paste/Product	Suitable quantity for 2,500m ²

13. Sample

The tenderer to provide a sample of the tendered Geosynthetic Clay Liner (GCL). The sample at a minimum will be thirty centimetres (30²cm).

The provision of a sample is a mandatory Condition of Participation.

The sample must be received by 3.00pm (AET) on 15 May 2024 and delivered to:

Post	Delivery
Clearys Gates Depot Store Brooker Highway NEW TOWN 7008 Attention: Carol Mitchell	Clearys Gates Depot Store Brooker Highway NEW TOWN 7008 Attention: Carol Mitchell

14. Commencement of manufacturer's warranty periods

Warranty and defects liability periods will commence upon successful installation and Acceptance of the Goods.