



<b>Works Approval Number</b>	W6309/2019/1
<b>Works Approval Holder</b>	City of Greater Geraldton
<b>Registered business address</b>	63 Cathedral Avenue GERALDTON WA 6530
<b>File Number</b>	DER2018/000553-1
<b>Duration</b>	17/01/2020 to 16/01/2023
<b>Date of issue</b>	17/01/2020
<b>Date of amendment</b>	06/06/2020
<b>Premises details</b>	Meru Waste Disposal Facility Landfill Lane NARNGULU WA 6532 Legal description - Lot 2268 on Plan 250829 and Lot 2227 on Plan 254811

<b>Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i>)</b>	<b>Assessed production capacity</b>
Category 67A: Compost manufacturing and soil blending	20,000 tonnes/year

This Works Approval is granted to the Works Approval Holder, subject to the attached conditions, on 6 June 2020, by:

**Steve Checker**

**MANAGER WASTE INDUSTRIES  
REGULATORY SERVICES**

an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

## Interpretation

In this Works Approval:

- (a) the words 'including', 'includes' and 'include' in conditions mean "including but not limited to", and similar, as appropriate;
- (b) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning;
- (c) where tables are used in a Condition, each row in a table constitutes a separate Condition;
- (d) any reference in this licence to an Australian or other standard, guideline, or code of practice, means the version of that document in force at the time of granting of this licence;
- (e) unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act; and
- (f) unless specified otherwise, all definitions are in accordance with the EP Act.

**NOTE:** This licence requires specific conditions to be met but does not provide any implied authorisation for other emissions, discharges, or activities not specified in this licence.

# Conditions

## Infrastructure and equipment

1. The Works Approval Holder must construct the infrastructure listed in Table 1, in accordance with:
  - (a) the corresponding design and construction requirement; and
  - (b) at the corresponding infrastructure location
 set out in Table 1.

**Table 1: Design and construction requirements.**

	Infrastructure	Design and construction requirement	Infrastructure location
1	Subgrade of the composting facility	<p>The subgrade of the composting facility must be constructed with the following specifications:</p> <ul style="list-style-type: none"> <li>• The subbase shall be placed in layers not exceeding 250mm;</li> <li>• A minimum standard compaction during placement of 95% using a nuclear densometer to AS 1289 5.8.1;</li> <li>• Californian Bearing Ratio exceeding 7%;</li> <li>• Penetration Index less than 15;</li> <li>• Minimum dry density ratio of 95% relative to Standard compaction using AS 1289 5.8.1 and AS 1289 5.1.1 to a depth of 150 mm below the finished surface;</li> <li>• A moisture variation of -3.0% to +2.0% of the Standard Optimum Moisture Content (SOMC) AS 1289 5.4.1;</li> <li>• Subgrade is to be proof rolled using a smooth drum roller of 12 tonne capacity or greater using a minimum of six (6) passes over the entire prepared surface; and</li> <li>• Field density testing conducted in accordance with AS 3798.</li> </ul>	<p>Schedule 2</p> <p>Figure 2: Site layout</p>
2	Composting facility hardstand	<p>The hardstand of the composting facility must be constructed with the following specifications:</p> <ul style="list-style-type: none"> <li>• Constructed in accordance with the Drawings provided in Schedule 2;</li> <li>• The hardstand shall be manufactured using type N40 MPa concrete, 20 mm aggregate, 80 mm slump concrete reinforced with one layer of SL92 mesh with minimum 50 mm of cover;</li> <li>• The concrete slab must be 350 mm in thickness; and</li> <li>• The hardstand is to be 15 m wide by 25 m in length and have a 2.0% cross fall to the centre of the pad and 2% slope to the leachate sump specified in Row 4 of Table 2.</li> </ul>	<p>Schedule 2</p> <p>Figure 2: Site layout</p>
3	Composting bunkers	<p>The composting bunkers must be constructed with the following specifications:</p> <ul style="list-style-type: none"> <li>• Constructed in accordance with the Drawings provided in Schedule 2.</li> </ul>	<p>Schedule 2</p> <p>Figure 2: Site layout</p>

	Infrastructure	Design and construction requirement	Infrastructure location
4	Leachate sump	<p>The leachate sump must be constructed with the following specifications:</p> <ul style="list-style-type: none"> <li>Constructed in accordance with the Drawings provided in Schedule 2;</li> <li>The leachate sump must be 1.6 m in depth with a run-off platform of 15 m by 4.5 m wide and a 1:10 slope to allow for leachate overflow to be contained within the drainage area and flow towards the sump; and</li> <li>The sump must be constructed of reinforced concrete of type N40 MPa; and</li> <li>The walls and base are to be 200 mm thick with a single layer of SL92 mesh with minimum 65 mm cover.</li> </ul>	<p>Schedule 2</p> <p>Figure 2: Site layout</p>

2. The Works Approval Holder must not depart from the requirements specified in Table 1 except:
  - (a) where such a departure does not increase risks to public health, public amenity or the environment; and
  - (b) all other Conditions in this Works Approval are still satisfied.
3. The Works Approval Holder must within 60 days of each item of infrastructure required by condition 1 being constructed:
  - (a) undertake an audit of their compliance with the requirements of condition 1; and
  - (b) prepare and submit to the CEO an Environmental Compliance Report on that compliance.
4. The report Environmental Compliance Report required by Condition 3, must include at minimum the following:
  - (a) certification by a suitably qualified Civil or Structural Engineer that each item of infrastructure or component of infrastructure specified in Table 1 has been constructed with no material defects and to the requirements specified Table 1;
  - (b) as constructed plans for each item of infrastructure specified in Rows 2, 3 and 4 of Table 1;
  - (c) where a departure from the requirements specified in Table 1 occurs and is of a type allowed by Condition 2, the Works Approval Holder must provide to the CEO a description of, and explanation for the departure; and
  - (d) be signed by a person authorised to represent the Works Approval Holder and contains the printed name and position of that person within the company.

### Time limited operations

5. The Works Approval Holder may commence Time Limited Operations after the date of the submission of the Environmental Compliance Report required by Condition 3 **Error! Reference source not found.** of this Works Approval
6. The Works Approval Holder may conduct Time Limited Operations:

- (a) for a period not exceeding 365 calendar days from the date of submission of the Environmental Compliance Report required by Condition 3 of this Works Approval; or
  - (b) until such time as approval under Licence for Food Organic and Garden Organic composting operations at the Premises is granted
7. The Works Approval Holder must submit to the CEO a report on the Time Limited Operations within 60 days of the completion date of Time Limited Operations.
  8. The Works Approval Holder must ensure the report required by Condition 7 of this Works Approval includes at minimum the following:
    - (a) a summary of the Time Limited Operations, including timeframes, volume of waste processed and volume of compost produced; and
    - (b) a summary of monitoring results obtained during Time Limited Operations under Condition 13.

## Waste acceptance and throughput restrictions

9. The Works Approval Holder must only accept onto the premises waste of a waste type, which does not exceed the corresponding rate at which waste is received, and which meets the corresponding acceptance specification set out in Table 2.

**Table 2: Types of waste authorised to be accepted onto the premises**

Waste type	Rate at which waste is received	Acceptance specification
Food organics and garden organics	Combined total up to 5,000 tonnes per annual period.	Accepted from municipal mobile garbage bins only

10. The Works Approval Holder must visually inspect all waste on arrival at the Premises and again before it enters any stockpile or treatment process to ensure that it complies with the waste acceptance criteria in Table 2.
11. The Works Approval Holder must ensure that where waste does not meet the waste acceptance criteria set out in Condition 9 it is removed from the Premises by the delivery vehicle or, where that is not possible, stored in a quarantined storage area or container and removed to an appropriately authorised facility as soon as practicable.

## Waste processing

12. The Works Approval Holder must ensure that all wastes accepted onto the premises are only subjected to the corresponding process(es) in accordance with the corresponding process requirements set out Table 3.

**Table 3: Waste processing**

Waste Type	Process	Process requirements
Food organics and garden organics	Receipt, handling and storage prior to composting	(a) Waste shall not be stored for longer than 24 hours before being added to the composting process; and (b) Waste shall only be accepted and stored onto the compost facility specified in Row 2 of Table 1.
	Treatment by composting and pasteurisation	(a) Waste shall only be composted on the compost facility specified in Row 2 of Table 1 ; (b) Windrows shall be turned regularly to ensure aerobic conditions are maintained; (c) The core temperature of the composting pile is maintained above between 55 °C and 65 °C for a period of at least three consecutive days; (d) Moisture level in the composting piles shall be maintained between 45 and 65 per cent; (e) Compost piles shall not exceed 3 m in height; (f) Compost piles shall be located within the compost bunkers specified in Row 3 of Table 1; (g) Composting leachate is collected within the leachate sump specified in Row 4 of Table 1 and <ul style="list-style-type: none"> <li>i. returned to the composting process; or</li> <li>ii. removed to a septage pond</li> </ul> (h) The leachate sump specified in Row 4 of Table 1 is maintained to be free of debris and accumulated sediment.
	Final compost storage and removal from the premises	(a) Storage shall be undertaken on the composting facility specified in Row 2 of Table 1.

## Monitoring

13. The Works Approval Holder shall undertake the monitoring in Table 4 according to the specifications in that table.

**Table 4: Process monitoring**

Monitoring point	Process description	Parameter	Units	Frequency	Method
Compost piles	Composting	Temperature	°C	Daily	None specified
		Compost quality product testing	None specified	As per sampling procedure required in AS 4454	Sampling and testing in accordance with AS 4445

14. The Works Approval must ensure that the testing of all compost product is undertaken in accordance with AS 4454.

15. The Works Approval Holder must ensure that products are classified according to the product specification and end use(s) as determined by the physical and chemical quality specifications required by AS 4454 prior to sale or distribution to customers.

## Dust management

16. The Works Approval Holder must ensure that no visible dust generated from the primary activities specified in Schedule 2 crosses the boundary of the premises.

## Monitoring

17. The Works Approval Holder must record the total amount of waste accepted onto the premises, for each waste type listed in Table 5, in the corresponding unit, and for each corresponding time period, as set out in Table 5.

**Table 5: Waste accepted onto the premises**

Waste type	Unit	Time period
Waste types as specified in Table 2	m <sup>3</sup> and tonnes	Each load arriving at the premises.

18. The Works Approval Holder must record the total amount of waste removed from the premises, for each waste type listed in Table 6, in the corresponding unit, and for each corresponding time period set out in Table 6.

**Table 6: Waste removed from the premises**

Waste type	Unit	Time period
Waste types as defined in the Landfill Definitions	m <sup>3</sup> and tonnes	Each load leaving, or rejected from the premises.

19. The Works Approval Holder must record the total amount of product removed from the premises, for each product type listed in Table 7, in the corresponding unit, and for each corresponding time period set out in Table 7.

**Table 7: Waste removed from the premises**

Product type	Unit	Time period
Compost	m <sup>3</sup> and tonnes	Each load leaving the premises.

## Record-keeping

20. The Works Approval Holder must maintain accurate Books including information, reports and data in relation to the Works and the Books must:
- be legible;
  - if amended, be amended in such a way that the original and subsequent amendments remain legible or are capable of retrieval;
  - be retained for at least 3 years from the date the Books were made;
  - be available to be produced to an Inspector or the CEO.
21. The Works Approval Holder must comply with a Department Request within 14 days from the date of the Department Request or such other period as agreed to by the Inspector or the CEO.

## Definitions

In this Works Approval, the terms in Table 8 have the meanings defined.

**Table 8: Definitions**

Term	Definition
ACN	Australian Company Number
AS 1289 5.1.1	means the Australian Standard 1289 5.1.1 Determination of the dry density/moisture content relation of a soil using standard compactive effort
AS 1289 5.4.1	means the Australian Standard 1289 5.4.1 Dry density ratio, moisture variation and moisture ratio
AS 1289 5.8.1	means the Australian Standard 1289 5.8.1 Soil compaction and density tests using nuclear density gauge.
AS 3798	means the Australian Standard 3798 Guidelines on earthworks for commercial and residential developments
AS 4454	means the Australian Standard AS 4454 Compost, soil conditioners and mulches.
Books	has the same meaning given to that term under the EP Act.
CEO	means Chief Executive Officer. CEO for the purposes of notification means: Director General Department administering the <i>Environmental Protection Act 1986</i> Locked Bag 10 Joondalup DC WA 6919 <a href="mailto:info@dwer.wa.gov.au">info@dwer.wa.gov.au</a>
Condition	means a condition to which this Works Approval is subject under s.62 of the EP Act.
Department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> and designated as responsible for the administration of Part V, Division 3 of the EP Act.
Department Request	means a request for Books or other sources of information to be produced, made by an Inspector or the CEO to the Works Approval Holder in writing and sent to the Works Approval's address for notifications, as described at the front of this Works Approval, in relation to: (a) compliance with the EP Act or this Works Approval; (b) the Books or other sources of information maintained in accordance with this Works Approval; or (c) the Books or other sources of information relating to Emissions from the Premises.
Discharge	has the same meaning given to that term under the EP Act.



DWER	Department of Water and Environmental Regulation
Emission	has the same meaning given to that term under the EP Act.
Environmental Compliance Report	means a report to satisfy the CEO that Works have been constructed in accordance with the Works Approval.
Environmental Harm	has the same meaning given to that term under the EP Act.
EP Act	means the <i>Environmental Protection Act 1986</i> (WA).
EP Regulations	means the <i>Environmental Protection Regulations 1987</i> (WA).
Inspector	means an inspector appointed by the CEO in accordance with s.88 of the EP Act.
Material Environmental Harm	has the same meaning given to that term under the EP Act.
Pollution	has the same meaning given to that term under the EP Act.
Premises	refers to the premises to which this Works Approval applies, as specified at the front of this Works Approval and as shown on the map in Schedule 1 to this Works Approval.
Prescribed Premises	has the same meaning given to that term under the EP Act.
Serious Environmental Harm	has the same meaning given to that term under the EP Act.
Time Limited Operations	refers to the limited operation of the Primary Activities associated with Schedule 3 of this Works Approval, at locations shown in Schedule 1 of this Works Approval, subject to the Conditions, whilst an application for licence is being assessed.
Unreasonable Emission	has the same meaning given to that term under the EP Act.
Waste	has the same meaning given to that term under the EP Act.
Works	refers to the Works described in Schedule 2, at the locations shown in Schedule 1 of this Works Approval to be carried out at the Premises, subject to the Conditions.
Works Approval	refers to this document, which evidences the grant of the works approval by the CEO under s.54 of the EP Act, subject to the Conditions.
Works Approval Holder	refers to the occupier of the Premises being the person to whom this Works Approval has been granted, as specified at the front of this Works Approval.

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**END OF CONDITIONS**



## Schedule 1: Maps

### Premises map

The Premises are shown in the map below.

Figure 1. Premises map

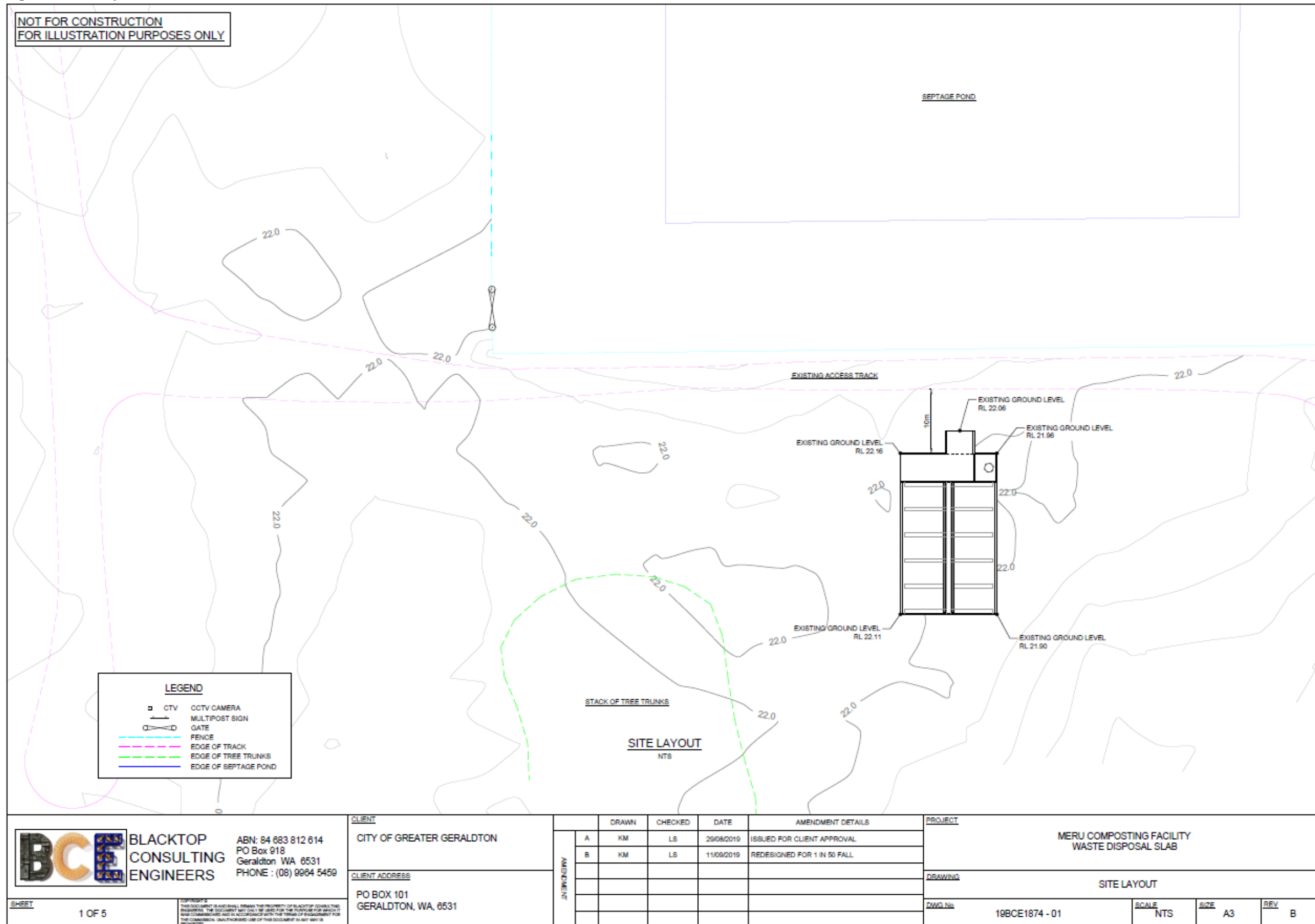


Figure supplied as part of the Application



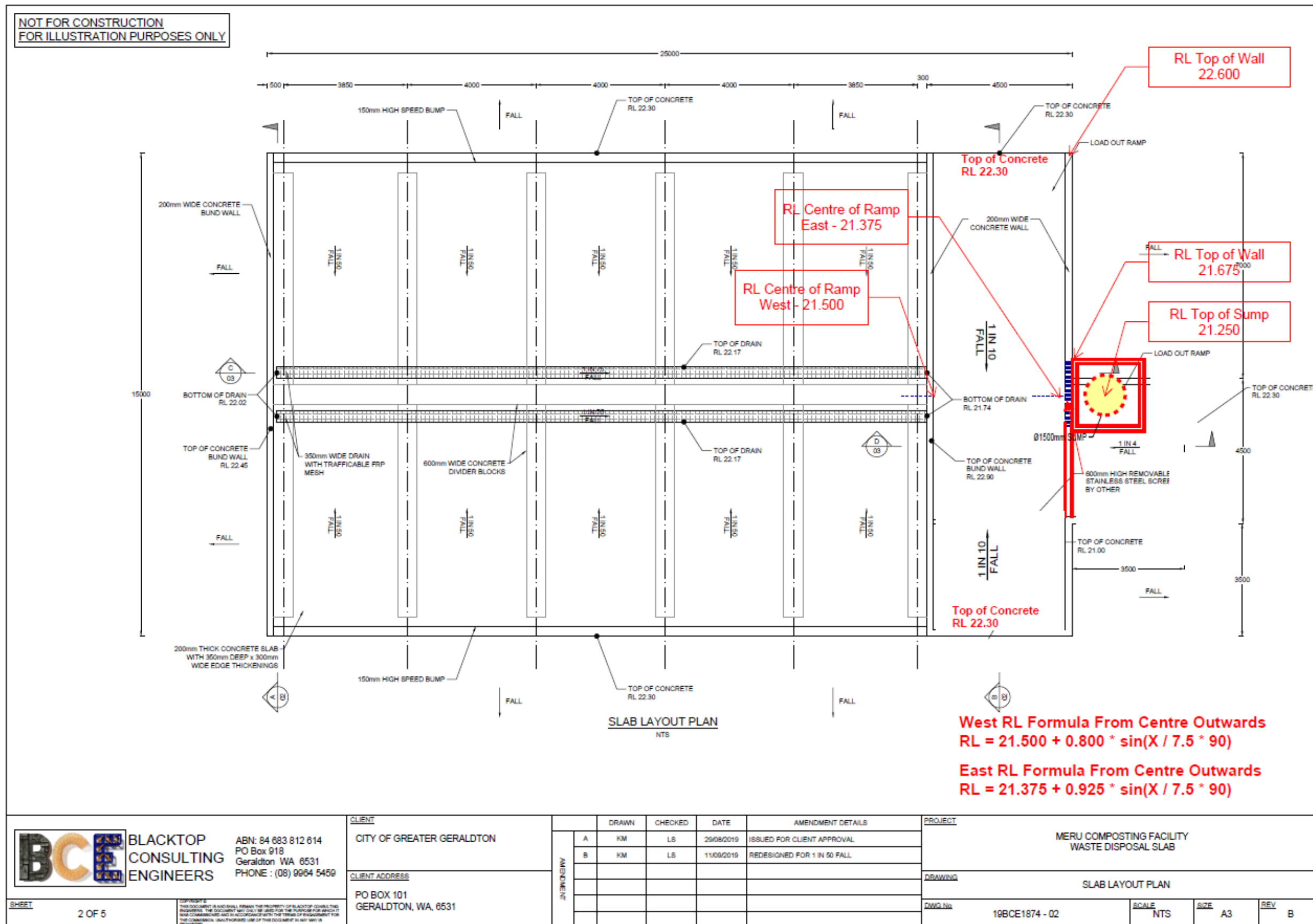
## Schedule 2: Drawings

Figure 2. Site layout



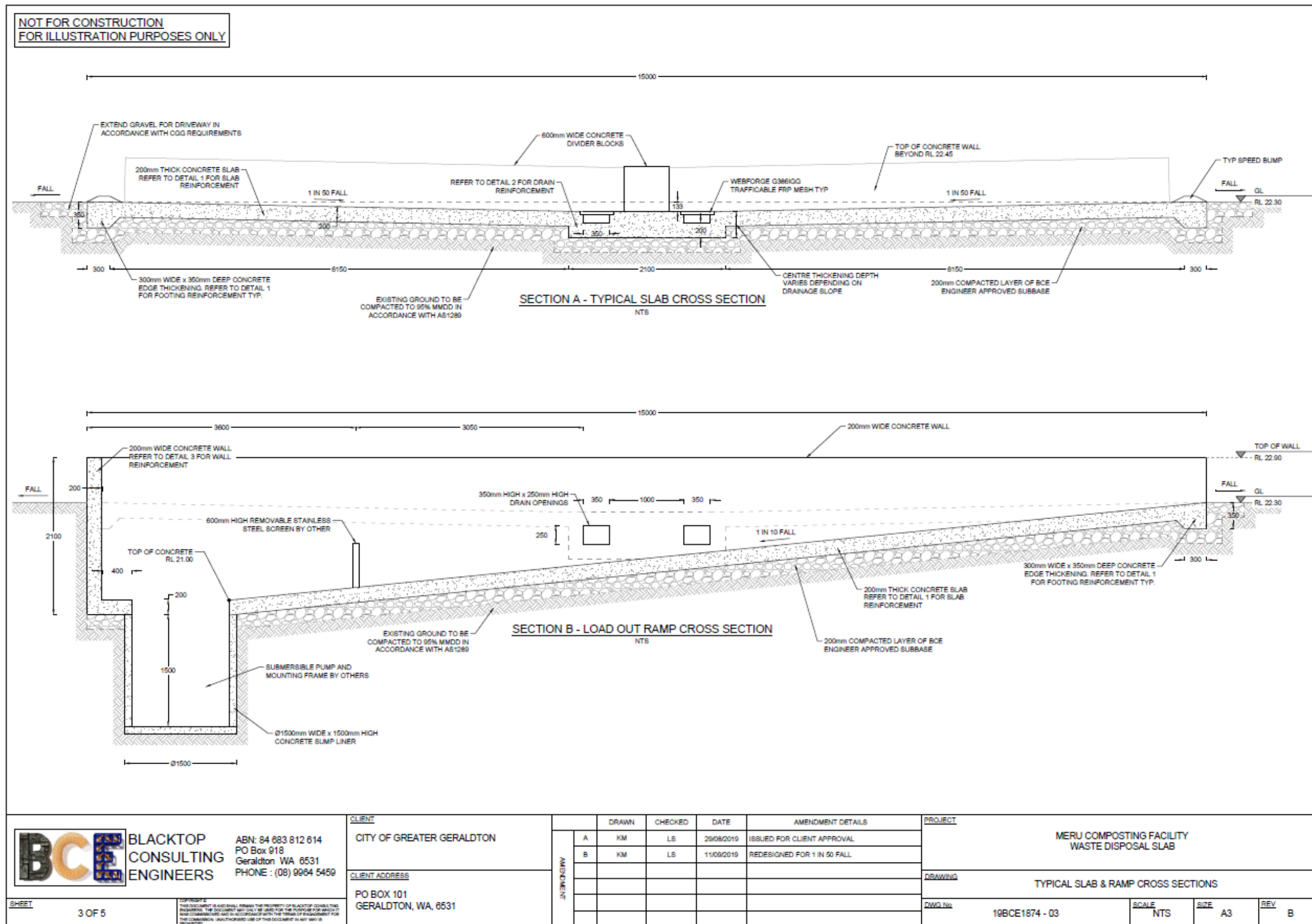
Drawing submitted as part of the Application (19BCE1874 rB Design Drawings - Appendix C)

Figure 2. Slab layout plan



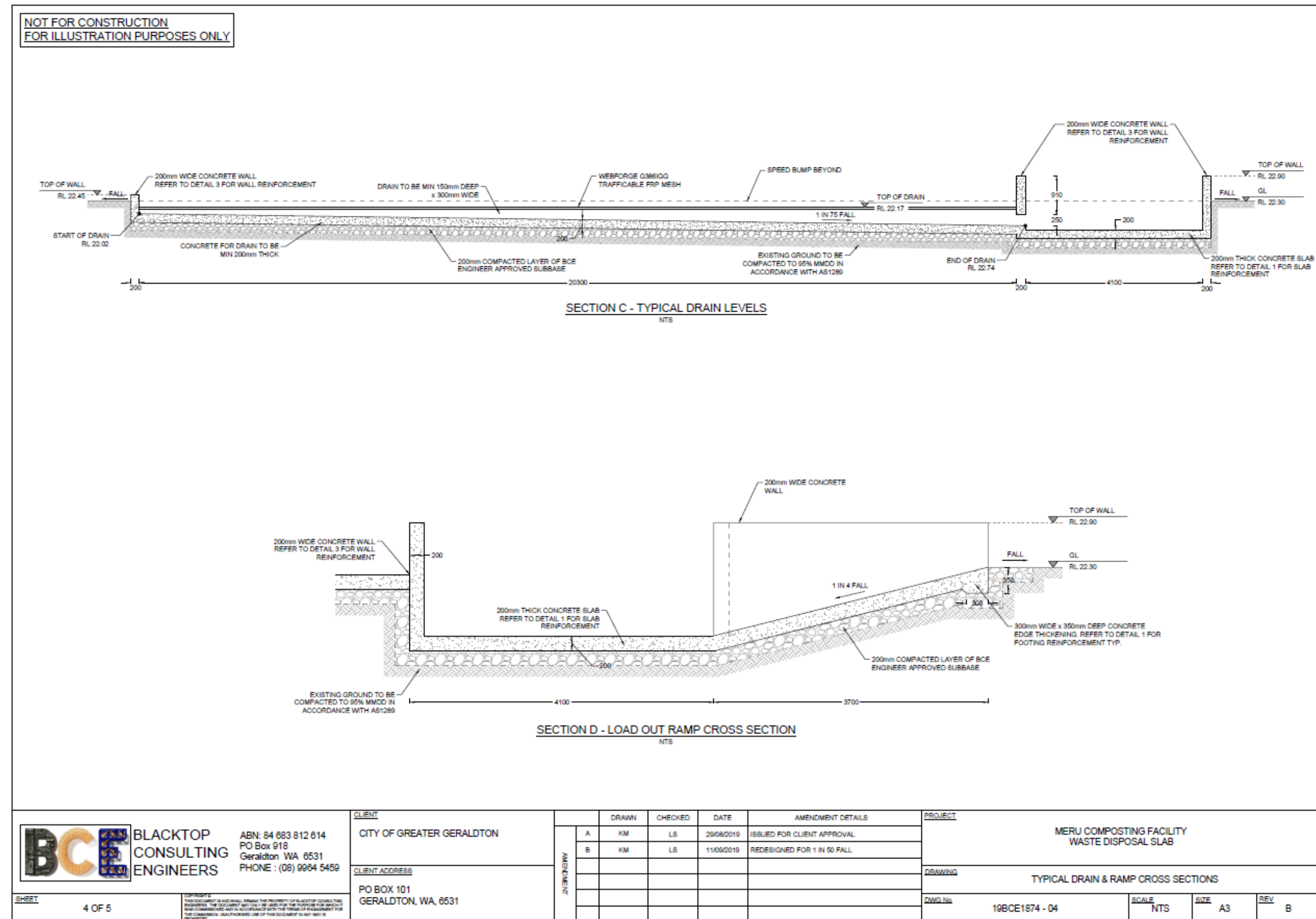
Drawing submitted as part of the Application (19BCE1874 rB Design Drawings - Appendix C)

Figure 3. Slab and ramp cross-sections



Drawing submitted as part of the Application (19BCE1874 rB Design Drawings - Appendix C)

Figure 4. Drain and ramp corss-sections

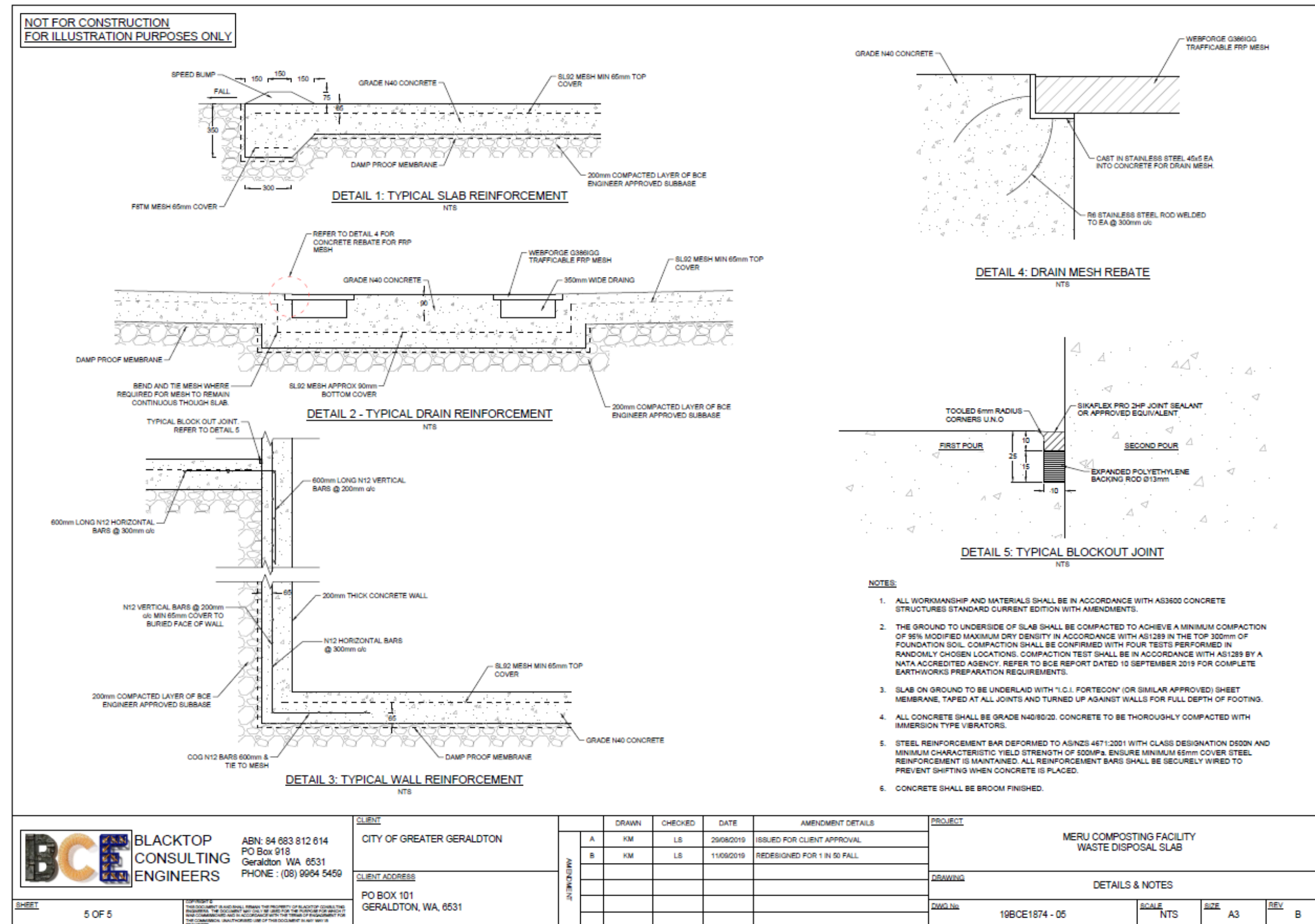


Drawing submitted as part of the Application (19BCE1874 rB Design Drawings - Appendix C)

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Figure 5. Slab details



Drawing submitted as part of the Application (19BCE1874 rB Design Drawings - Appendix C)



## Schedule 3: Works

At the time of assessment, Emissions and Discharges from the Works listed in Table 9 were considered in the determination of the risk and related Conditions for the Works Approval.

**Table 9: Authorised Works**

Works	Specifications/Drawings
Composting facility	Drawing No. 19BCE1874-01 Rev B, dated 11 September 2019 (as submitted on 24 September 2019)
	Drawing No. 19BCE1874-02 Rev B, dated 11 September 2019 (as submitted on 11 November 2019)
	Drawing No. 19BCE1974-03 Rev B, dated 11 September 2019 (as submitted on 24 September 2019)
	Drawing No. 19BCE1974-04 Rev B, dated 11 September 2019 (as submitted on 24 September 2019)
	Drawing No. 19BCE1974-05 Rev B, dated 11 September 2019 (as submitted on 24 September 2019)

### Site layout

The infrastructure and equipment are set out on the Premises in accordance with the site layout specified on the Premises map in Schedule 1 and Drawings in Schedule 2.