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10 January 2024

Gosia Nowobilska
Director
McIldowie Partners
5/183-185 Flinders Lane
MELBOURNE VIC 3000

Tintern Grammar Facilities Project
90 Alexandra Road, Ringwood East
Proposed Waste Storage and Collection Arrangements Assessment Letter

Dear Gosia,

As requested, Ratio Consultants has assessed the suitability of the proposed waste storage and collection arrangements associated with the Tintern Grammar Facilities Project at 90 Alexandra Road, Ringwood East. Our assessment is outlined below.

1. The Proposal

The proposal involves the following:

— Relocation of the school's existing facilities (workshop, offices / amenities, and grounds store) into two new buildings, to be constructed to the north of Gracedale Avenue, as summarised below:
  - Building 1: Workshop
  - Building 2: Offices / Amenities and Grounds Store
— Construction of a new bin enclosure adjacent to the new buildings, accommodating all of the school's collection bins / waste management equipment.
— Waste vehicle access to the site provided via an extension to the existing road into the site connecting to Gracedale Avenue.
— Waste collection to occur from the hardstand area adjacent to the new bin enclosure.

A full set of the application plans are attached to Appendix A.

Note: it is understood that no additional waste is expected to be generated by the proposal, as there will be changes to the existing staff / student numbers. Additionally, no changes have been proposed to the existing waste separation and disposal strategy, only to the existing waste storage and collection arrangements.

2. Existing Waste Storage and Collection Arrangements

The existing waste streams, equipment types/quantities, collection frequencies, and service capacities are outlined in Table 2.1 below.

Table 2.1

Waste Stream	Equipment Type	Quantity	Collection Frequency	Service Capacity
General Waste (Cleaners)	4.5m³ Wheeled Skip	1	Three times per week	13.5m³ per week
General Waste (Workshop)	3.0m³ Wheeled Skip	1	As required	As required
Organics	120L Bin	4	Weekly	480L per week
Commingled Recycling	240L Bin	20	Weekly	4,800L per week
Paper/ Cardboard	3.0m³ Wheeled Skip	1	Weekly	3.0m³ per week

Note: There are a total of 45 commingled recycling bins scattered throughout the school, however it is understood a maximum of 20 of these bins are transferred to the waste storage area for collection on each week.

The existing waste storage locations are shown in Figure 2.1 below.

Figure 2.1

The existing waste collection arrangements are outlined below:

— A combination of 10.2m front-loading and 8.8m rear-loading waste collection vehicles enter the site via Gate 1 (accessed via Loma Street / Morinda Street).

— Skips/bins are collected directly from the waste storage locations depicted in Figure 2.1 above.

— The waste collection vehicles depart the site via Gate 1 onto Loma Street / Morinda Street in a forward direction.

3. Proposed Waste Storage and Collection Arrangements

The proposed waste streams, equipment types/quantities, collection frequencies, and service capacities are outlined in Table 3.1 below.

Table 3.1

Waste Stream	Equipment Type	Quantity	Collection Frequency	Service Capacity
General Waste (cleaners)	4.5m^3 Wheeled Skip	2	Twice Weekly	18.0m^3 per week
General Waste (workshop)	3.0m^3 Wheeled Skip	1	As required	As required
Organics	120L Bin	4	Weekly	480L per week
Commingled Recycling	240L Bin	20	Weekly	4,800L per week
Paper/ Cardboard	3.0m^3 Wheeled Skip	1	Weekly	3.0m^3 per week

As can be seen in Table 3.1 above, an additional 4.5 m^3 general waste wheeled skip is proposed to reduce the collection frequency for general waste (cleaners) from three times per week to twice weekly. This will reduce the number of waste collection vehicles attending the site each week and therefore minimise impacts on neighbouring residential properties.

The proposed bin enclosure shall be provided in accordance with the following requirements:

— Comply with Building Code of Australia (BCA) and all relevant Australian Standards.

— Allow safe and convenient access for users of the equipment as well as the collection contractors.

— Appropriately screened to prevent unsightly impacts on amenity.

— Artificial light to be provided to enable users to dispose of waste safely and appropriately.

— Sized to accommodate all waste equipment requited, with adequate circulation so equipment can be easily accessed and manoeuvred.

— Surface to be constructed of concrete (or similar) and be finished to a smooth even surface covered at the intersection of walls and plinths.

— Ventilated in accordance with the requirements of the Building Code of Australia and AS 1668.2.

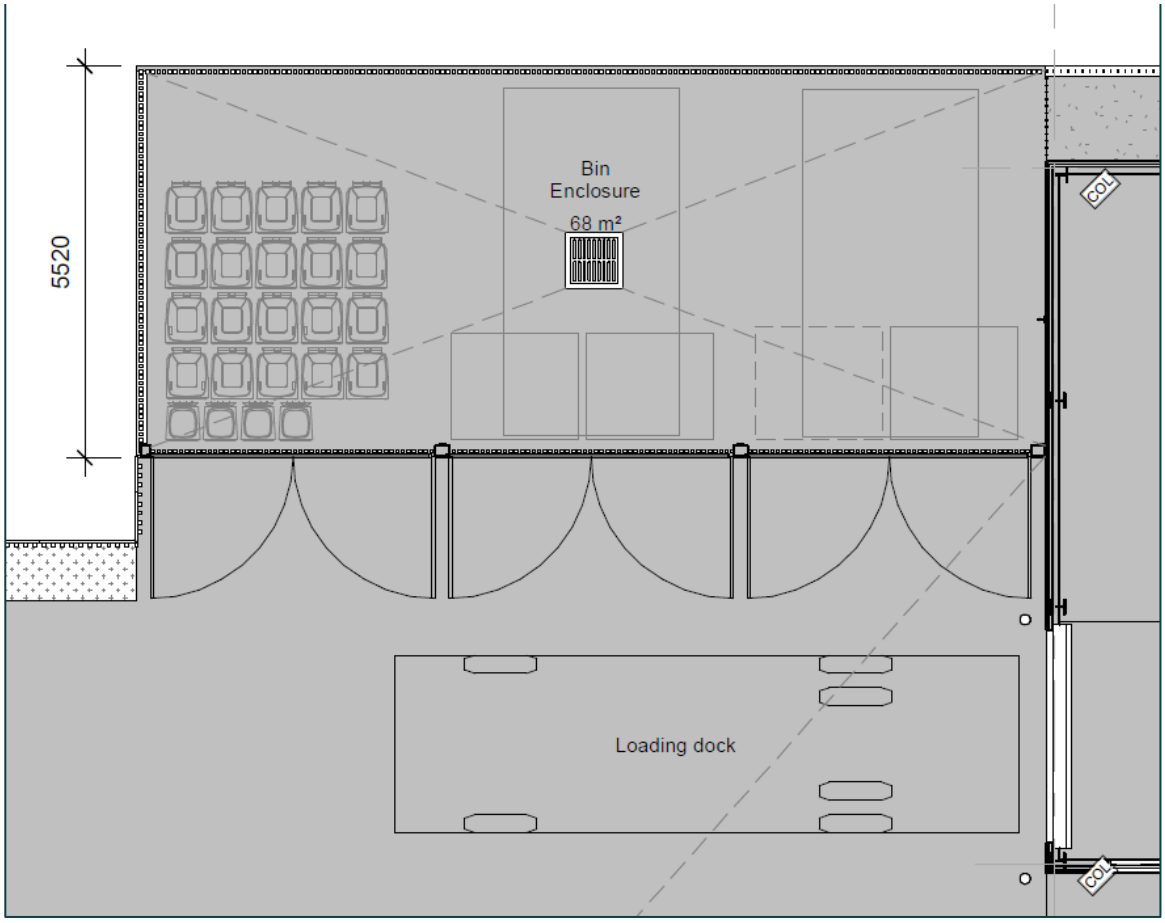
— Ventilation openings to be protected against flies and vermin.

— Doors to be tight fitting.

— Bin washing facilities (wall-mounted hosecock with drain connected to sewer) to be provided in accordance with the relevant authority requirements.

The proposed layout of equipment within the proposed bin enclosure is shown in Figure 3.1 below, which demonstrates there is sufficient space to accommodate the equipment required for ample circulation space / additional space should additional equipment be provide in the future.

Figure 3.1



The proposed waste collection arrangements are outlined below:

— A combination of 10.2m front-loading and 8.8m rear-loading waste collection vehicles shall enter the site the via the extension to the existing road into the site connecting to Gracedale Avenue.

— Skips/bins are collected directly from the hardstand area provided adjacent to the proposed bin enclosure.

— The waste collection vehicles shall turn around within the hardstand area and depart the site via the extension to the existing road connecting to Gracedale Avenue in a forward direction.

— A swept path assessment has been prepared using Autodesk Vehicle Tracking software, demonstrating the nominated waste collection vehicles can access the hardstand area adjacent to the proposed bin enclosure, conduct waste collection, turn around, and exit the site via the extension to the existing road connecting to Gracedale Avenue in a forward direction (refer to Appendix B for the swept path assessment).

— Waste collection shall be undertaken in accordance with the time periods stipulated in EPA Victoria's *Noise Control Guidelines*, as outlined below:

  - Between 7:00am and 8:00pm Monday to Saturday; and
  - Between 9:00am and 8:00pm Sunday and public holidays.

— To minimise impacts on neighbouring residents, further to the above, waste collection shall occur outside of peak AM and PM traffic periods (i.e., between 10:00am and 3:00pm Monday to Friday).

4. Conclusion

Based on the preceding assessment, it is considered the proposed waste storage and collection arrangements are appropriate, for the following reasons:

— The proposed bin enclosure has been designed in accordance with relevant design standards and guidelines for waste management facilities.

— The proposed waste storage and collection arrangements align with the requirements outlined within relevant state and local waste management policies and guidelines.

— The proposed new bin enclosure has been appropriately designed to accommodate all of the school's collection bins / waste management equipment.

— The proposed relocation of the waste collection vehicle access point from Loma Street / Morinda Street to Gracedale Avenue will reduce traffic associated with the main learning area at the school and therefore significantly improve student safety.

— The existing waste collection frequency has been reduced through the provision of additional waste management equipment to minimise impacts on neighbouring residents.

— The swept path assessment attached to Appendix B demonstrates that the nominated waste collection vehicles will be able to access the hardstand area adjacent to the proposed bin enclosure, conduct waste collection, turn around, and exit the site via the extension to the existing road connecting to Gracedale Avenue in a forward direction.

Overall, the proposed waste storage and collection arrangements are not expected to create any adverse impacts in the precinct and are therefore considered acceptable.

If you have any queries, please feel free to contact the undersigned on 9429 3111.

Yours sincerely,

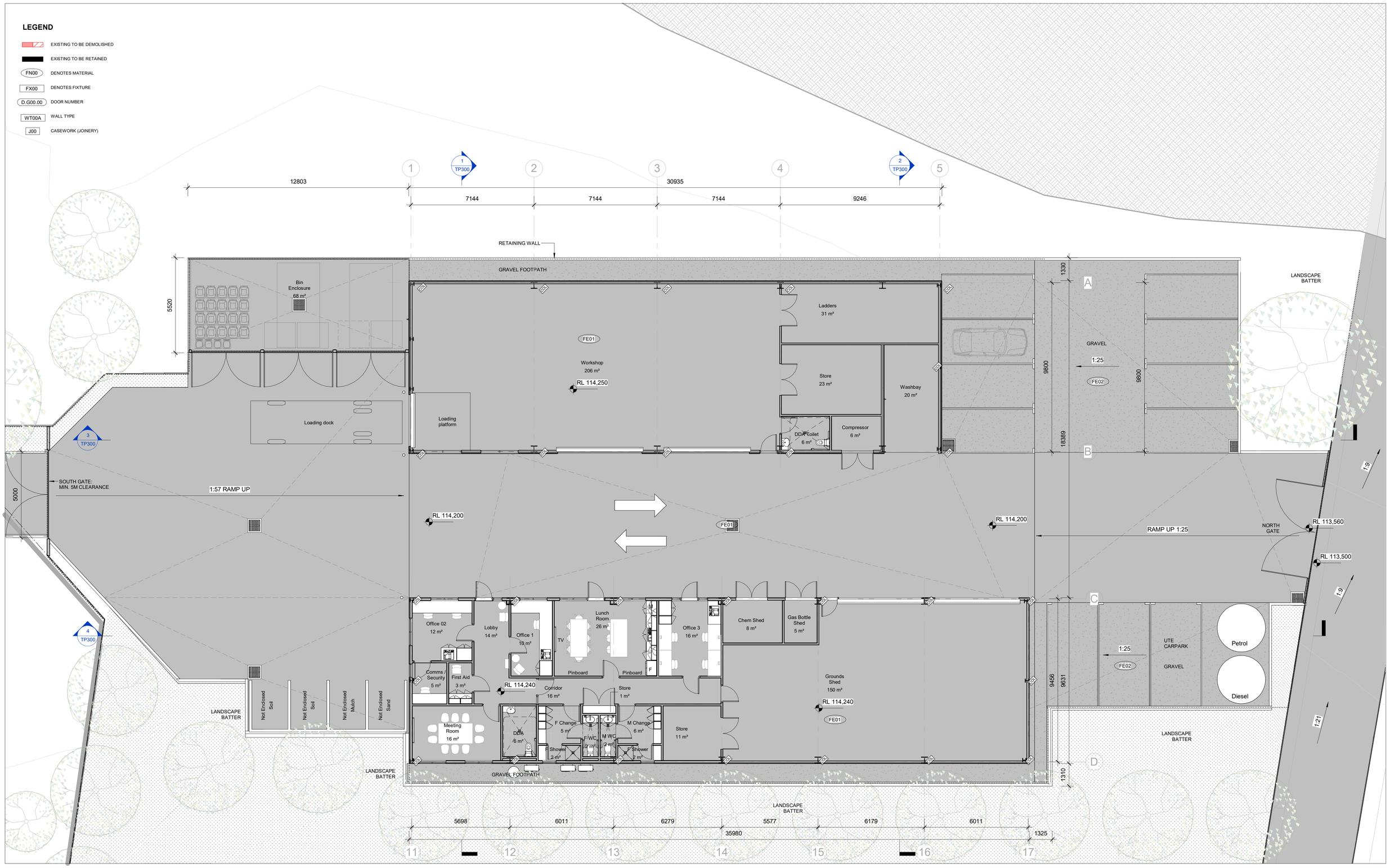
Mitchell Fairlie
Associate: Waste Management
Ratio Consultants

Appendix A : Plans Assessed

ADVERTISED PLAN

LEGEND

- EXISTING TO BE DEMOLISHED
- EXISTING TO BE RETAINED
- FN00 DENOTES MATERIAL
- FX00 DENOTES FIXTURE
- D.G00.00 DOOR NUMBER
- WT00A WALL TYPE
- J00 CASEWORK (JOINERY)



REV	DESCRIPTION OF CHANGE	DATE
5	Issued for information	01.12.23
4	Issued for information	10.11.23
3	Issued for information	27.10.23
2	Issued for information	19.10.23
1	Issued for information	28.09.23

NORTH POINT

CLIENT

TINTERN GRAMMAR

ARCHITECTURAL CONSULTANT

McIldowie Partners

T/ +61 3 8643 4900
info@mcildowiepartners.com.au

Level 5, 185 Flinders Lane
Melbourne VIC 3000

NOTES

PROJECT
TINTERN GRAMMAR - FACILITIES

DRAWING STATUS
TOWN PLANNING

PROJECT ADDRESS
90 ALEXANDRA ROAD, RINGWOOD EAST VIC 3135

TITLE
PROPOSED - FLOOR PLAN

FILE
Autodesk Docs://3252 - Tintern Grammar - Facilities/3252-TTG-Facilities.rvt

JOB NO:	SCALE:	REV DATE:	DRAWN:	CHECK:
3252	As indicated	01.12.23	GN	TC

DRAWING NUMBER:
TP100

REVISION: 5

Appendix B : Swept Path Assessment

PROPOSED STAFF APPR
PROPOSED STUDENTS APPR

PROPOSED CARPARKS APPROX. 11
PROPOSED STAFF APPROX. 10
PROPOSED STUDENTS APPROX. 0

ADVERTISED PLAN

EXISTING TREE

NEW TREES

BIN ENCLOSURE

END OF EXISTING ROAD

EXISTING CHAIN WIRE MESH FENCE

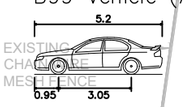
EXISTING TREES

LANDSCAPE BATTER

NEW FENCE

82/84 GRACEDALE AVENUE

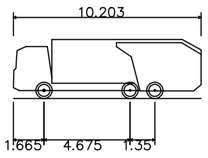
B99 Vehicle (AS/NZS2890.1:2004)



VEHICLE ENVELOPE (FORWARD)
300mm CLEARANCE (FORWARD)
VEHICLE ENVELOPE (REVERSE)
300mm CLEARANCE (REVERSE)

Overall Length	5.200m
Overall Width	1.940m
Overall Body Height	2.200m
Min Body Ground Clearance	0.312m
Track Width	1.840m
Lock to Lock Time	4.00 sec
Curb to Curb Turning Radius	6.30m

Front Loading Refuse Truck



VEHICLE ENVELOPE (FORWARD)
300mm CLEARANCE (FORWARD)
VEHICLE ENVELOPE (REVERSE)
300mm CLEARANCE (REVERSE)

Overall Length	10.203m
Overall Width	2.500m
Overall Body Height	3.205m
Min Body Ground Clearance	0.410m
Track Width	2.500m
Lock-to-lock time	6.00s
Wall to Wall Turning Radius	9.450m

0 3 6

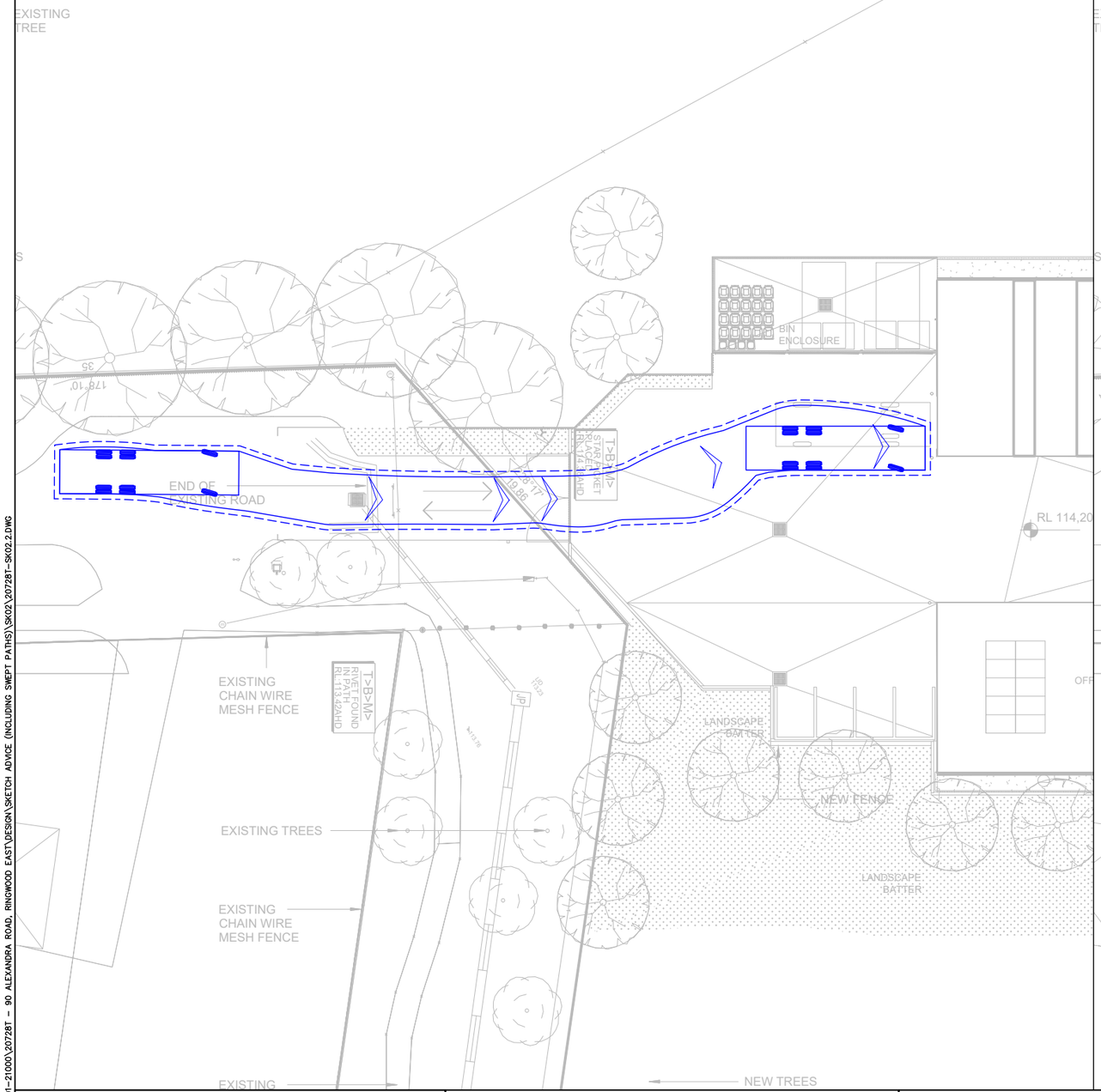
ratio:
RATIO CONSULTANTS PTY LTD
ABN 005 422 104
8 GWYNNE STREET
CREMORNE, VICTORIA 3121
TELEPHONE (03)9429 3111
FACSIMILE (03)9429 3011

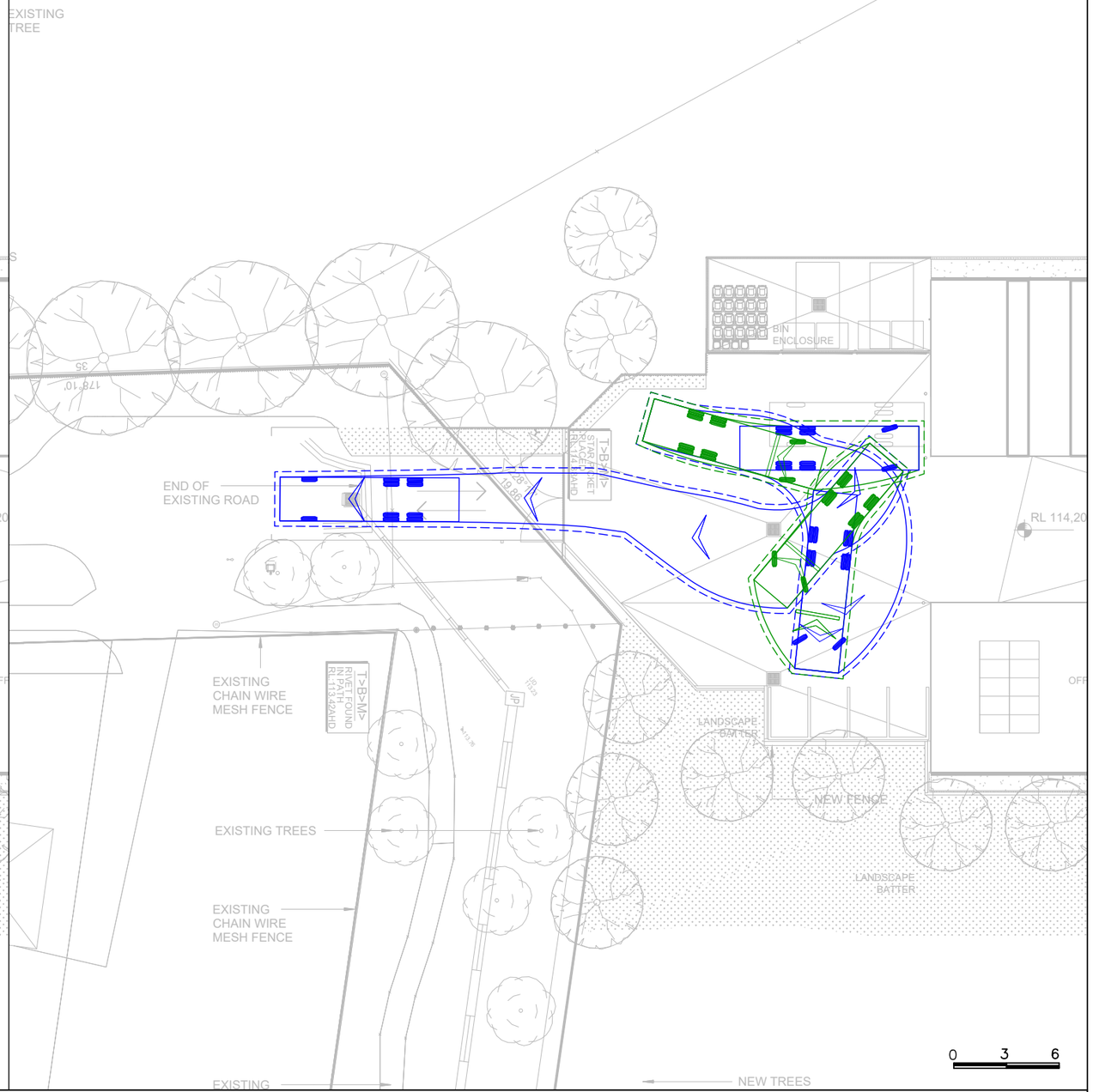
Tintern Grammar - Facilities
90 Alexandra Road, Ringwood East
Swept Path Assessment

NOTE:
1) Base Plan Supplied by Mcildowie Partners
2) Maximum Design Speed 10km/h

RATIO REFERENCE	SHEET No.	SCALE	DATE
20728T-SK02.2/SD	3 of 7	1:300@A3	14/12/2023

ADVERTISED PLAN





14/12/2023 5:41:32 PM Y:\20501-21000\20728T - 90 ALEXANDRA ROAD, RINGWOOD EAST\DESIGN\SKETCH ADVICE (INCLUDING SWEPT PATHS)\SK02\20728T-SK02.2.DWG

ratio:

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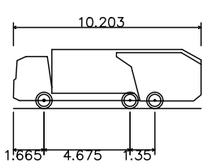
Front Loading Refuse Truck



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Tintern Grammar - Facilities
90 Alexandra Road, Ringwood East
Swept Path Assessment

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RATIO REFERENCE	SHEET No.	SCALE	DATE
20728T-SK02.2/SD	4 of 7	1:300@A3	14/12/2023