

TECHNICAL NOTE 1: Highways Consultation Response

DATE:	18 December 2023	CONFIDENTIALITY:	Public
SUBJECT:	Information to address highways consultation response		
PROJECT:	NSCC, Twycross Zoo	AUTHOR:	JH
CHECKED:	HB	APPROVED:	JH

INTRODUCTION AND PURPOSE OF NOTE

This Technical Note is intended to provide additional information in support of a planning application for the development of new animal enclosures and associated infrastructure, new lecture theatre, education block, education facilities, sub stations and associated residential block and lodges, access from Orton Hill, new car park, landscaping and other associated works (following the demolition of some existing buildings). (application ref 23/00948/FUL) on land located to the south of Twycross Zoo.

The planning application was accompanied by a Transport Statement setting out the accessibility of the proposed site together with details of the expected level of highway impact. Since then, the local highway authority has submitted a consultation response setting out details of information comments they consider is required:

- Swept path analysis of a refuse collection vehicle and minibus turning right in/ left out of the Orton Hill access;
- A drawing detailing widening of the access and/ or carriageway and potentially increasing the junction radii of the access to accommodate refuse collection vehicles. A RSA1 and designers response (if necessary) would need to accommodate any proposed works; and
- Further clarification in respect of trip generation and how the site would operate, particularly the classrooms and lecture theatre, as well as the opening hours.

Further information to address the points raised is set out in the remainder of this Note.

SWEPT PATH ANALYSIS

An updated swept path drawing showing a refuse vehicle turning into and out of the access to/from the south, as well as to/from the north, accompanies this note. As can be seen, the manoeuvre by this worst-case vehicle can be accommodated within the existing space available.

CARRIAGEWAY AND ACCESS WIDENING

Given that the worst-case vehicle can be accommodated turning into and out of the site from and to the south and the north, it is not necessary to undertake any widening works. As no works are necessary or proposed, no RSA would be required.

CLARIFICATION ON TRIP GENERATION

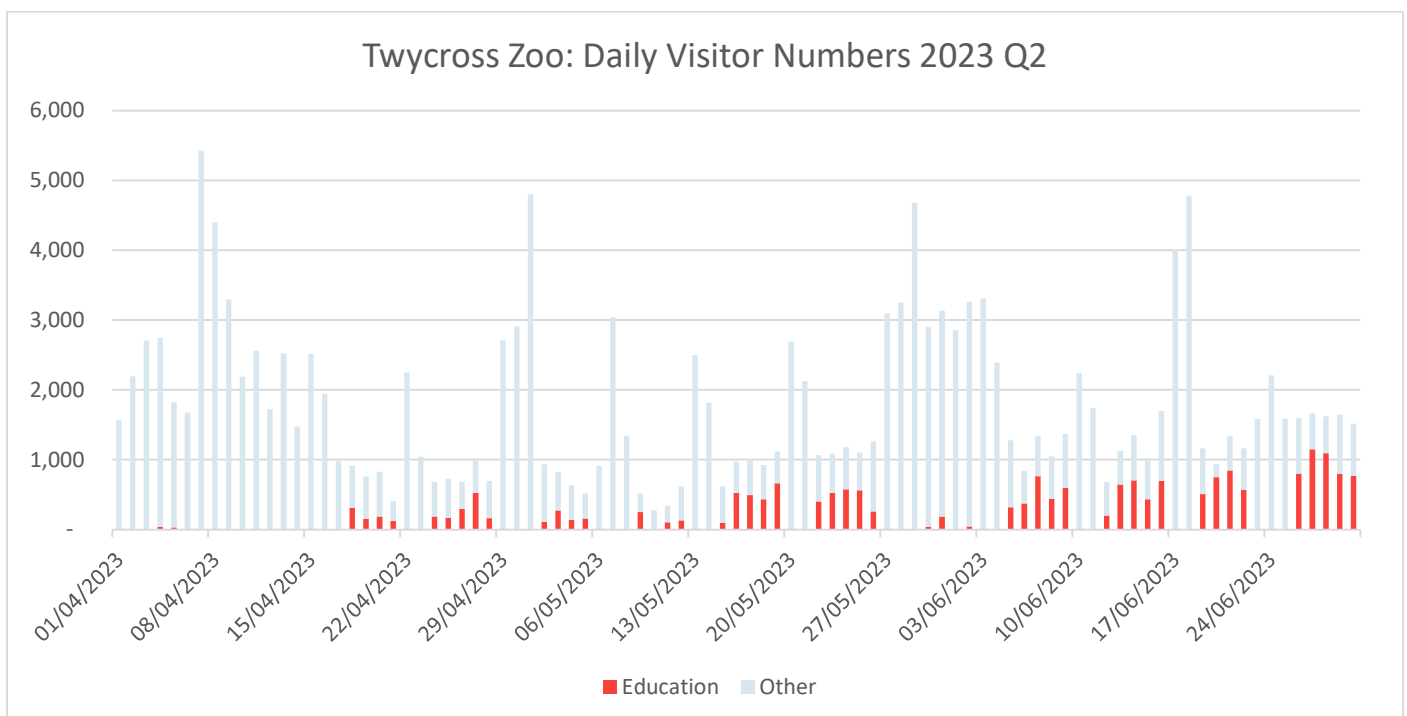
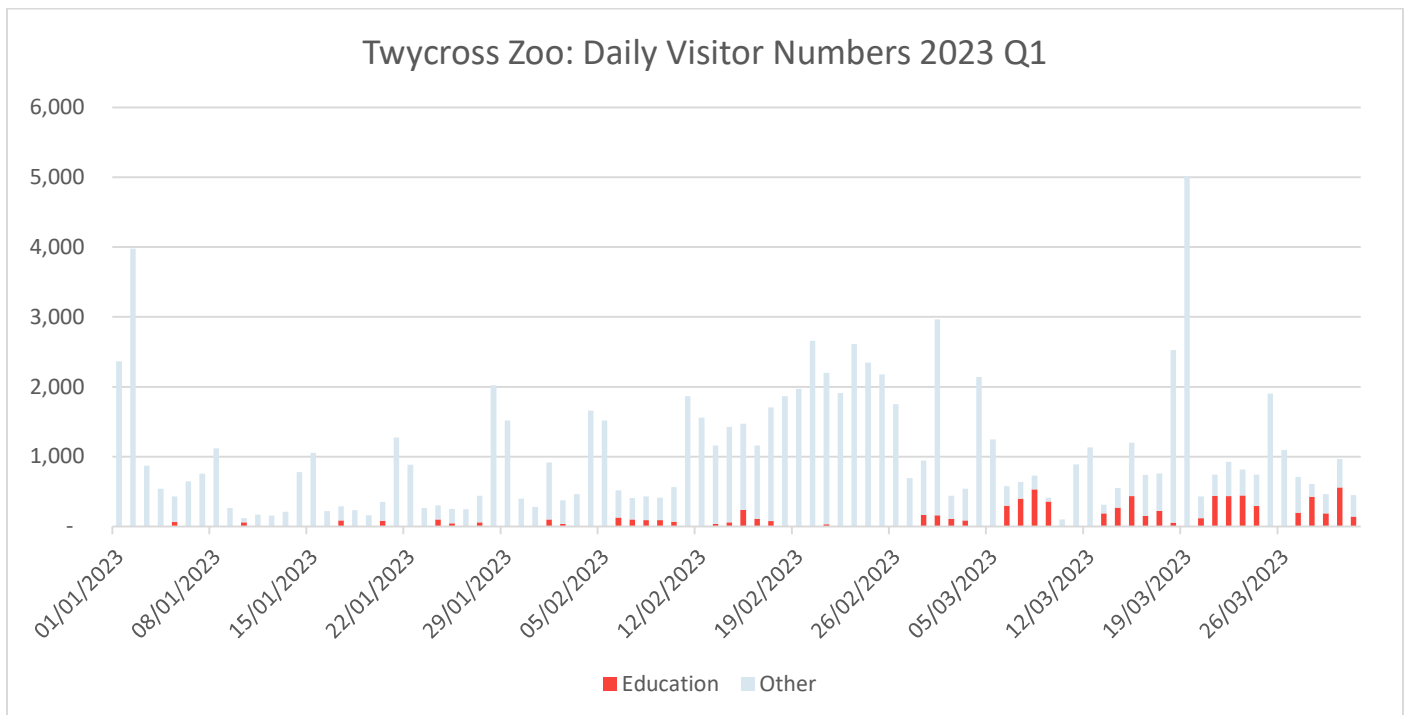
Lecture Theatre

Twycross Zoo anticipate the lecture theatre attendees gaining access in vehicles (generally coaches) parking in the main coach/car park and walking across to the lecture theatre. This activity will only be during term time which is a much quieter period in terms of people utilising the main entrance, as a result it would not have any impact on a typical day.

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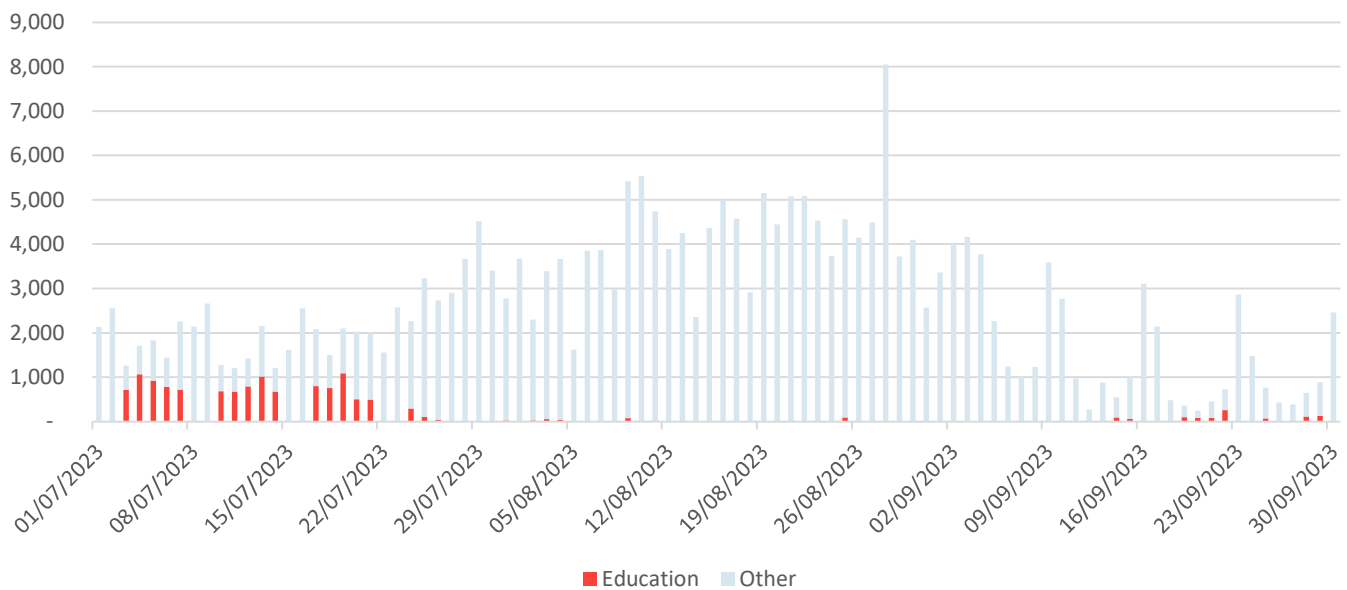
In order to demonstrate this, daily visitor data has been provided by the Zoo, split into Educational and General visitors, and is presented in the stacked bar charts below:



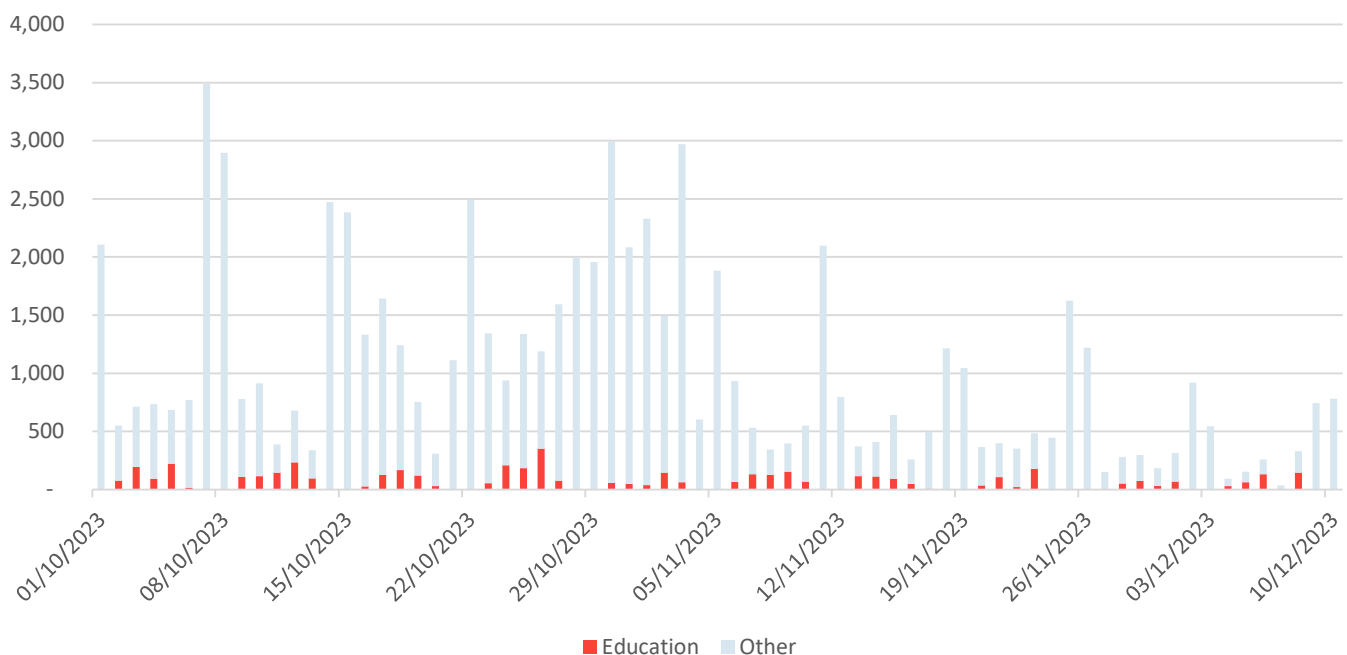
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Twycross Zoo: Daily Visitor Numbers 2023 Q3



Twycross Zoo: Daily Visitor Numbers 2023 Q4



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The bar chart for 2023 Q3 shows a notable spike in visitor numbers of around 8,000 on the August Bank Holiday. The Zoo have confirmed this is a correct figure and was due to the combination of a bank holiday and good weather.

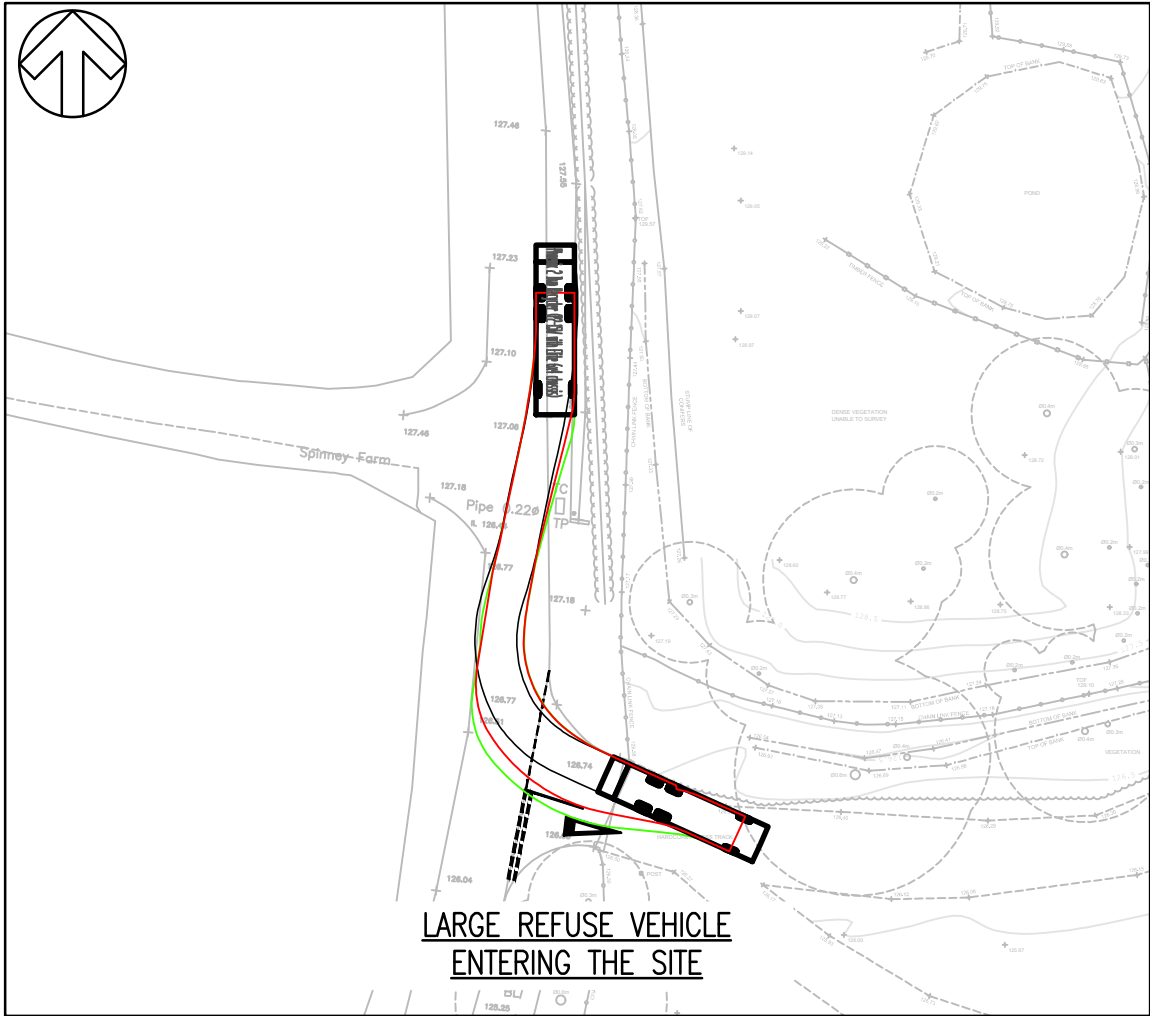
As can be seen, days on which educational visits happen have a much lower overall number of visits than weekend and non-term days. In addition to this, the classrooms and lecture theatres are a replacement (and enhancement) on the existing facilities (the Learning Centre) which the NSCC is replacing. With the above, the zoo have also introduced ‘timed ticketing’ meaning we can also ensure vehicle loads are managed.

Parking Provision

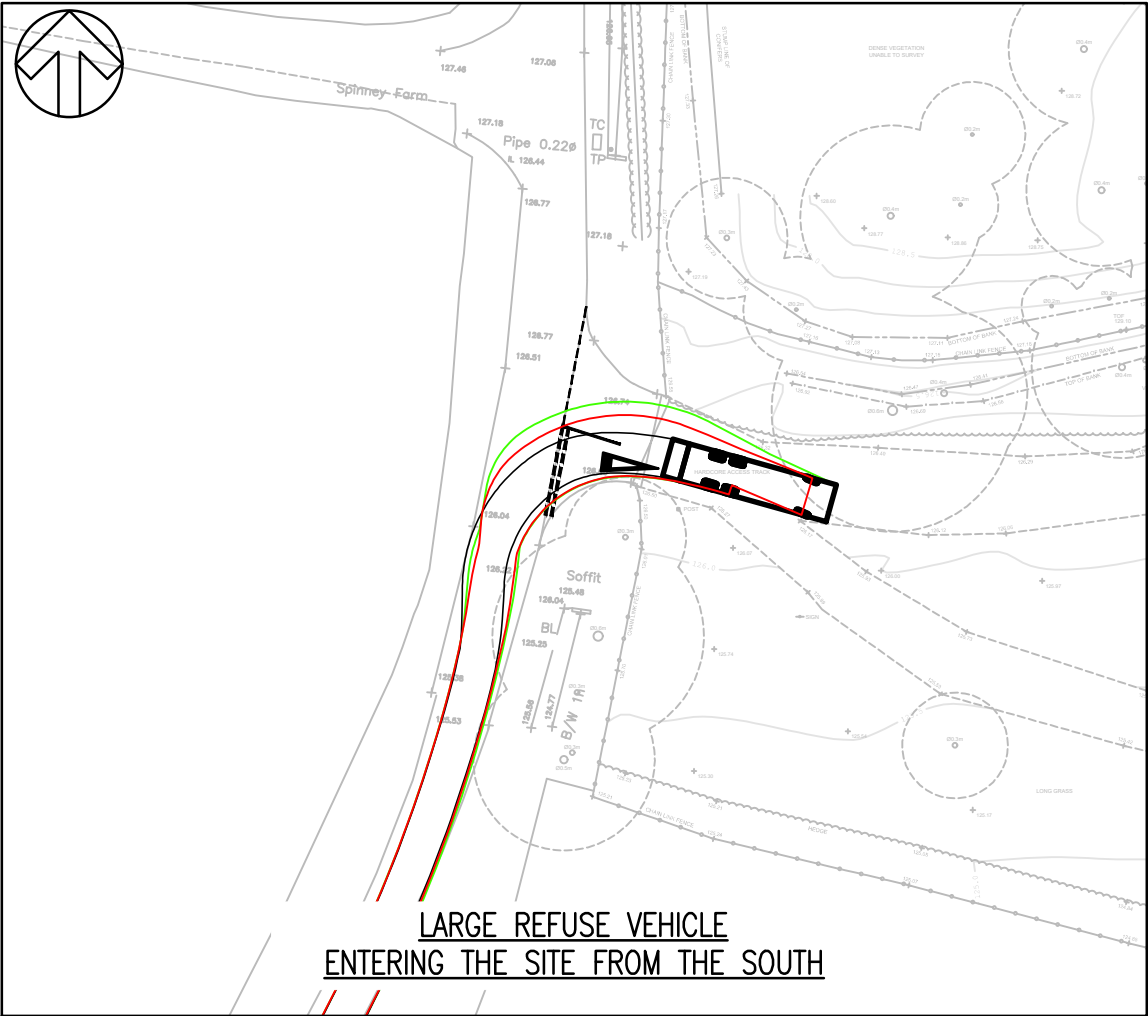
Additional information has been requested on the anticipated use of the car parking to the NSCC and how the trip generations have been calculated, including why up to 25 vehicles is considered to be the peak daily level of trips when the new car park has a capacity of 45 vehicles.

It is proposed that a number of the spaces will be used for long term parking by researchers, lectures and some students remaining on site for longer periods ranging from 3-4 nights and in some cases potentially up to several months. With some of the spots held for longer term spaces the remaining capacity will be made up of the site staff (three to four per day, consisting of cleaners, receptionist and Admin) between 4-6 for deliveries, servicing etc, and the remainder being long-term visitors arriving/ departing.

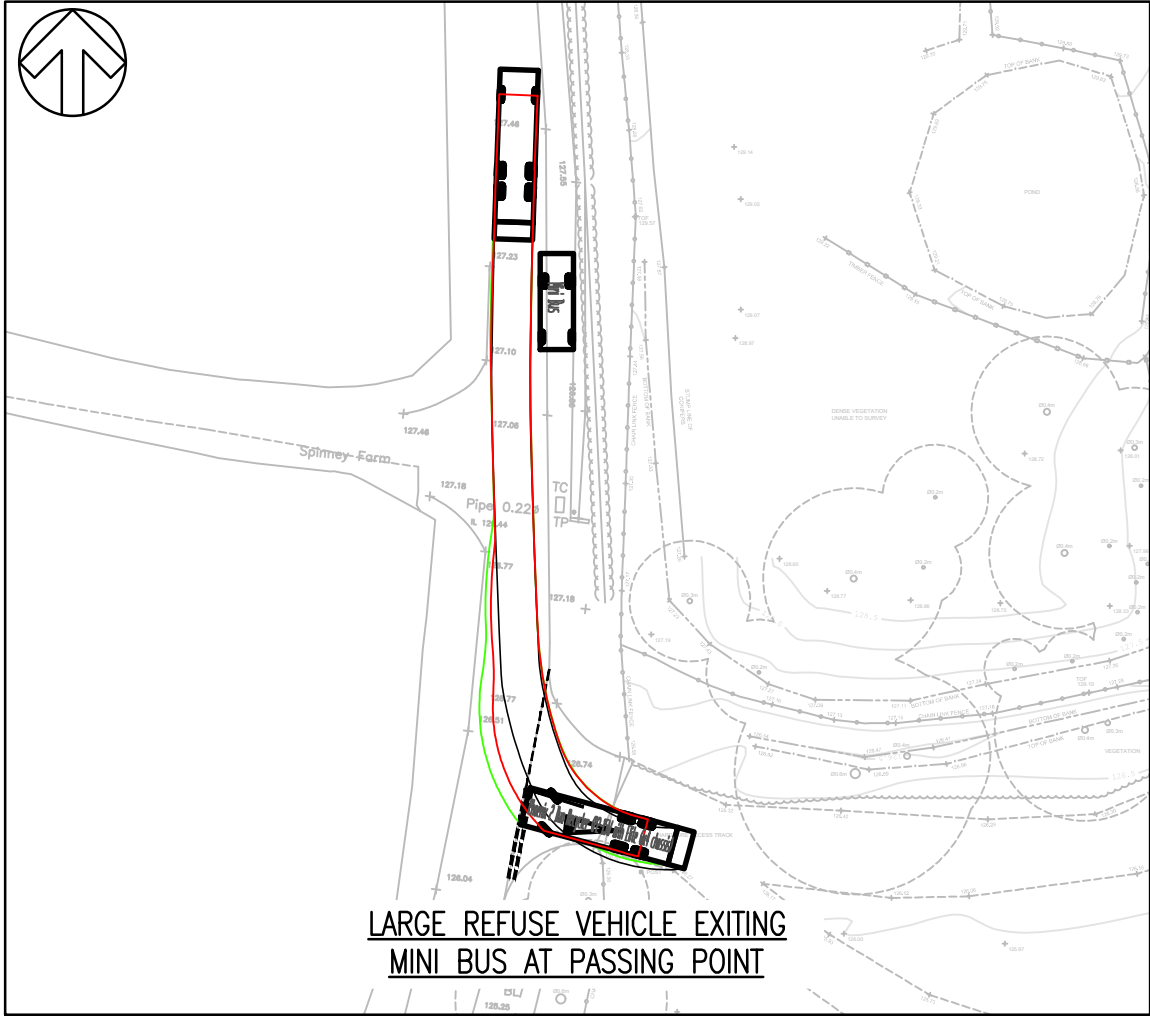
The 25 peak is based on the infrequent full utilisation of the full facility where the Zoo may have additional lecturers, researchers, some students and additional staffing requirements. At these times, key parties will park at the NSCC and other attendees would be directed to park in the main car park and walk over, similar to the existing provision when schools attend for lessons etc.



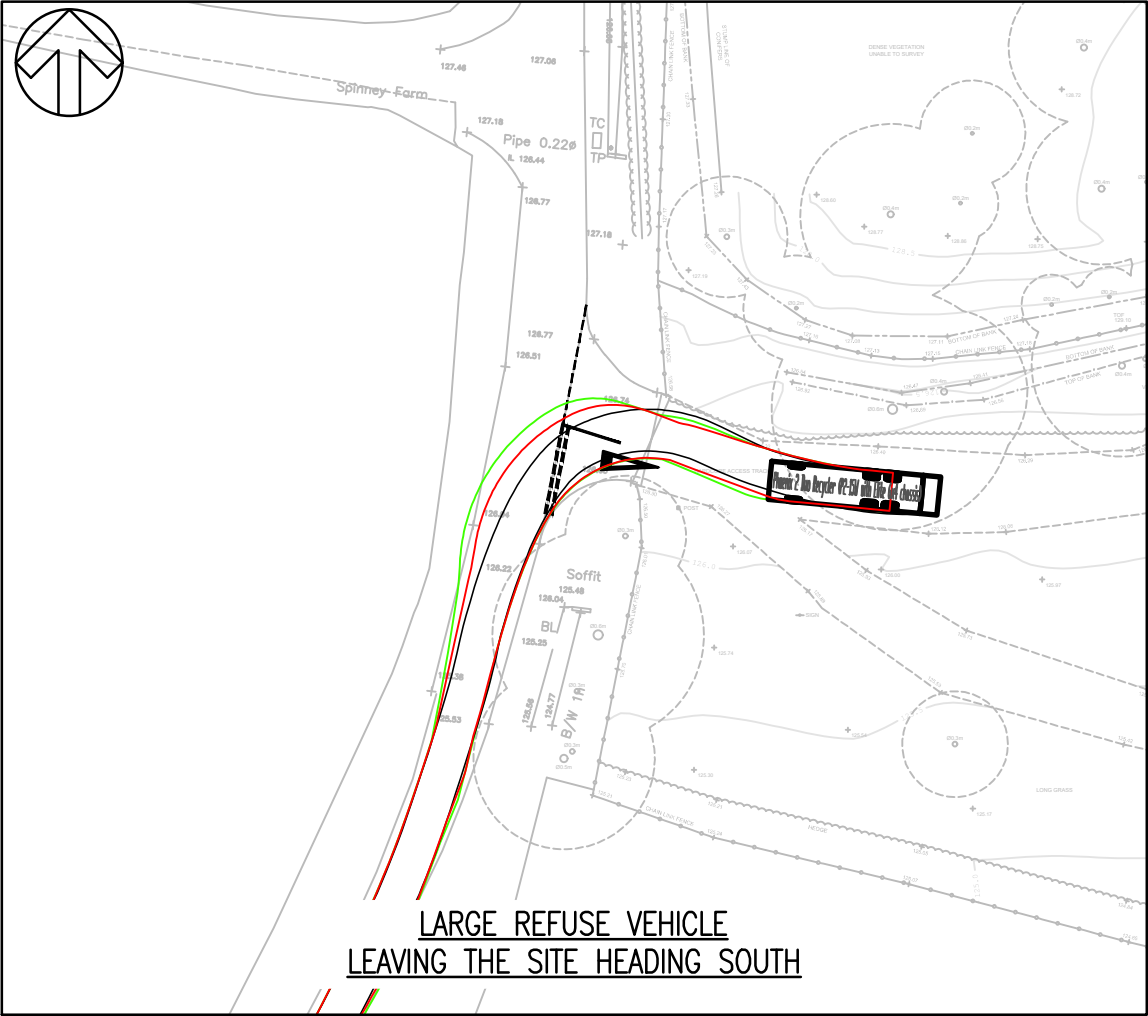
LARGE REFUSE VEHICLE
ENTERING THE SITE



LARGE REFUSE VEHICLE
ENTERING THE SITE FROM THE SOUTH

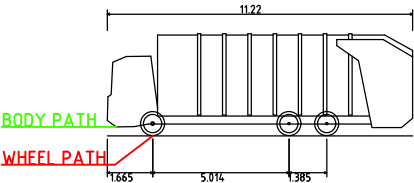


LARGE REFUSE VEHICLE EXITING
MINI BUS AT PASSING POINT

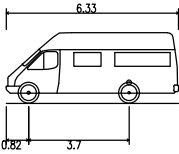


LARGE REFUSE VEHICLE
LEAVING THE SITE HEADING SOUTH

DO NOT SCALE



Phoenix 2 Duo Recycler (P2-15W with Elite 6x4 chassis) @5mph
Overall Length 11.220m
Overall Width 2.530m
Overall Body Height 3.756m
Min Body Ground Clearance 0.309m
Track Width 2.530m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 11.550m



Mini Bus
Overall Length 6.330m
Overall Width 2.192m
Overall Body Height 2.601m
Min Body Ground Clearance 0.374m
Track Width 2.192m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 6.450m

P01	27/11/2023	DR	FIRST ISSUE	JH	JH
REV	DATE	BY	DESCRIPTION	CHK	APP

DRAWING STATUS: S2 - FOR INFORMATION



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CLIENT:

ARCHITECT:

PROJECT: TWYCROSS ZOO NSCC

TITLE: PROPOSED ENTRANCE SWEEP PATH

SCALE @ A3: 1:500	CHECKED: JH	APPROVED: JH
PROJECT No:	DESIGNED: DR	DRAWN: DR
DRAWING No: 70096419 SK01 271123	DATE: November 23	REV: P01

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