

Residential Development at Whitechurch Road, Rathfarnham, Dublin 14 – RFI Traffic and Transport Response

Contract Number	C725.1 2020
Topic	Traffic and Transport Response to Request for Further Information for proposed residential development at the site of Silveracre Bungalow and No. 6, Whitechurch Road, Rathfarnham, Dublin 14 (SDCC Reg. Ref. SD22A/0039)
Version Number	v1.2
Status	Final
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Reviewer	Eoin Munn
Date	08 August 2022

1. Introduction

1.1. Overview

Transport Insights has been commissioned by Dungrey Limited to prepare a response to Item 7 of a Request for Further Information (RFI) by South Dublin County Council (SDCC) in relation to a proposed residential development at the site of Silveracre Bungalow and No. 6, Whitechurch Road, Rathfarnham, Dublin 14.

1.2. Recent Application History

Residential Development Application

A planning application for a development comprising 22 no. houses, 44 no. car parking bays and a new vehicular site access/ egress with Whitechurch Road was submitted to SDCC on 10 February 2022 (SDCC Reg. Ref. SD22A/0039).

Request for Further Information

Following consideration of the planning application, a RFI was issued by SDCC on 06 April 2022. Item no. 7 within the RFI which is traffic and transport related is reproduced overleaf.

7. The applicant is requested to submit the following information in relation to roads, access and permeability:
- (a) A full swept path analysis for the proposed development. The analysis shall demonstrate the safe and efficient access and egress of the private vehicles from each dwelling, in particular No. 20,19,18, 17, 8,7 and 6. The applicant is also requested to submit any revised plans that may be required considering the above information.
 - (b) A revised layout not less than 1:100 scale showing the location, design, and construction of an uncontrolled pedestrian crossing from the development to the footpath on the west side of Whitechurch Road, including safety barriers. To be constructed by the applicant/developer and at their own expense.
 - (c) A revised layout not less than 1:100 scale showing the pedestrian routes within the development.
 - (i) The minimum width of footpaths shall be 1.8m wide to aid mobility impaired users.
 - (ii) Footpath layout shall provide adequate connectivity around the development and footpaths on the main road.

1.3. Note Structure

The remainder of this RFI Traffic Response Note is structured as follows:

- Section 2 – provides response to RFI Item 7a;
- Section 3 – provides response to RFI Item 7b; and
- Section 4 – provides response to RFI Item 7c.

Appendices

Appendix A – Swept Path Analysis Drawings

Appendix B – Proposed Uncontrolled Pedestrian Crossing Layout Drawing

Appendix C – Pedestrian Routes Drawing

2. RFI Item 7a

2.1. RFI Item 7a

7. The applicant is requested to submit the following information in relation to roads, access and permeability:
- (a) A full swept path analysis for the proposed development. The analysis shall demonstrate the safe and efficient access and egress of the private vehicles from each dwelling, in particular No. 20, 19, 18, 17, 8, 7 and 6. The applicant is also requested to submit any revised plans that may be required considering the above information.

2.2. Response to RFI Item 7a

A swept path analysis has been undertaken using industry standard vehicle tracking software to ensure that all car parking spaces within the development, including those associated with house no.'s 20, 19, 18, 17, 8, 7 and 6 are easily accessed by a vehicle. It should be noted that this vehicle tracking exercise has been robustly undertaken with a large car, namely a Volvo XC90 (2019) measuring 4.950 metres in length and 2.204 metres in width. It should be noted that the analysis has led to minor revisions of the proposed site layout (revised layout submitted by BBA Architects along with the overall response to the RFI) such as;

- revisions to vehicular carriageways to exclude previously proposed pedestrian refuge areas in order to ensure 4.8 metres wide shared surfaces; and
- revisions to car parking bay dimensions in order to ensure manoeuvrability for private vehicles to each dwelling from the adjoining roadway.

A full set of drawings relating to the abovementioned swept path analysis is included within Appendix A of this Note.

3. RFI Item 7b

3.1. RFI Item 7b

- (b) A revised layout not less than 1:100 scale showing the location, design, and construction of an uncontrolled pedestrian crossing from the development to the footpath on the west side of Whitechurch Road, including safety barriers. To be constructed by the applicant/developer and at their own expense.

3.2. Response to RFI Item 7b

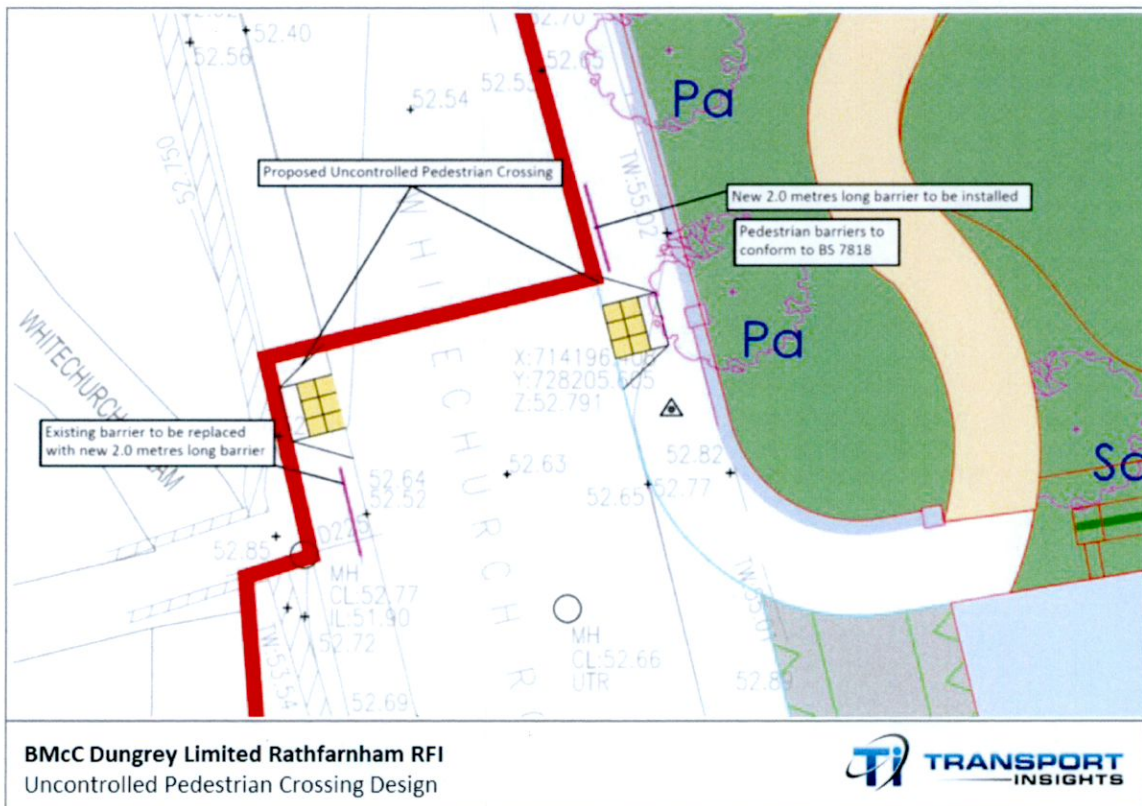
A 1:100 scale layout plan of a proposed uncontrolled pedestrian crossing on Whitechurch Road to be constructed at the applicant's expense has been prepared. This proposed uncontrolled pedestrian crossing shall be located at the pedestrian access to Willbrook Grove in order to better accommodate pedestrian movements and desire lines at this location.

The proposed layout incorporates dropped kerbs no more than 6mm in height at the carriageway edges, and 2 no. rows of buff-coloured blister tactile paving on both sides of the crossing are also proposed. The proposed crossing includes safety barriers as suggested. It is noted that there is an existing pedestrian barrier on the western side of Whitechurch Road at the location of the pedestrian access to Willbrook Grove. This barrier is proposed to be replaced by a longer barrier in order to deflect pedestrian movements so that their line of vision faces south towards oncoming traffic on Whitechurch Road when proceeding towards the crossing.

A similar barrier is proposed on the eastern side of the vehicular carriageway in order to direct southbound pedestrian movements towards the uncontrolled crossing and prevent pedestrians from stepping onto the vehicular carriageway and coming into conflict with vehicles approaching from behind.

An extract of the proposed uncontrolled pedestrian crossing layout, with the extent of public road and footpath required to create it outlined in red, is illustrated below in Figure 3.1. A to-scale drawing of said layout is included within Appendix B. This crossing facility has also been incorporated into the revised overall site layout plan.

Figure 3.1 Uncontrolled Pedestrian Crossing Design



BMCC Dungrey Limited Rathfarnham RFI
Uncontrolled Pedestrian Crossing Design

4. RFI Item 7c

4.1. RFI Item 7c

- (c) A revised layout not less than 1:100 scale showing the pedestrian routes within the development.
- (i) The minimum width of footpaths shall be 1.8m wide to aid mobility impaired users.
- (ii) Footpath layout shall provide adequate connectivity around the development and footpaths on the main road.

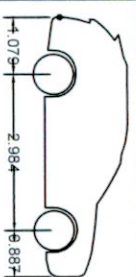
4.2. Response to RFI Item 7c

A 1:100 scale layout plan showing pedestrian routes within the development has been included within Appendix C of this Note. Pedestrian routes within the development are deemed to provide adequate pedestrian connectivity throughout the development and along Whitechurch Road.

It should be noted that all footpaths within the proposed development are a minimum of 1.8 metres wide, as per standards set out within the *Design Manual for Urban Roads and Streets* (DMURS), 2019, which is sufficient width to allow two wheelchair users to pass each other. In the interest of clarity, it should be noted that it is proposed that pedestrians are accommodated within the proposed shared surfaces which will accommodate vehicular traffic, cyclists and pedestrians in a mixed environment, in accordance with best practice and as set out within Section 4.3.4 of *DMURS*.

Appendix A Swept Path Analyses Drawings

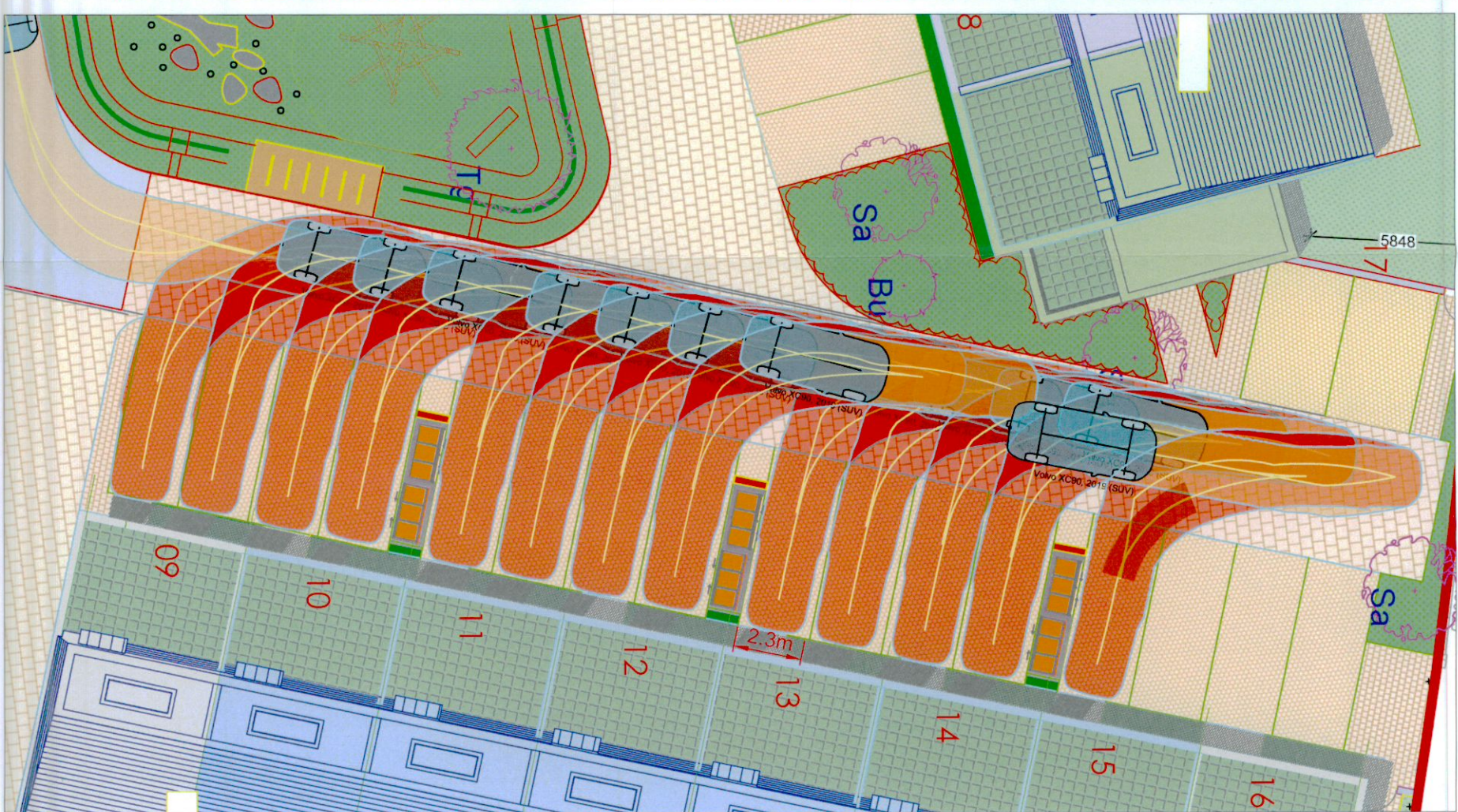
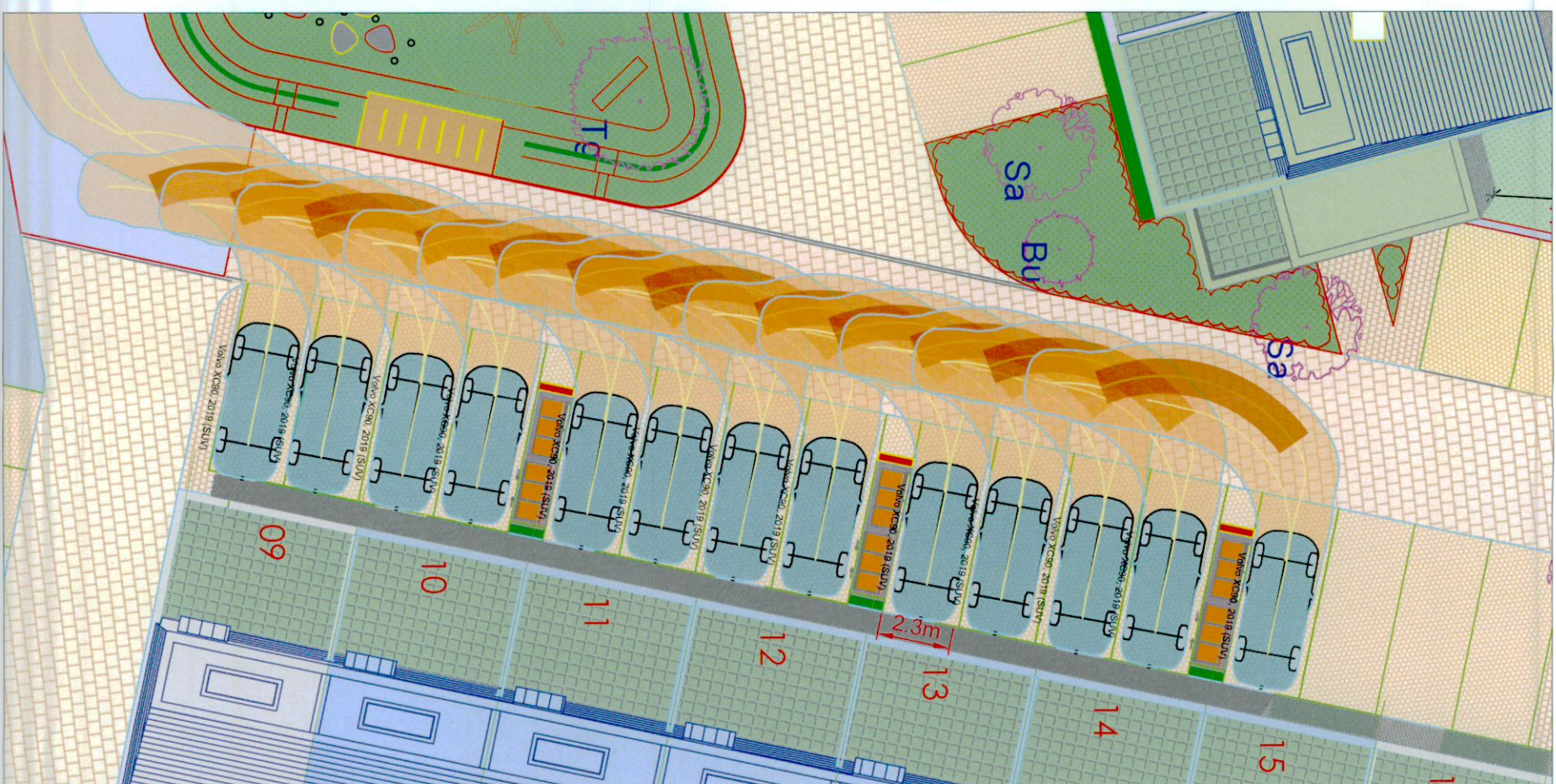
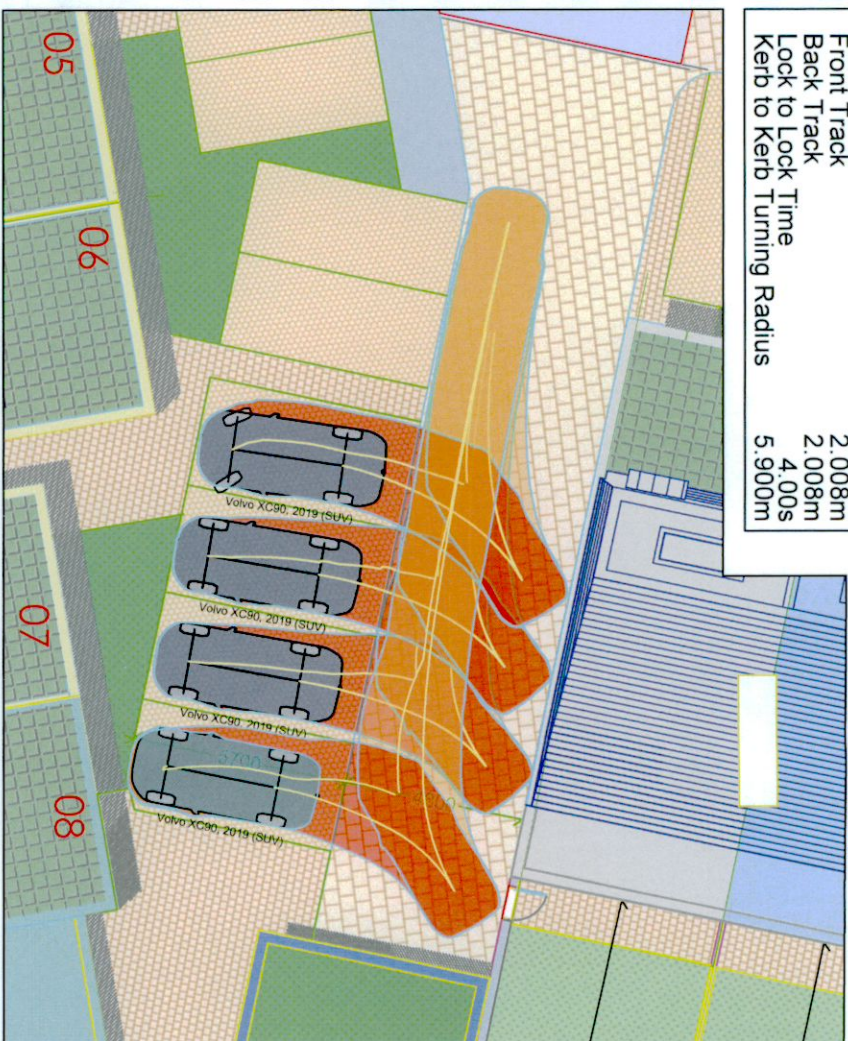
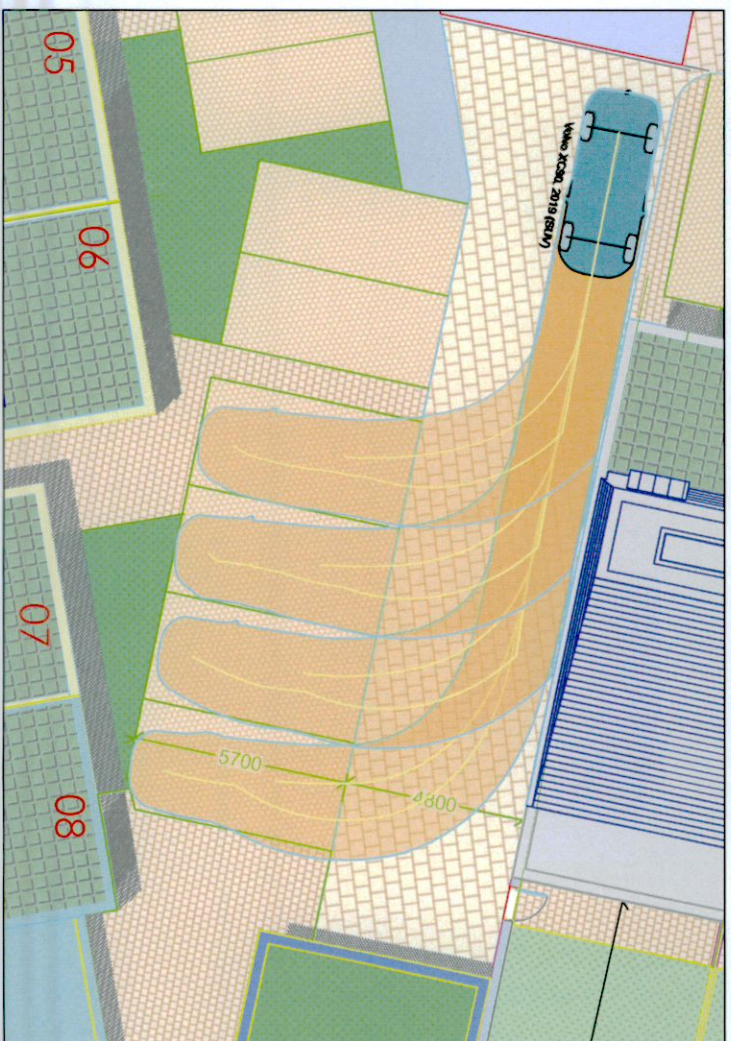
LARGE CAR (Volvo XC90, 2019)



Overall Length 4.950m
 Overall Width 2.204m
 Front Track 2.008m
 Back Track 2.008m
 Lock to Lock Time 4.00s
 Kerb to Kerb Turning Radius 5.900m

KEY

	FORWARD MOVEMENTS (design speed - 5kph)
	REVERSE MOVEMENTS (design speed - 2.5kph)
	Stationary steering - ON



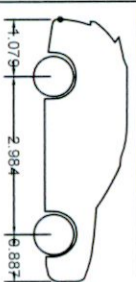
NOTES :

1. Do not scale from this drawing.
2. This drawing is for illustrative purposes only and not for construction.
3. This drawing is to be read and printed in colour.

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Checked	SB	Sheet	1 of 3	Scale	1:250 @ A3
Date	08.08.2022	Status	Prelim. Design	Title	Vehicular Swept Paths Analysis using Large Size Car
Rev	...	Client	Dungrey Ltd		



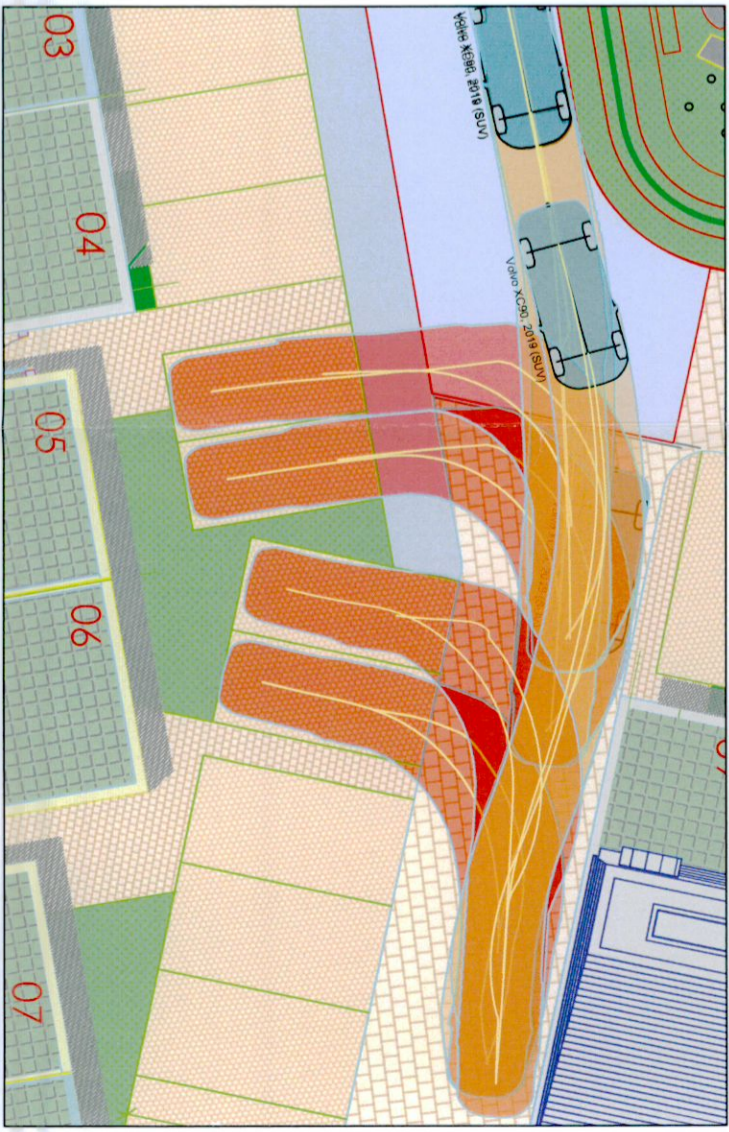
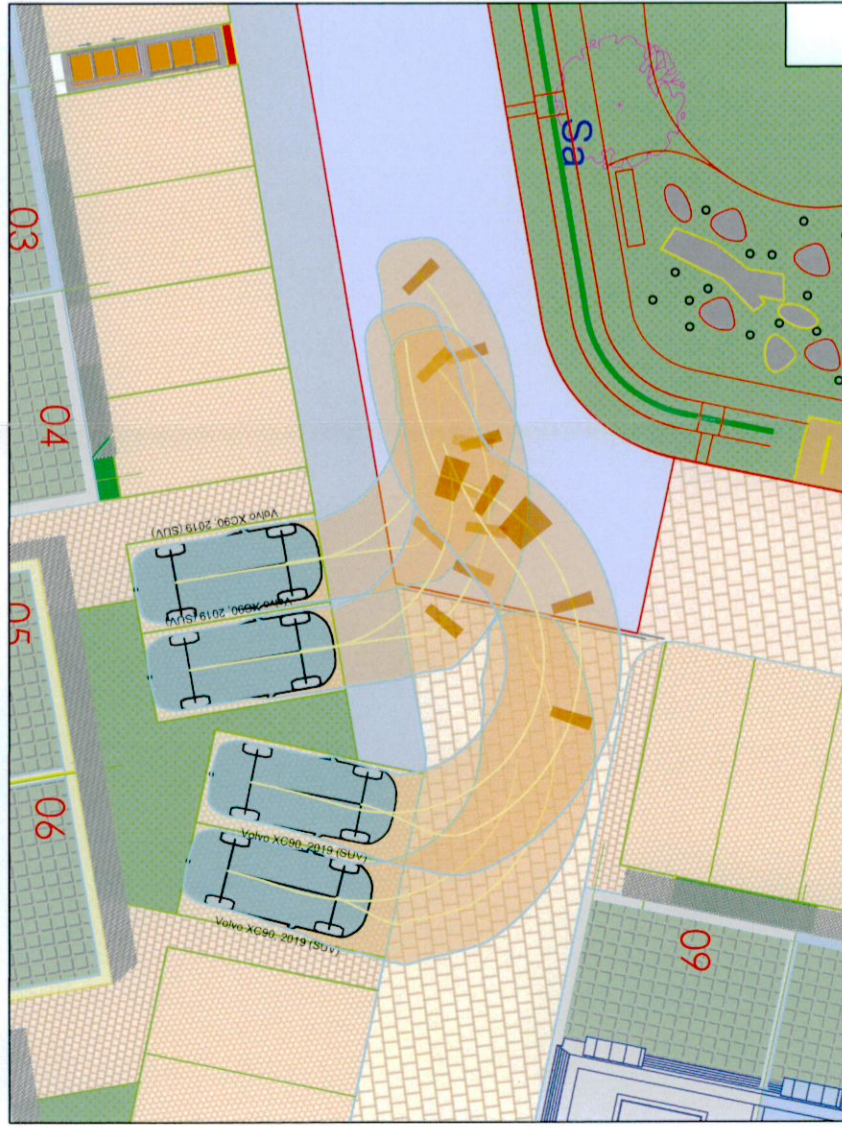
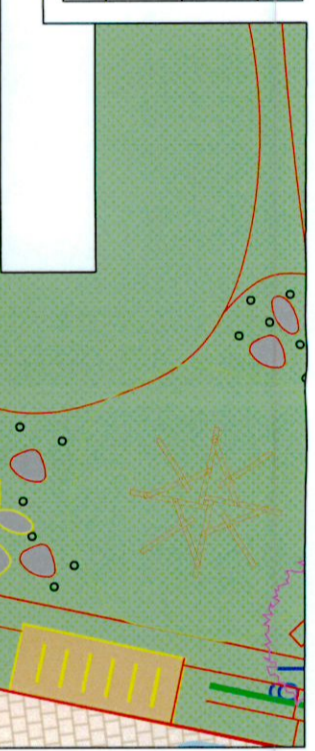
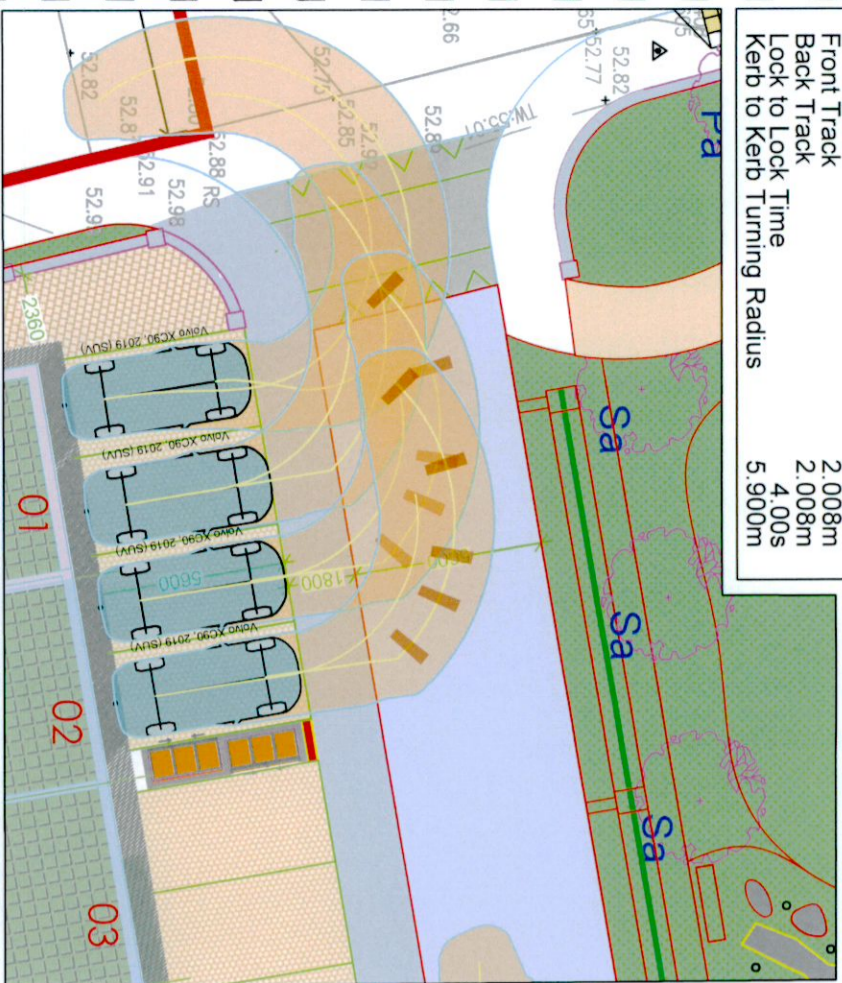
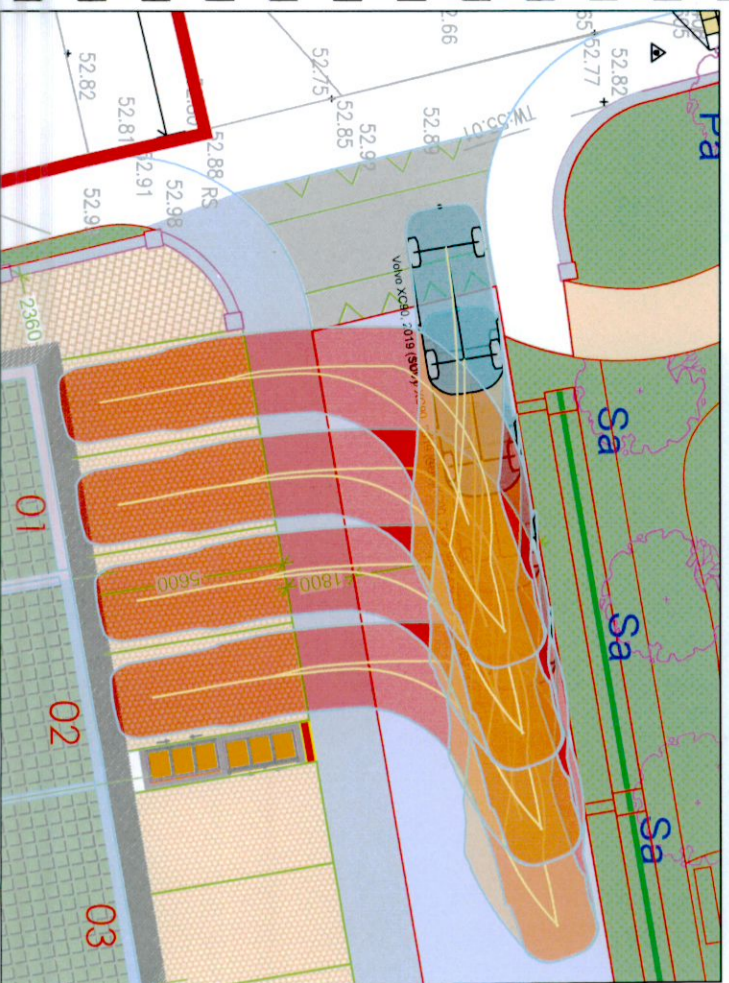
LARGE CAR (Volvo XC90, 2019)



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 Overall Width 2.204m
 Front Track 2.008m
 Back Track 2.008m
 Lock to Lock Time 4.00s
 Kerb to Kerb Turning Radius 5.900m

KEY

- FORWARD MOVEMENTS
(design speed - 5kph)
- REVERSE MOVEMENTS
(design speed - 2.5kph)
- Stationary steering - ON

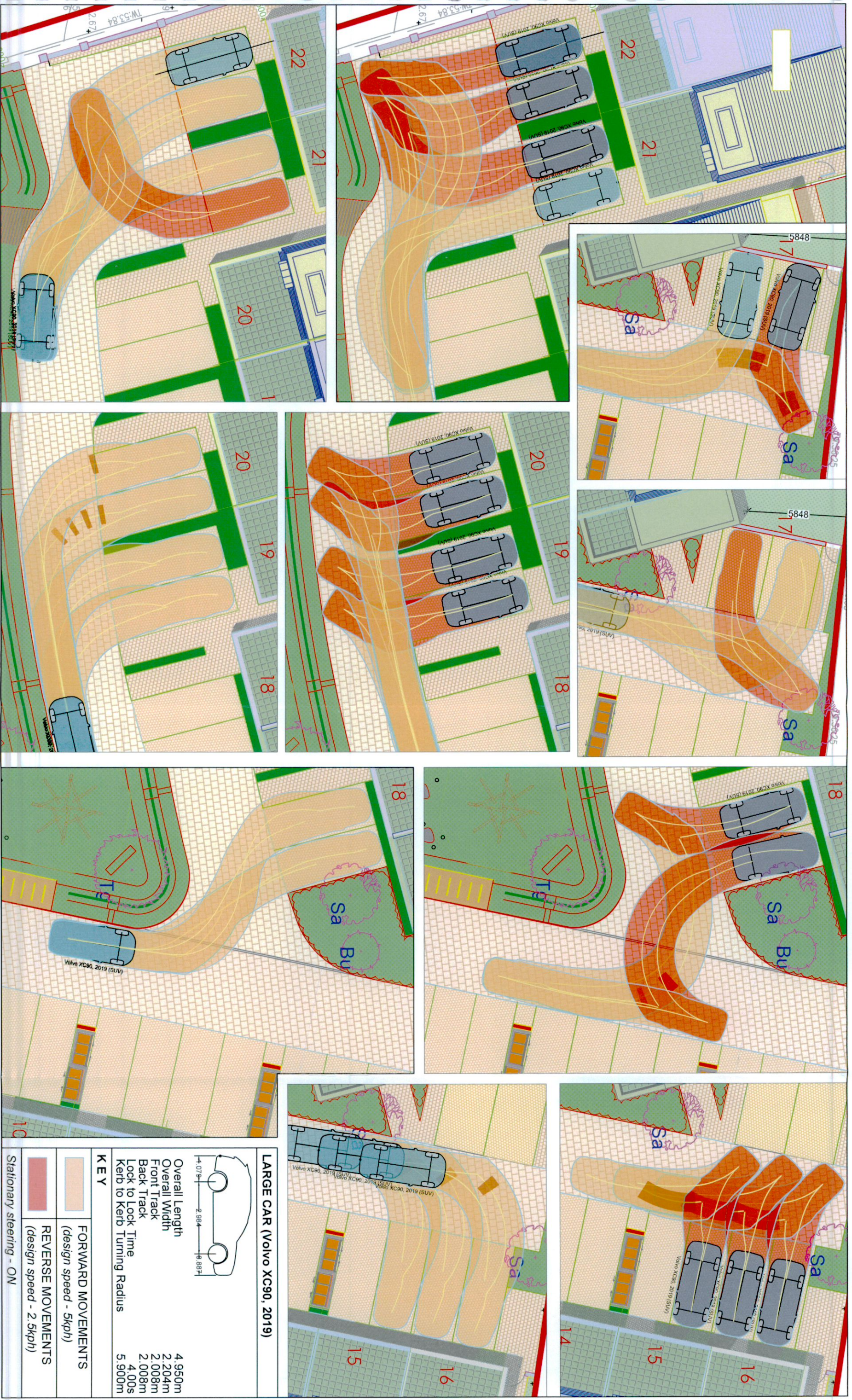


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Drawn	GI	Drawing No.	C725.1 2021	Project	Brock McClure Dummy Properties Ltd Rathfarnham RFI
Checked	SB	Sheet	2 of 3	Scale	1:250 @ A3
Date	08.08.2022	Status	Prelim. Design	Title	Vehicular Swept Paths Analysis using Large Size Car
Rev	...	Client	Dungrey Ltd		





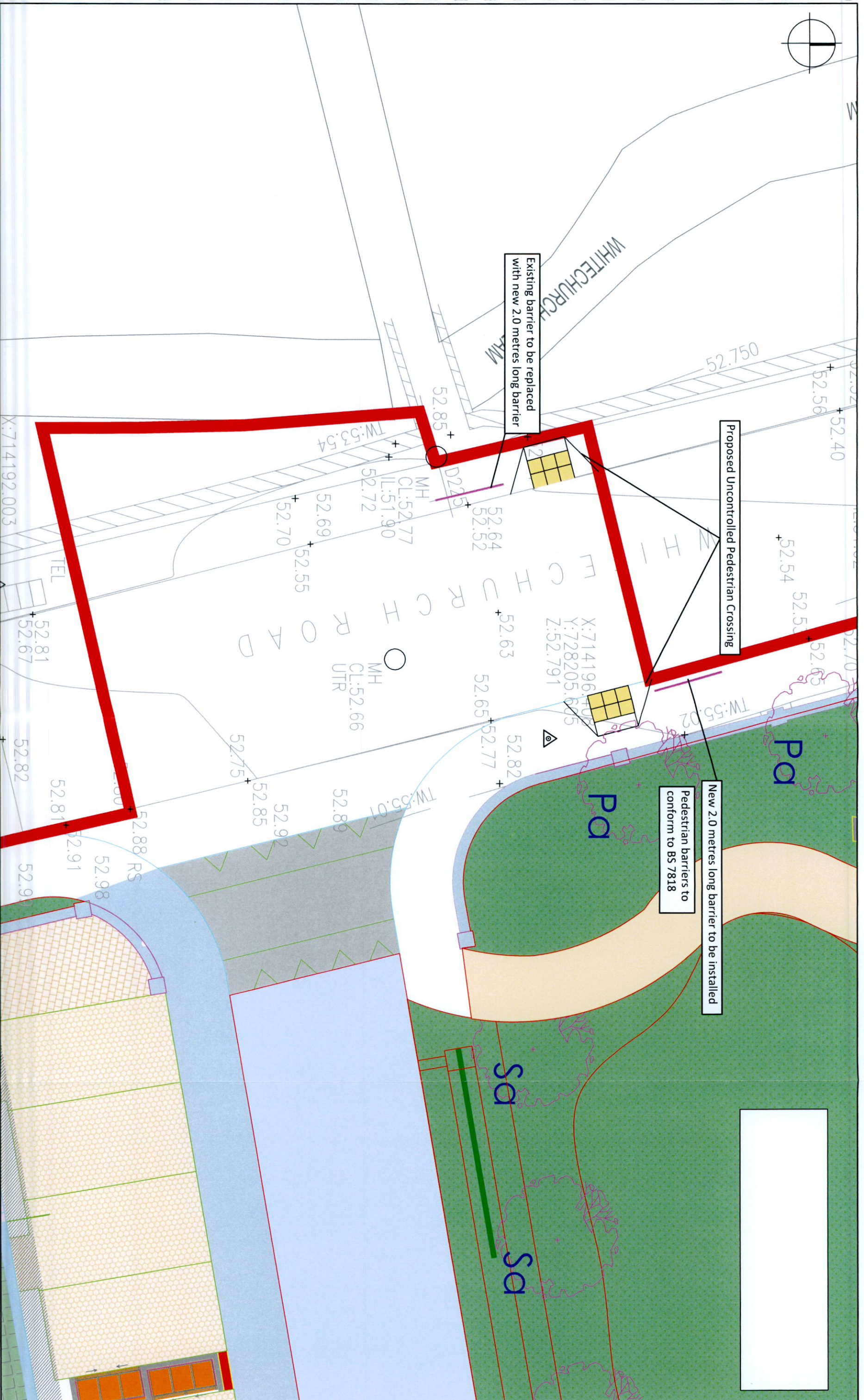
LARGE CAR (Volvo XC90, 2019)

KEY	
	FORWARD MOVEMENTS (design speed - 5kph)
	REVERSE MOVEMENTS (design speed - 2.5kph)
	Stationary steering - ON

NOTES :		
1. Do not scale from this drawing.	Drawn	GI
2. This drawing is for illustrative purposes only and not for construction.	Checked	SB
3. This drawing is to be read and printed in colour.	Date	08.08.2022
	Rev	...
	Drawing No.	C725.1 2021
	Sheet	3 of 3
	Status	Prelim. Design
	Client	Dungrey Ltd
	Project	Brock McClure Dummy Properties Ltd Rathfarham RFI
	Scale	1:250 @ A3
	Title	Vehicular Swept Paths Analysis using Large Size Car



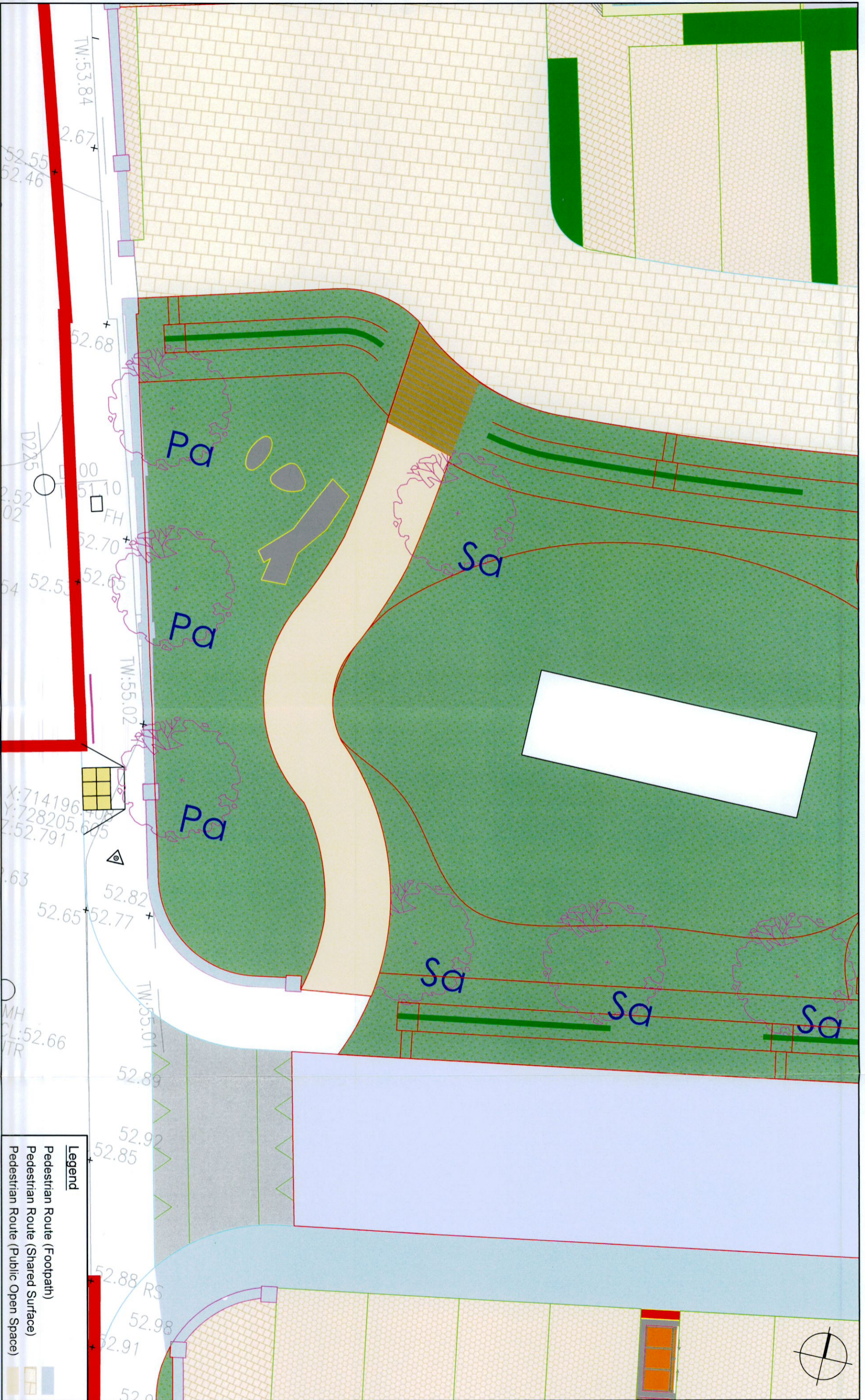
**Appendix B Proposed Uncontrolled Pedestrian
Crossing Layout Drawing**



Notes:
 1. Do not scale from this drawing.
 2. This drawing is for illustrative purposes only and not for construction.
 3. This drawing is to be read and printed in colour.

Drawn	GI	Drawing No.	2021 C725.1_1 v1.6	Project	Dungrey Ltd Rathfarnham TIA
Checked	SB/EM	Sheet	1 of 1	Scale	1:100 @ A3
Date	08.08.2022	Status	Prelim. Design	Title	Proposed Uncontrolled Pedestrian Crossing
Rev	...	Client	Dungrey Ltd		

Appendix C Pedestrian Routes Drawing



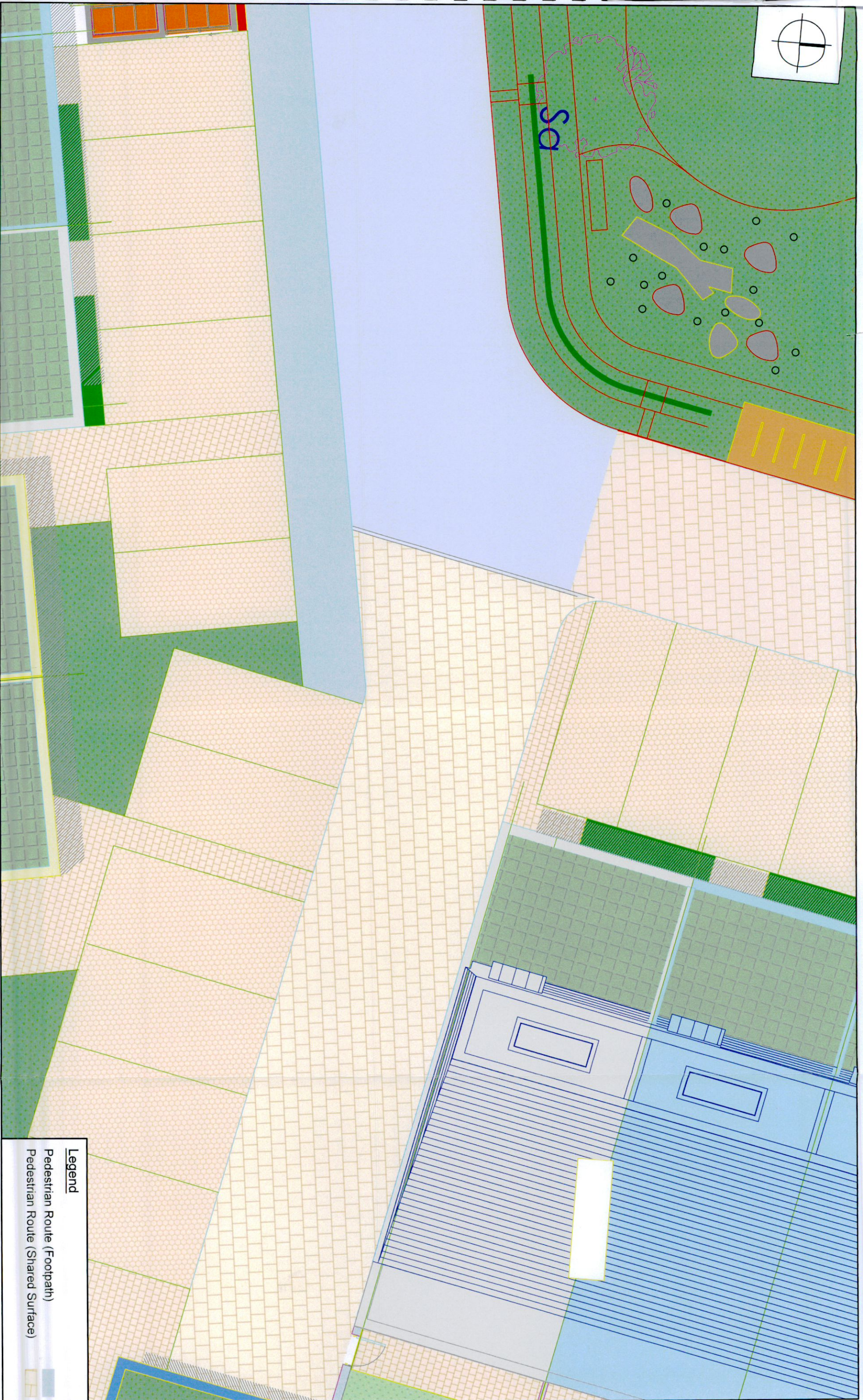
Legend
 Pedestrian Route (Footpath)
 Pedestrian Route (Shared Surface)
 Pedestrian Route (Public Open Space)

Notes:
 1. Do not scale from this drawing.
 2. This drawing is for illustrative purposes only and not for construction.
 3. This drawing is to be read and printed in colour.

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Checked	SB/EM	Sheet	1 of 2
Date	08.08.2022	Status	Prelim. Design
Rev	...	Client	Dungrey Ltd

Project	Dungrey Ltd Rathfarham TIA
Scale	1:100 @ A3
Title	Pedestrian Routes within Proposed Development





Legend
 Pedestrian Route (Footpath)
 Pedestrian Route (Shared Surface)

- Notes:**
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Drawn	GI	Drawing No.	2021 C725.1_2 v1.6	Project	Dungrey Ltd Rathfarnham TIA
Checked	SB/ EM	Sheet	2 of 2	Scale	1:100 @ A3
Date	08.08.2022	Status	Prelim. Design	Title	Pedestrian Routes within Proposed Development
Rev	...	Client	Dungrey Ltd		

