

Transport Statement

TRANSPORT STATEMENT:

WATTS DYKE, WREXHAM

SITE: WATTS DYKE, WREXHAM
CLIENT: Watkin Jones Group
DATE: 18th June 2021
REFERENCE: VC0351 R1.1
PREPARED BY: **Matt Cleggett BEng (Hons) FCILT MCIHT**

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1 INTRODUCTION

Vectio Consulting have been appointed by the Watkin Jones Group to prepare a Transport Statement in support of a Reserved Matters planning application for the internal site layout associated with the consented outline planning application reference: LLA P/2018/0933, which is to include 51 dwellings. The access layouts associated with the historically consented outline permission are to remain.

The site is bound by the B5425 Llay New Road to the east, open countryside to the south, residential dwellings to the west and Watts Dyke and the Royal British Legion site to the north. The site is located in a mainly residential area of Llay.

The site lies approximately 4 miles north of Wrexham town centre. The location of the development site is shown in Figure 1.

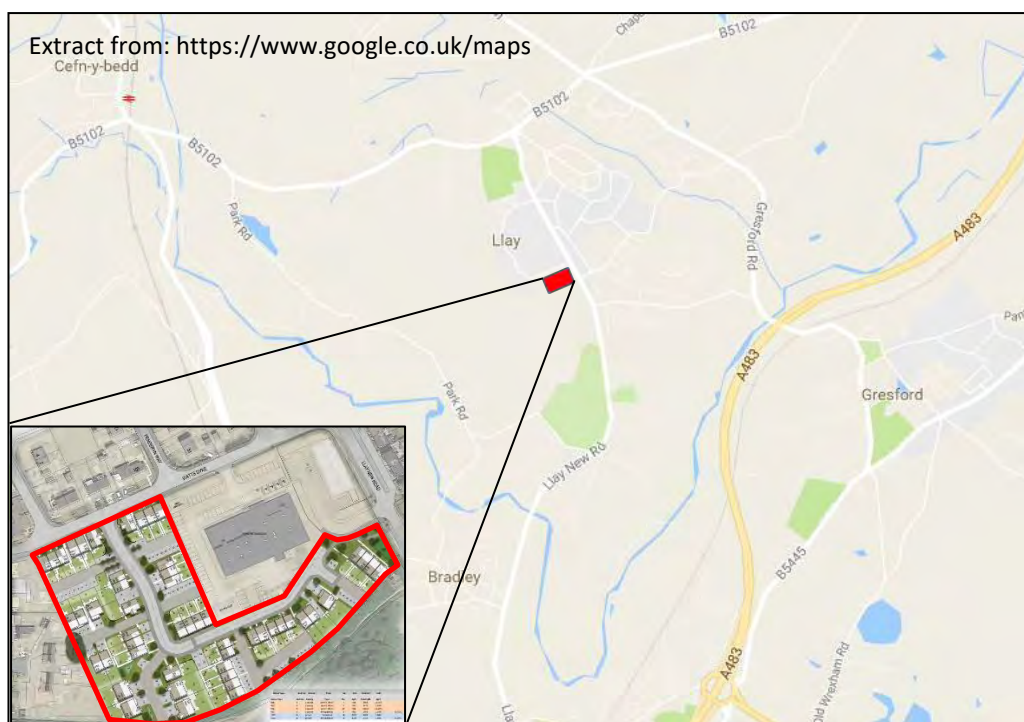


Figure 1: Site Location Plan

This Transport Statement has been based on the Department for Transport's (DfT), guidance document "Transport Evidence bases in plan making" dated 10th October 2014, the National Planning Policy Framework (NPPF), Wrexham County Borough Councils Local Planning Guidance Note 30 (A Guide for Developers and Architects when Designing Residential Developments), and Note 16, Parking, and the Manual for Streets.

However, where appropriate, guidance from the archived document Guidance on Transport Assessment (GTA) has been adopted.

1.1 FOCUS OF THE REPORT

This report assesses the transport impacts the proposed development is estimated to create. Owing to the site having an outline consent associated with planning application P/2018/0933, only the internal layout of the site has been assessed, mainly focussing on the road geometry, parking provision / layout and vehicle manoeuvrability, as all other off site impacts and access arrangements were historically agreed upon.

Wrexham County Borough Council is both the Planning and Highway Authority.

Owing to the nature of the site this Transport Statement focusses on the following aspects:

- Discusses the development proposals;
- Discusses the internal road layout including geometries;
- Assesses the quantum of parking and level of supply;
- Non-motorised user accessibility; and,
- Servicing arrangements and vehicle tracking.

2 DEVELOPMENT PROPOSALS

2.1 OVERALL SITE COMPOSITION

As discussed previously, the development proposals are to include 51 residential dwellings (C3). These are to comprise of:

- 5 x 2 bedroom affordable dwellings;
- 8 x 3 bedroom affordable dwellings;
- 30 x 3 bedroom dwellings; and,
- 8 x 4 bedroom units.

The proposed masterplan associated with the full site is presented in Appendix A, whilst an extract is shown in Figure 2. The same access arrangements serving the site are proposed as per the outline consent reference: P/2018/0933.



Figure 2: Site Layout

3 RESERVED MATTERS APPLICATION

The overall site wide masterplan is illustrated in Figure 2.

Vehicular access is gained via the consented bellmouth junction arrangement leading onto Watts Dyke. Pedestrian access is also provided at this location, by means of two 2m wide footways leading out of the site to either side of the internal estate road, interfacing with the existing footway infrastructure on Watts Dyke. In addition, as per the consented scheme, a pedestrian footway is proposed to lead onto Llay New Road, sited approximately 72m south of the Watts Dyke, Llay New Road junction.

The internal layout forming the subject of the reserved matter application is to include 51 dwellings.

3.1 INTERNAL ROAD LAYOUT

The internal road layout is shown in a drawing presented in Appendix B. Leading from Watts Dyke the proposed road is to be 5.5m in width, with 2 m footways to either side. The north south length of the estate road turns to the east where it transitions to a 4.8m wide road with a 0.5m service strip on its northern side, where there is no development, and 2.0m wide footway on its southern side. To the end of the east-west internal road alignment (eastern side) a turning head is provided to enable large refuse vehicles to turn.

The internal estate road serves seven shared private drives, each providing parking spaces for 5 dwellings other than the drive serving plots 25 to 34 where parking for 10 dwellings is proposed, al-be-it, six of these front the proposed highway to be adopted .

3.2 PARKING PROVISION

As detailed in Wrexham County Borough Council's Local Guidance Note 16, maximum car parking standards should be applied as follows:

- 1 bedroom dwellings: 1.5 car parking spaces;
- 2 bedroom dwellings: 2 car parking spaces;
- 3/4 bedroom dwellings: 3 car parking spaces;
- 5 or more bedroom dwellings: 4 car parking spaces;

Based on a review of the proposed layout, car parking provision for 102 spaces has been made, equating to two spaces per dwelling. This excludes any garages as for the purpose of assessing parking policy requirements, these cannot be counted.

Based on the composition of the development discussed above, the maximum policy provision of car parking spaces would be 148. The proposed provision is less than the policy maximum requirement and therefore it is concluded that sufficient car parking spaces has been made. It is noted that 6 units with integral garages are proposed.

With regard to cycle parking, Guidance Note 16 details a minimum provision of 2 cycle parking spaces per dwelling. The proposals include 2 spaces per unit, to be provided in a lockable shed (or similar) in the rear gardens of each plot.

3.3 ACCESS VISIBILITY

The internal road layout has been designed to emulate up to a 20 mph speed environment, although it will be with reduced speeds at key features such as bends. This would make a requirement for all access points to achieve visibility splay 'Y' distances of up to 25m, although in practice this distance would be site specific given the layout of the site. Noting that the internal road layout would be lightly trafficked, an 'X' distance of 2.0m is considered suitable, specifically as the estate road does not form a through route.

All private drives and shared private drive access points have been assessed to ensure they can achieve these parameters, only being reduced when clearly the speed environment would be much slower. Noting that in some instances visibility splays may cross front gardens, either the extent of public highway will need to include these areas, or the requirement for the areas to remain clear below 600mm will need to be defined in property title deeds. These areas can easily be identified during the detailed design stage of the internal road layouts design.

A review of pedestrian visibility splays has been undertaken associated with all private and shared private drives throughout the site. The assessment has confirmed that 2m by 2m pedestrian visibility splays can be achieved.

3.4 SWEPT PATH ANALYSIS

Vehicle swept path analysis has been undertaken to demonstrate the ease for cars to manoeuvre on to and off of driveways. In addition the analysis has considered a large 11.2m long refuse vehicle to ensure it can turn and travel through the site in a forward gear. This analysis is presented in Appendix C, which concludes the suitability of the proposed arrangements.

3.5 SERVICING ARRANGEMENTS

Refuse collection will be undertaken from the internal estate roads. Where private driveways are proposed, bins will be sited adjacent to the public highway, outside of visibility splays, so as not to obstruct the use of footways. Deliveries will be undertaken by the roadside within the site.

3.6 CONSTRUCTION STAGE IMPACTS

The construction stage of the development will create an impact on the highway network. It is therefore recommended that a construction stage traffic management plan is prepared prior to commencement of the development to ensure any foreseeable impacts are mitigated.

4 SUMMARY AND CONCLUSIONS

Vectio Consulting have been appointed by the Watkin Jones Group to prepare a Transport Statement in support of a Reserved Matters planning application for the internal site layout associated with the consented outline planning application reference: LLA P/2018/0933, which is to include 51 dwellings. The access layouts associated with the historically consented outline permission are to remain.

The site is bound by the B5425 Llay New Road to the east, open countryside to the south, residential dwellings to the west and Watts Dyke and the Royal British Legion site to the north. The site is located in a mainly residential area of Llay.

This report considers the internal layout of the site in terms of highways and transportation, including a discussion regarding the proposals, the internal road layout, parking supply, pedestrian infrastructure, access and pedestrian visibility, vehicular swept path analysis, and servicing arrangements.

4.1 SUMMARY

This report has appraised key transport aspects with the findings summarised as follows:

Parking provision has been provided in line with local planning policy requirements. Parking provision for 2 bicycles has been recommended, to be located within the rear gardens of plots.

The proposed access junction geometries serving the consented scheme are to remain as previously agreed.

With regard to the internal layout of the site, road geometries have been discussed. Driveway visibility has been assessed concluding that both vehicular and pedestrian visibility splays are achievable. Swept path analysis has been undertaken to demonstrate that all car parking spaces are easily accessible, along with the ability for a large 11.2m long refuse vehicle to travel through the site in a forward gear, and turn within the proposed turning heads.

Servicing operations, including refuse collection, has been discussed, concluding that suitable provision has been made.

It has been identified that the construction stage of the development is likely to impact the operation of the highway network, and as such a traffic management plan should be prepared and implemented prior to commencement of development.

4.2 CONCLUSIONS

The assessments included within this report conclude that in terms of highways and transportation, the proposed development is not expected to have a severe impact on the highway network, and as such conforms with the NPPF.

APPENDIX A: Masterplan



IMPORTANT NOTE:
ALL DIMENSIONS AND LEVELS SHOWN ON THIS DRAWING ARE TO BE CHECKED BY THE CONTRACTOR/ MANUFACTURER PRIOR TO THE COMMENCEMENT OF ANY WORKS ON SITE OR THE MANUFACTURE OF ANY SITE COMPONENTS.

THIS DRAWING IS NOT TO BE SCALED.

DIMENSIONS ARE INDICATED IN MILLIMETRES UNLESS CLEARLY STATED OTHERWISE.

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SITE PLAN

- Legend
- Access / Door To dwelling.
 - 1800mm high close boarded fence.
 - Indicates 1.8m High Brick Wall with piers.
 - Indicates 1.8m High Curved Brick Wall with piers.
 - Line to delineate application site boundary.
 - Line to delineate land owned by client.
 - Timber gates to be erected to rear gardens (as indicated on site layout).
 - Proposed tree planting. (Refer to Landscape Layout for further details).
 - Adra - Affordable units.
 - Adra - Market Rent.
 - Indicates trees to be removed.
 - Indicates trees to be remained. Category A & B trees.
 - Indicates timber shed.

Revision:	By:	Date:
P1 Preliminary Issue to Client.	RIC	20.11.20
P2 Lincoln housetype substituted with 892 type to Clients' request.	BP	05.01.21
P3 Amended to client comments.	BP	14.01.21
P4 Amended to client comments.	BP	03.03.21
P5 Amended to client comments.	BP	09.03.21
P6 Amended to client comments.	BP	15.03.21
P7 Amended to client comments.	BP	18.03.21
P8 Amended to client comments.	BP	06.04.21
P9 Amended to client comments.	IF	14.04.21
P10 Amended to planner comments.	AW	10.06.21

PLANNING

Client:

Watkin Jones GROUP

Project Title:

Residential Development

Address:

Royal British Legion,
Watts Dyke,
Llay, Wrexham

Drawing Title:

Proposed Site Layout

Drawing No:

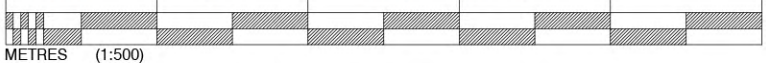
WJ/RBL/PSL/01

Dwn: BP Ckd: ST Date: 20/11/2020

Scale: 1:500 Paper Size: A2 Rev: P10

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House Type	Bed No.	Parking	Type	No.	Sqft	Total Sqft	Split
856	3	2 spaces	Semi / Mews	7	856	5992	13.73%
895	3	2 spaces	Semi / Mews	5	895	4475	9.80%
936	3	2 spaces	Semi / Mews	16	936	14976	31.37%
983	3	2 spaces	Integ garage	2	983	1966	3.92%
1202	4	garage	Detached	4	1202	4808	7.84%
1328	4	garage	Integ garage	4	1328	5312	7.84%
Affordables							
735	2	2 spaces	Semi / Mews	5	735	3675	9.80%
856	3	2 spaces	Semi / Mews	8	856	6848	15.69%
Total				51		48052	100.00%

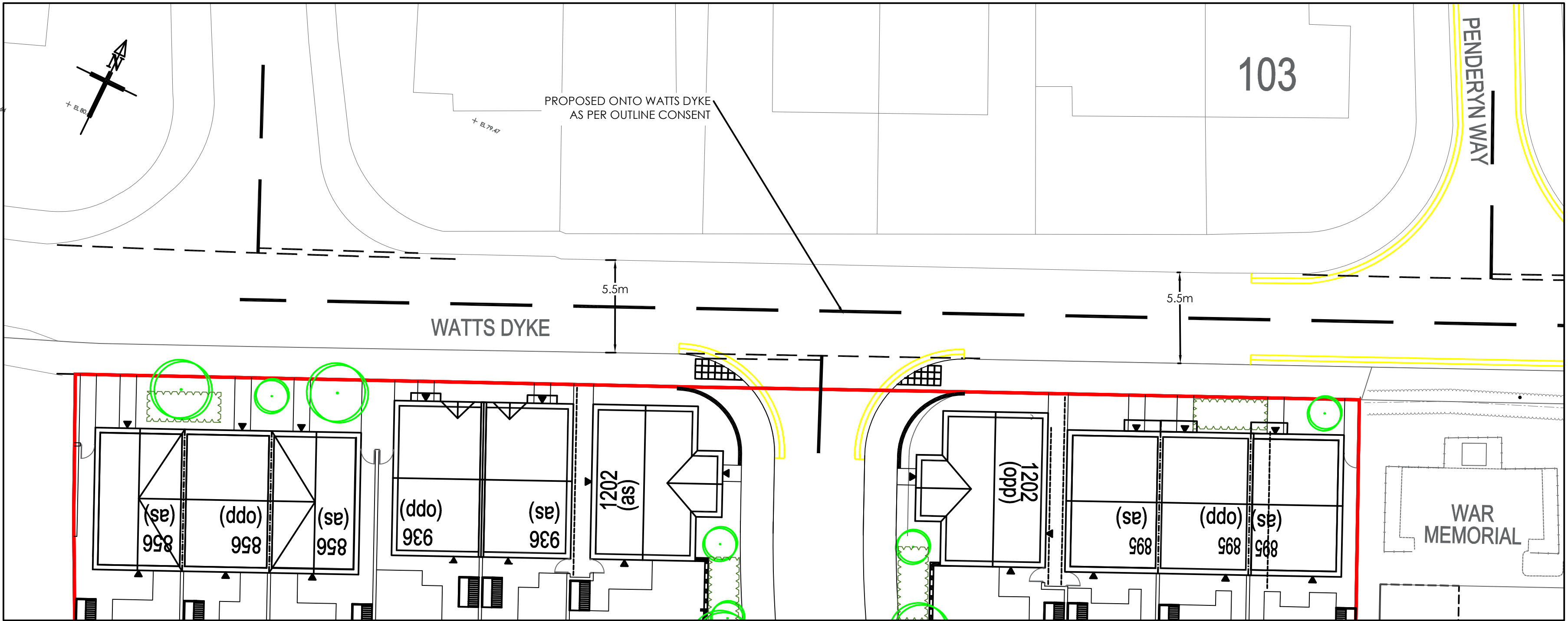


Royal British Legion, Llay, Wrexham

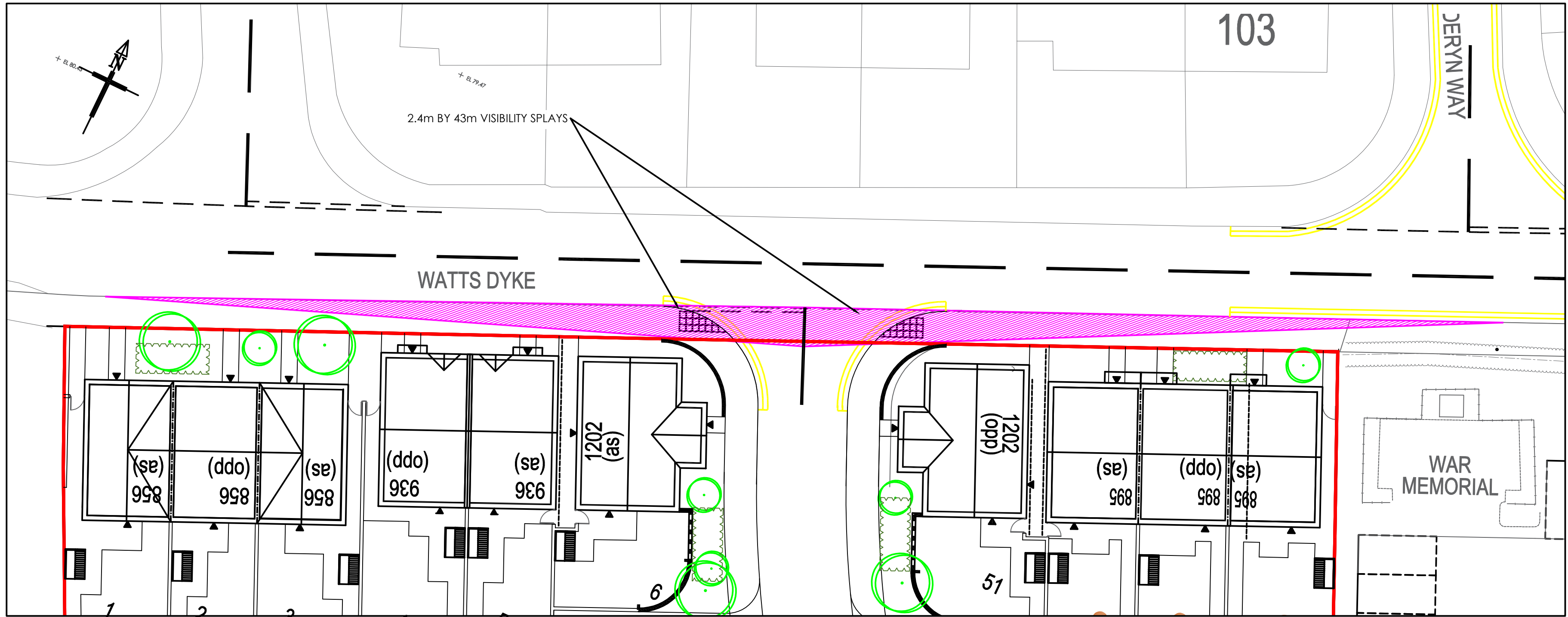
APPENDIX B: Internal Layout Drawing and Consented Access Drawing (Ref: 005 & 006)



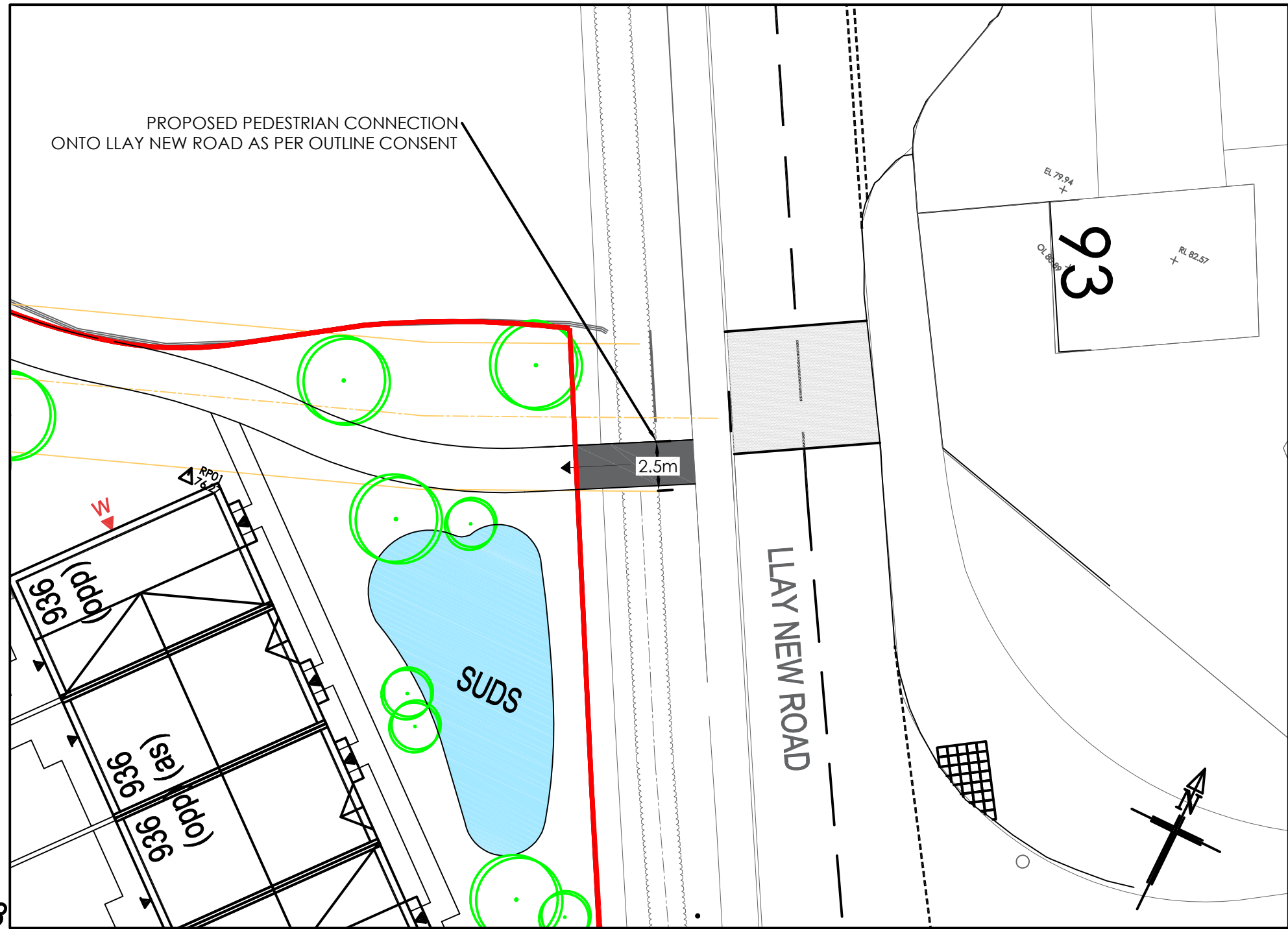
PROPSOED ACCESS LAYOUT ON WATTS DYKE



PROPOSED ACCESS VISIBILITY SPLAY ON WATTS DYKE



PROPOSED PEDESTRIAN ACCESS ON LLAY NEW ROAD



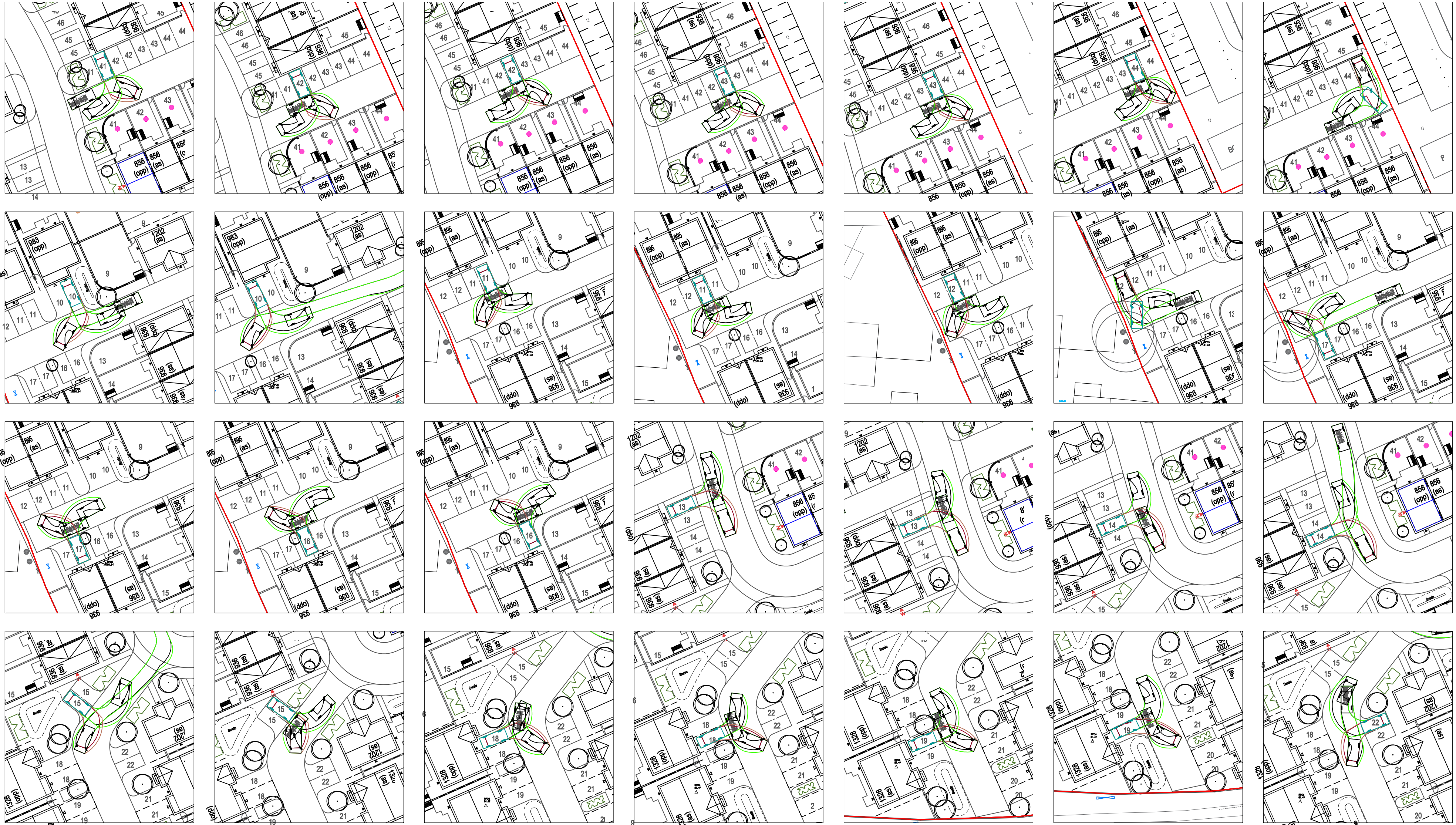
SITE LOCATION PLAN N.T.S



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Drawn MC					Sheet VISIBILITY SPLAY AND ACCESS LAYOUT DRAWING	
Designed MC					Approved LC	
Drawing Date 12/04/2021					Revision Date 17/06/2021	
Project No. VC0351					Scale 1:200@A1	
Drawing No. 006					Sheet No. 001	Revision A

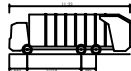
APPENDIX C: Swept Path Analysis Drawings (Ref: 001 to 004)



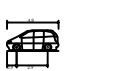


Revision	Amendment	Approved	Revision Date
A	GENERAL	MC	17/06/21

VEHICLE PROFILES



Standard Design Vehicle (SDV)
Overall Length: 12.0m
Overall Width: 2.5m
Overall Height: 4.0m
Wheelbase: 3.0m
Axle Spacing: 2.0m
Turning Radius: 10.0m



Standard Design Vehicle (SDV)
Overall Length: 12.0m
Overall Width: 2.5m
Overall Height: 4.0m
Wheelbase: 3.0m
Axle Spacing: 2.0m
Turning Radius: 10.0m



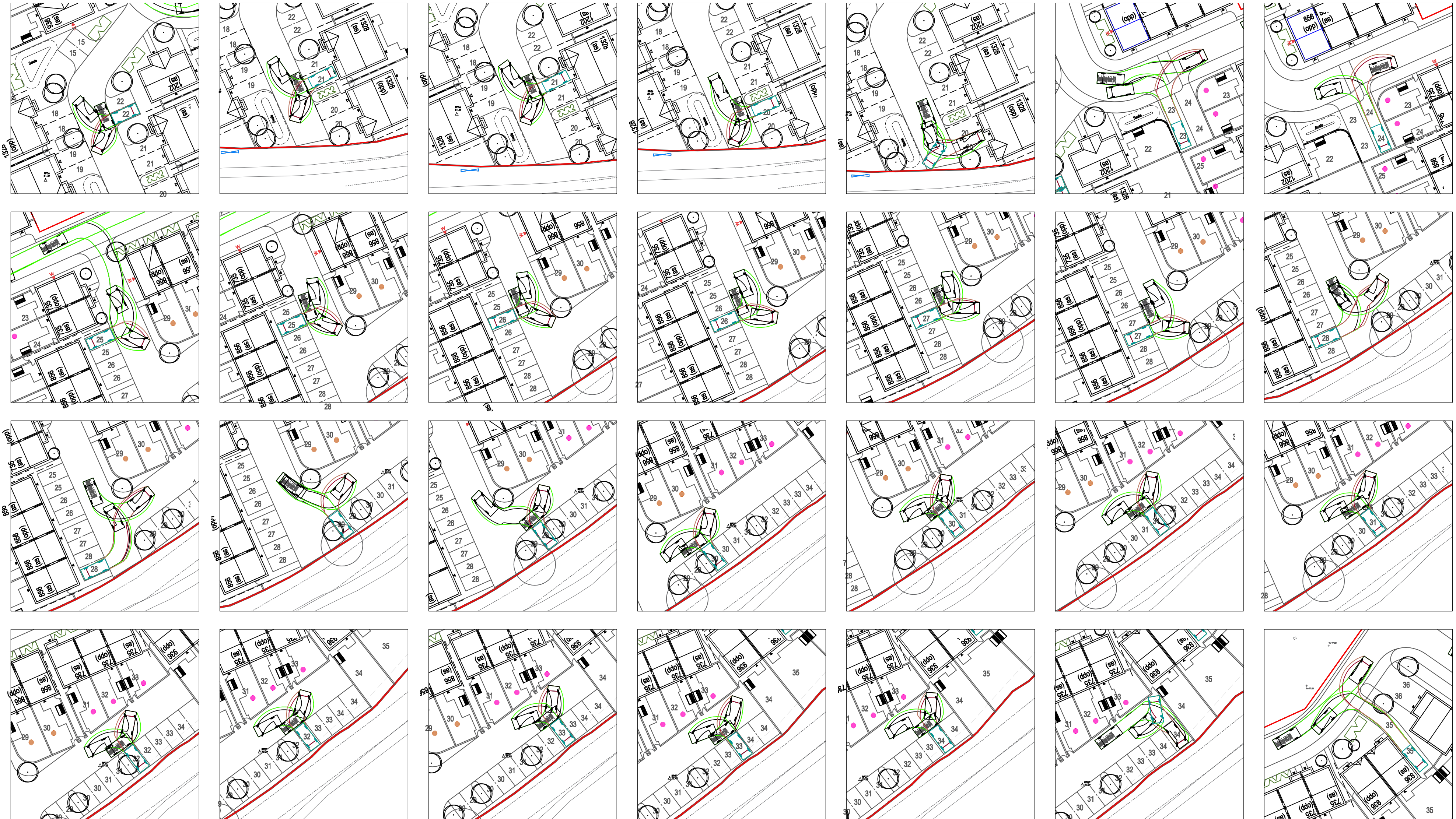
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MC	MC	LC	12/04/2021	17/06/2021

Project No.	Scale
VC0351	1:500@A2

Project
PROPOSED RESIDENTIAL DEVELOPMENT, WATTS DYKE,
LLAY, WREXHAM

Sheet
VEHICLE TRACKING SHEET 2

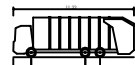
Drawing No.	Sheet No.	Revision
002	001	A



Original Sheet Size A2

Revision	Amendment	Approved	Revision Date
A	GENERAL	MC	17/06/21

VEHICLE PROFILES



Standard Design Vehicle (SDV)
Overall Length: 4.5m
Overall Width: 2.0m
Overall Height: 1.5m
Wheelbase: 2.8m
Turning Radius: 9.0m



Standard Design Vehicle (SDV)
Overall Length: 6.0m
Overall Width: 2.5m
Overall Height: 2.0m
Wheelbase: 3.5m
Turning Radius: 12.0m

VC Vectio Consulting

Drawn	Designed	Approved	Drawing Date	Revision Date
MC	MC	LC	12/04/2021	17/06/2021

Project No. VC0351 Scale 1:500@A2

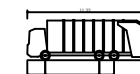
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PROPOSED RESIDENTIAL DEVELOPMENT, WATTS DYKE, LLAY, WREXHAM

Sheet
VEHICLE TRACKING SHEET 3

Drawing No.	Sheet No.	Revision
003	001	A

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VEHICLE PROFILES



Phoenix 2 Dup Recycler (P2-1SW with Elite 6x4 chassis)	
Overall Length	11.720m
Overall Width	2.530m
Overall Body Height	3.750m
Min Body Ground Clearance	0.300m
Track Width	2.530m
Lock to lock time	4.00s



Standard Design Vehicle (SDV)
Overall Length
Overall Width
Overall Body Height
Min Body Ground Clearance
Track Width
Lock to lock time



Drawn	Designed	Approved	Drawing Date	Revision Date
MC	MC	LC	12/04/2021	17/06/2021

Project No.	Scale
VC0351	1:500@A2

Project	PROPOSED RESIDENTIAL DEVELOPMENT, WATTS DYKE, LLAY, WREXHAM
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Sheet
VEHICLE TRACKING SHEET 4

	Drawing No.
	004

Sheet. No.
001



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