
Project:	Monmouthshire County Council Sites	Job No: 60720932
Subject:	Land At Oak Grove Farm, Portskewett	
Prepared by:	Ben Burton (Senior Consultant)	Date: 15/05/2024
Checked by:	Spiro Panagi (Associate Director)	Date: 16/05/2024
Approved by:	Spiro Panagi (Associate Director)	Date: 16/05/2024

Appendices:

Appendix A Site Access Considerations

1. Introduction

This Technical Note (TN) has been prepared by AECOM to support the investigation into three sites for a potential Traveller settlement land use. The transport planning inputs will inform the assessment of the sites in the consideration for inclusion with the forthcoming Monmouthshire County Council (MCC) Replacement Local Development Plan (RLDP).

The three sites which have been identified for consideration are 'Land to rear of Langley Close, Magor', 'Land at Oak Grove Farm, Portskewett' and 'Land at Bradbury Farm, Crick'. It is understood that the scale of development for any potential site would be around 11 dwellings, to be comprised of temporary structures, potentially in the form of prefabricated units.

This TN discusses the transport considerations associated with 'Land at Oak Grove Farm, Portskewett' and includes the following:

- Consideration of local Planning Policy and this specific land use requirement;
- Baseline reporting on existing transport infrastructure for all modes;
- Forecasts of trip generation based on local knowledge, client forecasts and industry standard software TRICS;
- Description of development proposals and review against the Council parking and design standards; and
- Consideration of the proposed access and how that could appropriately continue to serve the proposed site.

2. Planning Policy Context

The Monmouthshire County Council Local Development Plan (LDP) 2011-2021 was adopted on 27 February 2014, replacing the Monmouthshire Unitary Development Plan (UDP), to become the adopted development plan for the County.

Policy H8 '*Gypsy, Traveller and Travelling Showpeople Sites*' provides the framework for assessing proposals for Traveller sites, whether for permanent, transit or emergency use. Proposals for Traveller sites are assessed against the following criteria, whereby sites:

- *"Would enable the established need to be met at a location that is accessible to schools, shops and health care, by public transport, on foot or by cycle;*
- *Have a safe and convenient access to the highway network and will not cause traffic congestion or safety problems;*

- *Are of a suitable size to allow for the planned number of caravans, amenity blocks, a play area (for children on sites housing multiple families), the access road and include sufficient space for the parking and safe circulation of all vehicles associated with occupiers within the site curtilage;*
- *Do not occupy a prominent location and are consistent with LDP policies for protecting and enhancing character and distinctiveness of the landscape and environment. Where necessary the proposal will include mitigating measures to reduce the impact, and assimilate the proposal into its surroundings e.g. screening and landscaping;*
- *Avoid areas at high risk of flooding and proximity to uses with potential sources of pollution or emissions;*
- *Are of an appropriate scale to their location and do not have an unacceptable impact on the amenities of neighbouring land uses;*
- *Are served, or can be served, by adequate on-site services for water supply, power, drainage, sewage disposal and waste disposal (storage and collection), and for Travelling Showpeople that there is a level area for outdoor storage and maintenance of equipment.”*

In terms of transport and highways, the material considerations include accessibility to local facilities and communities, safe and convenient access to the highway network and an acceptable level of traffic impact, and the ability for vehicles to be safely accommodated by internal access routes and parking facilities.

3. Baseline Transport Conditions

Local Highway Network

Access to the proposed site at Oak Grove Farm would be taken from the B4245. The B4245 is a single carriageway road that provides access to the A48, via a roundabout junction (referred to as Parkwall Roundabout) located approximately 600m to the northeast of the site. The B4245 provides access towards Caldicot which comprises the nearest urban centre to the site, approximately 2.5km to the southwest. The B4245 has a carriageway width of approximately 7.5m in the vicinity of the proposed site access. The B4245 has a posted speed limit of 60mph between Parkwall Roundabout and Leechpool, which lies approximately 150m to the northeast of the proposed site access. A section of the B4245, covering the extents of the existing properties located either side of Leechpool, is subject to an advised maximum speed of 40mph. The remainder of the B4245, to the southwest of the proposed site access, has a speed limit of 60mph.

The B4245 forms a priority T-Junction with Leechpool approximately 150m to the northeast of the proposed site access. Leechpool is a single track route that connects to Main Road, to the northeast of Portskewett. Leechpool provides access to a number of individual properties between the B4245 and Main Road and has an average carriageway width of approximately 4.0m.

Access to Junction 2 the M48 can be achieved via the A48, which connects to the B4245 at Parkwall Roundabout. The A48 continues northeast towards the A466 and Chepstow. The A466 provides a direct connection to the M48. To the west, the A48 routes from Parkwall Roundabout towards Newport and Junction 24 of the M4.

Walking and Cycling Environment

There is no walking or cycling provision on the B4245 in the locality of the proposed site. Approximately 1.5km to the southwest of the site, there is a footway provision on the southeastern side of the carriageway, on approach to Caldicott. To the north of the site along the A48, there is a footway provision on the north side of the carriageway for approximately 280m, to the west of Parkwall Roundabout. No active travel connections are present on the A48 heading north towards Chepstow.

There are no existing designated active travel routes located within close proximity of the proposed site. A set of Integrated Network Maps was submitted by MCC to the Welsh Government, which set out the Council's plans for improving active travel over the following 15 years. A future cycling route has been identified (ref. MCC-S24B) which passes very close to the north of the proposed site, as an off-road route that roughly follows the alignment of the A48 towards Chepstow.

Monmouthshire's Public Rights of Way (PRoW) mapping has been consulted to determine whether any existing routes pass through, or close by, to the site. Footpath ref. 376/4/1 lies to the southwest of the site, approximately 180m from the proposed access point, and extends between the B4245 and the A48 to the north.

National Cycle Network (NCN) Route 4 is available approximately 1.2km to the west of the site at the village of Crick. NCN Route 4 provides a long-distance route between Newport and Chepstow, as well as to destinations located further-afield.

Public Transport Accessibility

The IHT's *Guidance for Providing for Public Transport in Developments*, published in 1999, suggests 400m as the 'acceptable' walking distance to a bus stop. The nearest bus stops to the proposed site are located adjacent to Parkwall Roundabout, approximately 900m from the proposed site access. **Table 3-1** provides a summary of the key bus services which are available from the bus stops at Parkwall Roundabout. Times and frequencies listed are reflective of the latest available timetable.

Table 3-1: Summary of Local Bus Services

Service	Route	Days	First Service	Last Service	Approximate Frequency
73	Newport – Chepstow	Mon-Fri	07:11	18:55	Hourly
		Saturday	07:56	16:54	120 minutes
	Chepstow - Newport	Mon-Fri	07:29	19:09	Hourly
		Saturday	10:16	18:16	120 minutes
74 / X74	Newport – Chepstow	Mon-Fri	07:14	19:44	Hourly
		Saturday	08:14	19:24	Hourly
	Chepstow - Newport	Mon-Fri	07:31	18:55	Hourly
		Saturday	08:35	19:40	Hourly

Source: Bustimes.org (May 2024)

In summary, **Table 3-1** demonstrates there is a reasonable availability of local bus services close to the site at Parkwall Roundabout. The lack of active travel provision along the B4245, between the proposed site access and Parkwall Roundabout, would raise highways safety concerns with regards to public transport accessibility for prospective residents of the development.

The proposed site lies between two railway stations, Caldicot and Chepstow. The nearest station to the site is Caldicot, which lies approximately 3.5km to the southwest. The main services available at Caldicot are Transport for Wales services between Maesteg and Cheltenham, via Cardiff, Newport and Bridgend. On average, a service is available every hour. Ticket machines are available at Caldicot Station, however there is no car or cycle parking facilities provided.

Local Facilities

There is a lack of local amenities within the locality of the proposed site. To the northeast, at Parkwall Roundabout, there is a food takeaway store, which lies adjacent to a golf course and leisure club. A car dealership and a care home are located within the settlement of Crick, approximately 1.4km to the west of the site. The majority of local amenities lie to the southwest of the site in Caldicot, including a supermarket, leisure centre, industrial employment facilities, doctors and multiple schools.

Highway Safety

Personal Injury Collision (PIC) data has been assessed using CrashMap for the most recently available 5-year period (2018-2022) in order to assess the road safety along the network in the vicinity of the site. There have been no PICs recorded in proximity to the site frontage. A 'slight' PIC was recorded approximately 900m to the southwest of the proposed site access. Three PICs have occurred at the Parkwall Roundabout, to the northeast of the site. Two of these were classified as 'serious' and appear to have happened on the same day. These are likely to be isolated incidents that do not suggest there to be an existing highways safety issue that could be exacerbated by the development.

4. Potential Trip Generation & Parking Requirement

It is understood that the scale of development for the site would be around 11 dwellings, to be comprised of temporary structures, potentially in the form of prefabricated units. The Trip Rate Information Computer System (TRICS) database has been used to calculate the proposed trip rate and subsequent trip generation for the proposed development. There are a limited number of Traveller sites available within TRICS, and as such, trip rates have been established using privately owned residential houses, with location types filtered to best represent the characteristics of the site at Oak Grove Farm. This is considered to represent a worst case scenario in terms of vehicular trip generation. The trip rates and resultant trip generation in terms of vehicle trips, for the traditional peak hours, are presented in **Table 4-1**.

Table 4-1: Vehicle Trip Generation – Proposed Development (11 Dwellings)

Time Period	Trip Rate			Trip Generation		
	Arrivals	Departures	Two-Way	Arrivals	Departures	Two-Way
AM Peak (08.00 – 09.00)	0.173	0.369	0.542	2	5	7
PM Peak (17.00 – 18.00)	0.381	0.188	0.569	5	3	8
Daily (07:00 – 19:00)	2.371	2.405	4.776	27	27	54

Based on the TRICS database, it is anticipated that the proposed development could generate up to seven two-way vehicles trips during the weekday AM peak hour and up to eight two-way vehicle trips during the weekday PM peak hour. There could be up to 54 two-way vehicle trips generated over the course of a day (07:00-19:00). In summary, the anticipated trip generation for the proposed development is low and is unlikely to have a material impact on the highway network.

MCC's Adopted Parking Standards Supplementary Planning Guidance (SPG) sets out the required parking levels for a range of development types. The SPG sets out four different parking zones within which to classify a specific site; this site is considered to be within 'Zone 3 – Countryside'. The SPG does not contain specific standards relating to Traveller sites, therefore the following requirements in relation to residential housing are considered to be the most comparable to the development at this stage:

Table 4-2: Adopted Parking Standards – Residential

Type	Residents	Visitors
Houses	1 space per bedroom (maximum requirement 3 spaces)	1 space per 5 units

At this stage, the proposed number of bedrooms per unit is unknown and therefore, exact parking requirements for the site would need to be defined once the development design has been sufficiently progressed. Based on the standards above, there would be a requirement for two visitor parking spaces on site. Car parking spaces will need to be designed in accordance with the specifications set out in the SPG. As an indication, this includes the requirement to provide standard parking space dimensions of 4.8m x 2.6m.

5. Site Access Appraisal

The below discussion appraises the proposed access points into the site and should be read in conjunction with the plans provided within **Appendix A**.

A preliminary junction design has been shown at the location of an existing gated field access, connecting to the B4245. At this stage, the junction has been designed with a 6m kerb radii and 5.5m access road carriageway width.

The existing visibility at the gated field access, where a new access junction is proposed, has been based on a 60mph speed limit. In accordance with the Design Manual for Roads and Bridges (DMRB), this equates to visibility requirements of 2.4m x 160m. Visibility has been demonstrated to be good in both directions at the proposed access location. This is aided by generally flat topography and low-lying vegetation identified as being within the visibility splay (and thus required to be kept below a height of 600mm). **Photos 5-1** and **5-2** have been included below to show the extents of visibility looking left and right at the location of the proposed access junction.

Photo 5-1: Proposed Access Junction – Visibility (Looking Left)



Photo 5-2: Proposed Access Junction – Visibility (Looking Right)



It was observed on site that there is an advisory speed limit of 40 mph to the east of the site. Therefore westbound traffic travelling along the B4245 and past the junction with Leechpool are advised of a maximum speed of 40 mph. This is also the case for eastbound vehicles going into the bend heading north towards Parkwall Roundabout and the A48. The location of these existing signs and restrictions are shown in the plans contained within **Appendix A**.

An extension, and formal adoption of the 40 mph maximum speed limit is considered beneficial for the proposed site, should it come forward. Whilst there is not an issue with vehicular visibility for 160 metres in each direction, it would be appropriate to lower speeds as a residential use is added or settlement extended west beyond Leechpool.

Vehicular stopping sight distance is comprised of a number of factors including road speed, driver reaction time and vehicle braking. The distance of 160 metres for the existing setting of 60 mph speeds shows how much distance is needed for a driver to see or be seen whilst travelling towards the location of the proposed site access or existing from the access. A speed limit of 40 mph would reduce this requirement to 90 metres, this is shown within **Appendix A** as an option for improvement. This does show that the change in speed could reduce the distance needed for drivers to see emerging vehicles or perhaps a future resident crossing the B4245.

Swept Path Analysis (SPA) has been conducted of the site access layout. This has been undertaken using a large car (5.0m length), delivery vehicle (8.0m length) and a large refuse vehicle (11.3m length). These represent the typical daily movements and servicing requirements for the site. No material issues have been identified with regards to access / egress of these vehicles. The use of the access by larger vehicles would require the full width of the access road (see refuse vehicle swept paths as an example), this is generally considered acceptable in street settings. However, it may be determined by the Highway Authority that due to the higher speed of road (outside of a street setting), vehicles should have sufficient room to turn into and out of the access without the need for stopping or giving way, to reduce the potential for collisions on the B4245. There is sufficient frontage and visibility to widen the site access if needed

and therefore this is considered to be a matter for discussion and clarification rather than a high risk issue. Should it be determined that a larger or more irregular vehicle could be required to deliver prefabricated units or static units, we can work with the team to assess the access for this.

6. Conclusions and Recommendations

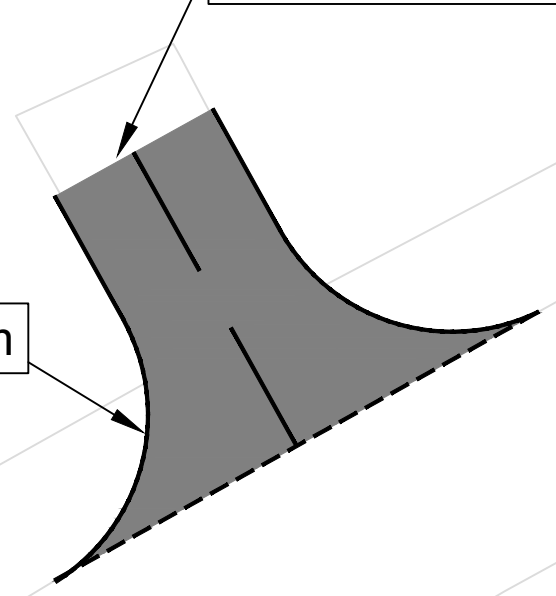
Overall, the existing gated field access is well located for vehicular visibility along the B4245. For the residential use proposed, considerations for this site should include the lack of sustainable transport facilities surrounding the site, with no footway connections available on the B4245. The site is positioned in a rural setting between local centres of Caldicot and Chepstow, and as such has very little supply of complimentary facilities / amenities in close proximity to the site. This could lead to the site being largely car-dominated in terms of incoming and outgoing trips, with little opportunity available for the uptake of active travel modes or use of sustainable transport in the form of buses or trains.

Appendix A

Preliminary Access Junction Design

Carriageway width: 5.5m

Kerb radii: 6.0m



Preliminary Access Junction Visibility Splays - 60mph

Visibility (looking left)



Visibility (looking right)



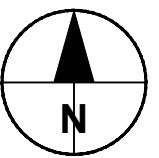
Objects / vegetation within the visibility splay limited to a maximum height of 0.6m.

51.5m

LB

B 4245

Lay-by
B 4245



Key:

- 2.4m x 160m Visibility Splay (DMRB Guidance for 60mph)
- Area to be kept clear of obstructions

Land at Oak Grove Farm, Portskewett

Monmouthshire County Council Sites
Site Access Considerations



Preliminary Access Junction Visibility Splays - 40mph (Observed Advisory Maximum Speed)

Objects / vegetation within the visibility splay limited to a maximum height of 0.6m.

Location of 40mph Speed Advisory



Location of 40mph Speed Advisory

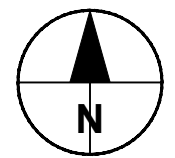


51.5m



LB

B 4245

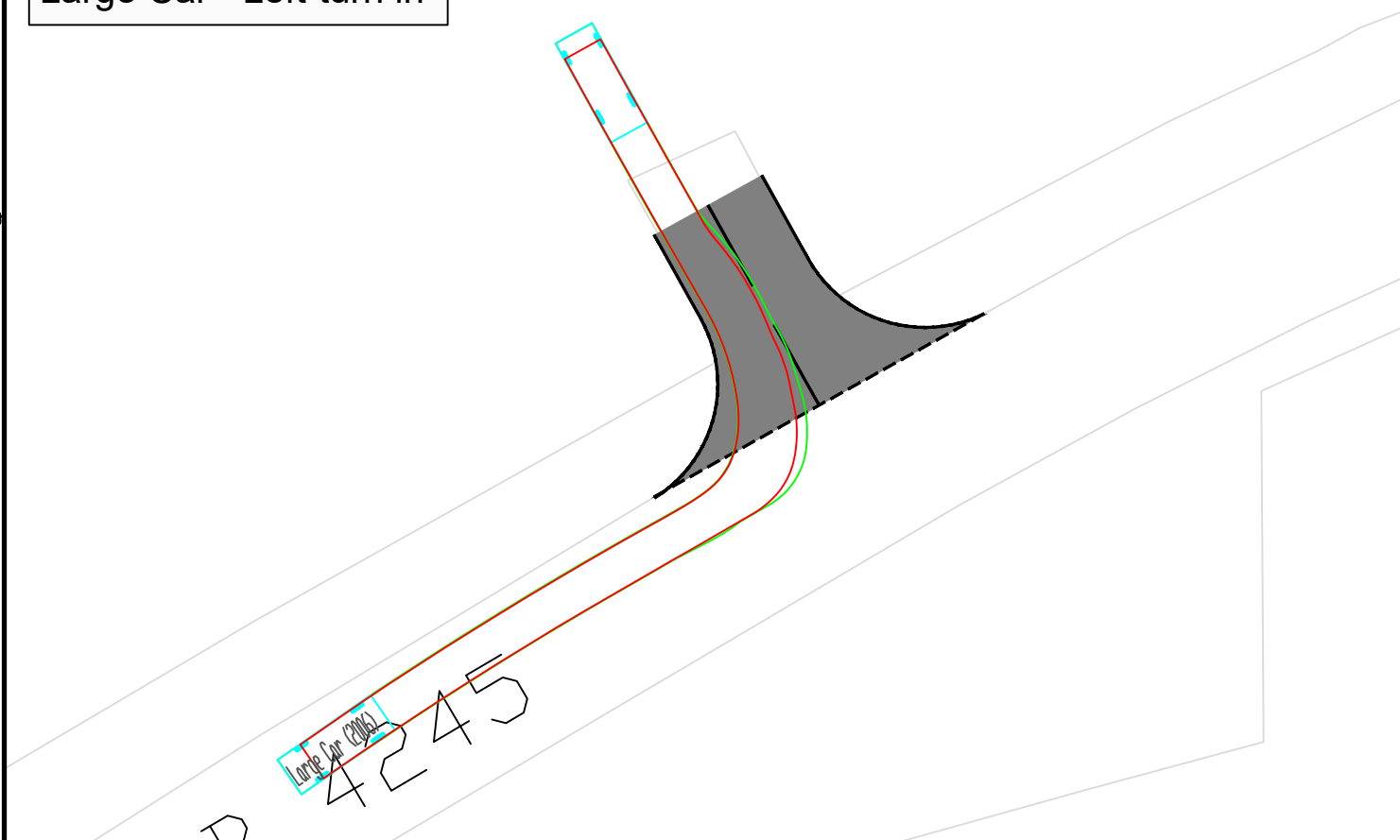
Lay-by



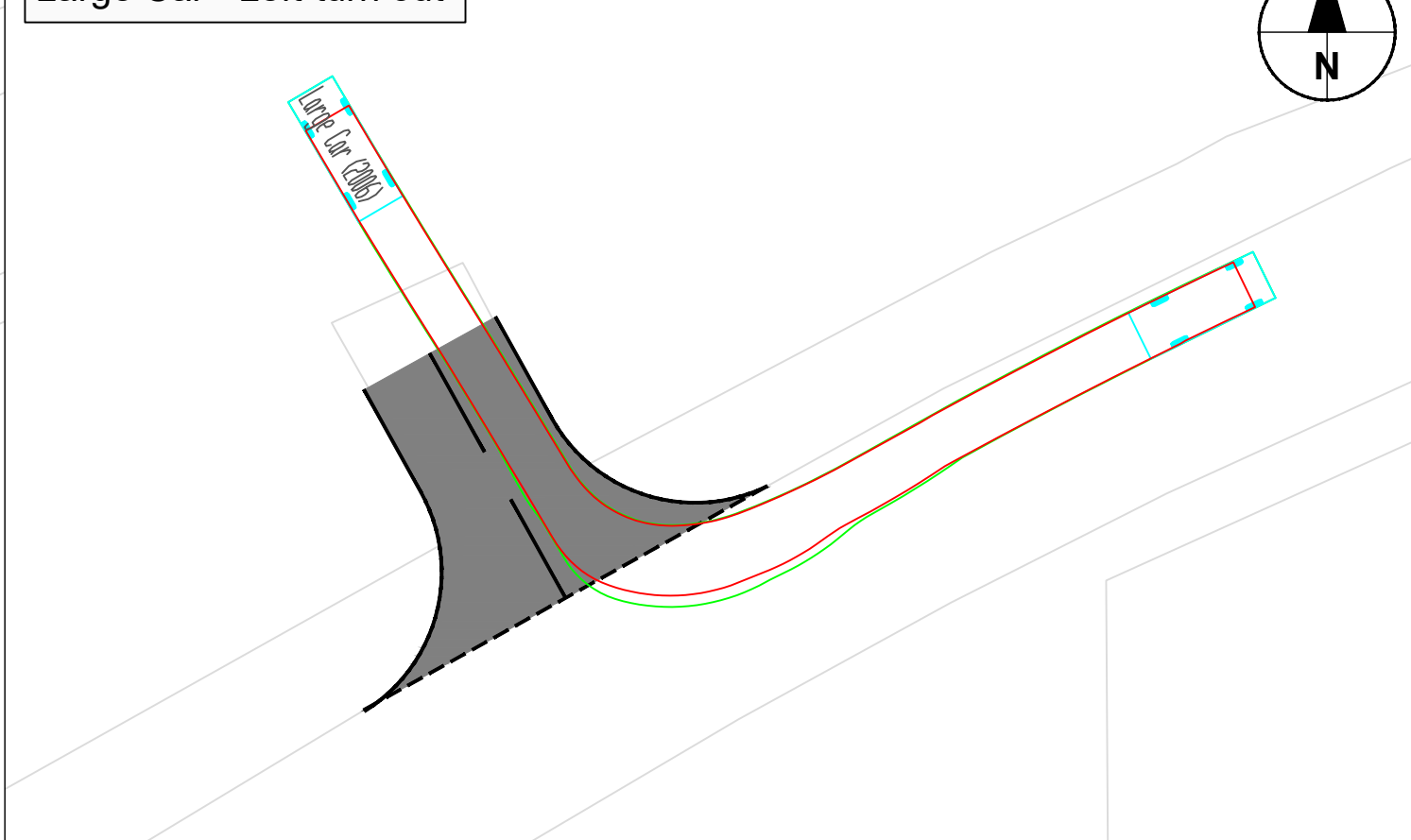
Key:

-  2.4m x 90m Visibility Splay (DMRB Guidance for 40mph)
-  Area to be kept clear of obstructions

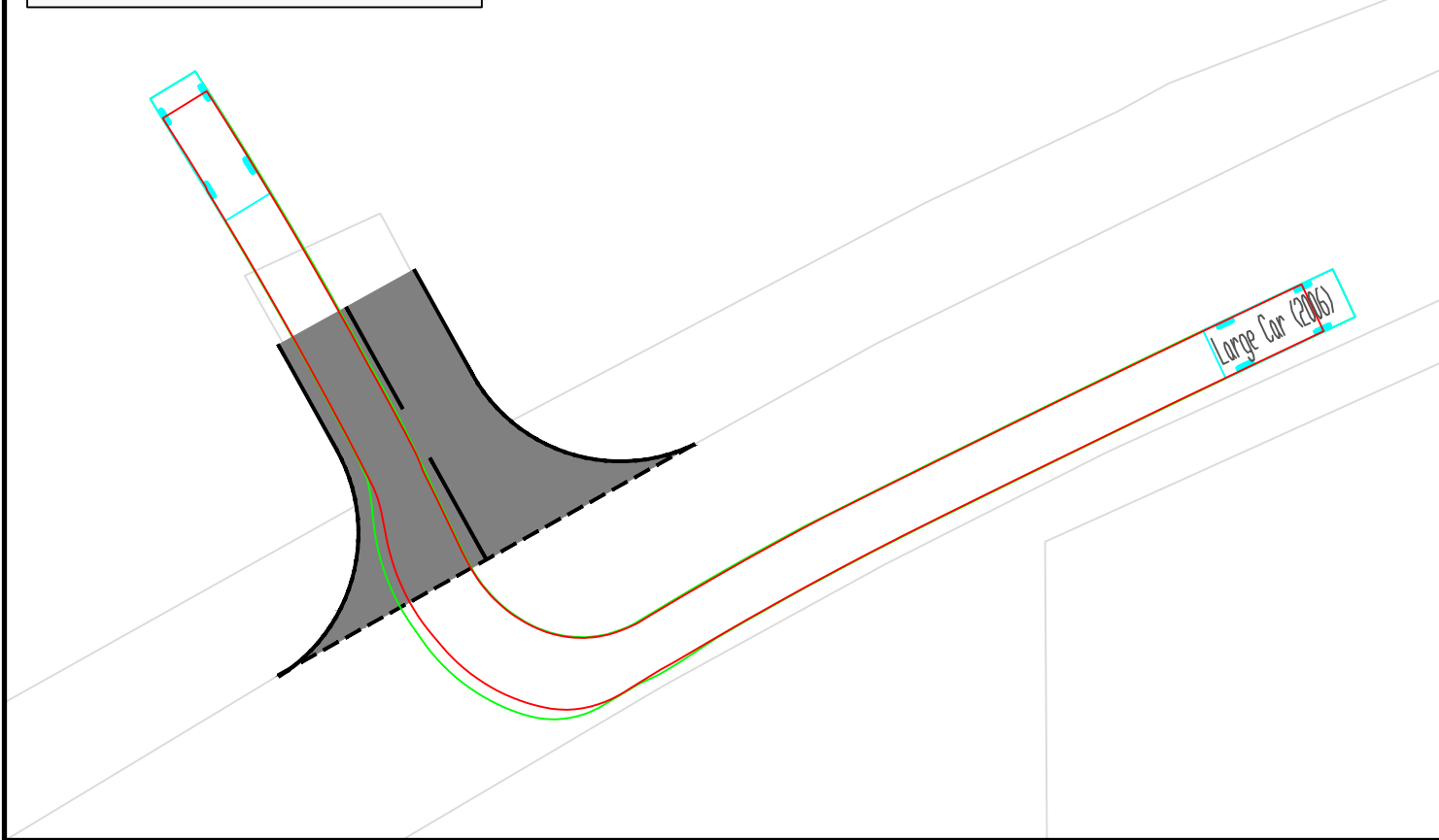
Large Car - Left-turn in



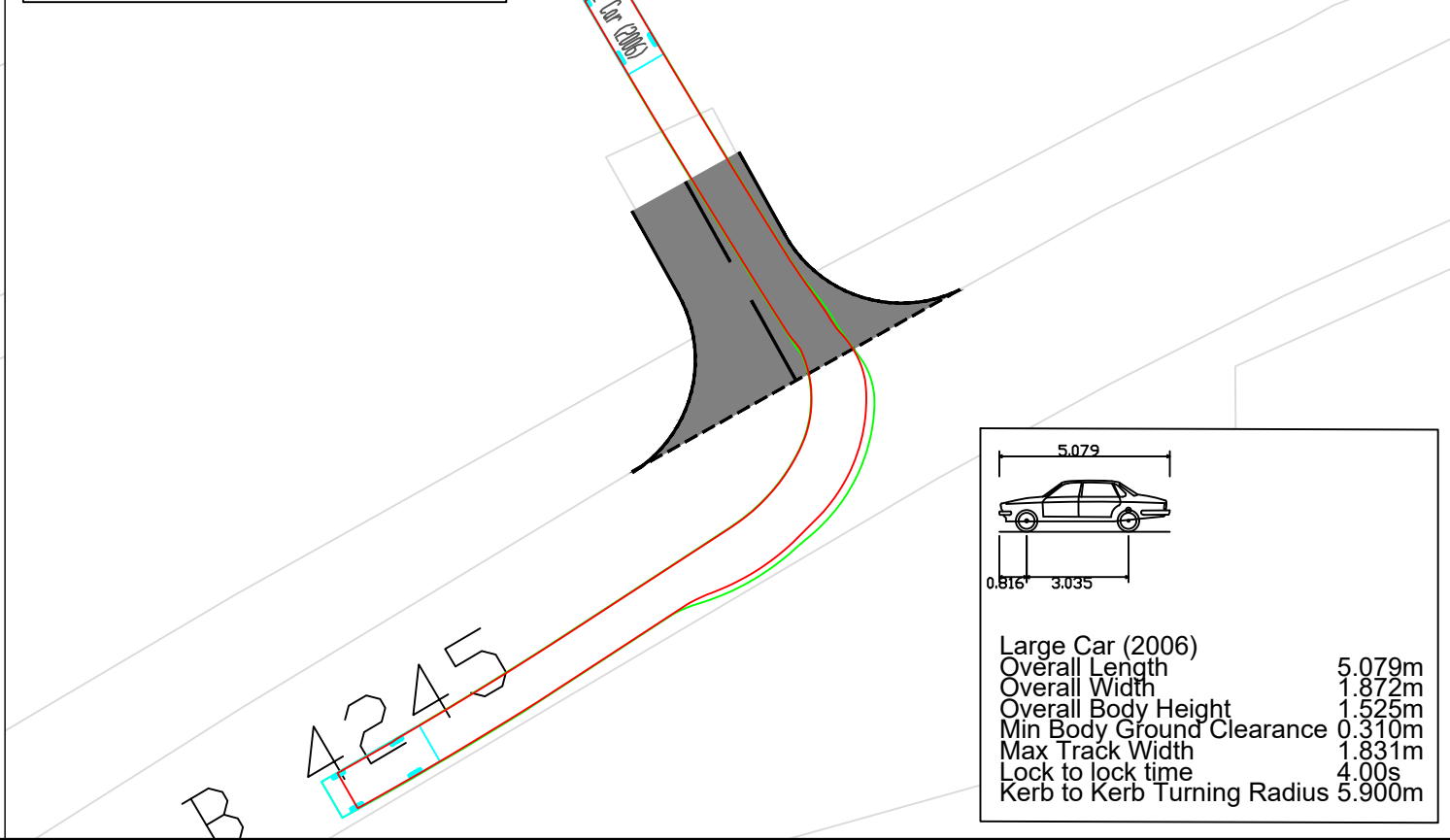
Large Car - Left-turn out



Large Car - Right-turn in



Large Car - Right-turn out



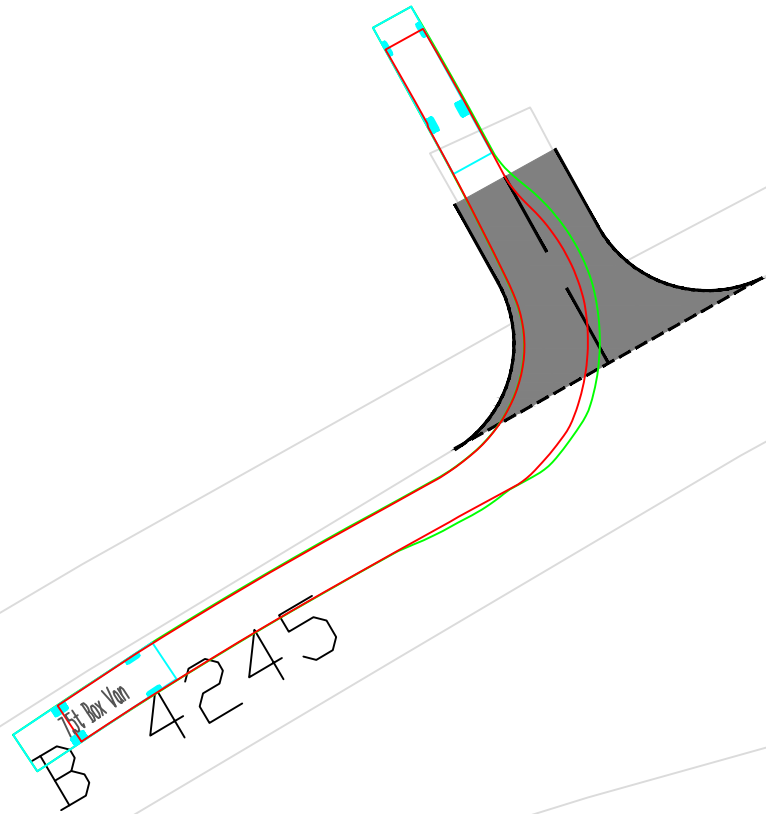
Large Car (2006)	
Overall Length	5.079m
Overall Width	1.872m
Overall Body Height	1.525m
Min Body Ground Clearance	0.310m
Max Track Width	1.831m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	5.900m

Land at Oak Grove Farm, Portskewett

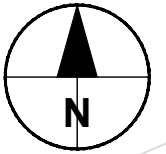
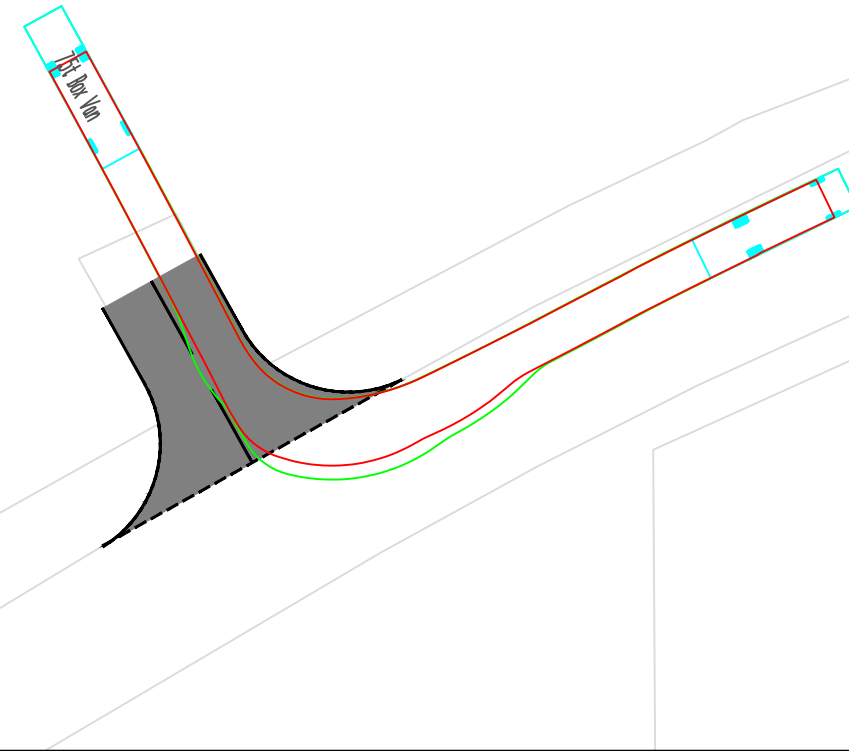
Monmouthshire County Council Sites
Site Access Considerations



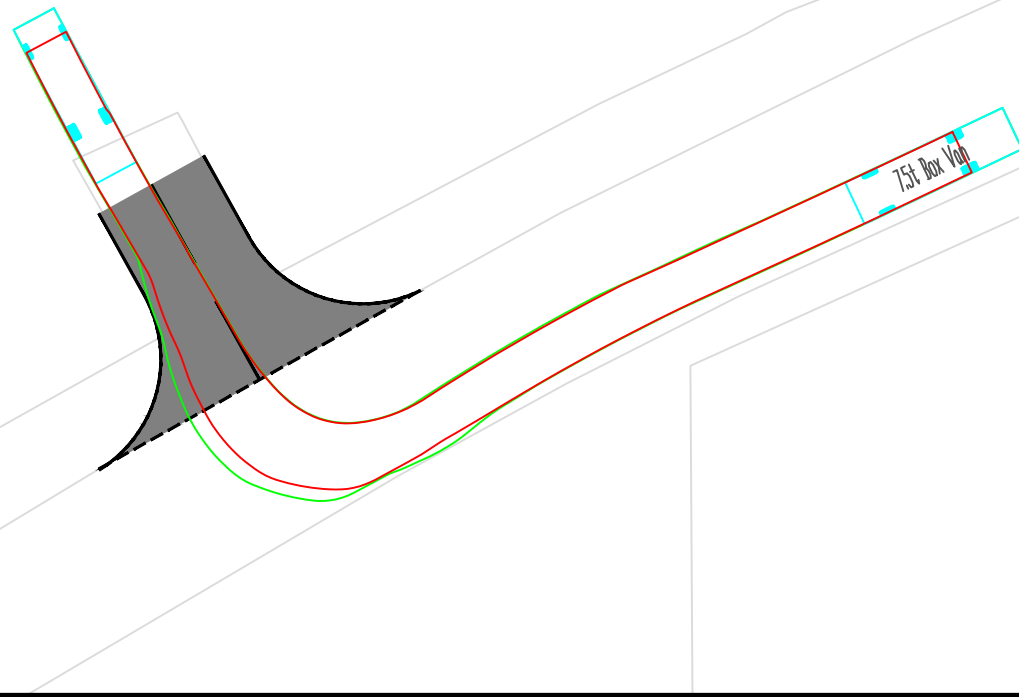
Delivery Van - Left-turn in



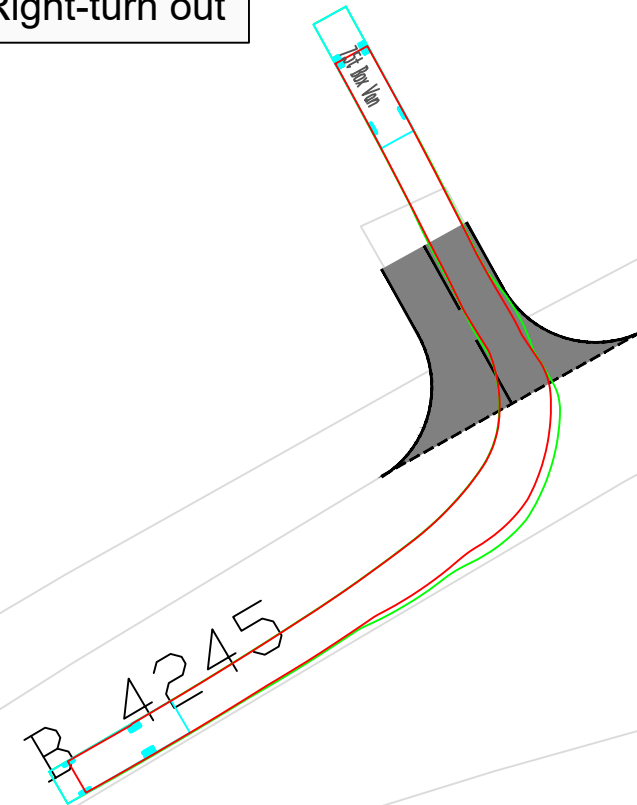
Delivery Van - Left-turn out



Delivery Van - Right-turn in



Delivery Van - Right-turn out



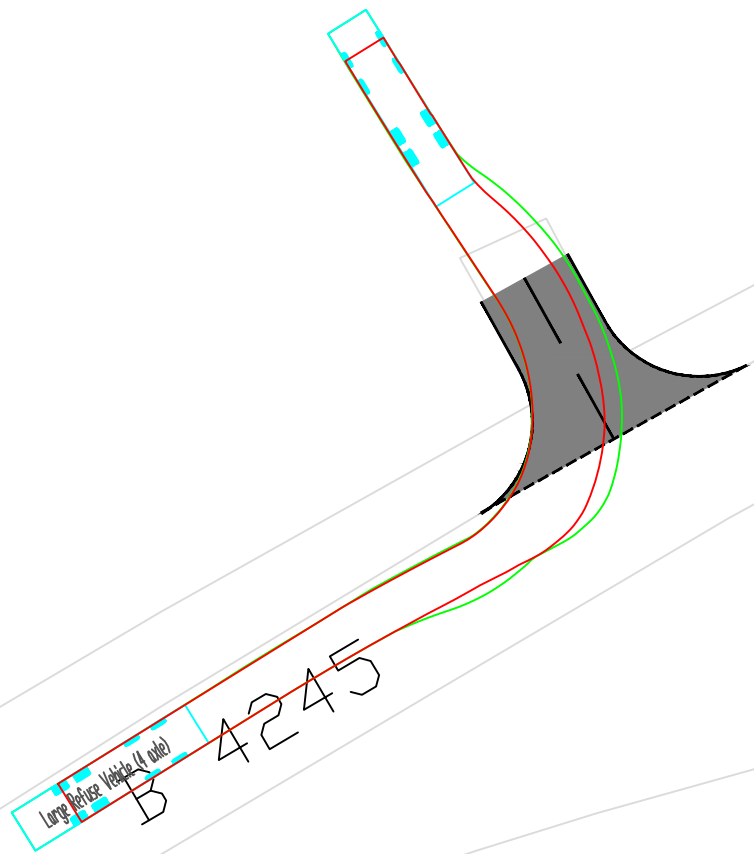
7.5t Box Van	
Overall Length	8.010m
Overall Width	2.100m
Overall Body Height	3.556m
Min Body Ground Clearance	0.351m
Track Width	2.064m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	7.400m

Land at Oak Grove Farm, Portskewett

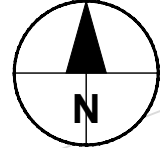
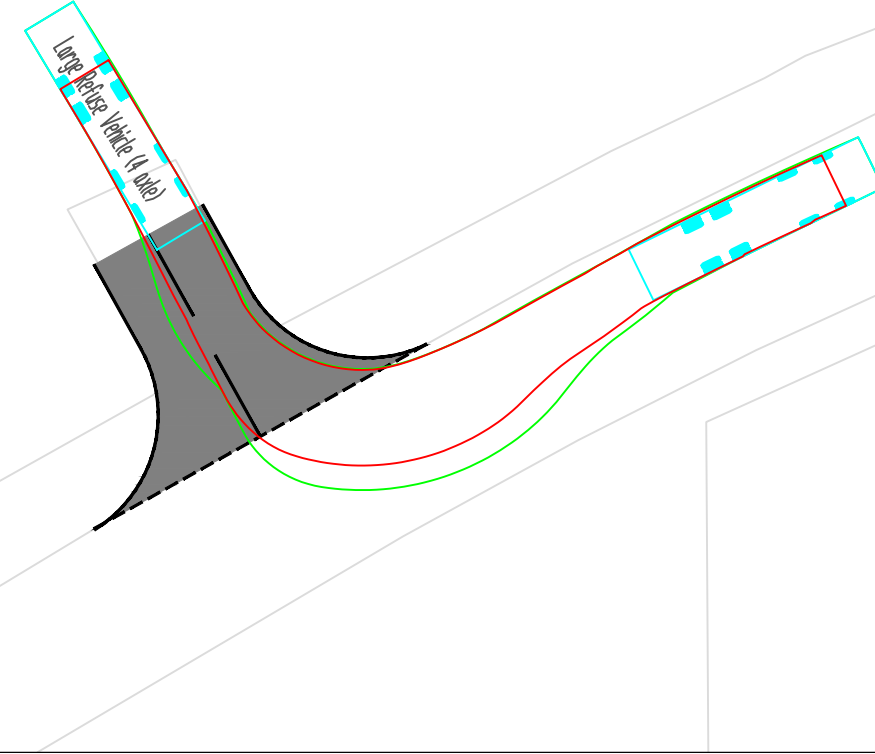
Monmouthshire County Council Sites
Site Access Considerations



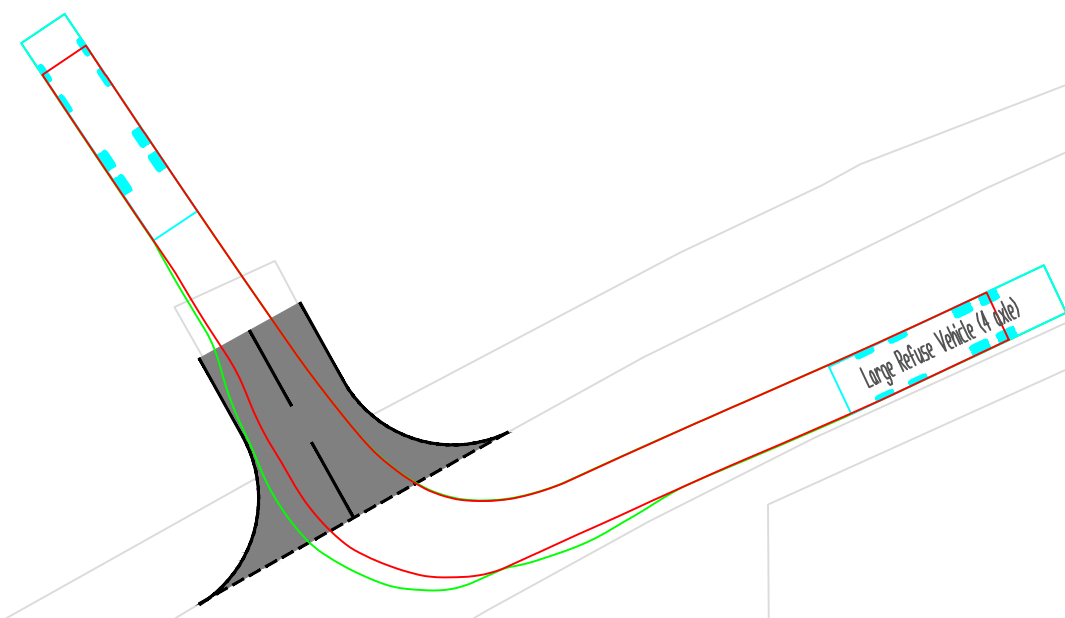
Refuse Vehicle - Left-turn in



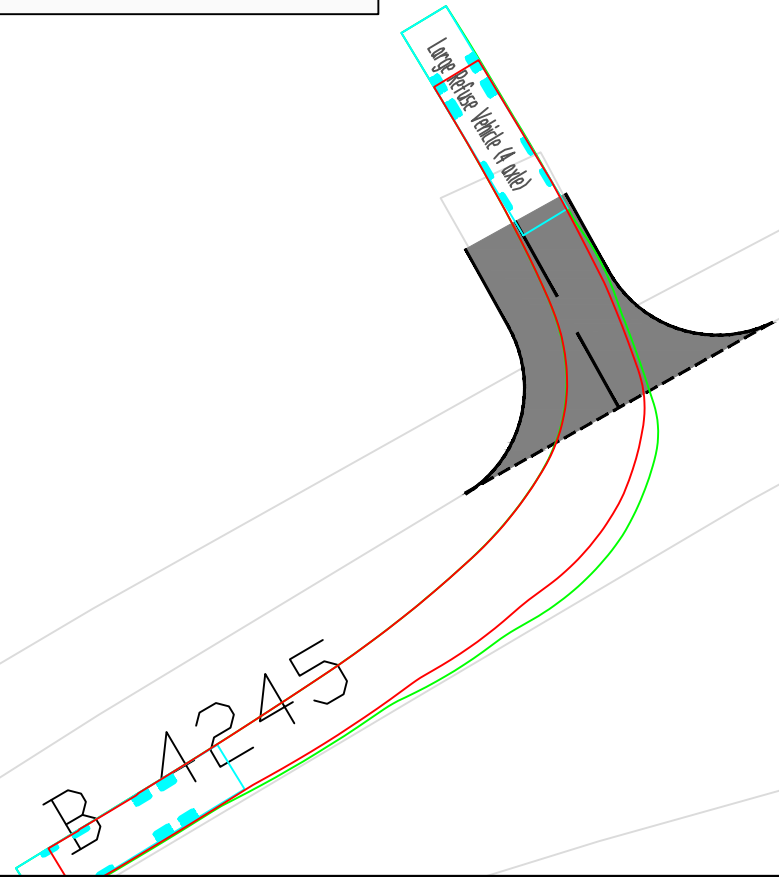
Refuse Vehicle - Left-turn out



Refuse Vehicle - Right-turn in



Refuse Vehicle- Right-turn out



Large Refuse Vehicle (4 axle)	
Overall Length	11.347m
Overall Width	2.500m
Overall Body Height	3.751m
Min Body Ground Clearance	0.304m
Track Width	2.500m
Lock to lock time	6.00s
Wall to Wall Turning Radius	11.330m

Land at Oak Grove Farm, Portskewett

Monmouthshire County Council Sites
Site Access Considerations

