
Project:	Monmouthshire County Council Sites	Job No: 60720932
Subject:	Land At Bradbury Farm, Crick	
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 up to 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 Bradbury Farm, Crick' 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 Bradbury Farm would be taken from Crick Road. Crick Road consists of a single carriageway and comprises a link approximately 1.5km in length, between the A48 (to the north) and the B4245 (to the south). Crick Road has a variable carriageway width within the vicinity of the site, varying between 6.5-7.5m and is subject to a speed limit of 60mph. Approximately 170m to the north of the site, the speed limit is reduced to 30mph on the approach to a cluster of existing dwellings. The 30mph speed limit is in place for approximately 20m, before the speed limit is reduced further to 20mph, with Crick Road providing access to residential properties on either side of its approach to the A48. At the approach to the A48 speed restriction is increased to a 40 mph route.

Crick Road connects to the A48 via a priority T-Junction, approximately 350m to the north of the site. To the west of Crick Road, the A48 is dualled, with an additional lane created in the eastbound direction, for right-turners into Crick Road. To the east of Crick Road, the A48 is a single carriageway with one lane in each direction. In the westbound direction, ghost island right-turn bays are provided for access to facilities located to the north of the A48. In the vicinity of its junction with Crick Road, the A48 is subject to a 40mph speed limit. The speed limit is increased to 50mph in the westbound direction, approximately 100m to the west of Crick Road. In the eastbound direction, the A48 becomes subject to a 50mph speed limit approximately 400m to the east of Crick Road, to the east of the M48 overbridge.

The A48 provides a strategic connection towards Junction 2 of the M48, to the east of the site at Thornwell, via the A466. The A48 continues northeast towards the A466 and Chepstow. To the west, the A48 routes from Parkwall Roundabout towards Newport and Junction 24 of the M4.

Approximately 1km to the south of the site, Crick Road meets the B4245 via a priority T-Junction. The B4245 is a single carriageway road that provides access to the A48 to the east and towards Caldicot to the west. The B4245 has an average carriageway width of approximately 7.5m. The majority of the B4245, to the east of Crick Road, has a speed limit of 60mph.

Walking and Cycling Environment

There is provision for walking or cycling on Crick Road in the locality of the proposed site. Approximately 190m to the north of the site and adjacent to Walnut Grove, a 2m footway is present on the western side of the carriageway. This footway provision terminates approximately 65m further to the north, with no further provision available on either side of Crick Road. To the north of the site along the A48, there are footways present on both sides of the carriageway, providing walking / cycling access to local facilities in Crick.

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 crosses Crick Road approximately 550m to the south of the site. The route has been set as a long-term aspiration and would comprise a largely off-road route towards Chepstow, to the northeast of the site. Another long-term route has been identified along the A48 (ref. MCC-S28B) in the vicinity of Crick. The route is designated for walking and cycling and would seek to improve the walking / cycling connection between Crick and Caerwent to the west.

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. 376/25/1 lies to the southwest of the site, approximately 330m from the southern boundary, and connects to a network of PRoWs, including ref. 354/79/1 and 354/79/2, which provide access into Caldicot to the west.

National Cycle Network (NCN) Route 4 is available approximately 350m to the north of the site along the A48 at Crick. NCN Route 4 provides a long-distance route between Newport and Chepstow, as well as to destinations located further-afield. To the northeast, NCN Route 4 leaves the A48 and provides access to Chepstow via quieter routes. Heading west along the A48, NCN Route 4 continues into the village of Caerwent, before routeing southeast through Caldicot, where access is provided to both Caldicot and Severn Tunnel Junction railway stations.

There is potential for the site to benefit from improvements to walking and cycling facilities to the south of the site along Crick Road, which may be delivered as part of the emerging proposals for two Candidate Sites, which are being developed as part of MCC's RLDP. These have not been specifically discussed within this report as the current status is not known.

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 named 'Crick House' and are located on the A48, approximately 400m walking distance from the northern boundary of the site. **Table 3-1** provides a summary of the 73 service, which is available from the bus stops on the A48. 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	07:09	18:53	Hourly
		Saturday	07:54	16:52	120 minutes
	Chepstow - Newport	Mon-Fri	07:32	19:12	Hourly
		Saturday	10:19	18:19	120 minutes

Source: *Bustimes.org* (May 2024)

In summary, **Table 3-1** demonstrates there is a reasonable availability of local bus services a short distance from the site on the A48. The lack of continuous active travel provision along Crick Road, between the site and the A48, would raise highways safety concerns with regards to public transport accessibility for prospective residents of the development.

It is understood that emerging Candidate Sites, as part of MCC's RLDP, adjoin the site to the south on either side of Crick Road. The current understanding of the high level emerging public transport strategy for these sites could see the introduction of new bus stops along Crick Road. This would appear to be a logical provision given the location and scale of those sites. Should they be installed that may increase the immediate public transport accessibility of the site at Bradbury Farm, with associated improvements to the walking and cycling facilities along this route.

The proposed site lies between two railway stations, Caldicot and Chepstow. The nearest station to the site is Caldicot, which lies approximately 2.7km 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 are no car or cycle parking facilities provided.

Local Facilities

There is a lack of local amenities within the immediate locality of the proposed site. The nearest facilities are located within Crick to the north and Caerwent to the northwest. Facilities available in Crick include a care home and a car dealership. To the west in Caerwent, further amenities are available including a farm shop, village hall, community centre, nursery and restaurant. A wider range of facilities lie to the southwest of the site in Caldicot, including a supermarket, leisure centre, industrial employment facilities, doctors and multiple schools.

The potential for improving local public transport provision, as part of the emerging Candidate Sites, would create links to, and opportunities to use facilities which are located beyond typical acceptable walking distance.

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. One 'serious' PIC was recorded on Crick Road approximately 300m to the north of the site, on its approach to the A48. This took place in September 2020 and involved a single vehicle. A further PIC was recorded as 'slight' and occurred in January 2020 at the priority junction between the A48 and Crick Road; one vehicle was involved. These are considered 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 Bradbury 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 per dwelling 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**.

As an initial exercise, preliminary junction designs have been shown at the locations of two existing gated accesses into the site, connecting to Crick Road. An additional, alternative location for access has been identified based on a desktop assessment and complimented by a site visit. This location has been identified approximately midway along the western site boundary, between the two existing gated access locations. At this stage, each preliminary junction shown has been designed with a 6m kerb radii and 5.5m access road carriageway width.

The existing visibility at each potential access location 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. 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.

Issues have been identified with regard to the two existing gated access locations, at the northern and southern extents of the western site boundary. The visibility splays at both of these locations are shown

to contain significant parcels of land outside of the site boundary, and beyond the likely extent of adopted highway and verge. The alternative access location is shown to work more favourably in terms of visibility, with the majority of land contained within the visibility envelopes comprising hedge / verge adjacent to the highway. This would likely require a far softer engineering solution, as opposed to the visibility constraints observed at the existing site access locations.

Photos 5-1 to 5-6 have been included below to show the extents of visibility looking left and right at both of the two existing access locations, as well as the alternative access location identified.

Photo 5-1: Existing Access Location (North) – Visibility (Looking Left)



Photo 5-2: Existing Access Location (North) – Visibility (Looking Right)



Photo 5-3: Existing Access Location (South) – Visibility (Looking Left)



Photo 5-4: Existing Access Location (South) – Visibility (Looking Right)



Photo 5-5: Alternative Access Location – Visibility (Looking Left)



Photo 5-6: Alternative Access Location – Visibility (Looking Right)



It is understood that an emerging Candidate Site, as part of MCC’s RLDP, adjoins the site to the south. There is also understood to a significant strategic sized site opportunity opposite this site for around 700 dwellings. Should these plans be realised, this would significantly change the character of the local area and the local highway. It could be that the existing speed limit is reduced to create a better environment and potential connections would need to be explored to link the residential sites to some facilities in the north, including footways and street lighting.

Access proposals for the Candidate Sites are currently being developed and there will be a need to consider any emerging access strategy in the context of these access proposals. This will include, but is not limited to consideration of access junction spacing along Crick Road. In the context of the information which is available at the time of writing, the current understanding of the vehicular access strategy for these sites is that two potential access locations could be created on Crick Road. The indicative layouts suggest these are likely to be positioned in excess of 300 metres to the south of Bradbury Farm and would serve to provide access to Candidate Sites located on either side of Crick Road. At this stage, it could be considered unlikely that the proposed access junction for Bradbury Farm would encroach upon the access strategy for the Candidate Sites. Notwithstanding this, there will be a requirement for ongoing consideration of the interdependencies between access locations along Crick Road, as further details of the Candidate Sites are developed.

Swept Path Analysis (SPA) has been undertaken on the southern existing access location and also on the alternatively proposed access location, approximately midway along the western site boundary. The northern existing access has not been included within this analysis, it considered that the existing level of visibility would not result in an appropriate junction location. This northern junction has therefore been discounted at this stage.

The SPA of the existing and proposed accesses have 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 each access option 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 Crick Road. Both potential access locations would appear to have 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 this for both potential access options.

6. Conclusions and Recommendations

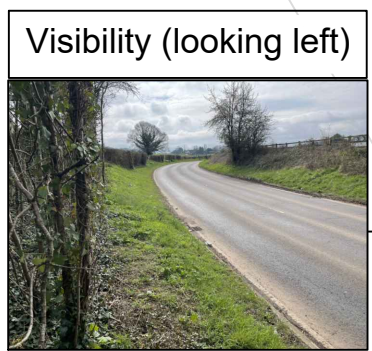
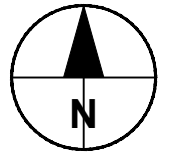
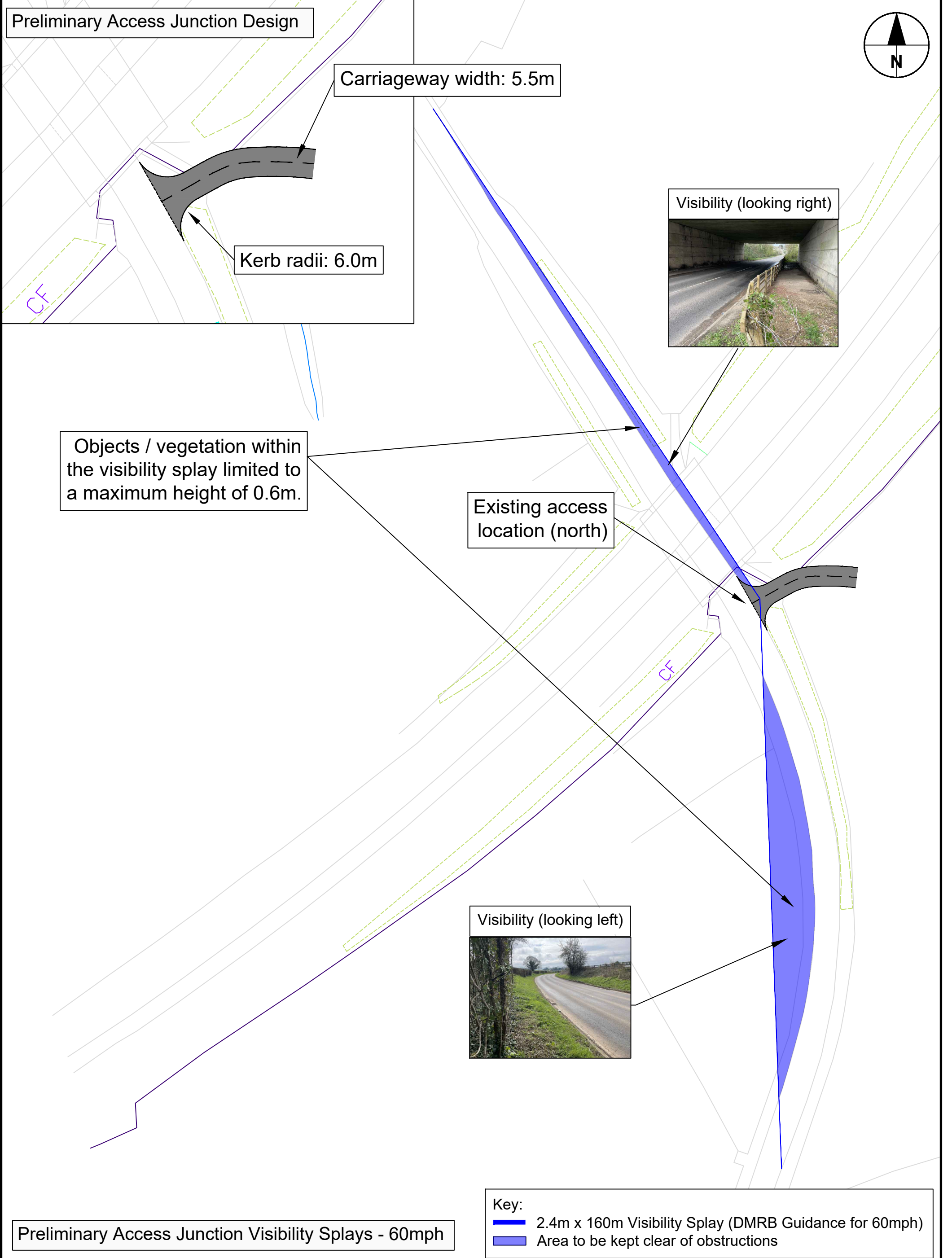
Overall, the access appraisal for this site has identified potential visibility issues associated with the two existing access locations, at the northern and southern extents of the site's western boundary. An additional, alternative location for access has been identified based on a desktop assessment and complimented by a site visit. This location has been identified approximately midway along the western site boundary, between the two existing gated access locations. The alternative access location is shown to work more favourably in terms of visibility, with the majority of land contained within the visibility envelopes comprising hedge / verge adjacent to the highway.

It is understood that emerging Candidate Sites, as part of MCC's RLDP, adjoins the site to the south and could exist opposite the site location. Access proposals for the Candidate Site are currently being developed and there will be a need to consider any emerging access strategy in the context of these access proposals. This will include, but is not limited to consideration of access junction spacing along Crick Road. At this stage, it could be considered unlikely that the proposed access junction for Bradbury Farm would encroach upon, or prejudice the access strategy for the Candidate Sites. There will be a requirement for ongoing consideration of the interdependencies between access locations along Crick Road, as further details of the Candidate Sites are developed.

For the residential type of land use proposed, considerations for this site should include the lack of sustainable transport facilities surrounding the site, with no footway connections available on Crick Road, within reasonable proximity of the site. The site is positioned in a rural setting to the south of Crick, 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.

It may be that this site could become more connected and well placed through the delivery of local residential development which would likely require the introduction of a new route character on Crick Road. The anticipated changes would be public transport connectivity, speed limit reductions, footway provision and potential cycle route connections.

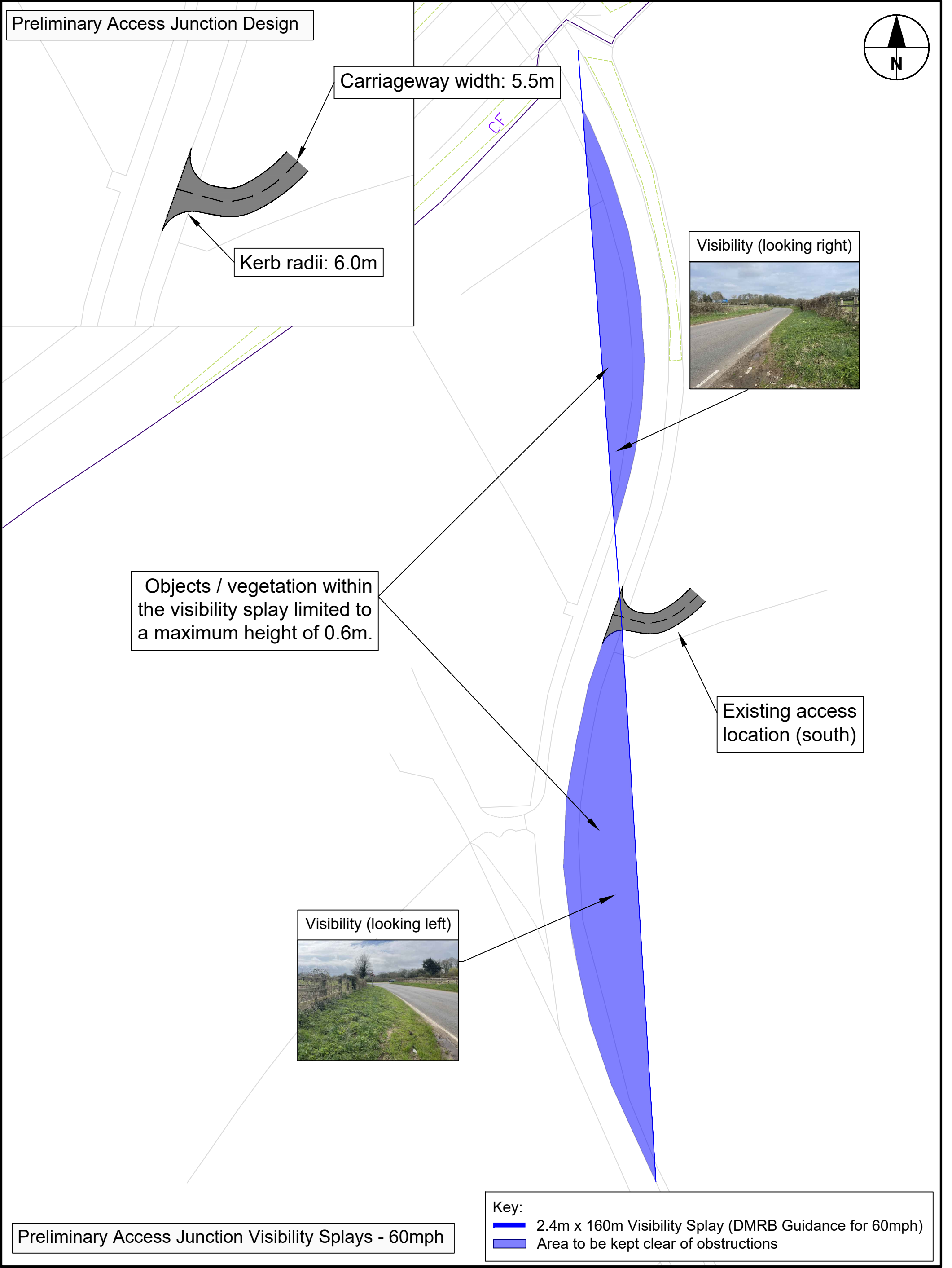
Appendix A



Land at Bradbury Farm, Crick

Monmouthshire County Council Sites
Site Access Considerations - Existing Access Location (North) - Visibility Splays



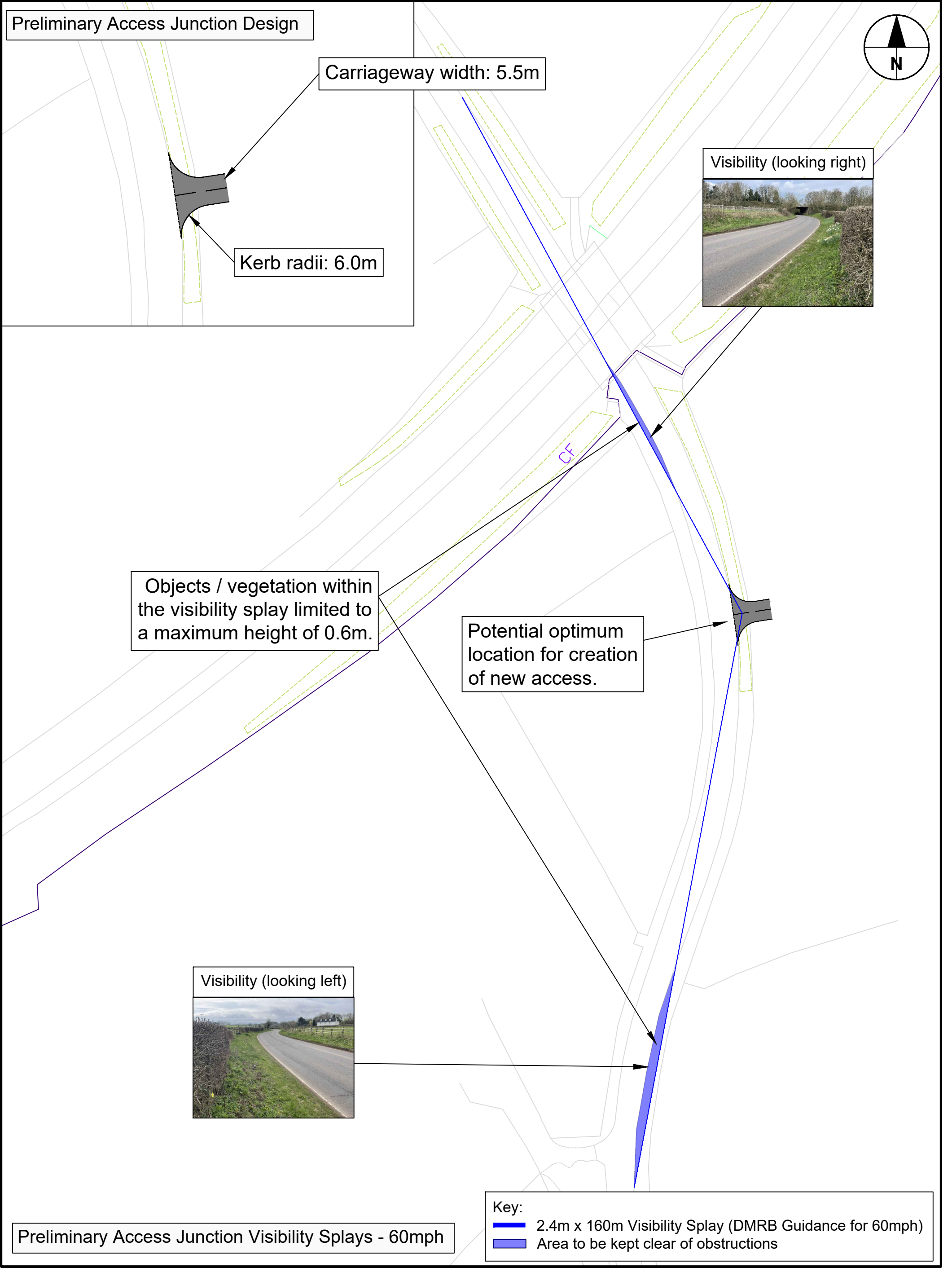


Land at Bradbury Farm, Crick

Monmouthshire County Council Sites

Site Access Considerations - Existing Access Location (South) - Visibility Splays





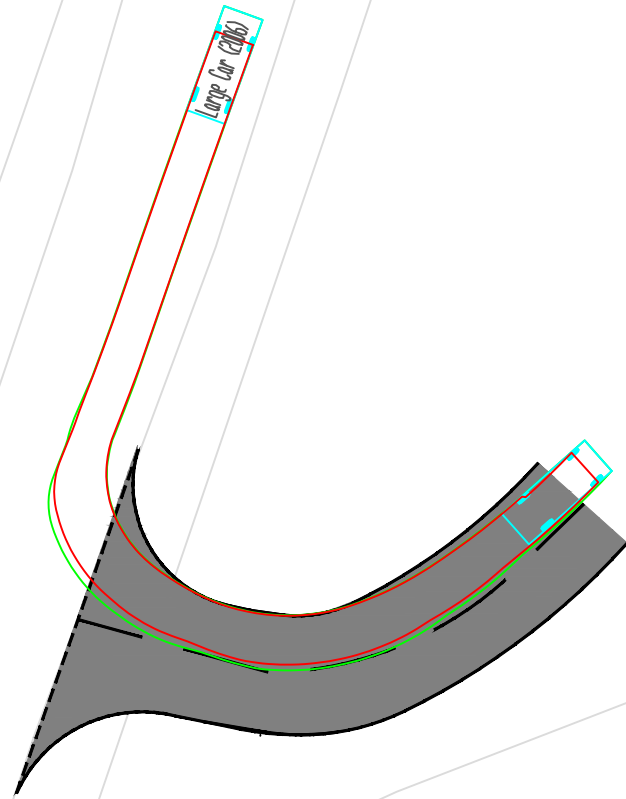
Land at Bradbury Farm, Crick

Monmouthshire County Council Sites

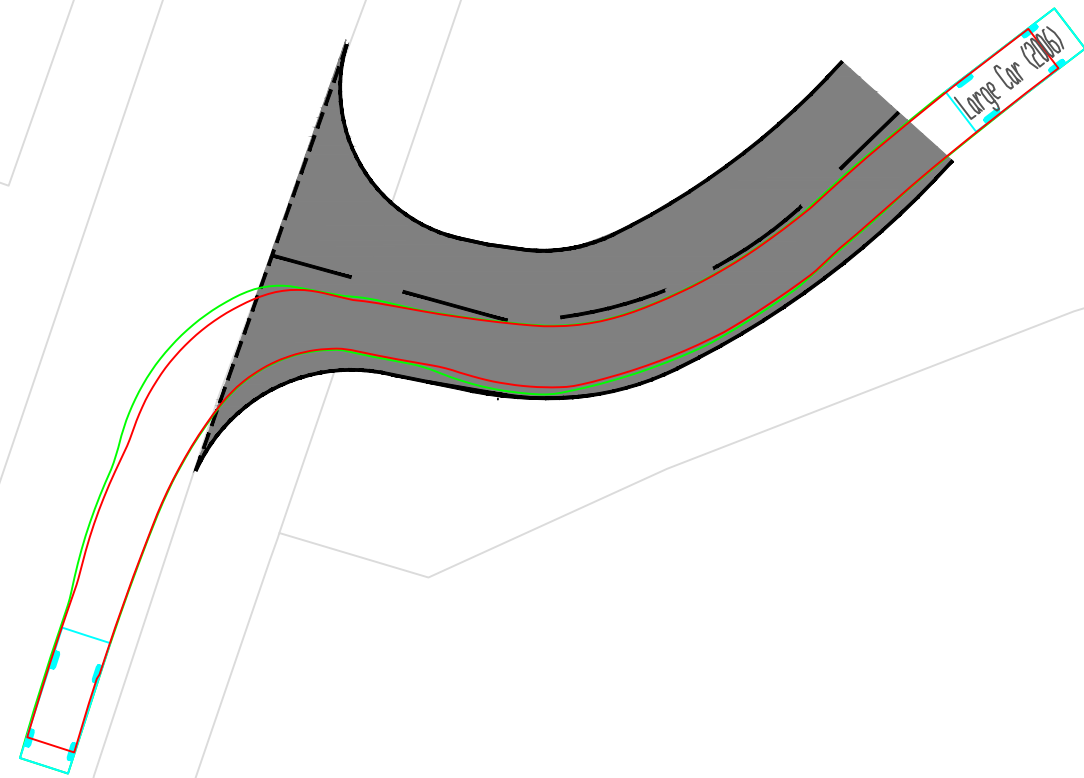
Site Access Considerations - Alternative Access Location - Visibility Splays



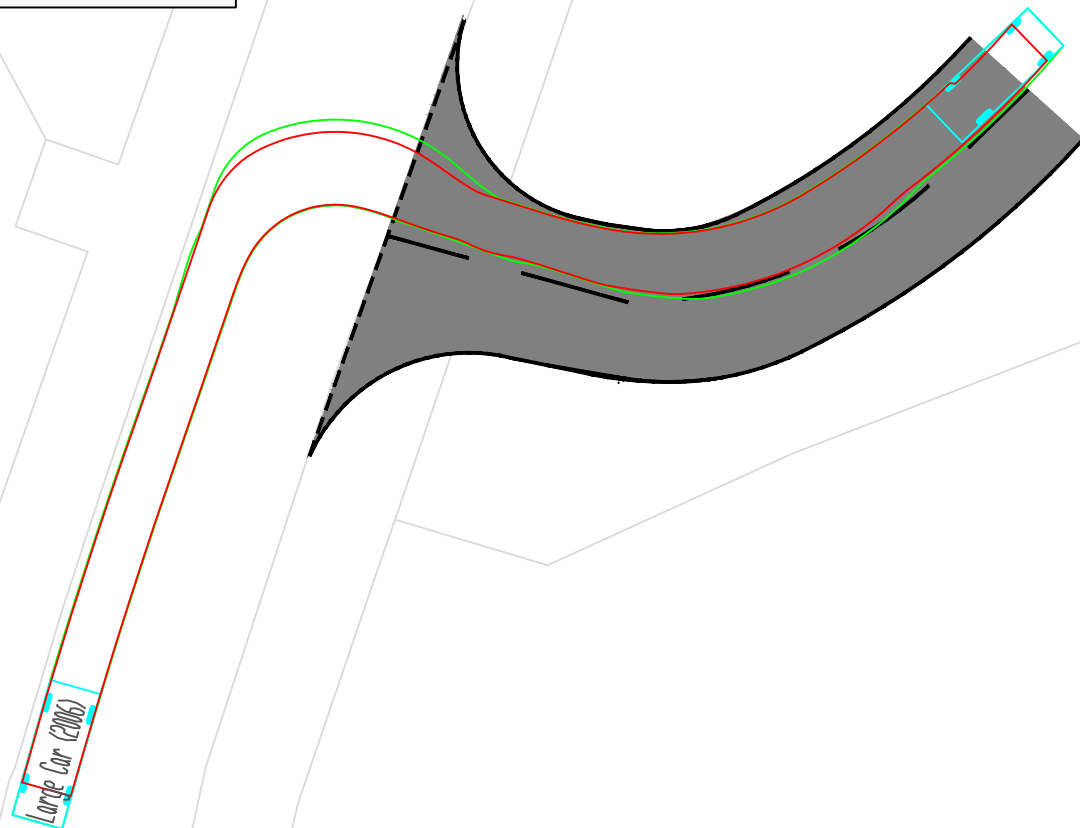
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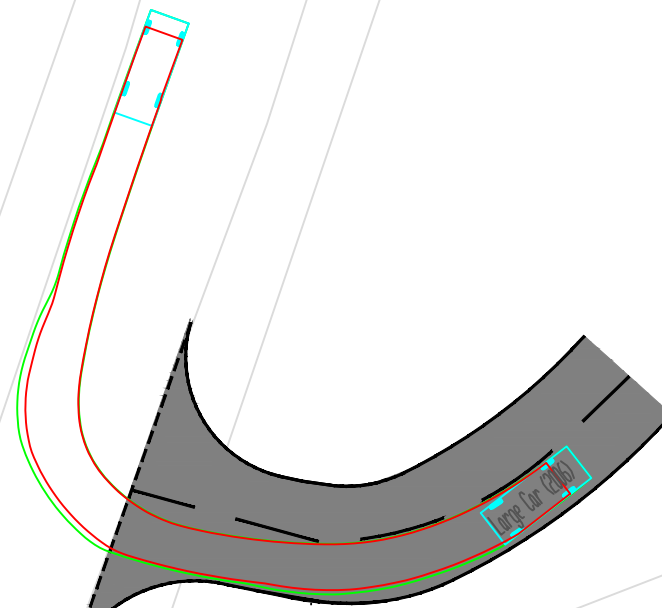
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Large Car - Right-turn in



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

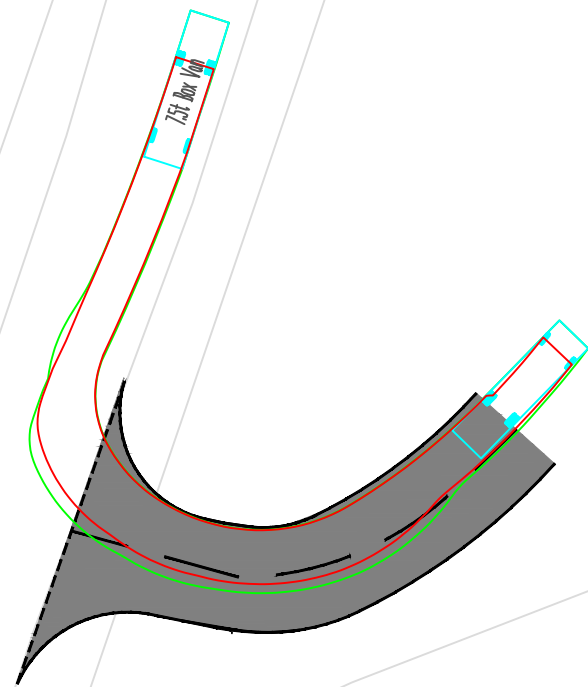
Land at Bradbury Farm, Crick

Monmouthshire County Council Sites

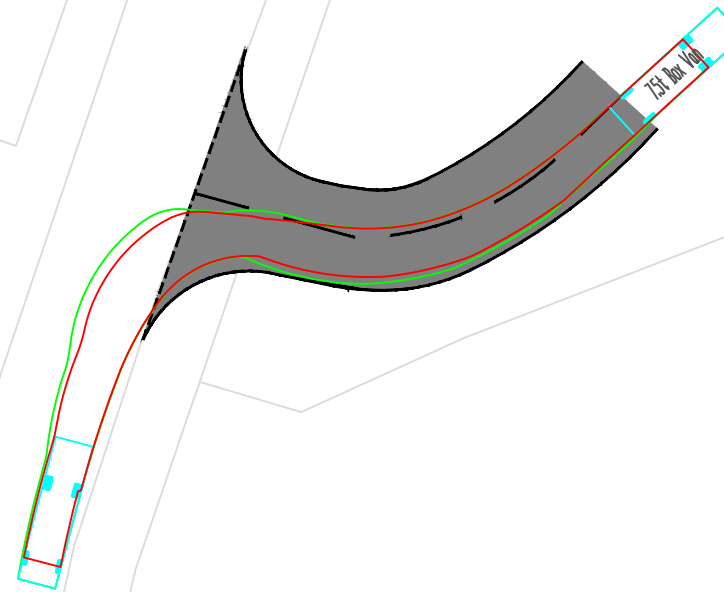
Site Access Considerations - Existing Access Location (South) - SPA



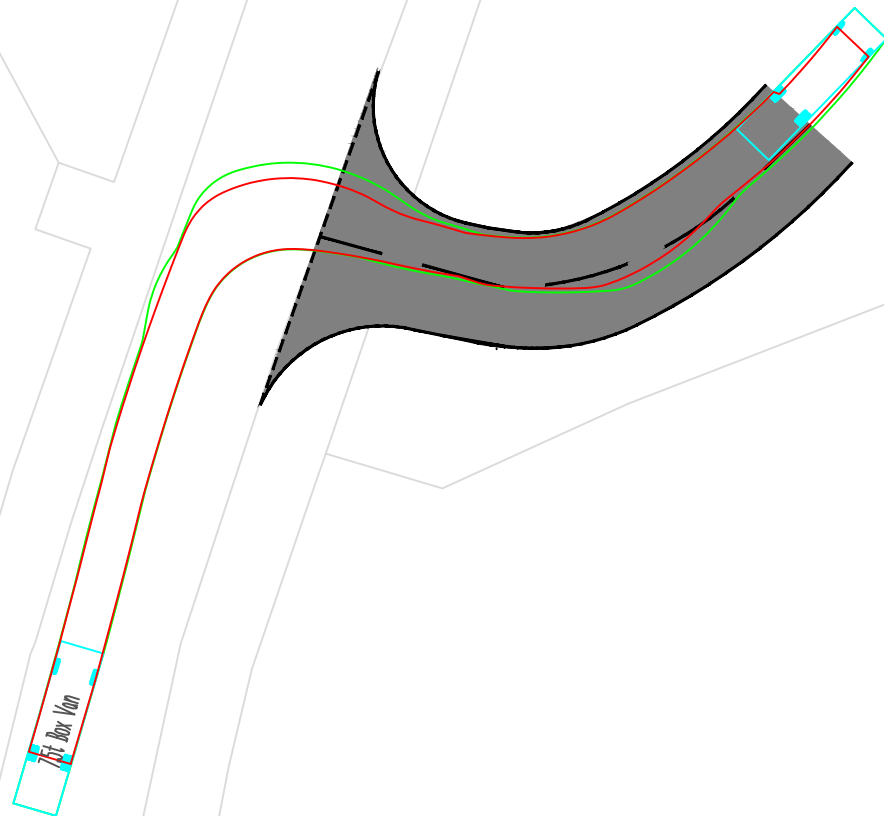
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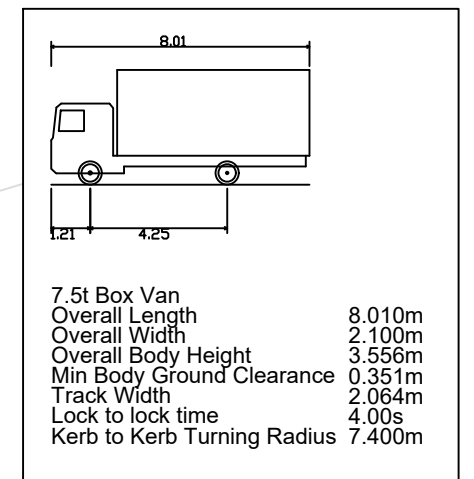
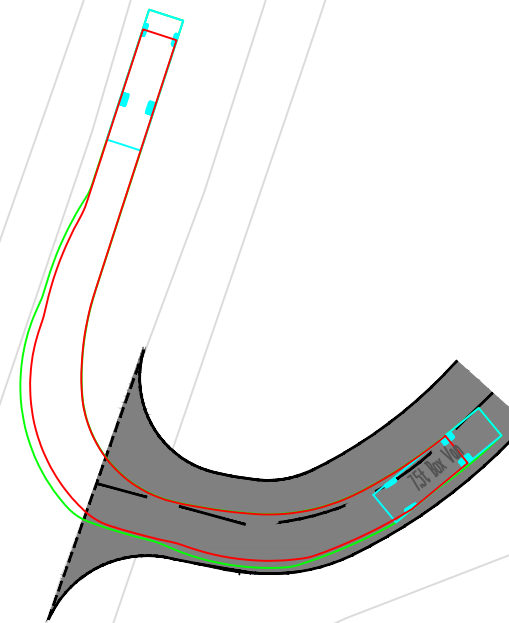
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Delivery Van - Right-turn out



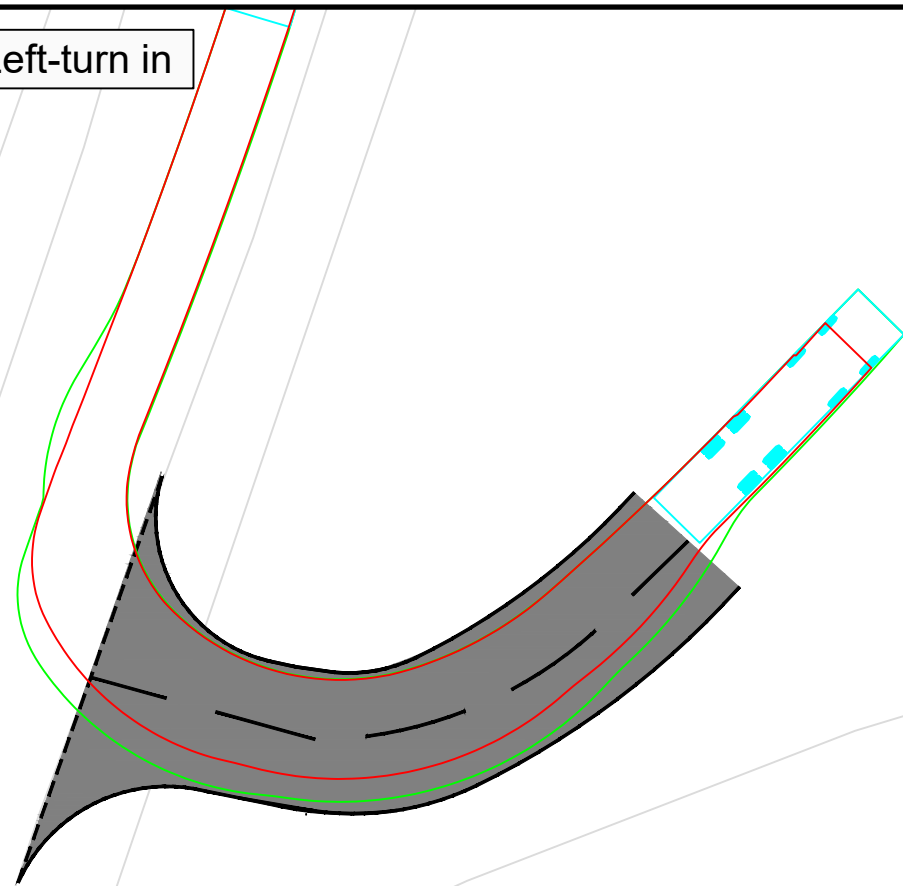
Land at Bradbury Farm, Crick

Monmouthshire County Council Sites

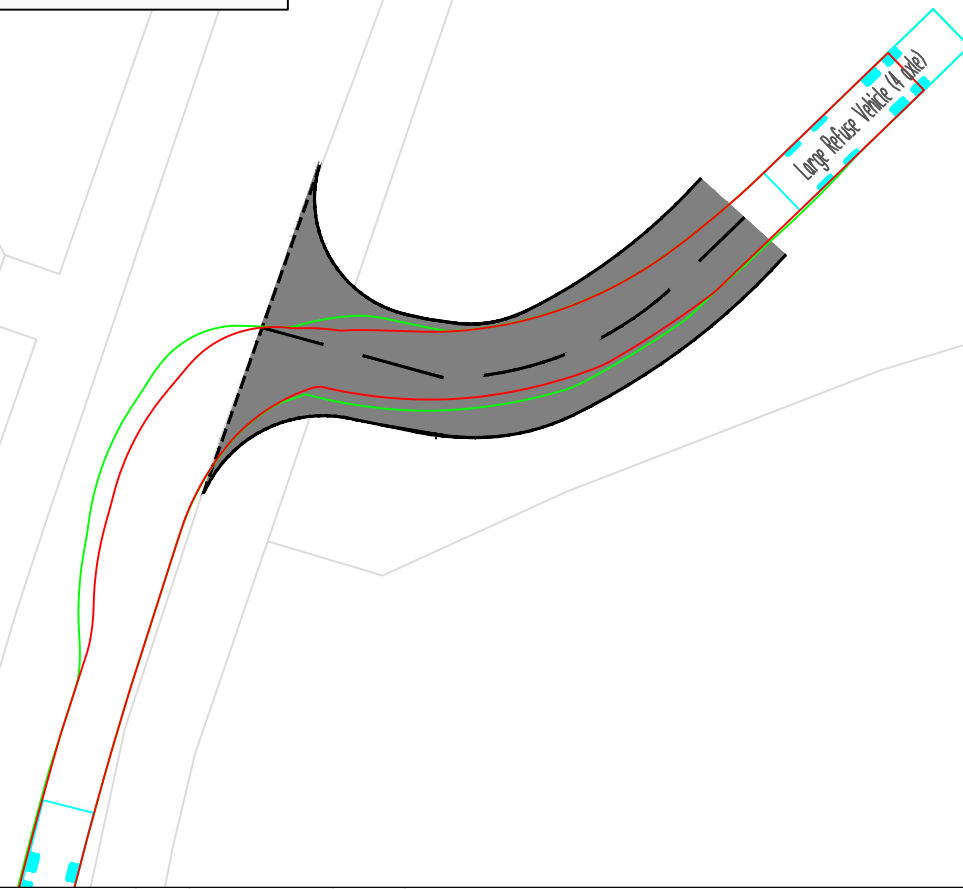
Site Access Considerations - Existing Access Location (South) - SPA



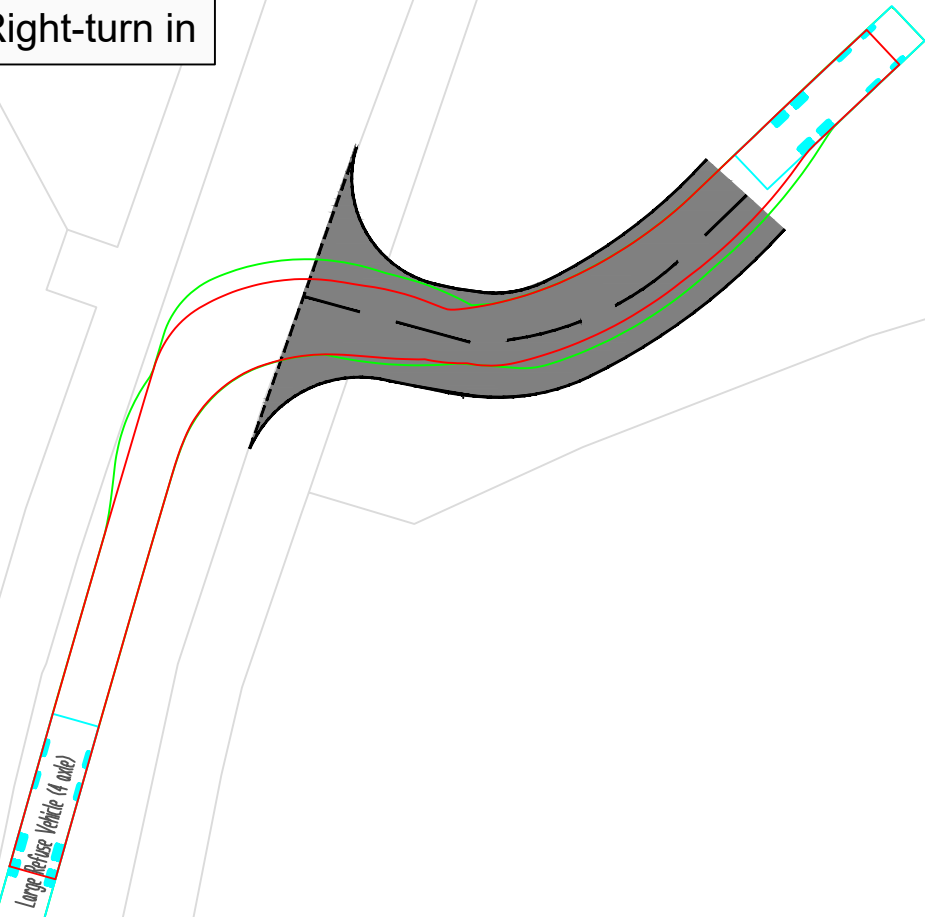
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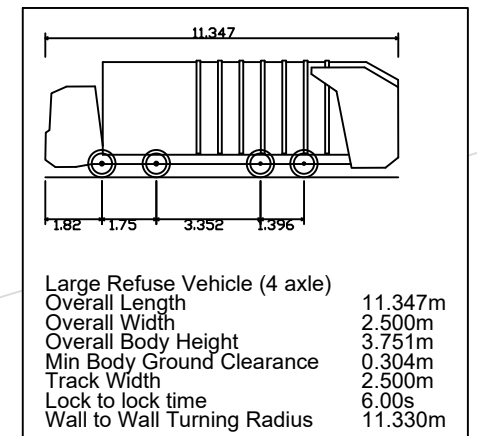
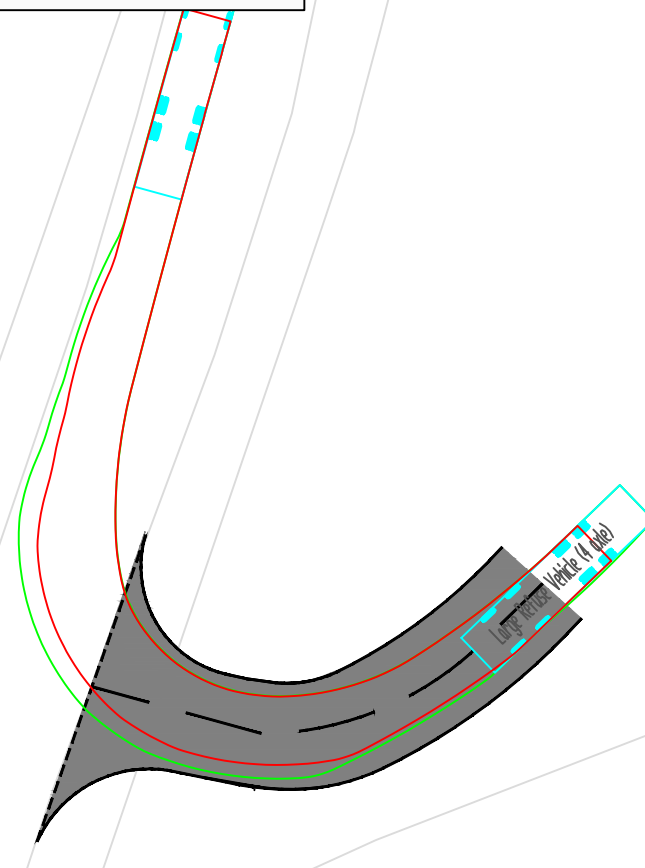
Refuse Vehicle - Left-turn out



Refuse Vehicle - Right-turn in



Refuse Vehicle- Right-turn out



Land at Bradbury Farm, Crick

Monmouthshire County Council Sites

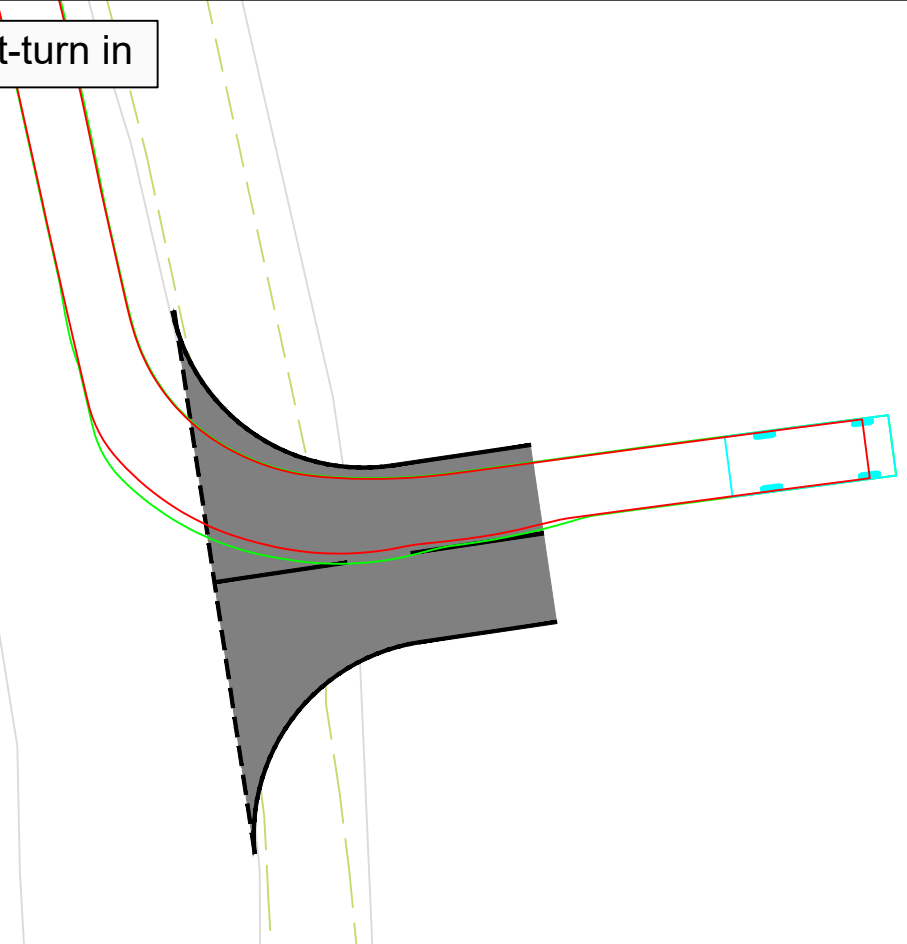
Site Access Considerations - Existing Access Location (South) - SPA



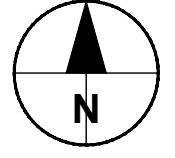
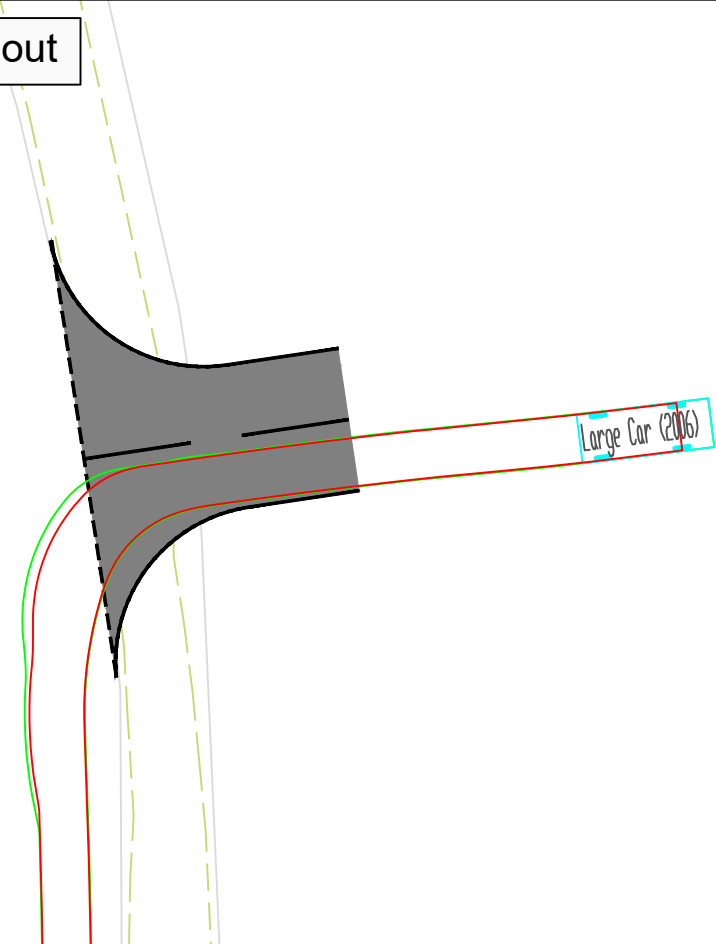
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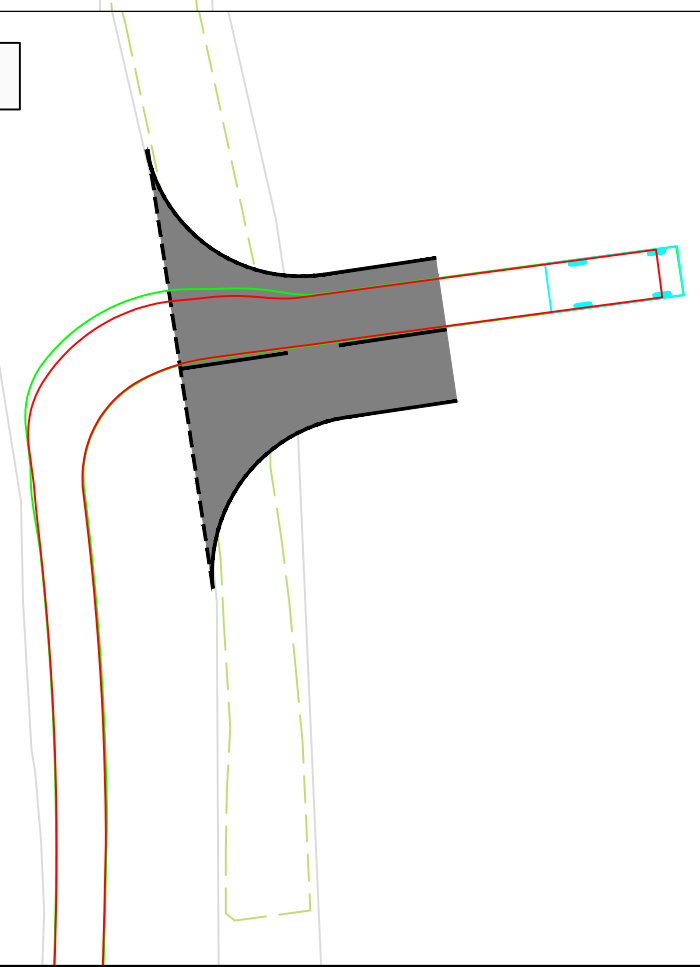
Large Car - Left-turn in



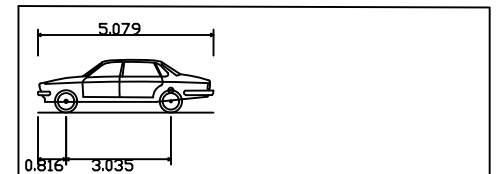
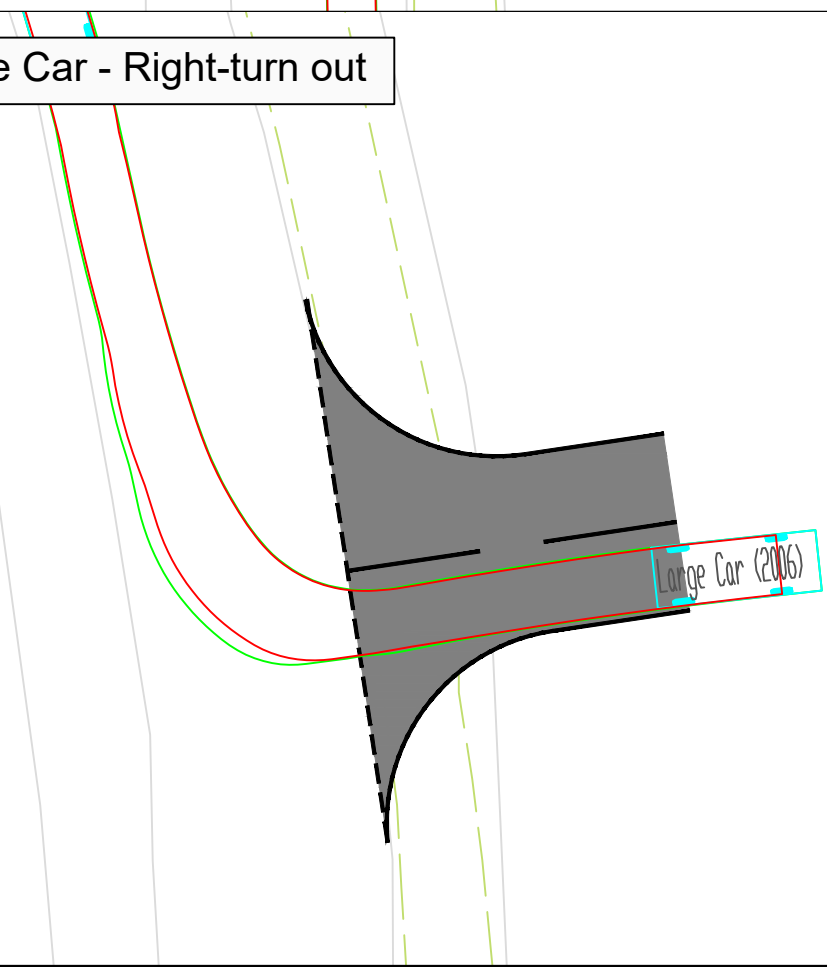
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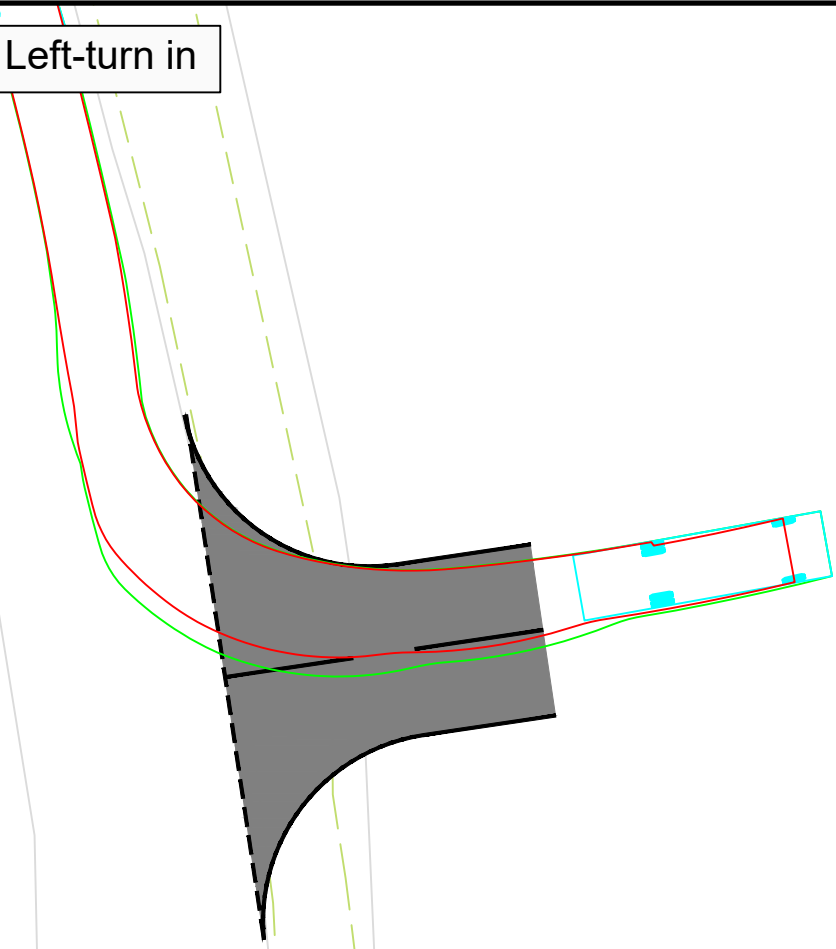
Land at Bradbury Farm, Crick

Monmouthshire County Council Sites

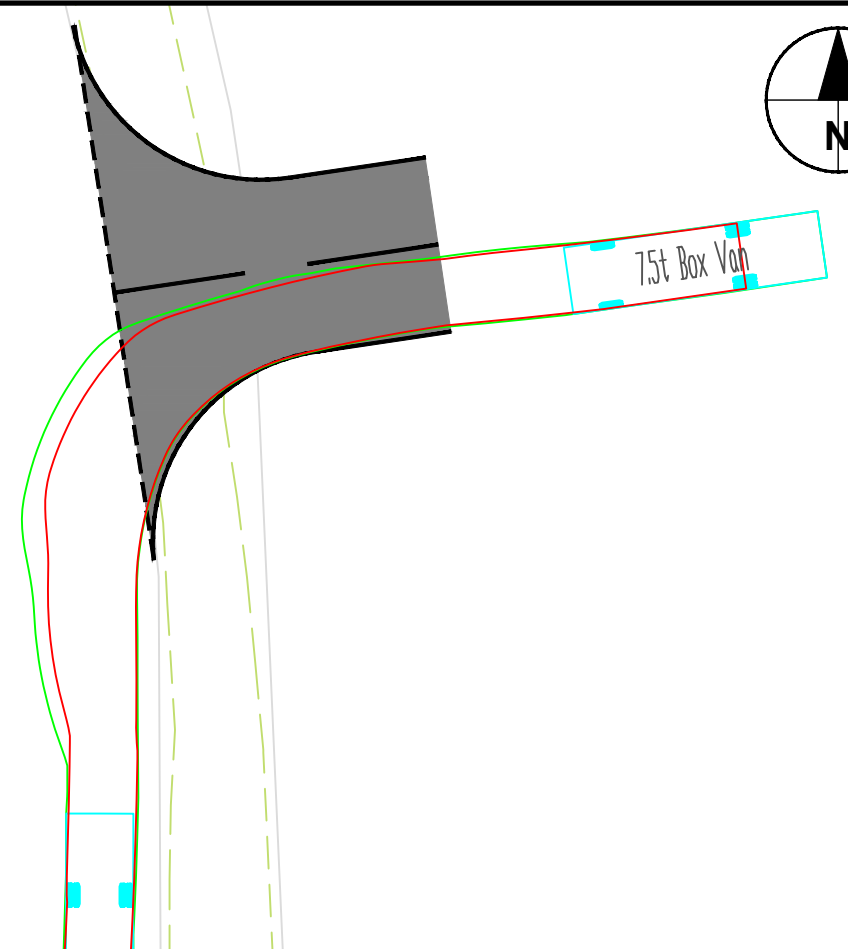
Site Access Considerations - Alternative Access Location - SPA



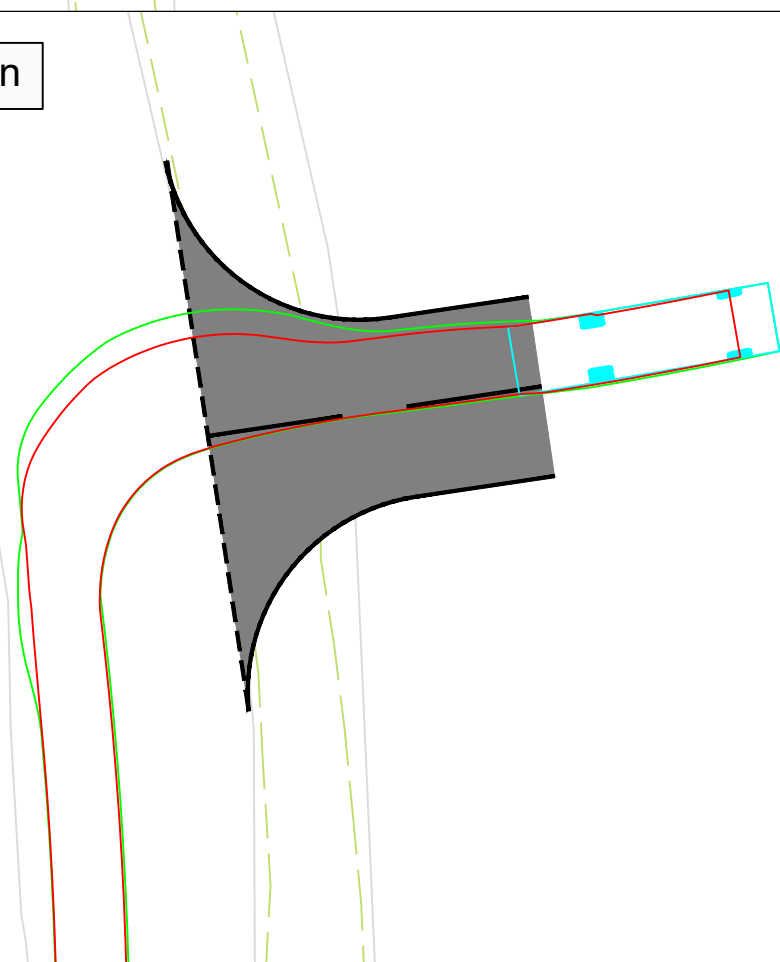
Delivery Van - Left-turn in



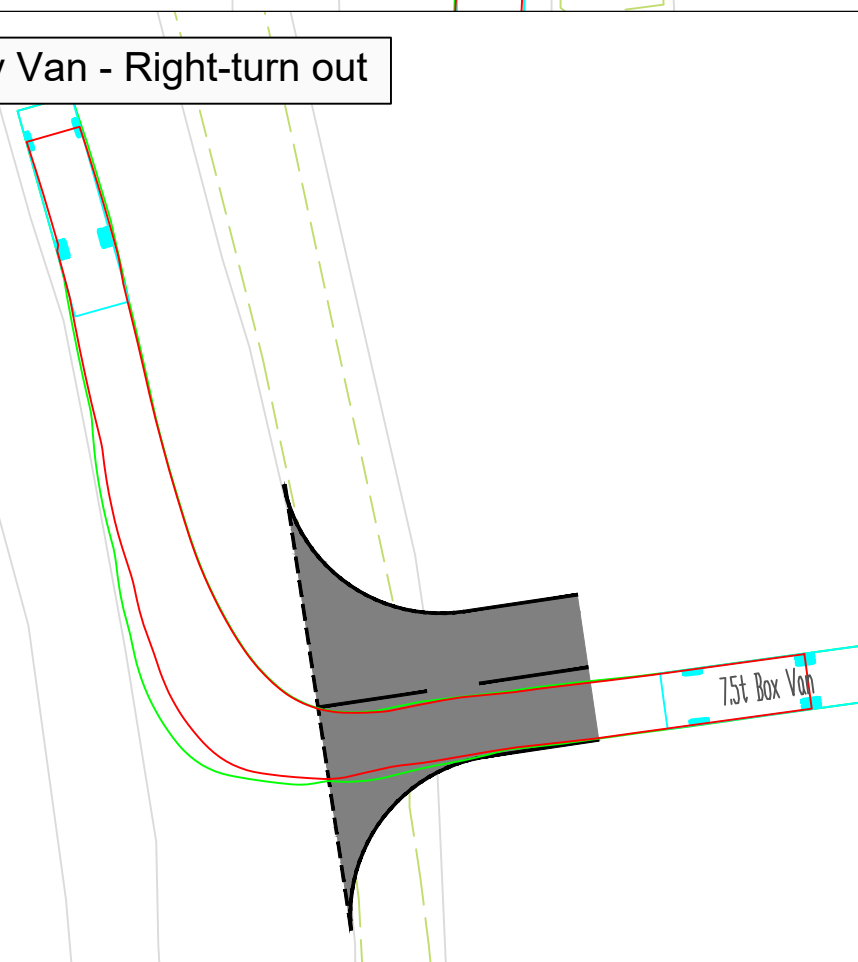
Delivery Van - Left-turn out



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

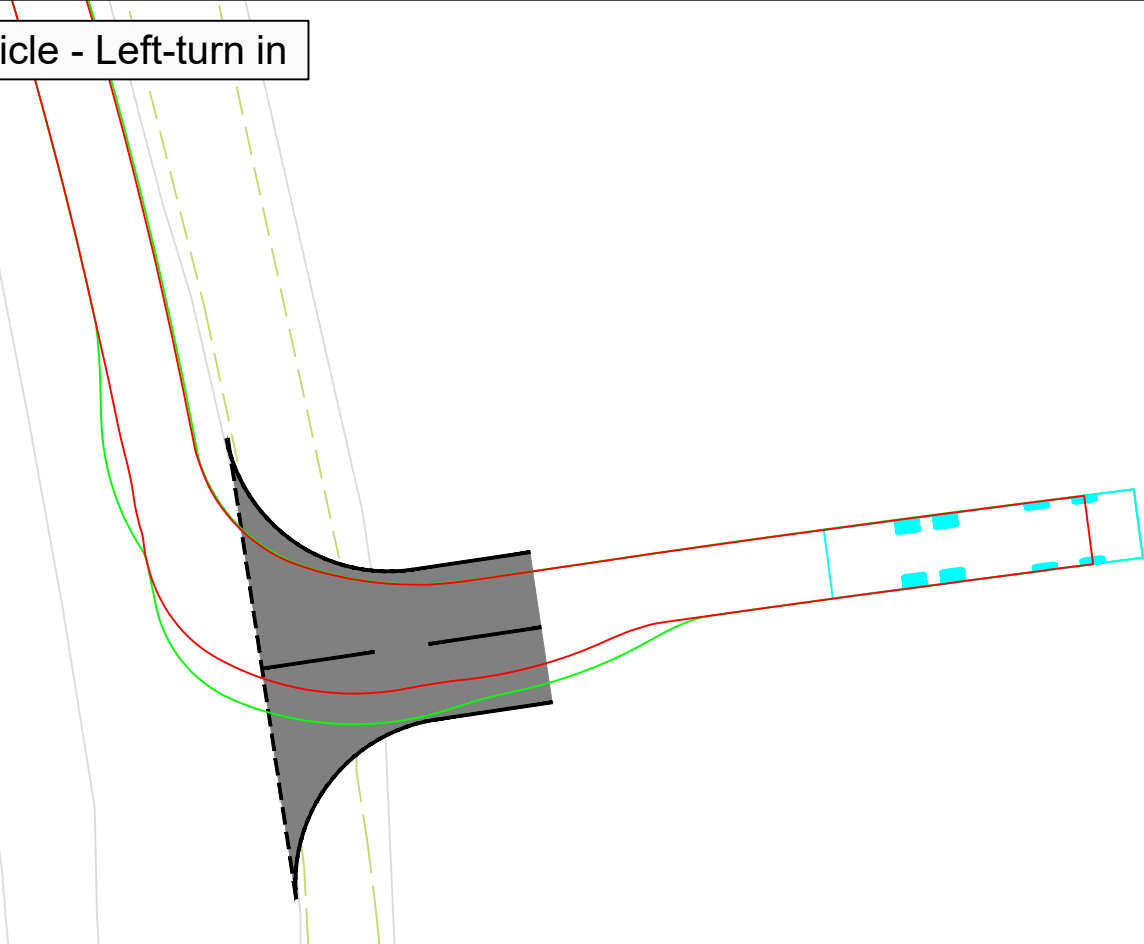
Land at Bradbury Farm, Crick

Monmouthshire County Council Sites

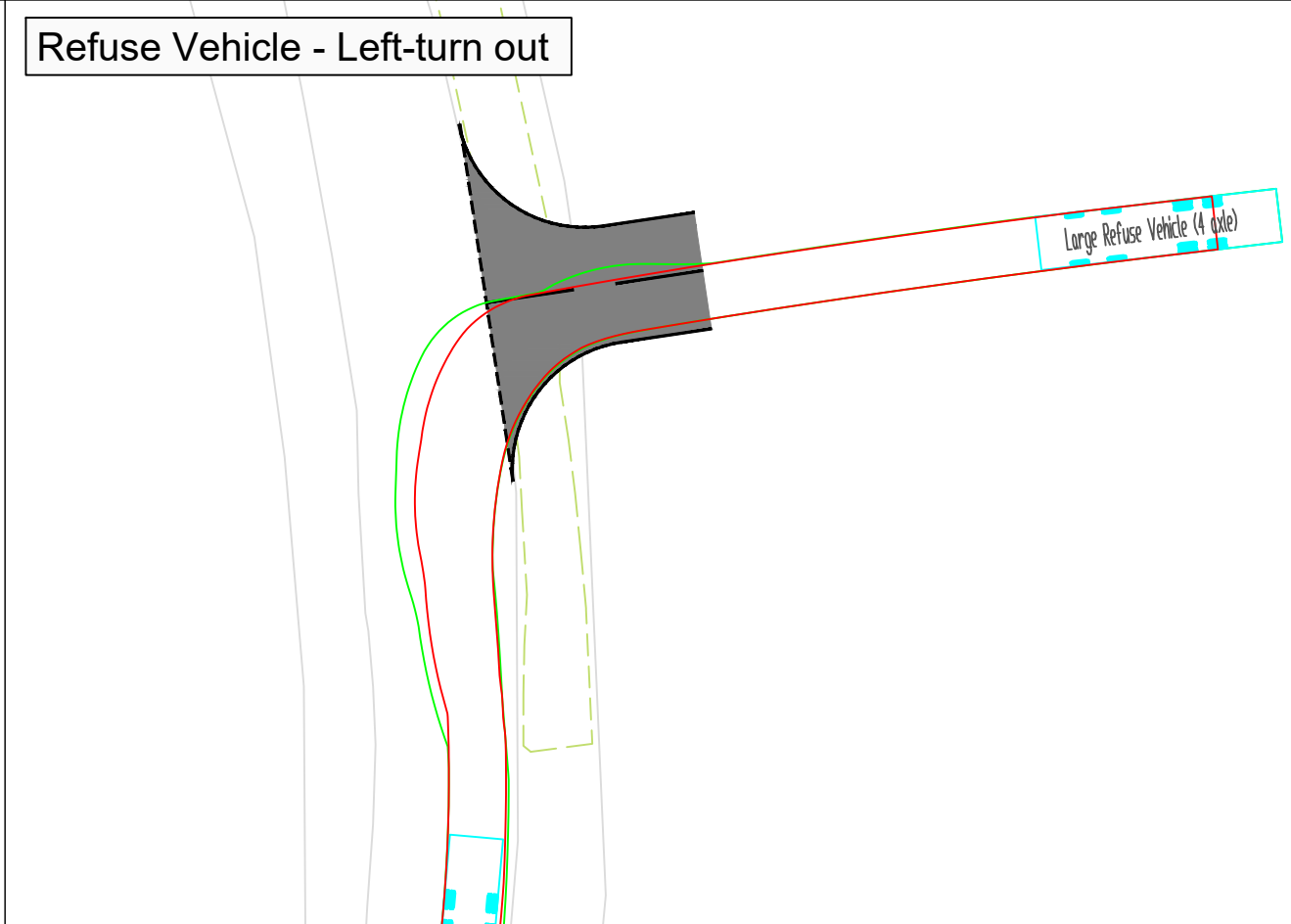
Site Access Considerations - Alternative Access Location - SPA



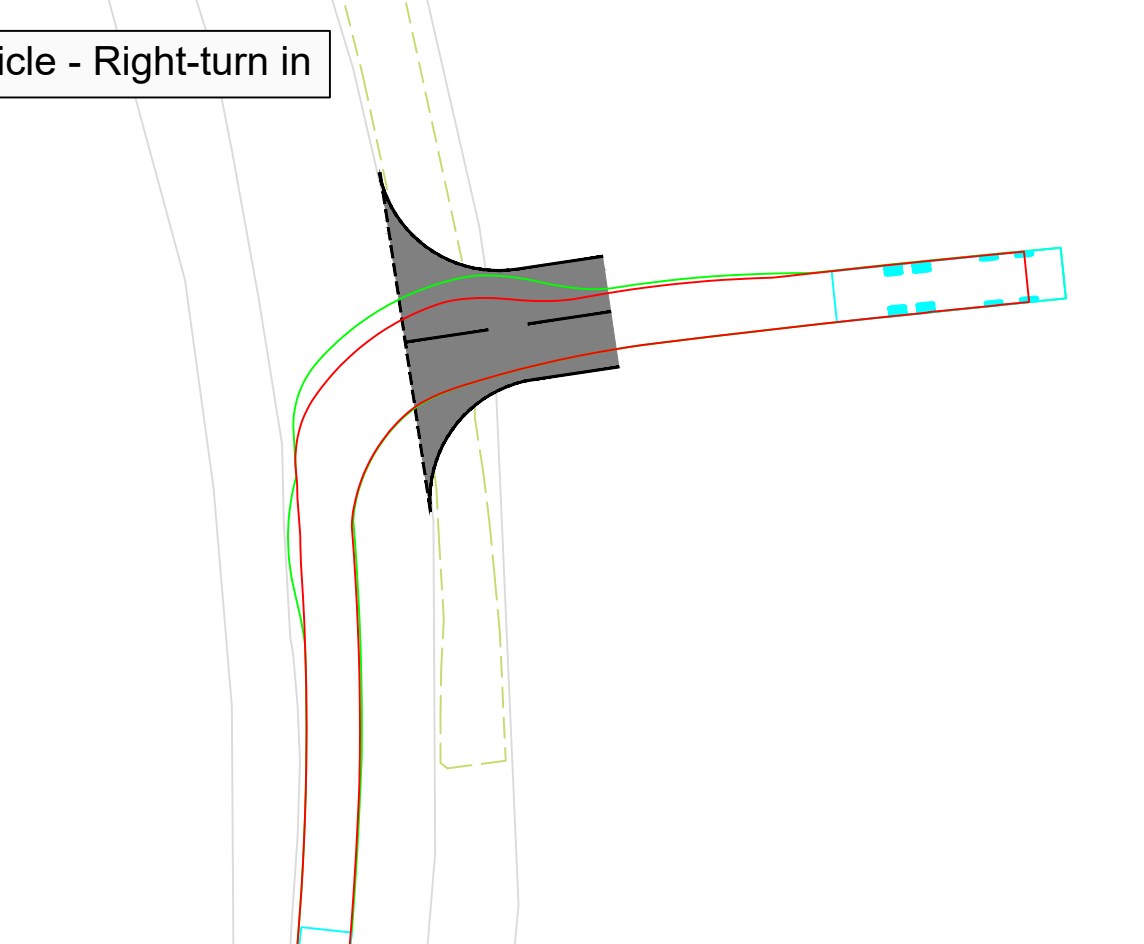
Refuse Vehicle - Left-turn in



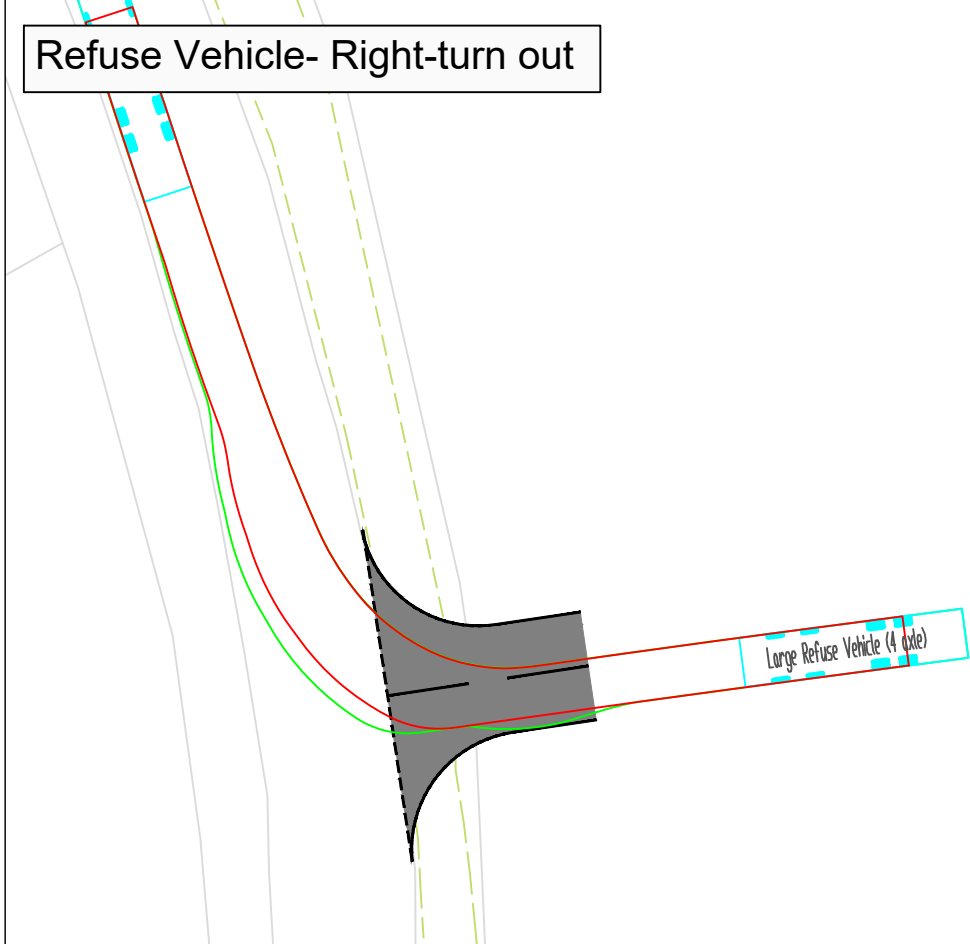
Refuse Vehicle - Left-turn out



Refuse Vehicle - Right-turn in



Refuse Vehicle- Right-turn out



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 Bradbury Farm, Crick

Monmouthshire County Council Sites
 Site Access Considerations - Alternative Access Location - SPA

