

CAPITAL TRANSPORT PLANNING

Transport Assessment

Cwm Marine Colliery Site, Ebbw Vale, April, 2021 Capital Transport Planning LTD <u>michael@capitaltp.co.uk</u> 02081681991 www.capitaltp.co.uk Company Registered Number: 10749657

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This Transport Assessment was prepared with the input of the council's Site Security Manager Peter George.

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1. Introduction

- 1.1.This Transport Assessment has been prepared by Capital Transport Planning on behalf of Blaenau Gwent County Borough Council (the applicant). Capital Transport Planning has been commissioned to assess the highway and transportation implications associated with the development proposals at the Cwm Colliery Site in Cwm.
- 1.2. The site is located in Cwm, a former coal mining village, community and electoral ward three miles south of Ebbw Vale in the county borough of Blaenau Gwent. It is centred approximately 1.5 miles south of Ebbw Vale Parkway railway station and 3 miles south Ebbw Vale Town railway station. Cwm is accessed and dissected by the A4046, which provides access to Waun-Lwyd to the north and Llan Dafel the south.
- 1.3. The site has an area of circa. 3.23. hectares and includes land at Marine Colliery Site. The site achieves vehicular access from the A4046/Railway Terrace roundabout.
- 1.4. This Transport Assessment has been prepared to support a full planning application for the re-provision of Blaenau Gwent County Borough Council's central depot and new centre of operations from the existing Barleyfield Industrial Estate to the Marine Collier Site in Cwm, Ebbw Vale.

1.5. Report Structure

1.6.The Transport Assessment will be structured as follows:

Chapter 2 - Transport Policy Context

Chapter 3 - Existing Conditions

Chapter 4 - Proposed Development

Chapter 5 - Transport Impacts and Distribution

Chapter 6 - Proposed mitigation and Sustainable Transport Strategy

Chapter 7 - Summary and Conclusions

2. Transport Policy Context

- **2.1.**This following section reviews relevant transport related planning policies. Policy documents that include transport policies relevant to the development proposals are set out below:
 - National Planning Policy Framework (2018)
 - Manual for Streets/Manual for Streets 2
 - Blaenau Gwent County Borough Council Adopted Development Plan – (2013)
 - Blaenau Gwent Borough County Council Access, Car Parking and Design SPD (2014)

2.2. National Planning Policy Framework (NPPF) (2018)

- **2.2.1.** The NPPF sets out guidance relating to parking standards within the chapter relating to sustainable transport. It is noted that the NPPF considers the location of a development in regard to parking standard. It also notes that proposals should only be refused on transport grounds if they compromise highway safety or result in a severe impact.
- **2.2.2.** The NPPF aims to bring about sustainable development and create positive growth, to create economic, environmental and social progress for this and future generations. This revised document supersedes the previous NPPF, published in 2012and 2018.
- 2.2.3. Section 9 of the NPPF focuses on promoting sustainable transport. NPPF Paragraph 111 states that all applications for developments that will generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment.
- **2.2.4.** Paragraph 108 states that in assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

Appropriate opportunities to promote sustainable transport modes can be –or have been taken up, given the type of development and its location;

• Safe and suitable access to the site can be achieved for all users; and

- Any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.
- **2.2.5.** The proposed development is in accordance with paragraph 110. The proposal addressed accessibility for pedestrians, provides cycle parking in accordance with local and regional policies, provides a car parking space for blue badge holders and electric vehicle charging points.
- **2.2.6.** NPPF Paragraph 103 states that significant development should be focussed on locations which are, or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes.
- **2.2.7.** NPPF Paragraph 110 states that developments should be located and designed to:
 - Give priority first to pedestrian and cycle movements, both within the scheme and within neighbouring areas; and second –so far as possible –to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;
 - Address the needs of people with disabilities and reduced mobility in relation to all modes of transport;
 - Create places that are safe, secure and attractive –which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;
 - Allow for the efficient delivery of goods, and access by service and emergency vehicles; and;
 - Where possible, be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations
- **2.2.8.** NPPF Paragraph 109 states that development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.

2.3. Manual for Streets (2007)/Manual for Streets 2 (2010)

- 2.3.1. Manual for Streets (MfS) (March 2007) also recognises the significance of the design of a development in encouraging sustainable modes of transport as paragraph 2.2.5 of MfS states that: "attractive and well-connected permeable street networks encourage more people to walk and cycle to local destinations, improving health while reducing motor traffic, energy use and pollution".
- **2.3.2.** Walking is widely considered to be the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly for journeys of less than 2km. It is also important to provide sustainable routes for journeys of greater distances through the provision of a high quality, safe, secure and reliable network of routes, with good interchanges, which match the pattern of travel demand in order to maximise public transport patronage.
- **2.3.3.** The 'Road User Hierarchy' as shown in the Figure 3.1and as described in Department for Transport publications MfS and 'Building Sustainable Transport into New Developments' (2008),also puts forward walking and cycling as the two preferred modes of travel, followed by public transport. It is recommended that where possible a scheme should follow this proposed hierarchy.
- **2.3.4.** As advised in MfS and summarised in Manual for Streets 2 (MfS2) (September 2010) Paragraph 5.1.3; encouraging walking has many benefits, including reductions in vehicle emissions and traffic collisions, and improvements in personal health. In summary the documents advise that:
 - The propensity to walk is influenced not only by distance, but also by the quality of the walking experience.
 - Good sightlines and visibility towards destinations and intermediate points are important for way-finding and personal security.
 - Pedestrian routes need to be direct and match desire lines as closely as possible, including across junctions, unless site-specific reasons preclude it.
 - Pedestrian networks need to be connected. Where routes are separated by heavily-trafficked routes, appropriate surface-level crossings should be provided where practicable.

- Pedestrians should generally be accommodated on multifunctional streets rather than on routes segregated from motor traffic. In situations where it is appropriate to provide traffic-free routes they should be short, well-overlooked and relatively wide.
- Obstructions on the footway should be minimised. Street furniture on footways can be a hazard for vulnerable people.
- There is no maximum width for footways; widths should take account of pedestrian volumes and composition.
- **2.3.5.** As with walking, MfS and MfS2 advise that cycling can bring about benefits in terms of vehicular emissions, traffic collisions and public health. To summarise, MfS2 Paragraph 6.1.3 states that:
 - Cyclists should be accommodated on the carriageway.
 - Cyclists prefer direct, barrier-free routes that avoid the need to dismount. Routes that take cyclists away from their desire lines and require them to concede priority to sideroad traffic are less likely to be used.
 - Off-carriageway cycle tracks that bring cyclists into conflict with side road traffic can be more hazardous than routes that stay on the main carriageway.
 - Cyclists are sensitive to traffic conditions; high speeds or high volumes of traffic tend to discourage cycling. If traffic conditions are inappropriate for on-street cycling, they should be addressed to make on-street cycling satisfactory.
 - Junctions should be designed to accommodate cyclist's needs. Over-generous corner radii that lead to high traffic speed should be avoided.

2.4. Blaenau Gwent County Borough Council – Adopted Local Development Plan – (2012)

2.4.1. Blaenau Gwent's Local Development Plan was released and adopted in 2012. The planning policy document aims to influence sustainable development and retain vital cultural and local characteristics. The Local Development Plan was developed in accordance with the NPPF and has been reviewed against the development proposals. The most relevant transport planning policies within the documents are policies DM1 and DM3 which are presented below:

Policy - DM1 New Development

Proposals will be permitted provided: -

- 3. Accessibility
 - a. The proposal has regard for the safe, effective and efficient use of the transportation network;
 - b. The proposal ensures that developments are designed to an appropriate standard that prioritises the interests of pedestrians, cyclists and public transport before that of the private car;
 - c. The proposal secures appropriate provision for people with special access and mobility requirements;
 - d. Parking, appropriate servicing and operational space has been provided; and
 - e. Where a Transport Assessment and Travel Plan is required by national planning policy, they must demonstrate that there will be no adverse impact on trip generation and travel demand.

2.4.2. Policy DM1 requires new developments to consider accessibility with particular regard to safety and promotion of walking cycling and increased public transport use.

2.4.3. Particularly, this policy resonates with the development proposals at it acknowledges the need for parking, servicing and operational parking, which is required and provided as a part of the proposed development. A Transport Assessment and Travel Plan is also provided in accordance with policy DM1.

Policy - DM3 Infrastructure Provision

 Proposals for new development will be expected to meet the infrastructure needs that it generates, including the improvement or provision of infrastructure, services and community facilities. Where onsite provision cannot be achieved, off-site provision or a financial contribution will be expected. Arrangements for the provision of infrastructure will be secured by the use of planning conditions attached to a planning permission or planning obligations in legal agreements or via the Community Infrastructure Levy. The Council will seek to ensure that, subject to viability, the impact of new development is mitigated to ensure that it contributes to the regeneration of local communities in Blaenau Gwent.

2.5. Blaenau Gwent Borough County Council - Access, Car Parking and Design SPD (2014)

- 2.5.1. This Supplementary Planning Guidance (SPG) was produced to expand on existing planning policy on accessibility set out in the Adopted Blaenau Gwent Local Development Plan (LDP). The document provides clear and consistent guidance to applicants on the requirements of the Local Planning Authority with respect to: street design, access, car parking requirements and car park design. This document sets out a revised set of parking standards appropriate to the specific characteristics and requirements of Blaenau Gwent.
- 2.5.2. The council's access, car parking and design SPD has been reviewed against the development proposals and it has been concluded that the council's depot operations is a specialist and uncommon proposal. It is therefore considered that the development proposals would naturally deviate from the standards set out in the document due to the nature of the proposal.
- 2.5.3. The proposed development has been reviewed against relevant national and local planning policy and it is concluded that the proposal is in accordance with the National Planning Policy Framework (2018) and Blaenau Gwent Borough Council's Local Development Plan (2012).

3. Existing Transport Conditions

3.1. Site Location

3.1.1. The application site is located in a 'village' or 'edge of town' location. The site is located in Cwm, which is to the south of Ebbw Vale. The application site is situated to the south of Blaenau Gwent County Borough.



3.1.2. The site location plan can be found in Figure 1 and Appendix A.

Figure 1. Location Plan

3.2. Site description

- **3.2.1.** The application site is comprised of open land which formed a part of the former Colliery Site. The site is currently being used as a Covid-19 vaccine distribution centre.
- **3.2.2.** The site has an area of circa. 3.23. hectares and includes land at Marine Colliery Site. The site achieves vehicular access from the A4046/Railway Terrace roundabout.

3.3. Accessibility

- **3.3.1.** The Department for Transport's 'Manual for Streets' (MfS) recognises that walking "offers the greatest potential to replace short car trips, particularly those under 2 km" and encourages development in locations where the daily needs of residents are within walking distance, thereby reducing the need to travel by car.
- **3.3.2.** The accessibility of the site has been assessed in terms of public transport, walking, cycling and the private car.

3.3.3. Existing Public Transport Facilities

3.3.3.1. The existing public transport facilities available in the vicinity of the site comprise of buses and rail.

3.3.4. Rail

3.3.4.1.It is centred approximately 1.5 miles south of Ebbw Vale Parkway railway station and 3 miles south Ebbw Vale Town railway station. The site access is located approximately 1.5 miles to the south of Ebbw Vale Parkway railway station, which is a 4-minute drive from the application site. It is on the Transport for Wales line and provides trains between Ebbw Vale Town and Cardiff Central.

3.3.5. Bus

- 3.3.5.1. The site benefits from a of bus service within easy walking distance of the site and can be accessed from the A4046 or Marine Street. The closest bus stops to the site are located on the A4046 at the Waterloo Terrace bus stops. The bus stops are approximately 0.2 miles, approximately 5-minutes walking distance from the site access and provides access to the bus 98.
- 3.3.5.2. The site is also located 0.4 miles south of The Marine Industrial Estate bus stops. The bus stop is an 8-minute walk from the site entrance and provides access to the bus 98 and E3. Further details on the bus services are presented in Appendix E.

3.3.6. Walking

- 3.3.6.1. The site is generally surrounded by bi-directional carriageways with footway provision on most road heading away from the application site. There is footway provision to the north of the site on Marine Street, Railway Terrace and partially on the A4046 heading south to the Waterloo Terrace bus stop.
- 3.3.6.2. There is no current footway provision from the A4046/Railway Terrace roundabout to the site entrance, resulting in driving being the safest way to access the site.

3.3.7. Local Highway Network

- 3.3.7.1. A description of the surrounding highway network, which provides access to the site, is set out below:
 - Marine Collier Access Road Un-adopted single lane bi-directional carriageway connecting the application site with the railway terrace roundabout. The private access road joins the public highway at the roundabout junction.
 - Railway Terrace Single carriageway bi-directional carriageway rural lane subject to a 30-mph speed limit on the immediate approaching to the roundabout. The road is subject to the national speed limit driving north on and street lighting is existing.
 - Marine Street Single lane bi-directional carriageway subject to a 30mph speed limit and street lighting is existing. Footway is provided on both sides of the road with double yellow lines enforcing parking restrictions.
 - A4046 (South) Single carriageway street subject to a 30-mph speed limit. Street lighting is provided and footways are provided towards the existing bus stop.
- 3.3.7.2. It is considered that the existing highway conditions are adequate to accommodate any increase in transport requirements linked to the proposed development.

3.3.8. Existing Council Depot – Barleyfield Industrial Estate – Trip Generation

- 3.3.8.1. The development proposal involves the re-location of the existing council depot to the proposed site in Cwm. It was agreed with the council's Highways officer that the existing trip generation and arrival and departure profile for the existing depot would also be representative of the proposed site in Cwm.
- 3.3.8.2. The council's depot at the Barleyfield Estate currently operates the following council services:
 - Bereavement Services
 - Highway Maintenance (Winter and Summer)
 - Refuse and Recycling Services
 - Street Lighting
 - Ground Maintenance Services
 - Social Services
- 3.3.8.3. Examples of the types of vehicles in use by council operatives for the services listed above are presented below in Figures 2, 3, 4 and 5.



Figure 2. Council Recycling Vehicle



Figure 3. Council Refuse Vehicle



Figure 4. Council Street Sweeper



Figure 5. Council Drainage Maintenance Vehicle

- 3.3.8.4. To determine the existing trip generation for the council's existing operations, a Manual Traffic Count (MTC) was undertaken with the assistance of the council's site manager Paul David.
- 3.3.8.5. The MTC took place on 09/03/2021 between 07:00 and 17:00 at the Central Depot at the Barleyfield Industrial Estate in Nantyglo. The MTC was carried out by the site access of the site which is presented below in Figure 6.



Figure 6. Barley Field Industrial Estate - Site Access

3.3.8.6. The MTC results have been separated into private vehicles and council operational vehicles. The MTC results are presented below in Table 1.

Time Range	Arrivals	Departures	Totals
07:00-08:00	75	22	97
08:00-09:00	13	11	24
09:00-10:00	2	1	3
10:00-11:00	0	0	0
11:00-12:00	0	5	5
12:00-13:00	5	19	24
13:00-14:00	6	9	15
14:00-15:00	1	26	27
15:00-16:00	4	13	17
16:00-17:00	0	0	0
17:00-18:00	0	0	0
Total	106	106	212

Table 1. Private Car Trip Generation

- 3.3.8.7. Table 1 demonstrates that the site generates up to 212 twoway. (106 in and 106 out) trips across the course of a typical day (07:00-18:00). The majority of arrivals occurred during 07:00 -08:00 and included drop offs of workers to the site which represent departures in the same hour. The information also highlights departures between 12:00-13:00 and 14:00-15:00.
- 3.3.8.8. The MTC results for the council's operational vehicles are presented below in Table 2.

Time Range	Arrivals	Departures	Totals
07:00-08:00	23	49	72
08:00-09:00	5	23	28
09:00-10:00	8	13	21
10:00-11:00	0	10	10
11:00-12:00	3	5	8
12:00-13:00	25	4	29
13:00-14:00	22	12	34
14:00-15:00	16	1	17
15:00-16:00	12	3	15
16:00-17:00	4	0	4
17:00-18:00	2	0	2
Total	120	120	240

Table 2. Council Operational Vehicles

- 3.3.8.9. Table 1 demonstrates that the site generates up to 240 twoway (120 in and 120 out) trips across the course of a typical day. The information shows that the majority of departures of the council's operational vehicles depart from the depot between 07:00-10:00. The information also indicates that the majority of operational vehicles arrive back to the site between 12:00-15:00.
- 3.3.8.10. The total arrivals and departures of vehicles associated with the council at the Barleyfield Industrial Estate is presented below in Table 3.

Time Range	Arrivals	Departures	Totals
07:00-08:00	98	71	169
08:00-09:00	18	34	52
09:00-10:00	10	14	24
10:00-11:00	0	10	10
11:00-12:00	3	10	13
12:00-13:00	30	23	53
13:00-14:00	28	21	49
14:00-15:00	17	27	44
15:00-16:00	16	16	32
16:00-17:00	4	0	4
17:00-18:00	2	0	2
Total	226	226	452

Table 3. Total Trip Generation

- 3.3.8.11. Table 3 demonstrates that up to 452 two-way (226 arrivals and 226 departures) trips are generated by the council (private cars and operational vehicles) at the Barleyfield Industrial Estate.
- 3.3.8.12. Table 3, highlights that a significant number of vehicle movements occur in the morning between 07:00-08:00. Vehicle movements are then distributed across the day with greater clusters occurring between 12:00-16:00.
- 3.3.8.13. The site security manager (Peter George), assisted in identifying council related vehicles and staff entering and leaving the site. It is considered that the MTC carried out at the councils existing depot at the Barleyfield Industrial Estate is representative of daily operations of the council's services.

3.3.9. Existing Access Arrangements

3.3.9.1. The application site includes one existing vehicular access point which is accessed from the railway terrace roundabout. The existing access gate is located approximately 160m from the railway terrace roundabout junction, which provides significant space for waiting vehicles. The existing access road from the roundabout towards the site is presented below in Figure 7.



Figure 7. Site Access Road

3.3.10. Public Highway

3.3.10.1. A public highway search has been undertaken to determine the extent of the public highway within the areas surrounding the site.
Public highway plans have been received from Blaenau Gwent County Borough Council (The Highway Authority) and this is presented in Appendix F.

3.3.11. Accessibility Summary

3.3.11.1. In summary, the redevelopment of the site for the council's depot service purposes offers the potential to promote sustainable means of travel that can be maximised through the provision of footway on the western side of the access road between the site and local bus stops.

4. Proposed Development

4.1. This section of the report presents the development proposals for the reprovision of Blaenau Gwent County Borough Council's central depot at the Marine Colliery site.

4.2. Site Access

- **4.2.1.** The council's proposed Central Depot is to be accessed from the existing access road from the Railway terrace roundabout. It is proposed that vehicular access and egress to the site will be managed by council staff via access barrier control. The location of the site access barrier control allows for queuing of vehicles along the site access road which can accommodate queuing vehicles without impacting the Railway Terrace roundabout.
- **4.2.2.** Pedestrian access to the site will be achieved via new footways on the site access road which will encourage travel to the site by walking and public transportation, which is presented below in Figure 8 and Appendix C.



Figure 8. Proposed Footway

4.3. Site Layout

- **4.3.1.** The proposed site layout for the application site has been designed to accommodate the council's existing services and potential future requirements. The site generally provides parking for the various council vehicles and associated buildings.
- **4.3.2.** The nature of the council's central depot had led to the site layout being vehicle oriented and specifically features parking bays, associated car washing facilities, general stores, welfare facilities and garage repair facilities.
- **4.3.3.** It is considered that the site layout has been designed to accommodate the existing council functions and has been designed to allow for vehicle turning to allow safe manoeuvres and movement around the site. The proposed site layout is presented below in Figure 9 and Appendix B.



Figure 9. Proposed Site Layout

4.4. Car Parking

- **4.4.1.** The specialist nature of the proposed development has resulted in the parking provision for the site deviating from the parking standards set out in Blaenau Gwent's Access, Car and Design SPD (2014).
- **4.4.2.** The central depot, responsible for managing the council's vital services including maintenance, highways, refuse and collections all require the use of vehicles. The council vehicles are required to perform tasks for these services and the proposed depot will utilised to maintain, load and unload and park the vehicles. A breakdown of the proposed vehicle parking and loading provision is presented below in Table 4 and presented above in Figure 9 and Appendix B.

Table 4. Proposed Vehicle Parking/Loading Provision

TYPE OF VEHICLE

NUMBER OF PARKING SPACES

REGULAR STAFF PARKING	50
REGULAR STAFF/VISITOR PARKING	67
COUNCIL SMALL VANS/CARS	16
COUNCIL LARGE VANS	42
COUNCIL 7.5TN VEHICLE	8
COUNCIL MINIBUS	8
COUNCIL GRAB LORRIES	13
COUNCIL RECYCLING VEHICLES	21
GENERAL PARKING/WAITING BAYS	8
GENERAL LARGE PARKING/WAITING BAYS	5
FLEET INTERNAL PARKING	15
TOTAL	253

4.4.3. Swept-path analysis has been undertaken for a number of parking spaces and loading bays across the site which are considered to require the greatest level of manoeuvring to access and egress. The swept-path analysis for the vehicle parking and loading bays presented in Table 4 and Figure 9 has been undertaken and is presented below in Figures 10, 11 and 12 and Appendix D.



Figure 10. Swept-Path Analysis 1



Figure 11. Swept-Path Analysis 2



Figure 12. Swept-Path Analysis 3

4.4.4. It is considered that Figures 10, 11 and 12 have sufficiently demonstrated that vehicles of varying sizes, ranging from standard private cars to refuse vehicle, can safely move around the site and manoeuvre in and out of the proposed parking spaces and loading bays. It should be noted that specific bays are provided for specific council functions and the various sizes of council vehicles have been catered for.

4.5. Cycle Parking

- **4.5.1.** As noted in para 4.10.1, the specialist nature of the proposed development has resulted in vehicle and cycle parking provision deviating from the requirements set out in the councils SPD (2014).
- **4.5.2.** During the Manual Traffic Count carried out at the Barleyfield Industrial Estate, 4 bicycles were recorded across the course of the day. It is proposed cycle parking for up to 20 cycle parking spaces will be provided at the proposed site. It is considered that the cycle parking provision, accompanied by the welfare (lockers and showers) will encourage staff to take up cycling and a mode of travel to and from the site.

4.6. Delivery and Servicing

- **4.6.1.** The future internal layout of the site will be designed with the council's Access, Car and Design (2014) in mind. The internal layout has been designed to accommodate a large council vehicle for the regular activities proposed at the site and the emergency services should an incident occur on-site.
- **4.6.2.** It is considered that the Central Depot is likely to be serviced occasionally and that adequate internal parking and general space can comfortably accommodate delivery and servicing activities without impacting the free flow of traffic on the public highway.

5. Trip Generation

- 5.1. The development proposal involves the re-location of the existing council depot to the proposed site in Cwm, Ebbw Vale. It was agreed with the council's Highways officer that the existing trip generation and arrival and departure profile for the existing depot would also be representative of the proposed trip generation for the site in Cwm.
- 5.2. The existing trip generation figures for the Barleyfield Industrial Estate have been replicated for the proposed trip generation and are presented below in Tables 5, 6 and 7.
- 5.3. The council's depot at the Barleyfield Estate currently operates the following council services:
 - Bereavement Services
 - Highway Maintenance (Winter and Summer)
 - Refuse and Recycling Services
 - Street Lighting
 - Ground Maintenance Services
 - Social Services
- 5.4. To determine the existing trip generation for the council's existing operations, a Manual Traffic Count (MTC) was undertaken with the assistance of the council's security site manager Peter George, who assisted in identifying council vehicles entering and leaving the site.
- 5.5. The MTC took place on 09/03/2021 between 07:00 and 17:00 at the Central Depot at the Barleyfield Industrial Estate in Nantyglo.
- 5.6. The MTC results have been separated into private vehicles and council operational vehicles. The MTC results are presented below in Tables 5, 6 and 7.

TIME	ARRIVALS	DEPARTURES	TOTALS
RANGE			
07:00-08:00	75	22	97
08:00-09:00	13	11	24
09:00-10:00	2	1	3
10:00-11:00	0	0	0
11:00-12:00	0	5	5
12:00-13:00	5	19	24
13:00-14:00	6	9	15
14:00-15:00	1	26	27
15:00-16:00	4	13	17
16:00-17:00	0	0	0
17:00-18:00	0	0	0
TOTAL	106	106	212

Table 5. Private Car Trip Generation

5.7. Table 5 demonstrates that the site generates up to 212 two-way. (106 in and 106 out) trips across the course of a typical day (07:00-18:00). The majority of arrivals occurred during 07:00 -08:00 and included drop offs of workers to the site which represent departures in the same hour. The information also highlights departures between 12:00-13:00 and 14:00-15:00. The MTC results for the council's operational vehicles are presented below in Table 6.

TIME	ARRIVALS	DEPARTURES	TOTALS
RANGE			
07:00-08:00	23	49	72
08:00-09:00	5	23	28
09:00-10:00	8	13	21
10:00-11:00	0	10	10
11:00-12:00	3	5	8
12:00-13:00	25	4	29
13:00-14:00	22	12	34
14:00-15:00	16	1	17
15:00-16:00	12	3	15
16:00-17:00	4	0	4
17:00-18:00	2	0	2
TOTAL	120	120	240

Table 6. Council Operational Vehicles

- 5.8. Table 6 demonstrates that the site generates up to 240 two-way (120 in and 120 out) trips across the course of a typical day. The information shows that the majority of departures of the council's operational vehicles depart from the depot between 07:00-10:00. The information also indicates that the majority of operational vehicles arrive back to the site between 12:00-15:00.
- 5.9. The total arrivals and departures of vehicles associated with the council at the Barleyfield Industrial Estate is presented below in Table 7.

TIME RANGE	ARRIVALS	DEPARTURES	TOTALS
07:00-08:00	98	71	169
08:00-09:00	18	34	52
09:00-10:00	10	14	24
10:00-11:00	0	10	10
11:00-12:00	3	10	13
12:00-13:00	30	23	53
13:00-14:00	28	21	49
14:00-15:00	17	27	44
15:00-16:00	16	16	32
16:00-17:00	4	0	4
17:00-18:00	2	0	2
TOTAL	226	226	452

Table 7. Total Trip Generation

- 5.10. Table 7 demonstrates that up to 452 two-way (226 arrivals and 226 departures) trips are generated by the council (private cars and operational vehicles) at the Barleyfield Industrial Estate.
- 5.11. Table 7, highlights that a significant number of vehicle movements occur in the morning between 07:00-08:00. Vehicle movements are then distributed across the day with greater clusters occurring between 12:00-16:00.
- 5.12. The site security manager (Peter George), assisted in identifying council related vehicles and staff entering and leaving the site. It is considered that the MTC carried out at the councils existing depot at the Barleyfield Industrial Estate is representative of daily operations of the council's services.

- 5.11. It should be noted that over the course of the Manual Traffic Count, 4 cycling trips were recorded.
- 5.12. The proposed site access is considered to be well placed and sufficient in design to accommodate the proposed trip generation of the Central Depot operations. The ATCs on all four arms of the roundabout counted over 100,000 total vehicles over a 7-day period.
- 5.13. It should be noted that the application site is currently in use as a Covid-19 vaccination site, which has introduced traffic to the existing roundabout with no highway safety concerns.
- 5.14. It is therefore considered that the proposed 452 two-way trips to be generated would have a negligible impact to the operations and safety of the public highway.

5.15. Modal Split

5.16. From the information gained from the Manual Traffic Count, it was possible to ascertain an existing modal split for the council's Central Depot. The existing modal split for the council's operations are presented below in Table 8.

Table 8. Existing	Modal Split
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MODE OF TRAVEL	MODAL	
	SPLIT	
VEHICLE (DRIVER)	50%	
VEHICLE (PASSENGER)	48%	
CYCLISTS	2%	
PEDESTRIANS	0%	
PUBLIC TRANSPORT	0%	
TOTAL	100%	

5.17. The proposed modal split has utilised the existing modal split and has fairly redistributed across the modes in accordance with the aspirations of the sites travel plan.

Table 9. Proposed Modal Split

MODE OF TRAVEL	MODAL
	SPLIT
VEHICLE (DRIVER)	40%
VEHICLE (PASSENGER)	35%
CYCLISTS	10%
PEDESTRIANS	5%
PUBLIC TRANSPORT	10%
TOTAL	100%

5.18. The proposed modal split in Table 9 demonstrates an aspiration of a shift of trips to and from to be sustainable, with increases to walking, cycling and public transport, in comparison to existing modes. It is acknowledged that vehicle trips, driver and passenger are likely to remain dominant due to the site's location.

6. Transport Impacts

6.1. To consider the transport related impacts of the proposed development, the trip assessment from the previous chapter have been assessed. All trips associated with the development proposals have been assessed as 'new' trips in terms of its impact on the highway network. Table 10 below presents the summary of peak hour transport impacts for the proposed development.

	AM PE 0	K (07:00 - PM PEAK (14:00- :00) 15:00)		AM PEAK (07:00 - PM PEAK (14:00- 08:00) 15:00)		PM PEAK (14:00- 15:00)	
	Arrivals	Departures	Arrivals	Departures			
CAR DRIVER	45	15	1	20	160		
VEHICLE OCCUPANTS	30	7	0	6	52		
OGV/LGVS	23	49	16	1	240		
CYCLISTS	4	0	0	1	8		
PEDESTRIANS	0	0	0	0	0		
PUBLIC TRANSPORT	0	0	0	0	0		
TOTAL	102	71	17	28	460		

Table 10. Multi modal trips associated with 'Proposed Development'

6.2. Automatic Traffic Counts

- 6.2.1. Automatic traffic counts (ATC) were installed on all four arms of the Railway Terrace Roundabout. It was agreed with council officers that ATC's would be installed across all four arms of the roundabout to capture vehicle volumes, vehicle speeds and distribution. It was agreed that the ATC's would be installed for 7 days.
- 6.2.2. The full results of the four automatic traffic counts has been submitted to the council with this Transport Assessment and is summarised below in Table 11.

Table 11. ATC Summary

LOCATION	TOTAL VEHICLES	% NORTH	% SOUTH	AVERAGE SPEED (MPH)	85TH PERCENTILE (MPH)
SITE ACCESS ROAD	1931	50	50	19	24
MARINE STREET	12724	48	52	38	41
RAILWAY TERRACE	42392	51	49	42	51
A4046 (SOUTH)	50245	49	51	34	39

- 6.2.3. The ATCs indicated that a total of 1,931 vehicles passed over the counters on the site access road over the 7-day period. These vehicle numbers include 965 vehicles passing to the north and 966 to the south, which represents an even distribution of vehicles over the counters. The ATCs also indicated that the average speed over the traffic counters at this location was 19 mph, with an 85th percentile speed of 24 mph.
- 6.2.4. The ATCs indicated that a total of 12,724 vehicles passed over the counters on the Marine Street arm of the roundabout over the 7-day period. These vehicle numbers include 6,111 vehicles passing to the north and 6,613 to the south, which represents an even distribution of vehicles over the counters. The ATCs also indicated that the average speed over the traffic counters at this location was 38 mph, with an 85th percentile speed of 41 mph.
- 6.2.5. The ATCs indicated that a total of 42,392 vehicles passed over the counters on the A4046 south of the roundabout over the 7-day period. These vehicle numbers include 21,419 vehicles passing to the north and 20,973 to the south, which represents an even distribution of vehicles over the counters. The ATCs also indicated that the average speed over the traffic counters at this location was 42 mph, with an 85th percentile speed of 51 mph.

- 6.2.6. The ATCs indicated that a total of 50,245 vehicles passed over the counters on the A4046 south of the roundabout over the 7-day period. These vehicle numbers include 24,6378 vehicles passing to the north and 25,608 to the south, which represents an even distribution of vehicles over the counters. The ATCs also indicated that the average speed over the traffic counters at this location was 34 mph, with an 85th percentile speed of 39 mph.
- 6.2.7. The full results of the ATC's have been submitted to the Local Highway Authority and is available in Microsoft Excel Format.

6.3. Vehicle Trip Distribution

- 6.3.1. The level of vehicular trips has been established, these trips have been distributed onto the local highway network. The methodology undertaken in respect to establishing vehicular distribution has been set out below.
- 6.3.2. The Department for Transport's 'Guidance on Transport Assessment' recommends that the distribution of development related trips should be based on an appropriate methodology, such as census data analysis, gravity model, existing traffic flow patterns or area wide traffic models.
- 6.3.3. In order to determine traffic distribution from the site access, data was derived from the Automatic Traffic Counts (ATCs), which were installed at on all four arms of the Railway Terrace roundabout. The ATC results indicated that a total of 107,292 vehicles passed over the counters during the 7-day period. The ATC results indicated that 46% of those vehicles passed over the A4046 counters, 40% over the Railway Terrace counters, 12% Marine Street counters and 2% over the access road counters. Each ATC demonstrated an approximate 50/50 split between vehicles heading north and south on each arm. It is therefore considered that the

ARM OF ROUNDABOUT	DISTRIBUTION (%)
SITE ACCESS ROAD	2
MARINE STREET	12
RAILWAY TERRACE	40
A4046 (SOUTH)	46

Table 12. Estimated Vehicle Distribution

6.3.4. Based on the above assumptions, the information has been used to inform the distribution of development traffic onto the Railway Terrace, to the east and west of the site access.

6.3.5. Vehicular Impacts

- 6.3.6. The vehicular trips associated with the development proposals have been distributed onto the local highway network in accordance with the above traffic distribution methodology. Table 12 below, presents the vehicular transport impacts associated with the development proposals, for both AM and PM peak periods.
- 6.3.7. For the purposes of peak hour distribution below, 'north' represents Railway Terrace and 'south' represents the A4046 (south).

Table 13. Distribution of vehicular trips for AM and PM peak periods

	AM PEAK	AM PEAK (08:00 -09:00)			PM PEAK (17:00-1800)			
ARRIV	ALS	Departures		Arrivals		Departures		
102	2	7	1	1	17	2	8	
ARRIVALS FROM SOUTH	Arrivals from north	Departures to south	Departures to north	Arrivals from south	Arrivals from north	Departures to south	Departures to north	
47	41	33	28	8	7	13	11	

6.3.8. From Table 13 above, it can be seen that the development proposals would result in the following impacts:

AM Peak Period (08:00-09:00)

- 80 two-way vehicle trips (arrivals and departures) from and to the south of the roundabout.
- 69 two-way vehicle trips (arrivals and departures) from and to the north of the roundabout.

PM Peak Period (14:00-15:00)

- 21 two-way vehicle trips (arrivals and departures) from and to the south of the roundabout.
- 18 two-way vehicle trips (arrivals and departures) from and to the north of the roundabout.
- 6.3.9. Beyond the Marine Terrace Roundabout, the identified impacts will become less apparent as trips are dissipated within the highway network. Given the above analysis, it is apparent that the peak hour impacts, that will be experienced within the adjacent highway, will be below that where junction modelling would typically be required. On this basis no further modelling of vehicular impacts has been undertaken and it is concluded that the proposed development will not result in a material impact on the operation of the wider highway network.

6.4. Road Safety Impacts

6.4.1. A review of the road safety record of the highway network in the immediate vicinity of the has been undertaken. A copy of the Personal Injury Accident (PIA) records has been obtained from CRASHMAP for the five-year period between 18/12/2016 to 17/04/2021. Figure 13 presents the roads and junctions included within the study area.



Figure 13. Personal Injury Accident Study Area

- 6.4.2. The PIA data received from CRASH MAP indicates that there has been a total of 4 accidents that have been recorded within the study area within the most recent five-year period. Three of the PIA's were classified as 'slight' and there was one recorded as 'fatal'.
- 6.4.3. In summary, having the available PIA data it is evident that there are no PIAs, within the latest five-year period, that relate to the existing site access road. There is no evidence of PIAs occurring as a result of vehicles turning from the roundabout. It is also apparent that the local highway network does not suffer from any significant defects that have resulted in an abnormally high PIA record that can be attributed to the standard of the adjoining highway.
- 6.4.4. The above information indicates that the development proposals will not prejudice road safety within the neighbouring highway network. The future access proposals, within close proximity of the level crossing, will provide enhanced conditions of road safety having regard to the historic level of PIAs that have occurred within the adjoining highway in this location.

6.5. Transport Impacts Summary

- 6.5.1. The road safety implications of the proposed development have been reviewed and it is concluded that the proposed development will not prejudice road safety within the neighbouring highway network. The existing access arrangement to the site is not likely to be sufficient in terms of design. The proposed access arrangements will improve movements from and on to the Railway Terrace roundabout and is not likely to result in a material impact on the operations of the wider highway network.
- 6.5.2. In accordance with the relevant transport policies, mitigation measures are proposed with the aim of enhancing sustainable travel infrastructure to ensure reasonable measures are taken to encourage sustainable travel. Measures aimed at enhancing sustainable travel in accordance with national, regional and local policy are set out within the next chapter.

7. Mitigation and Sustainable Transport Strategy

- 7.1. As demonstrated within this Transport Assessment, the proposed development can be accommodated without prejudicing safety or the free flow of traffic on the public highway. A package of mitigation measures has been developed to maximise sustainable travel opportunities, with a focus on giving priority to pedestrians and cyclists and access to public transportation facilities, whilst minimising the conflict between traffic pedestrians or cyclists.
- 7.2. The redevelopment of the site for council's Central Depot will assist in the delivery of the following key transport improvements:
 - The provision of a footway on the east and west of the access road linking the site access to existing footways towards existing bus stops;
 - Financial contribution towards upgrading bus stop facilities in vicinity of the application site;
 - Financial contribution towards road safety improvements (including white lining and safety signage).
- 7.3. The provision of the above mitigation measures will enhance the level of accessibility (to sustainable transport) for future residents and the site will be well placed to maximise use of public transport modes that will be accessible by foot or cycle from the site.

7.4. Travel Plan

- 7.5. As set out within section 2 of this Transport Assessment, the National Planning Policy Framework states that all developments which generates significant amounts of movement should also provide a travel plan. A Travel Plan is a long-term management strategy for a site that seeks to deliver sustainable travel objectives through actions, monitoring and review.
- 7.6. Travel Plans can positively contribute to encouraging sustainable travel; lessening traffic generation and its detrimental impacts; reducing carbon emissions and climate impacts; creating accessible, connected, inclusive communities; improving health outcomes and quality of life; improving road safety; and reducing the need for new development to increase existing road capacity or provide new roads.

7.7. To accord with national and local policy and to minimise transport impacts associated with the proposed development, a Residential Travel Plan will be submitted as a part of the reserved matters planning submission. The main objective of the Residential Travel Plan will be to provide a long-term strategy for encouraging future residents to reduce dependency on travelling as single occupancy drivers in favour of alternative sustainable modes of transport.

8. Summary and Conclusions

- 8.1. This Transport Assessment has been prepared by Capital Transport Planning on behalf of Blaenau Gwent County Borough Council (the applicant). Capital Transport Planning has been commissioned to assess the highway and transportation implications associated with the development proposals at the Cwm Colliery Site in Cwm.
- 8.2. The site is located in Cwm, a former coal mining village, community and electoral ward three miles south of Ebbw Vale in the county borough of Blaenau Gwent. It is centred approximately 1.5 miles south of Ebbw Vale Parkway railway station and 3 miles south Ebbw Vale Town railway station. Cwm is accessed and dissected by the A4046, which provides access to Waun-Lwyd to the north and Llan Dafel the south.
- 8.3. The site has an area of circa. 3.23. hectares and includes land at Marine Colliery Site. The site achieves vehicular access from the A4046/Railway Terrace roundabout.
- 8.4. This Transport Assessment has been prepared to support a full planning application for the provision of the Blaenau Gwent County Borough Council's new centre of operations which will accommodate the council works depot. The Transport Assessment has assessed matters relating to highways and transport, it is concluded that:
 - The delivery of the proposed footways and highway safety improvements secured through a section 106 obligation and delivered through section 278 agreement;
 - Off-street car parking and loading facilities are provided in accordance with the requirements of the council's Central Depot requirements;
 - Sufficient cycle parking and associated welfare facilities are proposed to encourage and facilitate the uptake of cycling to and from the site;
 - The transport impacts associated with the proposed development have been assessed and it is concluded that the development can be delivered without prejudicing safety and the free flow of traffic on the public highway;
 - A Travel Plan has been prepared and submitted alongside this planning application to encourage sustainable travel to and from the site.

- 8.5. It is concluded that the development proposals are in accordance with the guiding principles of the National Planning Policy Framework and relevant transport policies.
- 8.6. For the reasons stated above and on the basis of the assessment carried out, it is considered that the development proposals can be delivered without detriment to the public highway. Therefore, there are no reasons why planning permission should not be granted relating to highways and transportation.



86	Ebbw Vale - Brynmawr
	Stagecoach South Wales
	Mondays to Fridays [1]
	Ebbw Vale, Learning Zone (Stop 1) dep 15:40 16:40
	Station Road before Park View Street, Waunllwyd 15:48 16:48
	Cwm, nr Cwm Bridge 15:50 16:50
	Woodland Terrace at Square, Aberbeeg 15:56 16:56
	Bridge Street before Hafod-fan Road, Six Bells 16:00 17:00
	Abertillery, High Street (Stop B) 16:05 17:05
	Cwmtillery, opp Lake 17:12
	High Street after Post Office, Blaina 17:25
	Garn Cross at Garn Cross, Nant-y-glo 17:31
	Brynmawr, Bus Station (Stand 2) <i>arr</i> 17:35
[1] Only runs on Mc Compiled from data	nday, Tuesday for the period Wed 07-Apr-2021 to Tue 13-Apr-2021.
86	Abertillery - Ebbw Vale
	Stage coach South Wales
	Mondays to Fridays [1]
	Abertillery, High Street (Stop B) dep 08:28
	Cwmtillery, opp Lake 08:35
	Abertillery, nr Foundry Bridge 08:42
	Six Bells, nr Browns Corner 08:46
	B4471 at Square, Aberbeeg 08:50
	Cwm, nr Cwm Bridge 08:56
	Waunllwyd, opp Park View Street 08:58
	Ebbw Vale, opp Ysbyty Aneurin Bevan 09:03
	Ebbw Vale, Learning Zone (Stop 3) arr 09:05
[1] Only runs on Mc	rday, Tuesday
(omnied from data	זמי זמף מפיוומי ערפי ער א מיאנאר זמ דווף וא מיאנא ו

Compiled from data for the period wed Ur-Apr-2421 to Tue 13-Apr-2421