

11.

Traffic and Movement

11. Traffic and Movement

11.1 Introduction

- 11.1.1 This Chapter assesses the environmental effects of traffic and movement associated with the Project. It considers traffic and movement effects in accordance with Institute of Sustainability and Environmental Professionals (ISEP) Guidelines: Environmental Assessment of Traffic and Movement.¹
- 11.1.2 As detailed in Chapter 2 Approach to EIA this chapter only considers the construction phase of the Project. The operational traffic is not expected to meet the criteria where environmental assessment of traffic and movement is required.
- 11.1.3 This Chapter forecasts the significance of environmental effects resulting from the additional vehicular road traffic generated during construction of the Project. The assessment considers the sensitivity of receptors on Study Area roads against changes in traffic forecast to consider potential significant environmental effects. Environmental topics assessed include severance, fear and intimidation, road safety, non-motorised user amenity and delay, driver delay and large or hazardous loads.
- 11.1.4 As discussed in Chapter 4 Project Description, the Project refers to a series of different components which include:
- New build Overhead Line (known as the WB Route), including the CB Route Removal and AA Route Undergrounding
 - Upgraded Overhead Lines (known as the ZG, XX and XR Routes)
 - Denny North Substation Works
 - Bonnybridge Substation Extension
 - Wishaw Substation Extension
 - Cumbernauld Substation Extension
- 11.1.5 This chapter will also provide a project-wide assessment including all components of the Project.
- 11.1.6 The geographical extent of the traffic and movement assessment has been informed by the IEMA² Guidelines Environmental Assessment of Traffic and Movement (herein referred to as the IEMA Guidelines). Criteria within the guidelines are used to establish an appropriate Study Area. The Study Area is based on public roads that provide sub-regional and local access to the Project Site, and on which the impact of development traffic may need to be considered. Traffic surveys were carried out on these roads during 2025 to provide baseline traffic conditions for this chapter.

¹ Institute of Environmental Assessment (2023) The Institute of Environmental Assessment Guidelines for the Environmental Assessment of Road Traffic (<https://www.hwa.uk.com/site/wp-content/uploads/2025/01/24.15-Environmental-Assessment-of-Traffic-Movement-July-2023.pdf>).

² Now named the Institute of Sustainability and Environmental Professionals (ISEP)

- 11.1.7 Construction Traffic Management Plans (CTMP) provided by the contractor have been used to forecast vehicle movements on study area roads associated with the construction of the Project.
- 11.1.8 Environmental effects of traffic and movement are reported as being either Not Significant or Significant. Mitigation for Significant effects is presented, and post-mitigation environmental effects (residual effects) are assessed and reported. Inter cumulative effects based on the cumulative schemes identified in Chapter 15 are assessed and reported.
- 11.1.9 This chapter is supported by the following Figures and Technical Appendix:
- Figure 11.1 – Study Area Roads
 - Figure 11.2 – Traffic Survey Locations
 - Figure 11.3 – Injury Accident Locations 2020-2024
 - Volume 3, Appendix 11.1 – Transport Assessment

11.2 Legislation and Policy

Legislation

Road Vehicles (Construction and Use) Regulations 1986 and the Special Types General Order (STGO) (2003)

- 11.2.2 In the UK, the dimensions and weights of vehicles used on roads are regulated by the Road Vehicles (Construction and Use) Regulations 1986. Vehicles which do not meet Construction and Use Regulations can be used on roads under the Road Vehicles (Authorisation of Special Types) (General) Order 2003. This Order, commonly referred to as STGO, ensures that oversized or overweight Abnormal Indivisible Loads (AIL) are moved safely and with minimal disruption to other road users.
- 11.2.3 Vehicles transporting AIL are categorised under four main STGO classes, each with specific conditions:
- Category 1: Vehicles carrying loads up to 50,000 kg, requiring a minimum of 6 axles and specific notifications to authorities;
 - Category 2: Vehicles carrying loads up to 80,000 kg, which must adhere to more stringent axle and speed restrictions;
 - Category 3: Vehicles carrying loads up to 150,000 kg, where detailed planning and notification are critical; and
 - Special Order Movements: Vehicles must have a special order if they are more than 150,000kg or 16,500kg in weight per axle, 6.1 m wide or 30 m long in rigid length when loaded. These vehicles are required to give 5 working days' notice to highway and bridge authorities and 2 working days' notice to police.
- 11.2.4 Each category mandates the use of STGO plates, indicating the vehicle's classification and ensuring compliance with weight and speed regulations.

National Policy

National Transport Strategy 2 (NTS2) (2020)

11.2.5 National Transport Strategy 2 (NTS2) sets out an ambitious and compelling vision for Scotland's transport system for the next 20 years. The vision is to have a sustainable, inclusive, safe, and accessible transport system, helping to deliver a healthier, fairer, and more prosperous Scotland for communities, businesses, and visitors.

11.2.6 Four priorities which support the vision are as follows:

- Reduce inequality;
- Take climate action;
- Help deliver inclusive economic growth; and
- Improve health and wellbeing.

Climate change: Scottish National Adaptation Plan 2026-2040

11.2.7 The Scottish National Adaptation Plan 2026-2040 sets out the policies and proposals that the Scottish Government and partners will take to respond to the impacts of climate change over this period. It sets out actions to build Scotland's resilience to climate change through support for our communities, businesses, public services and nature to adapt to the changing climate in a way that is fair and inclusive.

National Planning Framework 4 (NPF4) (2023)

11.2.8 NPF4 was adopted by the Scottish Ministers in February 2023 and forms the upper tier of the statutory development plan. NPF4 sets out how the Scottish Government's approach to planning and development will help to achieve a net zero, sustainable Scotland by 2045.

11.2.9 NPF4 sets out the following overarching spatial principles to support the planning and delivery of the three key National Planning Policy areas:

- Sustainable Places;
- Liveable Places; and
- Productive Places.

11.2.10 NPF4 identifies a 'National Spatial Strategy' and states that development proposals of all forms of renewable, low carbon and zero emissions technologies will be supported. Under Policy 11 (Energy), development proposals for renewable energy projects must demonstrate how the following impacts are mitigated and addressed:

- Impacts on public access, including long distance walking and cycling routes and scenic routes; and
- Impacts on road traffic and on adjacent trunk roads, including during construction, and cumulative impacts.

Planning Advice Note 75 – Planning for Transport (PAN 75) (2025)

11.2.11 Scottish PAN 75 – Planning for Transport is a planning circular produced by the Scottish Government which provides good practice on planning and transport. This includes

guidance on integrating transport, transport modelling, policy development, development management, planning agreements and environmental assessment³.

Design Manual for Roads and Bridges (DMRB)

- 11.2.12 The Design Manual for Roads and Bridges (DMRB) sets out standards for trunk roads, but these are also applicable in certain cases to non-trunk roads. It is the official UK standard for the design, assessment, construction, and maintenance of motorway and trunk road infrastructure, including roads and bridges.

Transport Assessment Guidance (TAG) (2012)

- 11.2.13 Transport Assessment Guidance (TAG) produced by Transport Scotland in 2012 provides guidance and information for the content, methodology and approach of producing Transport Assessments, Transport Statements and Travel Plans in support of Project sites. It details the importance of establishing the existing transport infrastructure and travel characteristics, as well as the development proposal itself and the measures which will be included to improve infrastructure and services to encourage sustainable travel to the site.

Regional Policy

- 11.2.14 The Transport (Scotland) Act 2005 placed a statutory duty on the seven Regional Transport Partnerships (RTPs) in Scotland to produce a Regional Transport Strategy (RTS) for their area. The Project is located within both Falkirk Council and North Lanarkshire Council. Falkirk Council is within the South East of Scotland Transport Partnership (SEStran) and North Lanarkshire Council is within the Strathclyde Partnership for Transport (SPT).

SEStran 2035 Regional Transport Strategy (2022)

- 11.2.15 The SEStran Regional Transport Strategy (RTS) is a plan for identifying strategic transport priorities for The City of Edinburgh, Clackmannanshire, East Lothian, Falkirk, Fife, Midlothian, the Scottish Borders and West Lothian Council areas. The RTS identifies four strategy objectives:

- transitioning to a sustainable, post-carbon transport system;
- facilitating healthier travel options;
- transforming public transport connectivity across the region; and,
- supporting safe, sustainable and efficient movement of people and freight across the region.

A Call to Action: The Regional Transport Strategy for the west of Scotland 2023-2038

- 11.2.16 The Regional Transport Strategy for the west of Scotland sets out the long-term direction for transport in the region, with RTS policies developed to direct SPT's future actions and provide guidance for partners for their own decision making on transport strategies and programmes within the region.
- 11.2.17 Along with priorities such as a transport system that aids inclusive economic growth and supports an improved quality of life, the RTS includes three key targets which are:

³ PAN is now withdrawn. There is no replacement at time of EIA Report submission. The PAN notice was applicable at the time of EIA Report production.

- By 2030, car km in the region will be reduced by at least 20%.
- By 2030, transport emissions will be reduced by at least 53% from the 2019 baseline.
- By 2030, at least 45% of all journeys will be made by means other than private car as the main mode.

11.2.18 The Project will seek to manage both the construction and operational phases in the most efficient and safe way possible to ensure that it aligns with the RTS.

Local Policy

Falkirk Council Local Development Plan 2 (2020)

- 11.2.19 Falkirk Local Development Plan 2 is the statutory planning document guiding development in the Falkirk Council area from 2020 to 2040, detailing strategies, policies, and proposals for land use in the region.
- 11.2.20 While Falkirk's Local Development Plan 2 primarily addresses spatial planning and land-use policies, it incorporates transport policies that align with the Local Transport Strategy 2023 and the broader Active Travel Strategy to ensure sustainable, integrated, and accessible transport networks.

Falkirk Council Local Transport Strategy 2023

- 11.2.21 Falkirk Council's Local Transport Strategy 2023 sets out a 10-year vision for a safe, sustainable, accessible, and efficient transport system guiding projects and investments up to 2033.
- 11.2.22 The Local Transport Strategy includes four key components:
- Accelerating sustainability;
 - Improving inclusion;
 - Achieving economic growth; and
 - Enhancing existing infrastructure.

North Lanarkshire Local Development Plan (2022)

- 11.2.23 The North Lanarkshire Local Development Plan is a strategic framework for physical development in the area. This plan outlines policies and proposals to guide development over the next 5 to 10 years, ensuring that land use supports North Lanarkshire's ambition to be a great place to live, learn, work, invest, and visit.
- 11.2.24 The North Lanarkshire Local Development Plan includes several key transport policies aimed at improving connectivity and accessibility throughout the area:
- Sustainable Transport: Emphasis on promoting walking, cycling, and public transport to reduce reliance on private cars.
 - Infrastructure Improvements: Upgrading existing transport infrastructure to support economic growth and improve safety.
 - Accessibility: Ensuring transport facilities are accessible to all, including those with disabilities.

- Environmental Impact: Minimising the environmental impact of transport projects by incorporating green technologies and practices.

11.2.25 The plan aligns with the broader Local Transport Strategy (LTS), which is currently being updated to reflect new national policies and local needs. The updated LTS will provide a detailed roadmap for the next 10 years, focusing on the development and maintenance of transport infrastructure

11.3 Methodology

Consultation

11.3.2 **Table 11.1** summarises consultation undertaken for this Environmental Impact Assessment Report (EIA), relevant to Traffic and Movement. Scoping correspondence is provided in full in **Volume 3, Appendix 11.1 Transport Assessment**.

Table 11.1: Response to Consultation

Consultee	Summary of Consultation Response Relevant to Access, Traffic and Transport	Response to Consultee
Network Rail	A Traffic Assessment should be included to assess the effects of construction traffic on existing traffic flows and the public road network with preferred construction traffic routes also indicated.	Project construction traffic flows have been assessed against baseline 2025 traffic flows. Details of construction traffic routings for each component of the Project are included in CTMPs produced by the contractor in Volume 3, Appendix 11.1 Transport Assessment .
Transport Scotland	IEMA Guidelines approach for assessment considered appropriate and would add that the potential impact on any trunk roads proposed to be utilised for construction should be screened and assessed if the IEMA thresholds are exceeded.	Trunk roads utilised by Project construction traffic have been screened and included in IEMA assessment if they have exceeded Rule 1 and Rule 2 thresholds.
Transport Scotland	Methodology statements are provided for any proposed trunk road crossings in relation to overhead lines.	To be addressed by contractors.
Falkirk Council	No transport comments	N/A
North Lanarkshire Council	No transport comments	N/A

Scope of Assessment

11.3.3 The assessment considers the potential environmental effects of traffic and movement during Construction Phase of the Project. The geographical scope of the assessment has been determined by information provided by the contractor. Construction Traffic Management Plans (CTMP) for each component of the Project contain information on the

likely roads to be used during construction and this has informed the Study Area to be assessed.

Data Sources

- 11.3.4 Comprehensive traffic data on Study Area roads has been obtained to inform this EIA Report. The data encompasses traffic flows by vehicle type and speed over a 7-day period and was obtained by traffic surveys on Study Area roads during 2025. Injury accident data for Study Area roads is also required for EEIA Report. The most recently available injury accident information for Study Area roads was obtained from the Police Scotland road traffic collision database for the five-year period between 2020 and 2024 inclusive.
- 11.3.5 Construction traffic data has been derived from contractor CTMPs for each component of the project. These documents are contained within **Volume 3, Appendix 11.1 Transport Assessment** and include:
- ZG Route – Construction Traffic Management Plan
 - WB Route – Construction Traffic Management Plan (which includes Route AA and Route CB information)
 - XX Route Reconductoring – Construction Traffic Management Plan
 - XR Route – Construction Traffic Management Plan
 - Denny North Substation – Construction Traffic Management Plan
 - Bonnybridge Substation – Construction Traffic Management Plan
 - Wishaw Substation – Construction Traffic Management Plan
 - Cumbernauld Substation – Construction Traffic Management Plan

Assessment Methods

- 11.3.6 The IEMA Guidelines include two rules that define the scale and extent of the environmental assessment of traffic and movement. Rule 1 and Rule 2 are summarised below and are used to define the spatial extents of this environmental assessment:
- Rule 1. Include highway links where traffic flows will increase by more than 30% (or the number of heavy goods vehicles will increase by more than 30%); and
 - Rule 2. Include highway links of high sensitivity where traffic flows have increased by more than 10%.
- 11.3.7 Study Area roads are assessed according to their sensitivity as a receptor which considers characteristics including the traffic, people, infrastructure and land-uses currently associated with the road. Study Area roads are quantified according to their baseline traffic characteristics including vehicle flows, accident rates, and levels of congestion. Forecast Project traffic is assessed against baseline conditions on Study Area roads to produce a magnitude of change. The results of the sensitivity of receptor and magnitude of change analyses are used to establish a significance of environmental effect on Study Area roads for the following traffic and movement categories, taken from Section 3 of the IEMA Guidelines:

- **Severance of Communities** - This is the perceived division that can occur within a community when it becomes separated by a major transport infrastructure. The term is used to describe a complex series of factors that separate people from places and other people. Severance may result from the difficulty of crossing a heavily trafficked road or a physical barrier created by infrastructure.
- **Fear and Intimidation** - This is the proximity of traffic to people and / or the feeling of an inherent lack of protection created by factors that prevent people from distancing themselves from moving vehicles. It assesses the perceived vulnerability of road users in terms of changes in traffic flows and or speeds, the amount of heavy goods vehicle traffic on a road, and the speed that vehicles are travelling at.
- **Road User and Pedestrian Safety** - This is the potential for changes in traffic flows on a road to increase the number of injury accidents on that road. This aspect of the environmental assessment considers the entire construction period and is not limited to a peak month or corresponding daily traffic forecast.
- **Non-Motorised User Amenity** - This is broadly defined as the relative pleasantness of a pedestrian, cycle, wheeled or equestrian journey along or beside a road. The potential for effects related to changes in traffic flows and or speeds, the amount of heavy goods vehicle traffic on a road, and the speed that vehicles are travelling at.
- **Non-Motorised User Delay** - This effect is closely related to severance. Changes in the volume, composition or speed of traffic may affect the ability of non-motorised road users to travel on or to crossroads. In general, increases in traffic levels are likely to lead to greater increases in delay. Delays will also depend on the general level of pedestrian activity on Study Area roads.
- **Road Vehicle Driver and Passenger Delay** - This effect relates to delays or increases in travel time for non-development vehicular traffic. Increases in traffic along roads, at junctions, or at development site entrances can adversely affect overall journey times and delays. IEMA Guidelines acknowledge that delays are only likely to be significant when the traffic on the network surrounding a development is already at, or close to, the capacity of the system.
- **Hazardous Loads / Large Loads** - The effect relates to developments that involve the transportation of dangerous or hazardous loads, and or the transport of Abnormal Indivisible Loads to or from a development site. The assessment must clearly outline the number and composition of such loads. Where the number is considered to be significant an appropriate routing and risk strategy must be identified.

Sensitivity of Receptors

- 11.3.8** Receptors are locations or land-uses along Study Area roads categorised by sensitivity or environmental value.
- 11.3.9** **Table 11.2** describes the receptor sensitivity adopted for the environmental assessment of Project traffic. All Study Area roads are assessed in terms of their sensitivity as receptors.

Table 11.2: Sensitivity of Receptors

Receptor Sensitivity	Description
Very High	The receptor has little or no ability to absorb change without fundamentally altering its present character, is of very high environmental value, or of international importance.
High	The receptor has low ability to absorb change without fundamentally altering its present character, is of high environmental value, or of international importance.
Medium	The receptor has moderate capacity to absorb change without significantly altering its present character, has some environmental value or is of regional importance.
Low	The receptor is tolerant of change without detriment to its character, is low environmental value, or local importance.
Negligible	The receptor is resistant to change and is of little environmental value.

11.3.10 Although construction traffic will only be temporary, an increase in traffic could have environmental effects on roads within the Study Area. As such, the receptors included in this assessment are the public roads that will be used by Project construction traffic, and the land-uses and people that front those roads.

11.3.11 In accordance with IEMA Guidelines the following list is used to identify land-use and environmental interests on Study Area roads that should be considered when assessing the sensitivity of Study Area roads as receptors:

- People at home;
- People at work;
- Sensitive and / or vulnerable groups (including young age; older age; income; health status; social disadvantage; and access and geographic factors);
- Locations with concentrations of vulnerable users (e.g. hospitals, places of worship, schools);
- Retail areas;
- Recreational areas;
- Tourist attractions;

- Collision clusters and routes with road safety concerns; and
- Junctions and highway links at (or over) capacity.

11.3.12 For every Study Area road, each of the above land-use and environmental interests was assessed on a scale of 1 to 5.

Table 11.3: Sensitivity Scoring

Receptor Sensitivity	Points
Very High	5
High	4
Medium	3
Low	2
Negligible	1

- 11.3.13 For each Study Area road, an average sensitivity of receptor rating is calculated from the individual land-use and environmental interest scores. However, any Study Area road, which has one or more rating of High Sensitivity (4), or Very High Sensitivity (5) is defaulted to that rating.
- 11.3.14 A summary of the Study Area road sensitivity of receptor assessment is provided in **Table 11.11**. The detail underpinning the sensitivity rating for each Study Area road can be found in **Volume 3, Appendix 11.1 Transport Assessment**.

Magnitude of Change

- 11.3.15 Magnitude of Change evaluates likely changes in traffic conditions on Study Area roads as a result of the Project. Magnitude of Change is calculated for all Study Area roads included in the assessment following the application of IEMA Guidelines Rule 1 and Rule 2. Magnitude of Change is determined on Study Area roads for the following traffic and movement categories:

- Severance of Communities
- Fear and Intimidation
- Road User and Pedestrian Safety
- Non-motorised User Amenity
- Non-motorised User Delay
- Road Vehicle Driver and Passenger Delay
- Hazardous / Large Loads

Severance of Communities

- 11.3.16 IEMA Guidelines 2023 at Section 3.16 states:

“The Department for Transport (DfT) historically set out a range of indicators for determining the significance of severance. Changes in traffic flow of 30%, 60% and 90% are regarded as producing ‘slight’, ‘moderate’ and ‘substantial’ changes in severance respectively. Although these thresholds no longer appear in DfT guidance, they have not been superseded by any subsequent guidance and are established through planning case law.”

11.3.17 These thresholds have therefore been used for the purpose of this assessment as shown in **Table 11.4**.

Table 11.4: Magnitude of Change for Severance of Communities

Magnitude of Change	Change in Traffic (AAWT)	Description
High	90%+	Alteration to baseline conditions such that post development character or composition of baseline condition fundamentally changed.
Medium	60% - 90%	Alteration to baseline conditions such that post development character or composition of baseline condition materially changed.
Low	30% - 60%	Minor shift from baseline conditions such that post development character or composition of baseline condition remains similar to baseline and not materially changed.
Negligible	0% - 30%	Very little change from baseline conditions. Change is barely distinguishable approximating to no-change situation.

11.3.18 IEMA Guidelines note that caution needs to be observed when applying these thresholds where very low baseline traffic conditions exist, as very low baseline flows are unlikely to experience severance impacts even with high percentage changes in vehicle traffic conditions.

Fear and Intimidation

11.3.19 The IEMA Guidelines state that the extent of fear and intimidation is dependent on:

- The total volume of traffic;
- The heavy vehicle composition;
- The speed of vehicles; and

- The proximity of traffic to people.

11.3.20 IEMA Guidelines provide a degree of hazard methodology for assessing Fear and Intimidation. Degree of hazard is established by scoring traffic on Study Area roads for baseline and Project traffic conditions. **Table 11.5** shows the IEMA Guidelines scoring system applied to all Study Area roads.

Table 11.5: Fear and Intimidation Degree of Hazard

18hr Traffic Flow Average Two-Way Traffic (Vehicles / Hour) (a)	18hr Traffic Flow Total HGV Movements (b)	Average Vehicle Speed MPH (c)	Degree of Hazard Score
+1,800	+3,000	>40	30
1,200 – 1,800	2,000 – 3,000	30 - 40	20
600 – 1,200	1,000 – 2,000	20 - 30	10
<600	<1,000	<20	0

11.3.21 For each Study Area road, the total degree of hazard score (a) + (b) + (c) for baseline and Project traffic conditions is summed to provide a 'level' of fear and intimidation in accordance with **Table 11.6**.

Table 11.6: Levels of Fear and Intimidation

Total Hazard Score (a) + (b) + (c)	Fear and Intimidation Level
71+	Extreme
41 – 70	Great
21 – 40	Moderate
0 – 20	Small

11.3.22 Magnitude of change is determined with reference to changes in fear and intimidation levels between baseline and Project traffic flows in accordance with **Table 11.7**.

Table 11.7: Fear and Intimidation Magnitude of Change

Change in Level / Change in Daily Traffic	Magnitude of Change
2 Level Changes	High
1 Level Change plus >400 increase in average hourly vehicle flow and / or	Medium

>500 increase in total 18hr HGV flow	
1 Level Change plus <400 increase in average hourly vehicle flow and / or <500 increase in total 18hr HGV flow	Low
No Level Change	Negligible

Road User and Pedestrian Safety

- 11.3.23 IEMA Guidelines consider the calculation of accident rates a relevant approach for approximating the potential for road safety impacts to materialise as a result of a development. Knowing the expected increase in vehicle km driven on Study Area roads as a result of Project traffic, it is possible to make an arithmetic assessment of the likely increase or decrease in the number of accidents resulting from changes in traffic flows or composition.
- 11.3.24 Accidents by severity for the 2020-2024 period are combined with traffic flows to produce accident rates by severity per million vehicle km for all Study Area roads. A forecast of vehicle km driven on Study Area roads by Project traffic for the duration of the construction programme has been calculated. The accident rates per million vehicle km are applied to Project traffic to produce a forecast of accidents by severity over the duration of the construction stage. Magnitude of change for road user and pedestrian safety is assessed according to **Table 11.8**.

Table 11.8: Road User and Pedestrian Safety Magnitude of Change

Magnitude of Change	Forecast Increase in Accident by Severity		
	Slight	Severe	Fatal
High	5+	1+	1+
Medium	3-4	0	0
Low	1-2	0	0
Negligible	0	0	0

Non-motorised User Amenity and Delay

- 11.3.25 These effects are closely related to severance as a change in the volume, composition or speed of traffic may affect the relative pleasantness (amenity) or progress (delay) made by non-motorised users. In general, increases in traffic levels are likely to lead to reductions in amenity and increases in delay for non-motorised users. Absolute levels of change to non-motorised amenity and delay will depend on the general level of pedestrian and

active travel activity on Study Area roads. The magnitude of change thresholds set out in **Table 11.4** for severance are adopted for non-motorised environmental effects.

Road Vehicle Driver and Passenger Delay

- 11.3.26 Where Study Area roads are assessed by link flow, the Congestion Reference Flow (CRF) of the Study Area road will be used to forecast magnitude of change. The CRF of a Study Area road is an estimate of the daily traffic flow at which the road is likely to be 'congested' in peak periods on an average day. CRF is calculated in accordance with CD100 DMRB Extract Volume 5 Section 1 (TA 46/97) which remains applicable to trunk roads in Scotland. To calculate CRF, 'congestion' is defined as the situation when the traffic demand exceeds the maximum sustainable throughput of the road. At this point the effect on traffic is likely to include flow breakdown with speeds varying considerably, and queues are likely to form. **Table 11.9** summarises the CRF magnitude of change thresholds adopted in this assessment for Road Vehicle Driver and Passenger Delay. CRF magnitude of change adopts 30%, 60% and 90% traffic 'levels' to represent thresholds for changes in vehicle delay, with the stipulation that for Low, Medium and High magnitudes of change there must also be at least one change in traffic level as a result of Project Traffic.

Table 11.9: Road Vehicle Driver and Passenger Delay Magnitude of Change

Magnitude of Change	Study Area Road Congestion Reference Flow
High	1 or More Level Change plus CRF >90% CRF
Medium	1 or More Level Change plus CRF 60% - 90%
Low	1 Level Change plus CRF 30% - 60%
Negligible	No Level Change

Significance of Effects

- 11.3.27 For traffic generated by the Project the significance of environmental effects is derived from a combination of the sensitivity of the receiving environment (receptor) and the magnitude of change. **Table 11.10** summarises the approach to identifying the significance of environmental effects.

Table 11.10: Significance of Effects

Magnitude of Change	Sensitivity of Receptor				
	Very High	High	Medium	Low	Negligible
High	Major	Major	Moderate	Moderate	Minor
Medium	Major	Moderate	Moderate	Minor	Negligible
Low	Moderate	Moderate	Minor	Negligible	Negligible
Negligible	Minor	Minor	Negligible	Negligible	Negligible

Hazardous / Large Loads

- 11.3.28 Fuel is potentially the most hazardous load to be transported to site by road for construction plant and equipment. This is a Class 3 Flammable Liquid. Fuel transport by road is an everyday activity in the UK. Fuel will be transported to site by appropriate means in full accordance with regulations governing the carriage of dangerous goods. Other potential hazardous loads could include admixtures for concrete, bitumen, machinery lubricants, batteries. Welding gases, oxy-acetylene, solvents, paints, adhesives and sealants. Any such materials will also be transported to site in full accordance with regulations governing the carriage of dangerous goods.
- 11.3.29 No oversized abnormal load vehicles with regards to length (over 18.3m) or width (over 2.9m), are anticipated to need access to the development site, with the largest vehicles anticipated to require access being road legal standard articulated lorries, including low loaders importing construction equipment. Note that construction equipment such as excavators will be chosen to remain within the road legal width where possible.
- 11.3.30 Abnormal loads with regards to vehicle weight (over 44 tonnes) are required to access the development. These vehicles include low loaders when loaded with construction equipment and tractor and trailers used to transport the plant and associated equipment to work locations.
- 11.3.31 For large loads, negligible magnitude of change corresponds to zero AIL per day, low is any Category 1 AIL per day, medium is any Category 2 AIL per day, and high is any Category 3 or above movements per day. For Hazardous Loads, the number of vehicles delivering fuel are included within the construction traffic forecasts and given their relatively small number no specific consideration beyond this is given (as transporting fuel on public roads is an everyday occurrence).

Limitation and Assumptions

- 11.3.32 Limitations and assumptions on the adopted methodology include the forecasting of construction traffic. At the time of writing, construction traffic information provided by the contractor's CTMP identifies the total number of construction vehicle movements required to complete each component of the Project. As such, daily construction traffic associated with the Project has been calculated by assuming a 'flat' or 'average' profile for construction movements across each of the Project's component construction programmes.
- 11.3.33 Baseline traffic data has been informed by October 2025 traffic surveys as well as DfT Traffic Count Sites. This data has been reviewed and is considered robust. Where equipment failed on selected sites, surveys were repeated, and 7 consecutive days' data was subsequently collected. Where it was not possible to collect traffic data or use DfT Traffic Count Sites on certain roads through Motherwell (A723 Hamilton Road, B754 Airbles Road, B754 Shields Road and B754 Netherton Road), publicly available traffic data was taken from the Ravenscraig Infrastructure Access – South Design and Access Statement⁴. This data was in vehicles per day format with no indication of HGV split. Therefore, the percentage split between HGVs and Car/LGVs on the neighbouring DfT count site on the A721 Windmillhill Street has been applied to the study area roads using

⁴ Ravenscraig Infrastructure Access – South Design and Access Statement. (2021). Amey Consulting.

data from the Ravenscraig Infrastructure Access – South Design and Access Statement to achieve a split between Heavy and Light Goods vehicles for these study area roads.

- 11.3.34 Collision data from the Police Scotland database was reviewed for the five-year period between 2020 and 2024 inclusive. Accidents occurring since 2024 have not informed this analysis as 2024 is the latest full calendar year of data available.

11.4 Baseline Environment

Study Area

- 11.4.2 The Project Study Area lies across two local authority areas, Falkirk Council and North Lanarkshire Council, from Denny in the north to Wishaw in the south. The Study Area encompasses a comprehensive vehicular and non-vehicular transport network infrastructure given its largely urban location in Scotland's central belt.
- 11.4.3 The study area is intersected by and includes a number of trunk roads including the M80 connecting Glasgow to Stirling, the M8 between Glasgow and Edinburgh and the M73 / M74 routing south from Glasgow. A number of A roads are within the study area including the A9, A883, A803, A73, A752 and A71.
- 11.4.4 The study area passes through a number of settlements where public transport links and cohesive pedestrian infrastructure are present. Study Area roads route through settlements including Denny, Bonnybridge, Cumbernauld, Gartcosh, Airdrie and Wishaw. There are also several core paths within the study area. The most significant of these in relation to the Project are around the Antonine Wall in the Falkirk Council area and on rural roads to the south of Cumbernauld in the North Lanarkshire Council area. There are also a number of core paths in Airdrie and Wishaw which interact with Study Area roads.
- 11.4.5 The National Cycle Network (NCN) Route 754 intersects the study area east to west through Bonnybridge and to the north of Castlecary, with NCN Route 75 intersecting the study area through Airdrie. Both routes are mostly traffic-free with some short on-road sections. The John Muir Way is a long distance trail between Helensburgh in the west and Dunbar in the east which also passes the study area near Bonnybridge.

Sensitivity of Receptors

- 11.4.6 A summary of the Study Area road sensitivity of receptor assessment is provided in **Table 11.11**. The detail underpinning the sensitivity rating for each Study Area road can be found in **Volume 3, Appendix 11.1 Transport Assessment**.

Table 11.11: Sensitivity of Receptors

Road	Description	Sensitivity of Receptor	Commentary
A872 Denny	Rural single carriageway	Low	Residential frontage
Denny Substation road	Mostly rural single carriageway	Low	Residential frontage

Road	Description	Sensitivity of Receptor	Commentary
A9 Stirling Road Glenbervie	Rural single carriageway	Low	Recreation and tourist attractions
A9 Stirling Road North Broomage	Urban single carriageway	Low	Residential frontage and junctions near capacity
B905 Denny Road	Urban / rural single carriageway	Medium	Residential frontage, employment area, sensitive groups, vulnerable users
A883 Bonnybridge	Rural single carriageway	Low	Employment area
B9095 (M876 Junction 1)	Rural single carriageway	Low	Residential frontage
A883 (M876 Junction 1)	Rural single carriageway	Low	No sensitive receptors
A8004 Checkbar	Rural single carriageway	Low	No sensitive receptors
A803 Bonnybridge Substation	Rural single carriageway	Medium	Employment area, tourist attractions
A803 Falkirk Road	Urban single carriageway	High	Residential frontage, sensitive groups, retail, recreational area
B816 Bridge Street	Urban single carriageway	Medium	Employment area, vulnerable users, retail, recreational area
Foundry Road	Urban single carriageway	High	Residential frontage, employment area
A803 Glasgow Road	Urban single carriageway	High	Residential frontage, employment area, sensitive groups, retail, link near capacity
Main Street Camelon	Urban dual carriageway	High	Residential frontage, sensitive groups, retail, recreational area
B816 Glenfuir Road	Urban single carriageway	Low	Residential frontage, recreational area

Road	Description	Sensitivity of Receptor	Commentary
B816 Tamfourhill Road	Urban single carriageway	Medium	Residential frontage, sensitive groups, tourist attraction
B816 Bonnyhill Road	Rural single carriageway	Medium	Residential frontage, employment area, tourist attraction
Beam Road	Rural single carriageway	Low	Employment area
Greenhill Road	Urban single carriageway	High	Residential frontage, recreational area
Glenyards Road	Urban single carriageway	High	Residential frontage
B816 Seabegs Road	Rural single carriageway	Medium	Residential frontage, sensitive groups, recreational area
Lochgreen Road	Rural single carriageway	Medium	Residential frontage, recreational area, tourist attraction
Skipperton Burn road	Rural single carriageway	Low	No sensitive receptors
B816 Castlecary Road	Rural single carriageway	Low	Employment area
Forest Road Wardpark	Urban dual carriageway	Medium	Employment area, vulnerable users
Forest Road Abronhill	Urban distributor road	Low	No sensitive receptors
Arns Road	Rural single carriageway	Low	No sensitive receptors
Fannyside Road	Rural single carriageway	Low	No sensitive receptors
Forest Road Blackthorn Roundabout	Urban distributor road	Low	Residential frontage
Forest Road Cumbernauld Substation	Urban distributor road	Low	Residential frontage

Road	Description	Sensitivity of Receptor	Commentary
B8054 Lenziemill Road East	Urban distributor road	Low	Employment area, retail
Palacerigg Road	Rural single carriageway	Medium	Recreational area, tourist attraction
B8054 Lenziemill Road West	Urban distributor road	Low	Employment area, retail
A73 Greenfaulds	Urban dual carriageway	Medium	Sensitive groups, vulnerable users, recreational area
A73 Blairlinn	Urban dual carriageway	Low	No sensitive receptors
B8039 Stirling Road	Rural single carriageway	Low	Employment area
Hulks Road	Rural road with passing places	Low	No sensitive receptors
B8039 Stirling Road Blackbog	Rural single carriageway	Low	No sensitive receptors
A73 Riggend	Rural single carriageway	Low	No sensitive receptors
Brackenhirst Road	Rural single carriageway	Low	No sensitive receptors
B803 Greengairs Road west	Rural single carriageway	High	Residential frontage, vulnerable users
B803 Greengairs Road east	Urban single carriageway	High	Residential frontage
A73 Stand Stirling Road	Rural single carriageway	Low	No sensitive receptors
B802 Condorrat Road	Rural single carriageway	Low	No sensitive receptors
Condorrat Road Glenmavis	Urban single carriageway	Medium	Residential frontage, vulnerable users, road safety
B803 Raebog Road	Urban / rural single carriageway	High	Residential frontage, employment area, sensitive groups,

Road	Description	Sensitivity of Receptor	Commentary
			vulnerable users, recreational area
Mollinsburn Road	Rural single carriageway	Low	No sensitive receptors
Yetts Hole Road	Rural single carriageway	Low	No sensitive receptors
Muirdyke Road	Rural single carriageway	Low	No sensitive receptors
Burnlip Road	Rural single track road	Low	No sensitive receptors
B804 Gartliston Road	Rural single carriageway	Low	No sensitive receptors
Gartgill Road	Rural single carriageway	Low	No sensitive receptors
Craignethan Drve	Rural single carriageway	Low	Employment area
A752 Lochend Road	Urban single carriageway	Medium	Residential frontage
A752 Coatbridge Road	Rural single carriageway	Low	No sensitive receptors
A752 Gartcosh Road	Rural single carriageway	High	Recreational area, tourist attraction, road safety
A73 Stirling Road Dykehead	Rural single carriageway	High	Road safety, link near capacity
Dykehead Road	Rural single carriageway	Medium	Residential frontage, vulnerable users, recreational area
A73 Holehills	Urban single carriageway	Low	Employment area
Airdriehill Road	Rural single carriageway	Low	Residential frontage
Burnhead Road	Rural single carriageway	Low	Residential frontage

Road	Description	Sensitivity of Receptor	Commentary
A73 Motherwell Street Rawyards	Urban single carriageway	Medium	Sensitive groups, recreational area, road safety
A73 Motherwell Street Airdrie	Urban single carriageway	Medium	Residential frontage, vulnerable users, recreational area, road safety
A89 Airdrie Road	Rural single carriageway	Medium	Vulnerable users, link near capacity
A89 Forrest Street	Urban single carriageway	High	Residential frontage, employment area, retail, road safety
A73 Carlisle Road Airdrie	Urban single carriageway	High	Residential frontage, employment area, vulnerable users, retail, recreational area, road safety
A73 Carlisle Road Chapelhall	Urban single carriageway	Medium	Residential frontage, employment area, sensitive groups, road safety, link near capacity
Burniebrae Road	Urban single carriageway	Low	Employment area
Craigens Road	Rural single carriageway	Low	No sensitive receptors
Roughrigg Road	Rural single carriageway	Low	Employment area
Lawmope Mill Road	Rural single carriageway	Low	Employment area
A73 Bellside Road Chapelhall	Rural single carriageway	Low	Link near capacity
Lancaster Avenue	Urban distributor road	Low	Employment area
A73 Bellside Road Newhouse	Rural dual carriageway	Low	No sensitive receptors
A775 Edinburgh Road	Urban single carriageway	Medium	Employment area, tourist attraction

Road	Description	Sensitivity of Receptor	Commentary
Glasgow and Edinburgh Road	Rural single carriageway	Low	Employment area, road safety
Legbrannock Road	Rural single carriageway	Low	No sensitive receptors
Kirk Road	Rural single carriageway	Low	No sensitive receptors
Rowantree Avenue eastbound	Urban single carriageway (one-way)	Low	Employment area
Rowantree Avenue westbound	Urban single carriageway (one-way)	Low	Employment area
Biggar Road	Rural single carriageway	Low	No sensitive receptors
B7066 Motherwell Road	Rural single carriageway	Low	Employment area, link near capacity
A73 Carlisle Road Brownhill Farm	Rural single carriageway	Low	Link near capacity
Hareshaw Road	Rural single carriageway	Low	Residential frontage
Greenhill Road North	Urban single carriageway	High	Residential frontage
A73 Cleland	Rural single carriageway	Low	No sensitive receptors
Fernieshaw Road	Single track road	Low	No sensitive receptors
Greenhill Road South	Single track road	Low	No sensitive receptors
Muiredge and Jersey Road north	Single track road	Low	No sensitive receptors
Muiredge and Jersey Road south	Single track road	Low	No sensitive receptors
Foulburn Road	Rural single carriageway	Low	No sensitive receptors
Allanton Road	Urban single carriageway	Low	Residential frontage
Mill Road Allanton	Rural single carriageway	Low	Residential frontage

Road	Description	Sensitivity of Receptor	Commentary
A71 Crindledyke	Rural single carriageway	Low	No sensitive receptors
A71 Allanton	Urban single carriageway	Medium	Residential frontage, sensitive groups, retail
Mill Road / Coltness Avenue	Urban single carriageway	High	Residential frontage, vulnerable users
Daviesdyke Road	Single track road	Low	No sensitive receptors
Morningside East road	Urban single carriageway	Low	No sensitive receptors
Mill Road Morningside	Urban single carriageway	Low	Residential frontage
Morningside Road	Urban single carriageway	Low	No sensitive receptors
A71 Newmains	Rural single carriageway	Low	Retail
A73 Main Street Newmains	Rural single carriageway	Low	Employment area,
A73 Westwood Road	Urban single carriageway	Medium	Residential frontage, employment area, road safety
A722 Manse Road	Urban single carriageway	Medium	Residential frontage, employment area, sensitive groups, retail
Woodhall Road	Rural single carriageway	Low	No sensitive receptors
A73 Bogside	Rural single carriageway	Low	No sensitive receptors
A71 Overtown Road north	Urban / rural single carriageway	High	Recreational area, road safety
A71 Overtown Road south	Urban / rural single carriageway	Medium	Residential frontage, retail, recreational area, link near capacity

Road	Description	Sensitivity of Receptor	Commentary
A71 Horsley Brae north	Rural single carriageway	Medium	Residential frontage, sensitive groups, road safety, link near capacity
B754 Castlehill Road	Urban single carriageway	High	Residential frontage, vulnerable users, recreational area
Castlehill / Caledonian Road	Urban single carriageway	Medium	Residential frontage, employment are, sensitive groups
Allershaw Road	Urban single carriageway	Low	No sensitive receptors
Tarbert Avenue	Urban single carriageway	Low	Residential frontage, vulnerable users
A71 Horsley Brae south	Rural single carriageway	High	Link near capacity
Cornsillock Brae	Rural single carriageway	High	Link near capacity
A71 Ayr Road	Rural single carriageway	Low	Road safety
A72 Lanark Road	Rural single carriageway	High	Road safety
A8011 Glasgow Road	Urban dual carriageway	Medium	Recreational area, road safety
B8039 Jane's Brae	Urban dual carriageway	Medium	Road safety
M9 Glenbervie - Bannockburn	Motorway	Medium	Road safety
M80 Bankhead - Bannockburn	Motorway	Medium	Road safety
M876	Motorway	Medium	Road safety
M876 Junction 1 - 2	Motorway	Medium	Road safety
M876 Bankhead - Checkbar Junction	Motorway	Medium	Road safety
M80 Bankhead - Old Inns Junction	Motorway	High	Road safety, link near capacity

Road	Description	Sensitivity of Receptor	Commentary
M80 Junction 4 - 6	Motorway	Low	Road safety, link near capacity
M73 Junction 2A - 3	Motorway	High	Road safety
M73 Gartcosh - Baillieston	Motorway	Medium	Road safety, link near capacity
M74 Junction 4 - 7	Motorway	High	Road safety, link near capacity
M8 Junction 6 -8	Motorway	High	Road safety
M8 Junction 8-10	Motorway	Medium	Road safety

Baseline Traffic Data

- 11.4.7 Current traffic conditions on study area roads were established from traffic surveys undertaken in October 2025 and DfT traffic count data. The data provided in **Table 11.12** is average 24-hour weekday traffic. Traffic survey data is provided in **Volume 3, Appendix 11.1 Transport Assessment**: with locations of traffic surveys shown in **Figure 11.2. Traffic Survey Locations** shows baseline traffic data on study area roads.

Table 11.12. 2025 Traffic Survey Data

Road Link	Daily Weekday Traffic (Two-Way)		
	Car & LGV	HGV	Total
A872 Denny	7,935	152	8,087
Denny Substation road	164	3	167
A9 Stirling Road Glenbervie	11,031	129	11,160
A9 Stirling Road North Broomage	18,525	236	18,761
B905 Denny Road	3,248	12	3,260
A883 Bonnybridge	12,089	244	12,333
B9095 (M876 Junction 1)	5,270	143	5,413
A883 (M876 Junction 1)	15,736	319	16,055
A8004 Checkbar	9,021	233	9,254
A803 Bonnybridge Substation	6,032	67	6,099

Road Link	Daily Weekday Traffic (Two-Way)		
	Car & LGV	HGV	Total
A803 Falkirk Road	6,207	46	6,253
B816 Bridge Street	10,210	205	10,415
Foundry Road	1,166	4	1,170
A803 Glasgow Road	14,295	230	14,525
Main Street Camelon	16,762	260	17,022
B816 Glenfuir Road	11,007	52	11,059
B816 Tamfourhill Road	4,429	98	4,527
B816 Bonnyhill Road	2,098	21	2,119
Beam Road	617	5	622
Greenhill Road	2,532	6	2,538
Glenyards Road	530	1	531
B816 Seabegs Road	4,082	59	4,141
Lochgreen Road	583	10	593
Skipperton Burn road	172	9	181
B816 Castlecary Road	9,877	435	10,312
Forest Road Wardpark	3,278	53	3,331
Forest Road Abrohill	3,265	59	3,324
Arns Road	162	0	162
Fannyside Road	909	7	916
Forest Road Blackthorn Roundabout	4,346	70	4,416
Forest Road Cumbernauld Substation	7,981	120	8,101
B8054 Lenziemill Road East	9,690	256	9,946
Palacerigg Road	1,011	31	1,042
B8054 Lenziemill Road West	5,741	180	5,921
A73 Greenfulds	6,464	406	6,870
A73 Blairlinn	14,295	626	14,921

Road Link	Daily Weekday Traffic (Two-Way)		
	Car & LGV	HGV	Total
B8039 Stirling Road	3,496	67	3,563
Hulks Road	118	1	119
B8039 Stirling Road Blackbog	3,379	177	3,556
A73 Riggend	6,294	264	6,558
Brackenhirst Road	666	13	679
B803 Greengairs Road west	4,129	226	4,355
B803 Greengairs Road east	3,063	162	3,225
A73 Stand Stirling Road	16,999	673	17,672
B802 Condorrat Road	1,831	23	1,854
Condorrat Road Glenmavis	2,230	21	2,251
B803 Raebog Road	8,055	130	8,185
Mollinsburn Road	1,005	12	1,017
Yetts Hole Road	54	3	57
Muirdyke Road	570	9	579
Burnlip Road	181	3	184
B804 Gartliston Road	5,918	46	5,964
Gartgill Road	433	6	439
Craignethan Drve	4,822	77	4,899
A752 Lochend Road	11,177	278	11,455
A752 Coatbridge Road	8,514	397	8,911
A752 Gartcosh Road	9,478	282	9,760
A73 Stirling Road Dykehead	16,239	461	16,700
Dykehead Road	925	12	937
A73 Holehills	16,655	490	17,145
Airdriehill Road	1,984	6	1,990
Burnhead Road	1,946	5	1,951

Road Link	Daily Weekday Traffic (Two-Way)		
	Car & LGV	HGV	Total
A73 Motherwell Street Rawyards	13,110	508	13,618
A73 Motherwell Street Airdrie	13,321	403	13,724
A89 Airdrie Road	11,389	188	11,577
A89 Forrest Street	11,823	216	12,039
A73 Carlisle Road Airdrie	17,660	412	18,072
A73 Carlisle Road Chapelhall	17,447	510	17,957
Burniebrae Road	5,571	49	5,620
Craigens Road	305	7	312
Roughrigg Road	862	198	1,060
Lawmope Mill Road	307	11	318
A73 Bellside Road Chapelhall	14,390	610	15,000
Lancaster Avenue	4,902	94	4,996
A73 Bellside Road Newhouse	13,311	638	13,949
A775 Edinburgh Road	7,708	559	8,267
Glasgow and Edinburgh Road	2,086	195	2,281
Legbrannock Road	2,551	145	2,696
Kirk Road	4,470	355	4,825
Rowantree Avenue eastbound	3,928	189	4,117
Rowantree Avenue westbound	3,704	340	4,044
Biggar Road	792	31	823
B7066 Motherwell Road	9,898	338	10,236
A73 Carlisle Road Brownhill Farm	14,864	404	15,268
Hareshaw Road	416	6	422
Greenhill Road North	368	8	376
A73 Cleland	14,446	438	14,884
Fernieshaw Road	85	4	89

Road Link	Daily Weekday Traffic (Two-Way)		
	Car & LGV	HGV	Total
Greenhill Road South	122	4	126
Muiredge and Jersey Road north	61	3	64
Muiredge and Jersey Road south	135	17	152
Foulburn Road	787	6	793
Allanton Road	1,011	23	1,034
Mill Road Allanton	2,317	19	2,336
A71 Crindledyke	8,956	202	9,158
A71 Allanton	8,945	201	9,146
Mill Road / Coltness Avenue	224	4	228
Daviesdyke Road	85	5	90
Morningside East road	160	3	163
Mill Road Morningside	319	8	327
Morningside Road	5,254	128	5,382
A71 Newmains	11,444	374	11,818
A73 Main Street Newmains	10,854	507	11,361
A73 Westwood Road	16,068	409	16,477
A722 Manse Road	13,633	101	13,734
Woodhall Road	1,341	19	1,360
A73 Bogside	7,809	286	8,095
A71 Overtown Road north	5,303	270	5,573
A71 Overtown Road south	8,516	511	9,027
A71 Horsley Brae north	9,565	531	10,096
B754 Castlehill Road	8,838	201	9,039
Castlehill / Caledonian Road	10,664	175	10,839
Allershaw Road	221	5	226
Tarbert Avenue	2,907	21	2,928

Road Link	Daily Weekday Traffic (Two-Way)		
	Car & LGV	HGV	Total
A71 Horsley Brae south	20,153	525	20,678
Cornsilloch Brae	21,970	684	22,654
A71 Ayr Road	9,501	607	10,108
A72 Lanark Road	13,401	221	13,622
A8011 Glasgow Road (DfT)	34,819	1,643	36,462
B8039 Jane's Brae (DfT)	15,926	908	16,834
M9 Glenbervie – Bannockburn (DfT)	20,141	1,526	21,667
M80 Bankhead – Bannockburn (DfT)	36,457	3,864	40,321
M876 (DfT)	45,516	4,237	49,753
M876 Junction 1 – 2 (DfT)	38,818	4,082	42,900
M876 Bankhead - Checkbar Junction (DfT)	40,390	3,969	44,359
M80 Bankhead - Old Inns Junction (DfT)	78,067	7,367	85,434
M80 Junction 4 – 6 (DfT)	76,078	7,885	83,963
M73 Junction 2A – 3 (DfT)	56,818	6,600	63,418
M73 Gartcosh – Baillieston (DfT)	59,693	7,347	67,040
M74 Junction 4 – 7 (DfT)	92,110	8,897	101,007
M8 Junction 6 -8 (DfT)	72,670	7,465	80,135
M8 Junction 8-10 (DfT)	86,705	3,703	90,408

- 11.4.8 The construction programme shown in Chapter 4: Project Description summarises construction activities by year and month. The construction programme indicates that 2028 will be the most concentrated year for construction activities. As such it has been assumed that 2028 will also be the busiest year for construction traffic. A subsequent growth factor of 1.020 has been identified using TEMPro for the years 2025 to 2028 and applied to traffic survey data to create a 2028 baseline position for assessment purposes.

11.5 Embedded Mitigation

11.5.1 Embedded mitigation will take the form of the implementation of CTMP produced by the contractor. This will promote and manage the safe and efficient use of public roads by construction traffic, whilst mitigating potential associated adverse effects.

11.5.2 The CTMP produced by the contractor will apply to all public roads within the study area used by construction traffic. It includes:

- Key stages of the construction process.
- Details of construction working hours.
- Routes to be used by construction traffic.
- Access from public roads to the Project including bell-mouths and traffic management requirements to prioritise mainline public traffic.
- Construction vehicle traffic management and signing strategy.
- Details of any condition surveys required on construction traffic roads (for Section 96 Agreement purposes)
- Arrangements for road cleaning / sweeping of public roads used by construction traffic in the immediate vicinity of the Project, and wheel cleaning / dirt control arrangements for construction vehicles leaving the work zones.
- Arrangements for minimising the effects of construction traffic during road network peak periods, by managing the timing of vehicles arriving and departing.
- A strategy for expected driving standards for construction traffic, including extending courtesy to all other road users with regard to providing overtaking opportunities for general traffic, construction traffic vehicle speeds, and encountering pedestrian or cycle traffic.
- Community and emergency service liaison and protocols.

11.5.3 Mitigation provided by the contractor CTMP will address the following potential environmental effects.

- Severance of communities – construction traffic will give particular attention to locations and environments where pedestrian traffic and road crossing points are present to ensure severance effects are minimised.
- Fear and intimidation on and by road users – construction traffic will be mindful of vehicle speeds and manoeuvring in proximity to vulnerable road users (pedestrian and cycle traffic) in all locations and environments to ensure fear and intimidation effects are minimised.
- Road user and pedestrian safety – construction traffic will be mindful of vehicle speeds and manoeuvring in proximity to vulnerable road users (pedestrian and cycle traffic) in all locations and environments. Best practice for construction traffic operators will be promoted to ensure accident and road safety effects are minimised.

- Non-motorised amenity – construction traffic will give particular attention to locations and environments where pedestrian and cycle traffic are present to ensure effects on pedestrian and cycle amenity are minimised.
- Non-motorised user delay – construction traffic will give particular attention to locations and environments where pedestrian and cycle traffic are present to ensure effects on pedestrian and cycle delay are minimised.
- Road vehicle driver and passenger delay – HGV construction traffic on minor and unclassified roads will be mandated to cede priority to general traffic when appropriate and safe to do so by considerate use of passing places and similar such infrastructure. These mitigation measures are proposed to ensure effects on road vehicle driver and passenger delay are minimised.

11.5.4 CTMP documentation produced by the contractor for the Project can be viewed in full in **Volume 3, Appendix 11.1 Transport Assessment**.

11.6 New build Overhead Line Significance of Effects

New-build Overhead Line

11.6.2 This section assesses the New build Overhead Line component of the Project. This consists of:

- Route WB (New build Overhead Line)
- Route AA (partial undergrounding of existing overhead line)
- Route CB (Dismantling of entire overhead-line)

11.6.3 For descriptions of each of these components, refer to Chapter 4: Project Description. Project construction traffic has been obtained from information provided by the contractor and is included in **Volume 3, Appendix 11.1 Transport Assessment**.

Assessment of Effects - Screening

11.6.4 IEMA Guidelines Rule 1 and Rule 2 are applied to Study Area roads to identify which roads are to be assessed for environmental effects during construction of the Project. **Table 11.13** summarises the Rule 1 and Rule 2 findings and identifies Study Area roads to be assessed for environmental effects (Yes) and the roads to be excluded (No).

Table 11.13: Study Area Roads to be Assessed for Environmental Effects - New-build Overhead Line

Road Link	2028 Baseline		Project		% Increase		Environmental Assessment
	HGV	All Vehs	HGV	All Vehs	HGV	All Vehs	
A883 Bonnybridge	249	12,580	32	54	13%	0%	No

Road Link	2028 Baseline		Project		% Increase		Environmental Assessment
	HGV	All Vehs	HGV	All Vehs	HGV	All Vehs	
B9095 (M876 Junction 1)	146	5,521	32	54	22%	1%	No
A883 (M876 Junction 1)	325	16,376	32	54	10%	0%	No
A8004 Checkbar	238	9,439	32	54	13%	1%	No
A803 Bonnybridge Substation	68	6,221	10	18	15%	0%	No
A803 Falkirk Road	47	6,378	2	2	4%	0%	No
B816 Bridge Street	209	10,623	2	2	1%	0%	No
Foundry Road	4	1,193	2	2	49%	0%	Yes
A803 Glasgow Road	235	14,816	22	36	9%	0%	No
Main Street Camelon	265	17,362	22	36	8%	0%	No
B816 Glenfuir Road	53	11,280	22	36	41%	0%	Yes
B816 Tamfourhill Road	100	4,618	22	36	22%	1%	No
B816 Bonnyhill Road	21	2,161	22	36	103%	2%	Yes
Beam Road	5	634	12	18	235%	3%	Yes
Greenhill Road	6	2,589	8	12	131%	0%	Yes
Glenyards Road	1	542	8	12	784%	2%	Yes
B816 Seabegs Road	60	4,224	8	12	13%	0%	No
Lochgreen Road	10	605	8	10	78%	2%	Yes

Road Link	2028 Baseline		Project		% Increase		Environmental Assessment
	HGV	All Vehs	HGV	All Vehs	HGV	All Vehs	
Skipperton Burn road	9	185	8	12	87%	6%	Yes
B816 Castlecary Road	444	10,518	10	20	2%	0%	No
Forest Road Wardpark	54	3,398	10	20	18%	1%	No
Forest Road Abronhill	60	3,390	10	20	17%	1%	No
Arns Road	0	165	4	8	400%	5%	Yes
Fannyside Road	7	934	4	8	56%	1%	Yes
Forest Road Blackthorn Roundabout	71	4,504	6	12	8%	0%	No
Forest Road Cumbernauld Substation	122	8,263	2	4	2%	0%	No
B8054 Lenziemill Road East	261	10,145	4	8	2%	0%	No
Palacerigg Road	32	1,063	4	8	13%	1%	No
B8054 Lenziemill Road West	184	6,039	4	8	2%	0%	No
A73 Greenfulds	414	7,007	16	34	4%	0%	No
A73 Blairlinn	639	15,219	12	26	2%	0%	No
Hulks Road	1	121	4	8	392%	7%	Yes
B8039 Stirling Road Blackbog	181	3,627	4	8	2%	0%	No
A73 Riggend	269	6,689	8	18	3%	0%	No

Road Link	2028 Baseline		Project		% Increase		Environmental Assessment
	HGV	All Vehs	HGV	All Vehs	HGV	All Vehs	
Brackenhirst Road	13	693	4	8	30%	1%	Yes
B803 Greengairs Road west	231	4,442	2	6	1%	0%	No
B803 Greengairs Road east	165	3,290	2	6	1%	0%	No
A73 Stand Stirling Road	686	18,025	2	4	0%	0%	No
B803 Raebog Road	133	8,349	2	4	2%	0%	No
M876 Junction 1 - 2	4,164	43,758	30	52	1%	0%	No
M876 Bankhead - Checkbar Junction	4,048	45,246	30	52	1%	0%	No
M80 Bankhead - Old Inns Junction	7,514	87,143	8	12	0%	0%	No
M80 Junction 4 - 6	8,043	85,642	26	54	0%	0%	No

11.6.5 **Table 11.13** shows that 12 study area roads require to be assessed for environmental effects as a result of the New-build Overhead Line component of the Project.

Severance of Communities

11.6.6 **Table 11.14** presents the significance of effects on the severance of communities as a result of Construction development traffic. The significance of effects for severance is based on an assessment of all traffic in accordance with the IEMA Guidelines.

Table 11.14. Severance of Communities Assessment – New-build Overhead Line

Road Link	Sensitivity	% Increase (Total Daily Traffic)	Magnitude of Change	Significance of Effects
Foundry Road	High	0%	Negligible	Minor (Not Significant)
B816 Glenfuir Road	Low	0%	Negligible	Negligible (Not Significant)
B816 Bonnyhill Road	Medium	2%	Negligible	Negligible (Not Significant)
Beam Road	Low	3%	Negligible	Negligible (Not Significant)
Greenhill Road	High	0%	Negligible	Minor (Not Significant)
Glenyards Road	High	2%	Negligible	Minor (Not Significant)
Lochgreen Road	Medium	2%	Negligible	Negligible (Not Significant)
Skipperton Burn road	Low	6%	Negligible	Negligible (Not Significant)
Arns Road	Low	5%	Negligible	Negligible (Not Significant)
Fannyside Road	Low	1%	Negligible	Negligible (Not Significant)
Hulks Road	Low	7%	Negligible	Negligible (Not Significant)
Brackenhirst Road	Low	1%	Negligible	Negligible (Not Significant)

- 11.6.7 Classifying the significance of effects: prior to additional mitigation, the likely effect of construction traffic on Severance is a direct, temporary, **Minor Adverse (Not Significant) effect**.

Fear and Intimidation

- 11.6.8 **Table 11.15** presents the forecast significance of effect on fear and intimidation as a result of the New-build Overhead Line construction traffic. This assessment follows the methodology for assessment of Fear and Intimidation as set out in IEMA Guidelines 2023.

Table 11.15. Fear and Intimidation Assessment – New-build Overhead Line

Road Link	Sensitivity	Step Change	Magnitude of Change	Significance of Effects
Foundry Road	High	0	Negligible	Minor (Not Significant)
B816 Glenfuir Road	Low	0	Negligible	Negligible (Not Significant)
B816 Bonnyhill Road	Medium	0	Negligible	Negligible (Not Significant)
Beam Road	Low	0	Negligible	Negligible (Not Significant)
Greenhill Road	High	0	Negligible	Minor (Not Significant)
Glenyards Road	High	0	Negligible	Minor (Not Significant)
Lochgreen Road	Medium	0	Negligible	Negligible (Not Significant)
Skipperston Burn road	Low	0	Negligible	Negligible (Not Significant)
Arns Road	Low	0	Negligible	Negligible (Not Significant)
Fannyside Road	Low	0	Negligible	Negligible (Not Significant)
Hulks Road	Low	0	Negligible	Negligible (Not Significant)
Brackenhirst Road	Low	0	Negligible	Negligible (Not Significant)

- 11.6.9 Classifying the significance of effects: prior to additional mitigation, the likely effect of construction traffic on Fear and Intimidation is a direct, temporary, **Minor Adverse (Not Significant) effect**.

Road User and Pedestrian Safety

- 11.6.10 **Table 11.16** presents road user and pedestrian safety significance of effects on Study Area roads for the duration of construction of the New build Overhead Line.

Table 11.16. Road User and Pedestrian Safety Assessment – New-Build Overhead Line

Road Link	Sensitivity	Forecast Injury Accidents			Magnitude of Change	Significance of Effect
		Slight	Serious	Fatal		
Foundry Road	High	0.0	0.0	0.0	Negligible	Minor (Not Significant)
B816 Glenfuir Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
B816 Bonnyhill Road	Medium	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Beam Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Greenhill Road	High	0.0	0.0	0.0	Negligible	Minor (Not Significant)
Glenyards Road	High	0.0	0.0	0.0	Negligible	Minor (Not Significant)
Lochgreen Road	Medium	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Skipperton Burn road	Low	0.1	0.0	0.0	Negligible	Negligible (Not Significant)
Arns Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Fannyside Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Hulks Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Brackenhirst Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)

11.6.11 Classifying the significance of effects: prior to additional mitigation, the likely effect of construction traffic on Road User and Pedestrian Safety is a direct, temporary, **Minor Adverse (Not Significant) effect**.

Non-Motorised User Delay and Amenity

11.6.12 **Table 11.17** presents the forecast significance of effects on Non-motorised User Delay and Amenity during the construction of the New build Overhead Line.

Table 11.17. Non-motorised User Delay and Amenity Assessment – New-build Overhead Line

Road Link	Sensitivity	% Increase (Total Daily Traffic)	Magnitude of Change	Significance of Effects
Foundry Road	High	0%	Negligible	Minor (Not Significant)
B816 Glenfuir Road	Low	0%	Negligible	Negligible (Not Significant)
B816 Bonnyhill Road	Medium	2%	Negligible	Negligible (Not Significant)
Beam Road	Low	3%	Negligible	Negligible (Not Significant)
Greenhill Road	High	0%	Negligible	Minor (Not Significant)
Glenyards Road	High	2%	Negligible	Minor (Not Significant)
Lochgreen Road	Medium	2%	Negligible	Negligible (Not Significant)
Skipperton Burn road	Low	6%	Negligible	Negligible (Not Significant)
Arns Road	Low	5%	Negligible	Negligible (Not Significant)
Fannyside Road	Low	1%	Negligible	Negligible (Not Significant)
Hulks Road	Low	7%	Negligible	Negligible (Not Significant)
Brackenhirst Road	Low	1%	Negligible	Negligible (Not Significant)

- 11.6.13 Classifying the significance of effects: prior to additional mitigation, the likely effect of construction traffic on Non-motorised User Amenity is a direct, temporary, **Minor Adverse (Not Significant) effect**.

Road Vehicle Driver and Passenger Delay

- 11.6.14 The forecast significance of effects on driver and passenger delay during the construction of the New build Overhead line are shown in **Table 11.18**. Full outputs of the impact analysis are included within **Volume 3, Appendix 11.1 Transport Assessment**.

Table 11.18. Road Vehicle Driver and Passenger Delay Assessment – New-build Overhead Line

Road Link	Sensitivity	Congestion Reference Flow	Magnitude of Change	Significance of Effects
Foundry Road	Low	No Level Change (3%)	Negligible	Negligible (Not Significant)
B816 Glenfuir Road	Low	No Level Change (56%)	Negligible	Negligible (Not Significant)
B816 Bonnyhill Road	Low	No Level Change (13%)	Negligible	Negligible (Not Significant)
Beam Road	Low	No Level Change (3%)	Negligible	Negligible (Not Significant)
Greenhill Road	Low	No Level Change (19%)	Negligible	Negligible (Not Significant)
Glenyards Road	Low	No Level Change (4%)	Negligible	Negligible (Not Significant)
Lochgreen Road	Low	No Level Change (3%)	Negligible	Negligible (Not Significant)
Skipperton Burn road	Low	No Level Change (2%)	Negligible	Negligible (Not Significant)
Arns Road	Low	No Level Change (3%)	Negligible	Negligible (Not Significant)
Fannyside Road	Low	No Level Change (5%)	Negligible	Negligible (Not Significant)
Hulks Road	Low	No Level Change (1%)	Negligible	Negligible (Not Significant)
Brackenhirst Road	Low	No Level Change (5%)	Negligible	Negligible (Not Significant)

11.6.15 Classifying the significance of effects: prior to mitigation, the likely effect of construction traffic on Road Vehicle Driver and Passenger Delay is a direct, temporary, **Minor Adverse (Significant) effect**.

Hazardous / Large Loads

11.6.16 **Table 11.19** presents the significance of effects of Hazardous / Large Loads as a result of Construction development traffic. The significance of effects for severance is based on an assessment of all traffic in accordance with the IEMA Guidelines.

Table 11.19. Hazardous / Large Loads Assessment – New-build Overhead Line

Road Link	Sensitivity	Large Loads (STGO Type)	Magnitude of Change	Significance of Effects
Foundry Road	High	<1 CAT 1 AIL Daily	Negligible	Minor (Not Significant)
B816 Glenfuir Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
B816 Bonnyhill Road	Medium	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Beam Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Greenhill Road	High	<1 CAT 1 AIL Daily	Negligible	Minor (Not Significant)
Glenyards Road	High	<1 CAT 1 AIL Daily	Negligible	Minor (Not Significant)
Lochgreen Road	Medium	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Skipperton Burn road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Arns Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Fannyside Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Hulks Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Brackenhirst Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)

- 11.6.17 Classifying the significance of effects: prior to additional mitigation, the likely effect of construction traffic on Severance is a direct, temporary, **Minor Adverse (Not Significant) effect**.

Summary of Significant Effects

- 11.6.18 The environmental assessment for Traffic and Movement undertaken for the New build Overhead Line shows that no significant environmental effects are forecast. Effects across all categories as assessed in line with IEMA Guidelines 2023 are summarised in **Table 11.20**.

Table 11.20. Summary of Effects – New-build Overhead Line

Category	Significance of Effects
Severance of Communities	Minor Adverse (Not Significant)
Fear and Intimidation of and by Road Users	Minor Adverse (Not Significant)
Road User and Pedestrian Safety	Minor Adverse (Not Significant)
Non-motorised User Delay and Amenity	Minor Adverse (Not Significant)
Road Vehicle Driver and Passenger Delay	Minor Adverse (Not Significant)

Proposed Additional Mitigation Measures

- 11.6.19 In terms of mitigation, embedded mitigation measures are set out in **Section 11.5 Embedded Mitigation** earlier in this chapter. These include measures contained within the CTMP for this component of the development to plan and execute construction in a safe and efficient manner while protecting the public highway.
- 11.6.20 As no significant environmental effects are forecast for this component of the Project, no further mitigation is proposed.

11.7 Uprated Overhead Lines Significance of Effects

Uprated Overhead Lines

- 11.7.2 This section assesses the Up-rated Overhead Lines component of the Project comprising three existing overhead lines being uprated from 275kV to 400kV. This consists of:
- Route ZG
 - Route XX
 - Route XR
- 11.7.3 For descriptions of each of these components, refer to **Chapter 4: Project Description**. Project construction traffic has been obtained from information provided by the contractor and is included in **Volume 3, Appendix 11.1 Transport Assessment**.

Assessment of Effects - Screening

- 11.7.4 IEMA Guidelines Rule 1 and Rule 2 are applied to Study Area roads to identify which roads are to be assessed for environmental effects during construction of the Project. **Table 11.21** summarises the Rule 1 and Rule 2 findings and identifies Study Area roads to be assessed for environmental effects (Yes) and the roads to be excluded (No).

Table 11.21: Study Area Roads to be Assessed for Environmental Effects - Upgraded Overhead Line

Road Link	2028 Baseline		Project		% Increase		Environmental Assessment
	HGV	All Vehs	HGV	All Vehs	HGV	All Vehs	
A872 Denny	155	8,249	2	4	1%	0%	No
Denny Substation road	3	170	2	4	65%	2%	Yes
A9 Stirling Road Glenbervie	132	11,383	4	10	3%	0%	No
A9 Stirling Road North Broomage	241	19,136	4	10	2%	0%	No
B905 Denny Road	12	3,325	2	4	16%	0%	No
A883 Bonnybridge	249	12,580	6	12	2%	0%	No
B9095 (M876 Junction 1)	146	5,521	8	16	5%	0%	No
A883 (M876 Junction 1)	325	16,376	8	16	2%	0%	No
A8004 Checkbar	238	9,439	8	16	3%	0%	No
A803 Bonnybridge Substation	68	6,221	2	4	3%	0%	No
A73 Greenfaulds	414	7,007	24	56	6%	1%	No
A73 Blairlinn	639	15,219	24	56	4%	0%	No
A73 Riggend	269	6,689	24	56	9%	1%	No
Brackenhirst Road	13	693	4	8	30%	1%	Yes
A73 Stand Stirling Road	686	18,025	20	48	3%	0%	No
B802 Condorrat Road	23	1,891	4	8	17%	0%	No
B803 Raebog Road	133	8,349	6	16	5%	0%	No
Yetts Hole Road	3	58	4	10	131%	17%	Yes
Muirdyke Road	9	591	2	4	22%	1%	No

Burnlip Road	3	188	6	14	196%	7%	Yes
B804 Gartliston Road	47	6,083	14	32	30%	1%	Yes
Gartgill Road	6	448	8	18	131%	4%	Yes
Craignethan Drive	79	4,997	14	32	18%	1%	No
A752 Lochend Road	284	11,684	2	4	1%	0%	No
A752 Coatbridge Road	405	9,089	2	4	0%	0%	No
A73 Stirling Road Dykehead	470	17,034	14	32	3%	0%	No
Dykehead Road	12	956	2	4	16%	0%	No
A73 Holehills	500	17,488	10	24	2%	0%	No
Airdrie Hill Road	6	2,030	6	12	98%	1%	Yes
Burnhead Road	5	1,990	2	4	39%	0%	Yes
A73 Motherwell Street Rawyards	518	13,890	4	12	1%	0%	No
A73 Motherwell Street Airdrie	411	13,998	4	12	1%	0%	No
A89 Airdrie Road	192	11,809	4	12	2%	0%	No
A89 Forrest Street	220	12,280	4	12	2%	0%	No
A73 Carlisle Road Chapelhall	520	18,316	8	16	2%	0%	No
Burniebrae Road	50	5,732	8	16	16%	0%	No
Craigens Road	7	318	4	8	56%	3%	Yes
Roughrigg Road	202	1,081	4	8	2%	1%	No
Lawmope Mill Road	11	324	4	8	36%	2%	Yes
A73 Bellside Road Chapelhall	622	15,300	14	28	2%	0%	No
Lancaster Avenue	96	5,096	2	4	2%	0%	No

A73 Bellside Road Newhouse	651	14,228	128	250	20%	2%	No
A775 Edinburgh Road	570	8,432	24	46	4%	1%	No
Glasgow and Edinburgh Road	199	2,327	2	4	1%	0%	No
Legbrannock Road	148	2,750	4	8	3%	0%	No
Kirk Road	362	4,922	2	4	1%	0%	No
Rowantree Avenue eastbound	193	4,199	1	2	1%	0%	No
Rowantree Avenue westbound	347	4,125	1	2	0%	0%	No
Biggar Road	32	839	16	30	51%	4%	Yes
B7066 Motherwell Road	345	10,441	10	18	3%	0%	No
A73 Carlisle Road Brownhill Farm	412	15,573	90	176	22%	1%	No
Hareshaw Road	6	430	36	70	588%	16%	Yes
Greenhill Road North	8	384	30	58	368%	15%	Yes
A73 Cleland	447	15,182	54	106	12%	1%	No
Greenhill Road South	4	129	22	42	539%	33%	Yes
Muiredge and Jersey Road north	3	65	4	8	131%	12%	Yes
Muiredge and Jersey Road south	17	155	16	30	92%	19%	Yes
Foulburn Road	6	809	16	30	261%	4%	Yes
Allanton Road	23	1,055	4	8	17%	1%	No
Mill Road Allanton	19	2,383	4	8	21%	0%	No
A71 Crindledyke	206	9,341	14	28	7%	0%	No
A71 Allanton	205	9,329	14	28	7%	0%	No

Mill Road / Coltness Avenue	4	233	10	20	245%	9%	Yes
Daviesdyke Road	5	92	2	4	39%	4%	Yes
Morningside East road	3	166	10	18	327%	11%	Yes
Mill Road Morningside	8	334	10	18	123%	5%	Yes
Morningside Road	131	5,490	18	32	14%	1%	No
A71 Newmains	381	12,054	32	60	8%	0%	No
A73 Main Street Newmains	517	11,588	22	46	4%	0%	No
A73 Westwood Road	417	16,807	54	106	13%	1%	No
A722 Manse Road	103	14,009	20	42	19%	0%	No
Woodhall Road	19	1,387	20	42	103%	3%	Yes
A73 Bogside	292	8,257	2	4	1%	0%	No
A71 Overtown Road north	275	5,684	20	42	7%	1%	No
A71 Overtown Road south	521	9,208	12	24	2%	0%	No
B754 Castlehill Road	205	9,220	2	4	1%	0%	No
Allershaw Road	5	231	2	4	39%	2%	Yes
M9 Glenbervie - Bannockburn	1,557	22,100	2	4	0%	0%	No
M80 Bankhead - Bannockburn	3,941	41,127	2	4	0%	0%	No
M876	4,322	50,748	12	26	0%	0%	No
M80 Junction 4 - 6	8,043	85,642	24	56	0%	0%	No
M73 Junction 2A - 3	6,732	64,686	16	36	0%	0%	No
M8 Junction 6 -8	7,614	81,738	130	254	2%	0%	No
M8 Junction 8-10	3,777	92,216	130	254	3%	0%	No

- 11.7.5 **Table 11.21** shows that 23 study area roads require to be assessed for environmental effects as a result of the Uprated Overhead Line component of the Project.

Severance of Communities

- 11.7.6 **Table 11.22** presents the significance of effects on the severance of communities as a result of Uprated Overhead Lines construction traffic. The significance of effects for severance is based on an assessment of all traffic in accordance with the IEMA Guidelines.

Table 11.22. Severance of Communities Assessment – Uprated Overhead Lines

Road Link	Sensitivity	% Increase (Total Daily Traffic)	Magnitude of Change	Significance of Effects
Denny Substation road	Low	2%	Negligible	Negligible (Not Significant)
Brackenhirst Road	Low	1%	Negligible	Negligible (Not Significant)
Yetts Hole Road	Low	17%	Negligible	Negligible (Not Significant)
Burnlip Road	Low	7%	Negligible	Negligible (Not Significant)
B804 Gartliston Road	Low	1%	Negligible	Negligible (Not Significant)
Gartgill Road	Low	4%	Negligible	Negligible (Not Significant)
Airdrie Hill Road	Low	1%	Negligible	Negligible (Not Significant)
Burnhead Road	Low	0%	Negligible	Negligible (Not Significant)
Craigens Road	Low	3%	Negligible	Negligible (Not Significant)
Lawmope Mill Road	Low	2%	Negligible	Negligible (Not Significant)
Biggar Road	Low	4%	Negligible	Negligible (Not Significant)
Hareshaw Road	Low	16%	Negligible	Negligible (Not Significant)

Greenhill Road North	High	15%	Negligible	Minor (Not Significant)
Greenhill Road South	Low	33%	Low	Negligible (Not Significant)
Muiredge and Jersey Road north	Low	12%	Negligible	Negligible (Not Significant)
Muiredge and Jersey Road south	Low	19%	Negligible	Negligible (Not Significant)
Foulburn Road	Low	4%	Negligible	Negligible (Not Significant)
Mill Road / Coltness Avenue	High	9%	Negligible	Minor (Not Significant)
Daviesdyke Road	Low	4%	Negligible	Negligible (Not Significant)
Morningside East road	Low	11%	Negligible	Negligible (Not Significant)
Mill Road Morningside	Low	5%	Negligible	Negligible (Not Significant)
Woodhall Road	Low	3%	Negligible	Negligible (Not Significant)
Allershaw Road	Low	2%	Negligible	Negligible (Not Significant)

- 11.7.7 Classifying the significance of effects: prior to additional mitigation, the likely effect of construction traffic on severance is a direct, temporary, **Minor Adverse (Not Significant) effect**.

Fear and Intimidation on and by Road Users

- 11.7.8 **Table 11.23** presents the forecast significance of effect on fear and intimidation as a result of the Uprated Overhead Lines construction traffic. This assessment follows the methodology for assessment of Fear and Intimidation as set out in IEMA Guidelines 2023.

Table 11.23. Fear and Intimidation Assessment – Uprated Overhead Line

Road Link	Sensitivity	Step Change	Magnitude of Change	Significance of Effects
Denny Substation road	Low	0	Negligible	Negligible (Not Significant)

Brackenhirst Road	Low	0	Negligible	Negligible (Not Significant)
Yetts Hole Road	Low	0	Negligible	Negligible (Not Significant)
Burnlip Road	Low	0	Negligible	Negligible (Not Significant)
B804 Gartliston Road	Low	0	Negligible	Negligible (Not Significant)
Gartgill Road	Low	0	Negligible	Negligible (Not Significant)
Airdriehill Road	Low	0	Negligible	Negligible (Not Significant)
Burnhead Road	Low	0	Negligible	Negligible (Not Significant)
Craigens Road	Low	0	Negligible	Negligible (Not Significant)
Lawmope Mill Road	Low	0	Negligible	Negligible (Not Significant)
Biggar Road	Low	0	Negligible	Negligible (Not Significant)
Hareshaw Road	Low	0	Negligible	Negligible (Not Significant)
Greenhill Road North	High	0	Negligible	Minor (Not Significant)
Greenhill Road South	Low	0	Negligible	Negligible (Not Significant)
Muiredge and Jersey Road north	Low	0	Negligible	Negligible (Not Significant)
Muiredge and Jersey Road south	Low	0	Negligible	Negligible (Not Significant)
Foulburn Road	Low	0	Negligible	Negligible (Not Significant)
Mill Road / Coltness Avenue	High	0	Negligible	Minor (Not Significant)
Daviesdyke Road	Low	0	Negligible	Negligible (Not Significant)

Morningside East road	Low	0	Negligible	Negligible (Not Significant)
Mill Road Morningside	Low	0	Negligible	Negligible (Not Significant)
Woodhall Road	Low	0	Negligible	Negligible (Not Significant)
Allershaw Road	Low	0	Negligible	Negligible (Not Significant)

- 11.7.9 Classifying the significance of effects: prior to additional mitigation, the likely effect of construction traffic on Fear and Intimidation is a direct, temporary, **Minor Adverse (Not Significant) effect**.

Road User and Pedestrian Safety

- 11.7.10 **Table 11.24** presents road user and pedestrian safety significance of effects on Study Area roads for the duration of construction of the Upgraded Overhead Lines.

Table 11.24. Road User and Pedestrian Safety Assessment – Upgraded Overhead Lines

Road Link	Sensitivity	Forecast Injury Accidents			Magnitude of Change	Significance of Effect
		Slight	Serious	Fatal		
Denny Substation road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Brackenhiest Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Yetts Hole Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Burnlip Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
B804 Gartliston Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Gartgill Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)

Airdriehill Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Burnhead Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Craigens Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Lawmope Mill Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Biggar Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Hareshaw Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Greenhill Road North	High	0.0	0.0	0.0	Negligible	Minor (Not Significant)
Greenhill Road South	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Muiredge and Jersey Road north	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Muiredge and Jersey Road south	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Foulburn Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Mill Road / Coltness Avenue	High	0.0	0.0	0.0	Negligible	Minor (Not Significant)
Daviesdyke Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)

Morningside East road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Mill Road Morningside	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Woodhall Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Allershaw Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)

- 11.7.11 Classifying the significance of effects: prior to additional mitigation, the likely effect of construction traffic on Road User and Pedestrian Safety is a direct, temporary, **Minor Adverse (Not Significant) effect**.

Non-motorised User Delay and Amenity

- 11.7.12 **Table 11.25** presents the forecast significance of effects on Non-motorised User Delay and Amenity during the construction of the Upgraded Overhead Lines.

Table 11.25. Non-motorised User Delay and Amenity Assessment – Upgraded Overhead Lines

Road Link	Sensitivity	% Increase (Total Daily Traffic)	Magnitude of Change	Significance of Effects
Denny Substation road	Low	2%	Negligible	Negligible (Not Significant)
Brackenhirst Road	Low	1%	Negligible	Negligible (Not Significant)
Yetts Hole Road	Low	17%	Negligible	Negligible (Not Significant)
Burnlip Road	Low	7%	Negligible	Negligible (Not Significant)
B804 Gartliston Road	Low	1%	Negligible	Negligible (Not Significant)
Gartgill Road	Low	4%	Negligible	Negligible (Not Significant)
Airdrie Hill Road	Low	1%	Negligible	Negligible (Not Significant)

Burnhead Road	Low	0%	Negligible	Negligible (Not Significant)
Craigens Road	Low	3%	Negligible	Negligible (Not Significant)
Lawmope Mill Road	Low	2%	Negligible	Negligible (Not Significant)
Biggar Road	Low	4%	Negligible	Negligible (Not Significant)
Hareshaw Road	Low	16%	Negligible	Negligible (Not Significant)
Greenhill Road North	High	15%	Negligible	Minor (Not Significant)
Greenhill Road South	Low	33%	Low	Negligible (Not Significant)
Muireside and Jersey Road north	Low	12%	Negligible	Negligible (Not Significant)
Muireside and Jersey Road south	Low	19%	Negligible	Negligible (Not Significant)
Foulburn Road	Low	4%	Negligible	Negligible (Not Significant)
Mill Road / Coltness Avenue	High	9%	Negligible	Minor (Not Significant)
Daviesdyke Road	Low	4%	Negligible	Negligible (Not Significant)
Morningside East road	Low	11%	Negligible	Negligible (Not Significant)
Mill Road Morningside	Low	5%	Negligible	Negligible (Not Significant)
Woodhall Road	Low	3%	Negligible	Negligible (Not Significant)
Allershaw Road	Low	2%	Negligible	Negligible (Not Significant)

11.7.13 Classifying the significance of effects: prior to additional mitigation, the likely effect of construction traffic on Non-motorised User Amenity is a direct, temporary, **Minor Adverse (Not Significant) effect**.

Road Vehicle Driver and Passenger Delay

11.7.14 The forecast significance of effects on driver and passenger delay during the construction of the Upated Overhead lines are shown in **Table 11.26**. Full outputs of the impact analysis are included within **Volume 3, Appendix 11.1 Transport Assessment**.

Table 11.26. Road Vehicle Driver and Passenger Delay Assessment – Upated Overhead Lines

Road Link	Sensitivity	Congestion Reference Flow	Magnitude of Change	Significance of Effects
Denny Substation Road	Low	No Level Change (1%)	Negligible	Negligible (Not Significant)
Brackenhirst Road	Low	No Level Change (5%)	Negligible	Negligible (Not Significant)
Yetts Hole Road	Low	No Level Change (1%)	Negligible	Negligible (Not Significant)
Burnlip Road	Low	No Level Change (3%)	Negligible	Negligible (Not Significant)
B804 Gartliston Road	Low	No Level Change (27%)	Negligible	Negligible (Not Significant)
Gartgill Road	Low	No Level Change (3%)	Negligible	Negligible (Not Significant)
Airdrie Hill Road	Low	No Level Change (8%)	Negligible	Negligible (Not Significant)
Burnhead Road	Low	No Level Change (9%)	Negligible	Negligible (Not Significant)
Craigens Road	Low	No Level Change (2%)	Negligible	Negligible (Not Significant)
Lawmope Mill Road	Low	No Level Change (4%)	Negligible	Negligible (Not Significant)
Biggar Road	Low	No Level Change (6%)	Negligible	Negligible (Not Significant)
Hareshaw Road	Low	No Level Change (4%)	Negligible	Negligible (Not Significant)
Greenhill Road North	Low	No Level Change (4%)	Negligible	Negligible (Not Significant)
Greenhill Road South	Low	No Level Change (1%)	Low	Negligible (Not Significant)

Muiredge and Jersey Road north	Low	No Level Change (1%)	Negligible	Negligible (Not Significant)
Muiredge and Jersey Road south	Low	No Level Change (2%)	Negligible	Negligible (Not Significant)
Foulburn Road	Low	No Level Change (5%)	Negligible	Negligible (Not Significant)
Mill Road / Coltness Avenue	Low	No Level Change (2%)	Negligible	Negligible (Not Significant)
Daviesdyke Road	Low	No Level Change (1%)	Negligible	Negligible (Not Significant)
Morningside East road	Low	No Level Change (1%)	Negligible	Negligible (Not Significant)
Mill Road Morningside	Low	No Level Change (2%)	Negligible	Negligible (Not Significant)
Woodhall Road	Low	No Level Change (10%)	Negligible	Negligible (Not Significant)
Allershaw Road	Low	No Level Change (1%)	Negligible	Negligible (Not Significant)

11.7.15 Classifying the significance of effects: prior to mitigation, the likely effect of construction traffic on Road Vehicle Driver and Passenger Delay is a direct, temporary, **Minor Adverse (Significant) effect**.

Hazardous / Large Loads

11.7.16 **Table 11.27** presents the significance of effects of Hazardous / Large Loads as a result of Upgraded Overhead Lines construction traffic.

Table 11.27. Hazardous / Large Loads – Upgraded Overhead Lines

Road Link	Sensitivity	Large Loads (STGO Type)	Magnitude of Change	Significance of Effects
Denny Substation road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Brackenhirst Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Yetts Hole Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Burnlip Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)

B804 Gartliston Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Gartgill Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Airdriehill Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Burnhead Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Craigens Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Lawmope Mill Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Biggar Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Hareshaw Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Greenhill Road North	High	<1 CAT 1 AIL Daily	Negligible	Minor (Not Significant)
Greenhill Road South	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Muiredge and Jersey Road north	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Muiredge and Jersey Road south	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Foulburn Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Mill Road / Coltness Avenue	High	<1 CAT 1 AIL Daily	Negligible	Minor (Not Significant)
Daviesdyke Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Morningside East road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Mill Road Morningside	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Woodhall Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)

Allershaw Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
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- 11.7.17 Classifying the significance of effects: prior to additional mitigation, the likely effect of construction traffic of Hazardous / Large Loads is a direct, temporary, **Minor Adverse (Not Significant) effect**.

Summary of Significant Effects

- 11.7.18 The environmental assessment for Traffic and Movement undertaken for the Upgraded Overhead Line shows that no significant environmental effects are forecast. Effects across all categories as assessed in line with IEMA Guidelines 2023 are summarised in **Table 11.28**.

Table 11.28. Summary of Effects – Upgraded Overhead Line

Category	Significance of Effects
Severance of Communities	Minor Adverse (Not Significant)
Fear and Intimidation of and by Road Users	Minor Adverse (Not Significant)
Road User and Pedestrian Safety	Minor Adverse (Not Significant)
Non-motorised User Delay and Amenity	Minor Adverse (Not Significant)
Road Vehicle Driver and Passenger Delay	Minor Adverse (Not Significant)
Hazardous / Large Loads	Minor Adverse (Not Significant)

Proposed Additional Mitigation Measures

- 11.7.19 In terms of mitigation, embedded mitigation measures are set out in **Section 11.5 Embedded Mitigation**. These include measures contained within the CTMP for this component of the development to plan and execute construction in a safe and efficient manner while protecting the public highway.
- 11.7.20 As no significant environmental effects are forecast for this component of the Project, no further mitigation is proposed.

11.8 Denny North Substation Works Significance of Effects

Denny North Substation Works

- 11.8.2 This section assesses the Denny North Substation Works component of the Project.
- 11.8.3 For a description of the proposed works, refer to **Chapter 4: Project Description**. Project construction traffic has been obtained from information provided by the contractor and is included in **Volume 3, Appendix 11.1 Transport Assessment**.

Assessment of Effects - Screening

- 11.8.4 IEMA Guidelines Rule 1 and Rule 2 are applied to Study Area roads to identify which roads are to be assessed for environmental effects during construction of the Project. **Table 11.29** summarises the Rule 1 and Rule 2 findings and identifies Study Area roads to be assessed for environmental effects (Yes) and the roads to be excluded (No).

Table 11.29: Study Area Roads to be Assessed for Environmental Effects - Denny North Substation Works

Road Link	2028 Baseline		Project		% Increase		Environmental Assessment
	HGV	All Vehs	HGV	All Vehs	HGV	All Vehs	
A872 Denny	152	8,087	2	66	1%	1%	No
Denny Substation Road	3	167	2	66	65%	39%	Yes
M80 Bankhead - Bannockburn	3,864	40,321	2	66	0%	0%	No
M80 Bankhead - Old Inns Junction	7,367	85,434	2	66	0%	0%	No
M80 Junction 4 - 6	7,885	83,963	2	66	0%	0%	No

- 11.8.5 **Table 11.29** shows that only Denny Substation Road requires to be assessed for environmental effects as a result of the Denny North Substation Works component of the Project.

Severance of Communities

- 11.8.6 **Table 11.30** presents the significance of effects on the severance of communities as a result of Denny North Substation Works construction traffic. The significance of effects for severance is based on an assessment of all traffic in accordance with the IEMA Guidelines.

Table 11.30. Severance of Communities Assessment – Denny North Substation Works

Road Link	Sensitivity	% Increase (Total Daily Traffic)	Magnitude of Change	Significance of Effects
Denny Substation Road	Low	39%	Low	Negligible (Not Significant)

- 11.8.7 Classifying the significance of effects: prior to additional mitigation, the likely effect of construction traffic on severance is a direct, temporary, **Negligible (Not Significant) effect**.

Fear and Intimidation on and by Road Users

- 11.8.8 **Table 11.31** presents the forecast significance of effect on fear and intimidation as a result of the Denny North Substation Works construction traffic. This assessment follows the methodology for assessment of Fear and Intimidation as set out in IEMA Guidelines 2023.

Table 11.31. Fear and Intimidation Assessment – Denny North Substation Works

Road Link	Sensitivity	Step Change	Magnitude of Change	Significance of Effects
Denny Substation Road	Low	0	Negligible	Negligible (Not Significant)

- 11.8.9 Classifying the significance of effects: prior to additional mitigation, the likely effect of construction traffic on Fear and Intimidation is a direct, temporary, **Negligible (Not Significant) effect**.

Road User and Pedestrian Safety

- 11.8.10 **Table 11.32** presents road user and pedestrian safety significance of effects on Study Area roads for the duration of construction of the Denny North Substation Works.

Table 11.32. Road User and Pedestrian Safety Assessment – Denny North Substation

Road Link	Sensitivity	Forecast Injury Accidents			Magnitude of Change	Significance of Effect
		Slight	Serious	Fatal		
Denny Substation Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)

- 11.8.11 Classifying the significance of effects: prior to additional mitigation, the likely effect of construction traffic on Road User and Pedestrian Safety is a direct, temporary, **Negligible (Not Significant) effect**.

Non-motorised User Delay and Amenity

- 11.8.12 **Table 11.33** presents the forecast significance of effects on Non-motorised User Delay and Amenity during the construction of the proposed Denny North Substation Works.

Table 11.33. Non-motorised User Delay and Amenity Assessment – Denny North Substation

Road Link	Sensitivity	Congestion Reference Flow	Magnitude of Change	Significance of Effects
Denny Substation Road	Low	No Level Change (2%)	Low	Negligible (Not Significant)

- 11.8.13 Classifying the significance of effects: prior to additional mitigation, the likely effect of construction traffic on Non-motorised User Delay and Amenity is a direct, temporary, **Negligible (Not Significant) effect**.

Road Vehicle Driver and Passenger Delay

- 11.8.14 The forecast significance of effects on driver and passenger delay during the construction of the Denny North Substation Works are shown in **Table 11.34**. Full outputs of the impact analysis are included within **Volume 3, Appendix 11.1 Transport Assessment**.

Table 11.34. Road Vehicle Driver and Passenger Delay Assessment – Denny North Substation

Road Link	Sensitivity	% Increase (Total Daily Traffic)	Magnitude of Change	Significance of Effects
Denny Substation Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)

- 11.8.15 Classifying the significance of effects: prior to mitigation, the likely effect of construction traffic on Road Vehicle Driver and Passenger Delay is a direct, temporary, **Negligible (Significant) effect**.

Hazardous / Large Loads

- 11.8.16 **Table 11.35** presents the significance of effects of Hazardous / Large Loads as a result of Denny North Substation Works construction traffic.

Table 11.35. Hazardous / Large Loads – Denny North Substation Works

Road Link	Sensitivity	Large Loads (STGO Type)	Magnitude of Change	Significance of Effects
Denny Substation Road	Low	<1 CAT 1 AIL	Negligible	Negligible (Not Significant)

- 11.8.17 Classifying the significance of effects: prior to mitigation, the likely effect of construction traffic on Hazardous / Large Loads is a direct, temporary, **Negligible (Significant) effect**.

Summary of Significant Effects

- 11.8.18 The environmental assessment for Traffic and Movement undertaken for the Denny North Substation Works shows that no significant environmental effects are forecast. Effects across all categories as assessed in line with IEMA Guidelines 2023 are summarised in Table 11.36.

Table 11.36. Summary of Effects – Denny North Substation

Category	Significance of Effects
Severance of Communities	Negligible (Not Significant)
Fear and Intimidation of and by Road Users	Negligible (Not Significant)
Road User and Pedestrian Safety	Negligible (Not Significant)
Non-motorised User Delay and Amenity	Negligible (Not Significant)
Road Vehicle Driver and Passenger Delay	Negligible (Not Significant)
Hazardous / Large Loads	Negligible (Not Significant)

Proposed Additional Mitigation Measures

- 11.8.19 In terms of mitigation, embedded mitigation measures are set out in **Section 11.5 Embedded Mitigation**. These include measures contained within the CTMP for this component of the development to plan and execute construction in a safe and efficient manner while protecting the public highway.
- 11.8.20 As no significant environmental effects are forecast for this component of the Project, no further mitigation is proposed.

11.9 Proposed Bonnybridge Substation Extension Significance of Effects

Bonnybridge Substation Extension

- 11.9.2 This section assesses the Bonnybridge Substation Extension component of the Project.
- 11.9.3 For a description of the proposed works, refer to **Chapter 4: Project Description**. Project construction traffic has been obtained from information provided by the contractor and is included in **Volume 3, Appendix 11.1 Transport Assessment**.

Assessment of Effects - Screening

- 11.9.4 IEMA Guidelines Rule 1 and Rule 2 are applied to Study Area roads to identify which roads are to be assessed for environmental effects during construction of the Project. **Table 11.37** summarises the Rule 1 and Rule 2 findings and identifies Study Area roads to be assessed for environmental effects (Yes) and the roads to be excluded (No).

Table 11.37: Study Area Roads to be Assessed for Environmental Effects - Bonnybridge Substation Extension

Road Link	2028 Baseline		Project		% Increase		Environmental Assessment
	HGV	All Vehs	HGV	All Vehs	HGV	All Vehs	
A883 Bonnybridge	249	12,580	2	28	1%	0%	No
B9095 (M876 Junction 1)	146	5,521	2	28	1%	1%	No
A883 (M876 Junction 1)	325	16,376	2	28	1%	0%	No
A8004 Checkbar	238	9,439	2	28	1%	0%	No
A803 Bonnybridge Substation	68	6,221	2	28	3%	0%	No
M876	4,322	50,748	2	28	0%	0%	No
M876 Bankhead - Checkbar Junction	4,048	45,246	2	28	0%	0%	No
M80 Bankhead - Old Inns Junction	7,514	87,143	2	28	0%	0%	No
M80 Junction 4 - 6	8,043	85,642	2	28	0%	0%	No

11.9.5 **Table 11.37** shows that no study area roads carrying Project construction traffic require to be assessed for environmental effects in line with IEMA Guidelines Rule 1 / Rule 2 screening assessment.

11.9.6 There will be a requirement for the movement of abnormal loads (associated with the movement of transformer and control building components) during the construction phase. Details regarding the transportation of any abnormal loads to Site will be confirmed once a contractor is in place. Appropriate provision for the movement of large loads will be made in accordance with management protocols such as ESDAL (Electronic Service Delivery for Abnormal Loads) or similar.

11.10 Wishaw Substation Extension Significance of Effects

Wishaw Substation Extension

11.10.2 This section assesses the proposed Wishaw Substation Extension component of the Project.

11.10.3 For a description of the proposed works, refer to **Chapter 4: Project Description**. Project construction traffic has been obtained from information provided by the contractor and is included in **Volume 3, Appendix 11.1 Transport Assessment**.

Assessment of Effects - Screening

11.10.4 IEMA Guidelines Rule 1 and Rule 2 are applied to Study Area roads to identify which roads are to be assessed for environmental effects during construction of the Project. **Table 11.38** summarises the Rule 1 and Rule 2 findings and identifies Study Area roads to be assessed for environmental effects (Yes) and the roads to be excluded (No).

Table 11.38: Study Area Roads to be Assessed for Environmental Effects - Wishaw Substation Extension

Road Link	2028 Baseline		Project		% Increase		Environmental Assessment
	HGV	All Vehs	HGV	All Vehs	HGV	All Vehs	
A73 Bellside Road Newhouse	651	14,228	8	35	1%	0%	No
A73 Carlisle Road Brownhill Farm	412	15,573	8	35	2%	0%	No
A73 Cleland	447	15,182	8	35	2%	0%	No
A73 Westwood Road	417	16,807	8	35	2%	0%	No
A722 Manse Road	103	14,009	8	35	8%	0%	No
B754 Castlehill Road	205	9,220	8	35	4%	0%	No
Allershaw Road	5	231	8	35	157%	15%	Yes
M80 Junction 4 - 6	8,043	85,642	8	35	0%	0%	No
M73 Junction 2A - 3	6,732	64,686	8	35	0%	0%	No
M73 Gartcosh - Baillieston	7,494	68,381	8	35	0%	0%	No
M74 Junction 4 - 7	9,075	103,027	8	35	0%	0%	No

11.10.5 **Table 11.38** shows that only Allershaw Road requires to be assessed for environmental effects as a result of the Wishaw Substation Works component of the Project.

Severance of Communities

- 11.10.6 **Table 11.39** presents the significance of effects on the severance of communities as a result of Wishaw Substation Extension construction traffic. The significance of effects for severance is based on an assessment of all traffic in accordance with the IEMA Guidelines.

Table 11.39. Severance of Communities Assessment – Wishaw Substation Extension

Road Link	Sensitivity	% Increase (Total Daily Traffic)	Magnitude of Change	Significance of Effects
Allershaw Road	Low	15%	Negligible	Negligible (Not Significant)

- 11.10.7 Classifying the significance of effects: prior to additional mitigation, the likely effect of construction traffic on severance is a direct, temporary, **Negligible (Not Significant) effect**.

Fear and Intimidation on and by Road Users

- 11.10.8 **Table 11.40** presents the forecast significance of effect on fear and intimidation as a result of the Wishaw Substation Extension construction traffic. This assessment follows the methodology for assessment of Fear and Intimidation as set out in the IEMA Guidelines 3.

Table 11.40. Fear and Intimidation Assessment – Wishaw Substation Extension

Road Link	Sensitivity	Step Change	Magnitude of Change	Significance of Effects
Allershaw Road	Low	0	Negligible	Negligible (Not Significant)

- 11.10.9 Classifying the significance of effects: prior to additional mitigation, the likely effect of construction traffic on Fear and Intimidation is a direct, temporary, **Negligible (Not Significant) effect**.

Road User and Pedestrian Safety

- 11.10.10 **Table 11.41** presents road user and pedestrian safety significance of effects on Study Area roads for the duration of construction of the proposed Wishaw Substation Extension.

Table 11.41. Road User and Pedestrian Safety Assessment – Wishaw Substation Extension

Road Link	Sensitivity	Forecast Injury Accidents			Magnitude of Change	Significan ce of Effect
		Slight	Serious	Fatal		
Allershaw Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)

11.10.11 Classifying the significance of effects: prior to additional mitigation, the likely effect of construction traffic on Road User and Pedestrian Safety is a direct, temporary, **Minor Adverse (Not Significant) effect**.

Non-motorised User Delay and Amenity

11.10.12 **Table 11.42** presents the forecast significance of effects on Non-motorised User Delay and Amenity during the construction of the Wishaw Substation Extension.

Table 11.42. Non-motorised User Delay and Amenity Assessment – Wishaw Substation

Road Link	Sensitivity	% Increase (Total Daily Traffic)	Magnitude of Change	Significance of Effects
Allershaw Road	Low	15%	Negligible	Negligible (Not Significant)

11.10.13 Classifying the significance of effects: prior to additional mitigation, the likely effect of construction traffic on Non-motorised User Delay and Amenity is a direct, temporary, **Negligible (Not Significant) effect**.

Road Vehicle Driver and Passenger Delay

11.10.14 The forecast significance of effects on driver and passenger delay during the construction of the Wishaw Substation Extension are shown in **Table 11.43**. Full outputs of the impact analysis are included within **Volume 3, Appendix 11.1 Transport Assessment**.

Table 11.43. Road Vehicle Driver and Passenger Delay Assessment – Wishaw Substation Extension

Road Link	Sensitivity	Congestion Reference Flow	Magnitude of Change	Significance of Effects
Allershaw Road	Low	No Level Change (1%)	Negligible	Negligible (Not Significant)

11.10.15 Classifying the significance of effects: prior to mitigation, the likely effect of construction traffic on Road Vehicle Driver and Passenger Delay is a direct, temporary, **Negligible (Significant) effect**.

Hazardous / Large Loads

11.10.16 **Table 11.44** presents the significance of effects of Hazardous / Large Loads as a result of Wishaw Substation Extension construction traffic. The significance of effects for Hazardous/Large Loads is based on an assessment of all traffic in accordance with the IEMA Guidelines.

Table 11.44. Hazardous / Large Loads – Wishaw Substation Extension

Road Link	Sensitivity	Large Loads (STGO Type)	Magnitude of Change	Significance of Effects
Allershaw Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)

11.10.17 Classifying the significance of effects: prior to additional mitigation, the likely effect of construction traffic of Hazardous / Large Loads is a direct, temporary, **Negligible (Not Significant) effect**.

Summary of Significant Effects

11.10.18 The environmental assessment for Traffic and Movement undertaken for the Wishaw Substation Extension shows that no significant environmental effects are forecast. Effects across all categories as assessed in line with IEMA Guidelines 2023 are summarised in **Table 11.45**.

Table 11.45. Summary of Effects – Wishaw Substation Extension

Category	Significance of Effects
Severance of Communities	Negligible (Not Significant)
Fear and Intimidation of and by Road Users	Negligible (Not Significant)
Road User and Pedestrian Safety	Negligible (Not Significant)
Non-motorised User Delay and Amenity	Negligible (Not Significant)
Road Vehicle Driver and Passenger Delay	Negligible (Not Significant)
Hazardous / Large Loads	Negligible (Not Significant)

Proposed Additional Mitigation Measures

11.10.19 In terms of mitigation, embedded mitigation measures are set out in **Section 11.5 Embedded Mitigation**. These include measures contained within the CTMP for this component of the development to plan and execute construction in a safe and efficient manner while protecting the public highway.

11.10.20 As no significant environmental effects are forecast for this component of the Project, no further mitigation is proposed.

11.11 Cumbernauld Substation Extension Significance of Effects

11.11.1 **Table 11.46** summarises the results of IEMA Rule 1 and Rule 2 criteria applied to determine which Study Area roads must be included in the environmental assessment. It

should be noted that the forecast increase in HGV traffic on Study Area Roads is principally responsible for the inclusion of roads in the environmental assessment.

Table 11.46 Study Area Roads for IEMA Environmental Assessment – Cumbernauld Substation Extension

Road Link	2028 Baseline		Project		% Increase		Environmental Assessment
	HGV	All Vehs	HGV	All Vehs	HGV	All Vehs	
Forest Road Cumbernauld Substation	122	8,263	74	98	60%	1%	Yes
B8054 Lenziemill Road East	261	10,145	74	98	28%	1%	No
A8011 Glasgow Road	1,676	37,191	74	98	4%	0%	No
B8039 Jane's Brae	926	17,171	74	98	8%	1%	No
M80 Junction 4 - 6	8,043	85,642	74	98	1%	0%	No

11.11.2 **Table 11.46** shows that only Forest Road Cumbernauld Substation Extension requires to be assessed for environmental effects as a result of the Project.

Severance of Communities

11.11.3 **Table 11.39** presents the significance of effects on the severance of communities as a result of Cumbernauld Substation Extension construction traffic. The significance of effects for severance is based on an assessment of all traffic in accordance with the IEMA Guidelines.

Table 11.49. Severance of Communities Assessment – Cumbernauld Substation Extension

Road Link	Sensitivity	% Increase (Total Daily Traffic)	Magnitude of Change	Significance of Effects
Forest Road Cumbernauld Substation	Low	1%	Negligible	Negligible

11.11.4 Classifying the significance of effects: prior to additional mitigation, the likely effect of construction traffic on severance is a direct, temporary, **Negligible (Not Significant) effect**.

Fear and Intimidation on and by Road Users

- 11.11.5 **Table 11.40** presents the forecast significance of effect on fear and intimidation as a result of the Cumbernauld Substation Extension construction traffic. This assessment follows the methodology for assessment of Fear and Intimidation as set out in the IEMA Guidelines 3.

Table 11.1. Fear and Intimidation Assessment – Cumbernauld Substation Extension

Road Link	Sensitivity	Step Change	Magnitude of Change	Significance of Effects
Forest Road Cumbernauld Substation	Low	0	Negligible	Negligible

- 11.11.6 Classifying the significance of effects: prior to additional mitigation, the likely effect of construction traffic on Fear and Intimidation is a direct, temporary, **Negligible (Not Significant) effect**.

Road User and Pedestrian Safety

- 11.11.7 **Table 11.41** presents road user and pedestrian safety significance of effects on Study Area roads for the duration of construction of the Cumbernauld Substation Extension.

Table 11.2. Road User and Pedestrian Safety Assessment – Cumbernauld Substation Extension

Road Link	Sensitivity	Forecast Injury Accidents			Magnitude of Change	Significance of Effect
		Slight	Serious	Fatal		
Forest Road Cumbernauld Substation	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)

- 11.11.8 Classifying the significance of effects: prior to additional mitigation, the likely effect of construction traffic on Road User and Pedestrian Safety is a direct, temporary, **Minor Adverse (Not Significant) effect**.

Non-motorised User Delay and Amenity

- 11.11.9 **Table 11.42** presents the forecast significance of effects on Non-motorised User Delay and Amenity during the construction of the Cumbernauld Substation.

Table 11.3. Non-motorised User Delay and Amenity Assessment – Cumbernauld Substation Extension

Road Link	Sensitivity	% Increase (Total Daily Traffic)	Magnitude of Change	Significance of Effects
Forest Road Cumbernauld Substation	Low	1%	Negligible	Negligible

- 11.11.10 Classifying the significance of effects: prior to additional mitigation, the likely effect of construction traffic on Non-motorised User Delay and Amenity is a direct, temporary, **Negligible (Not Significant) effect**.

Road Vehicle Driver and Passenger Delay

- 11.11.11 The forecast significance of effects on driver and passenger delay during the construction of the Wishaw Substation Extension are shown in **Table 11.43**. Full outputs of the impact analysis are included within **Volume 3, Appendix 11.1 Transport Assessment**.

Table 11.4. Road Vehicle Driver and Passenger Delay Assessment – Wishaw Substation Extension

Road Link	Sensitivity	Congestion Reference Flow	Magnitude of Change	Significance of Effects
Forest Road Cumbernauld Substation	Low	No Level Change (34%)	Negligible	Negligible (Not Significant)

- 11.11.12 Classifying the significance of effects: prior to mitigation, the likely effect of construction traffic on Road Vehicle Driver and Passenger Delay is a direct, temporary, **Negligible (Significant) effect**.

Hazardous / Large Loads

- 11.11.13 **Table 11.44** presents the significance of effects of Hazardous / Large Loads as a result of Cumbernauld Substation Extension construction traffic. The significance of effects for Hazardous/Large Loads is based on an assessment of all traffic in accordance with the IEMA Guidelines.

- 11.11.14 There will be a requirement for the movement of abnormal loads (associated with the movement of transformer and control building components) during the construction phase. Details regarding the transportation of any abnormal loads to Site will be confirmed once a contractor is in place. Appropriate provision for the movement of large loads will be made in accordance with management protocols such as ESDAL (Electronic Service Delivery for Abnormal Loads) or similar.

Table 11.5. Hazardous / Large Loads – Cumbernauld Substation Extension

Road Link	Sensitivity	Large Loads (STGO Type)	Magnitude of Change	Significance of Effects
Forest Road Cumbernauld Substation	Low	CAT 1 AIL	Low	Negligible (Not Significant)

- 11.11.15 Classifying the significance of effects: prior to additional mitigation, the likely effect of construction traffic of Hazardous / Large Loads is a direct, temporary, **Negligible (Not Significant) effect**.

Summary of Significant Effects

- 11.11.16 The environmental assessment for Traffic and Movement undertaken for the Cumbernauld Substation Extension shows that no significant environmental effects are forecast. Effects across all categories as assessed in line with IEMA Guidelines 2023 are summarised in **Table 11.45**.

Table 11.6. Summary of Effects – Cumbernauld Substation Extension

Category	Significance of Effects
Severance of Communities	Negligible (Not Significant)
Fear and Intimidation of and by Road Users	Negligible (Not Significant)
Road User and Pedestrian Safety	Negligible (Not Significant)
Non-motorised User Delay and Amenity	Negligible (Not Significant)
Road Vehicle Driver and Passenger Delay	Negligible (Not Significant)
Hazardous / Large Loads	Negligible (Not Significant)

Proposed Additional Mitigation Measures

- 11.11.17 In terms of mitigation, embedded mitigation measures are set out in **Section 11.5 Embedded Mitigation**. These include measures contained within the CTMP for this component of the development to plan and execute construction in a safe and efficient manner while protecting the public highway.
- 11.11.18 As no significant environmental effects are forecast for this component of the Project, no further mitigation is proposed.

11.12 Project-wide Significance of Effects

Project-wide Effects

- 11.12.2 This section assesses the Project encompassing all components including New build Overhead Line, Upgraded Overhead Lines and Substation Works. This assesses the point in the construction programme when activities on the various components of the Project coincide. This assessment therefore considers the worst case scenario in terms of total construction traffic movements on Study Area roads
- 11.12.3 For a description of the proposed works, refer to **Chapter 4: Project Description**. Project construction traffic has been obtained by combining information provided by the contractor and is included in **Volume 3, Appendix 11.1 Transport Assessment**.

Assessment of Effects - Screening

- 11.12.4 IEMA Guidelines Rule 1 and Rule 2 are applied to Study Area roads to identify which roads are to be assessed for environmental effects during construction of the Project Table 11.48 summarises the Rule 1 and Rule 2 findings and identifies Study Area roads to be assessed for environmental effects (Yes) and the roads to be excluded (No).

Table 11.7. Study Area Roads to be Assessed for Environmental Effects – Project-wide Road Link	2028 Baseline		Project		% Increase		Environmental Assessment
	HGV	All Vehs	HGV	All Vehs	HGV	All Vehs	
A872 Denny	155	8,249	4	70	3%	1%	No
Denny Substation road	3	170	2	4	65%	2%	Yes
A9 Stirling Road Glenbervie	132	11,383	4	10	3%	0%	No
A9 Stirling Road North Broomage	241	19,136	4	10	2%	0%	No
B905 Denny Road	12	3,325	2	4	16%	0%	No
A883 Bonnybridge	249	12,580	40	94	16%	1%	No
B9095 (M876 Junction 1)	146	5,521	42	98	29%	2%	No
A883 (M876 Junction 1)	325	16,376	42	98	13%	1%	No
A8004 Checkbar	238	9,439	42	98	18%	1%	No

A803 Bonnybridge Substation	68	6,221	14	50	20%	1%	No
A803 Falkirk Road	47	6,378	2	2	4%	0%	No
B816 Bridge Street	209	10,623	2	2	1%	0%	No
Foundry Road	4	1,193	2	2	49%	0%	Yes
A803 Glasgow Road	235	14,816	22	36	9%	0%	No
Main Street Camelon	265	17,362	22	36	8%	0%	No
B816 Glenfuir Road	53	11,280	22	36	41%	0%	Yes
B816 Tamfourhill Road	100	4,618	22	36	22%	1%	No
B816 Bonnyhill Road	21	2,161	22	36	103%	2%	Yes
Beam Road	5	634	12	18	235%	3%	Yes
Greenhill Road	6	2,589	8	12	131%	0%	Yes
Glenyards Road	1	542	8	12	784%	2%	Yes
B816 Seabegs Road	60	4,224	8	12	13%	0%	No
Lochgreen Road	10	605	8	10	78%	2%	Yes
Skipperton Burn road	9	185	8	12	87%	6%	Yes
B816 Castlecary Road	444	10,518	10	20	2%	0%	No
Forest Road Wardpark	54	3,398	10	20	18%	1%	No
Forest Road Abonhill	60	3,390	10	20	17%	1%	No
Arns Road	0	165	4	8	400%	5%	Yes
Fannyside Road	7	934	4	8	56%	1%	Yes
Forest Road Blackthorn Roundabout	71	4,504	6	12	8%	0%	No

Forest Road Cumbernauld Substation	122	8,263	76	102	62%	1%	Yes
B8054 Lenziemill Road East	261	10,145	78	106	30%	1%	Yes
Palacerigg Road	32	1,063	4	8	13%	1%	No
B8054 Lenziemill Road West	184	6,039	4	8	2%	0%	No
A73 Greenfulds	414	7,007	40	90	10%	1%	No
A73 Blairlinn	639	15,219	36	82	6%	1%	No
B8039 Stirling Road	68	3,634	0	0	0%	0%	No
Hulks Road	1	121	4	8	392%	7%	Yes
B8039 Stirling Road Blackbog	181	3,627	4	8	2%	0%	No
A73 Riggend	269	6,689	32	74	12%	1%	No
Brackenhirst Road	13	693	8	16	60%	2%	Yes
B803 Greengairs Road west	231	4,442	2	6	1%	0%	No
B803 Greengairs Road east	165	3,290	2	6	1%	0%	No
A73 Stand Stirling Road	686	18,025	22	52	3%	0%	No
B802 Condorrat Road	23	1,891	4	8	17%	0%	No
Condorrat Road Glenmavis	21	2,296	0	0	0%	0%	No
B803 Raebog Road	133	8,349	8	20	6%	0%	No
Mollinsburn Road	12	1,037	0	0	0%	0%	No
Yetts Hole Road	3	58	4	10	131%	17%	Yes
Muirdyke Road	9	591	2	4	22%	1%	No
Burnlip Road	3	188	6	14	196%	7%	Yes

B804 Gartliston Road	47	6,083	14	32	30%	1%	Yes
Gartgill Road	6	448	8	18	131%	4%	Yes
Craignethan Drve	79	4,997	14	32	18%	1%	No
A752 Lochend Road	284	11,684	2	4	1%	0%	No
A752 Coatbridge Road	405	9,089	2	4	0%	0%	No
A752 Gartcosh Road	288	9,955	0	0	0%	0%	No
A73 Stirling Road Dykehead	470	17,034	14	32	3%	0%	No
Dykehead Road	12	956	2	4	16%	0%	No
A73 Holehills	500	17,488	10	24	2%	0%	No
Airdriehill Road	6	2,030	6	12	98%	1%	Yes
Burnhead Road	5	1,990	2	4	39%	0%	Yes
A73 Motherwell Street Rawyards	518	13,890	4	12	1%	0%	No
A73 Motherwell Street Airdrie	411	13,998	4	12	1%	0%	No
A89 Airdrie Road	192	11,809	4	12	2%	0%	No
A89 Forrest Street	220	12,280	4	12	2%	0%	No
A73 Carlisle Road Airdrie	420	18,433	0	0	0%	0%	No
A73 Carlisle Road Chapelhall	520	18,316	8	16	2%	0%	No
Burniebrae Road	50	5,732	8	16	16%	0%	No
Craigens Road	7	318	4	8	56%	3%	Yes
Roughrigg Road	202	1,081	4	8	2%	1%	No
Lawmope Mill Road	11	324	4	8	36%	2%	Yes
A73 Bellside Road Chapelhall	622	15,300	14	28	2%	0%	No

Lancaster Avenue	96	5,096	2	4	2%	0%	No
A73 Bellside Road Newhouse	651	14,228	128	250	20%	2%	No
A775 Edinburgh Road	570	8,432	24	46	4%	1%	No
Glasgow and Edinburgh Road	199	2,327	2	4	1%	0%	No
Legbrannock Road	148	2,750	4	8	3%	0%	No
Kirk Road	362	4,922	2	4	1%	0%	No
Rowantree Avenue eastbound	193	4,199	1	2	1%	0%	No
Rowantree Avenue westbound	347	4,125	1	2	0%	0%	No
Biggar Road	32	839	16	30	51%	4%	Yes
B7066 Motherwell Road	345	10,441	10	18	3%	0%	No
A73 Carlisle Road Brownhill Farm	412	15,573	90	176	22%	1%	No
Hareshaw Road	6	430	36	70	588%	16%	Yes
Greenhill Road North	8	384	30	58	368%	15%	Yes
A73 Cleland	447	15,182	54	106	12%	1%	No
Fernieshaw Road	4	91	0	0	0%	0%	No
Greenhill Road South	4	129	22	42	539%	33%	Yes
Muiredge and Jersey Road north	3	65	4	8	131%	12%	Yes
Muiredge and Jersey Road south	17	155	16	30	92%	19%	Yes
Foulburn Road	6	809	16	30	261%	4%	Yes
Allanton Road	23	1,055	4	8	17%	1%	No
Mill Road Allanton	19	2,383	4	8	21%	0%	No
A71 Crindledyke	206	9,341	14	28	7%	0%	No

A71 Allanton	205	9,329	14	28	7%	0%	No
Mill Road / Coltness Avenue	4	233	10	20	245%	9%	Yes
Daviesdyke Road	5	92	2	4	39%	4%	Yes
Morningside East road	3	166	10	18	327%	11%	Yes
Mill Road Morningside	8	334	10	18	123%	5%	Yes
Morningside Road	131	5,490	18	32	14%	1%	No
A71 Newmains	381	12,054	32	60	8%	0%	No
A73 Main Street Newmains	517	11,588	22	46	4%	0%	No
A73 Westwood Road	417	16,807	54	106	13%	1%	No
A722 Manse Road	103	14,009	20	42	19%	0%	No
Woodhall Road	19	1,387	20	42	103%	3%	Yes
A73 Bogside	292	8,257	2	4	1%	0%	No
A71 Overtown Road north	275	5,684	20	42	7%	1%	No
A71 Overtown Road south	521	9,208	12	24	2%	0%	No
A71 Horsley Brae north	542	10,298	0	0	0%	0%	No
B754 Castlehill Road	205	9,220	10	39	5%	0%	No
Castlehill / Caledonian Road	179	11,056	0	0	0%	0%	No
Allershaw Road	5	231	10	39	196%	17%	Yes
Tarbert Avenue	21	2,987	0	0	0%	0%	No
A71 Horsley Brae south	536	21,092	0	0	0%	0%	No
Cornsillock Brae	698	23,107	0	0	1%	0%	No
A71 Ayr Road	619	10,310	0	0	1%	0%	No

A72 Lanark Road	225	13,894	0	0	1%	0%	No
M9 Glenbervie - Bannockburn	1,557	22,100	2	4	1%	0%	No
M80 Bankhead - Bannockburn	3,941	41,127	4	70	0%	0%	No
M876	4,322	50,748	14	54	0%	0%	No
M876 Junction 1 - 2	4,164	43,758	30	52	0%	0%	No
M876 Bankhead - Checkbar Junction	4,048	45,246	32	80	0%	0%	No
M80 Bankhead - Old Inns Junction	7,514	87,143	12	106	0%	0%	No
M80 Junction 4 - 6	8,043	85,642	136	337	0%	0%	No
M73 Junction 2A - 3	6,732	64,686	24	71	0%	0%	No
M73 Gartcosh - Baillieston	7,494	68,381	8	35	1%	0%	No
M74 Junction 4 - 7	9,075	103,027	8	35	1%	0%	No
M8 Junction 6 -8	7,614	81,738	130	254	0%	0%	No
M8 Junction 8-10	3,777	92,216	130	254	2%	0%	No
A8011 Glasgow Road	1,676	37,191	74	98	0%	0%	No
B8039 Jane's Brae	926	17,171	74	98	0%	0%	No

11.12.5 **Table 11.7** shows that 36 study area roads require to be assessed for environmental effects as a result of the Project-wide Effects of the Project.

Severance of Communities

11.12.6 **Table 11.8** presents the significance of effects on the severance of communities as a result of Project-wide construction traffic. The significance of effects for severance is based on an assessment of all traffic in accordance with the IEMA Guidelines.

Table 11.8. Severance of Communities Assessment – Project-wide

Road Link	Sensitivity	% Increase (Total Daily Traffic)	Magnitude of Change	Significance of Effects
Denny Substation Road	Low	2%	Negligible	Negligible (Not Significant)
Foundry Road	High	0%	Negligible	Negligible (Not Significant)
B816 Glenfuir Road	Low	0%	Negligible	Negligible (Not Significant)
B816 Bonnyhill Road	Medium	2%	Negligible	Negligible (Not Significant)
Beam Road	Low	3%	Negligible	Negligible (Not Significant)
Greenhill Road	High	0%	Negligible	Minor (Not Significant)
Glenyards Road	High	2%	Negligible	Minor (Not Significant)
Lochgreen Road	Medium	2%	Negligible	Negligible (Not Significant)
Skipperton Burn road	Low	6%	Negligible	Negligible (Not Significant)
Arns Road	Low	5%		
Fannyside Road	Low	1%	Negligible	Negligible (Not Significant)
Forest Road Cumbernauld Substation	Low	1%	Negligible	Negligible (Not Significant)
B80054 Lenziemill Road East	Low	1%	Negligible	Negligible (Not Significant)
Hulks Road	Low	7%	Negligible	Negligible (Not Significant)
Brackenhirst Road	Low	2%	Negligible	Negligible (Not Significant)
Yetts Hole Road	Low	17%	Negligible	Negligible (Not Significant)

Burnlip Road	Low	7%	Negligible	Negligible (Not Significant)
B804 Gartliston Road	Low	1%	Negligible	Negligible (Not Significant)
Gartgill Road	Low	4%	Negligible	Negligible (Not Significant)
Airdriehill Road	Low	1%	Negligible	Negligible (Not Significant)
Burnhead Road	Low	0%	Negligible	Negligible (Not Significant)
Craigens Road	Low	3%	Negligible	Negligible (Not Significant)
Lawmope Mill Road	Low	2%	Negligible	Negligible (Not Significant)
Biggar Road	Low	4%	Negligible	Negligible (Not Significant)
Hareshaw Road	Low	16%	Negligible	Negligible (Not Significant)
Greenhill Road North	High	15%	Negligible	Minor (Not Significant)
Greenhill Road South	Low	33%	Low	Negligible (Not Significant)
Muiredge and Jersey Road north	Low	12%	Negligible	Negligible (Not Significant)
Muiredge and Jersey Road south	Low	19%	Negligible	Negligible (Not Significant)
Foulburn Road	Low	4%	Negligible	Negligible (Not Significant)
Mill Road / Coltness Avenue	High	9%	Negligible	Minor (Not Significant)
Daviesdyke Road	Low	4%	Negligible	Negligible (Not Significant)
Morningside East road	Low	11%	Negligible	Negligible (Not Significant)
Mill Road Morningside	Low	5%	Negligible	Negligible (Not Significant)

Woodhall Road	Low	3%	Negligible	Negligible (Not Significant)
Allershaw Road	Low	17%	Negligible	Negligible (Not Significant)

11.12.7 Classifying the significance of effects: prior to additional mitigation, the likely effect of construction traffic on severance is a direct, temporary, **Minor Adverse (Not Significant) effect**.

Fear and Intimidation on and by Road Users

11.12.8 **Table 11.9** presents the forecast significance of effect on fear and intimidation as a result of the Project-wide construction traffic. This assessment follows the methodology for assessment of Fear and Intimidation as set out in IEMA Guidelines 2023.

Table 11.9. Fear and Intimidation Assessment – Project-wide

Road Link	Sensitivity	Step Change	Magnitude of Change	Significance of Effects
Denny Substation Road	Low	0	Negligible	Negligible (Not Significant)
Foundry Road	High	0	Negligible	Minor (Not Significant)
B816 Glenfuir Road	Low	0	Negligible	Negligible (Not Significant)
B816 Bonnyhill Road	Medium	0	Negligible	Negligible (Not Significant)
Beam Road	Low	0	Negligible	Negligible (Not Significant)
Greenhill Road	High	0	Negligible	Minor (Not Significant)
Glenyards Road	High	0	Negligible	Minor (Not Significant)
Lochgreen Road	Medium	0	Negligible	Negligible (Not Significant)
Skipperton Burn road	Low	0	Negligible	Negligible (Not Significant)
Arns Road	Low	0	Negligible	Negligible (Not Significant)
Fannyside Road	Low	0	Negligible	Negligible (Not Significant)

Forest Road Cumbernauld Substation	Low	0	Negligible	Negligible (Not Significant)
B8054 Lenziemill Road East	Low	0	Negligible	Negligible (Not Significant)
Hulks Road	Low	0	Negligible	Negligible (Not Significant)
Brackenhirst Road	Low	0	Negligible	Negligible (Not Significant)
Yetts Hole Road	Low	0	Negligible	Negligible (Not Significant)
Burnlip Road	Low	0	Negligible	Negligible (Not Significant)
B804 Gartliston Road	Low	0	Negligible	Negligible (Not Significant)
Gartgill Road	Low	0	Negligible	Negligible (Not Significant)
Airdriehill Road	Low	0	Negligible	Negligible (Not Significant)
Burnhead Road	Low	0	Negligible	Negligible (Not Significant)
Craigens Road	Low	0	Negligible	Negligible (Not Significant)
Lawmope Mill Road	Low	0	Negligible	Negligible (Not Significant)
Biggar Road	Low	0	Negligible	Negligible (Not Significant)
Hareshaw Road	Low	0	Negligible	Negligible (Not Significant)
Greenhill Road North	High	0	Negligible	Minor (Not Significant)
Greenhill Road South	Low	0	Negligible	Negligible (Not Significant)
Muiredge and Jersey Road north	Low	0	Negligible	Negligible (Not Significant)

Muiresdyke and Jersey Road south	Low	0	Negligible	Negligible (Not Significant)
Foulburn Road	Low	0	Negligible	Negligible (Not Significant)
Mill Road / Coltness Avenue	High	0	Negligible	Minor (Not Significant)
Daviesdyke Road	Low	0	Negligible	Negligible (Not Significant)
Morningside East road	Low	0	Negligible	Negligible (Not Significant)
Mill Road Morningside	Low	0	Negligible	Negligible (Not Significant)
Woodhall Road	Low	0	Negligible	Negligible (Not Significant)
Allershaw Road	Low	0	Negligible	Negligible (Not Significant)

11.12.9 Classifying the significance of effects: prior to additional mitigation, the likely effect of construction traffic on Fear and Intimidation is a direct, temporary, **Minor Adverse (Not Significant) effect**.

Road User and Pedestrian Safety

11.12.10 **Table 11.10** presents road user and pedestrian safety significance of effects on Study Area roads for the duration of construction of the Project.

Table 11.10. Road User and Pedestrian Safety Assessment – Project-wide

Road Link	Sensitivity	Forecast Injury Accidents			Magnitude of Change	Significance of Effect
		Slight	Serious	Fatal		
Denny Substation Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Foundry Road	High	0.0	0.0	0.0	Negligible	Minor (Not Significant)
B816 Glenfuir Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)

B816 Bonnyhill Road	Medium	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Beam Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Greenhill Road	High	0.0	0.0	0.0	Negligible	Minor (Not Significant)
Glenyards Road	High	0.0	0.0	0.0	Negligible	Minor (Not Significant)
Lochgreen Road	Medium	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Skipperton Burn road	Low	0.1	0.0	0.0	Negligible	Negligible (Not Significant)
Arns Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Fannyside Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Forest Road Cumbernauld Substation	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
B8054 Lenziemill Road East	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Hulks Road	Low	0.1	0.0	0.0	Negligible	Negligible (Not Significant)
Brackenhirst Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Yetts Hole Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)

Burnlip Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
B804 Gartliston Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Gartgill Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Airdriehill Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Burnhead Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Craigens Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Lawmope Mill Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Biggar Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Hareshaw Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Greenhill Road North	High	0.0	0.0	0.0	Negligible	Minor (Not Significant)
Greenhill Road South	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Muiredge and Jersey Road north	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Muiredge and Jersey Road south	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)

Foulburn Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Mill Road / Coltness Avenue	High	0.0	0.0	0.0	Negligible	Minor (Not Significant)
Daviesdyke Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Morningside East road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Mill Road Morningside	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Woodhall Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)
Allershaw Road	Low	0.0	0.0	0.0	Negligible	Negligible (Not Significant)

11.12.11 Classifying the significance of effects: prior to additional mitigation, the likely effect of construction traffic on Road User and Pedestrian Safety is a direct, temporary, **Minor Adverse (Not Significant) effect**.

Non-motorised User Delay and Amenity

11.12.12 **Table 11.11** presents the forecast significance of effects on Non-motorised User Delay and Amenity during the construction of the Project.

Table 11.11. Non-motorised User Delay and Amenity Assessment – Project-wide

Road Link	Sensitivity	% Increase (Total Daily Traffic)	Magnitude of Change	Significance of Effects
Denny Substation Road	Low	2%	Negligible	Negligible (Not Significant)
Foundry Road	High	0%	Negligible	Negligible (Not Significant)
B816 Glenfuir Road	Low	0%	Negligible	Negligible (Not Significant)

B816 Bonnyhill Road	Medium	2%	Negligible	Negligible (Not Significant)
Beam Road	Low	3%	Negligible	Negligible (Not Significant)
Greenhill Road	High	0%	Negligible	Minor (Not Significant)
Glenyards Road	High	2%	Negligible	Minor (Not Significant)
Lochgreen Road	Medium	2%	Negligible	Negligible (Not Significant)
Skipperton Burn road	Low	6%	Negligible	Negligible (Not Significant)
Arns Road	Low	5%	Negligible	Negligible (Not Significant)
Fannyside Road	Low	1%	Negligible	Negligible (Not Significant)
Forest Road Cumbernauld Substation	Low	1%	Negligible	Negligible (Not Significant)
B80054 Lenziemill Road East	Low	1%	Negligible	Negligible (Not Significant)
Hulks Road	Low	7%	Negligible	Negligible (Not Significant)
Brackenhirst Road	Low	2%	Negligible	Negligible (Not Significant)
Yetts Hole Road	Low	17%	Negligible	Negligible (Not Significant)
Burnlip Road	Low	7%	Negligible	Negligible (Not Significant)
B804 Gartliston Road	Low	1%	Negligible	Negligible (Not Significant)
Gartgill Road	Low	4%	Negligible	Negligible (Not Significant)
Airdriehill Road	Low	1%	Negligible	Negligible (Not Significant)

Burnhead Road	Low	0%	Negligible	Negligible (Not Significant)
Craigens Road	Low	3%	Negligible	Negligible (Not Significant)
Lawmope Mill Road	Low	2%	Negligible	Negligible (Not Significant)
Biggar Road	Low	4%	Negligible	Negligible (Not Significant)
Hareshaw Road	Low	16%	Negligible	Negligible (Not Significant)
Greenhill Road North	High	15%	Negligible	Minor (Not Significant)
Greenhill Road South	Low	33%	Low	Negligible (Not Significant)
Muiredge and Jersey Road north	Low	12%	Negligible	Negligible (Not Significant)
Muiredge and Jersey Road south	Low	19%	Negligible	Negligible (Not Significant)
Foulburn Road	Low	4%	Negligible	Negligible (Not Significant)
Mill Road / Coltness Avenue	High	9%	Negligible	Minor (Not Significant)
Daviesdyke Road	Low	4%	Negligible	Negligible (Not Significant)
Morningside East road	Low	11%	Negligible	Negligible (Not Significant)
Mill Road Morningside	Low	5%	Negligible	Negligible (Not Significant)
Woodhall Road	Low	3%	Negligible	Negligible (Not Significant)
Allershaw Road	Low	17%	Negligible	Negligible (Not Significant)

11.12.13 Classifying the significance of effects: prior to additional mitigation, the likely effect of construction traffic on Non-motorised User Amenity is a direct, temporary, **Minor Adverse (Not Significant) effect**.

Road Vehicle Driver and Passenger Delay

11.12.14 The forecast significance of effects on driver and passenger delay during the construction of the Project are shown in **Table 11.12**. Full outputs of the impact analysis are included within **Volume 3, Appendix 11.1 Transport Assessment**.

Table 11.12. Road Vehicle Driver and Passenger Delay Assessment – Project-wide

Road Link	Sensitivity	Congestion Reference Flow	Magnitude of Change	Significance of Effects
Denny Substation Road	Low	No Level Change (2%)	Negligible	Negligible (Not Significant)
Foundry Road	Low	No Level Change (4%)	Negligible	Negligible (Not Significant)
B816 Glenfuir Road	Low	No Level Change (56%)	Negligible	Negligible (Not Significant)
B816 Bonnyhill Road	Low	No Level Change (13%)	Negligible	Negligible (Not Significant)
Beam Road	Low	No Level Change (3%)	Negligible	Negligible (Not Significant)
Greenhill Road	Low	No Level Change (19%)	Negligible	Negligible (Not Significant)
Glenyards Road	Low	No Level Change (4%)	Negligible	Negligible (Not Significant)
Lochgreen Road	Low	No Level Change (3%)	Negligible	Negligible (Not Significant)
Skipperton Burn road	Low	No Level Change (2%)	Negligible	Negligible (Not Significant)
Arns Road	Low	No Level Change (1%)	Negligible	Negligible (Not Significant)
Fannyside Road	Low	No Level Change (5%)	Negligible	Negligible (Not Significant)
Forest Road Cumbernauld Substation	Low	No Level Change (1%)	Negligible	Negligible (Not Significant)
B80054 Lenziemill Road East	Low	No Level Change (1%)	Negligible	Negligible (Not Significant)
Hulks Road	Low	No Level Change (1%)	Negligible	Negligible (Not Significant)

Brackenhirst Road	Low	No Level Change (5%)	Negligible	Negligible (Not Significant)
Yetts Hole Road	Low	No Level Change (1%)	Negligible	Negligible (Not Significant)
Burnlip Road	Low	No Level Change (3%)	Negligible	Negligible (Not Significant)
B804 Gartliston Road	Low	No Level Change (27%)	Negligible	Negligible (Not Significant)
Gartgill Road	Low	No Level Change (3%)	Negligible	Negligible (Not Significant)
Airdriehill Road	Low	No Level Change (8%)	Negligible	Negligible (Not Significant)
Burnhead Road	Low	No Level Change (9%)	Negligible	Negligible (Not Significant)
Craigens Road	Low	No Level Change (2%)	Negligible	Negligible (Not Significant)
Lawmope Mill Road	Low	No Level Change (4%)	Negligible	Negligible (Not Significant)
Biggar Road	Low	No Level Change (6%)	Negligible	Negligible (Not Significant)
Hareshaw Road	Low	No Level Change (4%)	Negligible	Negligible (Not Significant)
Greenhill Road North	Low	No Level Change (4%)	Negligible	Negligible (Not Significant)
Greenhill Road South	Low	No Level Change (1%)	Low	Negligible (Not Significant)
Muiredge and Jersey Road north	Low	No Level Change (1%)	Negligible	Negligible (Not Significant)
Muiredge and Jersey Road south	Low	No Level Change (2%)	Negligible	Negligible (Not Significant)
Foulburn Road	Low	No Level Change (5%)	Negligible	Negligible (Not Significant)
Mill Road / Coltness Avenue	Low	No Level Change (3%)	Negligible	Negligible (Not Significant)
Daviesdyke Road	Low	No Level Change (2%)	Negligible	Negligible (Not Significant)

Morningside East road	Low	No Level Change (1%)	Negligible	Negligible (Not Significant)
Mill Road Morningside	Low	No Level Change (2%)	Negligible	Negligible (Not Significant)
Woodhall Road	Low	No Level Change (10%)	Negligible	Negligible (Not Significant)
Allershaw Road	Low	No Level Change (2%)	Negligible	Negligible (Not Significant)

11.12.15 Classifying the significance of effects: prior to mitigation, the likely effect of construction traffic on Road Vehicle Driver and Passenger Delay is a direct, temporary, **Minor Adverse (Significant) effect**.

Hazardous / Large Loads

11.12.16 **Table 11.13** presents the significance of effects of Hazardous / Large Loads as a result of Project-wide construction traffic.

Table 11.13. Hazardous / Large Loads Assessment – Project-wide

Road Link	Sensitivity	Large Loads (STGO Type)	Magnitude of Change	Significance of Effects
Denny Substation Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Foundry Road	High	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
B816 Glenfuir Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
B816 Bonnyhill Road	Medium	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Beam Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Greenhill Road	High	<1 CAT 1 AIL Daily	Negligible	Minor (Not Significant)
Glenyards Road	High	<1 CAT 1 AIL Daily	Negligible	Minor (Not Significant)
Lochgreen Road	Medium	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Skipperton Burn road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)

Arns Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Fannyside Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Forest Road Cumbernauld Substation	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
B80054 Lenziemill Road East	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Hulks Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Brackenhirst Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Yetts Hole Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Burnlip Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
B804 Gartliston Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Gartgill Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Airdrie Hill Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Burnhead Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Craigens Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Lawmope Mill Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Biggar Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Hareshaw Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Greenhill Road North	High	<1 CAT 1 AIL Daily	Negligible	Minor (Not Significant)

Greenhill Road South	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Muiredge and Jersey Road north	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Muiredge and Jersey Road south	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Foulburn Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Mill Road / Coltness Avenue	High	<1 CAT 1 AIL Daily	Negligible	Minor (Not Significant)
Daviesdyke Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Morningside East road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Mill Road Morningside	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Woodhall Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)
Allershaw Road	Low	<1 CAT 1 AIL Daily	Negligible	Negligible (Not Significant)

11.12.17 Classifying the significance of effects: prior to additional mitigation, the likely effect of construction traffic of Hazardous / Large Loads is a direct, temporary, **Minor Adverse (Not Significant) effect**.

11.12.18

Summary of Project-wide Significance of Effects

11.12.19 The environmental assessment for Traffic and Movement undertaken for the Project shows that no significant environmental effects are forecast. Effects across all categories as assessed in line with IEMA Guidelines are summarised in **Table 11.14**.

Table 11.14. Summary of Effects – Project-wide

Category	Significance of Effects
Severance of Communities	Minor Adverse (Not Significant)
Fear and Intimidation of and by Road Users	Minor Adverse (Not Significant)
Road User and Pedestrian Safety	Minor Adverse (Not Significant)

Non-motorised User Delay and Amenity	Minor Adverse (Not Significant)
Road Vehicle Driver and Passenger Delay	Minor Adverse (Not Significant)
Hazardous / Large Loads	Minor Adverse (Not Significant)

Proposed Additional Mitigation Measures

- 11.12.20 In terms of mitigation, embedded mitigation measures are set out in **Section 11.5 Embedded Mitigation**. These include measures contained within the CTMP for this component of the development to plan and execute construction in a safe and efficient manner while protecting the public highway.
- 11.12.21 As no significant environmental effects are forecast for this component of the Project, no further mitigation is proposed.

11.13 Summary and Conclusions

- 11.13.1 This chapter assesses the environmental effects of traffic and movement associated with the Project, in terms of its individual components and in its entirety. Environmental effects are assessed in accordance with IEMA Guidelines.
- 11.13.2 A summary of relevant transport legislation, policy and consultation is included in this chapter. Consultation responses have been received from Falkirk Council, North Lanarkshire Council, Transport Scotland and Network Rail and this chapter takes cognisance of those responses where appropriate.
- 11.13.3 The Study Area considers roads likely to be affected by Project construction traffic. The Study Area road network encompasses 118 roads between Falkirk and North Lanarkshire local authorities.
- 11.13.4 The sensitivity of receptors on Study Area roads has been determined in accordance with the IEMA Guidelines. The categories for assessment of sensitivity encompass people at home, people at work, vulnerable road users, tourism, accident records and current traffic conditions on Study Area roads.
- 11.13.5 Sensitivity of receptor and magnitude of change have been used to determine the significance of effects on roads within the Study Area across seven categories: severance of communities, fear and intimidation by road users, road user and pedestrian safety, non-motorised user amenity, non-motorised user delay, road vehicle driver and passenger delay.
- 11.13.6 Embedded mitigation is provided in the form of CTMPs for each individual component of the Project. The goal of the CTMP will be to minimise the likelihood of significant environmental effects occurring by managing traffic safely and efficiently to and from the Project sites.
- 11.13.7 It is forecast that there will be **No Significant Effects** on Study Area roads either as a result of one or more individual components of the Project or the Project in its entirety.

11.14 References

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