



**Renfrewshire Local Development Plan  
Proposed Plan 2019  
Transport Appraisal Non - Technical Summary  
Background Paper 7**



## Introduction

To inform the preparation of the Renfrewshire Local Development Plan Renfrewshire Council commissioned consultants to undertake transport modelling to:

- Provide an evidence to the Council and Transport Scotland regarding the impact of proposed developments on the strategic and local road network throughout Renfrewshire;
- Assist in planning for future transport improvements and interventions through identifying potential congested junctions; and,
- Outlining potential solutions and where further detailed traffic appraisal and interventions will be required.

The transport appraisal that has been undertaken aims to provide a proportionate, robust objective led evidence base for any potential transport interventions required to support the Renfrewshire Local Development Plan Proposed Plan Spatial Strategy being delivered.

The Transport Appraisal is in two parts: Baseline Assessment and Cumulative Impact Assessment (See Background Paper 6 – Renfrewshire Local Development Plan Transport Appraisal).

The Baseline Assessment sets out the key challenges, issues and opportunities facing Renfrewshire in the context of the Local Development Plan and informs the preparation of Transport Planning Objectives.

The Cumulative Impact Assessment is road based and identifies the future trip generation and attraction associated with the Local Development Plan Spatial Strategy and potential impacts on the road network.

This report provides a non-technical summary of the Transport Appraisal.



## Transport Planning Objectives

The relationship between transport and spatial planning is closely interwoven. A key principle of the Renfrewshire Local Development Plan Spatial Strategy is to minimise the need to travel by promoting development in sustainable locations close to existing services, facilities and transport infrastructure.

The Baseline Assessment (See Background Paper 6 – Renfrewshire Local Development Plan Transport Appraisal) includes an analysis of wider planning policy, socio-economic data, local development proposals and transport and travel information which identifies a number of issues, challenges and opportunities across Renfrewshire.

A summary of these issues/challenges and opportunities is provided below:

ISSUES / CHALLENGES	OPPORTUNITIES
<b>Network performance and safety</b>	
<p>Renfrewshire’s road network has peak time congestion hot spots and capacity pinch points, these include sections of the M8, the A737, and the A726 between M8 junction 29 and Paisley Town Centre.</p> <p>18% of drivers in Renfrewshire experience congestion delays which is more than the average figures for the SPT region (11%) and wider Scotland (12%).</p> <p>More people have moved into Renfrewshire than moved out and the number of households has slightly increased since 2016.</p>	<p>Glasgow City Deal projects will help to improve connectivity providing opportunities to deliver interventions to assist in the network performance within Renfrewshire as well as other parts of the City Region.</p> <p>There has been a decrease in journey times by 0.14% between 2007 and 2017 across Renfrewshire.</p> <p>The number of casualties across all road types within Renfrewshire continues to decline.</p>
<b>Accessibility and social inclusion</b>	
<p>35% of households do not have access to a car; Renfrewshire has pockets of deprivation which rely on walking, cycling and public transport accessibility.</p>	<p>Renfrewshire’s location offers sustainable travel opportunities as well as good access to walking, cycling, air, road, rail and motorway networks.</p> <p>The area has an extensive network of core paths and includes two national cycle routes which serve some of the largest settlements in the area.</p>

ISSUES / CHALLENGES	OPPORTUNITIES
<b>Sustainable travel and environment</b>	
<p>In line with the Climate Change Plan there is a need to work towards healthy and sustainable environment that minimises carbon and greenhouse gas emissions; (65% of people travel to work by car which slightly higher than the Scottish average; also, 54% of people who commute to work drive up to 5 km, which is higher than the Scottish national figures).</p> <p>There is a need to make cycling safe and attractive to people of all ages and backgrounds, and for a wide range of transport and leisure journeys. 26% of people in Renfrewshire have access to a bike though cycling levels remain low; less than 1% of the working age population cycle to work.</p> <p>Bus patronage continues to decline for a number of reasons and this is similar throughout Scotland. There is a need to enhance bus service provision and reliability.</p>	<p>Rail patronage continues to rise as well as the use of the park and ride facilities at the rail stations.</p> <p>Renfrewshire Green Networks provide excellent opportunities for active travel and enhanced connectivity.</p> <p>Traffic flows recorded on cordons surrounding Paisley, Renfrew and Erskine between 2006 and 2016 show there has been a decrease in weekday traffic flows by around 1.2%.</p>
<b>Integration</b>	
<p>There is a need to optimise the use of existing infrastructure by supporting development which is concentrated along transport corridors in close proximity to existing transport connections (e.g. high quality and convenient public transport)</p>	<p>Glasgow City Deal projects will help optimise the existing infrastructure by supporting future potential development.</p> <p>The LDP Spatial Strategy and overall policy framework ensures that development is encouraged in sustainable locations where existing infrastructure can be used or new infrastructure can be delivered.</p>

Source: Renfrewshire LDP Transport Assessment Baseline Report 2018, Systra

The Baseline Assessment informed the preparation of Transport Planning Objectives which are aligned with the Local Development Plan Objectives and reflect wider national, regional and local policies, in particular the National Transport Strategy, Renfrewshire Local Transport Strategy and accord with Scottish Transport Appraisal Guidance (STAG) SMART principles.

**Objective 1:** Promote development in sustainable locations, along existing transport and active travel corridors, and promote sustainable transport and travel by supporting safe and secure pedestrian, cyclist and public transport journeys and access;

**Objective 2:** Maximise opportunities provided by City Deal and other infrastructure investment and where possible contribute to minimising delays and congestion for all users on the strategic road network and key road links and junctions;

**Objective 3:** Minimise emissions and air quality impacts from new development;

**Objective 4:** Continue to improve safety on Renfrewshire's roads.



## Cumulative Impact Assessment

Transport modelling was undertaken utilising existing S-Paramics models of the Renfrewshire area which has been used in modelling for the Renfrewshire City Deal projects. These models were modified to reflect existing conditions and three models were created to consider the potential impact of development within the Renfrewshire Local Development Plan Proposed Plan.

### ***Base Model***

The model has a base year of 2015 and was developed from the previous City Deal work. The model was extended to include West Renfrewshire.

### ***Do Minimum Model (impact of committed development)***

This model contains changes that have been implemented since the 2015 Base model was created and includes all developments and infrastructure which has planning consent across Renfrewshire as of Summer 2018.

### ***Do Something Model (impact of new Local Development Plan)***

This model includes all proposed developments from the existing Local Development Plan which do not have planning consent and new development and allocations in the emerging Renfrewshire Local Development Plan Proposed Plan.

This model also includes a number of Housing Development Pipeline sites which are not allocated for development within the Local Development Plan but could come forward during the plan period if there is a shortfall in the housing land supply.

The model also includes infrastructure improvements that are proposed to aid the delivery of the Local Development Plan Spatial Strategy.

Additional information on the modelling that has been undertaken to consider the impact of the Renfrewshire Local Development Plan Proposed Plan is included within Background Paper 6 – Renfrewshire Local Development Plan Transport Appraisal.

## Summary of Findings

Each of the models were tested and results obtained in the form of traffic flows, queues and average journey times in order to identify potential constraints within the road network. Detailed results from the cumulative impact assessment are included within Background Paper 6 – Renfrewshire Local Development Plan Transport Appraisal.

Generally, even without implementing the Renfrewshire Local Development Plan modelling shows that there is likely to be an increase in flows and journey times at peak times across parts of the strategic road network over the next ten years. Existing congestion hot spots and capacity pinch points include sections of the M8 at Glasgow Airport and to the west of the Airport and sections of the A737 from the Johnstone to St James Interchange.

Increases in flows and congestion on the strategic road network are largely as a result of large committed developments including the delivery of the Advanced Manufacturing and Innovation District Scotland, the continued delivery of Dargavel Village Community Growth Area and the potential expansion of Braehead Strategic Centre.

The Advanced Manufacturing and Innovation District Scotland will be the catalyst for the creation of significant employment opportunities ensuring Renfrewshire is at the centre of innovation in manufacturing and future inclusive economic growth in Scotland. This development will undoubtedly be a significant trip generator and Renfrewshire Council in consultation with Transport Scotland will consider potential options to improve traffic flows on the M8, including a Managed Motorway Scheme.

When looking at the potential new development and land allocations within the Local Development Plan Proposed Plan on its own, overall it will have a limited impact on congestion on the strategic road network with increases in flows at peak periods typically around an additional 3%.

It is anticipated that the new Clyde Crossing at Renfrew is likely to have a positive impact on the strategic road network to the west of St James Interchange by attracting local traffic in Renfrew, Yoker and Clydebank away from the Erskine Bridge. Flows on the M898, just to the south of Erskine Bridge show a similar pattern.

The potential for future congestion within the strategic road network is also strongly influenced by a range of other factors including development out with the Renfrewshire Council area and growth at Glasgow Airport.

Changes in traffic flows and journey times are varied across the local road network and again are primarily related to large committed developments. The main changes are seen around Paisley and Renfrew.

In Paisley, there is a large increase in flow in Inchinnan Road, Incle Street and Renfrew Road with journey times likely to increase to and from Paisley. Renfrewshire Council are currently investigating measures to improve circulation at the Paisley gyratory and improve connections between the Town Centre and Glasgow Airport.

There is a reduction in traffic on Barnsford Road on the approach to St James interchange as a result of the new junction on the M8 which is currently being developed to support the continued delivery of the Dargavel Village Community Growth Area.

Traffic flows are likely to increase on the local road network as a result of the Advanced Manufacturing and Innovation District Scotland, particularly on Abbotsinch Road, however, this is from a relatively low base and any congestion is likely to be limited.

In Renfrew traffic flows will change particularly in the vicinity of the new Clyde Crossing. Flows on King's Inch Road will increase but this is from a relatively low base while there will be reductions in congestion around Renfrew Town Centre and Inchinnan Road, as the new Renfrew Northern Development Road allows for an alternative route around the Renfrew Cross junction.



**Glasgow Airport  
Investment Area Project**



**Clyde Waterfront and  
Renfrew Riverside Project**

## **Mitigating the effects of the Local Development Plan Proposed Plan**

### ***Local Development Plan Spatial Strategy and Policy Framework***

The location of developments, transport and availability of infrastructure are key considerations when preparing the Renfrewshire Local Development Plan Proposed Plan. The Spatial Strategy for the Proposed Plan requires to be realistic and not rely on the requirement for additional infrastructure provision. Land use requirements require to be located in close proximity to existing transport infrastructure and services which have the necessary capacity to accommodate the use. Furthermore, development locations should also allow a range of travel choices, taking account of the transport mode hierarchy, promoting active travel such as walking and cycling and then public transport before the need to use the car.

The Renfrewshire Local Development Plan Spatial Strategy supports the connection to active travel and transport networks as a key enabler for creating and supporting sustainable communities across Renfrewshire and promotes development opportunities which are located beside or close to existing active travel and public transport networks. Development proposals which give priority to sustainable modes of travel and have no significant impact on the safe and efficient operation of the local or trunk road network will be supported.

Policy I1 – Connecting Places of the Renfrewshire Local Development Plan Proposed Plan promotes good accessibility and connectivity to walking, cycling and public transport to help support modal shift from road-based travel. All new development proposals will be required to demonstrate the ability to connect to active travel and public transport networks. Policy P5 – Green/Blue Networks also looks to increase accessibility to active travel routes in and around communities and places.

New Development Supplementary Guidance has been prepared alongside the Local Development Plan Proposed Plan and provides detailed development guidance to promote sustainable forms of travel and help mitigate the effects of development on the transport network.

## ***Infrastructure Improvements***

A number of infrastructure improvements are identified within the Renfrewshire Local Development Plan Proposed Plan which will help mitigate the effects of new development across Renfrewshire on the road network.

All of these infrastructure improvements benefit from planning consent and are funded projects.

### **Glasgow Airport Investment Area Project:**

- Abbotsinch Road Junction - The junction of Abbotsinch Road/Greenock Road/Inchinnan Road re-alignment.
- Abbotsinch Road realignment.
- Wright Street Bridge. New bridge over the White Cart Water. It connects Abbotsinch Road to the west and Wright Street to the east. It is only for traffic, particularly heavy vehicles, heading to Westway.

### **Clyde Waterfront and Renfrew Riverside Project:**

- New road bridge across the Clyde and a new Renfrew North Development Road between Inchinnan Road and the new bridge.

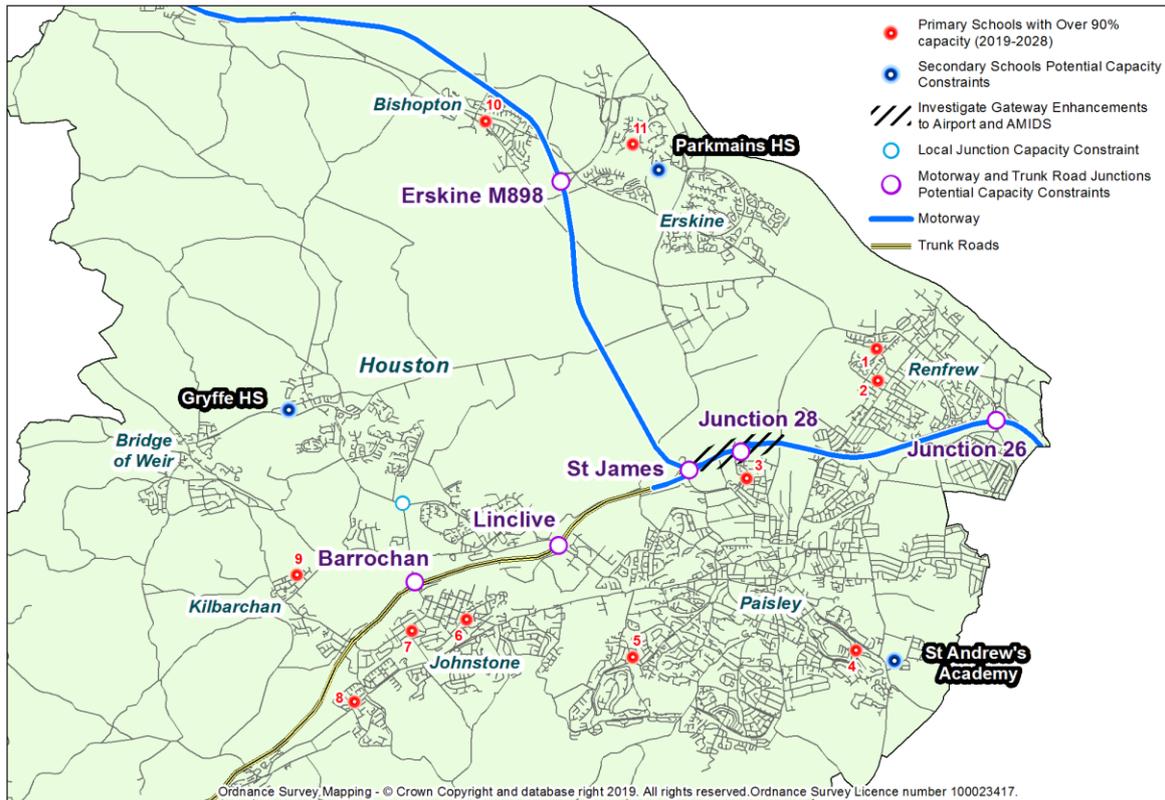
### **The M8 Junction 29A**

- Junction supports the delivery of Dargavel Village Community Growth Area

The results of the Transport Appraisal demonstrate that the new development proposed within the Renfrewshire Local Development Plan Proposed Plan can be accommodated within Renfrewshire with limited impacts. Detailed developments that are proposed that may impact on the M8 or the A737 should be discussed further.

However, it is clear that there will be areas of congestion and capacity constraints at key locations across the road network.

The Transport Appraisal has informed the preparation of an Infrastructure Consideration Map within the Local Development Plan Proposed Plan. This map identifies parts of Renfrewshire's infrastructure which will require further consideration in preparing future development proposals, including key junctions on the strategic road network. Early discussions will be required with developers and other stakeholders to discuss detailed solutions prior to the submission of a planning application



### Infrastructure Considerations Map with the Renfrewshire Local Development Plan Proposed Plan

New development proposals will require further detailed Transport Appraisal to assess the impact on the road network and identify any measures required to support new development.

The potential solutions to identified issues on the existing strategic transport network must be considered in the wider context. Collaborative working with all relevant land use, planning and transport bodies will continue to identify potential future interventions to support sustainable growth across Renfrewshire.

This collaborative working is a key action in the Renfrewshire Local Development Plan Action/Delivery Programme and will inform future updates of the Infrastructure Considerations Map.



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