

GRAYS TOWN CENTRE TRANSPORT STUDY

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APPENDIX A MOVEMENT AND STREETS REPORT (ANDREW CAMERON ASSOCIATES)



1 INTRODUCTION

1.1 GENERAL

- 1.1.1 Velocity and Andrew Cameron Associates have been appointed by Thurrock Council to provide transport advice and analysis to inform a new Town Centre Strategy for Grays.
- 1.1.2 Grays is expected to experience a period of significant change over the next 20 years due to planned growth in housing and employment, nearby major development schemes and potential new transport networks. Unless planned effectively, these changes could result in increased traffic congestion, journey times and parking stress across Grays and the rest of the borough. The town also has ambitions to improve its attractiveness for investment and will be required to contribute towards Thurrock's efforts to become carbon neutral by 2030 as required by the Council's Climate Emergency declaration. Responding to these pressures and competing demands will require effective planning, and a clear transport strategy will assist in better decision-making on future proposals in line with the goals set out in Thurrock's Interim Transport Strategy and Vision 2050 document.
- 1.1.3 The emerging Local Plan for Thurrock will set out the council's plans for significant growth in homes and jobs over the next 20 years. The Association of South Essex Local Authorities (ASELA) also identifies a need for 96,000 new homes across the South Essex area in the next 20 years, and these new homes will require the development of supporting infrastructure to enable sustainable growth.
- 1.1.4 Grays is well-located in relation to the strategic road network, with the town centre being less than three miles from the A13, and around four miles from the M25 at Junction 30 (Mardyke Interchange). Grays also has good access to public transport with both a train station and bus station within the town centre.
- 1.1.5 Despite the good accessibility of the town centre from the surrounding strategic road network, the number of visitors attracted to Grays is compromised by its proximity to Lakeside, a regional retail and leisure destination, which lies around 2.5 miles to the west of the town centre. Lakeside shopping centre comprises 2.6 million sqft. of retail floorspace with an established leisure provision at the Quay and provides 11,857 free parking spaces for visitors. Grays is the Borough's principal town centre with a civic function in addition to the provision of retail. It serves primarily the local community and residents borough-wide. In order for Grays to be an attractive destination, parking and convenient access for visitors must be considered alongside any aspirations to promote sustainable travel options and reduce traffic and pollution levels, as to do otherwise would encourage an even greater proportion to use Lakeside shopping centre. This balance needs to be considered as part of any emerging transport strategy.
- 1.1.6 The London Resort, a proposed theme park and major resort on the Swanscombe Peninsula in Kent, is expected to include Grays town centre as part of its proposed travel strategy for visitors and staff routing from the north of the River Thames. With an anticipated annual visitor level of 18 million people at project maturity, this would have potentially significant impacts on the town's transport networks if not planned for effectively, and so London Resort is a key consideration in any transport strategy for the town.



1.2 REPORT SCOPE

- 1.2.1 Velocity Transport Planning Ltd. has been commissioned by the Council to provide advice and analysis on transport, connectivity and parking associated with Grays town centre to support the production of a town centre strategy and to inform the emerging Local Plan. The study considers previous projects and studies undertaken as well as the policy context within which future proposals must be developed. A key focus of the work will be to identify any necessary policy changes and high-level strategies/measures, as well as instances where these could be linked to major development.
- 1.2.2 The study will focus on the town centre of Grays, but given the nature of transport, the study will inevitably consider the transport network outside the centre on certain topics. It is expected that this study will identify high-level issues with measures the Council has identified as potentially deliverable, allowing more comprehensive studies to take place in future.
- 1.2.3 A workshop with staff at Thurrock Council was undertaken at the start of the project to assist in understanding the brief and the background context in which the strategy lies. A comprehensive site visit was then undertaken covering the town centre and wider highway network, with the observations helping to inform the proposed recommendations made throughout this report.

1.3 REPORT PURPOSE AND BENEFITS

- 1.3.1 For the purposes of this report, the town centre area comprises the area from the Titan Works site to the north, Grays Park to the east, the river Thames and Grays Beach Riverside Park to the south, and Eastern Way to the west. The area is shown in **Figure 1-1**, while the potential transport-related benefits which the study could bring to the forthcoming Town Centre Strategy are shown in **Figure 1-2**.

Figure 1-1 Grays Town Centre Boundary Map

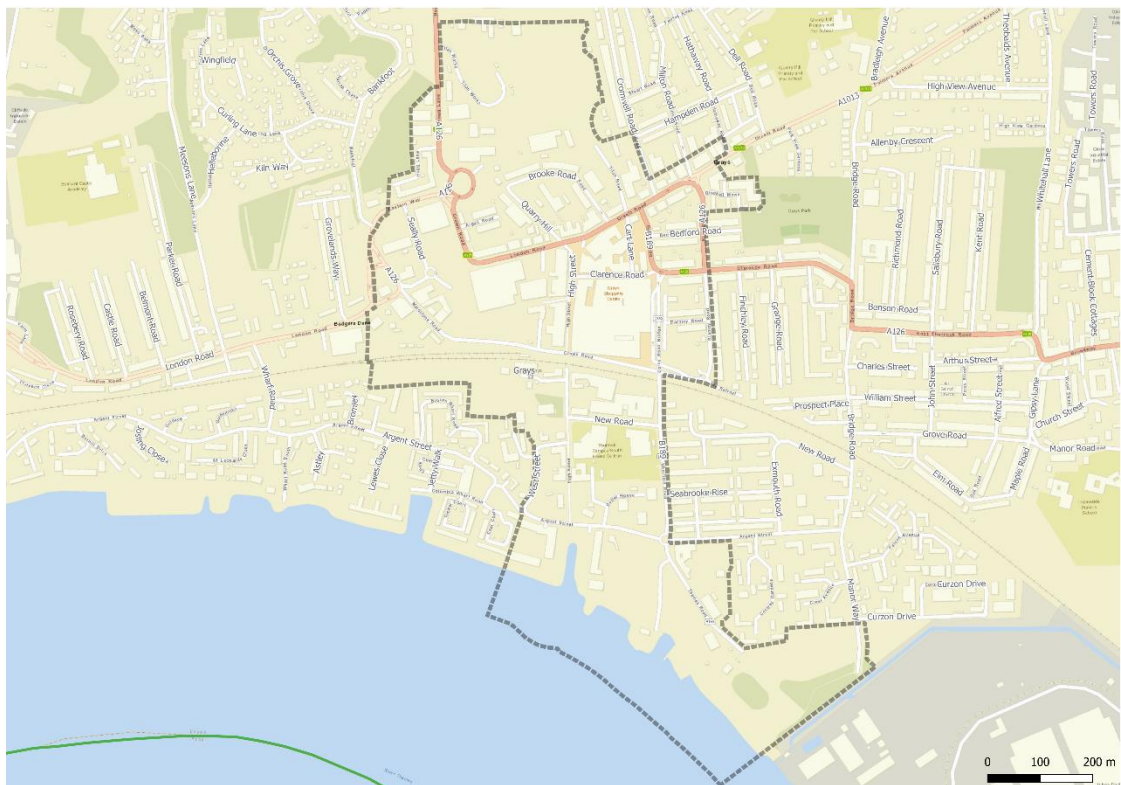
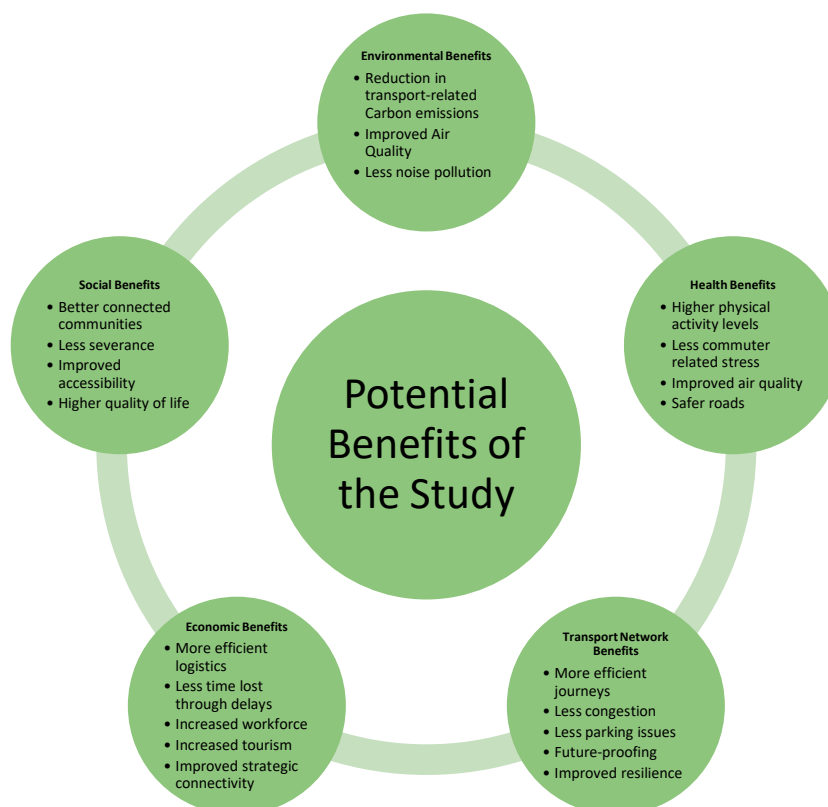


Figure 1-2 Potential Benefits of the Study



1.4 REPORT STRUCTURE

1.4.1 Following this introduction, this document is structured as follows:

- Section 2 – Review of Policy and Previous Studies;
- Section 3 – Baseline Transport Conditions;
- Section 4 – Site Visit Observations;
- Section 5 – Technical Analysis; and
- Section 6 – Summary and Conclusions.



2 POLICY CONTEXT AND PREVIOUS STUDIES

2.1 INTRODUCTION

- 2.1.1 This section identifies the policy context in which this transport study has been undertaken. Relevant guidance has also been considered.

2.2 POLICY DOCUMENTS

NATIONAL POLICY

NATIONAL PLANNING POLICY FRAMEWORK (2021)

- 2.2.1 The revised National Planning Policy Framework sets out the Government's planning policies for England and how these are expected to be applied. It provides a framework within which locally prepared plans for housing and other development can be produced.
- 2.2.2 The purpose of the planning system is to contribute to the achievement of sustainable development. Plans and decisions should apply a presumption in favour of sustainable development. For plan-making this means that:
- a) all plans should promote a sustainable pattern of development that seeks to: meet the development needs of their area; align growth and infrastructure; improve the environment; mitigate climate change (including by making effective use of land in urban areas) and adapt to its effects;
 - b) strategic policies should, as a minimum, provide for objectively assessed needs for housing and other uses, as well as any needs that cannot be met within neighbouring areas, unless:
 - ⊙ i. the application of policies in this Framework that protect areas or assets of particular importance provides a strong reason for restricting the overall scale, type or distribution of development in the plan area; or
 - ⊙ ii. any adverse impacts of doing so would significantly and demonstrably outweigh the benefits when assessed against the policies in this Framework taken as a whole.
- 2.2.3 Chapter 9 covers Sustainable Transport, and notes that transport issues should be considered from the earliest stages of plan-making and development proposals, so that:
- ⊙ a) the potential impacts of development on transport networks can be addressed;
 - ⊙ b) opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated;
 - ⊙ c) opportunities to promote walking, cycling and public transport use are identified and pursued;
 - ⊙ d) the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and
 - ⊙ e) patterns of movement, streets, parking and other transport considerations are integral to the design of schemes and contribute to making high-quality places.



- 2.2.4 The planning system should actively manage patterns of growth in support of these objectives. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making.

TRANSPORT EVIDENCE BASES IN PLAN MAKING AND DECISION TAKING (2015)

- 2.2.5 This guidance document was produced by the Government in 2015 to help planning authorities assess and reflect strategic transport needs in Local Plan making.
- 2.2.6 A robust transport evidence base can facilitate approval of the Local Plan and reduce costs and delays to the delivery of new development, thus reducing the burden on the public purse and private sector. The transport evidence base should identify the opportunities for encouraging a shift to more sustainable transport usage, where reasonable to do so; and highlight the infrastructure requirements for inclusion in infrastructure spending plans linked to the Community Infrastructure Levy, section 106 provisions and other funding sources.
- 2.2.7 The key issues, which should be considered in developing a transport evidence base, include the need to:
- ⊙ assess the existing situation and likely generation of trips over time by all modes and the impact on the locality in economic, social and environmental terms;
 - ⊙ assess the opportunities to support a pattern of development that, where reasonable to do so, facilitates the use of sustainable modes of transport;
 - ⊙ highlight and promote opportunities to reduce the need for travel where appropriate;
 - ⊙ identify opportunities to prioritise the use of alternative modes in both existing and new development locations if appropriate;
 - ⊙ consider the cumulative impacts of existing and proposed development on transport networks;
 - ⊙ assess the quality and capacity of transport infrastructure and its ability to meet forecast demands; and
 - ⊙ identify the short, medium and long-term transport proposals across all modes.
- 2.2.8 The outcome could include assessing where alternative allocations or mitigation measures would improve the sustainability, viability and deliverability of proposed land allocations (including individual sites) provided these are compliant with national policy as a whole.
- 2.2.9 The baseline information required to inform the Local Plan Transport Assessment includes:
- ⊙ all current transport issues as they affect all modes and freight covering, for example, accessibility, congestion, mobility, safety, pollution, affordability, and carbon reduction across the whole Plan area and, within relevant areas of the Plan, including existing settlements and proposed land allocations.
 - ⊙ the potential options to address the issues identified and any gaps in the networks in the short, medium and longer term covering, for example, accessibility, congestion, mobility, safety, pollution, and carbon reduction.



- ⦿ the locations of proposed land allocations and areas/corridors of development and potential options for the provision of sustainable transport and transport networks to serve them.
- ⦿ solutions to support a pattern of development that, where reasonable to do so, facilitates the use of sustainable modes of transport.
- ⦿ the scope and options for maximising travel planning and behavioural change.
- ⦿ accessibility of transport nodes such as rail/bus stations to facilitate integrated solutions.

REGIONAL POLICY

THURROCK LOCAL PLAN

- 2.2.10 The Core Strategy and Policies for Management of Development (Core Strategy) is the principal local plan document and remains the adopted statutory planning document for the borough until the new Local Plan is adopted. The Core Strategy sets out the spatial vision, strategy and planning policies for Thurrock on topics such as housing, jobs, green belt and community facilities.

EMERGING THURROCK LOCAL PLAN

- 2.2.11 The new Local Plan will set out the future land use and planning policies for the area over a set timeframe - identifying the need for new homes and jobs and the services and infrastructure to support them, and guides where this development should happen.
- 2.2.12 The Draft Local Plan (Regulation 18) is anticipated to be consulted on in 2023, with the Pre-Submission Local Plan consultation (Regulation 19) taking place in 2024. The adoption of the Local Plan by the Council is expected in 2025¹.

CONNECTING THURROCK - VISION 2050 (DRAFT)

- 2.2.13 This document was prepared in 2023 on behalf of Thurrock Council and forms part of the new Local Transport Plan (LTP) for Thurrock. The LTP has four parts: An Issues and Opportunities report, the Transport Vision, the Interim Transport Strategy, and a Transport Action / Implementation Plan.
- 2.2.14 This Vision document imagines a future for Thurrock where people find it easier to get about using a transport network that is better connected, more integrated, and less congested. The Council's aim is to develop a transport system for Thurrock that:
- ⦿ Is fully inclusive, meeting the needs of residents;
 - ⦿ Is integrated to provide seamless multi-modal journeys;
 - ⦿ Is accessible for everyone, safe and attractive to use;

¹ Local development scheme (September 22), Thurrock Council



- ⦿ Delivers sustainable community regeneration and growth; and
- ⦿ Responds to the exceptional circumstances of Thurrock as an international centre for logistics and commercial development.

2.2.15 The transport vision is called 'Connecting Thurrock' to highlight that Thurrock's strategic location does not currently translate into well-connected places at the local/borough level. The development of the vision is informed by analysis of transport trends, policy and international best practice including the transport baseline study produced by Stantec.

2.2.16 Thurrock's transport vision is not a simple mode-by-mode strategy - railways, bus, walking, cycling etc. The Vision focuses instead on developing an integrated, sustainable, well-coordinated and inter-connected transport system or network that supports various travel needs. It enables people to make sustainable travel choices.

2.2.17 A vision for movement in Thurrock requires building up the three inter-related movement systems or networks:

- ⦿ the walking and cycling network (active travel)
- ⦿ the road network (includes micro-mobility);
- ⦿ the public transport system.

2.2.18 The Vision is founded upon linked concepts of 'Multi-modal' and 'Modal Shift' that combine with the idea of an 'Integrated network'.

2.2.19 The strategy includes:

- ⦿ A programme of smarter choices to deliver a modal shift, especially in new housing and employment growth areas.
- ⦿ Prioritising public transport, walking, and cycling in all new housing and employment growth areas.
- ⦿ Increasing bus capacity and establishing new routes to main transport interchanges.
- ⦿ Reallocating road space to sustainable modes of transport including buses, cycles and MRT.
- ⦿ Reducing the stock of car parking spaces overall and switching extended stay towards short stays to promote sustainable transport at peak times, such as working and school.
- ⦿ Encouraging a freight modal shift from road to rail and river.

INTERIM THURROCK TRANSPORT STRATEGY (DRAFT)

2.2.20 The Thurrock Transport Strategy (TTS) sets out policies and identifies major schemes that will help realise the Transport Vision 2050. The document covers the period from 2023 to 2037 and will replace the Council's previous Transport Strategy which covered from 2013 to 2026. The TTS contains policies for each mode of travel at three levels; regional, local and neighbourhood movement, and sets out funding and delivery strategies for the proposals.



THURROCK PARKING STRATEGY

2.2.21 The Thurrock Parking Strategy was produced in 2021 and was prepared to support the delivery of the emerging Local Plan and Transport Strategy by helping tackle congestion, deliver accessibility, improve air quality, and make Thurrock's roads safer to support growth and regeneration in the Borough. The Strategy comprises three documents:

- ⦿ **Thurrock Council Parking Policy and Strategy** - sets out a review of existing national legislation and policies; consideration of proposals for an update of local parking policies, the current parking situation, managing future demand, next steps and a proposed parking strategy action plan;
- ⦿ **Parking Design and Development Standards** - sets out the parking design standards and the parking development standards that are applicable throughout the Borough;
- ⦿ **Parking Enforcement Strategy** - sets out the strategies for enforcing parking policies within the Borough.

LOCAL POLICY CONTEXT

GRAYS TOWN CENTRE FRAMEWORK REFRESH 2017

2.2.22 The Council's plans to regenerate Grays town centre are set out in more detail in a refreshed Development Framework which was adopted by Cabinet in November 2017. The Framework's aims are to strengthen the town centre by intensifying residential accommodation in and around the centre and establishing mixed used activities. This will enable a densely populated area within a short walking distance from the train station giving it greater appeal to visitors. The Framework suggests that this will promote Grays town centre as a place to visit from outside of Grays, and encourage more people to travel to Grays by train. These changes could reduce the demand for car parking spaces during the daytime, but growth in the evening economy may stimulate greater parking demand during evenings and at weekends.

2.2.23 Section 06 (Transport and Movement) of the Framework suggests any future car parking strategy should consider:

- ⦿ Operation and pricing which favours short-term stays to encourage visitors to spend more time in town centres;
- ⦿ Efficient use of car parking spaces, through tariffs that respect location, time of day and length of stay;
- ⦿ Provide pay and display parking on surplus road space;
- ⦿ Redevelop any surplus car parks for residential developments; and
- ⦿ Set realistic car parking standards for new developments that reflect levels of access to public transport and the commercial need for development to provide car parking.

GRAYS TOWN INVESTMENT PLAN (TIP)

2.2.24 In 2021, Grays successfully bid for a new 'Town Deal' as part of the government's Town Fund, a £3.6 billion fund scheme to help improve towns in England. This could bring up to £25million into the area for investment in improving Grays town centre.



- 2.2.25 Significant regeneration of Grays town centre will see the town reconnected to the riverside through the provision of a new underpass to replace the existing level crossing which currently divides the town centre. This replacement will allow the development of a central spine through the town centre – connecting the council offices and South Essex College with the shopping area to the north of the railway.
- 2.2.26 The project will also help redevelop the riverfront as a leisure destination and Grays jetty as a river transport node. The new jetty is considered the flagship project and Thames Clippers have aspirations for Grays to be a stopping point which would open up the Riverside. Additionally, Grays railway station is the closest station north of the River Thames to the proposed London Resort, therefore there is potential to generate river traffic through a 'rail and sail' service from Grays to the resort.
- 2.2.27 If the opportunity is taken to develop Grays bus station, a multi-mode interchange can be created for residents to access bus, rail and river services. New public transport systems could also serve this interchange to connect to the larger developments in the north of the borough that are otherwise largely disconnected.



3 BASELINE TRANSPORT CONDITIONS

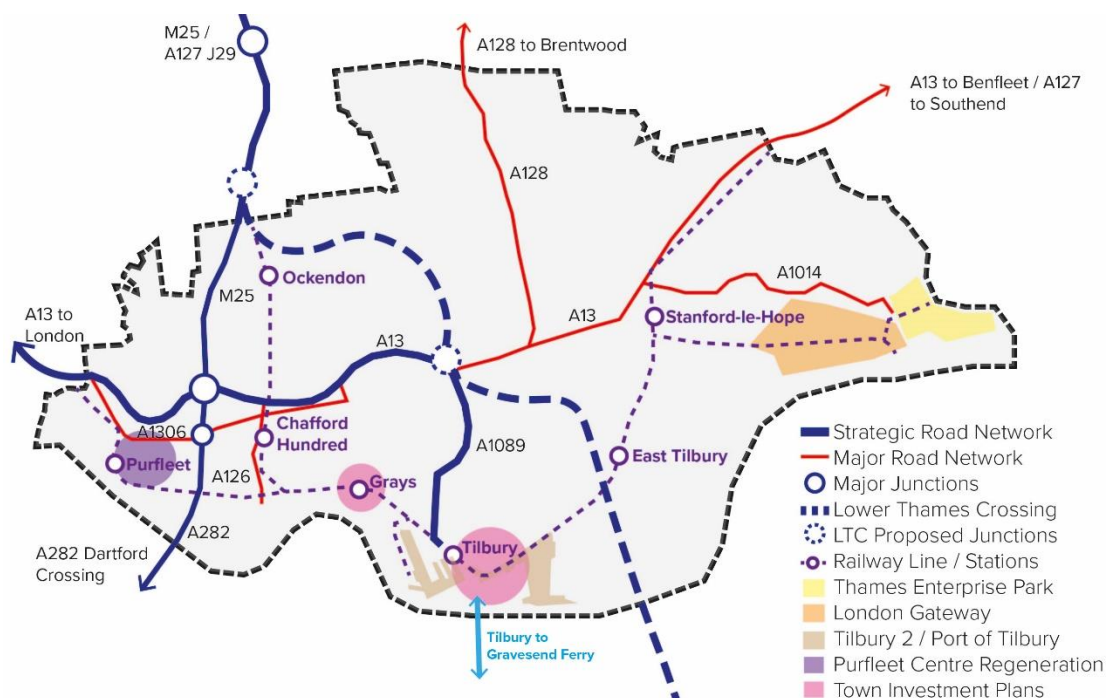
3.1 INTRODUCTION

- 3.1.1 This section reviews the existing transport networks and facilities in and around Grays town centre to understand current strengths and weaknesses. These will then be used as part of the technical analysis in **Section 4** to provide recommendations on each topic area.

3.2 GRAYS TRANSPORT CONTEXT

- 3.2.1 Grays is the largest town in Thurrock and is situated along the River Thames, approximately 20 miles east of Central London. The town is highly accessible, with a busy railway station being located near the waterfront providing westbound links to central London and eastbound to Southend-on-Sea, an adjacent bus station which serves many of the borough's bus routes, and good highway links via the A13 to the north and the M25 motorway to the west. The town's location also offers good potential for riverboat services to neighbouring areas and Central London, as well as river freight. Tilbury, located immediately to the east of Grays, is one of Britain's three major container ports and has a cruise ship landing stage (London International Cruise Terminal).
- 3.2.2 The key transport links across the borough are shown in **Figure 3-1**.

Figure 3-1 Transport Networks Across Thurrock



Source: Thurrock Interim Transport Strategy (Draft)



3.3 CENSUS ANALYSIS

POPULATION

- 3.3.1 For ease of comparison in this report, Grays has been assumed to primarily comprise the wards and residential areas of Grays Riverside, Grays Thurrock, Chafford and North Stifford, Stifford Clays, Little Thurrock Blackshots and Little Thurrock Rectory.
- 3.3.2 Based on the 2021 Census, the combined population of these wards is 51,233, which has increased by 8.8% from 47,101 in the 2011 Census. In contrast, Thurrock's total population has risen by 11.6%, from around 157,700 in 2011 to 176,000 in 2021².

Table 3-1 Grays Population Comparison by Ward

WARD	2011	2021
Chafford and North Stifford	8,071	8,008
Grays Riverside	11,695	13,291
Grays Thurrock	9,150	9,836
Little Thurrock Blackshots	5,770	7,079
Little Thurrock Rectory	5,955	6,264
Stifford Clays	6,460	6,755
Total	47,101	51,233

CAR OWNERSHIP

- 3.3.3 The latest full Census dataset available (2021) was analysed at ward level to determine the difference in car ownership across Thurrock, and to compare it to the average across England. This is shown in **Table 3-2**.

² <https://www.ons.gov.uk/visualisations/censuspopulationchange/E06000034>



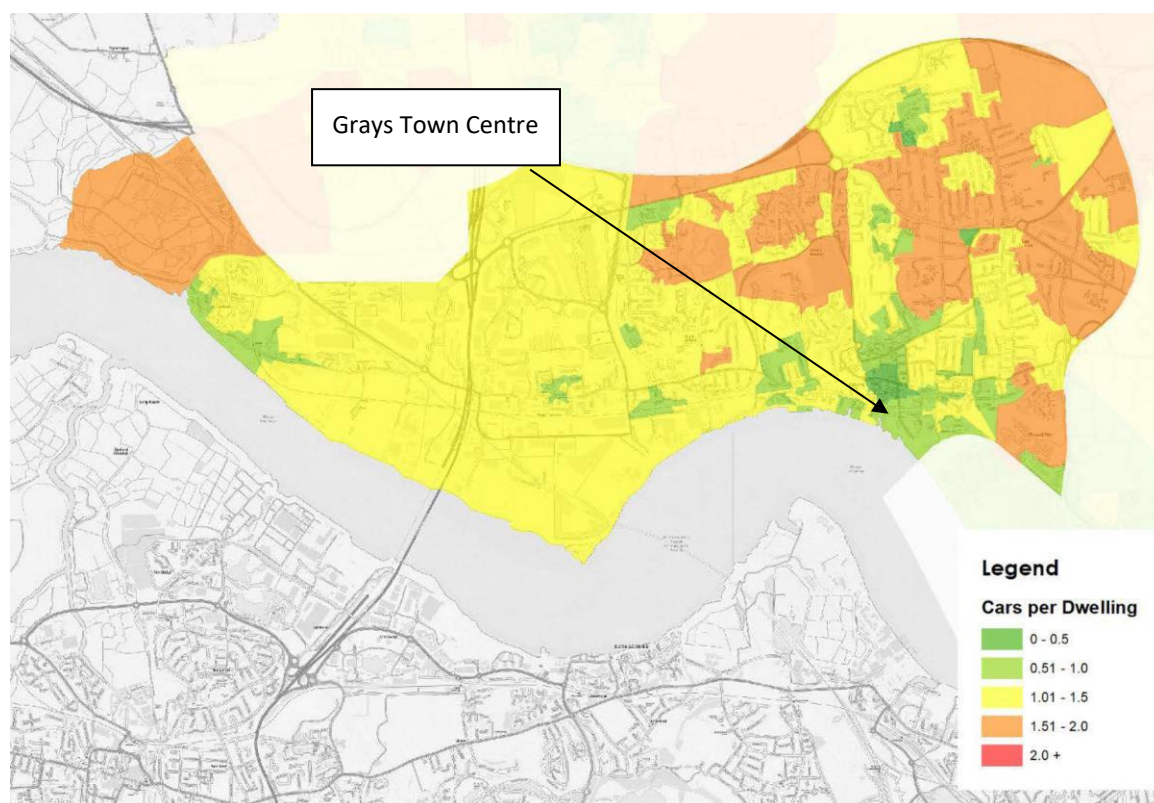
Table 3-2 Car Ownership Data Comparison (2021 Census)

WARD	TOTAL NO. HOUSEHOLDS	HOUSEHOLDS WITH 1 OR MORE CARS OR VANS (2021 CENSUS)	
E05002240: Orsett	2,457	2,304	93.8%
E05002232: Chafford and North Stifford	2,843	2,630	92.5%
E05002245: The Homesteads	3,228	2,932	90.8%
E05002233: Corringham and Fobbing	2,272	2,050	90.2%
E05002241: South Chafford	2,651	2,350	88.6%
E05002234: East Tilbury	2,804	2,462	87.8%
E05002237: Little Thurrock Blackshots	2,655	2,308	86.9%
E05002229: Aveley and Uplands	4,085	3,504	85.8%
E05002238: Little Thurrock Rectory	2,461	2,092	85.0%
E05002243: Stanford-le-Hope West	3,066	2,599	84.8%
E05002244: Stifford Clays	2,564	2,125	82.9%
Thurrock Local Authority District	66,377	54,901	82.7%
E05002248: West Thurrock and South Stifford	5,217	4,272	81.9%
E05002239: Ockendon	4,644	3,771	81.2%
E05002242: Stanford East and Corringham Town	3,533	2,829	80.1%
E05002236: Grays Thurrock	3,556	2,790	78.5%
E05002230: Belhus	3,891	3,046	78.3%
E05002231: Chadwell St Mary	3,961	3,089	78.0%
E05002247: Tilbury St Chads	2,369	1,822	76.9%
England	23,436,085	17,919,987	76.5%
E05002235: Grays Riverside	5,272	3,907	74.1%
E05002246: Tilbury Riverside and Thurrock Park	2,848	2,019	70.9%

- 3.3.4 Grays Riverside has the second lowest level of car ownership within the borough, with 74.1% of households having at least 1 car. This is also lower than the average across England.
- 3.3.5 Car ownership levels are also depicted in **Figure 3-2** below, demonstrating that there are some parts of Grays that have an average of 0-0.5 cars per dwelling.



Figure 3-2 Car Ownership within the Thurrock Urban Area



Source: 2011 Census data, published in Thurrock Local Plan Transport Evidence – Baseline Study, Stantec 2021

3.3.6

Table 3-3 below compares the car ownership data from the 2011 and 2021 Censuses to identify how ownership has changed.



Table 3-3 Car Ownership Data Ward Level Comparison (2011-2021 Census)

AREA	1 OR MORE CARS OR VANS		
	2011	2021	Change
E05002240: Orsett	93.4%	93.8%	+0.4%
E05002232: Chafford and North Stifford	92.5%	92.5%	0.0
E05002245: The Homesteads	91.5%	90.8%	-0.7%
E05002233: Corringham and Fobbing	87.4%	90.2%	+2.8%
E05002241: South Chafford	89.6%	88.6%	-1.0%
E05002234: East Tilbury	87.3%	87.8%	+0.5%
E05002237: Little Thurrock Blackshots	83.1%	86.9%	+3.8%
E05002229: Aveley and Uplands	80.3%	85.8%	+5.5%
E05002238: Little Thurrock Rectory	83.5%	85.0%	+1.5%
E05002243: Stanford-le-Hope West	81.2%	84.8%	+3.6%
E05002244: Stifford Clays	78.1%	82.8%	+4.7%
Thurrock Local Authority District	79.9%	82.7%	+2.8%
E05002248: West Thurrock and South Stifford	78.3%	81.8%	+3.5%
E05002239: Ockendon	75.8%	81.2%	+5.4%
E05002242: Stanford East and Corringham Town	78.0%	80.1%	+2.1%
E05002236: Grays Thurrock	75.2%	78.5%	+3.3%
E05002230: Belhus	74.2%	78.3%	+4.1%
E05002231: Chadwell St Mary	76.7%	78.0%	+1.3%
E05002247: Tilbury St Chads	71.4%	76.9%	+5.5%
England	74.3%	76.5%	+2.2%
E05002235: Grays Riverside	71.1%	74.1%	+3.0%
E05002246: Tilbury Riverside and Thurrock Park	65.8%	70.9%	+5.1%

- 3.3.7 Car ownership in Grays Riverside ward has risen by 3% between 2011 and 2021, which is higher than the average change across the borough (2.8%) and England as a whole (2.2%).

METHOD OF TRAVEL TO WORK

- 3.3.8 The journey to work is a good measure of how people travel generally as it is a common trip type. Method of travel to work data has been derived from recent Censuses for wards within Grays. The modal split data is set out below for the town centre area and compared to the areas outside the town centre.



Table 3-4 Method of Travel to Work Data Comparison (2011-2021 Census)

	CENSUS 2011	CENSUS 2021
Town Centre (Grays Riverside and Grays Thurrock Wards Combined)		
Underground, metro, light rail, tram	2%	4%
Train	20%	12%
Bus, minibus or coach	5%	6%
Taxi	1%	1%
Motorcycle, scooter or moped	1%	1%
Driving a car or van	53%	56%
Passenger in a car or van	7%	7%
Bicycle	2%	2%
On foot	9%	9%
Other method of travel to work	1%	2%
Total residents who travel	100%	100%
Out of Town Centre Wards (Chafford and North Stifford, Little Thurrock Blackshots, Little Thurrock Rectory and Stifford Clays combined)		
Underground, metro, light rail, tram	2%	2%
Train	16%	7%
Bus, minibus or coach	3%	2%
Taxi	1%	1%
Motorcycle, scooter or moped	1%	1%
Driving a car or van	65%	72%
Passenger in a car or van	5%	6%
Bicycle	2%	1%
On foot	5%	6%
Other method of travel to work	0%	2%
Total residents who travel	100%	100%

* Based on Census tables QS701EW (2011 Census) and TS061 (2021 Census). People who answered that they work mainly at or from home have been excluded from both datasets. It should also be noted that 2021 Census data is likely to have been affected by the Covid pandemic. Extra guidance to help people on furlough answer the Census questions was provided, however, the ONS are unable to determine how furloughed people followed the guidance.

- 3.3.9 The data above shows that in 2011, around half of residents living in Grays town centre wards drove to work, with the second most common method being by train (20%). A similar proportion drove to work in the 2021 census, although fewer people reported they travel by train, which may be a result of the Covid pandemic's impact on travel during the time of the 2021 Census.
- 3.3.10 Out-of-town-centre areas have higher levels of car use, with 65% of residents reporting driving as their main mode in 2011, and 72% in 2021. This suggests that, like much of the country, driving is an engrained culture amongst Grays residents.

LOCATION OF WORK

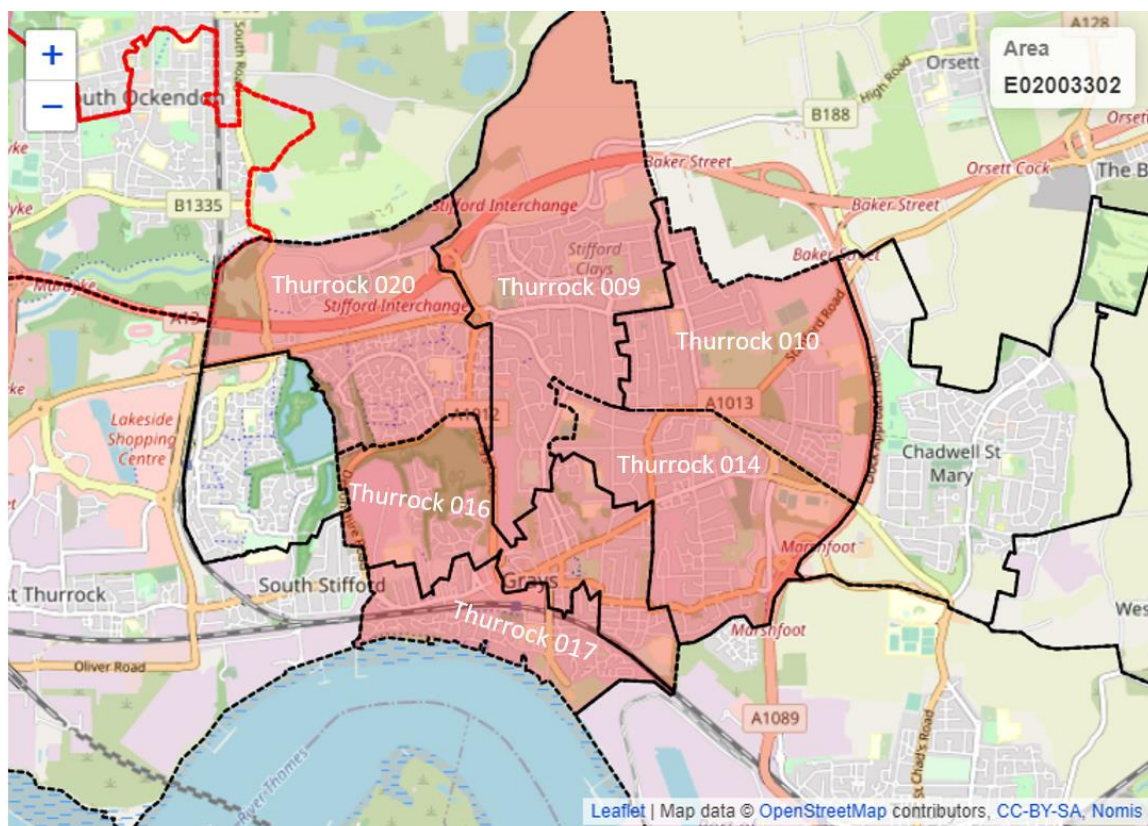
- 3.3.11 Where people work can have a significant impact on how they travel. This can also influence the proportion of people who may consider switching to certain modes of travel from their usual choice.



3.3.12

Figure 3-4 shows where residents of Grays town centre travel to work, while **Figure 3-5** displays where people who work in Grays town centre travel from, based on the 2011 Census. This data is taken from the Dashine platform which uses Middle Super Output Areas (MSOAs) rather than wards. For reference, the MSOAs within Grays are shown in **Figure 3-3** below. In order to capture a sufficient population, Thurrock 016 MSA has been assumed to represent Grays town centre for this assessment.

Figure 3-3 Grays MSOAs Map

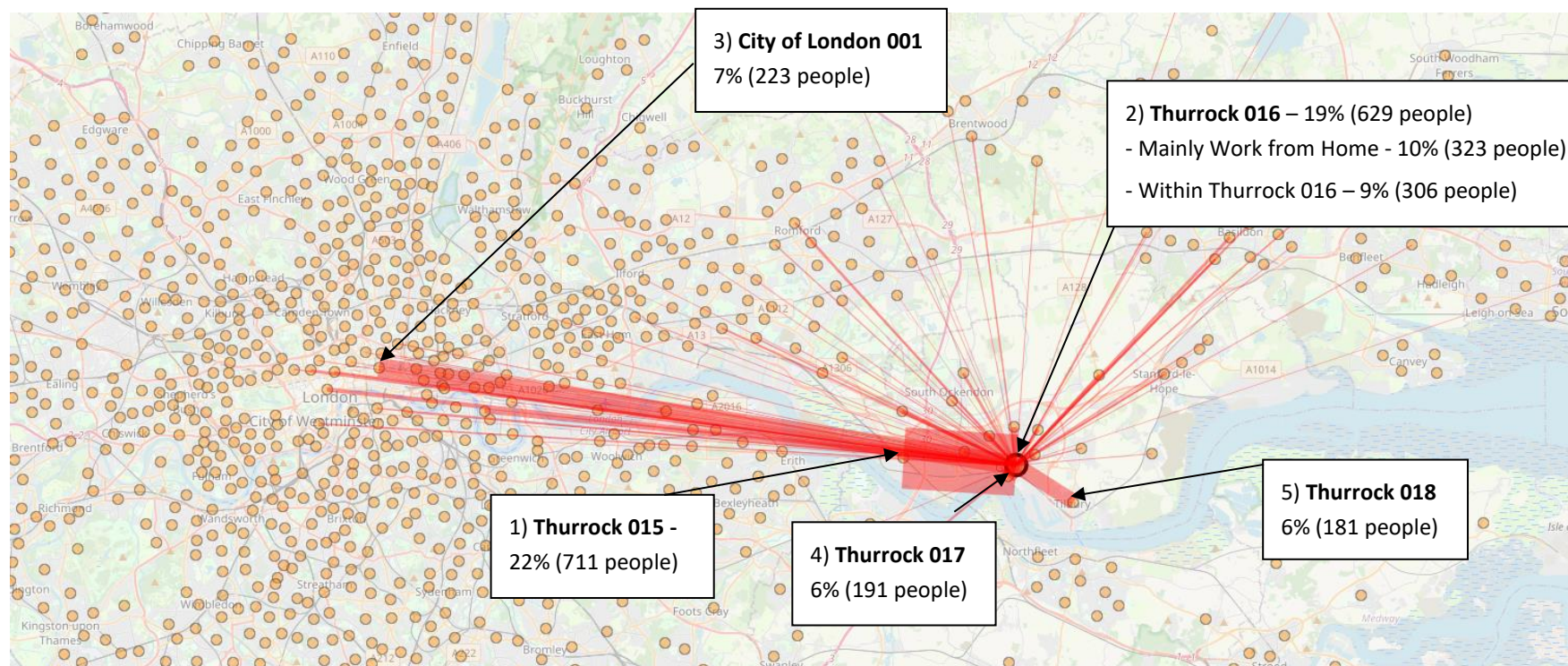


3.3.13

Figure 3-4 below shows that for residents of Thurrock 016 MSA who travel to work, the most popular workplaces are in Thurrock 015 (Purfleet), workplaces within Thurrock 016, and the City of London. People who have no fixed place of work have been excluded.



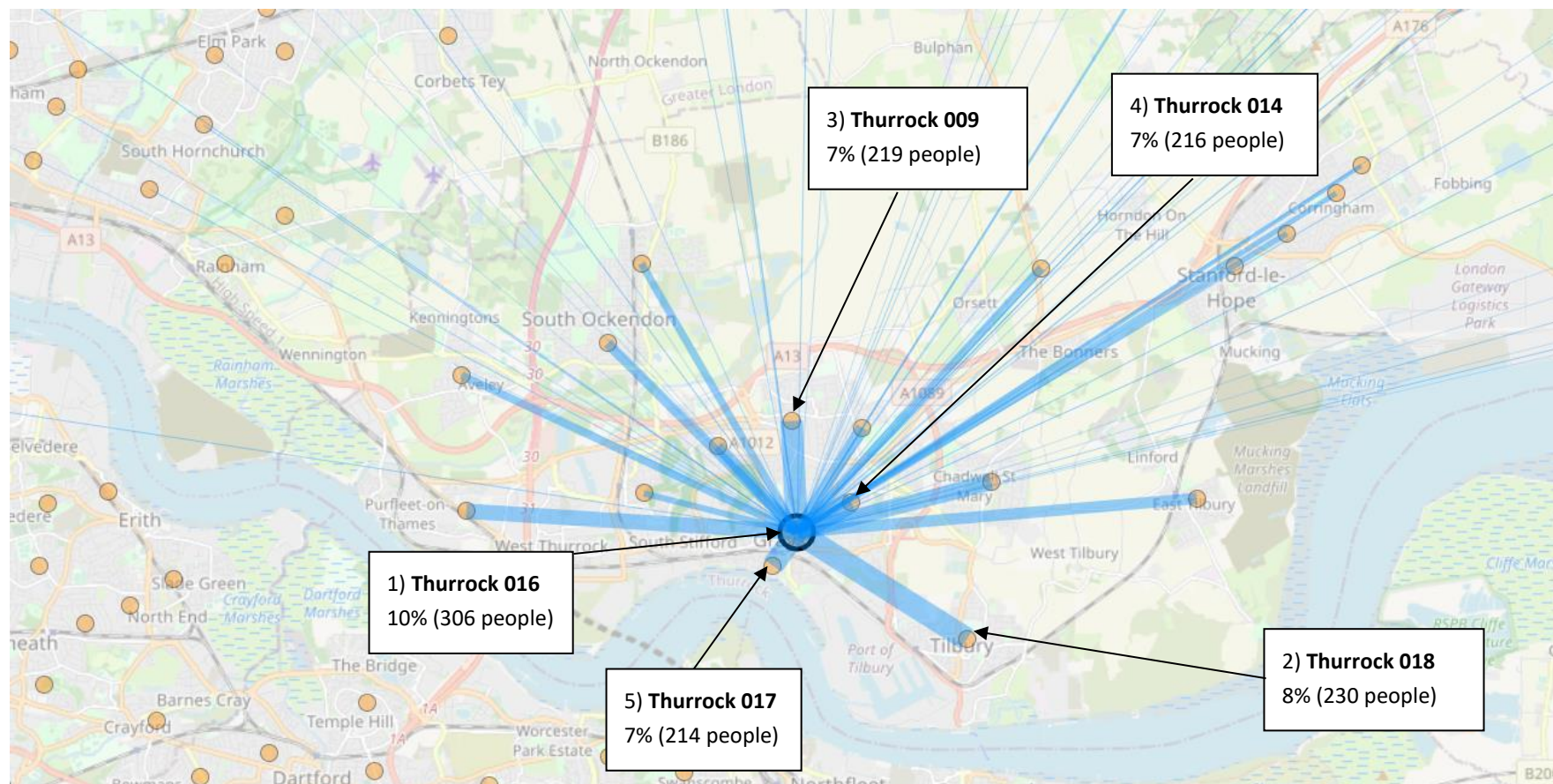
Figure 3-4 Top 5 Destinations Where Residents of Thurrock 016 Travel to Work (2021 Census)



Source: Datashine (based on 2011 Census Table WU03EW)

3.3.14 **Figure 3-5** below shows that of the people who commute to Grays town centre, most people live locally within Thurrock, with a relatively even split between Purfleet, Chafford Hundred and Tilbury.

Figure 3-5 Top 5 Origins Where Employees Working in Thurrock 016 Travel From (2021 Census)



Source: Datashine (based on 2011 Census Table WU03EW)

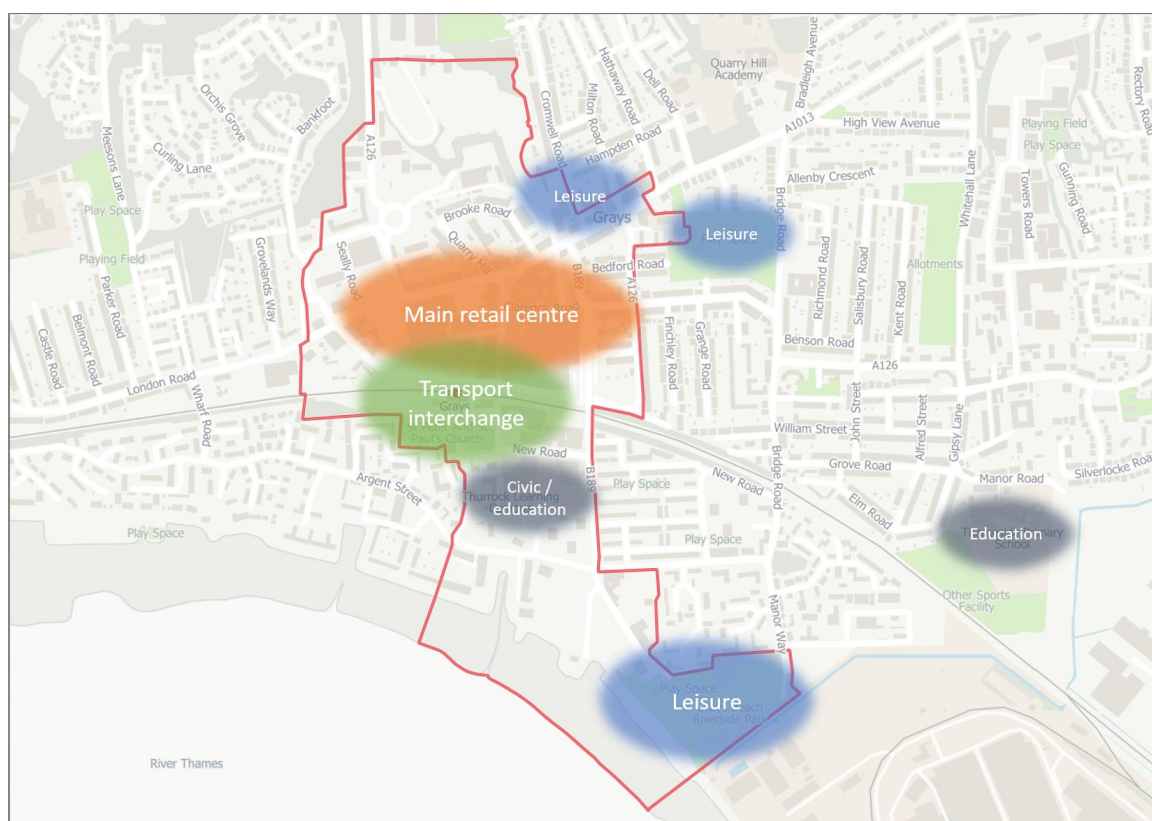
3.4 PURPOSES OF JOURNEYS TO GRAYS TOWN CENTRE

3.4.1 Whilst data is limited, it is understood from anecdotal evidence that travel within Grays town centre generally falls under the following purposes:

- Grays Commuters – people working in Grays town centre;
- External Commuters – people working outside Grays but travelling via Grays railway station;
- Students – people travelling to colleges in Grays town centre;
- Shoppers/leisure trips – people travelling into the town centre for their shopping or for social / leisure activities; and
- Through traffic – people travelling through Grays to reach neighbouring towns and destinations such as Purfleet, Tilbury and Lakeside shopping centre.

3.4.2 **Figure 3-6** below demonstrates key trip destinations and journey attractors around Grays town centre:

Figure 3-6 Key Town Centre Destinations and Attractors



3.5 WALKING & CYCLING AND CONNECTIVITY

PROPENSITY TO TRAVEL BY BIKE AND ON FOOT

3.5.1 Cycling has the potential to substitute for short car trips, particularly those less than five kilometres in length. However, many people will cycle longer distances.



Figure 3-8 Extract of Thurrock Cycle Map (2014)

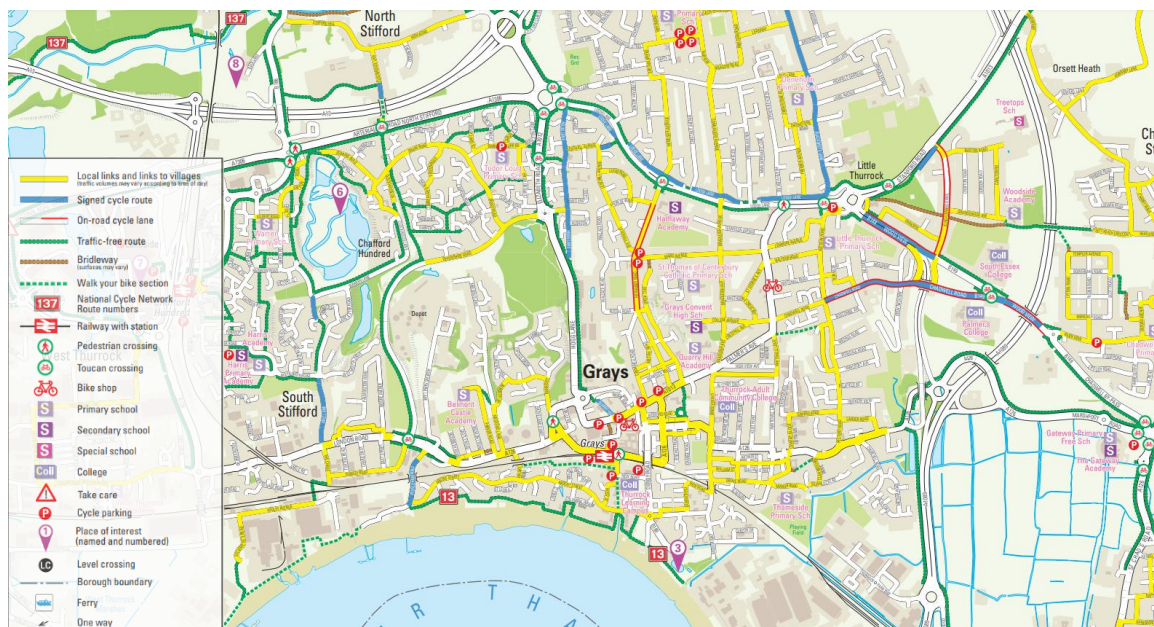
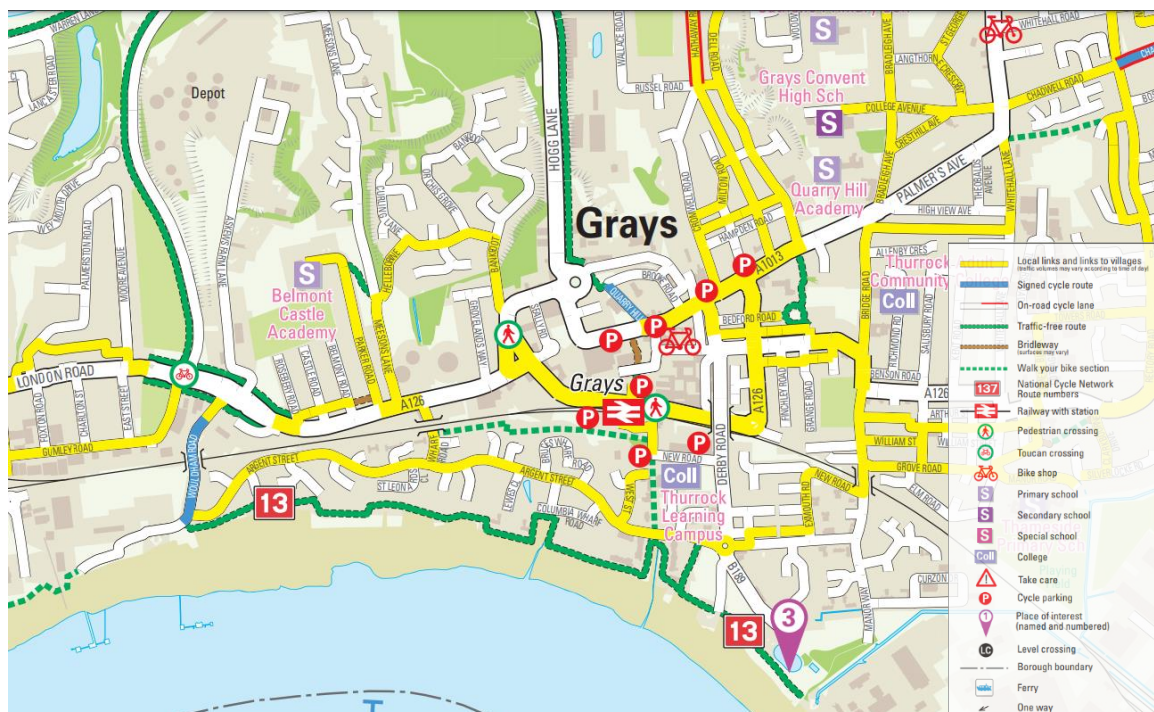


Figure 3-9 Extract of Thurrock Cycle Map (2014) – Grays Town Centre



3.5.5 The figures above show that there are very few signed cycle routes (shown by blue lines) in Grays town centre, although there are some traffic-free routes that provide access to the centre from outside areas (green lines) such as to the north via Hogg Lane and Devonshire Road, and along the waterfront. Local links (shown in yellow lines) cover many of the town centre roads, however as traffic levels vary throughout the day on these routes, they may not be attractive to the majority of cyclists. There are also notably very few routes in Grays town centre that comply with the Department for Transport (DfT)'s Local Transport Note (LTN) 1/20 guidance, which reflects current best practice, standards and legal requirements and prioritises making cycling accessible.

3.5.6 Notable gaps in the network include:

- ⦿ A section of the A1013 Palmers Avenue; suggesting routes for cycling from the northeast could be convoluted.
- ⦿ Sections of the A126 heading west from the town centre, although Argent Street provides a more attractive alternative to this route.
- ⦿ Derby Road Bridge, which could provide a direct north-south route from the A1013 Palmers Avenue to the Thurrock Learning Campus and Grays Beach area.
- ⦿ The NCN13 has a section along the waterfront of Grays, but it fails to connect to the section heading east from Tilbury town, nor the section that heads west from Purfleet to central London.

3.6 PUBLIC TRANSPORT PROVISIONS AND LEVEL OF SERVICE

BUS STATION FACILITIES AND CONNECTIONS

3.6.1 The bus station within Grays town centre is located along Crown Road, south of the Morrisons supermarket and less than 100m from the entrance to Grays railway station. The station comprises eight bus stops (four on each side of the road) arranged in a 'sawtooth' layout, as shown in **Figure 3-10**.

Figure 3-10 Photograph of Grays Bus Station



3.6.2 The bus station is the terminus of several Ensign bus routes and is used as a bus stand between services. All Ensign buses are fully wheelchair accessible, and service 22 buses are hybrid vehicles.

3.6.3 The services that route via the bus station are shown in **Table 3-5**, while the Ensign network is shown in **Figure 3-11**.

Table 3-5 Bus Routes stopping at Grays Bus Station

SERVICE	DESTINATION	TYPICAL SERVICE FREQUENCIES			
		WEEKDAY MORNINGS	WEEKDAY EVENINGS	SATURDAYS	SUNDAYS
22	Usk Road, Averley to Grays via Belhus, Lakeside, West Thurrock and South Stifford	Every 20 minutes	Every 30-60 minutes	Every 20-30 minutes	Every 60 minutes
33	Chafford Hundred Rail Station to Grays via Drake Road, Chafford Hundred Medical Centre, The Sandmartin.	Every 30-60 minutes	Every 30-60 minutes	Every 30 minutes	No service
44	Lakeside to Grays via Purfleet-on-Thames	Every 10-30 minutes	Every 30 minutes	Every 15-30 minutes	Every 60 minutes
66	Chadwell St Mary to Grays via Little Thurrock, Tilbury Asda and Tilbury Town	Every 30 minutes	Every 30 minutes	Every 30 minutes	Every 60 minutes
73	Lakeside to Tilbury Civic Square via Grays, Sockett's Heath, Palmers College and Cross Keys	Every 30 minutes	Every 30 minutes	Every 30 minutes	No service
73A	Lakeside to Tilbury Civic Square via Grays, Sockett's Heath, Palmers College, Chadwell St Mary, Brentwood Road Estate	No service	No service	No service	Every 30 minutes
83	Lakeside to Chadwell St Mary's via Grays, Sockett's Heath, Palmers College and Cross Keys	Every 20-30 minutes	Every 20-30 minutes	Every 30 minutes	Every 60 minutes
Z1	Aveley to Tilbury Amazon Fulfilment Centre via Ockendon, Lakeside, Grays, Sockett's Heath, Cross Keys and Tilbury	Operates 2 morning, 2 evening and 1 lunchtime return journey			

3.6.4 Single fares are determined based on the distance travelled. Tickets valid for 1 day, 7 days and 28 days offer cheaper fares compared to single tickets and are set out below:

Table 3-6 Ensign Bus Fare Prices 2023

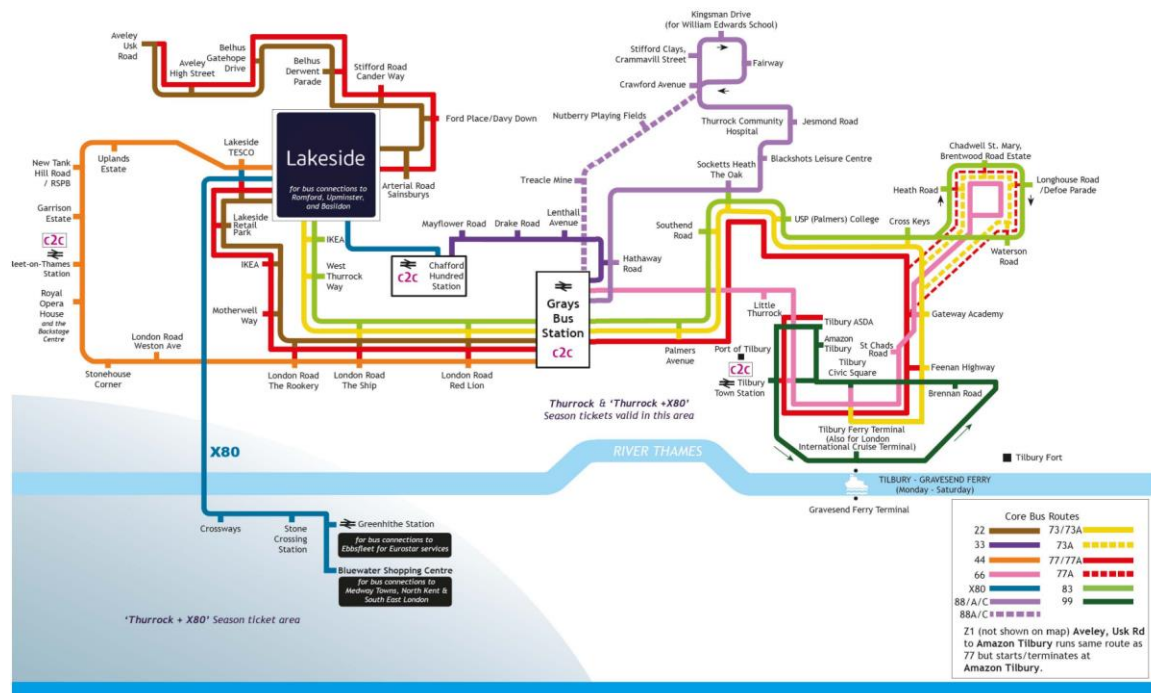
	DAY	7-DAY	28-DAY
Adult	£5.10	£18.50	£58.00
Child ages 5-15	£3.30	£12.00	£34.00
Family	£12.50	-	-

CURRENT BUS NETWORK COVERAGE AROUND GRAYS TOWN CENTRE

3.6.5 The Ensign bus network is shown in **Figure 3-11** below.



Figure 3-11 Ensign Bus Network Map (2022)

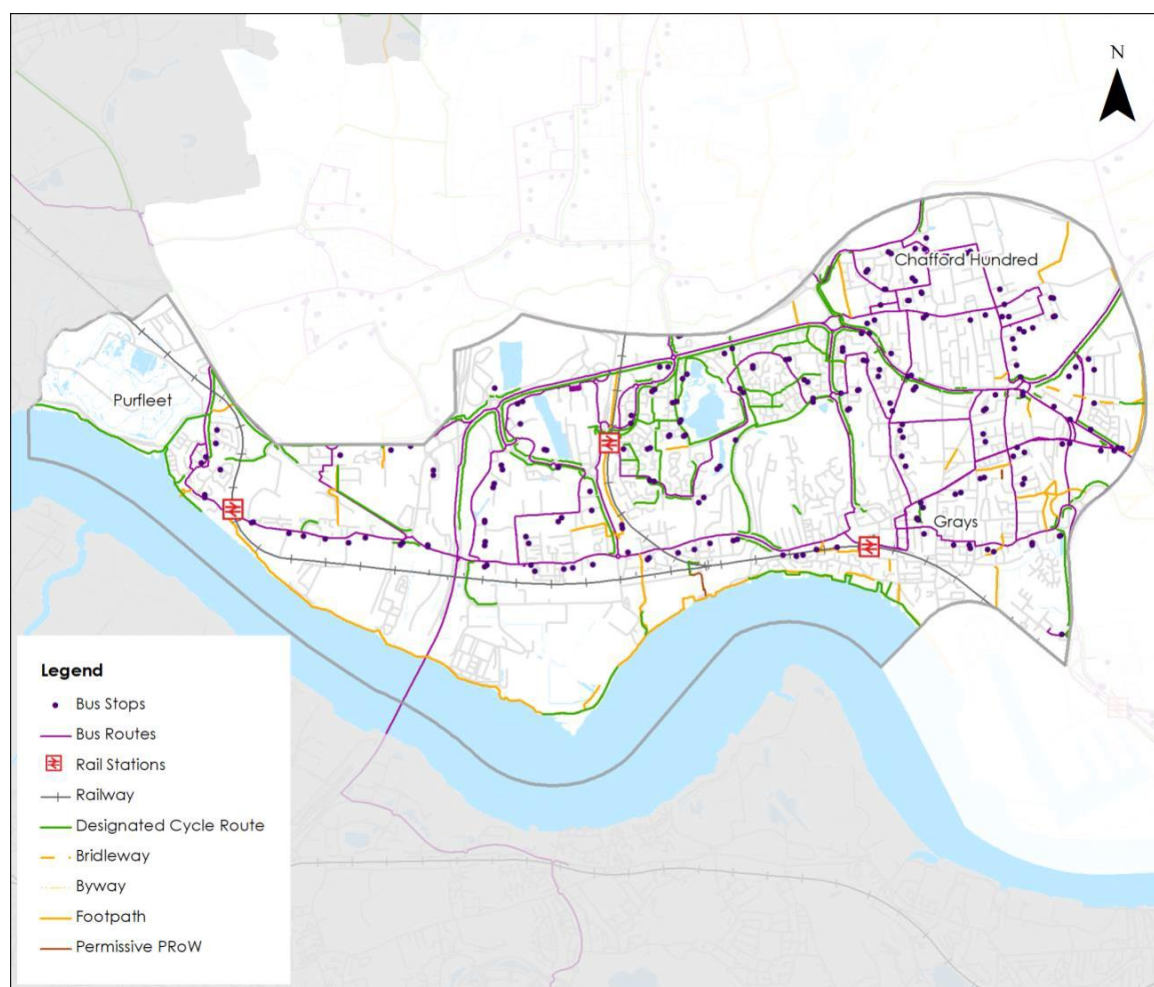


Source: Ensign, 2022

- 3.6.6 The network map demonstrates that Grays Bus Station is included within the majority of core bus routes, suggesting the town centre is relatively accessible by bus from a variety of areas.
- 3.6.7 The routes and bus stops are shown in **Figure 3-12**. This shows that there are bus services along the majority of main roads that lead to Grays town centre, including London Road, Hogg Lane, Orsett Road / Palmers Avenue, and the A126 East Thurrock Road. There is, therefore, relatively good coverage across the town centre and wider town areas. One notable exception is the lack of bus routes south of the railway line, where there is a considerable number of residential areas.



Figure 3-12 Bus Routes and Stops



Source: Thurrock Local Plan Transport Evidence – Baseline Study, Stantec 2021

RAIL SERVICES

- 3.6.8 Grays railway station is a key transport node within Thurrock, providing fast and frequent services to other stations in the borough as well as to central London. The station is well located to serve the town centre, as well as offering convenient interchange opportunities via Grays bus station.
- 3.6.9 The railway station has 78 cycle parking spaces, located at the entrance to the station car park on the southern side, and on Crown Road near the bus stops on the northern side. Cycle parking is provided within shelters, although these are open on one side and therefore cycles are not able to be securely stored (although CCTV is present).
- 3.6.10 The station's car park is located on the south side of the railway line and has 168 parking spaces of which five are accessible bays. The location of the station car park creates the need for people coming from the north to drive around the town centre to cross the railway line. This increases congestion on the road network around the station and waterfront area.



- 3.6.11 Another issue at the station is with crossing between platforms. There is an underpass between platforms and stairs outside the station, but the only level access is outside the station at the level crossing. This level crossing is closed very frequently throughout the day to allow trains to pass by, which creates delays for pedestrians accessing the station as well as those travelling between the northern and southern sides of the town centre.

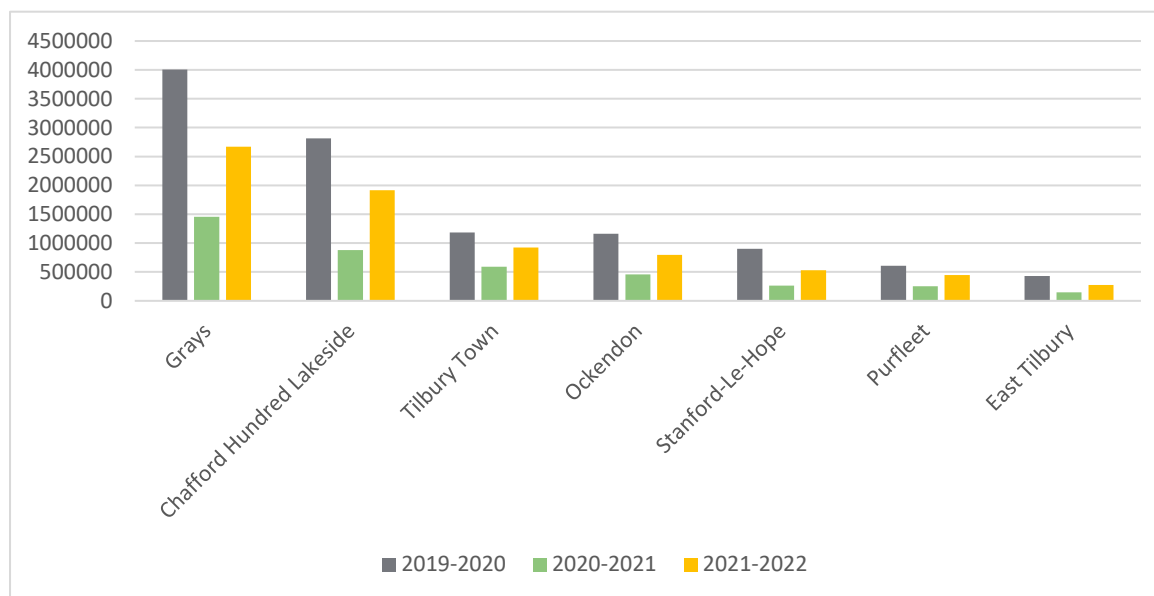
RESIDUAL TRAIN CAPACITY

- 3.6.12 Grays railway station is the busiest station in Thurrock, typically accommodating nearly one-third more passengers than the next busiest station in the borough, Chafford Hundred Lakeside. Usage dropped significantly in the 2020-2021 year, primarily due to the impacts of the Covid-19 pandemic, and none of the stations in Thurrock have returned to 2019-20 levels, based on data obtained for the period 2019-2022.

Table 3-7 Grays Railway Station Usage Compared to Thurrock Stations

STATION	ENTRIES AND EXITS (2019-2020)	ENTRIES AND EXITS (2020-2021)	ENTRIES AND EXITS (2021-2022)
Grays	4,006,394	1,455,604	2,668,626
Chafford Hundred Lakeside	2,816,408	881,722	1,916,280
Tilbury Town	1,182,556	589,212	925,500
Ockendon	1,158,972	458,934	796,782
Stanford-Le-Hope	902,026	263,342	529,374
Purfleet	606,804	254,580	444,954
East Tilbury	430,066	148,536	276,350

Figure 3-13 Thurrock Railway Stations (Total Entries and Exits) by Year



RAILWAY STATION DROP-OFF PROVISIONS

- 3.6.13 Vehicles can access the station either from the north or south. The northern route is accessed via Crown Road and has an informal drop-off area comprising a turning head, disabled persons parking and loading bays. There is also an extensive drop-off and waiting area for taxis directly on Crown Road in front of the station.
- 3.6.14 For dropping off on the southern side of the station, vehicles typically route via the Derby Road bridge before passing the Thurrock Council's office on New Road and dropping off on the High Street or outside the station. This route also provides access to the station's private car park.

3.7 HIGHWAYS

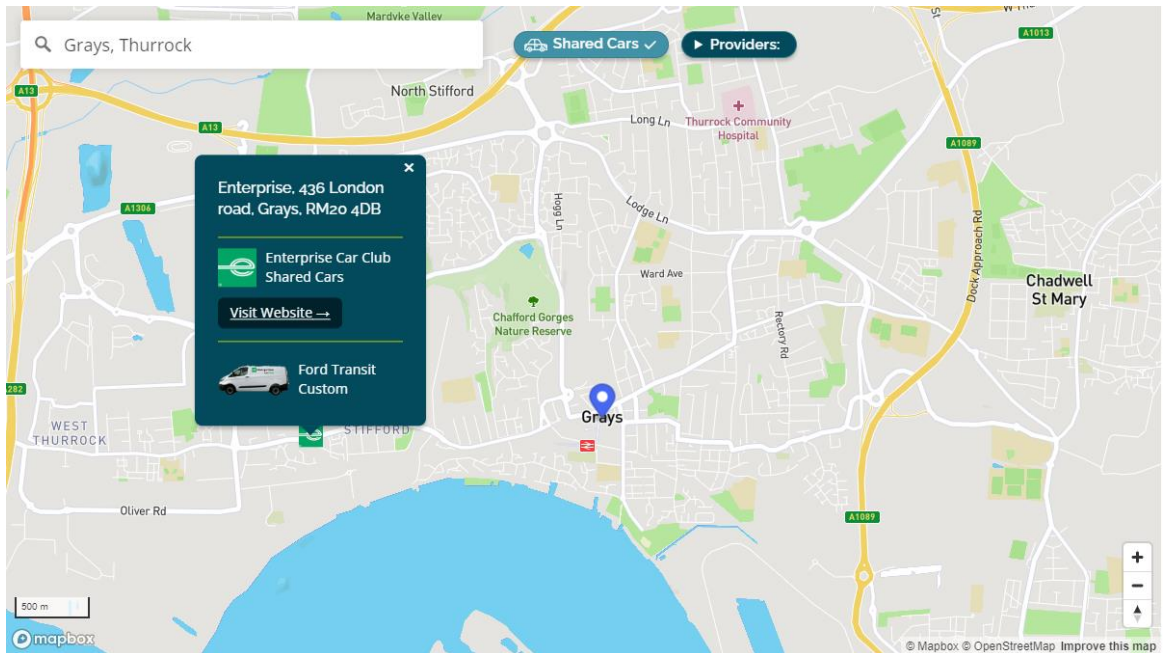
CAR SHARING / CAR CLUBS

- 3.7.1 Car sharing can offer people the benefits and freedoms of car-based travel without the long-term costs associated with ownership. On average, 20 private cars are taken off the road by each car club car in the UK, and car club vehicles are typically low-emission vehicles, causing less environmental impact when used compared to non-car club vehicles³.
- 3.7.2 There are currently no known car club vehicles based within Grays, which suggests any existing interest in shared car systems is not being met. There is one vehicle (a Ford Transit van managed by Enterprise) which can however be hired and returned during daytime hours. The vehicle is located on London Road to the west of the town centre as shown in **Figure 3-14**.

³ <https://www.como.org.uk/shared-cars/overview-and-benefits>



Figure 3-14 Existing Hire Car Locations



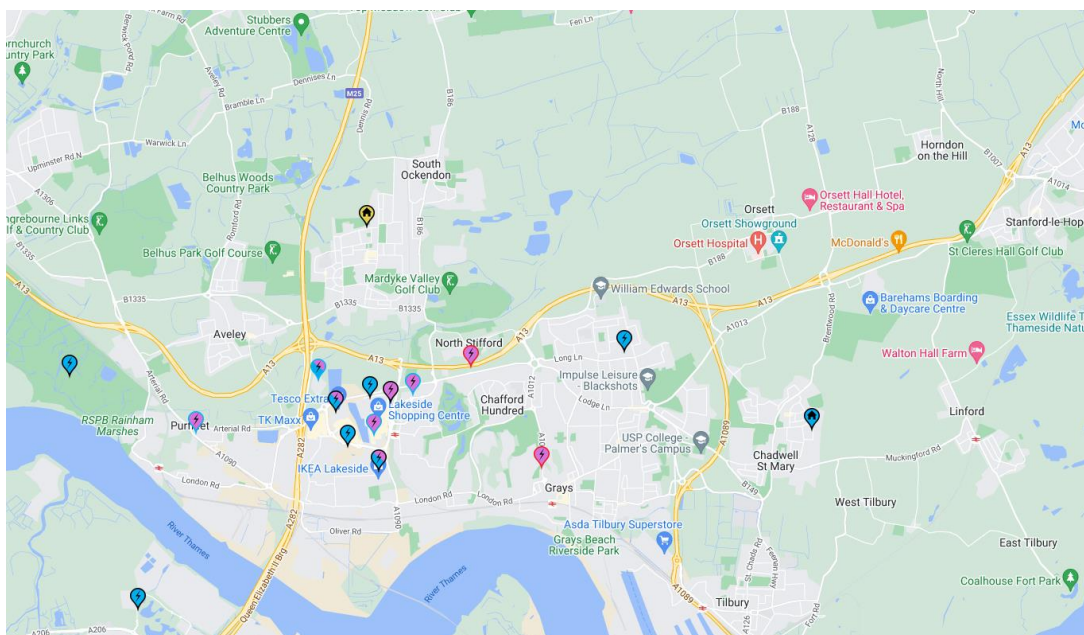
Source: <https://www.como.org.uk/shared-cars/existing-schemes-and-operators>

ELECTRIC VEHICLE CHARGING INFRASTRUCTURE

3.7.3

There are currently only very few electric vehicle charging points within Grays town centre as shown in **Figure 3-15**. This is within the Halfords car park and provides three rapid (43kw+) chargers. There are reportedly further charging bays at Argent Street and Crown Road car parks. Another fast-charging point, providing four chargers, is located outside the town centre at Thurrock Hospital.

Figure 3-15 Location of Electric Vehicle Charging Points - Thurrock



Source: Zap-map.com

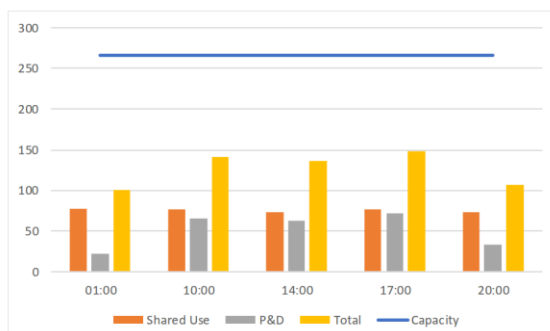


3.8.4 Surveys undertaken in 2018 by Mott Macdonald found that on-street parking utilisation was between 50% and 70% during the peak hours (10:00 to 17:00), with some streets being fully occupied at times but the town having significant levels of spare capacity overall. It is noted that these surveys were undertaken before the Covid pandemic, so current parking levels may be different than those identified in the surveys.

3.8.5 **Figure 3-17** below shows a summary of the findings.

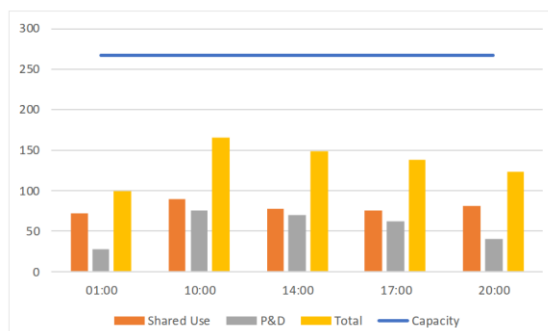
Figure 3-17 Grays On-Street Parking Survey Data – June 2018

Figure 2: All streets utilisation Friday 8th June



Source: Nationwide Data Collection

Figure 3: All streets utilisation Saturday 9th June

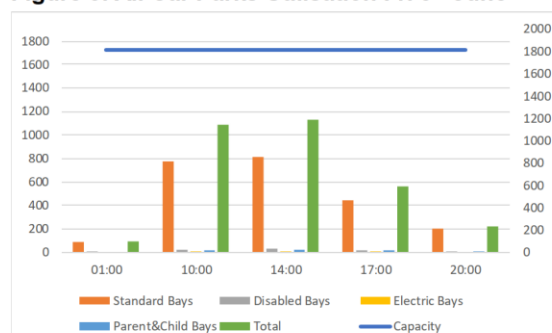


Source: Nationwide Data Collection

3.8.6 Off-street car parks were also surveyed. This found that the car parks operate well within capacity on all three days surveyed. During the peak hours (10:00 to 17:00) average utilisation for each car park ranged between 40% and 60% on each of the days surveyed, although instances of utilisation above 90% were observed at some car parks.

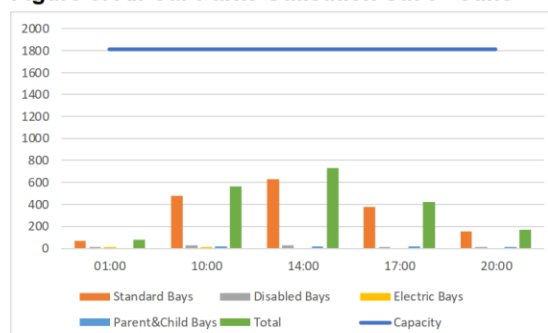
Figure 3-18 Grays Off-Street Car Parks Survey Data – June 2018

Figure 5: All Car Parks Utilisation Fri 8th June



Source: Nationwide Data Collection

Figure 6: All Car Parks Utilisation Sat 9th June



Source: Nationwide Data Collection

3.8.7 The overall findings were:

- Significant spare capacity exists across the on- and off-street parking stock overall which suggests that there is scope to accommodate future growth in car parking demand, particularly during the evenings. On-street utilisation peaks at approximately 70% on Wednesday afternoons (i.e. 2pm), falling to 50% at 8pm, whilst off-street utilisation peaks at approximately 60% at 2pm Wednesdays and Fridays (falling to less than 15% at 8pm).



- ⦿ As could be expected, the situation varies from location to location. On-street, High Street operates at or close to capacity during weekday daytimes, and at capacity on Saturday evenings. At different times, London Road, Bedford Road, Bradbourne Road, Grange Road, Clarence Road and Derby Bridge Road all approach capacity.
- ⦿ Off-street, Station House and Morrisons car parks approach capacity on weekday afternoons. Grays railway station car park also approaches capacity, but only on Wednesday afternoons (98% utilisation). On Fridays, utilisation only just exceeds 70%. During the evenings, the Argent Street car park is particularly well-used, with utilisation exceeding 80% on all three days surveyed.
- ⦿ Some off-street car parks are significantly underutilised, in particular Crown Road and Cromwell Road, both long stay. Several floors in the Grays town centre multi-storey were almost empty on weekdays and completely empty on Saturdays. It was noted that floors 10, 11 and 12 were for Yellow Pass (i.e. annual pass) holders and these were better utilised, although still within capacity.

EXISTING PARKING TARIFF STRUCTURE

3.8.8 Thurrock Parking Policy states that the Council's charging structure should be subject to the following principles:

- ⦿ Areas of greatest demand (town centres, stations, and university premises) should be subject to the highest pricing;
- ⦿ Prices should reduce as walking distance to the attractor increases;
- ⦿ Tariffs for long-stay parking should encourage the use of off-street car parks where available; and
- ⦿ Linked to DVLA vehicle type/vehicle emissions.

3.8.9 Policy TPP04: On-Street and Off-Street Parking Charges states that:

"The Council will set charges for on-street parking and for off-street parking in Council car parks. A set structure of parking charges and tariffs for both on-street and off-street environments will be set by the Council and reviewed, benchmarked and adjusted, as appropriate."

3.8.10 The Council is only able to set the charges of Council-owned parking provision, however, and the majority of parking capacity within Grays is privately operated (1,408 private spaces compared to 624 public spaces across on and off-street parking).

3.8.11 The existing tariff structure of parking in Grays town centre is summarised below:



Table 3-8 Existing Parking Tariffs

PARKING LOCATION	Public/ Private	Capacity	1 Hour	2 Hours	3 Hours	4 Hours	5 / 6 Hours	Over 6 hours
Station House	Public	10	£1.00	£1.50		£2.50	£4.00	£6.50
Darnley Road	Public	30	£1.00	£1.50	-	£2.50	£4.00	£6.50
Crown Road	Public	96	£1.00	£1.50	-	£2.50	£4.00	£6.50
Argent Street	Public	42	£1.00	£1.50	-	£2.50	£4.00	£6.50
Cromwell Road	Public	60	£1.00	£1.50	-	£2.50	£4.00	£6.50
Grays Beach	Public	182	£1.00	£1.50	-	£2.50	£4.00	£6.50
Morrisons Car Park	Private	540	-	-	£1.00	(max stay 3 hrs)		
Grays Shopping Centre MSCP	Private	700	-	-	£1.00		£3.00	
Grays Railway Station	Private	168	£1.00	£2.00	£3.00	-	-	£8.40

- 3.8.12 Grays town centre is a controlled parking zone that has both on-street pay-and-display parking and off-street car parks. All on-street pay-and-display parking is limited to short-stays (up to four hours), with the exception of Thames Road and the access road to the yacht club near Grays Beach.

ON-STREET CAR PARKING CHARGES

- 3.8.13 Charges for a **quick stop**, maximum 1 hour, are:

- ⦿ **70p** – for up to 30 minutes
- ⦿ **90p** – for up to 45 minutes
- ⦿ **£1.40** – for up to 1 hour

- 3.8.14 Charges for a **short stay**, maximum 4 hours, are:

- ⦿ **70p** – for up to 1 hour
- ⦿ **£1.40** – for up to 2 hours
- ⦿ **£2.30** – for up to 4 hours

- 3.8.15 Charges for a **long stay** at Thames Road and the access road to the yacht club near Grays Beach:

- ⦿ **70p** – for up to 1 hour
- ⦿ **£1.20** – for up to 2 hours
- ⦿ **£3.20** – for over 2 hours

RESIDENTS PARKING PERMITS

- 3.8.16 Many streets within Grays have one or more controlled parking zones or parking permit areas, as listed on the Thurrock Council website (<https://www.thurrock.gov.uk/parking-permits/roads-within-each-parking-zone-or-area>). Most areas restrict parking to permit holders only between 9am to 6pm, Monday to Saturday, or 8am to 6pm, Monday to Friday.

TYPES OF RESIDENTS' PERMIT

- ⦿ A **residents' permit** allows you to park your vehicle either within the parking permit area or in a permit holder's bay within the controlled parking zone, applicable to your permit. It also allows you to park in a shared-use parking bay – this is a bay that can be used by parking permit holders and motorists who display a valid pay-and-display ticket.



- A **residents' permit for multiple business vehicles or fleet vehicles** is only for residents who use a vehicle provided by their employer and may have to use a different vehicle each day.
- A **temporary resident permit** is for residents who would be eligible for a residents' permit but who are not able to provide proof of vehicle ownership when applying.

3.8.17 Resident parking permits are issued for 1 year. The charges are shown in **Table 3-9** below.

Table 3-9 Residential Parking Permit Costs

PERMIT	COST
Parking permit for the first resident in the household	Free
Parking permit for the second resident in the household	Free
Parking permit for the third resident in the household	£75
Temporary permit	£11

BUSINESS PERMITS

3.8.18 Business parking permits are issued for 1 month, 6 months or 1 year. The charges are shown in **Table 3-10**.

Table 3-10 Business Parking Permit Costs

PERMIT	COST
Business parking permit for 1 month	£42
Business parking permit for 6 months	£210
Business parking permit for 1 year	£380

3.9 SECTION CONCLUSION

3.9.1 This section has analysed the current conditions and level of service of all transport modes available within Grays town centre to establish a base from which technical analysis can be undertaken and recommendations made.

3.9.2 The following strengths and weaknesses were identified:



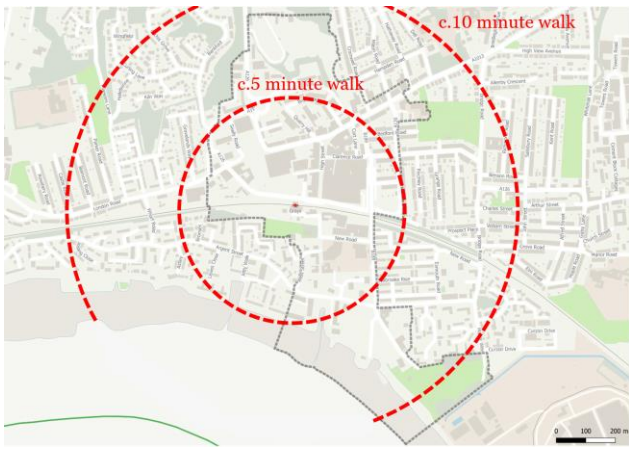
Figure 3-19 Strengths and Weaknesses Relating to Transport in Grays



4 SITE VISIT OBSERVATIONS

- 4.1.1 A site visit was undertaken on 15 November 2022 covering the town centre and wider highway network. Observations and photographs were recorded which were used to inform recommendations for the design of the town centre, covering the public realm, walking and cycle routes and wayfinding.
- 4.1.2 **Table 4-1** below provides a summary of the findings, while the full analysis and recommendations are provided in the report, produced by Andrew Cameron Associates, in **APPENDIX A**.

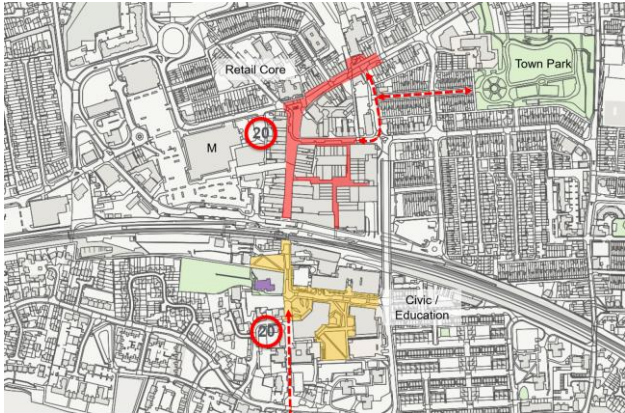
Table 4-1 Site Visit Observations and Analysis

OBSERVATION	RECOMMENDATION	EVIDENCE
The town is compact, level and in theory, very walkable and cyclable. The town centre has a variety of facilities and daily convenience shops.	Increasing the proportion of trips into the town centre by active travel modes is possible.	
National Cycle Network in Grays appears to show a disconnected section.	Identify opportunities to connect key cycle routes through town for leisure and commuting purposes.	

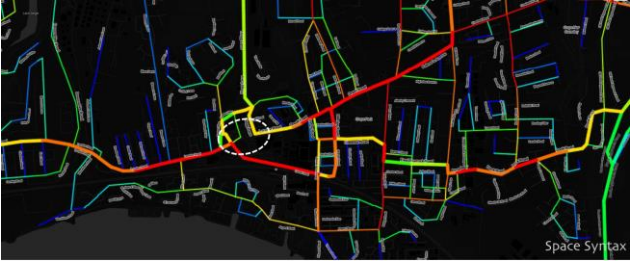


OBSERVATION	RECOMMENDATION	EVIDENCE
One of Grays' best assets is Town Park, but it is poorly advertised currently.	Better walking and cycling routes to this key destination are needed, as well as wayfinding.	
Grays War Memorial presently feels somewhat lost in the surrounding paving patterns, signage, bollards and barriers.	The public realm and street furniture need to celebrate this important space. Potential opportunity to reduce vehicular access to Orsett Road in order to create civic space/ improved public realm at the northern end of High Street.	
Most of the highway network is vehicle dominated.	The town centre should be designed to prioritise pedestrians, ensuring movement is easy and safe, and places are attractive to spend time in.	

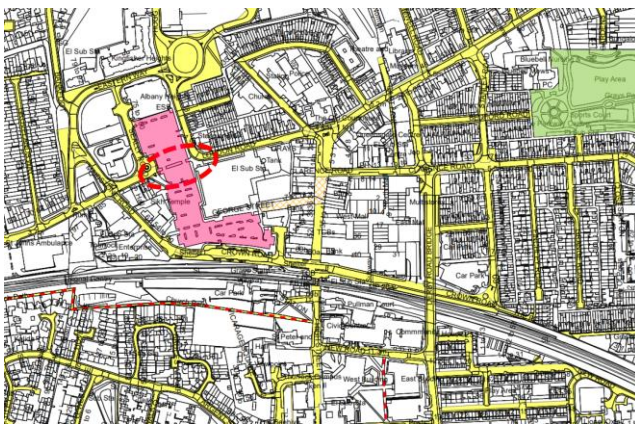


OBSERVATION	RECOMMENDATION	EVIDENCE
There is some good wayfinding in place, however, there are too many variations.	A consistent and coordinated approach is needed to wayfinding (e.g. Legible London).	
While the town centre is compact and walkable, there are several missed opportunities to encourage footfall which could be implemented relatively easily.	Key pedestrian routes should have wayfinding and high-quality public realm. Reduce long-stay parking on-street and implement reduced speed limits. A 20mph limit across the town centre should be considered and would help rebalance the needs of active travel users and motor vehicles. The extent of a 20mph limit would need to be part of a further study and consultation would be required with stakeholders and highways.	



OBSERVATION	RECOMMENDATION	EVIDENCE
Some parts of the town centre would benefit from improved wayfinding to promote leisure attractions and encourage the use of available facilities.	Key locations for wayfinding and legibility improvements have been identified in yellow circles.	 Wayfinding and legibility key locations
Space Syntax open source analysis of Grays shows that there are relatively good connections (depicted in red lines) through the town centre via the A126 London Road, however, there is a 'missing link' on London Road / A126. This contributes to less 'heat' in the town, with green and blue lines nearby indicating less well-connected routes.	Consider the impact of this gap in the network, as reintroducing the main east-west route would help create a better-connected place.	 Space Syntax
Side-by-side maps showing the growth of Grays and how the link was removed to create a larger car park.	Investigate the potential to improve this route for pedestrians and cyclists.	



OBSERVATION	RECOMMENDATION	EVIDENCE
Adopted roads and streets in Grays, missing link circled. The at-grade car parking (pink) is a similar size to Town park.	Explore options for a multi-storey car park to reduce parking footprint.	
The area outside the railway station and at the southern end of the High Street has great potential to become a focal point/meeting point for the town centre.	Consider making the area read as a station square: • relocate taxis away from pedestrian desire lines • provide better wayfinding • connect to the retail public realm • Provide wider footways • Provide covered cycle parking and more trees.	
Such key pedestrian and cycle connections must not be used for parking.	Remove pay and display parking and provide a clear, attractive pedestrian route across the level crossing.	



OBSERVATION	RECOMMENDATION	EVIDENCE
Arrival at Grays station. Which way is the Town?	Limit general traffic movements on Crown Road to narrow lanes and return more space to usable public realm.	



5 TECHNICAL ANALYSIS

5.1 INTRODUCTION

- 5.1.1 This section provides analysis and recommendations relating to the transport matters raised in the brief. It will therefore analyse the questions Thurrock Council have raised regarding potential strategies for parking, access by active and public transport modes, and planning for major developments.
- 5.1.2 Where people will live, work and travel within Grays over the next 20 years is uncertain. While it will therefore be important to determine how the town wants to develop over this period and design measures to achieve it, it will also be necessary to incorporate flexibility in the proposals to ensure progress is made towards wider Council policies.

5.2 ANALYSIS OF CURRENT AND FUTURE PARKING PROVISION IN THE TOWN CENTRE, AND POTENTIAL IMPACT OF LOSS OF PARKING DUE TO NEW DEVELOPMENT

- 5.2.1 Based on the 2018 parking survey data referenced and analysed in the previous section of this report, it is likely that the current provision of town centre parking is greater than required for the existing demand at most times, with pre-Covid utilisation peaking at approximately 60% at 2pm on Wednesdays and Fridays (falling to less than 15% at 8pm). As such, there may be potential opportunities to consolidate parking opportunities prior to new development coming forward to make better use of this valuable land, reduce Council expenditure relating to the ongoing maintenance of the car parks, and support policies aiming to reduce travel by car.
- 5.2.2 There are proposals to close the multi-storey car park as part of the redevelopment of Grays Shopping Centre which currently has 700 parking spaces, equating to 38% of the town's car park capacity. Like the Morrisons supermarket car park, the shopping centre car park is a privately owned facility that caters to both short stay (£1 up to 3 hours) and long stay (£3 up to 6 hours) parking.
- 5.2.3 A high-level assessment has been undertaken to understand possible parking utilisation rates within the town centre following the removal of the shopping centre car park based on the 2018 data. The current proposals for the redevelopment of the site incorporate around 200 parking spaces which are proposed to be shared between shoppers and residents. As the strategy for sharing these parking spaces between uses is not yet known, various scenarios have been produced to show potential future utilisation depending on how much parking capacity was removed. For example, assuming half of these spaces will be available as potential parking spaces for non-residents, the development would result in a net reduction of 600 potential parking spaces.
- 5.2.4 It is also noted that the Thurrock Parking Standards would allow 0-1 space per unit for residential units in this location, meaning proposals including further parking may come forward as the site develops.
- 5.2.5 It was not possible to isolate long and short-stay parking from the 2018 parking data, meaning there is less certainty regarding the ability to simply redistribute the 2018 demand onto other town-centre car parks following the MSCP's removal, however, this assessment is nevertheless useful for a high-level analysis of potential occupancy.



Table 5-1 Impact Assessment of Reduced Town Centre Car Park Capacity

DAY OF WEEK	TOTAL CAR PARK CAPACITY	UTILISATION (%)				
		01:00	10:00	14:00	17:00	20:00
Scenario 1 – all car parks including Shopping Centre MSCP						
Friday	1,812	5%	60%	62%	31%	12%
Saturday		4%	31%	40%	23%	9%
Wednesday		5%	55%	61%	39%	15%
Scenario 2 –Shopping Centre MSCP closed						
Friday	1,104	8%	98%	102%	51%	20%
Saturday		7%	51%	66%	38%	15%
Wednesday		8%	91%	100%	64%	25%
Scenario 3 - MSCP closed and 200 parking spaces re-provided and available for use by anyone						
Friday	1,304	7%	83%	87%	43%	17%
Saturday		6%	43%	56%	32%	13%
Wednesday		7%	77%	85%	54%	21%
Scenario 4 - MSCP closed and 200 parking spaces re-provided but only 100 are available for use by non-residents						
Friday	1,204	8%	90%	94%	47%	18%
Saturday		7%	47%	61%	35%	14%
Wednesday		8%	83%	92%	59%	23%

- 5.2.7 As shown above, applying the 2018 surveyed levels of demand to the remaining town centre car park capacity could result in demand exceeding capacity during the weekday daytime peak hours if the multi-story car park spaces were removed with no spaces re-provided.
- 5.2.8 If the shopping centre redevelopment project retains some parking capacity (with either all of it or half of it being available for use by the general public), overall demand is likely to stay within capacity at all times.
- 5.2.9 As mentioned earlier, future demand levels may vary from the data presented due to parking duration not being taken into account as well as the 2018 data being a snapshot based on multiple land uses including for shopping (Morrisons) and commuting (Grays Railway Station).



DARNLEY ROAD AND CROWN ROAD CAR PARKS REDEVELOPMENT

- 5.2.10 In 2022, a proposal to build around 57 high-quality new homes on the Darnley Road and Crown Road Car Park site in Grays town centre was consulted on by Thurrock Council. This project would help to provide much-needed housing in the local area and make use of an underutilised council-owned car park. The site is close to local shops and facilities within Grays town centre and only five minutes' walk from Grays Railway Station.

Figure 5-1 Visualisation of Darnley Road / Crown Road Car Park Redevelopment Proposals



Source: Consultation on proposals for new homes on the Darnley Road and Crown Road Car Parks in Grays, February 2022.

- 5.2.11 Darnley Road car park currently has circa 29 spaces, while Crown Road Car Park has circa 91, resulting in a potential loss of 120 spaces. The existing parking areas under Derby Bridge would be retained, so they have not been considered in this analysis. It has been assumed that the development would otherwise be car-free due to the accessibility of the location.
- 5.2.12 Should this proposal come forward before or without the Shopping Centre multi-storey car park closure project taking place, the total remaining car park capacity in Grays would be 1,692 spaces. Applying the 2018 survey demand to this capacity would suggest a peak demand of 67% around 14:00 on a Friday (an increase of 5% against the 2018 utilisation).



- 5.2.13 Should the proposal come forward alongside the shopping centre multi-storey car park closing (with 200 parking spaces re-provided but only 100 available for use by non-residents, Scenario 4 above), the total remaining car park capacity in Grays would be 1,084 spaces. Applying the 2018 survey demand to this capacity would suggest a peak demand of 104% around 14:00 on a Friday. The impact of high utilisation levels within the car parks is discussed below.

IMPACT OF REDUCING TOWN CENTRE PARKING SUPPLY

- 5.2.14 The 2018 survey data suggests that parking capacity in Grays is likely to be currently greater than the level of demand generated by existing uses. While offering convenience to drivers and supporting the town centre economy, an excess of convenient parking close to destinations can encourage single-occupant car trips which could be made easily and more efficiently by other modes.
- 5.2.15 Consolidating the town centre car parks would likely result in higher utilisation levels which could disperse parking onto other locations (such as on-street) unless controls are in place to restrict parking to appropriate users.
- 5.2.16 Ensuring an effective mix of long and short-stay parking is also necessary to manage trips being made in and out of the town centre. Long-stay parking is likely to be used by town centre workers, and commuters travelling via Grays railway station, while short-stay parking is more attractive for shopping and leisure trips. Reducing long-stay parking opportunities, or discouraging them by raising parking tariffs, is likely to be a necessary element of any strategy for encouraging increased patronage on public transport and active travel modes.
- 5.2.17 When reducing parking provision however, it is important that alternative travel options come forward and are promoted at the same time. Without confidence that there are other attractive ways to access the town centre, removing significant opportunities for parking could affect how often people come to Grays for retail and leisure trips. It is therefore important that dependence on cars is reduced through facilitating walking and cycling and encouraging more trips by public transport, which will enable a reduction of car parking spaces in the town that won't be detrimental to the town centre's vitality.
- 5.2.18 As a proportion of the traffic in Grays town centre is likely to relate to people driving to and from car parks, relocating reliable parking opportunities out of the town centre would likely reduce traffic levels, improving the attractiveness of the centre and creating opportunities for less car-dominated environments. The location of long-stay parking provision is also a key element of Park-and-Ride systems (discussed later in this section), as few people are likely to consider switching to a shared transport mode, regardless of service frequency, if the trip element could be made more easily by car.
- 5.2.19 The majority of the town centre car park capacity in Grays is located within the Morrisons and shopping centre multi-storey car parks (67%) both of which are privately operated, meaning there is generally less control by the Council over tariffs and the number of spaces provided. The Morrisons car park, with 540 spaces provided on ground level only, occupies a large site within a key location in the town centre. This location would be desirable for residential development due to its high proximity to public transport nodes and the High Street. Whilst the presence of this large supermarket supports the vitality of the town centre and is a key anchor store for Grays's retail offer, it also generates significant traffic levels in one of the most constrained parts of the town, reducing the attractiveness of the town centre for pedestrians, shoppers and residents. There is therefore a balance to be considered between maintaining this important asset and managing its impacts.



- 5.2.20 Opportunities to reduce the capacity, land take (via the use of multi-storey car parks if needed) and overall use of these car parks should therefore be supported where possible, with the core strategy being to minimise long-stay parking opportunities in the town centre as much as possible.
- 5.2.21 The Council could discourage parking demand by staff at its Grays offices in the first instance to show leadership and help build support from local people. The building is highly accessible by bus, rail and active travel modes, and so there may be opportunities to encourage and demonstrate modal shift away from car travel by staff. Whilst it may not be possible to reduce the number of parking spaces at the site due to the parking being primarily in the basement of the building, it would be advisable to review the number of parking permits given to staff to discourage unnecessary car trips, as well as ensuring the cycle parking and active travel facilities are attractive (78 cycle parking spaces currently). This could be managed through the implementation of an effective Travel Plan for the building.
- 5.2.22 Supporting a successful evening economy will also require consideration of appropriate parking opportunities unless attractive, alternative travel options are provided and promoted. Analysis of the potential to provide multi-use parking spaces in some car parks (i.e., enabling commuting/shopping use in the daytime, evening economy use in the evening and/or residential use overnight) in appropriate locations is recommended. Financial opportunities (such as offering reduced parking fees with event tickets) could stimulate activity but the risk of this reducing active and sustainable travel should also be considered.

- **Recommendation:** Reduce the amount of long-stay parking in the town centre to discourage trips being taken by car unnecessarily and release valuable town centre sites.
- Improve alternative methods of travel to driving to reduce car dependency and enable reductions in parking to take place without affecting the town's vitality.
 - The majority of town centre parking should be short stay (3-4 hours max to accommodate visitors and shoppers)
- Consider discouraging parking by staff at the Council's offices in Grays in the first instance to help build support for efforts to increase the use of sustainable travel in the town.
- Closing the shopping centre's multi-storey car park is likely to result in higher utilisation without causing material parking issues.
- Set up a town centre Business Management Group including major retail developments (e.g. Morrisons) to have greater control over town centre parking.

ANALYSIS OF PARKING STANDARDS

- 5.2.23 The parking standards that are expected to be applied to residential development coming forward in Grays are provided in the emerging Thurrock Parking Design and Development Standards and are copied below for reference:



Table 5-2 Thurrock Residential Parking Standards (2022)

C3 DWELLINGS	FLATS	HOUSES
High accessibility Areas		
High accessibility is defined as within 1km walking distance of a railway station and within an existing or proposed controlled parking zone	0 – 1.0 spaces per dwelling	0 – 1.5 spaces per dwelling
Medium accessibility Areas		
Medium accessibility is defined as within 1km walking distance of a designated Town centre or within 400 metres of a bus stop that is subject to a minimum service of 20mins or less. *For houses with one bedroom the standards for flats will apply. For houses with 4 or more bedrooms, an additional parking space will be permitted.	1 – 1.5 spaces per dwelling	1.5 – 2.0 spaces per dwelling
Low accessibility Areas		
Includes those areas outside medium and high accessibility areas	1 - 2 spaces per dwelling 1 for a 2-bed unit and 2 for a 3-bed unit	Min 2.0 spaces per dwelling
Visitors and unallocated (all areas)	0.5 spaces per dwelling in addition to the above unallocated and designed on-street where appropriate.	

- 5.2.24 Borough-wide parking standards must cater for a variety of local characteristics and environments and should balance the risks of on-street parking issues caused by under-supply of parking with potentially encouraging car ownership and car-based lifestyles by over-supplying parking.
- 5.2.25 As shown earlier in this report, however, car ownership per household has increased across Grays over the past decade despite sustainable travel policies being implemented in recent years. It can be expected that this trend will continue unless stricter measures to reduce car use are implemented. Maintaining current trends will also hinder efforts to increase sustainable travel use and achieve policy targets on carbon emission reductions associated with transport.
- 5.2.26 Controlling the supply of convenient parking as improved sustainable travel options are created is one of the most effective ways to achieve a modal shift, and studies have shown that people are more willing to try out and adopt alternative travel behaviour at moments of change in their lives, such as moving to a new house or changing jobs.
- 5.2.27 While housing developers may suggest that a lack of parking provision will reduce the attractiveness of properties to prospective buyers, it is likely that people considering living in areas identified as highly accessible will be more amenable to car-free or car-lite housing, particularly when properties are marketed with subsidised public transport fares or shared travel facilities. Encouraging houses in highly accessible areas to have up to 1.5 parking spaces per unit is likely to result in most trips that households make being taken by car, regardless of attractive alternative travel options being present. As well as adding to daily traffic levels and local air and noise pollution, this encourages sedentary lifestyles and helps maintain the town's road collision levels.



- 5.2.28 Consideration of a bespoke parking strategy for Grays town centre is recommended. With the variety of development potentially coming forward in Grays and the patronage at Grays railway station historically being close to double that of any other station in Thurrock, a new strategy to encourage lower car use and ownership in the town centre could have a significant effect on both the attractiveness and efficiency of the town centre area. Stricter controls on parking provision, either by reducing the maximum number of spaces that can be provided per unit, restricting residents' abilities to obtain parking permits, or widening the area considered to be 'highly accessible' to cover the greater town centre area would likely cause future residents to make journeys via non-car modes more regularly. It is noted that this more stringent parking policy would only affect new residential developments in Grays town centre and therefore the parking abilities of existing residents would not be affected.
- 5.2.29 Whilst parking permits being free for households for the first and second vehicles may be an agreeable method of controlling parking for residents, it offers no disincentive to ownership of multiple vehicles in areas which are already constrained and often have limited facilities for people who do not drive or own vehicles. Permit holders effectively receive subsidised use of large swathes of public land to store vehicles, which could otherwise be used for facilities that benefit greater proportions of the community. The average car spends around 95% of its time parked, suggesting this is an efficient use of valuable space. The introduction of even a nominal charge for annual permits would likely encourage residents to consider alternatives to second car ownership, and money raised could be offered back to residents in various forms such as subsidised monthly bus tickets, vouchers for local shops or improved local facilities.

Recommendation:

- Produce a bespoke parking policy and strategy for Grays town centre.
- Update the parking standards to discourage car ownership in high accessibility areas, through:
 - Removing the minimum parking standard for houses;
 - Lowering the maximum parking standard for flats; and/or
 - Widening the area considered to be highly accessible
- Charge a fee for both the first and second permits for households to provide a disincentive to owning a car and to raise funds for sustainable transport projects.



5.3 THE POTENTIAL IMPACT OF THE LONDON RESORT AND OTHER MAJOR DEVELOPMENT SCHEMES ON PARKING NEEDS/CAPACITY IN GRAYS, CONSIDERED AGAINST THE EXTENT TO WHICH PUBLIC TRANSPORT, COULD MEET ANY ADDITIONAL DEMAND.

THE LONDON RESORT

- 5.3.1 The London Resort is a proposed theme park and resort on the Swanscombe Peninsula in Kent. The resort would comprise a comprehensive package of facilities, including themed rides, various leisure and event attractions, a waterpark, hotels, conference centres and accommodation for staff. The project was first announced in 2012 and has since been subject to numerous delays. Most recently, a DCO application submitted in 2022 was withdrawn after the UK government classified Tilbury as a Freeport, meaning revisions were needed to its transport strategy. Natural England has also recently designated the peninsula as a Site of Special Scientific Interest (SSSI). Nevertheless, the applicant, London Resort Company Holdings, has suggested a new, scaled-back application will be submitted in 2023⁵.
- 5.3.2 No details of the new application are currently available, and a thorough consultation on the proposed transport strategy would be undertaken with relevant stakeholders in due course. To help inform future decision-making, Thurrock Council has requested a high-level analysis of the potential impact The London Resort could have on Grays should a transport strategy involving a river crossing at Grays be proposed. This is considered to be a potential strategy given the proximity of Grays to the Swanscombe peninsula and the inability to route via Tilbury. The analysis provided below focuses on the ability of the town's existing transport networks to accommodate the likely levels of demand associated with the project, and a high-level analysis of the impact potential mitigation proposals would have.

THE LONDON RESORT TRAVEL ASSUMPTIONS (NOW WITHDRAWN APPLICATION)

- 5.3.3 Data from the Transport Assessment produced by WSP for The London Resort planning application has been considered as a basis for understanding the project's potential impact on Grays. This is considered to be a robust starting point in light of the suggestion that a future planning application would present a scaled-back proposal. Any known changes to the proposals that have been published since 2020 have also been taken into account.
- 5.3.4 London Resort is expected to operate seasonally with the peak occurring during the traditional summer months. The resort was expected to reach maturity 14 years after opening when its annual number of visits would exceed 18 million. In 2025 the visitor demand on the 85th percentile day would be 27,880, increasing to 36,030 in 2029 following the opening of the second section of the resort, Gate Two, and once the resort has reached maturity, on the 85th percentile day the resort would accommodate 52,966 visitors. The site was proposed to have 500 dwellings allocated to staff on-site, which could accommodate up to 2,000 of the staff working at the Resort at any one time.

⁵ <https://www.kentonline.co.uk/dartford/news/theme-park-plans-significantly-changed-as-boss-quits-279305/>



- 5.3.5 A visitor's trip origin on the day they visit the London Resort is described as a 'day of travel' origin; it is anticipated that the vast majority of 'day of travel' trips will start and finish within the UK. Visitors travelling from overseas are expected to stay on-site, at nearby accommodation within the neighbouring local authorities or incorporate the visit with a longer trip and stay within London. It is therefore reasonable to assume that visitors from Europe and the rest of the world's 'day of travel' origin will be within the UK.
- 5.3.6 A UK Home Origin gravity model was used by WSP to determine what proportion of visitors would route to The London Resort clockwise around the M25 and ultimately use the Dartford Crossing. This concluded that a car park in the Port of Tilbury could attract and be beneficial for approximately 25% of the daily demand at the resort. As such 25% of the total visitor car parking was proposed at the Port of Tilbury in what was known as the Essex Project Site Car Park. The remaining 75% would be provided at The London Resort.
- 5.3.7 As such, out of the 10,000 car parking spaces proposed for visitors at the Resort by 2038 (with a further 500 spaces provided for staff), the Essex Project Site would have accommodated 2,500 car parking spaces, with the remaining 7,500 on-site at The London Resort.
- 5.3.8 Similarly, in any single hour of an assessment day, 25% of visitor arrivals by private vehicle and coach (excluding those to on-site hotels) would have been in Tilbury and the remaining 75% (plus all arrivals to on-site hotels) in Swanscombe.

POTENTIAL IMPACT OF LONDON RESORT TRAVEL VIA GRAYS

- 5.3.9 As with Tilbury, it is likely that a ferry crossing of the River Thames to London Resort could be considered the most effective and achievable method of transporting demand from the north of the river due to Grays' geographical location. Identifying land for circa 2,500 parking spaces close to a ferry port is likely to be more challenging at Grays as a result of its built-up urban nature, and as shown earlier in this report, the existing car parks in the town centre are not of a capacity that could accommodate this level of increase. Furthermore, whilst this capacity could theoretically be provided within one large multi-deck car park as with the proposal for Tilbury, any proposal that increased parking capacity within Grays town centre would also cause significant impacts to the already constrained local road network. As such, unless the use of a mass transport system such as KenEx was proposed as part of the transport strategy for the Resort, it can be expected that visitors would need to park away from the ferry terminal and be transported to the ferry via a shared method such as a bus, (i.e., a park-and-ride (P&R) system or similar). This is likely to have an impact on journey times for visitors and their perceptions of the most convenient way of travelling to the park, and so the previous assumption of 25% of all visitors travelling from the north of the resort may be less defensible/realistic from Grays.
- 5.3.10 The location of the car park element of the P&R system would be affected by land availability, the surrounding road links, and the distance from the ferry terminal. Fast and frequent bus services would equally be needed. The Park and Glide service proposed for Tilbury was to use a new Thames Clipper service with an eight-minute ferry crossing time between Tilbury and the resort, a 15-minute average frequency in the peak periods, and a 30-minute average frequency outside peak periods. Whilst there could be a slight reduction in journey times for the ferry journey element between Grays and London Resort, the bus services from a P&R at Grays would need to achieve a similar level of frequency as the Thames Clipper service proposed to be attractive.



- 5.3.11 The current patronage levels on the Ensign bus services around Grays are not known, however, the scale of the London Resort would suggest that new, direct services would be needed to transport visitors to and from the ferry terminal. Measures to prioritise buses along the routes such as bus lanes and priority at traffic signals would also be expected to minimise journey times.
- 5.3.12 It would be advisable to request that people who are not travelling to and from the Resort are also able to use the ferry service and P&R buses both to maximise usage and to contribute towards reductions in car travel between Kent and Essex. These journey options could offer some of the benefits that KenEx would offer for the Grays area if it was delivered, and could be implemented in a much quicker timeframe.
- 5.3.13 Parking measures within Grays town centre would also be necessary to avoid people seeking to bypass the bus element of the P&R system and parking close to the ferry terminal at Grays. Some parking locations currently allow long-stay parking at reasonable costs to facilitate journeys to work, and so these opportunities would need to be limited as part of the transport strategy. This may also have benefits in reducing unnecessary car usage within Grays as discussed in the previous section.
- 5.3.14 As Grays railway station is the closest station north of the river to London Resort, there is potential for this to be used by some visitors. Given journey times from central London are similar to the journey to Swanscombe railway station however, where the last leg of the journey would likely be shorter than a river crossing from Grays, it could be expected that routing via Swanscombe would be more attractive for most visitors coming to the Resort from south of the River Thames.

LOCAL PLAN DEVELOPMENT

- 5.3.15 Currently, the level of development to be brought forward in and around Grays under the emerging Thurrock Local Plan is unknown. A Transport Assessment will be produced to provide a thorough analysis of the impact the development sites would have on the local transport networks based on an agreed set of trip rates and distributions. As such, it is not considered to be appropriate to speculate on impacts at this time.

Recommendation: - Additional parking capacity is required to accommodate The London Resort's demand.

- This should be provided outside of the town centre to avoid significant traffic impacts
- A park-and-ride system could be effective for enabling out-of-town parking but journey times would need to be minimised.

5.4 EXPLORE AND UNDERSTAND PARK AND RIDE OPPORTUNITIES TO ENHANCE ACCESS AND CONNECTIVITY TO THE TOWN CENTRE, IDENTIFYING AND REVIEWING POTENTIAL LOCATIONS.

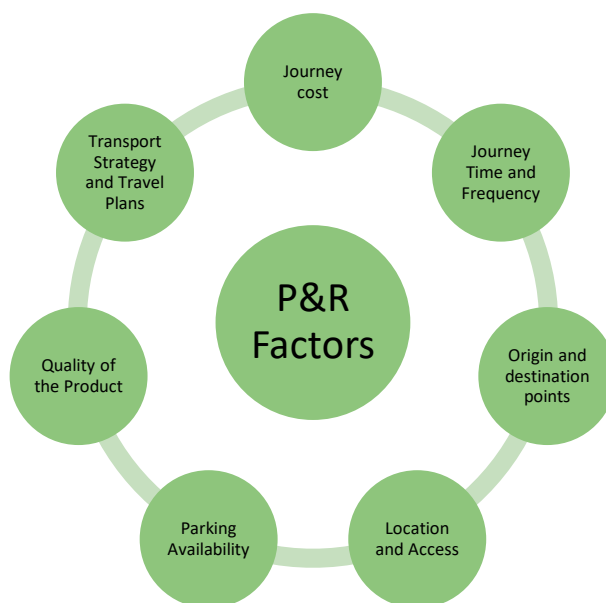
- 5.4.1 The development of a park-and-ride (P&R) system serving Grays has been identified as suitable for investigation by Thurrock Council. While a detailed feasibility study would be necessary to fully understand the potential, this section provides a high-level analysis of the benefits and suitability of park-and-ride for Grays.



PARK-AND-RIDE OVERVIEW

- 5.4.2 Park-and-ride is a form of integrated transport that allows private transport users to park their vehicles at a large car park and travel to a destination (usually a town centre, workplace or destination) using a public transport mode⁶.
- 5.4.3 The primary reasons for introducing park-and-ride are to:
- ⊙ reduce congestion along roads leading into the city centre;
 - ⊙ reduce congestion within the city centre;
 - ⊙ reduce environmental externalities along roads leading to and within the city centre.
- 5.4.4 A number of secondary reasons can also be identified, these include:
- ⊙ raising revenues;
 - ⊙ improving road safety; and
 - ⊙ stimulating further growth in the business and tourist sectors without increasing transport externalities.
- 5.4.5 Some factors which determine the demand for park-and-ride systems are shown in **Figure 5-2**. These draw attention to the complex and sometimes unintended outcomes associated with implementing P&R systems.

Figure 5-2 Factors Affecting Demand for Park-and-Ride Systems



Source: Adapted from 'Park and Ride, an Overview', Jonathan Whittaker (<http://www.trics.org/09jonathanwhittaker.pdf>)

⁶ https://www.its.leeds.ac.uk/projects/konsult/private/level2/instruments/instrument035/I2_035summ.htm



- 5.4.6 Another over-arching factor of demand for the service is having a sufficient population wanting to travel between the origin and destination.
- 5.4.7 P&R systems generally require measures or enforcement to encourage the use of the system and discourage people from continuing to drive to the destination. This often comes in the form of stricter parking controls (either through price increases or reductions in available parking capacities). In order to be successful, however, users will require a service which results in similar journey times to making the journey via private vehicle, and/or improved journey experience through less time spent waiting in traffic congestion. The cost of using the system should also be comparable or cheaper to parking at the destination.
- 5.4.8 Having high levels of cheap town centre parking will prevent park-and-ride from reaching its full potential, while not having sufficient capacity at the park-and-ride site can lead to reduced benefits in traffic congestion due to drivers having to find alternative parking in and around the town centre. Very few P&R systems are commercially operated without public subsidy⁷, as the systems typically require high-frequency bus services (at least in peak hours) and have high build costs. Research has found that a minimum of 400-500 spaces are required for a commercially viable operation⁸, and facilities to ensure an attractive product such as waiting facilities, security and variable message signs (VMS) may add to costs.
- 5.4.9 A recent analysis of P&R as a Sustainable Mobility Policy measure found that while P&R facilities are often well patronised, they may actually result in overall car use increasing as only a portion of P&R users' car trips are shortened and that they are therefore most likely to be regarded as a success where the objective is not to reduce car use by shortening car trips but to provide parking where it can be more easily and cheaply be made available (e.g. on the periphery of a city)⁹.
- 5.4.10 Despite these challenges, P&R systems can be an effective part of a transport strategy and can help achieve transport policy objectives associated with town centre traffic reduction and parking demand. The next section analysis how P&R might operate in Grays.

POTENTIAL APPLICATION OF PARK-AND-RIDE IN GRAYS

- 5.4.11 Discussions with Thurrock Council have identified P&R as a potential solution for the impacts associated with car-based journeys being made into Grays town centre. An initial, high-level, analysis of the key parts of a P&R system is provided below, which will be expanded upon in future studies.

⁷ Meek, S. et al. (2009) 'Stakeholder perspectives on the current and future roles of UK bus based Park and Ride', Journal of Transport Geography, pp. 1-8.

⁸ White, P (2009): Public Transport: It's planning management and operation. London: Routledge. 5th Edition, Ch 6

⁹ Parkhurst, G., Meek, S. (2014). The Effectiveness of Park-and-Ride as a Policy Measure for more Sustainable Mobility. Chapter 9 in Ison, S. & Mulley, C. (Eds) Parking Issues and Policies. Emerald, 185-211.



JUSTIFICATION FOR P&R

- 5.4.12 While any system which removes vehicles from areas where they are less desirable will have benefits, the implementation of a P&R system would require a clear objective in order to be progressed through decision-making and gain support from the public. Consideration of alternative strategies could identify cheaper or more effective ways of achieving the same benefits.
- 5.4.13 Analysis in this report has found that the current accessibility of the town centre from outer areas is relatively high due to sufficient affordable parking provision, good quality bus and rail services, and the relatively compact nature of the town which is served by comprehensive highway networks. The benefits of a P&R system in improving connectivity in the town centre may therefore be limited. Analysis has been provided below on other reasons why the Council may want to consider a P&R system.
- 5.4.14 One reason for a P&R system could be that traffic congestion in and around the town centre is causing issues, such as long or unpredictable journey times, road safety risks, poor air quality or delays affecting the local economy. A simple review of typical traffic data around Grays suggests that there are currently very few areas of high traffic congestion in the morning peak period (**Figure 5-3**), with much of the main roads around the town centre flowing freely. In the afternoon peak period (**Figure 5-4**), there is typically some traffic congestion around the Morrisons supermarket area, while roads heading out of the town centre such as Devonshire Road and the A1012 are free-flowing. Higher traffic congestion is also noted around West Thurrock and at the A13 North Stifford Interchange.

Figure 5-3 Typical Locations of Slow Traffic Speeds (Weekday AM Peak)

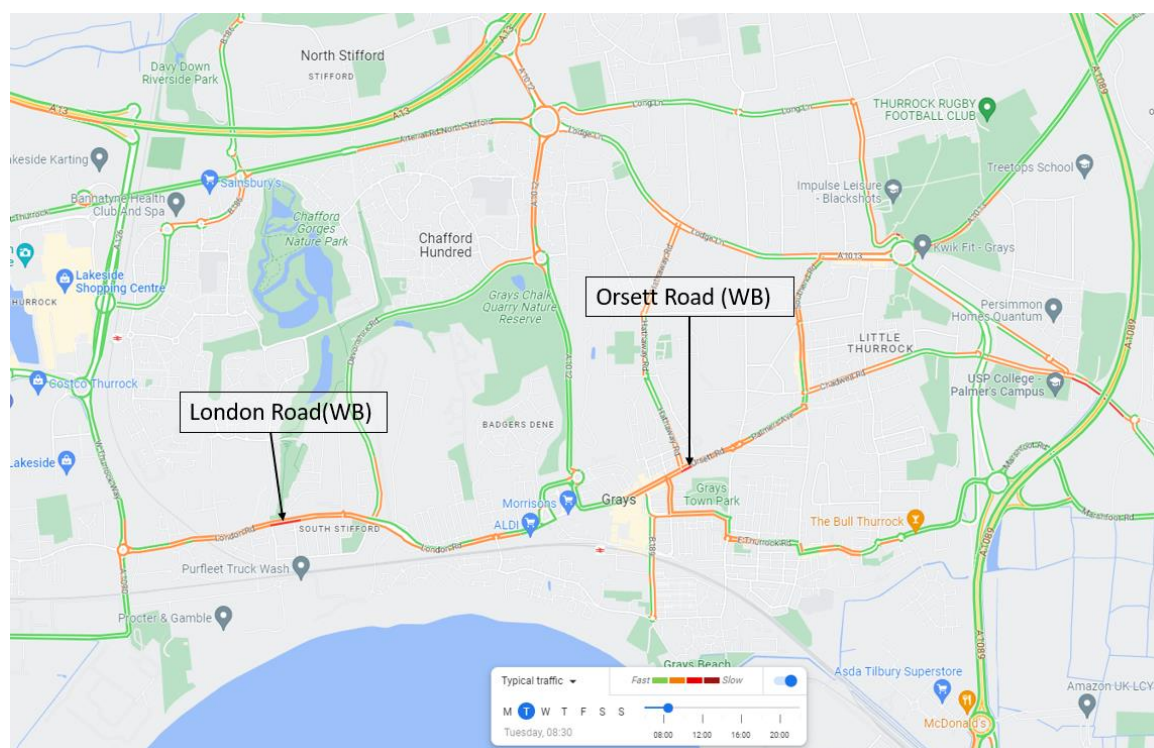
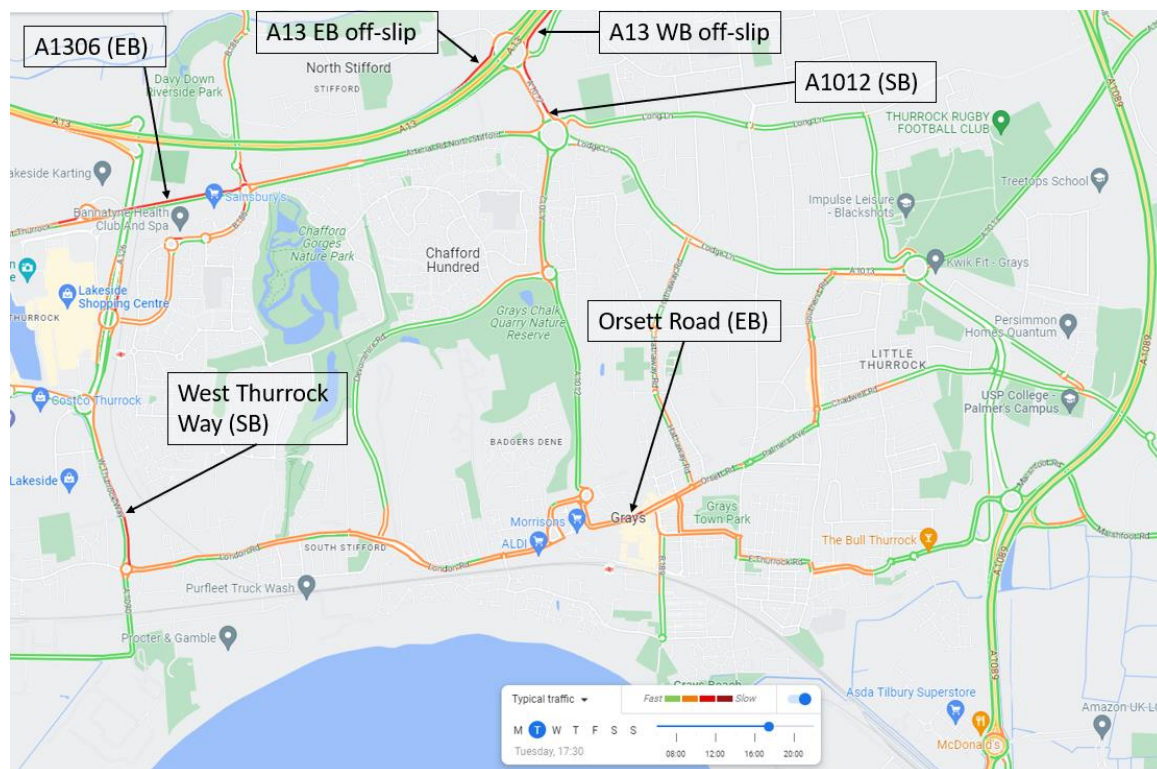


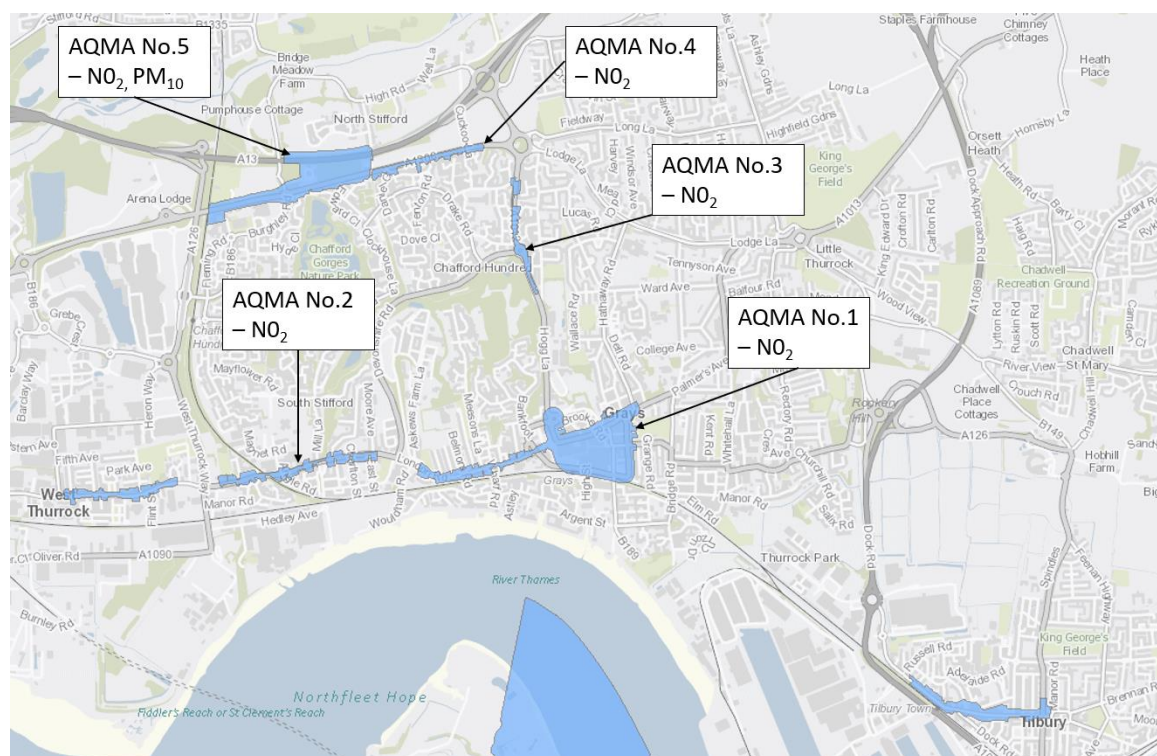
Figure 5-4 Typical Locations of Slow Traffic Speeds (Weekday PM Peak)



- 5.4.15 The above maps suggest that there are currently some parts of the road network which are currently congested, although relatively few in the town centre which would be the area targeted for removal of traffic by a P&R. Of course, future developments may change this unless measures are put in place.
- 5.4.16 More accurate surveys and modelling would be needed to ensure the vehicles that could be captured by the P&R are contributing sufficiently to the vehicle mix in the congested areas to warrant implementation.
- 5.4.17 Another reason for implementing a P&R is to reduce environmental issues such as poor air quality associated with traffic. **Figure 5-5** below shows that Grays has several Air Quality Management Areas which are outstanding since 2005. AQMA No. 1 and No. 2 are areas encompassing properties along London Road, Orsett Road & Stanley Road, while AQMA No. 3 covers properties along Hogg Lane & Elizabeth Road. The A13 and A1306 to the north of Grays also have AQMAs in place.



Figure 5-5 AQMAs Around Grays



- 5.4.18 The presence of any AQMAs suggests more action to improve air levels is needed, and given the locations of the AQMAs are along routes into the town centre and the town centre itself, it is possible that a P&R system could provide some benefits in this regard. Further analysis of where traffic is expected to increase in the future, and the routes that would be targeted by the P&R, would be needed to fully understand the benefits a P&R could have on these environmental issues, compared to other measures that might affect a greater proportion of the traffic in the town.
- 5.4.19 Finally, another justification for a P&R could be to help existing or forecast high parking utilisation levels in the town centre. A thorough assessment of demand throughout the day would be needed with particular consideration of journey purposes and durations of stay to understand the potential number of users who would consider switching to a P&R. People currently driving into Grays for work and needing all-day parking would be a key user group to target. The analysis discussed in this report would suggest that existing parking levels are not exceeding capacity, and may not greatly exceed capacity in the near future unless significant town centre parking demand is generated by future development.
- 5.4.20 With none of the three potential benefits described above indicating a strong and clear justification for a P&R, this would suggest that there may be other transport measures the Council could introduce that would be more effective in managing the area's transport issues. However, as described earlier in this section, the implementation of The London Resort has the potential to significantly affect traffic levels, related air quality and parking utilisation in Grays, and could therefore create a compelling justification for a P&R in Grays.



P&R LOCATION

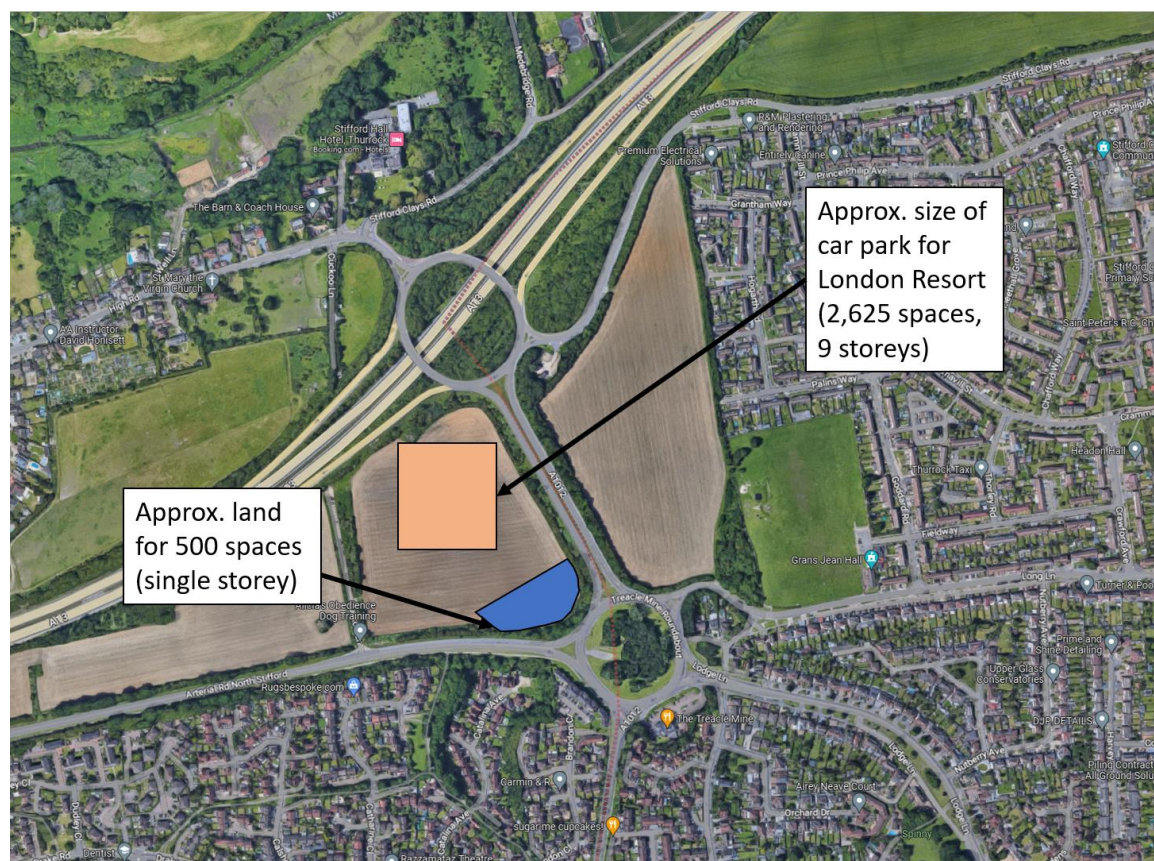
- 5.4.21 In order to reduce town centre traffic, a location for the P&R hub would need to be identified which could capture and divert trips previously made into the centre, either for commuting purposes or trips associated with shopping or leisure purposes. Further analysis is therefore required to identify the proportion of the town centre traffic that could be switched to P&R services, as the system may need to be introduced alongside measures to redirect through-traffic to effectively reduce town centre traffic levels.
- 5.4.22 A site near the A13 would be a logical choice for a P&R car park given it is the closest part of the strategic road network. The A13 is most likely to be able to accommodate any increased traffic levels associated with traffic re-routing that would previously have driven into the centre, or any new trips generated by major developments.
- 5.4.23 An initial location for a P&R site has been used for this analysis, however, it should be noted that this location has not been secured, earmarked or the subject of full feasibility analysis. The location is south of the A13 near its junction with A1012 as shown in **Figure 5-6**. This site is currently undeveloped, could potentially be accessed directly via a new arm from Treacle Mine roundabout or Stifford Clays Road, and appears to be of a suitable size for the number of car parking spaces likely to be required. It is noted that this would result in significant increases in traffic levels using the A13 interchange and Treacle Mine roundabout, and would likely require capacity improvements.

Figure 5-6 Indicative Park-And-Ride Site Location



- 5.4.24 The public transport element would need to serve popular destinations in Grays but these would need to be minimised to ensure low journey times. A simple loop serving Grays railway station may offer the most efficient operation given that most employment opportunities in Grays are around the town centre area, and this would also accommodate trips outside of Grays made via the station. The location near the A13 would offer a direct route south to the town centre via Hoggs Lane as shown above. This would also offer convenient access to the Morrisons supermarket. Hoggs Lane could be used for both inbound and outbound bus trips which would offer the quickest route while taking an alternative route back to the car park could serve other trips and destinations.
- 5.4.25 The location would also be suitable for some journeys being made by cycle rather than bus, with a journey time to Grays railway station of around 10 minutes by bike (1.8 miles). A Mobility Hub (discussed later in this section) including secure cycle parking and electric hire bikes could be provided at the car park to encourage use. The Mobility Hub would also be an attractive location for electric vehicle charging points, enabling cars to be charged whilst users are at a destination.
- 5.4.26 Based on an average of 11.5 sqm per space, a 500-capacity car park would require an area of at least 5,760sqm, plus circulatory space and bus stops. The size of the area that would be required to accommodate this number of spaces, based on a ground-floor car park only, is shown in **Figure 5-7**. It is noted that the car park proposed as part of the travel strategy for The London Resort (in the now withdrawn planning application) was to accommodate 2,625 spaces in a car park of 102m x 112m (with 8 decks above ground level). An area of this size has been included below for comparison.

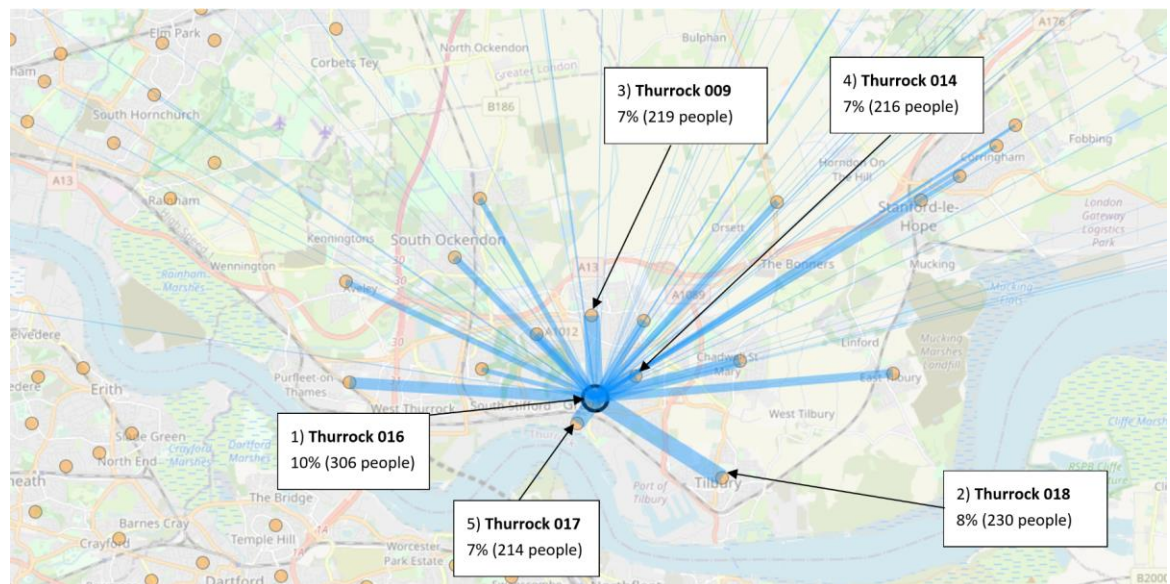
Figure 5-7 Approximate Areas Required for P&R Car Park



DEMAND FOR P&R

- 5.4.27 Further to the justification tests above, an analysis will need to be undertaken to demonstrate there is sufficient demand to make a P&R system viable. Providing a frequent service within the peak hours (e.g. 1 bus every 15 minutes) will require multiple vehicles, and so high patronage levels would be needed to fund the service unless subsidies are possible.
- 5.4.28 Based on the Census travel to work data (shown in **Figure 3-5** and repeated in **Figure 5-8** below), people who work in Grays town centre live in a range of areas within and outside of Grays, with similar amounts coming from Tilbury, Purfleet and Chafford Hundred. Providing a service which does not capture these locations would therefore risk town centre traffic levels being maintained unless parking levels were reduced. Given the low numbers of people commuting from these areas, however, it is still not clear whether there would be sufficient demand generated after shifting these commuters to P&R.

Figure 5-8 Top 5 Origins Where Employees Working in Thurrock 016 Travel From



- 5.4.29 Providing an attractive public transport element may require journey time improvements compared to travel by car. Bus prioritisation along the route, comprising bus lanes and priority at junctions, would be beneficial, but this can be challenging due to surrounding constraints.
- 5.4.30 A short journey time by bus would require minimal bus stops within Grays, suggesting people living between the A13 and the town centre may not benefit from convenient access to the services. This further raises concerns about the scale of demand that a P&R system would potentially capture, with the target audience becoming people who live outside of Grays but work in Grays town centre (or otherwise park in Grays railway station for onward travel via train), and any trips made for leisure, education or shopping only.
- 5.4.31 It is therefore concluded from this high-level analysis that there is unlikely to be sufficient demand for a park-and-ride service for Grays unless a major development such as The London Resort is implemented.



FUNDING FOR P&R

- 5.4.32 The costs associated with developing and implementing a park-and-ride system could be significant. The anticipated elements would comprise the purchase of land for the car park, the buses and driver salaries, any bus priority measures needed, and the implementation of any strategies to enforce use (such as consultations for increased parking tariffs in the town centre).
- 5.4.33 Assuming the park-and-ride system is not provided specifically as part of the London Resort travel strategy, it may be necessary to seek contributions from developers bringing sites forward within the town to fund the project. This would require clear justification that the developments were generating demand for the service, and so the ability to associate developments with the project would need consideration.

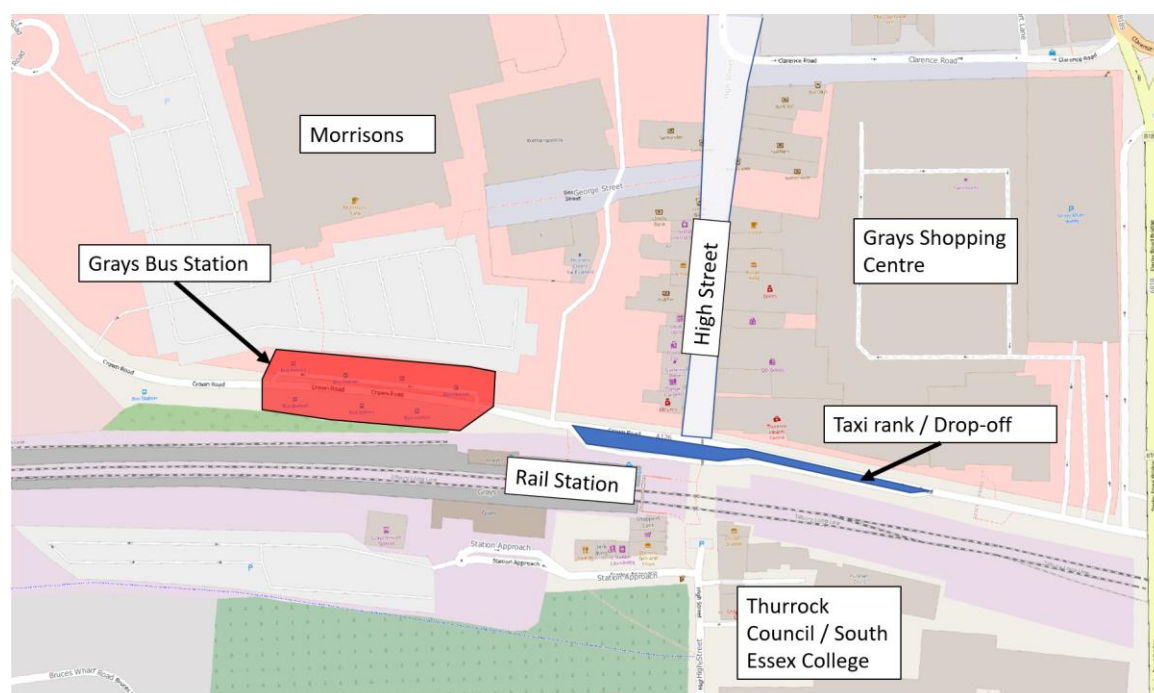
Recommendation: - There is unlikely to be sufficient demand for a park-and-ride service for Grays unless a major development such as The London Resort is implemented.

- Any park-and-ride system must be supported by an appropriate town centre parking strategy.
- Provide a Mobility Hub at the park-and-ride car park to maximise use.

5.5 EXPLORE OPPORTUNITIES TO EXTEND/RELOCATE AND ENHANCE THE BUS STATION AND INTEGRATE IT WITH OTHER MODES, SUCH AS WALKING, CYCLING, (CYCLE / COMMUNITY HUB), FUTURE MRT PROVISION

- 5.5.1 The current location of Grays bus station, adjacent to Grays railway station on Crown Road, allows for convenient interchange between modes, as well as taking passengers close to the high street as shown in **Figure 5-9**. The eight bus stops act as bus stands when needed, with drivers reportedly making use of facilities in the area such as the Morrisons supermarket and local toilets. Crown Road is also used by taxis and for drop-off purposes, meaning some conflicting vehicular movement with the buses is likely.

Figure 5-9 Grays Bus Station in Local Context

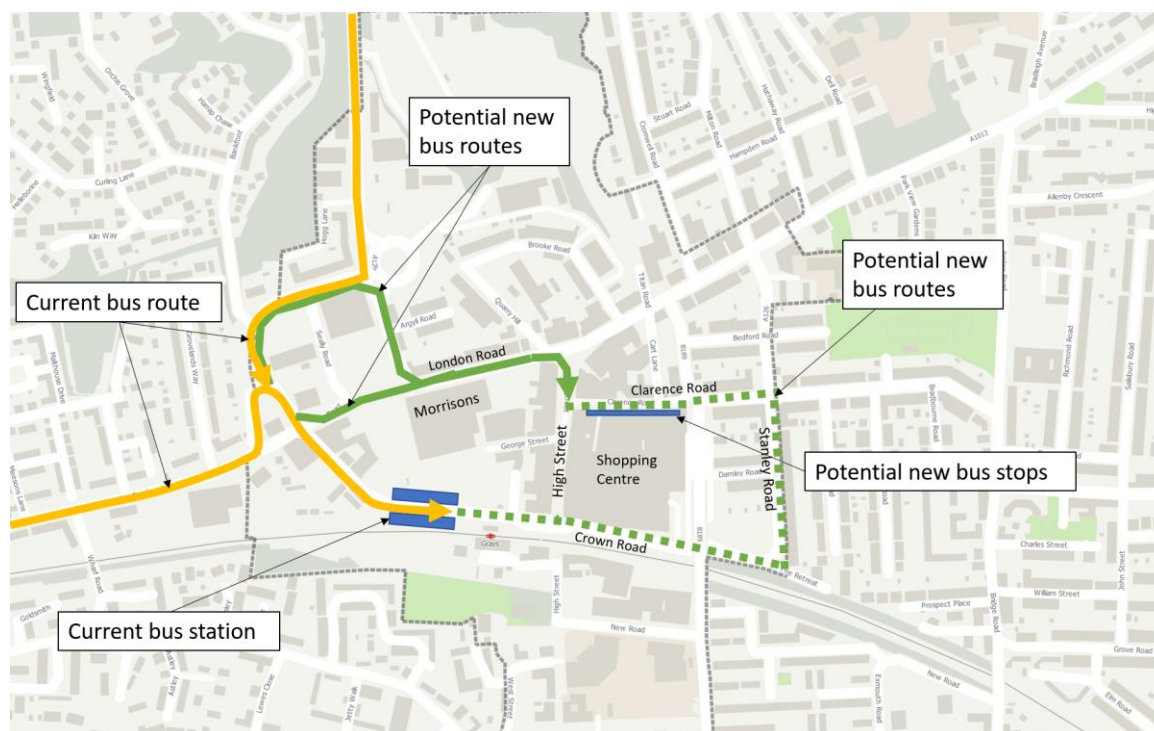


- 5.5.2 It is understood that the bus station is approaching capacity, and the analysis in **Section 3** demonstrates that a high proportion of buses in Thurrock route via the bus station. In light of this and the nearby proposals for a redeveloped station underpass, it is necessary to consider the benefits and options for enhancing or redeveloping the bus station concurrently.

ANALYSIS

- 5.5.3 The efficiency of the bus station in this location is unknown, and it would be advisable to obtain survey data to identify whether buses standing in the same location are blocking access by other services and causing utilisation of the bus station to be higher than the timetables suggest.
- 5.5.4 It is likely that some congestion of Crown Road is occurring due to private vehicles being allowed access through Crown Road for drop-off purposes associated with transport modes and the High Street. The multi-storey car park for Grays Shopping Centre is also accessed only via Crown Road. Whilst the shopping centre redevelopment proposals are at an early stage, it may be beneficial to set principles of general access to minimise traffic in this area and provide a more attractive environment in this key area of the town.
- 5.5.5 A strategy for the town centre buses could be considered whereby buses route onto London Road (either via the existing Eastern Way loop or a re-opened route across Morrisons supermarket car park) and south onto the High Street before stopping on Clarence Road, rather than routing via Crown Road (shown below in **Figure 5-10**). While routing buses to Clarence Road would require the removal of a section of pedestrianised highway, this could potentially be achieved in a manner which maximises safety and visual attractiveness. It would also reduce overall traffic levels in front of the railway station, allowing for an enhanced environment for pedestrians.
- 5.5.6 Limiting access to the stretch of London Road north of the Morrisons supermarket to bus and active modes only may also enable the creation of a new public square at the top of the High Street.

Figure 5-10 Alternative Bus Route Options



- 5.5.7 Other options include the buses looping around to the existing bus station via Clarence Road, Stanley Road and Crown Road. It is noted that these options would affect the outdoor market that operates on the High Street on Thursdays to Saturdays between 9.00 am – 4.00 pm, so would need to be considered thoroughly.
- 5.5.8 Although interchange with the railway station would be affected, these route options would drop passengers off within the heart of the town centre, which may increase spending for local businesses as well as providing convenient and safe access to the town centre's events venues (such as Lighthouse Grays and the Thameside Theatre). This could also enable reductions in town centre parking opportunities that were previously considered to be necessary for supporting the town's evening economy.
- 5.5.9 The relocation of the bus station could also free up a well-located site around the railway station which could support aims to increase the density of housing in this area.
- 5.5.10 Regardless of bus station location, maintaining and enhancing the ability of buses to move through the highway network should be prioritised to increase their reliability and the overall attractiveness of public transport in Grays.

MOBILITY HUB

- 5.5.11 As part of the redevelopment of the town centre, mobility hubs could be provided. These dedicated locations for interchanging between travel modes can encourage sustainable travel while providing an attractive pedestrian-friendly environment. They also provide a meeting point and can offer Mobility as a Service (MaaS). The concept is widely applied in many European and North American cities and is increasingly spreading in the UK. Common features include:
- ⦿ Public transport nodes (bus stops, railway stations);
 - ⦿ Cycle facilities, including high-quality parking, maintenance and repair shops and links to local cycle routes;
 - ⦿ Shared transport options, including hire bikes and scooters, cargo bikes, car club vehicles, and electric vehicle charging points;
 - ⦿ Daily convenience facilities such as postal lockers, refreshments, tourist information points; and
 - ⦿ Wayfinding and advertisement of current attractions.
- 5.5.12 Mobility Hubs can also be used as a marketing tool for new developments, enabling reduced parking standards and supporting the densification of sites. Developer contributions could also potentially be used as sources of funding.



Figure 5-11 Example Mobility Hub Features

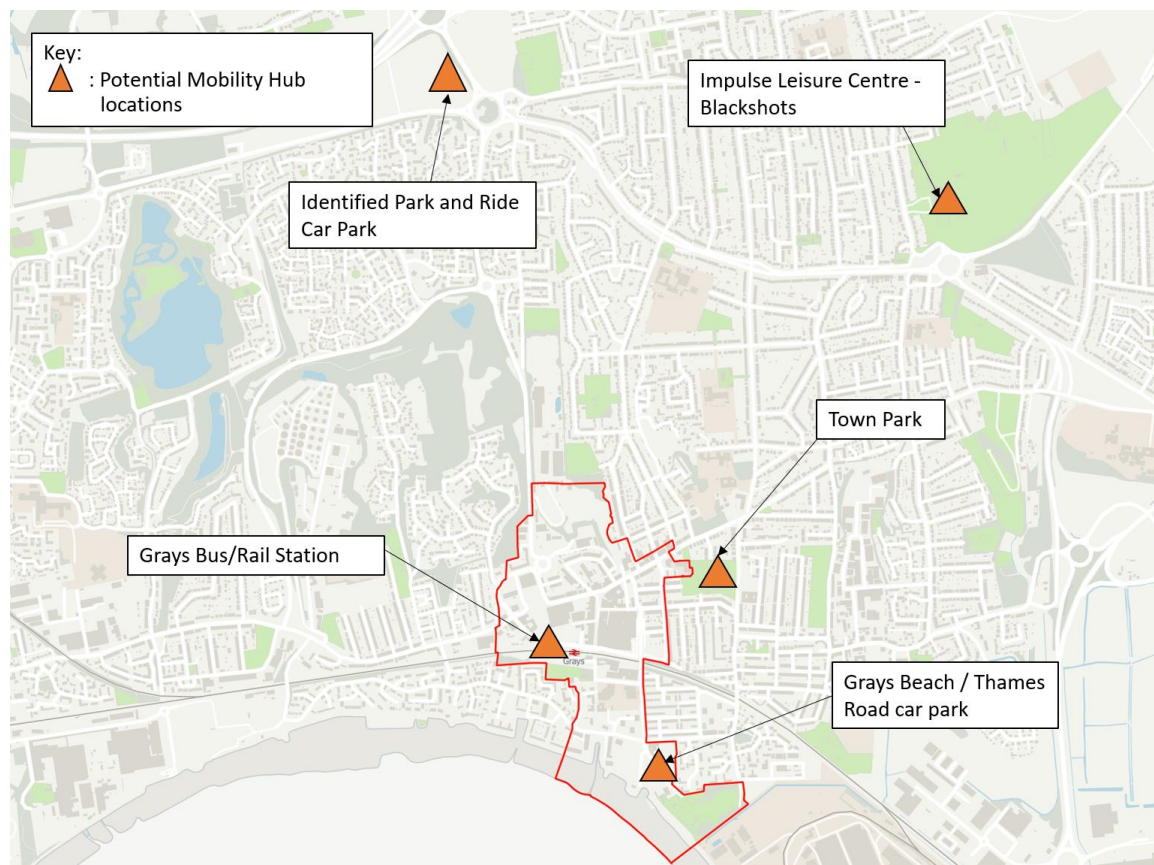


Source: ComoUK

- 5.5.13 The area around Grays railway station would be well-positioned to become a new Mobility Hub for the town due to the presence of multiple transport services and accessibility from the High Street. River transport could also be integrated into the offer, with the physical distance to the likely jetty location being played down using effective signage and ticketing machines.
- 5.5.14 Planning for integration with KenEx is considered to present greater risks at this time due to the significant level of uncertainty surrounding the project. Integrating the hub with a potential P&R system would likely present fewer risks.
- 5.5.15 Other potential locations for mobility hubs identified include at a park-and-ride car park, Impulse Leisure Centre (Blackshots), Town Park, and the Grays Beach / Thames Road car park area, as shown in **Figure 5-12**.



Figure 5-12 Potential Locations for Mobility Hubs



Recommendation: - Relocating the bus station, or the main central bus loop, via Clarence Street and Stanley Road could encourage footfall and enable more effective use of the bus station site.

- Reducing vehicular access along the stretch of London Road at the northern end of the High Street may enable the creation of a new civic space/ improved public realm at the top of the High Street.
- Maintaining and enhancing the ability of buses to move through the highway network should be prioritised to increase their reliability and the overall attractiveness of public transport in Grays.
- Providing Mobility Hubs at strategic locations would facilitate reductions in car ownership and active travel.



5.6 ASSESS WHETHER THE RAILWAY STATION CAN SUPPORT EXISTING AND FUTURE DEMAND AND EXPLORE OPPORTUNITIES FOR EXPANSION AND WIDER REDEVELOPMENT OF THE SITE THROUGH RELOCATION.

DEMAND FOR RAIL SERVICES

- 5.6.1 Before the Covid-19 pandemic, notable levels of long-term growth were forecast by Network Rail in its 2020 Essex Thameside Study, with all stations on the Tilbury Loop as far east as Grays, and both stations on the Ockendon Single Line, all expected to experience at least 20% growth to 2035¹⁰. This was expected to result in increased crowding on passenger services and network delays requiring additional capacity on both platforms and the station building at Grays.
- 5.6.2 It was identified however in **Table 3-7** that 2021/22 rail usage at Grays railway station was at around 67% of its 2019/20 level. Whilst there is uncertainty about whether patronage will ever return to pre-Covid levels due to working from home occasionally or full-time now being commonplace within many industries, it can be expected that patronage will continue to naturally increase over time in line with population growth and mode shift to rail as recognised in the Network Rail report, as well as the increased shift away from city living.
- 5.6.3 The current train mode share for residents of Grays town centre travelling to work is 13%, and only 7% for those living elsewhere within Grays. As such, there is likely to remain capacity at Grays station for some time unless significant housing and employment growth comes forward within and around Grays. Higher density development around the railway station could be attractive for people working within central London which would suggest a higher demand, and this will need to be considered alongside other increases in passenger travel at stations between Thurrock and Central London.
- 5.6.4 Patronage at Grays station is also likely to increase significantly if London Resort goes ahead. As mentioned earlier however, given journey times from central London are similar to the journey to Swanscombe railway station, where the last leg of the journey would likely be shorter than a river crossing from Grays, it could be expected that routing via Swanscombe would be more attractive for most visitors coming to the Resort from south of the river Thames.
- 5.6.5 Further demand forecasting taking these factors into account will therefore be needed to identify requirements for capacity improvements at Grays railway station and along the rail corridor.

¹⁰ Essex Thameside Study, Network Rail, July 2020.



DESIGN OF RAIL STATION

- 5.6.6 The current station design involves the northern entrance being to the west of the high street on Crown Road, meaning there is a potential lack of clarity for people arriving at Grays from areas to the west (e.g. London) on how to reach destinations in Grays. There is the potential to relocate the northern station entrance closer to the high street which may create a greater impression for people arriving in the town, although it is noted this would increase the distance from the bus station.
- 5.6.7 The existing level crossing creates multiple issues for users including safety risks associated with misuse, poor accessibility for people with visual or physical impairments, and delay for people intending to access the southern entrance to the station (for westbound travel), which extends journey times. It is also noted that there are currently no alternative methods of crossing the railway line which avoid these issues. This is likely to be limiting the ability of some Grays residents and visitors to access parts of the town for both employment and leisure opportunities, and affecting the vitality of the town centre.
- 5.6.8 There is a long-held ambition to convert the existing level crossing arrangement to an underpass to reduce severance and improve access for pedestrians and cyclists. While proposals have been developed recently, the project is not committed and so the design is considered adaptable at this time.
- 5.6.9 In the short term, there would be value in creating an improved public realm on Crown Road in front of the station in the form of a plaza / public square as shown in **Figure 5-13**. This would require the relocation of the taxi drop-off area but would make more efficient use of space on Crown Road for rail and bus passengers.

Figure 5-13 Possible Station Square Design



Development of this option would require consideration of the wider impacts on bus routes, the access to the multi-storey car park, where the taxi bays could be relocated to and opportunities to limit the use of the road to buses and taxis only.



DROP-OFF AND CAR PARK LOCATIONS

- 5.6.10 The current drop-off location at the south side of the station has limited routing options via vehicles, which may contribute to congestion in parts of the town centre at peak times. Relocation of the vehicular access routes for cars, buses and taxis could be considered to improve the local area for all users. There may also be opportunities to relocate the car park to a more efficient location, which both minimises journey times and directs traffic to more appropriate locations.

Recommendation: - Further demand forecasting will be needed to identify requirements for capacity improvements at Grays railway station and along the rail corridor, taking the impact of Covid-19, housing and employment growth, and London Resort into account.

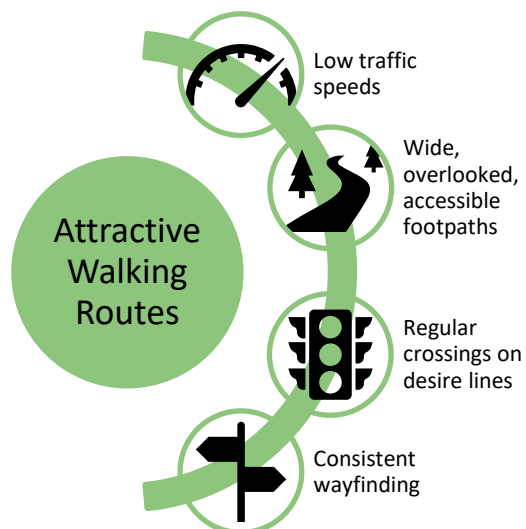
- Before the station underpass project, there could be value in creating an improved public realm on Crown Road in front of the railway station in the form of a plaza / public square.
- There are also likely to be benefits in relocating the car park and/or drop off points for the station however further assessment is needed.

5.7 WALKING AND CYCLING ENHANCEMENT TO ENSURE THE SURROUNDING NETWORK AND INTEGRAL TOWN CENTRE ROUTES PROVIDE ATTRACTIVE PEDESTRIAN AND CYCLE ROUTES TO/FROM AND WITHIN THE TOWN CENTRE.

- 5.7.1 The analysis in **Section 3** of this report found that the walking and cycling networks within Grays are currently a mixture of high- and low-quality infrastructure, with some routes that are disconnected from likely destinations in some places. This is resulting in low levels of cycling, with only 2% of the town centre and out-of-town-centre residents reporting to cycle to work in both the 2011 and 2021 Censuses. Walking to work is more popular, particularly among town centre residents (10% in the 2021 Census) which may have been influenced by Covid restrictions, but this could also have been made possible by the compact nature of the town.
- 5.7.2 For walking and cycling to be attractive as regular forms of travel to more people, the town centre, and the routes to the town centre should prioritise these users as much as possible. This is typically challenging due to our towns and cities having been historically planned around vehicles, which typically experience congestion and high parking utilisation despite the significant levels of available land that is dedicated to them.
- 5.7.3 Making Grays more conducive to walking and cycling trips will require a range of measures including land use planning, however, a dedicated strategy and Local Cycling and Walking Implementation Plan (LCWIP) are recommended to identify and implement key opportunities. The analysis below provides initial, high-level recommendations based on current observations and suggested ambitions for the future.



Figure 5-14 Key Principles of Attractive Walking Routes

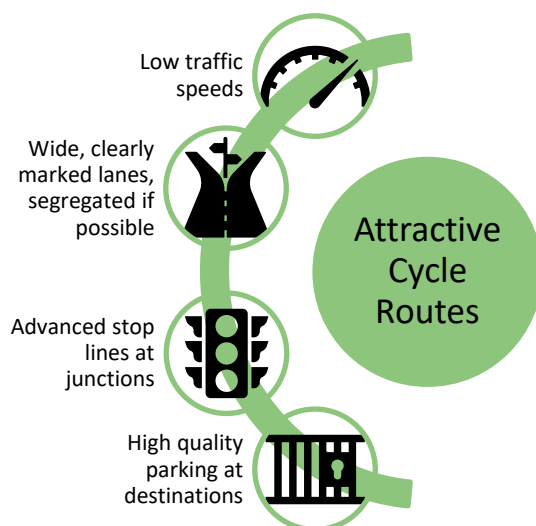


5.7.4 Having new developments ensure and demonstrate how key routes to the site achieve high standards, such as TfL's Healthy Streets characteristics shown below, could be effective in identifying appropriate improvements.

Figure 5-15 Healthy Streets Characteristics



Figure 5-16 Key Principles of Attractive Cycle Routes



5.7.5 Key suggested additions to the existing cycle network are shown in **Figure 5-17**, based on the gaps in the network identified in **paragraph 3.5.6**.

Figure 5-17 Recommended Key Cycle Route Improvements



5.7.6 The routes identified above are considered to be key desire lines which are currently not served by any/ attractive cycle infrastructure. Routes would not necessarily have to use the roads identified, as quieter roads may be more attractive despite being less direct.



5.7.7

Other enhancements that should be considered to encourage the use of these routes and build a culture of cycling in the town include:

- ⦿ **Cycle parking** – A lack of high-quality cycle parking is a key barrier to cycling. Whilst the new higher requirements for cycle parking within the Thurrock Council standards will naturally build levels of parking over time, it is important that key areas where not subject to new development are also provided with suitable public cycle parking. The standard for new residential units (1 per unit regardless of site accessibility) may also be insufficient for family units, so higher standards should be considered particularly for the accessible town centre area.
- ⦿ **Cycle hire/scooter hire** – In addition to increased cycle parking, the Council could consider running trials for shared cycle or scooter schemes. Trials in other parts of the UK have been very successful in introducing people to these modes, with some trips being made that would otherwise have been made by car. The schemes tend to be popular amongst younger people in the first instance, and so docking locations around the town's educational sites could see high levels of use. Grays' topography is variable, and so if the options were electrified, this may eliminate barriers to cycling associated with hills.
- ⦿ **Quiet Routes** – Whilst ideally, all cycle routes would be suitable for cyclists of all abilities, where cycling is less widespread, it may be worth considering the promotion of quiet routes. These typically follow back streets and may be less direct than other routes, but help people build confidence cycling and may be more attractive for regular cycle journeys than busier roads.
- ⦿ **Green Corridors** – combining cycle infrastructure with bus and walking routes can raise the profile of sustainable travel within the town. When combined with a measure to prioritise these users over car traffic, the routes can gain popularity quickly and can encourage sustainable travel rather than pushing traffic onto other routes.
- ⦿ **Low Traffic Neighbourhoods** – There may be suitable locations within the town where motor vehicle traffic could be greatly reduced in order to make them more attractive for non-motorised users. In doing so, air pollution, noise pollution and road accidents are reduced. The areas are controlled by using temporary or permanent barriers called "modal filters", such as bollards or planters. Residents and businesses still have access to the neighbourhood by motor vehicle using different routes, but through-traffic is greatly reduced.
- ⦿ **Dr Bike** sessions at workplaces and public locations such as parks;
- ⦿ **Bikeability** courses, including at schools and workplaces;
- ⦿ **Travel Plans** – ensuring both new and existing developments implement Travel Plans would raise the profile of sustainable travel in the town. Requiring businesses to demonstrate progress towards mode share and parking demand targets to obtain credentials or financial incentives can encourage the uptake of measures such as Personal Journey Planning, and the provision of improved facilities such as changing rooms. This could be championed by the Council at their office building in Grays, with progress towards the Council's 2019 target for reducing single occupancy car journeys by staff by 10% being advertised to the town on completion;
- ⦿ **Promotion** of leisure rides, including signage to landmarks such as Grays Beach and connections to other towns for longer rides;
- ⦿ Introduction of **cargo bikes** – through parking locations, shared bikes for hire, and promotion.



Recommendation – Grays has the potential to achieve higher levels of active travel through:

- comprehensive network improvements;
 - increased cycle parking;
 - cycle /scooter hire facilities; and
 - selective Travel Planning measures.
- A wider roll-out of Travel Plans amongst workplaces and residential developments could encourage car-free lifestyles, and Thurrock Council could champion this at its office in Grays.

5.8 THE CONNECTIVITY BETWEEN THE HIGH STREET AND RIVERSIDE AND HOW THIS CAN BE IMPROVED, TAKING INTO CONSIDERATION EXISTING PLANNED PROJECTS.

- 5.8.1 On arrival at Grays Station, there is poor place legibility in terms of routes to the town centre and the south to Thurrock Council, South Essex College and the River Thames. An overall coordinated wayfinding strategy is required for Grays that uses physical, digital and cognitive techniques, the latter making it clear and legible which routes to take.
- 5.8.2 The station forecourt should respond better to pedestrian desire lines to lead people naturally towards the High Street and level crossing areas. At these locations, clutter should be removed to make pedestrian and cycle routes clearer, and this includes the parked cars on the south side of the level crossing. In the future, if the underpass scheme is delivered to replace the level crossing, then this will greatly improve movement, but in the short to medium term, work is required now to improve the situation.
- 5.8.3 Along the High Street, there should be a strategy to ‘green’ the route, de-clutter and provide a coordinated approach to street furniture, including additional seating to assist those who may not be able to walk longer distances.
- 5.8.4 To the south, the gates to Grays Town Wharf should be open to provide a direct visual and physical connection to the water. The quality of the playing fields at Thames Road and the spaces at Riverside Park should also be improved and made more accessible to all.

Recommendation – An overall coordinated wayfinding strategy is required for Grays that uses physical, digital and cognitive techniques.

- The station forecourt should respond better to pedestrian desire lines.
- Street clutter, including the parked cars on the south side of the level crossing, should be removed to make pedestrian and cycle routes clearer.
- Areas to the south of the station should be improved and more accessible, with the gates to Grays Town Wharf opened.



5.9 TRAFFIC IMPACT OF POTENTIAL MAJOR SCHEMES ON THE EXISTING ROAD NETWORK, INCLUDING THE KENEX TRAM PROPOSAL.

- 5.9.1 There are several major development and infrastructure schemes being planned around Grays and Thurrock which have the potential to cause significant changes to travel demand and congestion levels if not planned for effectively. It can be expected that each of these schemes will provide a detailed analysis of these impacts as part of standard processes on which Thurrock Council, along with other statutory bodies such as National Highways, will be consulted. The combined impacts of multiple schemes occurring may be less easy to quantify however given the uncertainties surrounding some of the projects.
- 5.9.2 A comprehensive study, likely including a multi-modal transport model, would be needed to provide realistic forecasts of future transport demand in Grays. At this stage, however, there is considered to be a benefit in gaining a high-level view of the possible implications of each scheme, which is provided below.

GRAYS SHOPPING CENTRE REDEVELOPMENT

- 5.9.3 The owner of Grays Shopping Centre, NewRiver, has proposed to redevelop the centre as part of the town centre's regeneration, reinvigorating the retail and leisure offer while boosting the night-time economy and adding 800 new homes. The existing shopping centre is experiencing structural failure which would require significant structural improvements to address, and there has been a doubling of vacancy rates in Grays town centre over the last five years. During 2022, NewRiver developed and consulted on the plans which respond to challenges that the town centre faces and propose to make better use of the site which is one of the most sustainable locations in Thurrock. A phased approach to construction with meanwhile uses is proposed, and planning applications are expected to come forward in 2023.
- 5.9.4 The location of the shopping centre, in the heart of the town centre, is highly accessible by a range of travel modes and will provide most of the residents' daily needs within walking distance, including food shops via Morrisons and Aldi. If managed effectively, the population increase associated with the new residential element of the scheme could be a catalyst for a more people-friendly town centre, with most trips potentially being taken by sustainable modes. It could also stimulate the evening economy in Grays, with new residents providing the critical mass needed for new bars and restaurants.
- 5.9.5 It is currently proposed to re-provide around 200 parking spaces for use by residents and shoppers however, and the Thurrock Council Parking Standards would permit up to 400 spaces in a location such as this (0.5 per flat). Should this level of parking be provided, the associated vehicles are likely to maintain or cause increased traffic in the area, making little progress towards reducing the town centre AQMA levels. The reduction in overall parking from the current MSCP (700 spaces) however, may reduce or more likely divert some traffic away from the Crown Road area to other car parks in the town centre or local streets.
- 5.9.6 It is considered that minimal re-provision of parking at the site should be targeted by the Council to minimise traffic impacts due to the site being one of the most sustainable locations in the town, and the opportunities for encouraging less car-dependant lifestyles that low parking provision could bring to the area. Facilities such as on-site car club vehicles, subsidised public transport tickets and high-quality long-stay and short-stay cycle parking would assist in the scheme remaining attractive to future site users.
- 5.9.7 The town's Controlled Parking Zones (CPZs) may also need to be extended to preserve existing residential parking amenity and avoid additional parking stress caused by these new developments. The cost of introducing new CPZs could potentially be facilitated through contributions associated with the new developments.



- 5.9.8 The improved retail element of the project can also be expected to generate an increased number of trips by car to the town centre. The scale of this is difficult to predict due to unknowns regarding the retail and leisure offer, however, the town's proximity to Lakeside shopping centre, with its circa 12,000 free parking spaces and comprehensive facilities, would suggest the increase in trips would be limited. Lakeside is likely to continue to attract vehicular trips from Grays and through Grays from areas to the east into the future.

LONDON RESORT

- 5.9.9 The traffic impacts of London Resort have been considered earlier in this document in **Section 5.3**.

KENEX

- 5.9.10 KenEX is a proposal to provide a sustainable public transport system connecting Kent with Essex, via Dartford, Swanscombe, Gravesend, Ebbsfleet International and Grays/Lakeside. This would create a high-quality, frequent transport system across the river to support growth and development on both sides of the river.
- 5.9.11 The scheme is in the early stages of development and the project is likely to take up to 20 years to complete. Safeguarding land for the route may also be a challenge. The scheme will require a Transport and Works Act Order to proceed and be of significant cost to construct. As such, it is possible that contributions from developments such as London Resort and Lakeside and Blue Water shopping centres would be needed to make the project viable.
- 5.9.12 It is noted that the Transport Assessment of the project is not available online and so the forecast traffic impacts cannot be reviewed. A high-level analysis of the potential impacts has therefore been undertaken.
- 5.9.13 The provision of a new mass transportation service is likely to increase the level of connectivity through the town and across Thurrock and the neighbouring boroughs. While such a scheme would do little for freight and trips made by servicing vehicles, KenEX could potentially reduce trips currently made by private car, particularly those to destinations across the river Thames.
- 5.9.14 The impact of KenEX in reducing traffic and congestion levels in Grays will ultimately depend on the route and destinations served. Driving will likely continue to be the natural mode of choice for most trips unless journey times and/or costs associated with KenEX are lower. This could be controlled via increased parking tariffs at destinations (e.g. in the town centre or at workplaces/shopping centres), reduced supply of parking (e.g. at Lakeside and Bluewater) or increased traffic congestion on key routes such as the Dartford Crossing.
- 5.9.15 The indicative route for KenEX, shown below in **Figure 5-18**, suggests the service would not capture many journeys made within Grays (such as between Chafford Hundred and the town centre), nor would it offer access to Tilbury, Lakeside shopping centre and Purfleet that is not already possible by train. The main traffic reduction benefits would be associated with cross-river trips and those places not served by train such as Southfields, Basildon Hospital and Ebbsfleet Garden City, and therefore the overall impact is likely to be low.
- 5.9.16 The introduction of the London Resort could potentially make such a system viable, particularly due to the proposed route serving Ebbsfleet International railway station. The parking impact at Grays, where the river Thames would be crossed, would need to be considered as per the strategy involving a ferry crossing. Given that the scale and complexity of providing KenEX would likely take a comparable duration to The London Resort, and is likely at a much less developed stage currently, a ferry crossing at Grays is likely to be the more realistic transport strategy for trips from north of the river in the first instance.



Figure 5-18 KenEx Route Planning



LOCAL PLAN DEVELOPMENT

- 5.9.17 At the time of this report being produced, the potential development sites for the Thurrock Local Plan have not been identified nor consulted on. The development sites allocated under the previous Local Plan have been considered for reference, and are shown in **Figure 5-19**. It is expected that the Transport Assessment undertaken for the Local Plan would assess the impact of the forecast development sites coming forward.
- 5.9.18 Based on the anticipated level of demand expected in Grays and Thurrock, it is considered to be unlikely that future housing and employment growth would generate any highway impacts that could not be mitigated sufficiently via standard processes.
- 5.9.19 The presence of long-standing AQMAs and congestion hotspots around the town would suggest that stricter measures to encourage this development coming forward in a way which ensures it does not perpetuate car-based travel for most journeys would be advisable.

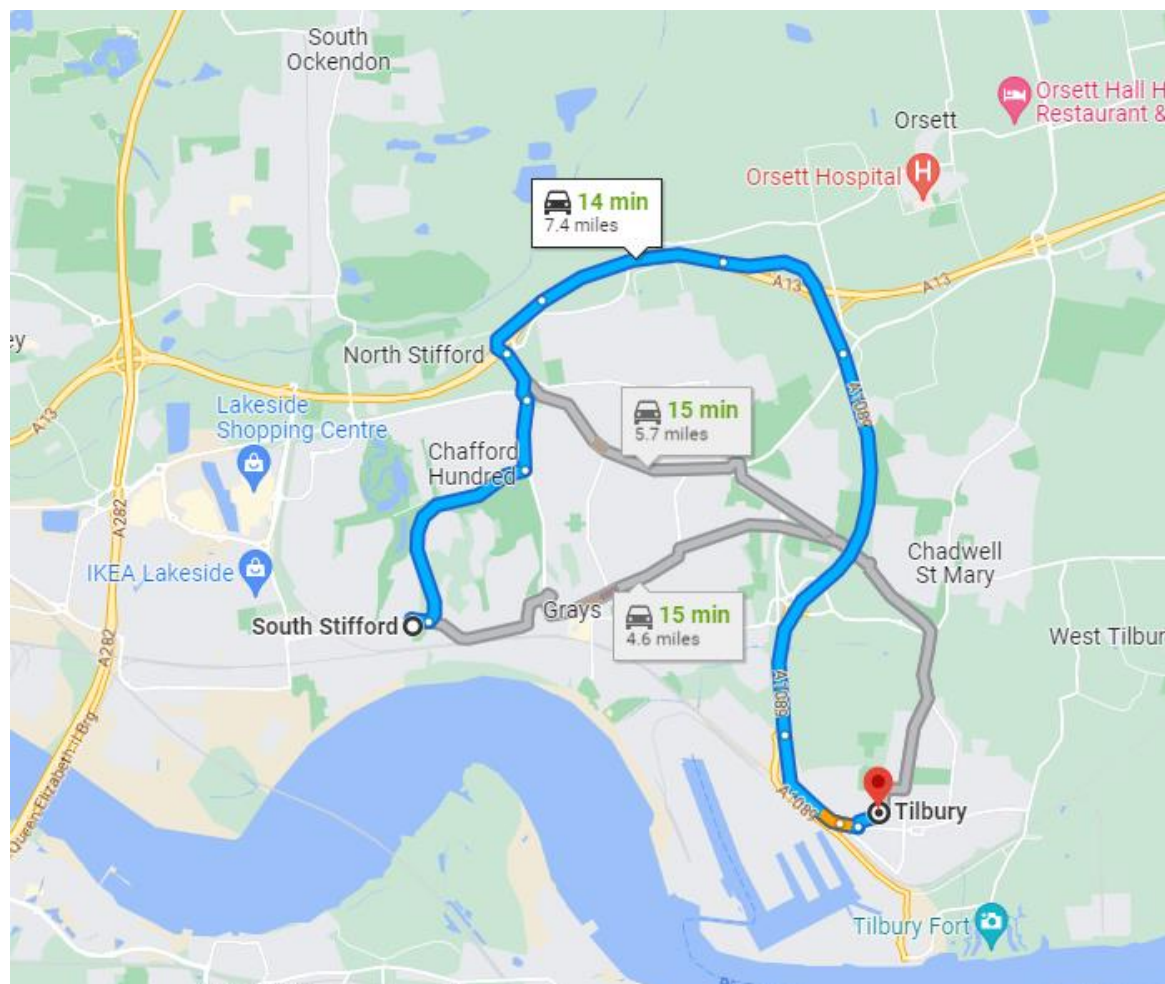


5.10 STRATEGIC FOCUS ON THE NEED TO REDUCE TRAFFIC IMPACT ON THE TOWN CENTRE NETWORK AND ON LONDON ROAD TO THE WEST AND EAST THURROCK ROAD TO THE EAST, WHILE SUPPORTING VIABILITY AND FUTURE DEVELOPMENT FOR GRAYS TOWN CENTRE.

- 5.10.1 The main shopping area within Grays town centre, including the high street and shopping centre area, is generally pedestrianised, maximising the attractiveness of this area for shopping and leisure activity. The area is easily accessed by vehicles from several directions via key routes such as London Road, Orsett Road, Hogg Lane and East Thurrock Road. Traffic is also able to cross over the railway line at Derby Road Bridge and Wharf Road. Along with providing access to residential and employment sites, this ease of access is likely to contribute to the level of economic activity in the centre, with people having relatively affordable and convenient access to the town centre via the car parks around the centre. Reducing the accessibility by car and the availability of parking could result in shopping trips being dispersed to Lakeside or Bluewater shopping centres, and so an effective strategy to maintain the strength of the local economy would be needed.
- 5.10.2 Whilst Google traffic data suggests the immediate town centre highway network is relatively free-flowing at most times (discussed earlier in this section), there is some congestion on the roads leading to the centre such as London Road and Orsett Road, which is likely to worsen with any new demand due to the variety of journeys passing through these locations. The presence of an AQMA within the town centre also suggests there is a need to reduce transport-related emissions of which private vehicle use will likely contribute a high proportion. This need is increased if a greater level of residential development in the town centre is targeted as part of the forthcoming Local Plan.
- 5.10.3 It is expected that some of the congestion on roads in Grays town centre relates to movements that start and end outside the town (i.e. 'Through-traffic'). This traffic is ideally routed on higher capacity roads away from residential and employment areas to avoid mixing with local traffic and the associated impacts to Grays' population.
- 5.10.4 Grays has a well-established strategic road network in the form of the A13 on the periphery of the town, however lenient traffic management strategies and engrained route choices by drivers may be causing vehicle trips to be made through the town centre unnecessarily. Trips made via orbital roads may also be quicker at peak times than similar journeys made through the town, despite covering greater distances, as shown in the example in **Figure 5-20**.



Figure 5-20 Comparison of Journey Times for Different Route Options for Through-Traffic



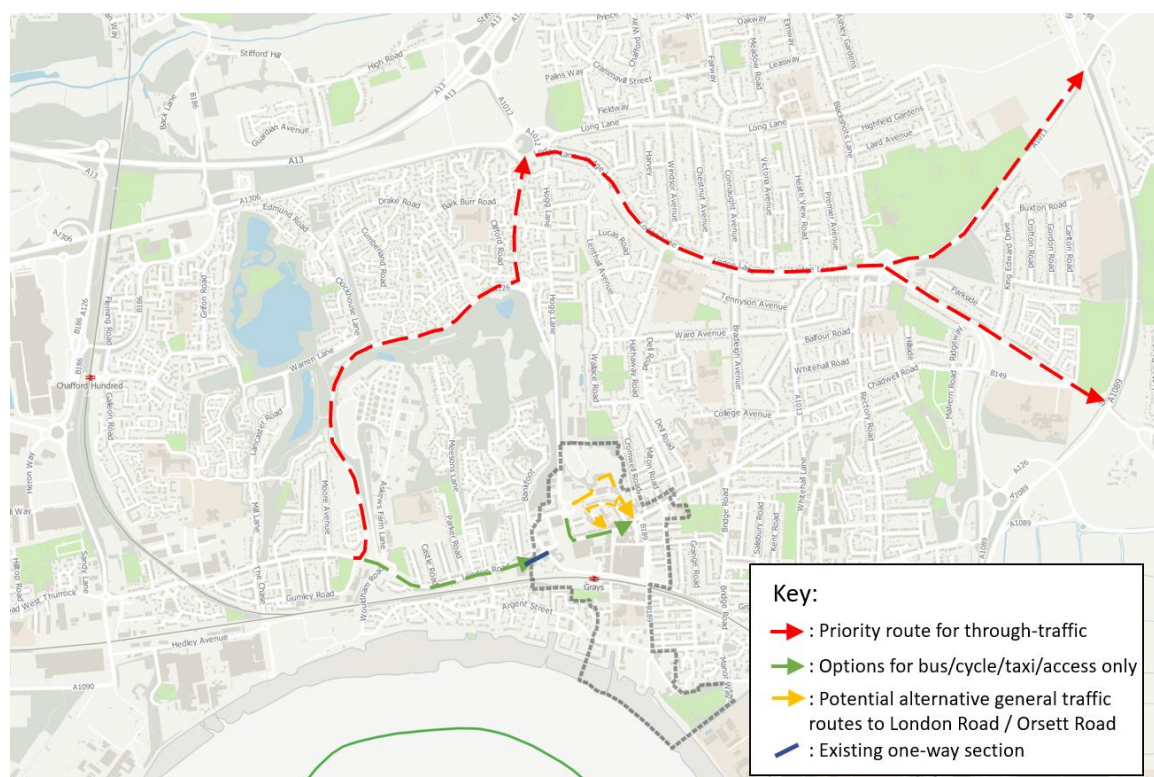
Source: Google

- 5.10.5 In order to combat this, traffic management strategies which reduce traffic on the key routes into and through Grays town centre could be considered. The A126, which provides the main east-west movement through the town, currently carries a significant level of traffic and is understood to be congested at times, particularly in the evening peak period. There is understood to be no signage at the junction of the A126 London Road and Devonshire Road to direct drivers for London, Southend and Tilbury north around the town centre. There is signage for these routes at the junction of London Road and Eastern Way however, at which point vehicles have already entered the town centre area, only to be directed north via Hogg Lane for London and Southend and along Orsett Road for Tilbury.
- 5.10.6 Providing signage to direct through-traffic around the town centre via Devonshire Road would likely reduce town centre traffic levels. Vehicle routing software may already be suggesting this route due to it being slightly faster at times (as shown above in **Figure 5-20**) but some drivers with knowledge of the area may route through the centre out of habit or the perception of a more direct route being faster.



- 5.10.7 A more ambitious strategy whereby London Road east of Devonshire Road was limited to buses, taxis, active travel modes and access could also be considered. This would reduce east-west rat-running through the town centre, reduce the vehicle-dominated nature of the road, and provide a much-improved environment for residents, pedestrians and cyclists. It would also solve a gap in the existing cycle network as identified earlier, with London Road becoming an attractive route for residents of South Stifford, Badgers Dene and Chafford Hundred to access Grays town centre. Access to the industrial sites along Askews Farm Lane may need to be maintained, however.
- 5.10.8 There is also an element of severance in the town centre caused by the stretch of the A126 London Road to the north of the Morrisons supermarket. Longer-term ambitions to restrict traffic on this stretch by making sections bus and cycle only or by reducing the road to one lane of general traffic could be considered, with a variation being general traffic routing around the Royal Mail site (potentially reconnecting adjacent to the Thameside Theatre). This would provide an improvement to the High Street area and potentially allow for a new civic square or enhanced public realm at the top of the High Street as mentioned earlier in this report. It may also benefit bus journey times due to buses avoiding general traffic.
- 5.10.9 These options are shown in **Figure 5-21**.

Figure 5-21 Potential Traffic Management Options



- 5.10.10 To assess the effect of any proposed changes to access arrangements along London Road and Orsett Road, it is suggested that they could initially be tested using Experimental Traffic Regulation Orders.



- 5.10.11 East Thurrock Road is part of a main east-west movement into the town centre from the A1089. Google traffic data suggests the road operates relatively well compared to adjacent connecting roads, such as Clarence Road and Dock Road. With development sites likely to be focused around the town centre, trips along this route are expected to increase which may cause delays. There are few alternative routes to East Thurrock Road, so any efforts to reduce traffic along this road can be expected to push traffic onto Palmers Avenue or Grove Road, which is arguably less suitable given its size and proximity to residential units. It may therefore be preferable to maintain good access to East Thurrock Road but provide measures to reduce car use associated with future developments to avoid demand increases.
- 5.10.12 The impact of high car use on the attractiveness of Grays town centre for new residents is recommended to be assessed in more detail to justify any traffic reduction proposals.

Recommendation: - Congestion on the roads leading to the centre is likely to worsen with any new demand due to the variety of journeys passing through these locations. The presence of an AQMA within the town centre also suggests there is a need to reduce transport-related emissions of which private vehicle use will likely contribute a high proportion. This need is increased if a greater level of residential development in the town centre is targeted as part of the forthcoming Local Plan.

- Traffic management strategies aiming to reduce through-traffic have been suggested, as well as options for reducing demand on the town centre road network, including:

- Improving signage to direct through-traffic off London Road to Devonshire Road.
- Restricting vehicular access along London Road to buses, cycles and resident access only (between a point east of Devonshire Road and Eastern Way), which would remove east-west rat running through the town centre, reduce the vehicle-dominated nature of the road, and provide a much-improved environment for residents, pedestrians and cyclists.
- Restricting traffic on the stretch of the A126 London Road to the north of the Morrisons supermarket and potentially re-routing general traffic to rejoin the A126 near Derby Road.
- Maintaining good access to East Thurrock Road to provide access into the centre but providing measures to reduce car use associated with future developments to avoid demand increases.

- To assess the effect of any proposed changes to access arrangements along London Road and Orsett Road, it is suggested that they could initially be tested using Experimental Traffic Regulation Orders.

- The impact of high car use on the attractiveness of Grays town centre for new residents is recommended to be assessed in more detail to justify any traffic reduction proposals.



6 SUMMARY AND CONCLUSIONS

6.1.1 A summary of the recommendations for each element of the study is provided in **Table 6-1** below.

Table 6-1 Key Recommendations and Outcomes

SECTION	OUTCOME
Analysis of current and future parking provision in the town centre, and potential impact of loss of parking due to new development.	● Reduce the amount of long-stay parking in the town centre to reduce trips being taken by car unnecessarily and release valuable town centre sites. ● Improve alternative methods of travel to driving to reduce car dependency and enable reductions in parking to take place without affecting the town's vitality. ● The majority of town centre parking should be short stay (3-4 hours max to accommodate visitors and shoppers). ● Consider discouraging parking by staff at the Council's offices in Grays in the first instance to help build support for efforts to increase the use of sustainable travel in the town. ● Closing the shopping centre's multi-storey car park is likely to result in higher utilisation without causing material parking issues. ● Set up a town centre Business Management Group including major retail developments (e.g. Morrisons) to have greater control over town centre parking.
Analysis of Parking Standards	● Produce a bespoke parking policy and strategy for Grays town centre. ● Update the parking standards to discourage car ownership in high accessibility areas, through: ○ Removing the minimum parking standard for houses; ○ Lowering the maximum parking standard for flats; and/or ○ Widening the area considered to be highly accessible ● Charge a fee for both the first and second permits for households to provide a disincentive to owning a car and to raise funds for sustainable transport projects



The potential impact of the London Resort and other major development schemes on parking needs/capacity in Grays, considered against the extent to which public transport, could meet any additional demand.	• Additional parking capacity is required to accommodate The London Resort's demand. • This should be provided outside of the town centre to avoid significant traffic impacts. • A park-and-ride system could be effective for enabling out-of-town parking but journey times would need to be minimised.
Explore and understand park and ride opportunities to enhance access and connectivity to the town centre, identifying and reviewing potential locations.	• There is unlikely to be sufficient demand for a park-and-ride service for Grays unless a major development such as The London Resort is implemented. • Any park-and-ride system must be supported by an appropriate town centre parking strategy. • Provide a Mobility Hub at the park-and-ride car park to maximise use.
Explore opportunities to extend/relocate and enhance the bus station and integrate it with other modes, such as walking, cycling, (cycle/community hub), future MRT provision.	• Relocating the bus station, or the main central bus loop, via Clarence Street and Stanley Road could encourage footfall and enable more effective use of the bus station site. • Reducing vehicular access along the stretch of London Road at the northern end of the High Street may enable the creation of a new civic space/ improved public realm at the top of the High Street. • Maintaining and enhancing the ability of buses to move through the highway network should be prioritised to increase their reliability and the overall attractiveness of public transport in Grays. • Providing Mobility Hubs at strategic locations would facilitate reductions in car ownership and active travel.
Assess whether the railway station can support existing and future demand and explore opportunities for expansion and wider redevelopment of the site through relocation.	• Further demand forecasting will be needed to identify requirements for capacity improvements at Grays railway station and along the rail corridor, taking the impact of Covid-19, housing and employment growth, and London Resort into account. • Before the station underpass project, there could be value in creating an improved public realm on Crown Road in front of the railway station in the form of a plaza / public square. • There are also likely to be benefits in relocating the car park and/or drop off points for the station to avoid traffic circulating the town centre, however, further assessment is needed.



Walking and cycling enhancement to ensure the surrounding network and integral town centre routes provide attractive pedestrian and cycle routes to/from and within the town centre.	● Grays has the potential to achieve higher levels of active travel through: ○ comprehensive network improvements, increased cycle parking; ○ cycle /scooter hire facilities; and ○ selective Travel Planning measures. ● A wider roll-out of Travel Plans amongst workplaces and residential developments could encourage car-free lifestyles, and Thurrock Council could champion this at its office in Grays.
The connectivity between the high street and riverside and how this can be improved, taking into consideration existing planned projects.	● An overall coordinated wayfinding strategy is required for Grays that uses physical, digital and cognitive techniques. ● The station forecourt should respond better to pedestrian desire lines. ● Street clutter, including the parked cars on the south side of the level crossing, should be removed to make pedestrian and cycle routes clearer. ● Areas to the south of the station should be improved and more accessible, with the gates to Grays Town Wharf opened.
Traffic impact of potential major schemes on the existing road network, including the KenEx Tram proposal.	● The potential of the Grays Shopping Centre redevelopment project to increase traffic levels is dependent on the number of parking spaces permitted at the site and the retail/leisure offer. Benefits associated with the closure of the multi-storey car park could be lost if a high number of parking spaces at the site are permitted. ● The town's CPZs may also need to be extended to preserve existing residential parking amenity and avoid additional parking stress caused by these new developments. ● The impact of KenEx in reducing traffic and congestion levels in Grays will ultimately depend on the route and destinations served. Driving will likely continue to be the natural mode of choice for most trips unless journey times and/or costs associated with KenEX are lower. The main traffic reduction benefits would be associated with cross-river trips and those places not served by train, and therefore the overall impact is likely to be low. ● The scale of Local Plan growth is not yet known, however, it is considered to be unlikely that future housing and employment growth would generate



	any highway impacts that could not be mitigated sufficiently via standard processes.
Strategic focus on the need to reduce traffic impact on the town centre network and on London Road to the West and East Thurrock Road to the East, while supporting viability and future development for Grays town centre.	● Congestion on the roads leading to the centre is likely to worsen with any new demand due to the variety of journeys passing through these locations. The presence of an AQMA within the town centre also suggests there is a need to reduce transport-related emissions of which private vehicle use will likely contribute a high proportion. This need is increased if a greater level of residential development in the town centre is targeted as part of the forthcoming Local Plan. ● Traffic management strategies aiming to reduce through-traffic have been suggested, as well as options for reducing demand on the town centre road network, including: – Improving signage to direct through-traffic off London Road to Devonshire Road. – Restricting vehicular access along London Road to buses, cycles and resident access only (between a point east of Devonshire Road and Eastern Way), which would remove east-west rat running through the town centre, reduce the vehicle-dominated nature of the road, and provide a much-improved environment for residents, pedestrians and cyclists. – Restricting traffic on the stretch of the A126 London Road to the north of the Morrisons supermarket and potentially re-routing general traffic to rejoin the A126 near Derby Road. – Maintaining good access to East Thurrock Road to provide access into the centre but providing measures to reduce car use associated with future developments to avoid demand increases. ● To assess the effect of any proposed changes to access arrangements along London Road and Orsett Road, it is suggested that they could initially be tested using Experimental Traffic Regulation Orders. ● The impact of high car use on the attractiveness of Grays town centre for new residents is recommended to be assessed in more detail to justify any traffic reduction proposals.



APPENDIX A

MOVEMENT AND STREETS REPORT (ANDREW CAMERON ASSOCIATES)





Grays Town Centre

Movement and Streets
Issues and Ideas



December 2022

Andrew Cameron & Associates

Site Visit and Workshop

15th November 2022

Key points:

- Walkability and scale of Grays
- Celebrate the history & heritage of Grays, re-connect to the river
- Wayfinding and legibility
- Key areas for public realm improvements
- Restructure and connect roads
- A better arrival experience
- Move bus storage area?
- Kiss and Ride at station?
- Better access to Town Park
- Slow to 20mph in the centre
- Better active travel connections over railway and to the civic / educational heart

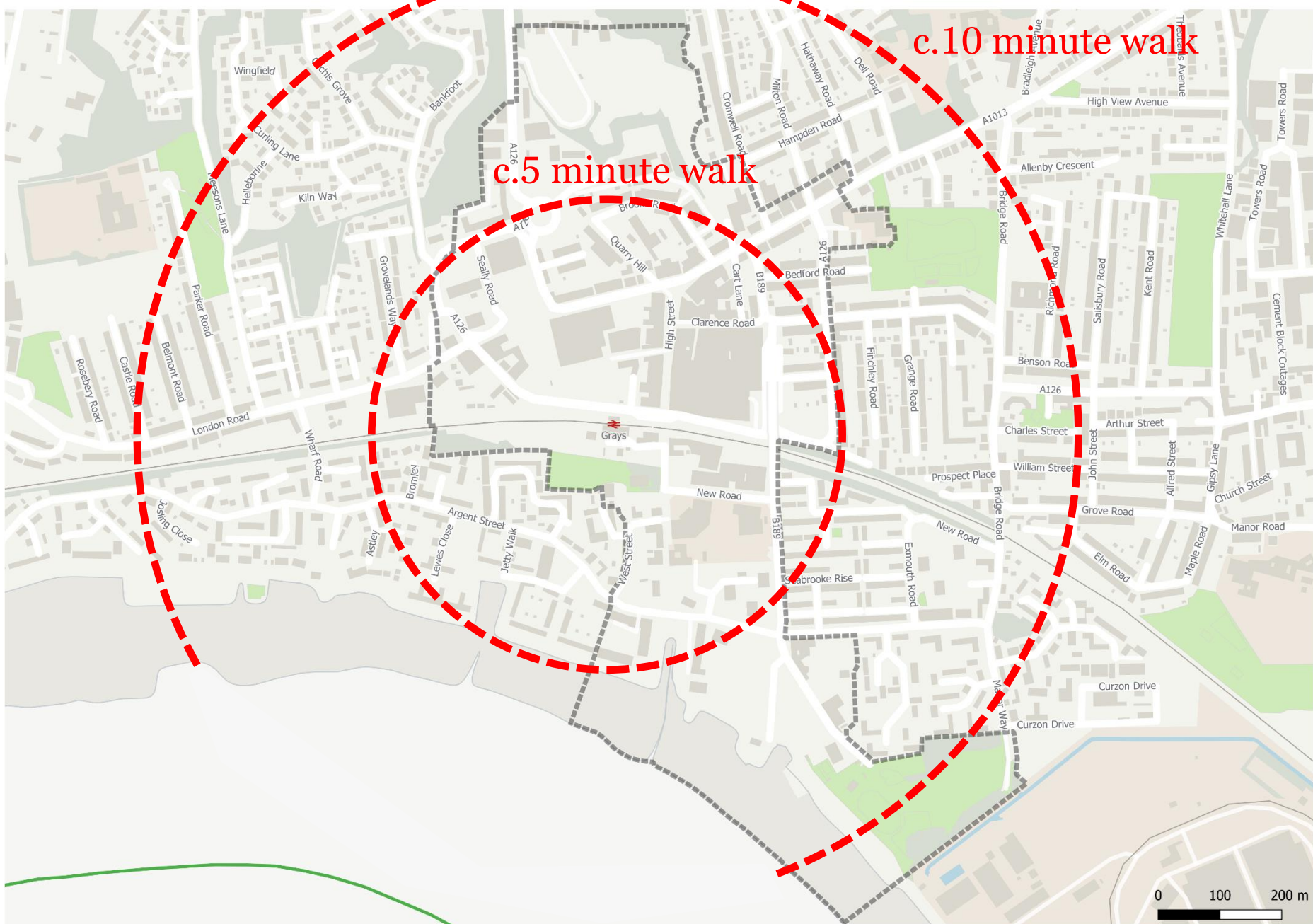


Site Visit

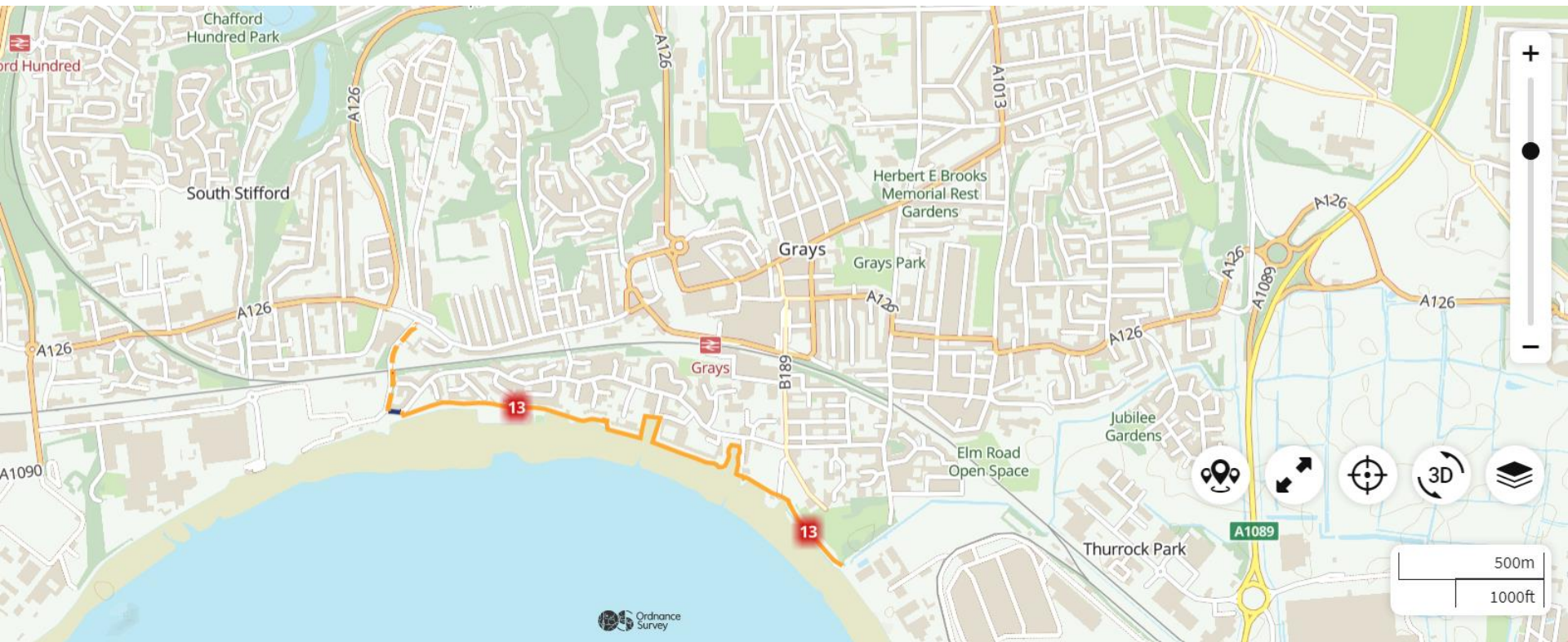
15th November 2022



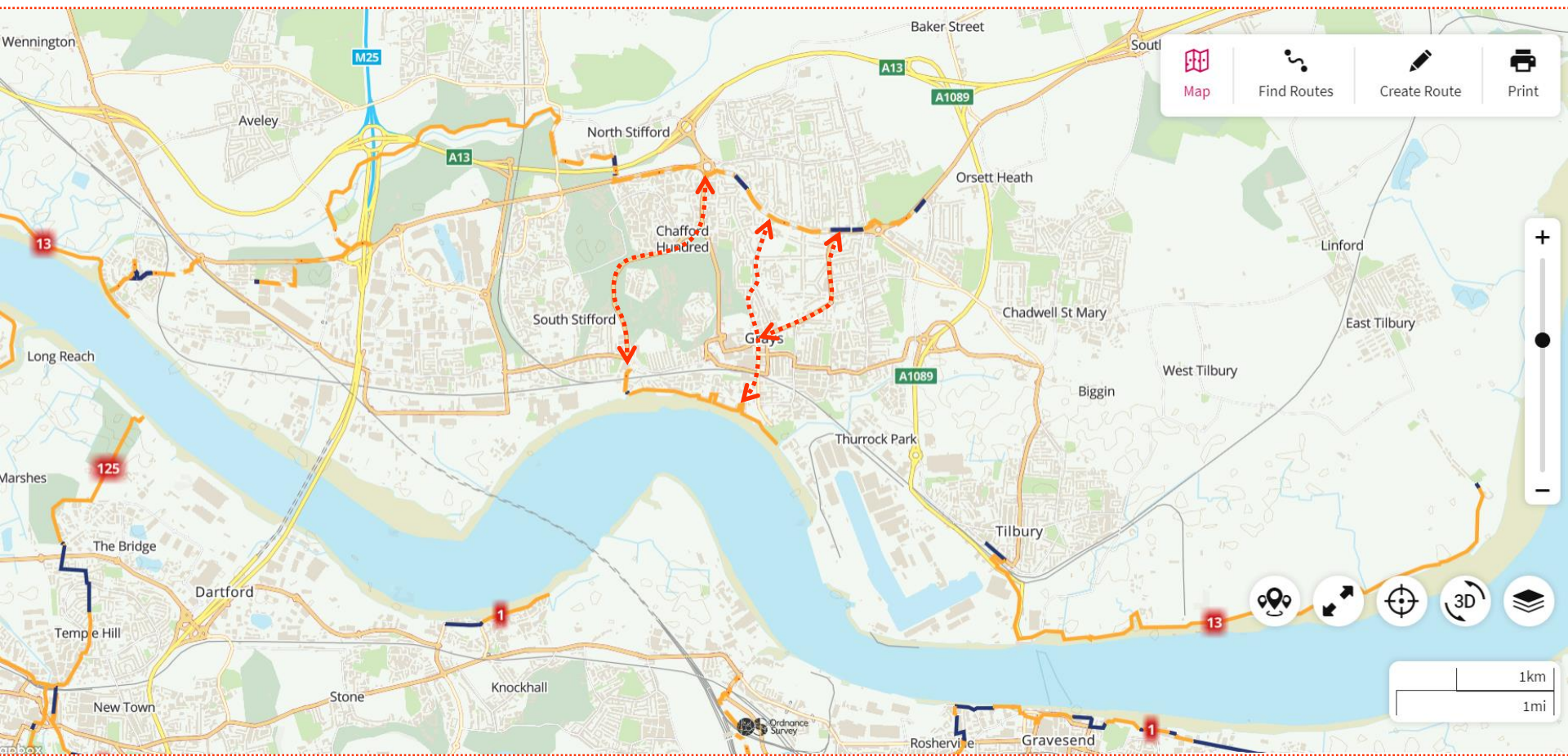
A Walkable Place
Cycling
Public Realm
Legibility and Wayfinding
Arriving and Leaving
Access to the river
Speeds – 20mph for all



The town is compact, level and in theory very walkable and cyclable



National Cycle Network in Grays, appears to show a disconnected section



National Cycle Network in Grays, how to connect to the wider network and create a continuous river frontage route, connections to Tilbury?



One of the Gray's best assets is Town Park, better walking and cycling routes to this key destination are needed



Grays War Memorial, do the community see this as at 'heart' of the town?

6th March 1921



Grays War Memorial, which presently feels somewhat lost in the surrounding paving patterns, signage, bollards and barriers. The public realm and street furniture needs to celebrate this important space



Still a focal point though



So often places are designed without putting the pedestrian first



Some good wayfinding in place but as always
needs to be physical, digital and cognitive



A coordinated approach is needed to Wayfinding, e.g. Legible London. At present there are too many variations, everyone is doing their own thing. Strategy and design needs to be developed.

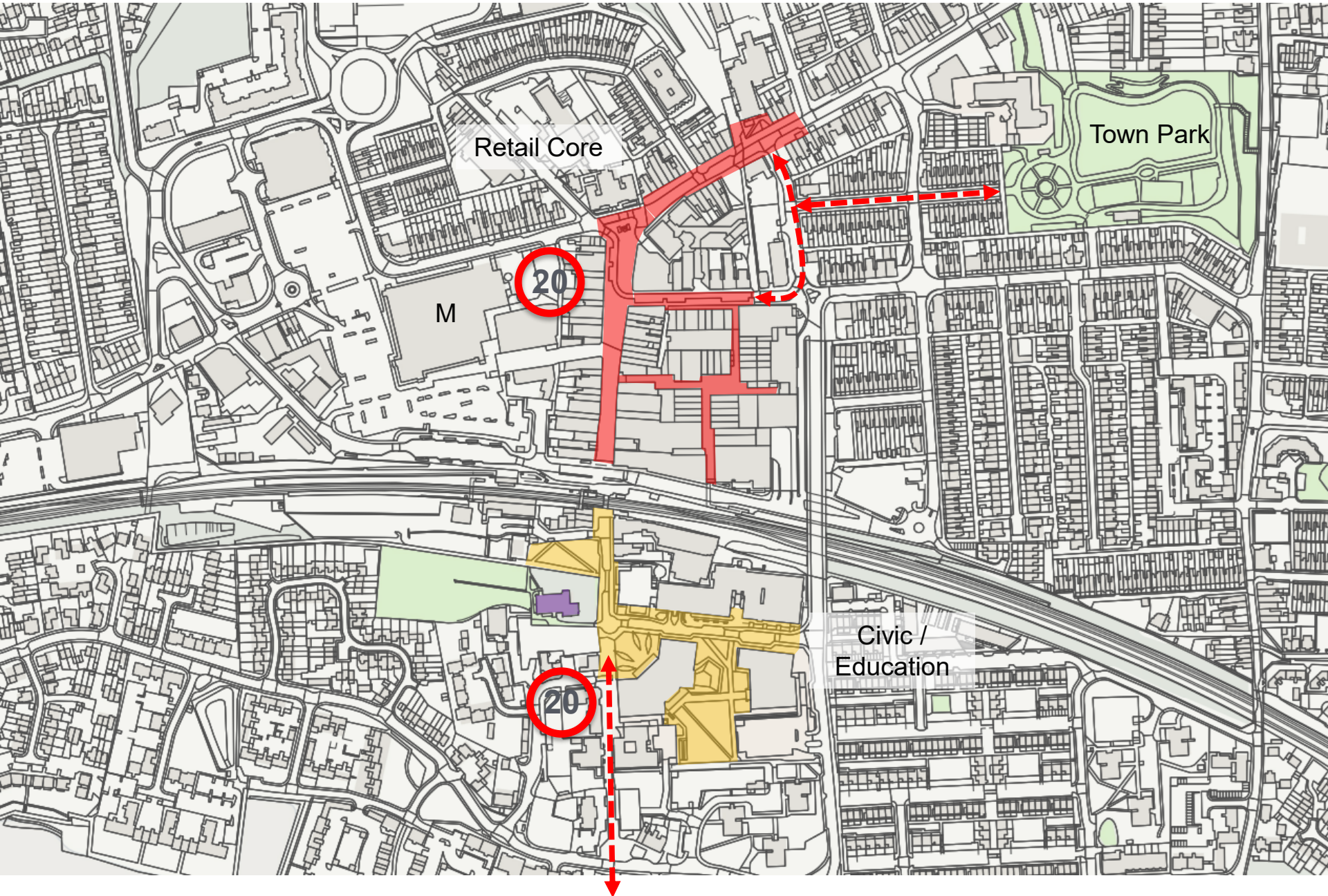




Legible London's 'family' of signs and information



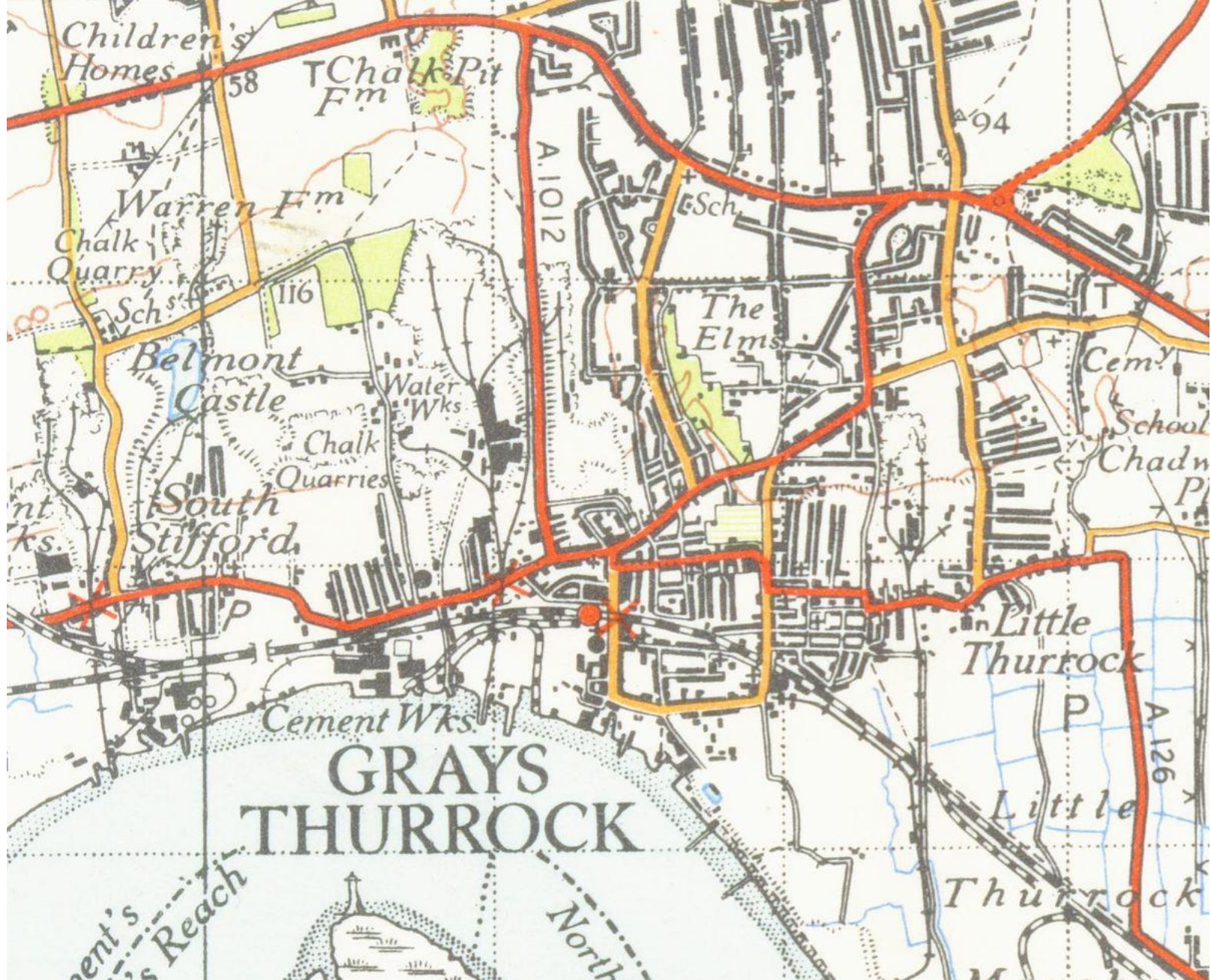
Wayfinding and legibility key locations



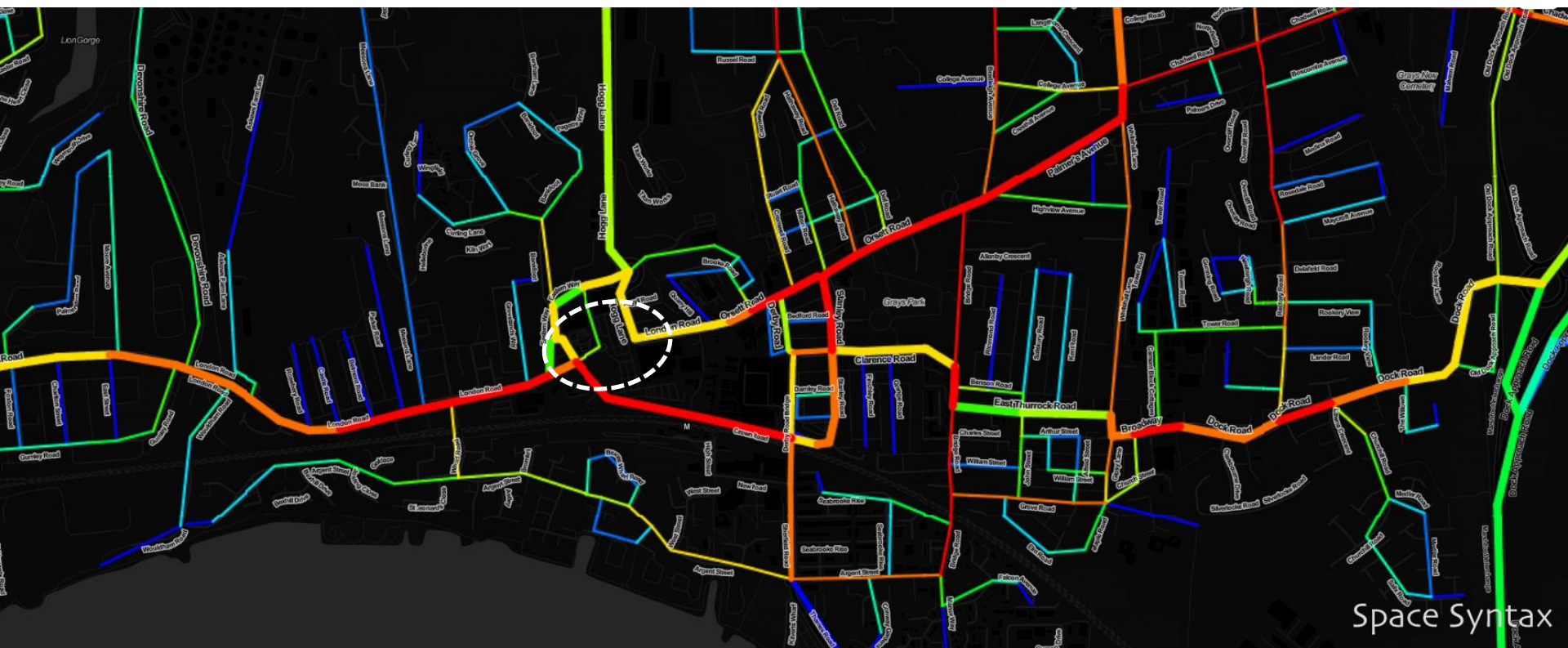
Overlay wayfinding with public realm improvements to key pedestrian routes and destinations / spaces, less longer stay parking on streets, 20mph?



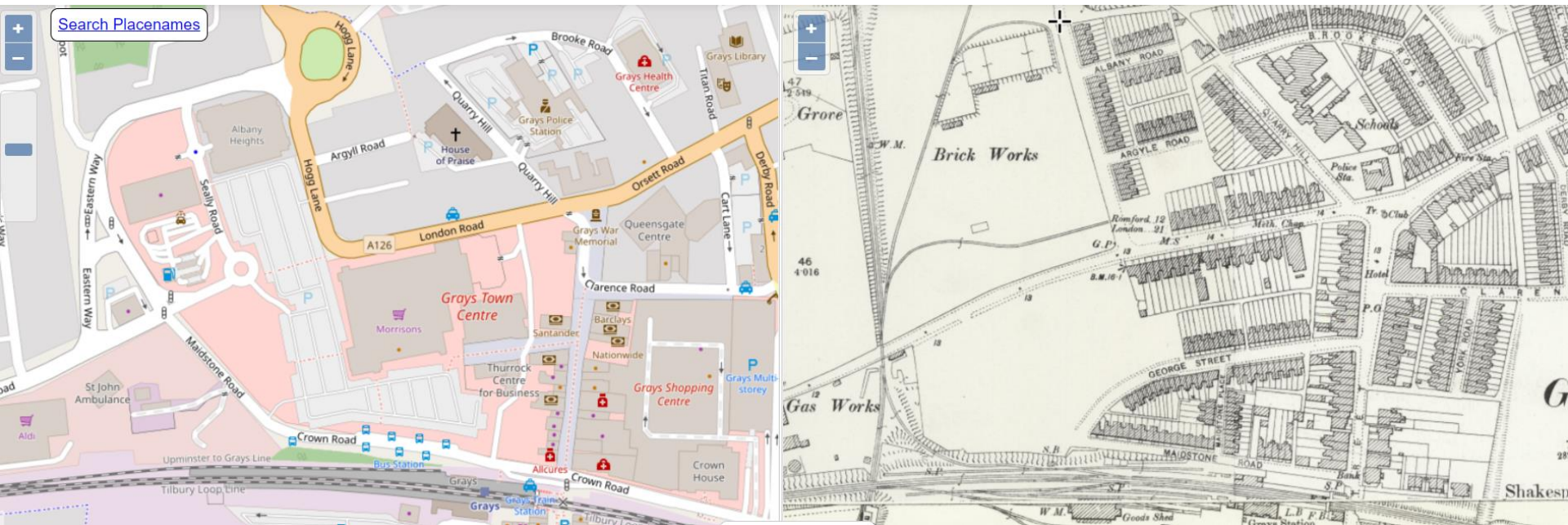
Improve the pedestrian experience in
Bedford Road, to and from Town Park



1946, a connected street network



Space Syntax open source analysis, the 'missing link' on London Road / A126 is clear, and this contributes to less 'heat' in the town

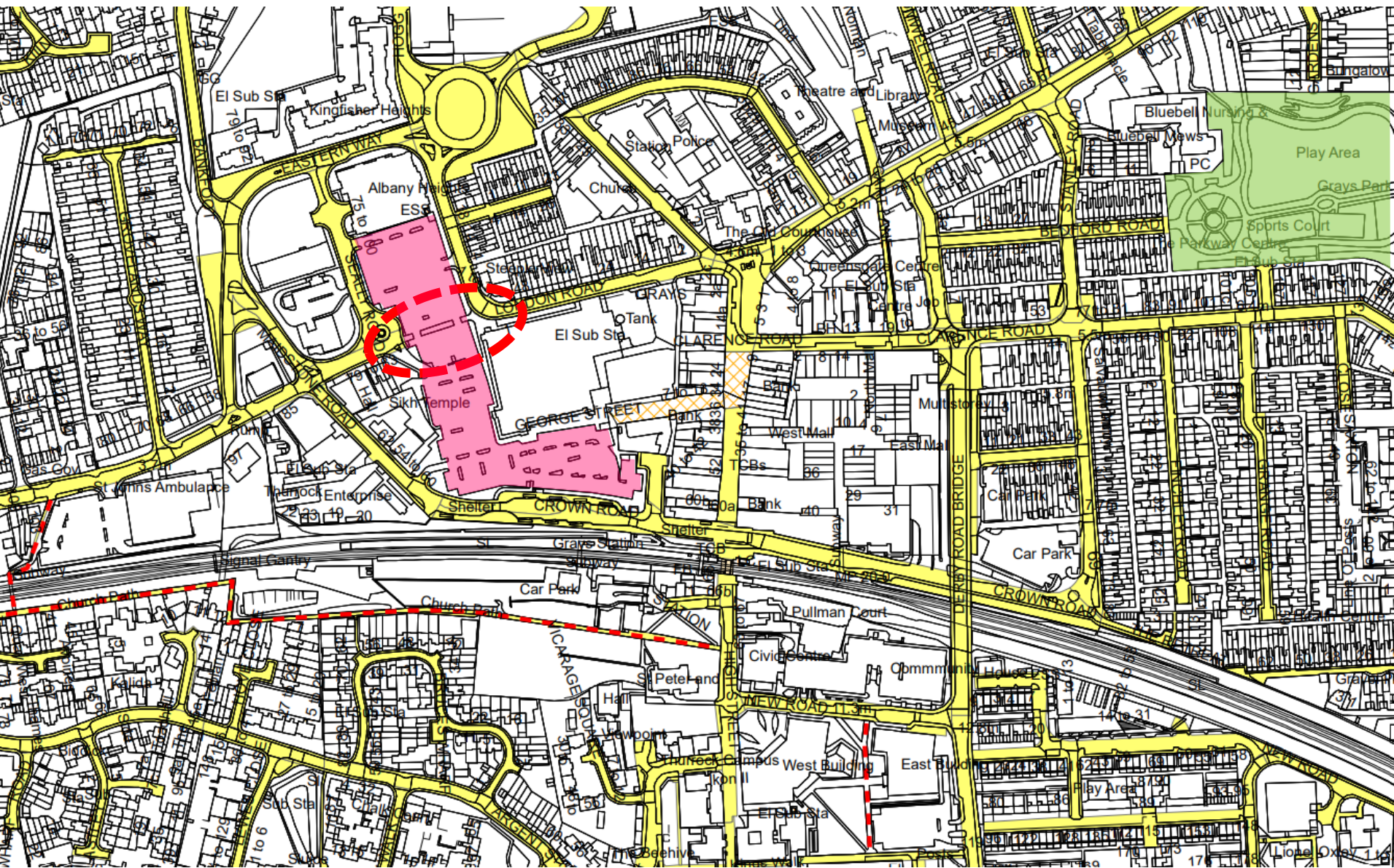


Side by side maps showing growth of Grays and how link was removed to create a larger car park



The 'missing link' on London Road / A126 is clear, consider discussions with Morrisons about how this could be reinstated as a street or even just improved as a better walking and cycling connection, roundabout to be reconfigured to a human oriented junction





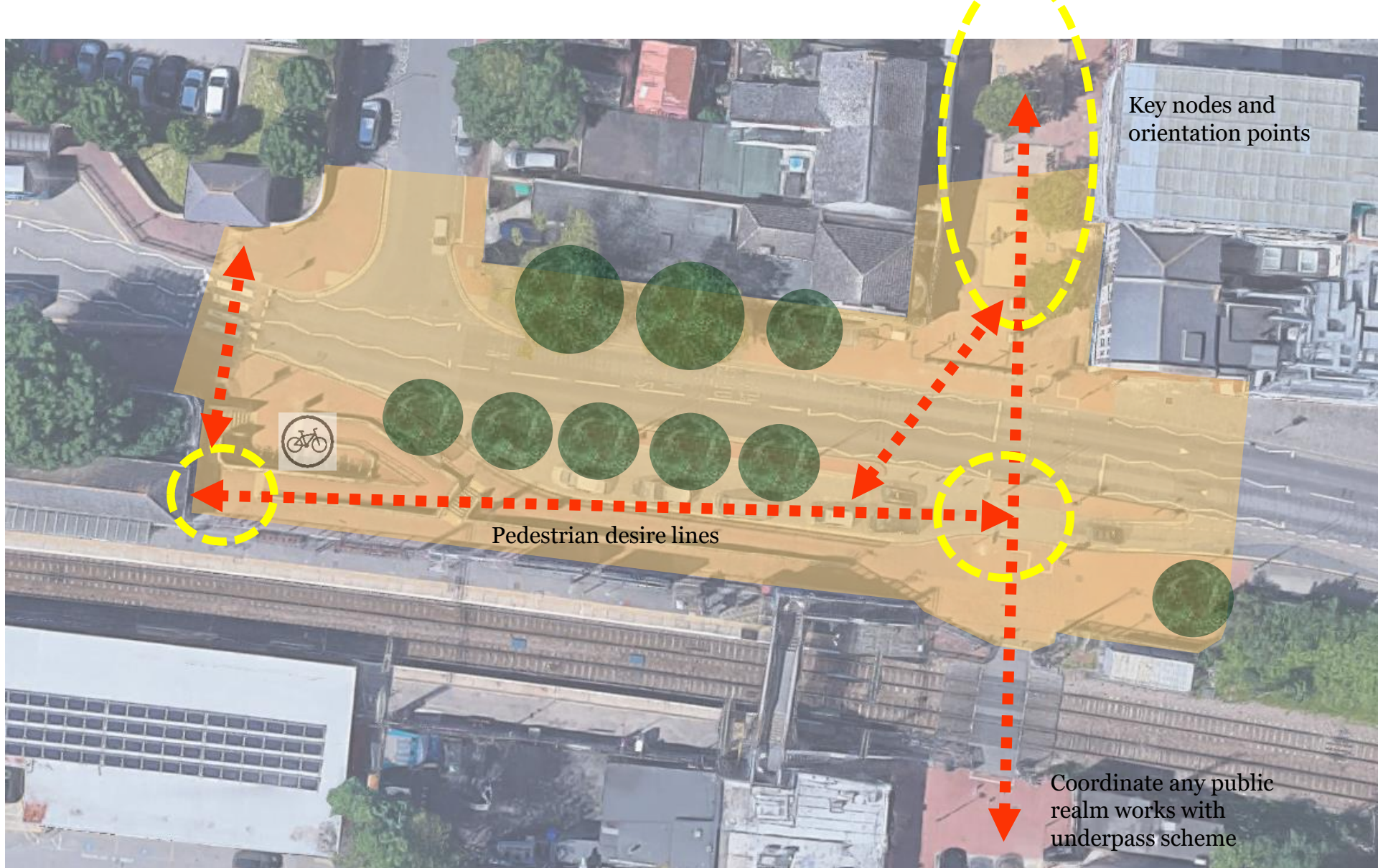
Adopted roads and streets in Grays, missing link circled, note scale of at grade car parking (pink) – it's the same size as Town park, explore options to multi-storey?



Arrival at Grays station, which way is the Town?
Limit general traffic movements on Crown Road to narrow lanes and return
more space to usable public realm?



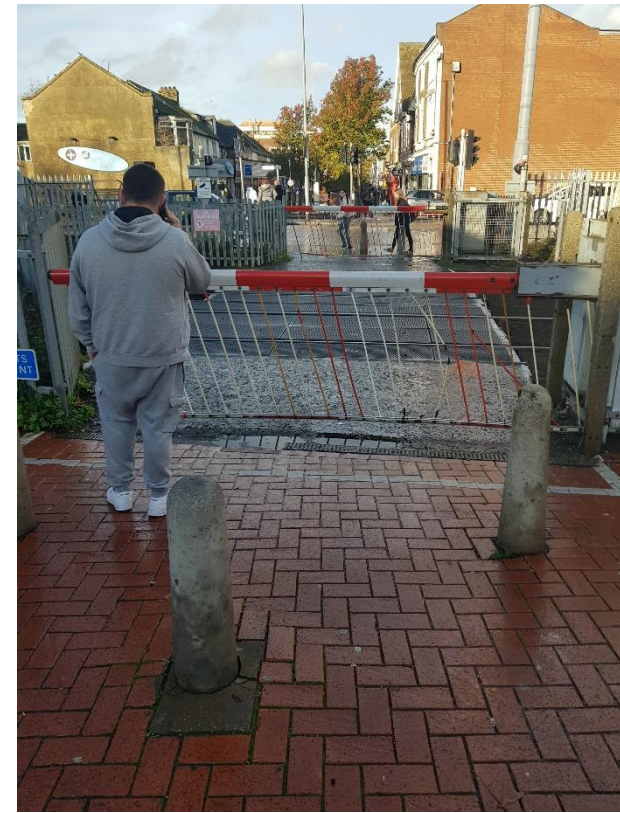
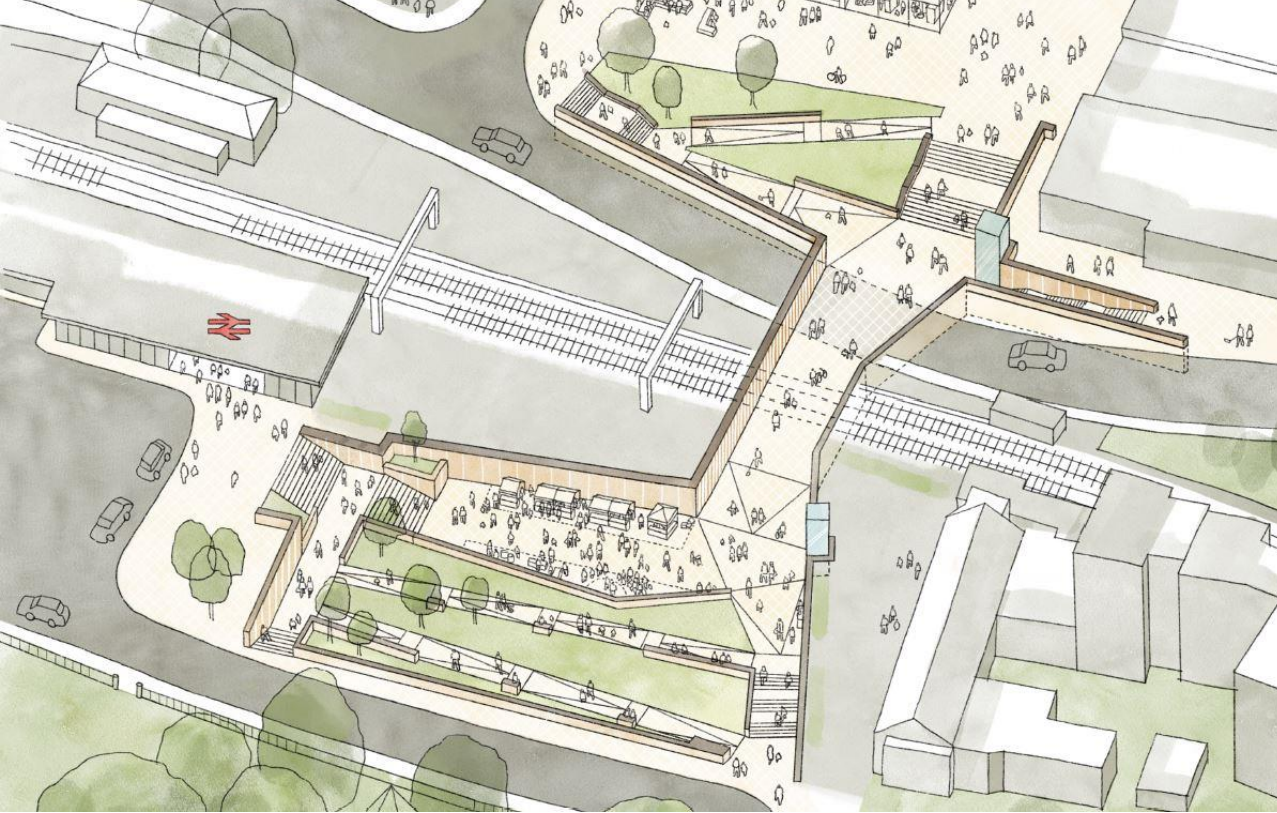
Make better connections to the town, bus stops and taxis, but putting active travel first



Public realm improvements in this area: make it read as a station square, relocate taxis away from pedestrian desire line, better wayfinding, connect to retail public realm, wider footways, cover cycle parking, more trees



Is this the best location for bus storage? Reconfigure, develop?



Crossing the rail line and removal of level crossing, grand plans and expensive (£37m?) are proposed but just make it good in the short term





Such a key pedestrian and cycle connections must not be used for parking

Station Transformation Examples – what could be achieved?

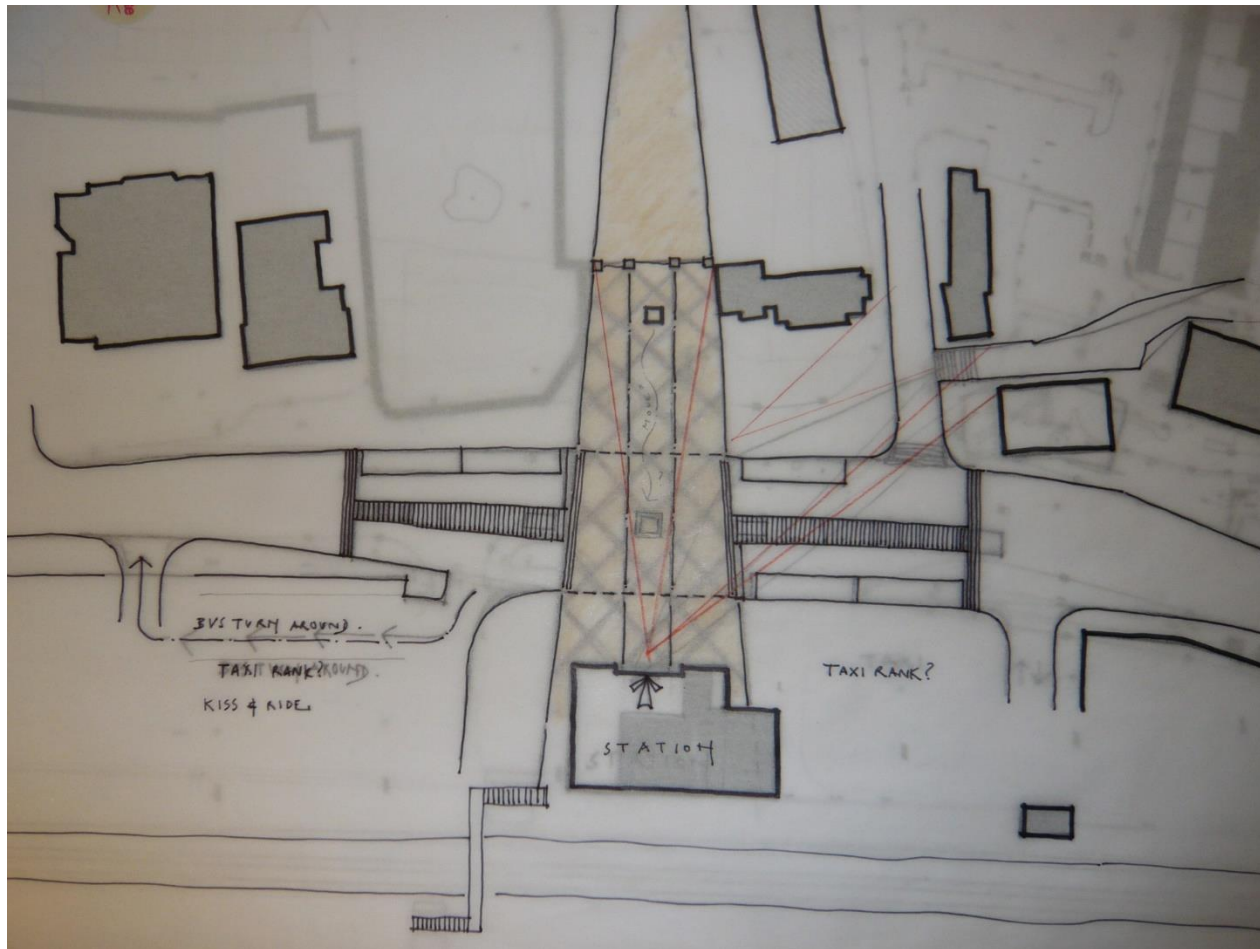
Hatfield Station

Before images, of the A1000 (left) and Hatfield Station (right)





Opposite the station, the entrance to Hatfield House



Old Hatfield Charrette 2008



Hatfield Station building (before and after)



A1000, The Great North Road – after upgrade, speeds slowed, courtesy crossings, high quality public realm



A central median allows pedestrians to cross where they want



Formal crossing location includes for diagonal pedestrian routes



Whittlesford Parkway, Cambridgeshire, proposals from WYG



Better access to Town Wharf and improvements to Kilvert's Fields, make them the destinations they deserve to be

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