Transport Strategy for the South East

Strategic Corridor Evidence Base

Client: Transport for the South East
10 December 2019
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Appendices

Introduction

Introduction

1 This document presents the evidence base underpinning the case for investment in the South East's Strategic Corridors. It has been prepared for Transport for the South East (TfSE) – the emerging Sub-National Transport Body for South East England – in support of its development of a Transport Strategy for South East England.

2 The Strategic Corridors play a critically important role in supporting the economy of the South East and, in view of the South East's role as the nation's major international gateway for people and businesses, the wider UK.

3 Transport for the South East's mission is to grow the South East's economy by delivering a safe, sustainable, and integrated transport system that makes the South East more productive and competitive, improves the quality of life for all residents, and protects and enhances its natural and built environment. It aims to transform the quality of transport and door-to-door journeys for the South East's residents, businesses and visitors.

4 This document describes the evidence base that will support the development of the transport network. It builds on the evidence base that was developed in support of the Economic Connectivity Review, which was published by Transport for the South East in 2018. The data underpinning this evidence has been used to develop the Transport Strategy for the South East and shape its contents.

Definitions

5 There are **23 Strategic Corridors** in South East England. These corridors were identified by Transport for the South East, its Constituent Authorities, and other stakeholders involved in the development of the Economic Connectivity Review. Since this review was published, the corridors have been grouped into five areas. Some of the definitions and names of some corridors cited in the Economic Connectivity Review have also been amended.

6 A list of the Strategic Corridors is provided in the **Table 1** (right) and a map showing their location in schematic format is in **Figure 1**. A map illustrating the specific highways and railways that form part of each corridor is provided **Figure 2**.

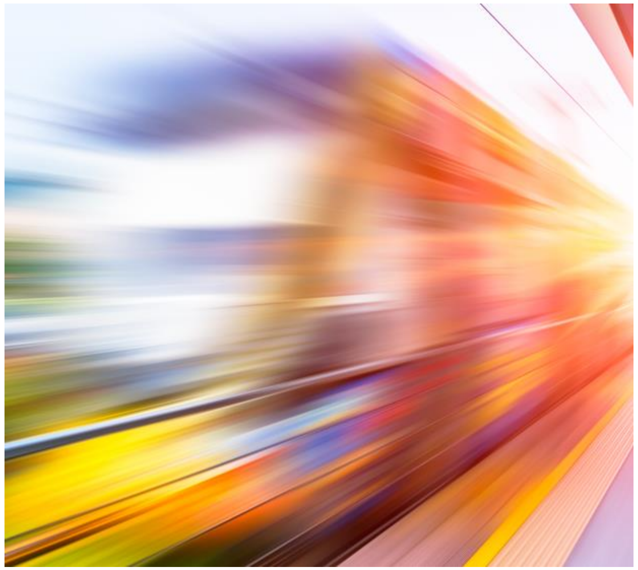

Table 1 | Strategic Corridor definitions

Area	Ref	Corridor Name
South East	SE1	**M2/A2/Chatham Main Line** (Dartford – Dover)
	SE2	**A299/Chatham Main Line** (Faversham – Ramsgate)
	SE3	**M20/A20/High Speed 1/South Eastern Main Line** (Dover – Sidcup)
	SE5	**A21/Hastings Line** (Hastings – Sevenoaks)
South Central	SC1	**A22/A264/Oxted Line** (Crawley – Eastbourne)
	SC2	**M23/A23/Brighton Main Line** (Brighton – Coulsdon)
	SC3	**A24/A264/A29/Arun Valley Line** (Crawley – Fontwell)
South West	SW1	**A3/A27/M275/Portsmouth Direct Line** (Portsmouth – Surbiton)
	SW2	**M3/M27/M271/A33/A326/South Western Main Line** (Southampton – Sunbury)
	SW3	**A33/Basingstoke – Reading Line** (Basingstoke – Reading)
	SW4	**A34/South Western Main Line/Basingstoke – Reading Line** (Reading – Winchester)
	SW5	**A36/Wessex Main Line** (New Forest)
	SW6	**A303/West of England Main Line** (Andover – Basingstoke)
	SW7	**M4/Great Western Main Line/Reading – Taunton Line** (Newbury – Slough)
Inner Orbital	IO1	**M25** (Dartford – Slough)
	IO2	**A228/A249/A278/A289/Chatham Main Line/Sheerness Line** (Medway Ports)
	IO3	**A228/A229/Medway Valley Line** (Maidstone – Medway Towns)
	IO4	**Redhill – Tonbridge Line/South Eastern Main Line** (Ashford – Redhill)
	IO5	**A25/North Downs Line** (Guildford – Redhill)
	IO6	**A31/A322/A329/A331/North Downs Line** (Guildford – Reading)
Outer Orbital	OO1	**A28/A290/A291** (Canterbury – Whitstable)
	OO2	**A27/A259/A2070/East Coastway Line/Marshlink Line** (Ashford – Brighton)
	OO3	**M27/A27/A31/West Coastway Line/East Coastway Line** (Brighton – Ringwood)

Sources and Presentation

Sources and Presentation

7 The appendices of this document provide a summary of each Strategic Corridor on a corridor by corridor basis. The corridors are presented in the order shown in Table 1, grouped in each appendix by areas (South East, South Central, South West, Inner Orbital, and Outer Orbital).

8 The evidence for each corridor is grouped under the headings of the three pillars of Sustainable Development (Economic, Social, and Environmental) along with a heading for Highways and Railways.

9 The evidence presented under each heading, along with their sources (and method of calculation, where appropriate), is summarised in **Table 2** (right). In some cases, a ranking is also presented or described, which shows the position of each Strategic Corridor compared to all other Strategic Corridors in the South East area. The metrics for indicators shown in Table 2 for each corridor are shown in **Tables 3a**, **3b**, and **3c**.

10 Indicators highlighted in light blue in Table 2 are estimated by aggregating data at a local authority district level. For example, the population of the M2/A2/Chatham Main Line corridor is estimated by aggregating the populations of the districts this corridor passes through, which in this case is Canterbury, Dartford, Dover, Gravesham, Medway and Swale.

11 Indicators not highlighted in light blue in Table 2 are generally presented as data points on maps or summarised in the commentary, rather than aggregated across multiple districts.

Table 2 | Data sources

Heading	Indicator	Source and comment	Dates
Economic	Priority sector jobs	UK Business Register and Employment Survey, Office for National Statistics, Local Enterprise Partnership (LEP) websites and strategic documents	2017 and other most recent LEP published evidence
	Population	Office for National Statistics	2018
	Planned dwellings	Local Planning Authorities	2019
	Planned jobs	Local Planning Authorities	2019
Social	Indices of Multiple Deprivation	English indices of deprivation, Ministry of Housing, Communities & Local Government	2015
	NVQ level 4 qualifications	Office for National Statistics	2011
	Killed and Seriously Injured (KSIs) incidents	Department for Transport (DfT)	2015 - 2017
	Air Quality Management Areas	Department for Environment, Food & Rural Affairs	2019
	Average house price	Office for National Statistics	2019
	Average resident earnings	Office for National Statistics	2019
	Housing affordability	Estimated by dividing the weighted average of house prices by the weighted average of resident earnings	2019
International Gateways	Demand	Operators and TfSE's Transport Strategy Lot B study	2017 – 2019
	Issues and opportunities Enhancements	Informed by discussions with port/airport operators, Highways England, Network Rail, TfSE, and stakeholders	2017 – 2019
Environmental	Parks and Gardens	Historic England	2018
	Scheduled Monuments	Historic England	2012
	Nature reserves	Natural England	2016
	Ramsar sites	Natural England	2016
	Site of Special Scientific Interest	Natural England	2016
	World Heritage Sites	Historic England	2012
	Greenbelt	Ministry of Housing, Communities and Local Government	2018
	Grade 1 listed buildings	Historic England	2018
Highways	Highway delays	Pitney Bowes Speed Profiles	2018
	Demand	South East Regional Transport Model	2016
	Issues and opportunities Enhancements	Highways England Route Strategies, TfSE, highways/ constituent authorities and stakeholders	2017 – 2019
Railways	Demand	Office of Road and Rail "Estimates of station usage"	2017/18
	Issues and opportunities	DfT "Rail passenger numbers and crowding in major cities in England and Wales". Also informed by discussions with Network Rail, TfSE and stakeholders	2018
	Enhancements	Informed by discussions with Network Rail, TfSE, and stakeholders	2019

Definitions

Figure 1 | Strategic Corridor schematics

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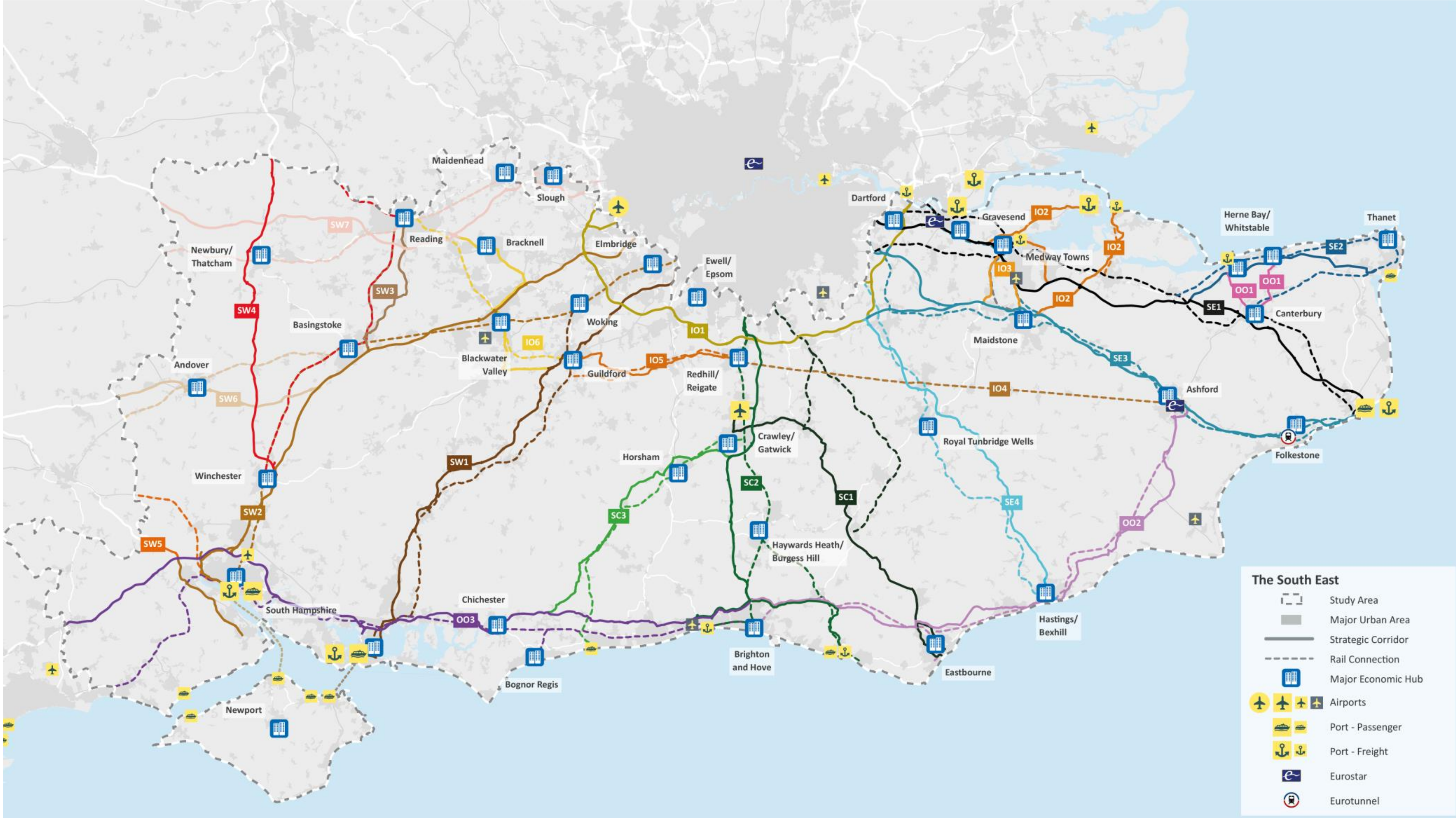
Definitions

Figure 2 | Strategic Corridor highways and railways



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Key indicators (1 of 3)

Table 3a | Summary of key indicators by corridor | Business and employment indicators

	Description	GVA (2016, £m)	GVA (2006, £m)	GVA Growth (%)	GVA per capita (£)	Jobs	Workers	Jobs minus Workers	Priority Sectors Jobs	Priority Sectors Jobs (%)	Priority Sectors Quotient (%)
SE1	M2/A2/Chatham Main Line (Dartford – Dover)	18,117	13,461	35%	19,607	330,265	451,500	(121,235)	32,855	10%	0.35
SE2	A299/Chatham Main Line (Faversham – Ramsgate)	8,212	6,478	27%	18,053	159,165	200,200	(41,035)	12,140	8%	0.26
SE3	M20/A20/High Speed 1/South Eastern Main Line (Dover – Sidcup)	22,559	16,644	36%	22,657	397,885	488,000	(90,115)	38,070	10%	0.33
SE4	A21/Hastings Line (Hastings – Sevenoaks)	16,282	11,805	38%	22,691	269,190	324,400	(55,210)	19,940	7%	0.26
SC1	A22/A264/Oxted Line (Crawley – Eastbourne)	15,698	11,761	33%	25,609	270,545	291,800	(21,255)	39,320	15%	0.50
SC2	M23/A23/Brighton Main Line (Brighton – Coulsdon)	28,279	21,550	31%	26,567	488,185	540,100	(51,915)	69,765	14%	0.50
SC3	A24/A264/A29/Arun Valley Line (Crawley – Fontwell)	14,231	10,847	31%	26,588	257,495	244,500	12,995	41,175	16%	0.55
SW1	A3/A27/M275/Portsmouth Direct Line (Portsmouth – Surbiton)	37,891	28,809	32%	27,057	590,830	675,400	(84,570)	72,065	12%	0.42
SW2	M3/M27/M271/A33/A326/South Western Main Line (Southampton – Sunbury)	48,750	35,428	38%	31,054	750,615	808,600	(57,985)	91,960	12%	0.43
SW3	A33/Basingstoke – Reading Line (Basingstoke – Reading)	28,646	21,907	31%	37,606	396,505	399,800	(3,295)	51,190	13%	0.45
SW4	A34/South Western Main Line/Basingstoke – Reading Line (Basingstoke - Reading)	20,635	15,214	36%	35,351	314,235	304,900	9,335	37,055	12%	0.41
SW5	A36/Wessex Main Line (New Forest)	14,210	10,728	32%	25,479	235,200	276,900	(41,700)	32,565	14%	0.48
SW6	A303/West of England Main Line (Andover – Basingstoke)	8,660	6,311	37%	28,781	138,765	160,300	(21,535)	18,485	13%	0.46
SW7	M4/Great Western Main Line/Reading – Taunton Line (Newbury – Slough)	33,393	25,801	29%	42,284	441,335	402,700	38,635	58,950	13%	0.46
IO1	M25 (Dartford – Slough)	49,567	36,736	35%	34,771	693,695	704,000	(10,305)	79,410	11%	0.40
IO2	A228/A249/A278/A289/Chatham Main Line/Sheerness Line (Medway Ports)	13,717	10,110	36%	19,520	246,405	349,400	(102,995)	22,875	9%	0.32
IO3	A228/A229/Medway Valley Line (Maidstone – Medway Towns)	8,893	6,406	39%	21,777	148,620	208,800	(60,180)	15,485	10%	0.36
IO4	Redhill – Tonbridge/South Eastern Main Line (Ashford - Redhill)	23,186	17,450	33%	25,667	387,745	433,500	(45,755)	32,840	8%	0.29
IO5	A25/North Downs Line (Guildford – Redhill)	13,310	10,330	29%	34,761	188,795	183,500	5,295	23,925	13%	0.44
IO6	A31/A322/A329/A331/North Downs Line (Guildford - Reading)	32,218	24,017	34%	36,567	464,675	461,200	3,475	70,805	15%	0.53
OO1	A28/A290/A291 (Canterbury – Whitstable)	3,222	2,489	29%	19,580	67,255	74,200	(6,945)	3,210	5%	0.17
OO2	A27/A259/A2070/East Coastway Line/Marshlink Line (Ashford – Brighton)	22,663	17,300	31%	20,852	407,580	509,700	(102,120)	37,980	9%	0.32
OO3	M27/A27/A31/West Coastway Line/East Coastway Line (Brighton – Ringwood)	42,974	33,277	29%	24,327	754,405	879,300	(124,895)	100,890	13%	0.46
	Total / Average for the South East area	**207,660**	**156,692**	**33%**	**27,190**	**3,325,155**	**3,742,700**	(417,545)	**399,585**	**12%**	**0.42**

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Key indicators (1 of 3)

Table 3b | Summary of key indicators by corridor | Development indicators

	Description	Population (2018)	Population (2006)	Population Growth	Current Dwellings	Planned Dwellings	% Dwelling Growth	Current Jobs	Planned Jobs	% Job Growth
SE1	M2/A2/Chatham Main Line (Dartford – Dover)	923,990	839,205	10%	387,190	97,898	25%	330,265	103,847	31%
SE2	A299/Chatham Main Line (Faversham – Ramsgate)	454,891	409,543	11%	196,230	41,366	21%	159,165	64,442	40%
SE3	M20/A20/High Speed 1/South Eastern Main Line (Dover – Sidcup)	995,678	902,514	10%	425,000	101,341	24%	397,885	126,540	32%
SE4	A21/Hastings Line (Hastings – Sevenoaks)	717,541	666,897	8%	314,580	44,412	14%	269,190	39,003	14%
SC1	A22/A264/Oxted Line (Crawley – Eastbourne)	612,995	565,004	8%	263,710	39,644	15%	270,545	14,000	5%
SC2	M23/A23/Brighton Main Line (Brighton – Coulsdon)	1,064,450	973,525	9%	458,180	50,364	11%	488,185	28,653	6%
SC3	A24/A264/A29/Arun Valley Line (Crawley – Fontwell)	535,242	492,154	9%	239,330	34,952	15%	257,495	18,479	7%
SW1	A3/A27/M275/Portsmouth Direct Line (Portsmouth – Surbiton)	1,400,418	1,309,813	7%	624,990	69,436	11%	590,830	50,451	9%
SW2	M3/M27/M271/A33/A326/South Western Main Line (Southampton – Sunbury)	1,569,828	1,464,424	7%	665,350	77,711	12%	750,615	76,336	10%
SW3	A33/Basingstoke – Reading Line (Basingstoke – Reading)	761,731	709,277	7%	318,810	54,813	17%	396,505	20,418	5%
SW4	A34/South Western Main Line/Basingstoke – Reading Line (Basingstoke - Reading)	583,720	542,428	8%	249,030	38,816	16%	314,235	3,054	1%
SW5	A36/Wessex Main Line (New Forest)	557,718	518,096	8%	242,760	18,358	8%	235,200	20,950	9%
SW6	A303/West of England Main Line (Andover – Basingstoke)	300,898	277,137	9%	129,200	21,830	17%	138,765		
SW7	M4/Great Western Main Line/Reading – Taunton Line (Newbury – Slough)	789,727	729,473	8%	323,640	56,377	17%	441,335	20,694	5%
IO1	M25 (Dartford – Slough)	1,425,542	1,308,413	9%	587,660	100,334	17%	693,695	88,063	13%
IO2	A228/A249/A278/A289/Chatham Main Line/Sheerness Line (Medway Ports)	702,714	639,061	10%	290,080	58,932	20%	246,405	79,670	32%
IO3	A228/A229/Medway Valley Line (Maidstone – Medway Towns)	408,363	375,191	9%	169,260	35,255	21%	148,620	51,091	34%
IO4	Redhill – Tonbridge/South Eastern Main Line (Ashford - Redhill)	903,344	820,195	10%	377,030	69,825	19%	387,745	96,811	25%
IO5	A25/North Downs Line (Guildford – Redhill)	382,899	349,514	10%	157,020	19,486	12%	188,795	22,197	12%
IO6	A31/A322/A329/A331/North Downs Line (Guildford - Reading)	881,056	816,007	8%	359,410	67,610	19%	464,675	64,328	14%
OO1	A28/A290/A291 (Canterbury – Whitstable)	164,553	146,073	13%	67,730	13,626	20%	67,255	10,676	16%
OO2	A27/A259/A2070/East Coastway Line/Marshlink Line (Ashford – Brighton)	1,086,844	1,000,554	9%	486,010	64,464	13%	407,580	47,497	12%
OO3	M27/A27/A31/West Coastway Line/East Coastway Line (Brighton – Ringwood)	1,766,519	1,634,950	8%	778,860	72,101	9%	754,405	36,993	5%
	Total / Average for the South East area	**7,637,435**	**7,055,619**	**8%**	**3,295,200**	**491,630**	**14.9%**	**3,325,155**	**418,491**	**12.6%**

Key indicators (1 of 3)

Table 3c | Summary of key indicators by corridor | Deprivation indicators

	Description	Number of LSOAs in Planning Authority	Number of LSOAs in Most Deprived Areas	% of Total LSOAs	In Scope Population	Population NVQ4+	NVQ Level 4+ (%)	Average Workplace Earning	% South East Average	Average Resident Earning	% South East Average	Average House Price (2018)	Affordability Ratio (%)
SE1	M2/A2/Chatham Main Line (Dartford – Dover)	527	147	28%	566,554	189,800	34%	£28,249	93%	£30,882	96%	£260,697	8.4
SE2	A299/Chatham Main Line (Faversham – Ramsgate)	259	83	32%	272,920	91,200	33%	£25,543	84%	£28,762	90%	£254,184	8.8
SE3	M20/A20/High Speed 1/South Eastern Main Line (Dover – Sidcup)	575	101	18%	589,390	204,000	35%	£28,410	94%	£31,178	97%	£297,248	9.5
SE4	A21/Hastings Line (Hastings – Sevenoaks)	420	54	13%	411,859	162,600	39%	£27,326	90%	£31,307	97%	£323,782	10.3
SC1	A22/A264/Oxted Line (Crawley – Eastbourne)	358	28	8%	358,303	154,400	43%	£29,511	97%	£32,013	100%	£321,909	10.1
SC2	M23/A23/Brighton Main Line (Brighton – Coulsdon)	622	94	15%	669,891	307,000	46%	£29,431	97%	£31,614	98%	£344,402	10.9
SC3	A24/A264/A29/Arun Valley Line (Crawley – Fontwell)	312	27	9%	305,508	119,000	39%	£28,730	95%	£30,350	94%	£326,431	10.8
SW1	A3/A27/M275/Portsmouth Direct Line (Portsmouth – Surbiton)	840	129	15%	838,560	345,700	41%	£29,039	96%	£33,265	104%	£348,876	10.5
SW2	M3/M27/M271/A33/A326/South Western Main Line (Southampton – Sunbury)	942	93	10%	971,305	430,200	44%	£32,229	106%	£33,488	104%	£347,110	10.4
SW3	A33/Basingstoke – Reading Line (Basingstoke – Reading)	459	31	7%	471,497	221,000	47%	£35,692	118%	£35,165	109%	£347,217	9.9
SW4	A34/South Western Main Line/Basingstoke – Reading Line (Basingstoke - Reading)	347	11	3%	355,148	149,500	42%	£33,713	111%	£34,540	108%	£337,390	9.8
SW5	A36/Wessex Main Line (New Forest)	333	71	21%	343,167	133,000	39%	£28,816	95%	£29,176	91%	£271,314	9.3
SW6	A303/West of England Main Line (Andover – Basingstoke)	180	8	4%	185,161	69,900	38%	£32,346	107%	£33,401	104%	£302,893	9.1
SW7	M4/Great Western Main Line/Reading – Taunton Line (Newbury – Slough)	462	54	12%	491,281	247,600	50%	£35,882	118%	£35,506	111%	£370,510	10.4
IO1	M25 (Dartford – Slough)	829	57	7%	870,742	420,300	48%	£33,570	111%	£35,665	111%	£419,340	11.8
IO2	A228/A249/A278/A289/Chatham Main Line/Sheerness Line (Medway Ports)	407	116	29%	433,132	132,700	31%	£27,861	92%	£30,465	95%	£259,428	8.5
IO3	A228/A229/Medway Valley Line (Maidstone – Medway Towns)	235	61	26%	253,675	77,400	31%	£28,362	94%	£31,977	100%	£272,353	8.5
IO4	Redhill – Tonbridge/South Eastern Main Line (Ashford - Redhill)	523	39	7%	532,192	215,000	40%	£28,787	95%	£33,587	105%	£352,523	10.5
IO5	A25/North Downs Line (Guildford – Redhill)	224	6	3%	234,074	111,300	48%	£34,164	113%	£36,204	113%	£442,462	12.2
IO6	A31/A322/A329/A331/North Downs Line (Guildford - Reading)	525	36	7%	552,145	255,100	46%	£35,788	118%	£35,973	112%	£370,131	10.3
OO1	A28/A290/A291 (Canterbury – Whitstable)	90	17	19%	103,356	38,500	37%	£26,914	89%	£30,458	95%	£293,000	9.6
OO2	A27/A259/A2070/East Coastway Line/Marshlink Line (Ashford – Brighton)	639	153	24%	657,372	254,500	39%	£27,322	90%	£28,918	90%	£291,431	10.1
OO3	M27/A27/A31/West Coastway Line/East Coastway Line (Brighton – Ringwood)	1,052	243	23%	1,097,904	438,300	40%	£27,986	92%	£28,923	90%	£285,130	9.9
	Total / Average for the South East area	**4,504**	**691**	**15.3%**	**4,624,709**	**1,900,000**	**41.1%**	**£30,298**	**100.0%**	**£32,122**	**100.0%**	**£323,459**	**10.1**

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