

Fife Council
Transportation Services

Financial Methodology for Strategic Transport Interventions
for Fife Development Plan

Introduction

This paper details the approach taken in determining a Financial Methodology for establishing developer contributions to deliver the transportation infrastructure required for the Approved Fife Structure Plan (AFSP), the Kirkcaldy & Mid Fife Local Plan (KMFLP) and Dunfermline & West Fife Local Plan (DWFLP).

The transportation interventions detailed within this report provide an indicator of the likely scale of infrastructure and costs which may be required to deliver development within the AFSP, the KMFLP and the DWFLP

The schemes considered within this report are only potential transportation interventions. The actual infrastructure and services necessary to deliver the proposed development can only be fully determined following completion of detailed Transport Assessment (TA) work, which will take account of all current policy. The TA work will be used to update the outcomes of this transport methodology accordingly.

It is assumed, at this stage, that all these strategic transport interventions will be paid for by Section 75 legal agreements outwith the developers site boundaries.

Background

The AFSP proposes development of some 35,000 housing units and significant levels of employment land during the next 20 years.

The assessment and development work for the AFSP commenced in 2002. At that time, a range of alternative development options were being considered which considered the relative accessibility of the Strategic Land Allocations (SLAs) to the bus and rail network. In order to assess these options in a pragmatic and efficient way it was decided to assess the alternative land use development scenarios using the micro-simulation transportation modelling tool, Paramics. This roads based assessment tool provides a consistent method of assessment where identified infrastructure measures can be readily costed. The assessment provides a clear indication of the different traffic effects of the alternative development scenarios, albeit the solutions are infrastructure based. Any final solution would be multi-modal

in nature and a result of detailed Transport Assessment work dealing with trips by walking, cycle, public transport and car share.

The Paramics modelling highlighted the potential locations of traffic congestion 'hot spots' in the network. In order to accommodate these congestion effects, infrastructure based interventions were identified to deal with the locations of congestion. The outline transportation interventions adopted were costed and used to input to the assessment of the alternative development options within the AFSP.

Policy Context

The Fife Development Plan includes the Strategic Land Allocations (SLAs) identified in the Approved Fife Structure Plan and the future development proposed within the Local Plans. The Local Plan complements that of the Structure Plan.

The Local Plan has an Action Programme (LPAP), which lists the proposals for development and other actions which will help to implement the Local Plan. A Financial Framework is appended to the LPAP. The framework provides guidance to landowners, developers and other organisations and identifies anticipated infrastructure measures which may be required as a consequence of development in Fife and, wherever possible, the level of financial contributions which Fife Council will expect.

The key planning policy considered within the development of this methodology is Policy DC1 and Proposal PDC1 of the Fife Structure Plan 2006-2026 which outline the broad requirements and contributions expected from developers for each of the Strategic Land Allocations (SLAs) in Fife.

Planning Circular 1/10 sets out the responsibility of developers in relation to new developments and includes the provision of appropriate measures to mitigate the impact of increased traffic volumes, which is referenced relative to the use of agreements made under section 75 of the Town and Country Planning (Scotland) Act 1997.

The guidance in Scottish Planning Policy (SPP) has been considered in relation to the principles of a 'no-net detriment at year of opening' approach to development management. Only the effects of new development traffic are accommodated within any infrastructure improvement considered and not the effects of growth in background traffic.

During the later stages of development of the Approved Fife Structure Plan the following new strategic National targets, which directly affect transportation, were adopted:

- Reducing Carbon Emissions by 42% by 2020 and 80% by 2050
- Increasing the overall mode share by cycling to 10% by 2020

However, due to the timing and advanced stage of development of the modelling work for the AFSP, these targets have not been included within this study. However, these new targets and more detailed site specific local targets will be considered within the Transport Assessments of the identified sites, which will then input into the adopted methodology to give the final outcomes in terms of transportation interventions required.

Policy DC1: Developer Contributions - Essential Community Infrastructure

For all new development the Council will seek contributions from developers to address shortfalls in community infrastructure that mitigate adverse impacts brought about by their development. To assist in integrating land use and transport, development proposals must be supported by STAG and associated appraisals, Transport Assessments and Travel Plans where appropriate, and the necessary on and off site infrastructure. Planning conditions, legal agreements and other suitable mechanisms will be used to secure appropriate developer contributions related to the scale, impact and timing of the development.

Housing Development and Road Traffic Modelling Implications

The key development sites considered within this financial methodology are listed below:

Table 1 - Strategic Land Allocation & Key Committed Local Plan sites	Housing Units
Burntisland	405
Dunfermline North	815
Dunfermline North West	499
Dunfermline West	362
Dunfermline SW	1479
Glenrothes - Coaltown of Balgonie East	97
Glenrothes - Former Sappi Mill	41
Glenrothes - Land to the north of Pytree Road	21
Glenrothes - Land to the South of Cadham Rd	225
Glenrothes - North of Main Street	113
Glenrothes - Sweetbank Terrace	34
Glenrothes - Westwood Park	378
Inverkeithing	400
Kelty / Lochore / Ballingry	356
Kirkcaldy East	2423
Kirkcaldy South West	850
Levenmouth	1567
Lochgelly	1662
West Fife Villages	549
Local Plan Sites Considered	Housing Units
Lochgelly	57
Lumphinnans	47
Cowdenbeath	109
Dunfermline	127
Inverkeithing	37
Dalgety Bay	75
Dunfermline	98
Rosyth	131
Glenrothes	270
Kinghorn	99
Cardenden	90
Cardenden	131
Kincardine	244
Kincardine	97
Local Plan Total	1612

The geographic location of the SLA and Key Local Plan sites are shown in Fig 1 below:

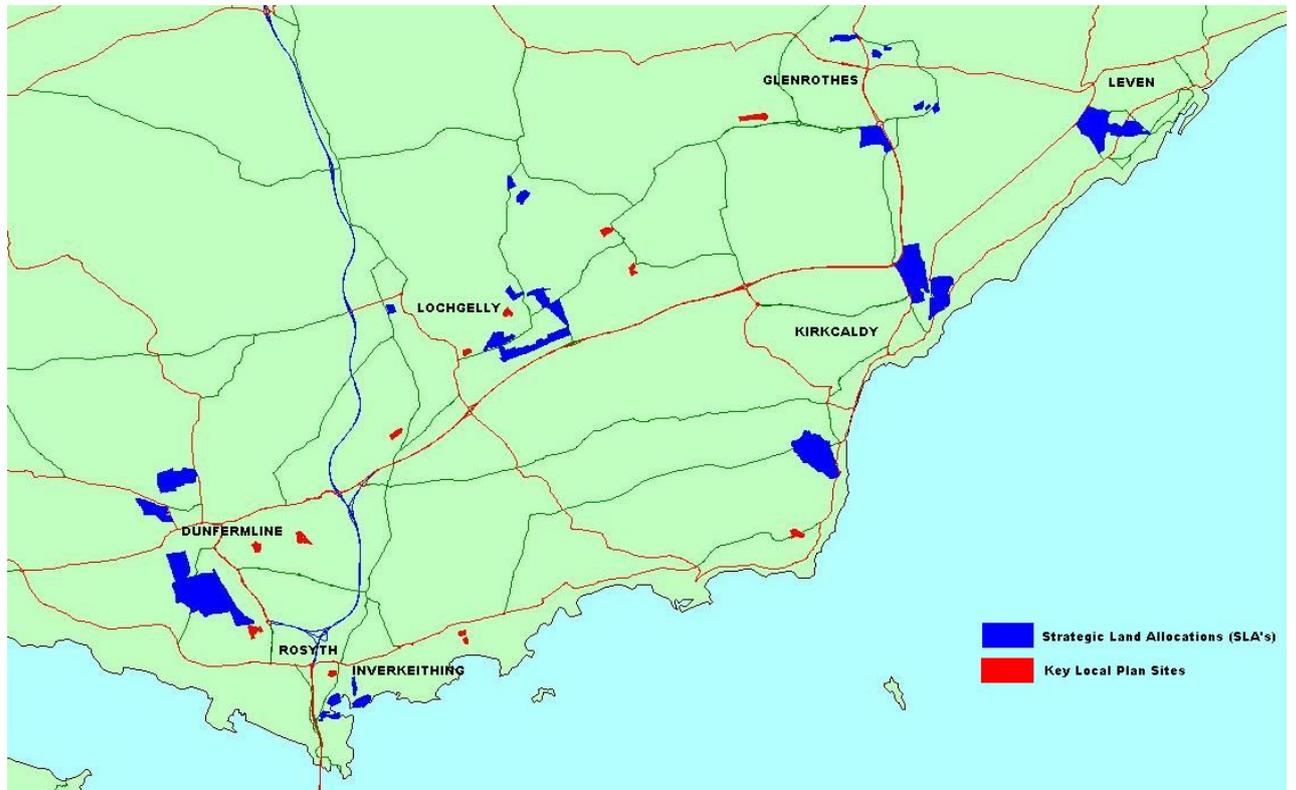


Fig 1 – Strategic Land Allocations & Local Plan Sites

The locations and extent of land use development has highlighted the key locations of congestion as shown in red in Fig 2 below:

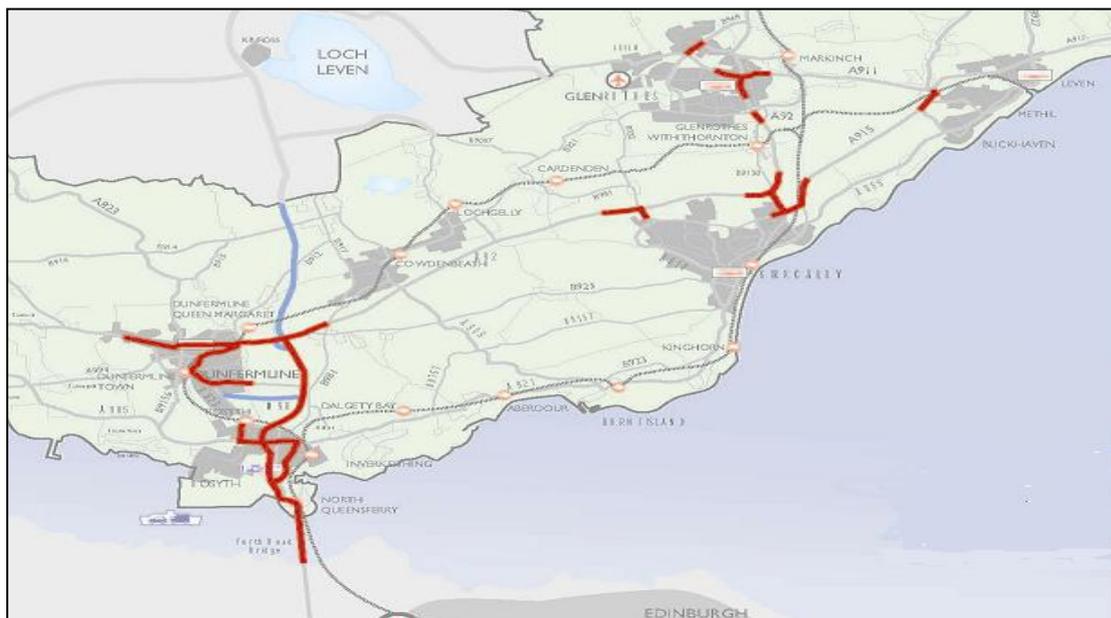


Fig 2 – Significant Areas of Congestion

In lieu of the outcomes from detailed, multi-modal Transport Assessments for these developments, the interventions and associated estimates of costs, detailed below (Table 2) provide an indication of the scale of infrastructure interventions necessary to deliver the detailed development.

Table 2 – Infrastructure Interventions

1. Dunfermline : Appin Crescent Relief Road
2. Dunfermline : Signalisation of Bothwell Gardens Roundabout with a reconfigured layout
3. Dunfermline Western Approach Road
4. Dunfermline Western Distributor Road
5. Dunfermline : Improvement to Forth Street/Elgin Street junction
6. Dunfermline : Reconfiguration of town centre, including new link road parallel to Carnegie Drive
7. Kirkcaldy : Grade Separation of Redhouse roundabout, including Standing Stane Link Road
8. Kirkcaldy : Reconfigure / Signalise junction of A921 Kinghorn Road/Inveriel Road
9. Reconfigure / Signalise junction of Standing Stanes Road / Windygates Road
10. Glenrothes : Signalisation of Bankhead Roundabout
11. Rosyth : Signalisation of Kings Road
12. Rosyth : Signalisation of Pitreavie Roundabout
13. Glenrothes : Signalisation of Preston roundabout
14. Glenrothes : Signalisation/Upgrade of Leslie Road corridor between the A92 and Western Avenue
15. Dunfermline: Improvement of junction of Halbeath Road with Whitefield Road
16. Dunfermline: Whitefield Road to Asda Link Road
17. Kirkcaldy: Chapel Interchange Partial Signalisation

The locations of the infrastructure based interventions considered are detailed below (Fig 3):



Fig 3 – Locations of Infrastructure based Transport Interventions

The analysis that was carried out was based on the previous methodology of modelling the impacts of underlying traffic growth plus the impact of traffic generated by the new developments.

The Paramics traffic modelling was able to identify the level of development traffic and background traffic at particular points within the model. This facility was used to identify the percentage effect of development at each of the identified interventions.

To ensure that the effect of development was assessed on a consistent basis throughout the model, the following equation was used to calculate the effect at each location:

C = the percentage of development traffic relative to the growth in background traffic plus the development traffic at a particular hot spot location

$$C = (DT / (TG+DT)) * 100$$

Where

DT = Development Traffic

TG = Background Traffic Growth (excluding DT) 2006 - 2026

The effect of development traffic (C) at the locations of the infrastructure interventions (including the associated estimate of cost) is detailed below in Table 3 :

Table 3		'C'	Estimate of Costs*
Infrastructure Interventions		(Ratio: Development Traffic/ Development Traffic + Traffic Growth)	
1	Dunfermline: Appin Crescent Relief Road	84%	£8,000,000.00
2	Dunfermline: Signalisation of Bothwell Gardens Roundabout with a reconfigured layout	84%	£2,900,000.00
3	Dunfermline Western Approach Road	91%	£10,600,000.00
4	Dunfermline Western Distributor Road	91%	£34,700,000.00
5	Dunfermline: Improvement to Forth Street/Elgin Street Junction	69%	£900,000.00
6	Dunfermline: Reconfiguration of town centre; including new link road parallel to Carnegie Drive	90%	£2,900,000.00
7	Kirkcaldy: Grade Separation of Redhouse Roundabout including Standing Stane Link Road	89%	£57,200,000.00
8	Kirkcaldy: Reconfigure/Signalise junction of A921 Kinghorn Road/Inveriel Road	85%	£800,000.00
9	Levenmouth: Reconfigure/Signalise junction of Standing Stanes Road/Windygates Road	87%	£700,000.00
10	Glenrothes: Signalisation of Bankhead Roundabout	86%	£900,000.00
11	Rosyth: Signalisation of Kings Road	75%	£2,800,000.00
12	Rosyth: Signalisation of Pitreavie Roundabout	91%	£1,500,000.00
13	Glenrothes: Signalisation of Preston Roundabout	81%	£2,300,000.00
14	Glenrothes: Signalisation/Upgrade of Leslie Road corridor between the A92 and Western Avenue	88%	£3,800,000.00

15	Dunfermline: Improvement of junction of Halbeath Road with Whitefield Road	85%	£1,500,000.00
16	Dunfermline: Whitefield Road to Asda Link Road	85%	£12,000,000.00
17	Kirkcaldy: Chapel Interchange Partial Signalisation	89%	£500,000.00
			£144,000,000.00
			** – based on 2008 prices

Of the above infrastructure interventions, most relate to strategic junction improvements which are outwith development boundaries, and will be paid for by Section 75 contributions. However, schemes 4, 6 and 7 above include transport infrastructure that will lie, to some extent, within an individual developers application site, and these would be paid for by that developer.

TRANSPORTATION METHODOLOGY

In developing a transportation methodology which considers the implications of development on the transportation network, the following issues were considered to be the key factors:

- a) The number of housing units within a development.
- and
- b) The proximity of a development to the identified transportation congestion hot spot (infrastructure intervention).

The housing units per development are known. The relationship between the proximity of developments and their traffic impacts at the location of congestion ‘hot spots’ for all the development locations, needs to be determined using the Paramics traffic model.

Key Fife Travel Characteristics

In May 2004, Fife Council undertook a travel diary survey of residents in order to confirm the travel habits within Fife. From this, it was found that the average length for journeys in Fife was found to be 8.3 miles; only 10% of journeys were twenty miles or more.

Journey Length - All Journeys

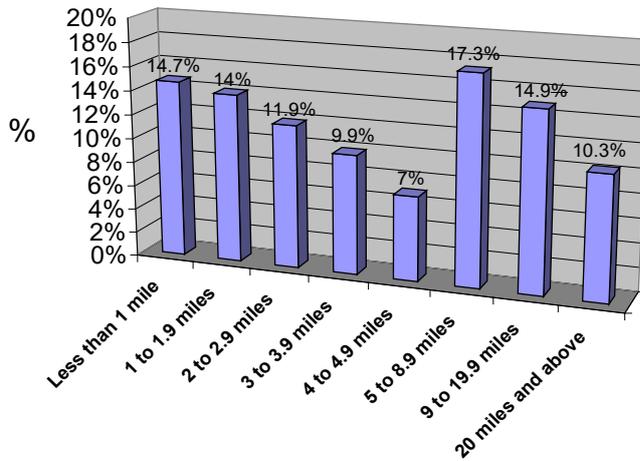


Fig 4 – Journey Length All Journeys

An analysis of the trip patterns within Fife’s main towns revealed the relationship shown in the plan below. It showed that there are significant levels of trips undertaken within and between towns, particularly where towns are in close proximity to one another.

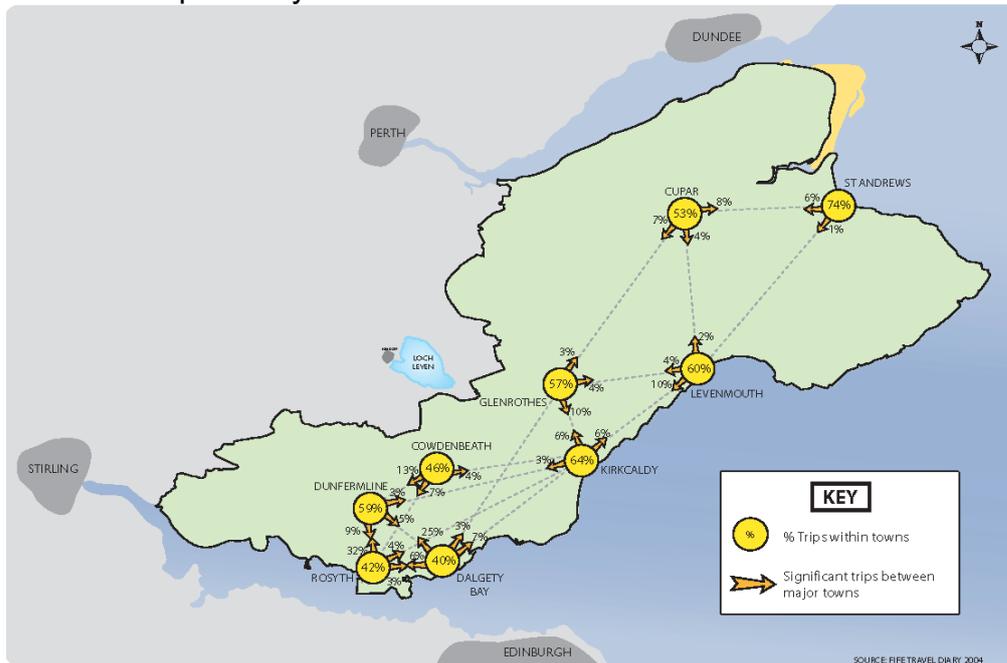


Fig 5 – Significant Trips Within and Between Major Towns in Fife

Gravity Model

The financial methodology is focussed on providing developers with the likely, and appropriate, level of contributions which they are expected to provide in order to deliver the transport infrastructure and measures associated with delivering the AFSP and key local plan sites.

The governing principle of the methodology is that the closer a development is to a particular infrastructure intervention, the greater the level of contribution that it should make. Equally, each site, irrespective of size, if positioned a similar distance from a transport intervention should contribute the same level of funding on a unit basis to the cost of that intervention.

In analysing the travel patterns in Fife and the distribution of development sites, it was decided that only sites within a range of 10 miles (approximating to the average journey length within Fife) be considered. The impact of development traffic on the strategic network beyond 10 miles is generally negligible, as vehicles distribute at each junction. Equally, allowing for the variations in trip lengths within Fife, the following range of distance bandings were used:

0mIs	0-1m	1-2m	2-3m	3-5m	5-10m
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The gravity model adopted uses a distance impact factor of $1/\text{distance}$ which provides the best correlation between the traffic generated by a given development, and the proportion of this traffic flowing through a hot spot site at distance 'd' from the development. ('d' being the distance from a given infrastructure intervention to the 'centre of gravity' of a site).

Example:

The example below shows the impact factor (1/d) for some of the sites (shown in yellow) which are in close proximity to the Redhouse Interchange:

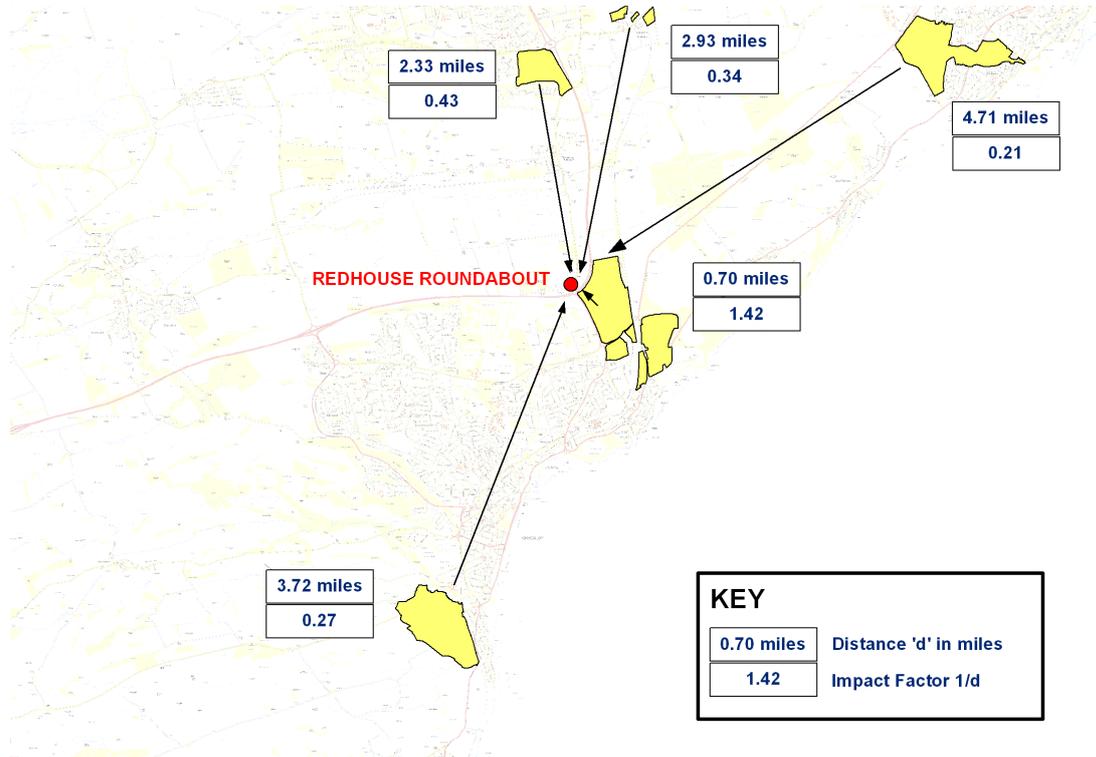


Fig 6 – Redhouse Interchange Development Impact

The relative impact of development traffic against development traffic plus underlying traffic growth (C) for the proposed grade separation of Redhouse Interchange is 89% (see Table 3). All development sites contributing to the traffic effects at Redhouse are shown below.

Table 4 - Gravity Model Factor - Grade Separation of Redhouse Roundabout

REF	SETTLEMENT/SLA Strategic Land Allocations	Houses	Centroid of SLA			Intervention Coords		STEP 1	STEP 2	STEP 3	STEP 4
			Easting	Northing	Distance(m)	Easting	Northing				
						Gravity Factor					
	Kirkcaldy East	2422	330240	694817	0.70	1.42	0.23	549.77	73.42%		
	Kirkcaldy South West	850	327066	689685	3.72	0.27	0.04	36.61	4.89%		
	Dunfermline SW	1479	309077	685605	\						
	Dunfermline N	814	308072	689103	\						
	Dunfermline North West	499	307504	687938	\						
	Dunfermline West	362	308345	687008	\						
	Lochgelly	1662	317701	692912	7.30	0.14	0.02	36.46	4.87%		
	Levenmouth	1567	335637	699261	4.71	0.21	0.03	53.26	7.11%		
GLE33	Glenrothes - Land to the South of Cadham Rd	180	327609	701928	4.26	0.24	0.04	6.77	0.90%		
GLE34	Glenrothes - Westwood Park	225	328674	698979	2.33	0.43	0.07	15.46	2.06%		
CLB01	Glenrothes - Land to the north of Pytree Road	21	330235	699851	2.92	0.34	0.05	1.15	0.15%		
CLB02	Glenrothes - Coaltown of Balgonie East	79	330491	699797	2.93	0.34	0.05	4.32	0.58%		
CLB03	Glenrothes - North of Main Street	45	329967	699897	2.92	0.34	0.05	2.47	0.33%		
MAR02	Glenrothes - Sweetbank Terrace	34	329075	701618	3.95	0.25	0.04	1.38	0.18%		
MAR03	Glenrothes - Former Sappi Mill	41	328721	701455	3.86	0.26	0.04	1.70	0.23%		
	Kelty / Lochore / Ballingry	419	318131	696721	6.94	0.14	0.02	9.66	1.29%		
	Inverkeithing	450	312917	683241	\						
	Burntisland	297	322676	686192	6.95	0.14	0.02	6.84	0.91%		
	West Fife Villages (Ave From multiple sites)	567	\	\	\						
Local Plan Areas											
COW054	Lochgelly	57	318010	693839	7.01	0.14	0.02	1.30	0.17%		
KIR077	Kinghorn	99	326422	687345	5.22	0.19	0.03	3.04	0.41%		
DAC086	Dunfermline	127	312038	687208	\						
DAC237	Dunfermline	98	310720	686948	\						
DAC245	Rosyth	131	310637	684497	\						
KIR184	Cardenden	90	312961	685422	\						
GLE104	Glenrothes	270	325185	699573	3.66	0.27	0.04	11.81	1.58%		
KIR185	Cardenden	131	320881	696224	5.20	0.19	0.03	4.03	0.54%		
WFFV051	Kincardine	244	293699	687073	\						
WFFV075	Kincardine	97	293399	687826	\						
COW066	Lochgelly	47	316821	692685	7.86	0.13	0.02	0.96	0.13%		
COW112	Lumphinnans	109	314756	690278	9.50	0.11	0.02	1.84	0.25%		
DAC118	Inverkeithing	37	312914	683237	\						
DAC235	Dalgety Bay	75	316738	684328	\						
Total Gravity Factor For all Sites						5.56		748.83			
Development Traffic at Schemes						89%					

Explanation of Calculation in Table 4

Step 1

The gravity factor of 1/d is calculated for each site within 10miles of the Redhouse Interchange. e.g. The gravity factor for Kirkcaldy East is 1.42 and the total for all sites affected is 5.56.

Step 2

The relative contribution of each site towards the need for the infrastructure, using the outcomes from the Paramics traffic modelling is calculated thus:

i.e. Kirkcaldy East = $1.42/5.56 * 89\% = 22.70\%$ (refer to Table 3 for 89%)

Step 3

When the size of the development is taken into account relative to the percentages calculated in Step 2, the relative impact for each site is the product of:

% result from Step 2 * Development Size

eg. For Kirkcaldy East:

22.70% of 2422 houses = 549.77

Using this assessment approach, the cumulative impact for all sites affecting the Redhouse Interchange within step 3 is 748.83.

Step 4

The relative percentage effect of each site, based on the results from Step 3, are calculated:

$$\text{e.g. For Kirkcaldy East: } (549.77 / 748.83) * 100 = 73.42\%$$

The financial contribution per housing unit required of Kirkcaldy East towards the Redhouse Interchange project is calculated thus:

$$(\pounds 57.2\text{m} * 0.89 * 0.7342) / 2422 = \pounds 15,431.69 \text{ per housing unit}$$

Financial Contributions from Individual sites

Individual sites can contribute to a range of infrastructure interventions, which are calculated on an identical basis to the example shown above. Table 5 below highlights all the interventions which the Kirkcaldy East SLA is shown to impact on and therefore contribute to:

Table 5 - Kirkcaldy East Contributions

Schemes that Kirkcaldy East contribute to:							
Banding	SLAs	Distance (m)	Scheme	Housing	Contribution Per House	Total Contribution	% of Total
Banding 1 (0.0 - 1.0 miles)	Kirkcaldy East	0.71	Grade Separation of Redhouse roundabout	2422	£ 15,431.69	£ 37,375,555.61	73.42%
Banding 2 (1.0 - 2.0 miles)	No Scheme within this banding for Kirkcaldy East						-
Banding 3 (2.0 - 3.0 miles)	Kirkcaldy East	2.99	Signalisation of Bankhead Roundabout	2422	£ 91.02	£ 220,455.06	26.99%
Banding 4 (3.0 - 5.0 miles)	Kirkcaldy East	3.31	Chapel Interchange Partial Signalisation	2422	£ 57.28	£ 138,722.70	38.02%
Banding 4 (3.0 - 5.0 miles)	Kirkcaldy East	3.40	Reconfigure junction of A921 Kinghorn road/Inveriel Road to signalised junction	2422	£ 55.19	£ 133,677.27	19.66%
Banding 4 (3.0 - 5.0 miles)	Kirkcaldy East	4.02	Signalisation of Preston roundabout	2422	£ 198.44	£ 480,617.67	25.80%
Banding 4 (3.0 - 5.0 miles)	Kirkcaldy East	4.44	Signalising/Upgrade of the Leslie Road corridor between the A92 and Western Avenue	2422	£ 355.83	£ 861,822.79	25.77%
Banding 4 (3.0 - 5.0 miles)	Kirkcaldy East	4.67	Reconfigure junction of Standing Stanes Road/Windygates Road to signalised junction	2422	£ 51.21	£ 124,025.18	18.24%
No Banding Over 10 miles	Kirkcaldy East	n/a	Addition of Appin Crescent Distributor Road	n/a	£ -	£ -	-
No Banding Over 10 miles	Kirkcaldy East	n/a	At-grade signalisation of Bothwell Roundabout with a reconfigured layout	n/a	£ -	£ -	-
No Banding Over 10 miles	Kirkcaldy East	n/a	Dunfermline Western Approach Road	n/a	£ -	£ -	-
No Banding Over 10 miles	Kirkcaldy East	n/a	Dunfermline Western Distributor Road	n/a	£ -	£ -	-
No Banding Over 10 miles	Kirkcaldy East	n/a	Forth Street/Elgin Street Dunfermline	n/a	£ -	£ -	-
No Banding Over 10 miles	Kirkcaldy East	n/a	Further reconfiguration of Dunfermline town centre including a new link road parallel to Carnegie Drive	n/a	£ -	£ -	-
No Banding Over 10 miles	Kirkcaldy East	n/a	Signalisation of Kings Road	n/a	£ -	£ -	-
No Banding Over 10 miles	Kirkcaldy East	n/a	Signalisation of Pitreavie Roundabout	n/a	£ -	£ -	-
No Banding Over 10 miles	Kirkcaldy East	n/a	Whitefield Road Roundabout	n/a	£ -	£ -	-

The summary table for all sites relative to all interventions are calculated on an identical basis and are detailed below in Table 6:

Strategic Land Allocation's		Houses	Cost Per House	Total
1	Burntisland	297	£3,901.82	£1,158,841.41
2	Dunfermline N	814	£16,246.07	£13,224,297.77
3	Dunfermline North West	499	£17,233.94	£8,599,735.74
4	Dunfermline West	362	£17,752.83	£6,426,523.46
5	Dunfermline SW	1479	£17,781.09	£26,298,238.65
6	Glenrothes - Coaltown of Balgonie East	79	£6,014.15	£475,117.82
7	Glenrothes - Former Sappi Mill	41	£7,201.35	£295,255.46
8	Glenrothes - Land to the north of Pytree Road	21	£6,632.88	£139,290.54
9	Glenrothes - Land to the South of Cadham Rd	180	£7,201.35	£1,296,243.49
10	Glenrothes - North of Main Street	45	£6,878.68	£309,540.48
11	Glenrothes - Sweetbank Terrace	34	£5,200.30	£176,810.16
12	Glenrothes - Westwood Park	225	£6,878.68	£1,547,702.38
13	Inverkeithing	450	£3,810.71	£1,714,821.13
14	Kelty / Lochore / Ballingry	419	£3,900.62	£1,634,360.50
15	Kirkcaldy East	2422	£16,240.66	£39,334,876.28
16	Kirkcaldy South West	850	£3,543.75	£3,012,186.12
17	Levenmouth	1567	£3,421.24	£5,361,082.11
18	Lochgelly	1662	£4,298.56	£7,144,208.31
19	West Fife Villages	567	£3,235.83	£1,834,715.37
Total for SLAs				£119,983,847.18
Local Plan Areas		Houses	Cost Per House	Total
1	Lochgelly (COW054)	57	£3,900.62	£222,335.44
2	Lumphinnans (COW066)	47	£4,272.00	£200,784.14
3	Cowdenbeath (COW112)	109	£5,600.16	£610,417.40
4	Dunfermline (DAC086)	127	£8,078.78	£1,026,005.02
5	Inverkeithing (DAC118)	37	£3,810.71	£140,996.40
6	Dalgety Bay (DAC235)	75	£2,892.26	£216,919.75
7	Dunfermline (DAC237)	98	£10,792.07	£1,057,622.68
8	Rosyth (DAC245)	131	£8,543.21	£1,119,160.35
9	Glenrothes (GLE104)	270	£4,120.64	£1,112,573.00
10	Kinghorn (KIR077)	99	£2,915.05	£288,590.14
11	Cardenden (KIR184)	90	£5,627.52	£506,476.99
12	Cardenden (KIR185)	131	£3,586.45	£469,825.08
13	Kincardine (WV051)	244	£787.64	£192,185.06
14	Kincardine (WV075)	97	£702.62	£68,154.55
Total for Local Plan Areas				£7,232,046.01
Total SLA's & Local Plan Areas				£127,215,893.19

Table 6 – Strategic Land Allocation Contributions Per House

The analysis contained in this methodology only gives an indication of the level of developer contributions which would be expected should the transportation based interventions identified be implemented. The actual infrastructure interventions required will differ from those detailed but this will only be able to be determined on completion of the detailed T.A. / Master Planning work for individual sites. Also, a number of the transport link based infrastructure will lie within the applicant development site, and so will be paid for and provided directly by that developer. This will have the impact of reducing the cost per house contributions to the strategic development fund shown in Table 6 above.

Additionally, recent policy changes by Scottish Government now calculate developer contributions on a 'no net-detriment basis at year of opening', no longer taking account of underlying traffic growth. This will also need to be factored into the final calculation of each developer contribution to a given infrastructure intervention.

SUMMARY

The housing development proposed within the *Approved Fife Structure Plan* and *Local Plan areas* has the potential to significantly impact on the transportation network. This methodology proposes an assessment of the relative scale of impact that developments may have on the existing network and the interventions required in the transport network to mitigate this impact. To further advance this work, the following issues should be considered:

The transport infrastructure interventions considered, give an indication of the potential scale of development required within the transport network to help facilitate the *AFSP*, *K&MF* and *D&WF Local Plan areas*. The detail and phasing of the actual transportation interventions required will be determined at the detailed Master Planning/ Transport Assessment stage. This should include:

- a) Consideration of new government and local targets for carbon reduction and transport modal split.
- b) A No-net detriment assessment, which will consider the overall level of traffic impact from the development and the associated transport network interventions required without a need to allow for underlying traffic growth.
- c) Consideration of the potential effects and hence financial contribution of land uses other than housing development. (e.g. employment, retail and leisure development)
- d) Consideration of the impact of increasing fuel prices and the current global economic situation on future traffic levels predicted by the Transport Model for Scotland (TMFS). The predecessor to TMFS, (i.e. CSTM3a) was used to inform this financial methodology.

Funds raised by this methodology will be allocated to a Strategic Transport Fund, which will be used to enable the delivery of key strategic transportation interventions identified by the Master Planning/TA process. This methodology, and the transportation interventions emerging from that process, would need to be reviewed accordingly and at minimum on a 5 yearly cycle.

Finally, the delivery of the *AFSP* will depend on the ability of the development industry to fund the provision of key infrastructure, including transportation interventions. An overall financial mechanism, which is able to facilitate the delivery of the infrastructure within the *AFSP*, is yet to be determined. Such a mechanism, once developed, will be integrated with the Strategic Transport Fund.

Zone	Contrib per unit	Rounded up Contrib per unit	Total nr of house per zone
Dunf Core	£5,332	£5,300	5,851
Dunf Inner 5km	£2,428	£2,400	2,268
Glnr Core	£1,302	£1,300	1,613
Glnr Inner 5km	£288	£400	1,288
Kdy Core	£4,695	£4,700	2,678
Kdy Inner 5km	£1,441	£1,400	1,308
Outer Zone	£456	£500	4,023
Total			19,029

SITE_NAME	SETTLEMENT	SITE_AREA_	Capacity	Net Capacity	Layer	SiteRef
Berrylaw	Dunfermline	31.74	665	499	2	DUN 035
Broomhall	Dunfermline	234.36	2,450	1,838	3	DUN 035
Chamberfield	Dunfermline	0.57		0		Not in LP
Dover Heights	Dunfermline	12	220	165		DUN 037
Halbeath	Dunfermline	77.25	1,400	1,050	2	DUN 043
Kent Street	Dunfermline	4	80	60		DUN 038
Chamberfield	Dunfermline	1.87	40	30	2	DUN 046
Land to the north of Wellwood	Dunfermline	5.73	100	75	2	DUN 044
Meadowland	Dunfermline	6.27	118	89	2	DUN 028
North Dunfermline (Colton)	Dunfermline	158.3	300	225	2	DUN 039
North Dunfermline (Swallow Drum)	Dunfermline	57.54	900	675	2	DUN 041
Paton street	Dunfermline	2.5				DUN 031
Rosegreen, Carnock Road	Dunfermline	2.8		0	2	DUN 045
Wellwood	Dunfermline	59.09	1,085	814	2	DUN 035
Whitefield Road South	Dunfermline	0.44	11	8		DAC239
Whitefield Road North	Dunfermline	0.47	13	10		DAC238
Lynebank	Dunfermline		114	86		
South Fod	Dunfermline		85	64		
Primrose Lane 2	Dunfermline	7.42	175	131		
Masterton South	Dunfermline	1.72	45	34		
Total			7,801	5,851		

at 85% of town intervention costs.

NB 85% being an average of the impact weightings for stated interventions within the Dunfermline area from the gravity model (v002)

Total Costs	95%	36,700,000
Intervention Rate		85%
Relevant Costs		31,195,000
Contribution per house		5,332

Reference Working

	£M
Northern Link Road	14.3
Improvement of Halbeath Road / Whitefield Road Junction	1.4
Bothwell Gardens Roundabout	0.5
Town centre /Carnegie Drive Bus Gate	0
Pitreavie Roundabout	0.9
Pitreavie Roundabout	1.4
Western Distributor Road	1.2
Western Distributor Road	17
	<u>36.7</u>

SITE_NAME	SETTLEMENT	SITE_AREA_	Capacity	Net Capacity	Layer	SiteRef	Effective/non effective
Beath Glebe	Cowdenbeath	1.33	33	31	0	COW 001	
Blair House	Oakley	4.2	260	195	0	OAK 003	
Castlandhill (north and west)	Rosyth	10.68	150	112.5	1	ROS 016	
Conscience Bridge	Cairneyhill	4.87	100	75	1	CNH 002	
Forrester Park Resort Site A & B (Cairneyhill North)	Cairneyhill	8.02	250	187.5	2	CNH 005	
Gallows Knowe	Crossgates	7.18	150	143	1	CRO 003	
Hill of Beath North	Cowdenbeath	4.55	134	127	1	HOB 001	
Kelty South West	Kelty	46.15	900	855	0	KEL 005	
Land north of Clune Road	Gowkhill	1.57		0	2	GWV 001	
Land to the west of Old Perth Road	Crossgates			0	1		
Land west of Kingseat Road	Kingseat	3.05	50	37.5	2	KST 001	
Lochgelly Road 2	Lumphinnans	3.99		0		LPH 001	
Lumphinnans North	Lumphinnans	14.4		0		LPH 003	
Netherton Farm	Kelty	10.23	236	224	0	KEL 004	
Oakley North 1	Oakley	3.34	85	63.75	0	OAK 003	
Primrose Lane 2	Rosyth	7.42		0	3	ROS 004	
Sycamore Crescent	Lumphinnans	4.9		0		CNH 002	
West Road 2	Saline	8.36		0		SAL 003	
Roods	Inverkeithing	2.55	50	38		DAC118	
Pitdinnie Road	Cairneyhill	0.72	10	7		WFV059	
Main Street	Oakley	0.51	15	11		WFV076	
Old perth road West	Crossgates		200	150		CRO 002	
Admiralty Road North	Rosyth	0.17	12	10			
Woodburn Crescent	Oakley	0.23		0	0	OAK 001	
Total			2,635	2,268			

at 15% of town intervention costs

Total Costs (in £k)	95%	36,700,000
Intervention Rate		15%
Relevant Costs		5,505,000
Contribution per house		2,428

<u>Reference Working</u>		£M
Northern Link Road		14.3
Improvement of Halbeath Road / Whitefield Road Junction		1.4
Bothwell Gardens Roundabout	Signalise Bothwell Gardens Roundabout	0.5
	Town centre /Carnegie Drive Bus Gate	0
Pitreavie Roundabout	Signalisation of Pitreavie roundabout incl	0.9
Pitreavie Roundabout	Kings Road / Admiralty Road Junction Sigr	1.4
Western Distributor Road	Forth Street / Elgin Street Junction / Link I	1.2
Western Distributor Road	Grange Drive link road, Rumblingwell / W	17
		<u>36.7</u>

SITE_NAME	SETTLEMENT	SITE_AREA_	Capacity	Net Capacity	Layer	SiteRef
Cadham Road South	Glenrothes	9.87	200	180	2	GLE 004
Land at Viewfield	Glenrothes	14.28	360	324	2	GLE 003
Land to the west of Thornton	Thornton	15.07	900	765	4	THO 003
Strathore Road	Thornton	6.49	294	265		GLE111
Auction Mart Site	Thornton	1.15	19	17		GLE119
Spittal Farm, Elmbank Terrace/Station Road	Thornton	2.42	73	62	3	THO 004
Total			1,846	1,613		

at 85% of Glenrothes North and A92 improvement costs

Total Costs	95%	2,470,000
Intervention Rate		85%
Relevant Costs		2,099,500
Contribution per house		1,302

Reference Working

£M (Fig 4 SG)

Bankhead Roundabout signalisation	1.3
Preston Roundabout	1.3
A92 Improvements	<u>2.6</u>

SITE_NAME	SETTLEMENT	SITE_AREA	Capacity	Net Capacity	Layer	SiteRef
Balfour Place/Main Street	Milton of Balgonie	2.09	63	57	2	MOB 001
Cardenden Road West	Cardenden	3.64	110	99	1	CDD 001
Coaltown East	Coaltown of Balgonie	3.63	88	79	3	CLB 004
Cardenden Road East	Cardenden	5.66	170	153	1	CDD 005
Main Street North	Coaltown of Balgonie	4.25	50	45	3	CLB 003
North Dundonald Farm	Cardenden	17.34	450	405		CDD 003
Site north of Laurence Park, Kinglassie	Kinglassie	0.48	14	13	2	KLS 002
Site south of Laurence Park, Kinglassie	Kinglassie	7.03	211	190	3	KLS 001
The Temple	Windygates	3.36	75	67.5	0	WDY 002
West Wemyss	West Wemyss	3.69	85	80.75		WWS 001
West End Dairy	Star of Markinch	1.72	20	18	2	SOM 001
West of Randolph Street	East Wemyss	5.84	86	82	1	EWS 001
Total			1,422	1,288		

at 15% of Glenrothes North and A92 improvement costs (£8.3M*0.15)

Total Costs	95%	2,470,000
Intervention Rate		15%
Relevant Costs		370,500
Contribution per house		288

Reference Working

£M (Fig4 SG)

Bankhead Roundabout signalisation	1.3
Preston Roundabout	1.3
A92 Improvements	<u>2.6</u>

SITE_NAME	SETTLEMENT	SITE_AREA	Capacity	Net Capacity	Layer	SiteRef
Kirkcaldy West SDA	Kirkcaldy	102.31	1200	1020	2	KDY 026
Kirkcaldy East	Kirkcaldy		1850	1573		
Victoria Fields	Kirkcaldy	4.28	100	85		
Total			3,150	2,678		

at 87% of 17.2M

Total Costs	95%	14,450,000
Intervention Rate		87%
Relevant Costs		12,571,500
Contribution per house		4,695

Reference Working

	£M (Fig4 SG)	
Redhouse Roundabout	10.6	
Gallatown Roundabout	1.4	
Mitchelston Road	5.9	
Standing Stane Link Road	7.1	
Randolph Road Improvements	0.8	
Chapel Interchange Signalisation	0.7	
Abbotshall Road/Nicols Street junction	0.3	
Abbotshall/Forth Avenue junction	0.3	
Forth Avenue/Oriel Road	0.5	
Total	27.5 (-13M)	App ref: K/law
App ref: K/law	Murray Estates s75 agreement	-13
	Funding required	<u>14.5</u>

SITE_NAME	SETTLEMENT	SITE_AREA	Capacity	Net Capacity	Layer	SiteRef
Cardenden Road West	Cardenden	3.64	110	99	1	CDD 004
Coaltown East	Coaltown of Balgonie	3.63	88	79	3	CLB 001
Grange Farm 2	Burntisland	0.73	14	12	0	BUR 002
Cardenden Road East	Cardenden	5.66	170	153	1	CDD 005
Land at Haugh Road	Burntisland	2.34	40	34	0	BUR 003
Main Street North	Coaltown of Balgonie	4.25	50	45	3	CLB 003
North Dundonald Farm	Cardenden	17.34	450	405		CDD 003
Site north of Laurence Park, Kinglassie	Kinglassie	0.48	14	13	2	KLS 002
Site south of Laurence Park, Kinglassie	Kinglassie	7.03	211	190	3	KLS 001
West Wemyss	West Wemyss	3.69	85	77		WWS 001
Woodend Road	Cardenden	5.49	141	120		CDD 006
West of Randolph Street	East Wemyss	5.84	86	82	1	EWS 001
Total			1,459	1,308		

at 13% of 15M

Total Costs	95%	14,500,000
Intervention Rate		13%
Relevant Costs		1,885,000
Contribution per house		1,441

Reference Working

£M (Fig4 SG)

Redhouse Roundabout	10.6
Gallatown Roundabout	1.4
Mitchelston Road	5.9
Standing Stane Link Road	7.1
Randolph Road Improvements	0.8
Chapel Interchange Signalisation	0.7
Abbotshall Road/Nicols Street junction	0.25
Abbotshall/Forth Avenue junction	0.25
Forth Avenue/Oriel Road	0.5
Total	27.5
Murray Estates s75 agreement	-13
Funding required	<u>14.5</u>

App ref: K/law

SITE_NAME	SETTLEMENT	SITE_AREA_	Capacity	Net Capacity	Layer	SiteRef
Glencraig East	Glencraig	8.9	240	228	0	GLC 001
Land to North, Lochelly	Lochgelly	47.82	500	475	0	LGY 007
West Cartmore	Lochgelly	3.69	60	57	0	LGY 004
Ballingry Road	Ballingry	0.86	25	24		BGY 003
Lochgelly SDA North	Lochgelly	9	140	133		LGY 007
Lochgelly South Extension	Lochgelly	20.4	300	285		LGY 007
Lochgelly Road 2	Lumphinnans	3.99	100	95	0	D
Burnbrae East N	Kincardine	0.57	14	10		KCD 005
Comrie Castle West	Blairhall	1	15	11		BLA 002
Burnbrae East	Kincardine	1.95	30	22		KCD 001
Woodhead Farm North	High Valleyfield	3	50	37		HVF 002
Lumphinnans North	Lumphinnans	14.4	300	285		LPH 003
Lochgelly SLA NE	Lochgelly	18.7	400	380		LGY 007
Lochgelly SLA West	Lochgelly	21	400	380		LGY 007
Lochgelly North Extension	Lochgelly	30	500	475		LGY 007
Lochgelly SDA South	Lochgelly	38.8	810	770		LGY 007
Ballingry East	Ballingry	4	105	100		BGY 002
Flock House South	Ballingry	1.7	51	47		BGY 001
Capeldrae Farm	Lochore	5	100	95		LHR 001
Comrie Colliery	Blairhall	0.96	20	16		LWD 018
West Road	Saline	8.36	130	98	0	SAL 003
Total			4,290	4,023		

Total Costs of all infrastructure	100%	36,700,000
Contingency		5%
Relevant Costs		1,835,000
Contribution per house	split over all houses in Dunfermline Outer Z	456

Reference Working

Total Cost (Interventions Fife Wide)	Fig 4 SG	£M	36.7
Committed Kirkcaldy Zone Contribution	App ref: K/law		
			36.7

Total Number of Contributing Houses

SITE_NAME	SETTLEMENT	SITE_AREA_	Capacity	Net Capacity	Layer	SiteRef
Glencraig East	Glencraig	8.9	240	228	0	GLC 001
Land south of Hallsfield Gardens	Kennoway	12.19	190	171	0	KEN 002

Langside Crescent 2	Kennoway	0.77	25	23	0	KEN 003
Levenmouth SLA	Methil	107.5	1650	1568	0	LVA 001

Maiden Castle	Kennoway	1.25	30	28		KEN 005

Glencraig East 2	Glencraig	8.9	240	228		GLC 001
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Glencraig West	Glencraig	3.4	50	47		GLC 002
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Total			2,425	2,292		
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Total Costs of all infrastructure (excl Murray estates s75 already agreed)	100%	14,500,000
Contingency		5%
Relevant Costs		725,000
Contribution per house	split over all houses in Outer Kirkcaldy Zone	316

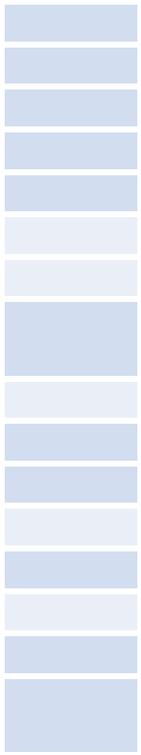
Reference Working

£M

Committed Kirkcaldy Zone Contribution App ref: K/law

0

Total Number of Contributing Houses



Methodology for Strategic Transport Interventions

Infrastructure Impacts of LDP

Where planning authorities propose to rely on standard charges and formulae, they should include these in supplementary guidance along with information on how standard charges have been calculated, how monies will be held, how they will be used and, if applicable, how they will be returned to the developer (Circular 3/2012).

Context and Mandate

Fife Council has been committed to delivering a strategic development area programme since 2009 and has progressed respective Local Development Plans (2012 & 2017), a Fife Employment Land Strategy (2014) and a Fife Economic Strategy (2017) since then. In addition, the emerging draft 'Plan for Fife' Local Outcome Improvement Plan (2017/2018) acknowledges that investment in strategic (transport) infrastructure is critical to encourage and provide for planned growth.

The Scottish Government, through Circular 3/2012 and Scottish Planning Policy, encourage planning authorities to adopt innovative approaches to delivering proposed development and have to date supported the approaches taken to the Development Plan in Fife by co-funding Infrastructure Funding research (2012- GVA) and by approving respective Local Development Plans which have consistently contained policy on infrastructure or service provision and planning obligations.

Given that new development will in most cases create additional trips, it is appropriate that developers or promoters of new development mitigate directly any net impact that they cause. This ensures 'the safe and efficient operation' of the transport network including the trunk road/s and enables new capital investment made by the Scottish Government or local authorities to have maximum benefit.

Approach

Fife Council have adopted a proactive approach to funding new transport infrastructure, developing a methodology concerning strategic transport obligations, agreeing the establishment of a strategic transport infrastructure fund and indicating a willingness to explore prudential borrowing as part of the Strategic Transport Fund Approach, and through City Deal.

The Council initiated this approach in 2012 with the production of financial frameworks appended to Actions Programmes of the adopted Local Plans in force at that time. Following implementation of this approach during 2012/13 it was apparent that the published guidance required a more formal statutory footing and that it was necessary for the approach to evolve ensuring compliance with the recently published (at that time) Circular 3/2012 and to reflect progress with onsite commitments made across the strategic development area programme (inc Kirkcaldy east).

Fife Council therefore developed supplementary planning guidance during 2014 and 2015 which reflected planning policy and practice contained within SPP, NPF, and the Development Plan. This broadened the base against which strategic transport infrastructure obligations would be sought, introducing non housing development as contributing uses. It also revised the strategic transport

interventions cost base reflecting the latest transport assessment information available (Dunfermline and Kdy east).

Across both iterations the Council have however retained the principle of a proximity based model, whereby the strategic transport interventions identified are grouped, costed and new development impacts (from sites within ~20km) are apportioned. This approach realises itself in the operation of a zonal model whereby a core zone, intermediate zone and outer zone are identified.

Development within the core zone was considered to have the greatest level of impact reflecting its proximity (close) to the identified interventions and the inevitable probability that new trips from development would be high.

Identifying the impact of development in the LDP

As part of the Local Development Plan process Fife Council undertook an assessment of the traffic impacts of the new development proposed in the Local Development Plan. The focus of these studies was the cumulative impact on the strategic trunk road network. The local impacts of individual sites will be addressed through Policy 3 of FIFEplan and site specific transport assessments.

The proposed housing sites required to be assessed in terms of transportation impacts to determine the impact on the road network of the development proposed within the LDP. In particular, assessment was required to determine whether the additional development proposed within the LDP could be accommodated by existing infrastructure and that already proposed within the three Fife Local Plans and carried forward into FIFEplan.

This work provided an understanding of new impacts on the trunk road network and a relationship to be identified between additional development and the requirement for new infrastructure. For the purpose of this work the modelling of all employment, retail, leisure and other non-residential land-uses remain as per the previous Strategic Development Plan (Supplementary Guidance) modelled scenario.

This methodology identified or confirmed a requirement for various strategic transportation improvements. These are included within Figure 5 of the Planning Obligations Supplementary Guidance and the FIFEplan Proposals Map and are key requirements for the successful delivery of the FIFEplan strategy.

This work also showed the link between overall development impact and the need for additional transport infrastructure, thus satisfying these principles set out in Circular 2/2012.

Costing the strategic Transport interventions

Once the Transport interventions had been identified they had to be costed. This was initially done through estimates but many of these costs have been refined through detailed Transport Assessment Work often associated with planning applications. In the case of the Dunfermline interventions and those centred around Redhouse Roundabout, transport assessments have provided detailed costs for these proposals. These costs have been kept up to date in line with BCIS or comparable industry standards.

Identifying the cost for each development

At this point in the Supplementary Guidance, the following information was known:

- The overall impact of development on the strategic transport network;
- the strategic transport infrastructure required to address this impact; and
- The cost of these interventions.

The next step was to identify the level of obligations for development taking places in different locations. The Planning Obligations Supplementary Guidance does this by considering the spatial relationship between contributing proposed development types and the identified strategic transport interventions.

The main aim of identifying obligations in this manner is to ensure that the costs were spread in an equitable manner. The financial methodology is focussed on providing developers with the likely, and appropriate, level of contributions which they are expected to provide in order to deliver the transport infrastructure and measures associated with delivering FIFEplan.

Strategic Transport Methodology

The principle of there being a link between development and new strategic infrastructure has already been proved through the LDP strategic transport assessment. The governing principle of the methodology is that the closer a development is to a particular infrastructure intervention, the greater the level of contribution that it should make. This is a result of the dissipation of traffic throughout the road network and the resultant decrease in impact at any given junction, including those on the strategic network where improvements are required.

Identification of these impacts could be carried out through assessing each site in turn. To assess the impact of each development site on each piece of strategic infrastructure would be too costly and long an exercise for the Council to undertake.

Circular 3/2012 looks to the obligations exercise to not delay unduly the progression of development and also provide clarity to the development industry on where obligations would be required and the level at which they would be set.

This clarity is best provided through a zonal approach which identifies the contributions being sought from different locations and a flexible approach that can respond to issues such as windfall sites.

Paragraph 31 (Circular 3/2012) states that 'Development plans cannot, however, anticipate every situation where the need for a planning obligation will arise. Where the potential need for an obligation emerges during the development management process, planning authorities should

assess the case against the guidance in this circular and inform the applicant as soon as practicable'. The zonal approach allows this requirement to be met.

The development of zones also allows a cumulative approach to gathering obligations to be taken through the planning obligations SG. The Council is aware that there have been several challenges to the use of zones for gathering obligations. What is clear from case law and planning appeals is that the zonal approach is acceptable in principle but it is important that a relationship can be identified between the new infrastructure and development sites in a given zone. Of particular importance is the need to ensure that the distances over which obligations are being requested, between the causes and effect, do not become too great and therefore the relationship too tenuous.

As with many other adopted planning obligations methodologies across Scotland, Fife Council has adopted to use a series of transport obligation zones within which a particular level of contribution would be sought, factoring in the distance a site sits from strategic transport interventions.

Focus of strategic transport obligation zones

The FIFEplan strategy focusses development on its main centres due to the availability of infrastructure and services including the strategic road network. This strategy was accepted through the FIFEplan examination and reflects the sustainable development principles set out in Scottish Planning Policy and the National Planning Framework 3.

All the strategic transport interventions identified through the LDP modelling fall within the SESplan area and it therefore appropriate to look to SESplan for guidance on the focus of the transport zones. SESplan identifies Dunfermline, Kirkcaldy and Glenrothes as strategic centres and this status has been continued by Fife Council through the LDP.

These towns have become the focus of large development with five of the main development sites (SDAs and SLAs) being centred on these areas. This level of development has the presence of these development sites has led to an increased.

As the approved strategies of SESplan and FIFEplan concentrate development in the three centres of Dunfermline, Kirkcaldy and Glenrothes it seems appropriate to use these as the central point of the obligation zones. Figure 4 highlights that these areas contain the majority of the main development sites in south Fife and the vast majority of the strategic transport interventions required. As stated there is a clear correlation between cause and effect.

For the purposes of identifying planning obligations zones these core areas have been chosen as the central zone where there is the most interaction between strategic transport interventions and new development.

Calculating the scale of the zones.

The LDP Strategic Transport Assessment recognises that the majority of trips made in Fife stay within Fife with only 9% of trips going beyond the Fife boundary. Travel to work information from the 2011 census also points to most trips being contained within a distance of 20km.

Looking at the spatial relationship between development sites in these core areas and the strategic transport interventions, they are at most 5 km apart. In each of the core areas a significant

proportion of traffic leaving new development will utilise the strategic transport interventions in these core areas due to a lack of alternatives and also because they will provide quicker routes than the existing more local infrastructure.

Therefore, this 5km distance has been used to define the core areas within which the majority of the impacts on strategic transport infrastructure from new development will be felt. This 5km core area also coincides with the settlement boundaries of these settlements. The 5km boundary has not been extended into the countryside beyond the settlement boundaries. Sites that fall within these areas would have route options that would not require the use of the roads in the core area. This increased choice significantly reduces the impact on the strategic transport interventions.

Beyond this 5km buffer, and for continuity, it was appropriate to identify another buffer of 5km within which impact will still be felt from new development on strategic infrastructure, but due to the exponential decrease in impacts over distance, at a much reduced level.

Beyond these two zones the impact of a given development on the strategic transport interventions will be negligible. However 26% of the sites in the LDP still fall within these areas so there will be some impact. Therefore a nominal figure is still collected to reflect his impact. No obligations are sought from sites for infrastructure which is further than 20km away as the link between the two is seen as too tenuous.

Contributions within each zones

Traffic will dissipate throughout the transport network so the closer a site is to an infrastructure improvement identified through the LDP Strategic Transport Assessment the greater impact the traffic it generates will have on the infrastructure and should therefore contribute more.

This impact will reduce exponentially as the distance between infrastructure and site increases due to the increased route options with which the driver is presented. Therefore when identifying zones of influence the significant share of the impact should be met by sites within a close proximity of the strategic transport interventions.

Alongside earlier iterations of the financial framework and planning obligations Supplementary Guidance, a gravity model was developed which identifies a relationship between a development and the strategic transport infrastructure. This exercise was primarily run for the SLA/SDAs to understand their impact on the strategic transport interventions. However as it is an assessment of impact based on distance, the outputs of the model can be just as readily used to identify other development sites in the same area. A separate paper “Methodology for Strategic Transport Interventions” provides further information on the workings of the gravity model.

From the gravity model a percentage impact of the site on strategic transport infrastructure can be derived. The “Methodology for Strategic Transport Interventions” document includes a screenshot of the front page of the model and the percentage impacts the different SDA will have on the strategic transport infrastructure. This exercise was not rerun for the 2017 guidance as the list of strategic transport interventions remains the same and the distance relationship between sites and infrastructure will also remain the same.

The average impact of SDA developments on the strategic transport interventions is 85%. This percentage has been used as the amount development in the core areas will be required to pay towards the overall cost of strategic transport interventions in that area.

The exponential reduction in impacts is reflected in the much lower figure of 15% impact being attributed to the intermediate zones.

As stated above there is still a significant level of housing proposed in the outer zone areas but this will have a significantly less impact on the strategic transport interventions. A nominal 5% has been set against these zones. The greatest distance between infrastructure and site within the outer zone is 18km which is below the length of most trips undertaken in Fife. There will be some trips over 20km but to reflect the minor impact these will have on the requirement for strategic infrastructure contributions have not been sought from these trips. This has been done by dividing the outer zone into two areas one centred on Glenrothes/Kirkcaldy and the other on Dunfermline. The overall level of contributions is 105% to allow for some contingency to be added to the cost of delivering the strategic transport interventions.

Identifying a cost per house

For this exercise both the non-effective and effective sites were included in the calculation. Many of the sites which are now non effective were included in the LDP modelling as effective sites and their impact will have already been assessed when identifying the strategic transport interventions. Also, by including these sites it addresses the issue of how to identify contributions from sites that are not programmed to come forward. The cost of the interventions in each zone were then divided by the number of contributing houses (exempt sites were removed) to give a total per house contribution. At this point the percentage impacts identified through the gravity model were also utilised with core areas paying 85% of the costs, intermediate 15% and outer zones 5%.

Development is paying for the total cost of the strategic interventions identified in the Supplementary Guidance but it should be noted that without development this additional infrastructure would not be required. The separate workbook "Final Settlement based Zones 2018" shows the working behind the per house costs in Figure 3 of the Supplementary Guidance.

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>		
<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>[REDACTED]</p>	<p>Obligations are monitored through a financial tracker and their payment is pursued to ensure money held is spent of the appropriate infrastructure for which they were received.</p>	<p>No change required to the document.</p>
<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>[REDACTED]</p>	<p>This is the context set by the LDP which has been adopted following examination and cannot be changed. It is reasonable to assume that development in a given area will have an impact on infrastructure in its area. Sites of fewer than 10 dwellings are not required to contribute as the cost of gathering the contribution is outweighed by the administration costs of gathering the money.</p>	<p>No change.</p>

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>It is agreed that alternative legal security may be appropriate in some circumstances.</p>	<p>Paragraph 3.1 now refers to “[...] bonds or other legal security will also be agreed to safeguard the Council from risk”.</p>
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>It is agreed that there will need to be correlation between the delivery of infrastructure and development sites to ensure that delays are not introduced. This will involve transparency and openness on the part of developers and the planning authority to reach agreement on when developers commitments from both parties as to when they will undertake the required site development/infrastructure.</p>	<p>No change required.</p>
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>Where a developer bring forward a site that has not been considered before in the planning system it is reasonable to allow some time to assess the potential impact. It is also reasonable to expect these assessments to be carried out as soon as practicable.</p> <p>It is agreed that the contributions require to meet the test of Circular 3/2012 .</p>	<p>No change required.</p>

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[Redacted]</p>		
	<p>[Redacted]</p>	<p>Unilateral obligations will be supported where the Council is satisfied they address the impact of the development.</p>	<p>Paragraph 3.5 (as renumbered) is written to clarify the Council's stance on this.</p>
	<p>[Redacted]</p>	<p>The possibility does exist that individual developments could carry out an assessment of their transport impacts but for most sites this would be onerous and costly and would still end up showing that there would be an impact on the required infrastructure, even if it is a small impact. The methodology outlined in the Supplementary Guidance provides a pragmatic</p>	<p>No change required.</p>

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>appropriate to allow for a degree of flexibility to taken into account the reality of costs identified through the LDP.</p>	
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>Noted</p>	<p>No change required.</p>
	<p>[REDACTED]</p>	<p>The Supplementary Guidance will look at all development in a cumulative manner to ensure that costs are fairly apportioned across all relevant development. Where a cumulative impact has been considered and there is still sufficient capacity then a contribution will not be sought. Individual consideration of applications would not reflect the reality of the cumulative impacts of development on schools and so the approach recommended is not supported.</p>	<p>No change.</p>
	<p>[REDACTED]</p> <p>[REDACTED]</p>	<p>The Supplementary Guidance does not include a Fife wide education levy. The tests in Circular</p>	<p>No change</p>

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>3/2012 allow for cumulative impact and the assessment exists in the circular the Supplementary Guidance accords with that</p>	
	<p>[REDACTED]</p>	<p>These costs will be updated for the final draft but it is unlikely that they will fall as is requested in the representation.</p>	<p>Update costs have been included in [Figure 9. ...]</p>
	<p>[REDACTED]</p>	<p>The cost in the Supplementary Guidance is based on detailed costing for a secondary school that would address the expected capacity issue. Any reduction in the costs would be provided as a refund to developers.</p> <p>The level of impact has been clearly set out and the appropriate method of addressing these impacts is through a cross-Dunfermline approach.</p>	<p>Changed to make reference to the provision of a new secondary school to address the impact of new development.</p>

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p>	<p>While the site for the school has not been identified in the Supplementary Guidance the benefits of this approach would be felt across the three Dunfermline catchments making this solution appropriate when compared with Circular 3/2012. This approach suitably addresses the capacity issues brought about by the impact of new development across the whole Dunfermline area.</p>	
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>These are not to be imposed but considered as a way of improving the viability of development by managing the need and timing of planning obligations.</p>	<p>No change.</p>
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>The response appears to assume it is acceptable that the first development in a catchment will, potentially, not pay any contributions although it would use up</p>	<p>No change</p>

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>capacity, and that subsequent proposals will pick up all the contributions. The Circular allows for cumulative impacts to be considered and this is the approach is the Supplementary Guidance .</p>	
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>The Supplementary Guidance highlights that factoring arrangements could be an option and also that the solution for each site should be considered separately. It is appropriate to include all options including that of a payment of a lump sum for 25 years maintenance.</p>	<p>No change.</p>
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>This does reflect common practice as it was in the previous two versions of the planning obligations document.</p>	<p>No change</p>
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>It is true that the £1,000 per house derives from a committee report in 2008. If this points to anything then it would be that the costs should be higher to take into account inflation over the last 10 years. By keeping this figure constant over 10 years this is seen as very reasonable.</p>	<p>No change</p>

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p>	<p>Most of the greenspace will be provided on site so the levy will not be often used.</p>	
	<p>[REDACTED]</p>	<p>Many authorities have different methodologies and costing. The fact that Fife's Public art cost is £50 more per house West Lothian has no bearing on the suitability of Fife's methodology.</p> <p>This does not call in to question other costings.</p>	<p>No change</p>
	<p>[REDACTED]</p>	<p>It is accepted that this could be phrased better. Employment land is set out in development frameworks and it will not always be possible or necessary to bring in equalisation arrangements to deliver the employment land. The frameworks themselves role is to ensure that the different land uses are delivered in the right places.</p>	<p>Figure 2 has been amended to state that employment land is only required in line with FIFEplan Policies 1 and 5.</p>
	<p>[REDACTED]</p>	<p>The document is reflecting the approach in the approved Fife Employment Land Strategy.</p>	<p>No change.</p>

Reference, Responder	Comment	Fife Council Response	Action taken
	[REDACTED]		
	[REDACTED]	This check for compliance with Circular 3/2012 has been undertaken again in reviewing the Supplementary Guidance.	No change required.
	[REDACTED]	It is accepted that this proposed charge has no statutory basis and is not an acceptable use of developer funding.	This reference has been deleted.
	[REDACTED]	The necessity test also applies to planning conditions. The contributions proposed in this case are supported by policy as part of the placemaking agenda.	No change.

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>		
<p>[REDACTED]</p> <p>[REDACTED]</p>	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>Noted and welcomed.</p>	
<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>These are not inconsistencies but the definitions in the Supplementary Guidance provide further detail on which sites are exempt and which sites are not. The Supplementary Guidance is providing more information than the LDP but remains consistent in terms of its policy approach.</p>	<p>No change required.</p>
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>Land is currently being transferred at nil costs for other uses such as affordable housing, where the contribution is set out in the LDP and in supplementary guidance; it should therefore be taken into account in land transactions and viability assessments.</p>	<p>Paragraph 2.5 has been changed to refer to land transfer at appropriate market value.</p>

Reference, Responder	Comment	Fife Council Response	Action taken
	[REDACTED]		
	[REDACTED]	It will not always be possible to include a comprehensive list of all the requirements for each site in the LDP. There is no conflict with national policy as it does not expect that every detail of every application is addressed in the LDP.	No change
	[REDACTED] s [REDACTED]	The decision to waive the exemptions will be made at the pre application stage so any potential applicant will still get early certainty as to whether obligations will be sought.	No change.
	[REDACTED]	Reference error noted.	The reference has been changed
	[REDACTED]	It is accepted that this proposed charge has no statutory basis and is not an acceptable use of developer funding.	This reference has been deleted.

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>A functional link is identified based on the distance a development proposal sites from a piece of infrastructure.</p>	<p>No change required.</p>
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>Retail developments over a 2,500 sq. m gross also contribute. Fife Council has made the decision to not request contributions from employment, partly to prevent double counting that may result from counting commuter trips home and work include retail visits leaving residential properties and arriving at employment sites.</p>	<p>No change.</p>
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>Gillesfaulds is part of the SDA at Cupar North and therefore it must pay on an equitable basis towards the relief road.</p>	<p>No change.</p>
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>The text provided in the draft Supplementary Guidance was too definitive about obligations being required for undisclosed impacts. The reason for this text is to allow additional</p>	<p>Text changed to reflect that obligations may be required in these areas.</p>

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>contributions to be considered based on the impacts on these areas. An example would be the impact of windfall sites on the transport infrastructure in these areas. If such sites did come forward it would be appropriate to consider the need for additional transport infrastructure. But this would be based on the assessment of the applications impacts and would not be a given.</p>	
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>Yes, they do go to this school.</p>	<p>No change required.</p>
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>It is agreed that other uses should make a public art contribution.</p> <p>Visually prominent sites will be identified when assessing planning applications. In some instances opportunities for public art are already identified within the LDP settlement tables.</p>	<p>Section 6 has been reviewed to refer to the developments expected to contribute towards public art.</p>

Reference, Responder	Comment	Fife Council Response	Action taken
	[Redacted]		
	[Redacted]	These exemptions are referenced in Figure 2 and methodologies for calculating retail obligations are shown in paragraph 4.9.	No change.
	[Redacted]	Employment land contributions are not sought as Fife Council does not wish to dissuade economic investment. Also to ask for contributions from these uses would lead to a large degree of double counting as contributions would already be being sought based on trips arising from new housing and ending up at the employment sites. Retail sites are asked for a contribution.	No change.
	[Redacted]	Yes, this would only be where contributions were being made to an infrastructure solution. It could still apply in some SDAs, ie Cupar North.	Further wording to be provided for clarity.
	[Redacted]	Yes, this only applies to primary schools. Further clarity can be provided.	Add text to further clarify scope of this approach.

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p>		
	<p>[REDACTED]</p>	<p>It is agreed that the wording in the draft Supplementary Guidance may be too prescriptive and not allow individual circumstances to be considered.</p>	<p>Text amended to allow the possibility of using existing capacity to be considered on a site by site basis.</p>
	<p>[REDACTED]</p>	<p>No need for this. CNC have had many conversation on education provision and are very aware of the methodologies that they use. Delaying the Sg will not help to progress the Cupar North development where the further discussions relate to site specific issues.</p>	<p>No change</p>

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p> <p>[REDACTED]</p>		
<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>Some additional information will be added to the Supplementary Guidance , clarifying the reasoning behind some of the methodologies. The production of a technical note will provide no additional value. There is no connection between the production of a technical note and the adoption of the Supplementary Guidance .</p>	<p>No technical note to be provided.</p>
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>The Supplementary Guidance references where the technical information comes from for the different methodologies. While it does not bring the information together into one document the information is all publically available through the housing land audit, education information submitted to the Scottish Government and transport assessments.</p> <p>The process that the representation outlines is the same that is set out in the Supplementary Guidance , but under different headings.</p> <p>It is interesting that having sent a lot of additional information to this consultancy they have not used it to form a basis for their response.</p>	<p>No requirement or merit in producing technical document.</p>

Reference, Responder	Comment	Fife Council Response	Action taken
	[REDACTED]	<p>This is LDP policy and the Supplementary Guidance is reflecting approved policy. 25% is not a universal figure as stated in the representation.</p> <p>The exemptions given to affordable housing are to the benefit to a wider range of developers, including the council.</p> <p>However the council's affordable housing programme clearly directs obligations costs away from the council and onto the private sector.</p>	Affordable housing and other uses remain exempt as shown in the LDP.
	[REDACTED]	See comments below.	No change
	[REDACTED]	See exemptions above.	
	[REDACTED]	<p>These over estimate the cost per house by including primary school costs that are too high and not taking into account affordable housing. However the point raised is relevant as in some areas the market is not strong and it is important not to prevent development from progressing.</p>	Further work has been carried out on viability. See separate presentation.
	[REDACTED]	This information will be provided in the action programme. Windfall sites cannot be predicted but there is text on how they will be dealt with.	Add information to action programme.

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p>	<p>This is not true for Kirkcaldy. For Dunfermline, further information on a solution will be provided in the final Supplementary Guidance .</p>	<p>Provide further information on the Dunfermline solution for secondary education.</p>
	<p>[REDACTED]</p>	<p>It is a reasonable assumption that larger houses will be bought by larger families. A different average would not be identified as if it were known that a site included all four bedroom houses then it would not be an average.</p>	<p>No change</p>
	<p>[REDACTED]</p>	<p>This is not the case. They are considered separately and then added together so the impact of development can be identified.</p>	<p>No change</p>
	<p>[REDACTED]</p>	<p>The Council does propose a new secondary school and this will have to be assessed in the suitable manner but not through this Supplementary Guidance. This Guidance recognises the need for new school and the area over which contributions will be sought. SEA legislation does not prevent sites being progressed that are not in the LDP ie windfall sites which the response refers to in an earlier section.</p>	<p>Change to the wording in the Supplementary Guidance to reflect that a secondary school will be provided to address development related impacts across the three Dunfermline catchments.</p>

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED].</p>	<p>This is not the case. The LDP transport assessment does do this. All the interventions are required because of development. If sites were not being developed then they would not be required.</p>	<p>No change but the text has been revised to make this clearer.</p>
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED].</p>	<p>The circular does not require this level of detail. It does require us to identify a link but to undertake transport assessments for all sites in the LDP is disproportionate to what is required.</p>	<p>No change</p>
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>There are no contributions in NE Fife as development does not have a significant impact on the existing strategic transport infrastructure. There are some existing issues but they are not caused by new development, therefore we can't ask for contributions.</p>	<p>No inconsistency. No change</p>
	<p>[REDACTED]</p> <p>[REDACTED]</p>	<p>Will required to be made less definitive on whether contributions will be required.</p>	<p>Text refers to other requirements across the town to which contributions may be sought.</p>
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>Text needs to be introduced making it clear that we will be guided by the outcomes of agreed transport assessments. We cannot ask for contributions that have been disproved through a TA.</p>	<p>Change text in plan to reflect the primacy of the outcomes of site specific TAs.</p>
	<p>[REDACTED]</p> <p>[REDACTED]</p>	<p>This is to ensure that sites coming forward to address the housing land delivery shortfall pay the same as sites identified through the LDP.</p>	<p>No change.</p>

Reference, Responder	Comment	Fife Council Response	Action taken
[REDACTED]	[REDACTED]	Windfall and non-effective sites do pay contributions. It is agreed that wording could be clearer and a change will be made.	Change text to clarify that non effective and windfall sites contribute towards all relevant planning obligations.
[REDACTED]	[REDACTED]	Wording seems clear will be further revised to help to make it even clearer.	Add further text to state that obligations will only be spend on the items it was originally gathered for.
[REDACTED]	[REDACTED]	<p>The modelling was carried out using information from the sites in the LDP. However it will be applicable to windfall sites as well. How Windfall and non-effective sites will be dealt with is covered in section 3.5 of the guidance.</p> <p>The transport zones do not only relate to sites shown in Figure 4, as there are no sites shown in Figure 4. The text highlights a relationship between the zones and locations where sites could be. The purpose of the diagram will be reworded for further clarity.</p>	<p>Revise para 3.5 to highlight that all obligations relate to windfall and non-effective sites.</p> <p>Revise Figure 4.5 to make clearer the description of the purpose of diagram 4.3.</p>
[REDACTED]	[REDACTED]	Figures have risen disproportionately to the scale of the changes to the infrastructure listed in Figure 5.	The cost of the infrastructure is not the only variable in this calculation. The number of contributing houses may also have gone down, thus leading to an increase in cost per house. In some areas costs have decreased.

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>There is no need to make this change as the whole document is caveated by the need to comply with the Circular.</p>	<p>No change.</p>
	<p>[REDACTED]</p> <p>[REDACTED]</p>	<p>This is a reasonable request but consideration needs to be given as to the best way of providing this information.</p>	<p>Additional text will be provided to highlight the education assessment process. This will highlight the key areas rather than explain the full process in detail.</p>
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>The further assessment would need to be at the pre application stage to allow the developer to respond to its findings.</p>	<p>Add text to state stage at which further assessment would be carried out.</p>
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>Average costs for education infrastructure will be added, they were not available for the draft and other costs for the primary school will be revised.</p>	<p>Amend text to refer to applicants involvement in feasibility study scoping and add in figures for average cost or primary school, classroom etc.</p>
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>These were being reviewed so were taken out document. But they can now be added back in for clarity.</p>	<p>Include pupil produce ratios in the final document and add rational for their level.</p>
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>These are factors that could assist in managing the impact on infrastructure. While they are driven normally by market forces it is reasonable to try to influence them if it allows a potentially viable scheme to progress.</p>	<p>Don't change.</p>

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>		
	<p>[REDACTED]</p>	Agreed	Add text about payback of obligations if not required or spent in the appropriate time period. This will be added to para 3.18.
<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	The proposals have all been identified through LDP modelling. They are all required to deliver the strategy so flexibility to no require contributions for some does not exist.	No change.
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	In both the instances of education and transportation obligations the contributions being sought relate to the impact of new	Revisions have been made to clarify that it is that obligations are being sought to address the impact of development.

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p>	development. Existing non development related trends are not covered by developers obligations.	

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[Redacted comment text]</p>		
	<p>[Redacted comment text]</p>	<p>Inflation has to be taken into account otherwise we might not collect enough money. For long term sites it is assumed that inflation is also factored into financial models so this should not be a problem. Also, it may be that</p>	<p>No change.</p>

Reference, Responder	Comment	Fife Council Response	Action taken
	[REDACTED]		
[REDACTED]	[REDACTED]	Noted and welcomed	No change is required.
[REDACTED]	[REDACTED] :		
[REDACTED]	[REDACTED]	Investigate what is being done elsewhere. Point accepted that land will have a value. But important that it is not housing value. We are not displacing housing by asking for healthcare etc.	Bring in a nominal value for land, agricultural value.
[REDACTED]	[REDACTED]	Welcomed	
[REDACTED]	[REDACTED]	Welcomed	

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>		
	<p>[REDACTED]</p>	<p>The obligations do not apply to this type of development. It is not necessary to list all the types of development that the guidance does not apply to.</p>	<p>No change</p>
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>The fund is not a borrowing tool and is only a location where money will be held until such time it can be spent of the infrastructure for which it was borrowed. It may be that the Council considers other types of financial mechanisms but these will not be pursued through the mechanism of the Infrastructure Fund.</p>	<p>No change.</p>

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p> <p>[REDACTED]</p>		
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>The capital investment programme is a separate document and is developed through its own process. Clearly there has to be a correlation between the Planning Obligations Supplementary Guidance and the capital programme but this can be achieved without showing the detail of the capital programme in the Supplementary Guidance . The information in the capital programme will be reflected in the LDP Action Programme.</p>	<p>No change</p>
	<p>[REDACTED]</p>	<p>Agree that further clarity is required to outline what the contributions would be for.</p>	<p>Remove references to wider obligations in St Andrews and Cupar as no specific impact identified.</p>
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>Agree and add some additional text on monitoring and the possibility of refunds if not all money is required.</p>	<p>Add text.</p>

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[Redacted comment]</p>		
	<p>[Redacted comment]</p>	<p>Public art contributions will be considered on a site by site basis and the guidance does not propose a blanket approach. There is already adequate flexibility in the text.</p>	<p>No change is required.</p>
	<p>[Redacted comment]</p>	<p>This text should be changed.</p>	<p>Change text.</p>

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>		
<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>[REDACTED]</p>	<p>The general aim of FIFEplan is to protect employment land but there is limited flexibility provided through policy 5. The consideration of employment land supply and the protection of employment land does not require to be considered in detail through the planning obligations.</p>	<p>No change.</p>
<p>[REDACTED]</p> <p>[REDACTED]</p>	<p>[REDACTED]</p>	<p>It is appropriate and in line with current legislation to have separate Supplementary Guidance on affordable housing and planning obligations. These are separate subjects and the provision of these two documents is in line with planning guidance.</p>	<p>No change.</p>

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p> <p>[REDACTED]</p>		

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p>		

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[Redacted]</p>		
	<p>[Redacted]</p>	<p>While principle requires to remain the same additional reasoning behind this statement should be provided.</p>	<p>Text has been added to give guidance on what is meant by critical capacity.</p>
	<p>[Redacted]</p>	<p>Covered in affordable housing Supplementary Guidance - cannot be changed as in LDP.</p>	<p>No change</p>

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>The cumulative assessments have already been carried out by the Council and developments will be expected to pay the contribution set out in the Supplementary Guidance .</p> <p>Transport assessments will still need to be carried out to identify local interventions required under Policy 3. This is standard practice and does not require to be changed.</p>	<p>No change</p>
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>The cumulative impact assessments have already been undertaken. There is no requirement for developers to carry out this work.</p>	<p>No change</p>
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>Noted.</p>	<p>No change is required.</p>
	<p>[REDACTED]</p>	<p>The requirement for school infrastructure associated with SDAs is a long standing policy aim of the Council and has been tested through multiple examinations.</p> <p>The funding of feasibility studies is an alternative to allow developers to progress their sites faster. Normally the feasibility studies will be carried out by the Council.</p> <p>While there is no solution in Dunfermline the level of impact of new development has been</p>	<p>No change.</p>

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p>	<p>identified and therefore contributions will be required to address impact.</p>	
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>Noted and welcomed.</p>	<p>No change.</p>
	<p>[REDACTED]</p>	<p>Public art guidance is provided in <i>Making Fife's Places</i> Supplementary Guidance and is reasonable as part of measures to secure environmental and amenity improvements in the public realm. <i>Making Fife's Places</i> explains the various means by which public art can be provided in developments.</p>	<p>No change is required.</p>

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p>		
	<p>[REDACTED]</p>	<p>It is agreed that wording goes too far and need to reflect policy 5 more closely.</p>	<p>Change to reflect FIFEplan Policy 5.</p>
<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>The exemptions are an accepted part of the LDP and have been considered through examination.</p>	<p>Comments noted and changes, where appropriate, are identified against the more detailed comments in the response..</p>

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p>		
	<p>[REDACTED]</p>	<p>The Elswick case does not preclude the use or transport funds. It simply means that development has to be closely linked to the need for infrastructure.</p> <p>We have taken into account the Circular and the distances involved in this Supplementary Guidance are far smaller than the Elswick example and there is therefore a much closer correlation between new development and infrastructure.</p>	<p>Outer transport zones have been modified to ensure a clear relationship between the development and the infrastructure it is contributing towards.</p>

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p>		
	<p>[REDACTED]</p>	<p>This is intended to be carried out through the Supplementary Guidance but we can be more overt that this is the case. Money collected for a piece of infrastructure will only be spent on that infrastructure.</p>	<p>Paragraph 1.6 has been amended to explain how the infrastructure fund will operate.</p>
	<p>[REDACTED]</p>	<p>Figure 1 sets out the process for considering whether obligations are applicable and, by implication, whether the development triggers</p>	<p>Figure 1 has been amended to change the text in stage 1 to refer to determining whether an obligation is necessary.</p>

Reference, Responder	Comment	Fife Council Response	Action taken
		obligations, or are not an applicable development type.	
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>Public art guidance is provided in <i>Making Fife's Places</i> Supplementary Guidance and is reasonable as part of measures to secure environmental and amenity improvements in the public realm. <i>Making Fife's Places</i> explains the various means by which public art can be provided in developments.</p>	No change.
	<p>[REDACTED]</p>	<p>In terms of taking account of existing education capacity, the Supplementary Guidance will look at all development in a cumulative manner to ensure that costs are fairly apportioned across all relevant development. Where a cumulative impact has been considered and there is still sufficient capacity then a contribution will not be sought.</p> <p>The cross town approach to secondary school contributions included in the Supplementary Guidance addresses the complex nature of secondary school provision across Dunfermline</p>	No substantive change.

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p>		
	<p>[REDACTED]</p>	<p>The UK Supreme Court's decision ('Elsick') has been taken into account in finalising the Supplementary Guidance. The Supplementary Guidance will look at all development in a cumulative manner to ensure that costs are fairly apportioned across all relevant development. Where a cumulative impact has been considered and there is still sufficient capacity then a contribution will not be sought.</p>	<p>No change is required to the overall methodology but the transport zone diagram has been amended to divide the outer zone between Dunfermline and Kirkcaldy/Glenrothes.</p>

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>The modelling carried out for the LDP shows that to achieve the strategy of the development plan, which includes the housing sites identified in the plan, certain transport interventions must be delivered.</p> <p>The LDP modelling provides the link between the impact of new development and the transport infrastructure. The distance of sites from the transport improvements provides the context for calculating the level of obligations required per house. Using a distance relationship is a reasonable approach as all the interventions are main road junctions and traffic will use them. The greater the distance the site</p> <p>But the distances being used in the Fife methodology are far less than those in the Elswick case where the relationship was seen as being tenuous.</p> <p>Circular 3/2012 uses the word proportionate in relation to calculating obligations. This can also be taken to relate to the level of assessment that should be carried out to justify obligations. It would not be proportionate to model the relationship between all sites and</p>	

Reference, Responder	Comment	Fife Council Response	Action taken
		<p>each junction and it is reasonable to use the distance assumptions that we employ to calculate the transport obligations per house. A minor change has been made to the outer zones to relate the costs more closely to the zone within which a development site falls.</p>	
	<p>[REDACTED]</p>	<p>Responses to the respective points raised are set out below.</p>	
	<p>[REDACTED]</p>	<p>See comments above. There is a clear distinction in our modelling between baseline growth and new development impacts. This will be expanded upon in the Supplementary Guidance .</p>	<p>Text reviewed regarding the methodology and how the transportation baseline trends are separated from the impact of development.</p>

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>		
	<p>[REDACTED]</p>	<p>House building has the greatest impact on traffic patterns and educational need. It is right that it pay for most for the developer related impacts. Retail and leisure development also contribute.</p> <p>Employment uses were factored in but assumptions were made on the number of trips to prevent double counting.</p>	<p>No change required.</p>
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>To model the impact of every site on every junction would be a disproportionate level of work both in terms of time and money. It is reasonable to make assumptions about the impacts of development on infrastructure based on their distance apart.</p>	<p>No change.</p>

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED].8</p> <p>[REDACTED]</p>	<p>While the Elswick case shows these distances cannot be too great it does not rule out the use of this type of methodology.</p>	
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>The applicable zone will be determined by the place from which access to the site is taken and through which the expected traffic movements occur. This approach also captures development sites coming forward under the shortfall policy but which are not in the defined settlement boundary; these could otherwise contribute only to outer zone costs and so give them a financial advantage over sites allocated through the LDP process.</p>	<p>No change required.</p>
	<p>[REDACTED]</p>	<p>Baseline growth is taken into account in the LDP modelling on which this guidance is based. New development is not being asked to cover the cost of baseline growth or existing issues.</p>	<p>No change required.</p>

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p>		
	<p>[REDACTED]</p>	<p>As part of the LDP transport assessment the impact on the trunk roads across Fife was considered. The A92 in North Fife was scoped out of further consideration due to the minor impact that LDP development would have on the this route in terms of capacity. The focus of the modelling was then on the existing junctions and new strategic transport infrastructure in the SESplan area.</p>	<p>No change required.</p>
	<p>[REDACTED]</p>	<p>It would disproportionate to carry out detailed modelling for the relationship of each site to the transport network. At the strategic scale the document operates at it has made a series of reasonable assumptions that bases of the spatial relationship between new development and transport infrastructure.</p> <p>The exact timing of the infrastructure will depend when development progresses as the</p>	<p>No change required.</p>

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p>	<p>need for this new infrastructure is derived from the impact of development.</p> <p>The verification of transport solutions refers to the need to keep the costs of the proposals up to date. This is particularly relevant given the long delivery timescales for some of these proposals over which costs might change.</p>	
	<p>[REDACTED]</p>	<p>The Council's education impact assessment methodology takes account of household size, population growth, projected house completions, and the projected capacity of the school estate.</p>	<p>No change is required.</p>

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>completions, and the projected capacity of the school estate.</p>	
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>Normally the Council will identify costed solutions to resolve education capacity issues. However, to allow developers to move feasibility assessments on faster, it is also open to developers to fund feasibility studies in discussion with the Council as Education and Planning authority.</p>	<p>No change.</p>
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>Longer term forecasts will be subject to change. Their guidance and future development plan policy requirements will be reviewed through time. The LDP Action Programme will be reviewed annually and be updated with new forecasts and information.</p>	<p>No change is required.</p>
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>It is the intention that the the Council will normally undertake the feasibility study. The option for the developer to fund the study only exists if they require the study to be carried out at a faster pace than is planned by the Council. As more applications are submitted there will be many feasibility studies to be</p>	<p>No change required.</p>

Reference, Responder	Comment	Fife Council Response	Action taken
		undertaken or refined. This list will have to be prioritised. If the developer wants the study to be carried out at a faster pace than is proposed then it can fund the study.	
	<p>█ ██████████ ████████████████████ ████████████████████ ████████████████████ ████████████████████ ████████████████████ ████████████████████</p>	The tariff levels identified in the table have been derived from discussions with Education and Children’s Services as the Supplementary Guidance has been prepared.	No change is required.
	<p>█ ██████████ ████████████████████ ████████████████████</p>	Noted.	No change is required.
	<p>█ ██████████ ████████ ████████████████████ ████████████████████ ████████████████████ ████████████████████ ████████████████████ ████████████████████ ████████████████████ ████████████████████ ████████████████████</p>	<p>There is no conflict between paragraph 5.26 and 5.27. If the instance did arise as is set out in the response then the developers who had paid the earlier higher obligation would an element of it refunded.</p> <p>Retrospective obligations will continue to be gathered from developments that have contributed to creating the need for the new infrastructure. Regular reviews to the</p>	No change as the methodology mentioned in paragraph 5.27 allows for options to be investigated.

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p>	<p>infrastructure requirements will ensure that this link is maintained and we do not ask for contributions from sites where a link with the new infrastructure cannot be identified.</p>	
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>The Council is developing this to assist updates to future LDP Action Programme and inform any future reviews to this guidance.</p>	<p>No change.</p>
	<p>[REDACTED]</p>	<p>Yes. This has been raised with the Scottish Government and has been discussed through Heads of Planning Scotland.</p>	<p>No change is required.</p>

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>		
	<p>[REDACTED]</p>	<p>The decision to waive the exemptions will be made at the pre application stage so any potential applicant will still get early certainty as to whether obligations will be sought.</p>	<p>No change.</p>
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>This issue did not arise with our website version. The Council would have provided information on any illegible content on request.</p> <p>Healthcare has been accepted by Homes for Scotland as a developer obligation in East Lothian so it seems strange that a different view is being taken here.</p>	<p>The table format has been revised and amended with the intention that it works across all viewing platforms..</p> <p>Change to reflect that land will have value.</p>

Reference, Responder	Comment	Fife Council Response	Action taken
	[Redacted]	be supplied by the relevant key agencies and stakeholders.	
	[Redacted]	The Council recognises that viability is an issue and have looked to reduce obligations where possible and the means of establishing the information to make that determination. Paragraph 3.12 explains how the Council will use valuation information.	No change.
	[Redacted]	Viability is clearly a major issue. The Supplementary Guidance has been reviewed to look at ways which costs per house can be reduced. The cumulative impact approach taken in the SG will also help to keep down costs as they are spread evenly across all the development creating the impact.	No change to the type of obligations being sought or the methodologies through which they will be gathered. The infrastructure costs have been reviewed along with the sites contributing with the aim of reducing the level of contributions where possible.

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p>		
	<p>[REDACTED]</p>	<p>There are no local infrastructure contributions. Infrastructure required under Policy 3 of FIFEplan is a site specific requirement and not part of the obligations framework.</p> <p>Viability is clearly a major issue and we have reviewed the Supplementary Guidance to look at ways which costs per house can be kept to a minimum. However the impact of development cannot be ignored and there is a minimum level that obligations cannot go below.</p> <p>The cumulative impact approach taken in the Supplementary Guidance will also help to keep down costs as they are spread evenly across all the development creating the impact.</p>	<p>Further assessment of the cost of proposals been undertaken to help to reduce the level of obligations. This has been reflected in the overall costs per house at the different parts of the document.</p>

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p>		
	<p>[REDACTED]</p>	<p>It is agreed that alternative legal security may be appropriate in some circumstances.</p>	<p>Paragraph 3.1 now refers to “[...] bonds or other legal security will also be agreed to safeguard the Council from risk”.</p>

Reference, Responder	Comment	Fife Council Response	Action taken
	[REDACTED]		
	[REDACTED]	Windfall has been factored in as much as it can be. By their nature we do not know where these sites will be so cannot address their true impact until they are submitted.	No change.
	[REDACTED]	It is accepted that this proposed charge has no statutory basis and is not an acceptable use of developer funding.	This reference has been deleted.
	[REDACTED] f	Employment land text needs to reflect the wording of the plan more closely.	The text has been changed to refer to LDP Policy 5.

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>		
<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	Yes, this is the intention.	Add text to state that viability assessments will be treated confidentially.
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	Note.	
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	Accepted that land does have value but not housing value.	Agreed, add text to allow for agricultural value of land to be taken into account when calculating obligations.
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	A mechanism needs to be in place to provide security to the Council and local communities that work which is started is completed. Whether this is through bonds is not important as long as the right security is provided.	
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	No requirement for further technical documents to be provided but additional text will be added to provide further detail on how the calculations were arrived at.	

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>Any alternative funding streams would need to be agreed at a corporate level so at present there is no further clarification that can be provided.</p> <p>Delivery of infrastructure should not have an impact on site progression as one leads to the need for the other. This can be made more overt in the document</p>	<p>No change to first point</p> <p>Add text stating that infrastructure will be phased alongside development and to coincide with when capacity issue arises.</p>
	<p>[REDACTED]</p> <p>[REDACTED]</p>		
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>Agree but this text is already in the document.</p>	<p>No change required.</p>
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>This is the intention. Need to make this more explicit in the document.</p>	<p>Re look at wording of document and methodology to ensure that development only pays for their impacts.</p>
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>This is the intention and the document already states this in its introduction so no need for a change.</p>	<p>No change.</p>

Reference, Responder	Comment	Fife Council Response	Action taken
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>Agree with this comment and better to refer to the frameworks in place for each SDA.</p>	<p>Change text to reflect the guidance provided by the SDA frameworks.</p>
	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>Agree with this statement. Need to change to reflect policy 5.</p>	<p>Change to reflect LDP Policy.</p>

A methodology for calculating the pupil per household ratio for areas of new housing development in Fife

1.0 Introduction

- 1.1 The purpose of this report is to describe the methodology used to calculate the number of pupils expected to be living in new housing developments in Fife and to explain why new values will be used from January 2014.
- 1.2 This number is often referred to as the pupil product, pupil ratio or pupils per unit and is often presented as either 0.30 pupils per unit or 30 pupils per 100 units.

2.0 Background

- 2.1 The number additional pupils expected to be provided by new housing is required in order to:
 - calculate the potential impact of new housing on existing schools;
 - respond to planning applications;
 - support and justify planning obligations;
 - improve the evidence base for school roll projections; and
 - reflect the popularity of new housing to families with young children.
- 2.2 The values currently used across all catchments are 20 primary age pupils and 15 secondary age pupils per 100 new houses and these have been in use since at least 2006. Detailed information has not been available to support the use of any other values and two reviews of school roll projections (Stuart Booker, 2009 and William Penrice, 2013) concluded that these values were acceptable and should only be changed if justified by updated information.
- 2.3 This methodology and appendices include updated information and explains the justification to change the number of pupils expected to be living in new housing.

3.0 Methodology

3.1 The methodology requires data from a variety of sources which may have been available previously but can now be better analysed with geographic information system (GIS) software. The data and software used with this methodology are:

- Housing Land Audit with completed housing sites of >5 units (2004 to 2013);
- Pupil census 2013 with postcode information for each pupil;
- school catchment areas;
- domestic property addresses (general mapping addresses);
- postcode unit boundaries and postcode centre points; and
- ArcMap shapefile, Microsoft Excel spreadsheet, localview map applications.

3.2 The pupil product for each non-denominational primary school catchment area is calculated by dividing the number of current school pupils living in houses which have been completed in the last ten years by the number of houses completed in the last ten years.

$$\text{Number of current pupils living in housing <10 years old} / \text{Number of houses <10 years old}$$

3.3 The number of current pupils includes both primary and secondary pupils living in each non-denominational primary school catchment.

3.4 The number of houses less than ten years old includes all Housing Land Audit sites with more than 5 units completed since 2004. No information is available on the number of bedrooms in these properties and there is no assumption that one bedroom homes will produce less pupils or that five bedroom homes will produce more pupils.

3.5 All properties have both denominational and non-denominational school catchment areas. Roll projections and the resulting expected impact on school capacities are calculated using non-denominational school catchments and parental choices made at P1 stage.

3.6 A more detailed description of the methodology is included in appendix 1.

4.0 Summary of pupil ratio per new house

4.1 As a comparison, a pupil product has been calculated for all school catchments, clusters and education areas for current primary and secondary pupils living in:

- all domestic properties less than 5 years old;
- all domestic properties less than 10 years old; and
- all domestic properties.

- 4.11 The following table compares the Fife-wide average pupil product per new unit for properties completed in the last five years, ten years and for all properties. The table shows the number of completed domestic properties, the number of primary and secondary pupils living in these new properties and the resulting pupil ratio.

Timescale	Completed properties	Primary		Secondary	
		Pupils	Ratio	Pupils	Ratio
5 years	4668	1820	0.390	997	0.214
10 years	12269	4339	0.354	2536	0.207
All years	170750	27681	0.161	20407	0.118

- 4.2 Appendix 2 shows the number of domestic property completions (2004-2013), current pupils living in these properties and the calculated pupil product per new unit based on each non-denominational primary school catchment area (x128).
- 4.3 Primary pupil ratios vary from 0 in the 35 catchments where no new houses have been built to 1.000 at Cardenden Primary (20 pupils in 20 new houses) and Dunnikier Primary schools (19 pupils in 19 new houses).
- 4.4 Secondary pupil ratios vary from 0 to 0.667 at Lynburn Primary (48 pupils in 72 new houses).
- 4.5 Appendix 3 shows the number of domestic property completions (2004-2013), current pupils living in these properties and the calculated pupil product per new unit based on each non-denominational secondary school catchment area (x17).
- 4.6 Primary pupil ratios vary from 0.183 in the Madras College catchment to 0.419 in the Lochgelly High catchment. Secondary pupil ratios vary from 0.130 in the Viewforth High catchment to 0.351 in the Kirkland High catchment area.
- 4.7 Appendix 4 shows the number of domestic property completions (2004-2013), current pupils living in these properties and the calculated pupil product per new unit based on each education area (x3).
- 4.8 Primary pupil ratios vary from 0.282 in the North East and Levenmouth area to 0.381 in the West area. Secondary pupil ratios vary from 0.194 in the West area to 0.223 in the Central area.
- 4.9 Appendix 5 shows the number of domestic property completions over a shorter five year timescale (2009-2013), current pupils living in these properties and the resulting Fife-wide average pupil product per new unit.
- 4.10 Appendix 6 shows all domestic properties, all current pupils living in these properties and the resulting Fife-wide average pupil product per new unit.

5.0 Potential risks

5.1 While the methodology used and the outputs calculated may be arithmetically correct there are a number of issues to take into consideration when using the pupil product ratios:

- (a) As with all projections, past performance is no guarantee of what will happen in the future. Ten pupils from 53 houses (0.189 ppu) in the Pitreavie Primary catchment does not necessarily mean that the next 53 units will produce another ten pupils.
- (b) Even if another 10 pupils were produced from the next 53 houses the simple assumption made is that these 10 pupils will be spread evenly across all primary stages with a slight preference towards P1 and this is one of many possible pupil age distributions.
- (c) The calculated pupil product assumes that all children are new children to the catchment and this is unlikely to be the case. Some children may already be included in roll projections as part of the pre-school information, some may have moved a short distance but will still attend the school they were expected to attend and some may move from elsewhere in Fife. These children will mostly be expected but there may also be new children moving from outwith Fife altogether and these are most likely to increase roll projections above that expected, although even this group is limited by external population constraints.
- (d) Pupils are matched to catchments using postcodes only and there is a risk that as catchment boundaries don't follow postcode boundaries and postcode centres represent only one point within the postcode unit, there is a risk that some pupils may be allocated to the wrong catchment for this purpose. This would make no difference to the overall pupil product ratio and could be resolved

6.0 Conclusions

- 6.1 New housing and pupil information is available to allow pupil product values to be recalculated to reflect the popularity of new housing to families with school age children.
- 6.3 Values for individual school catchments can be distorted by small number of houses or pupils.
- 6.6 These are still projections and as such are subject to change and review in a wider context of school estate management

Allow for new pupils from elsewhere in Fife c/w new pupils from outwith Fife

- 6.6 That's why we've chosen the lower of the values
- 6.6 The Fife-wide average pupil product for primary and secondary pupils will be as shown in the following table and will be used in all relevant calculations from January 2014.

Number of primary pupils expected from 1 new house	Number of secondary pupils expected from 1 new house
0.354	0.207

Appendix 1 - Detailed methodology

Appendix 2 - House completions in 10 years and current pupils per catchment

Appendix 3 - House completions in 10 years and current pupils per cluster

Appendix 4 - House completions in 10 years and current pupils per education area

Appendix 5 - House completions in 5 years and current pupils

Appendix 6 - All domestic housing and current pupils

Reference: ██████████, 2009 - web link

Reference: ██████████, 2013 - web link

File Ref: (FP01) RPMc13 Report 550 Pupil product methodology

Author: ██████████, Forward Planning Officer, Education and Learning

Date: December 2013

Fife Council Education and Learning | Resources | School Estate

A methodology for calculating the pupil per household ratio for areas of new housing development in Fife

APPENDIX 1 - DETAILED METHODOLOGY

1.0 Introduction

1.1 This appendix explains in more detail the methodology used to calculate the number of additional pupils expected from new housing developments in Fife.

2.0 Methodology

2.1 The methodology requires data from a variety of sources which may have been available previously but can now be better analysed with geographic information system (GIS) software. The data and software used with this methodology are:

- Housing Land Audit with completed housing sites of >5 units (2004 to 2013);
- Pupil census 2013 with postcode information for each pupil;
- school catchment areas;
- domestic property addresses (general mapping addresses);
- postcode unit boundaries and postcode centre points; and
- ArcMap shapefile, Microsoft Excel spreadsheet, localview map applications.

2.2 The pupil product for each non-denominational primary school catchment area is calculated by dividing the number of current school pupils living in houses which have been completed in the last ten years by the number of houses completed in the last ten years.

$$\text{Number of current pupils living in housing <10 years old} / \text{Number of houses <10 years old}$$

2.3 Polygons showing housing sites completed within the ten year period from 2004 to 2013 were displayed in ArcMap. All domestic properties within these housing sites were extracted and grouped by each of the 621 new postcodes. Five examples of this data are shown in the following table.

Postcode	Number of domestic properties
KY1 1AB	65 properties
KY1 1AD	23 properties
KY1 1AW	7 properties
KY1 1EL	18 properties
KY1 1EQ	23 properties

- 2.4 Postcodes are extracted from the pupil home address details held in the pupil census. The number of primary and secondary pupils per postcode is calculated and five examples are shown in the following table.

Pupil postcode	Primary school pupils	Secondary school pupils	Total school pupils
KY3 0RG	0	0	0
KY8 3AG	0	2	2
KY8 3ED	1	0	1
KY8 3JT	2	6	8
KY8 3BF	1	0	1

- 2.5 The centre point of each postcode unit is allocated to the non-denominational primary school catchment and links each postcode to a catchment.

- 2.6 There may be some postcode centres which are in one catchment while some or even all of the new domestic properties are within another but as the postcode centre point can be any representative point within the postcode boundary and postcodes can consist of any number of properties this is almost inevitable. There will be some locations where this has clearly occurred and there will be others which are not as obvious. This is due to the different geographies used for school catchments and postcode units and will be resolved when individual pupil XY co-ordinates are available.

- 2.7 Each of the postcodes with new housing is compared with the list of postcodes with current pupils and an expanded table is created. All postcodes with no pupils AND no housing are then removed. Some postcodes with no pupils will remain if they have new housing. All postcodes with new housing will remain. Five examples are shown in the following table.

Postcode	Primary school pupils	Secondary school pupils	Total school pupils	New houses in postcode
KY3 0RG	0	0	0	6
KY8 3AG	0	2	2	1
KY8 3ED	1	0	1	1
KY8 3JT	2	6	8	1
KY8 3BF	1	0	1	3

2.8 The remaining postcodes are then allocated to a primary school catchment based on the postcode unit centre point. The table has been further expanded to include secondary school cluster and education areas as a means of comparing different locations within Fife and to consider if different pupil ratios are required for different areas or geographies.

Postcode	Primary catchment	Secondary cluster	Education area
KY3 0RG	Aberdour PS	Inverkeithing HS	West
KY8 3AG	Aberhill PS	Kirkland HS	North East and Levenmouth
KY12 0YW	Bellyeoman PS	Queen Anne HS	West

2.9 This expanded table has been analysed to show the number of new domestic properties in the last ten years for each of these three geographies which all correspond directly to school catchment areas.

3.0 Summary of calculated pupil ratio per new house

3.1 The following table compares the Fife-wide average pupil product per new unit for properties completed in the last five years, ten years and for all properties. The table shows the number of completed domestic properties, the number of primary and secondary pupils living in these new properties and the resulting pupil ratio.

Timescale	Completed properties	Primary		Secondary	
		Pupils	Ratio	Pupils	Ratio
5 years	4668	1820	0.390	997	0.214
10 years	12269	4339	0.354	2536	0.207
All years	170750	27681	0.161	20407	0.118

3.2 The Fife-wide average pupil product for primary and secondary pupils will be as shown in the following table and will be used in all relevant calculations from January 2014.

Number of primary pupils expected from 1 new house	Number of secondary pupils expected from 1 new house
0.354	0.207

File Ref: (FP01) RPMc13 Report 550 Pupil product methodology detailed
 Author: ██████████, Forward Planning Officer, Education and Learning
 Date: December 2013

Fife Council Education and Learning
Pupil product calculations per primary school catchment area

Source information: Housing Land Audit (HLA) completions 2004-2013 (10 years)
(HLA completions excludes sites with <5 units, includes new sites with no pupils)
Census 2013 pupil postcodes (in new housing completed since 2004)
All non-denominational primary schools

Where primary pupils per new house >0.354
Where pupil product = 0, value is hidden
Where secondary pupils per new house >0.207

Primary school (PSND)	Housing Land Audit completions (HLA)		Census 2013			
	postcode sites	new houses	Primary		Secondary	
			PS pupils in new houses	PS pupil ratio	HS pupils in new houses	HS pupil ratio
All primary schools	621	12269	4339	0.354	2536	0.207
Aberdour PS	1	6	0		0	
Aberhill PS	11	75	21	0.280	23	0.307
Anstruther PS	13	138	69	0.500	56	0.406
Auchtermuchty PS	3	35	5	0.143	3	0.086
Auchtertool PS	0	0	0		0	
Balcurvie PS	4	64	41	0.641	35	0.547
Balmerino PS	1	5	0		0	
Balmullo PS	6	143	39	0.273	22	0.154
Bellyeoman PS	4	155	63	0.406	30	0.194
Benarty PS	7	82	20	0.244	19	0.232
Blairhall PS	4	119	53	0.445	16	0.134
Buckhaven PS	4	43	24	0.558	13	0.302
Burntisland PS	21	260	114	0.438	59	0.227
Cairneyhill PS	2	47	19	0.404	8	0.170
Camdean PS	2	89	28	0.315	12	0.135
Canmore PS	0	0	0		0	
Canongate PS	15	214	19	0.089	15	0.070
Capshard PS	36	699	263	0.376	181	0.259
Cardenden PS	4	20	20	1.000	10	0.500
Carleton PS	4	54	12	0.222	8	0.148
Carnegie PS	21	468	190	0.406	106	0.226
Carnock PS	1	49	19	0.388	9	0.184
Caskieberran PS	6	96	71	0.740	36	0.375
Castlehill PS	13	314	124	0.395	73	0.232
Ceres PS	3	12	3	0.250	1	0.083
Coaltown of Balgonie PS	4	65	24	0.369	19	0.292
Coaltown of Wemyss PS	1	16	1	0.063	2	0.125
Colinsburgh PS	2	10	0		0	
Collydean PS	1	29	13	0.448	4	0.138
Commercial PS	16	183	38	0.208	18	0.098
Cowdenbeath PS	2	14	5	0.357	4	0.286
Craigrothie PS	1	6	0		0	
Crail PS	6	67	4	0.060	8	0.119
Crombie PS	4	37	9	0.243	13	0.351
Crossford PS	0	0	0		0	
Crossgates PS	2	35	16	0.457	7	0.200
Culross PS	2	16	4	0.250	1	0.063

Where primary pupils per new house >0.354

Where pupil product = 0, value is hidden

Where secondary pupils per new house >0.207

Primary school (PSND)	Housing Land Audit completions (HLA)		Census 2013			
	postcode sites	new houses	Primary		Secondary	
			PS pupils in new houses	PS pupil ratio	HS pupils in new houses	HS pupil ratio
Dairsie PS	0	0	0		0	
Dalgety Bay PS	3	38	29	0.763	17	0.447
Denbeath PS	0	0	0		0	
Denend PS	8	196	73	0.372	47	0.240
Donibristle PS	0	0	0		0	
Dulloch PS	44	1439	621	0.432	288	0.200
Dunbog PS	0	0	0		0	
Dunino PS	0	0	0		0	
Dunnikier PS	4	19	19	1.000	4	0.211
Dysart PS	7	117	33	0.282	25	0.214
East Wemyss PS	3	40	2	0.050	9	0.225
Elie PS	2	20	1	0.050	2	0.100
Fair Isle PS	0	0	0		0	
Falkland PS	0	0	0		0	
Foulford PS	9	127	59	0.465	32	0.252
Freuchie PS	1	45	16	0.356	4	0.089
Gateside PS	0	0	0		0	
Guardbridge PS	0	0	0		0	
Hill of Beath PS	0	0	0		0	
Inverkeithing PS	6	131	18	0.137	19	0.145
Inzievar PS	2	10	4	0.400	5	0.500
Kelty PS	14	371	120	0.323	47	0.127
Kennoway PS	6	116	39	0.336	28	0.241
Kettle PS	0	0	0		0	
Kinghorn PS	2	19	0		0	
Kinglassie PS	6	186	52	0.280	24	0.129
Kings Road PS	15	467	165	0.353	89	0.191
Kingsbarns PS	0	0	0		0	
Kirkcaldy North PS	9	258	44	0.171	20	0.078
Kirkcaldy West PS	25	396	113	0.285	77	0.194
Kirkton of Largo PS	1	6	0		0	
Ladybank PS	1	22	14	0.636	6	0.273
Largoward PS	3	18	5	0.278	7	0.389
Lawhead PS	3	68	18	0.265	16	0.235
Leslie PS	4	61	11	0.180	10	0.164
Letham PS	1	9	2	0.222	0	
Leuchars PS	4	97	28	0.289	25	0.258
Limekilns PS	0	0	0		0	
Lochgelly South PS	6	144	38	0.264	12	0.083
Lochgelly West PS	6	71	64	0.901	47	0.662
Lumphinnans PS	0	0	0		0	
Lundin Mill PS	0	0	0		0	
Lynburn PS	9	72	68	0.944	48	0.667

Where primary pupils per new house >0.354

Where pupil product = 0, value is hidden

Where secondary pupils per new house >0.207

Primary school (PSND)	Housing Land Audit completions (HLA)		Census 2013			
	postcode sites	new houses	Primary		Secondary	
			PS pupils in new houses	PS pupil ratio	HS pupils in new houses	HS pupil ratio
Markinch PS	9	157	60	0.382	27	0.172
Masterton PS	19	759	342	0.451	126	0.166
McLean PS	10	214	44	0.206	34	0.159
Methilhill PS	1	12	2	0.167	3	0.250
Milesmark PS	5	93	48	0.516	31	0.333
Milton of Balgonie PS	2	13	4	0.308	4	0.308
Mountfleurie PS	6	217	63	0.290	67	0.309
New Gilston PS	0	0	0		0	
Newburgh PS	9	73	30	0.411	28	0.384
Newcastle PS	0	0	0		0	
Newport PS	4	137	18	0.131	12	0.088
North Queensferry PS	0	0	0		0	
Park Road PS	2	39	18	0.462	10	0.256
Parkhill PS	4	124	23	0.185	14	0.113
Pathhead PS	8	153	68	0.444	31	0.203
Pitcorthie PS	4	84	33	0.393	21	0.250
Pitcoudie PS	18	355	114	0.321	107	0.301
Pitlessie PS	0	0	0		0	
Pitreavie PS	3	53	10	0.189	6	0.113
Pittencrieff PS	4	21	18	0.857	6	0.286
Pittenweem PS	1	12	1	0.083	3	0.250
Pitteuchar East PS	1	53	16	0.302	11	0.208
Pitteuchar West PS	6	229	95	0.415	49	0.214
Rathillet PS	0	0	0		0	
Rimbleton PS	0	0	0		0	
Saline PS	1	8	2	0.250	3	0.375
Sinclairtown PS	4	102	9	0.088	6	0.059
South Parks PS	0	0	0		0	
Southwood PS	0	0	0		0	
Springfield PS	0	0	0		0	
St Leonards PS	0	0	0		0	
St Monans PS	0	0	0		0	
Star PS	2	14	3	0.214	1	0.071
Strathallan PS	0	0	0		0	
Strathkinness PS	0	0	0		0	
Strathmiglo PS	0	0	0		0	
Tanshall PS	5	87	51	0.586	38	0.437
Tayport PS	6	138	36	0.261	24	0.174
Thornton PS	6	52	25	0.481	16	0.308
Torbain PS	5	76	21	0.276	15	0.197
Torryburn PS	15	218	69	0.317	32	0.147
Touch PS	12	243	26	0.107	18	0.074
Townhill PS	6	94	20	0.213	9	0.096
Tulliallan PS	5	85	29	0.341	19	0.224
Valley PS	7	126	54	0.429	46	0.365
Warout PS	0	0	0		0	
Wellwood PS	0	0	0		0	
Wormit PS	0	0	0		0	
All primary schools	621	12269	4339	0.354	2536	0.207

Pupil product calculations per secondary school cluster

Source information: Housing Land Audit (HLA) completions 2004-2013 (10 years)
 (HLA completions excludes sites with <5 units, includes new sites with no pupils)
 Census 2013 pupil postcodes (in new housing completed since 2004)
 All non-denominational secondary schools

Where primary pupils per new house >0.354
 Where pupil product = 0, value is hidden
 Where secondary pupils per new house >0.207

Primary school (PSND)	Housing Land Audit completions (HLA)		Census 2013			
	postcode sites	new houses	Primary		Secondary	
			PS pupils in new houses	PS pupil ratio	HS pupils in new houses	HS pupil ratio
All high school clusters	621	12269	4339	0.354	2536	0.207
Auchmuty High School	34	637	239	0.375	135	0.212
Balwearie High School	52	694	246	0.354	140	0.202
Beath High School	27	547	200	0.366	90	0.165
Bell Baxter High School	38	659	233	0.354	137	0.208
Buckhaven High School	19	351	91	0.259	69	0.197
Dunfermline High School	38	860	265	0.308	144	0.167
Glenrothes High School	24	451	185	0.410	143	0.317
Glenwood High School	16	363	127	0.350	76	0.209
Inverkeithing High School	27	432	134	0.310	78	0.181
Kirkcaldy High School	48	901	338	0.375	242	0.269
Kirkland High School	21	356	125	0.351	125	0.351
Lochgelly High School	31	513	215	0.419	135	0.263
Madras College	36	677	124	0.183	99	0.146
Queen Anne High School	44	843	299	0.355	152	0.180
Viewforth High School	28	630	154	0.244	82	0.130
Waid Academy	25	253	75	0.296	69	0.273
Woodmill High School	113	3102	1289	0.416	620	0.200
All high school clusters	621	12269	4339	0.354	2536	0.207

Fife Council Education and Learning
Pupil product calculations per education area

Source information: Housing Land Audit (HLA) completions 2004-2013 (10 years)
 (HLA completions excludes sites with <5 units, includes new sites with no pupils)
 Census 2013 pupil postcodes (in new housing completed since 2004)
 Education areas

Where primary pupils per new house >0.354
 Where pupil product = 0, value is hidden
 Where secondary pupils per new house >0.207

Primary school (PSND)	Housing Land Audit completions (HLA)		Census 2013			
	postcode sites	new houses	Primary		Secondary	
			PS pupils in new houses	PS pupil ratio	HS pupils in new houses	HS pupil ratio
All education areas	621	12269	4339	0.354	2536	0.207
West	280	6297	2402	0.381	1219	0.194
North East and Levenmouth	139	2296	648	0.282	499	0.217
Central	202	3676	1289	0.351	818	0.223