

Local Development Plan Transport Appraisal

East of Milburn Tower Transport Appraisal

Final

January 2015

Introduction

A strategic transport appraisal to support Edinburgh's emerging Local Development Plan (LDP) was undertaken during 2012-2013, with production of the final report (TA) in March 2013. The TA focused on a number of new housing sites to be included in the Proposed LDP in addition to sites identified in previous local plans (Edinburgh City Local Plan and Rural West Edinburgh Local Plan).

Following the publication of Supplementary Guidance by SESplan, and in response to the Scottish Government's approval of the SESplan Strategic Development Plan, City of Edinburgh Council (CEC) requested an Addendum be prepared to reflect a number of proposed changes to the LDP, including change in capacity of a number of original sites considered within the TA and inclusion of some further proposed housing sites. The Addendum considered the cumulative impact of all the proposed sites and was produced in April 2014.

Additional East of Milburn Tower Site

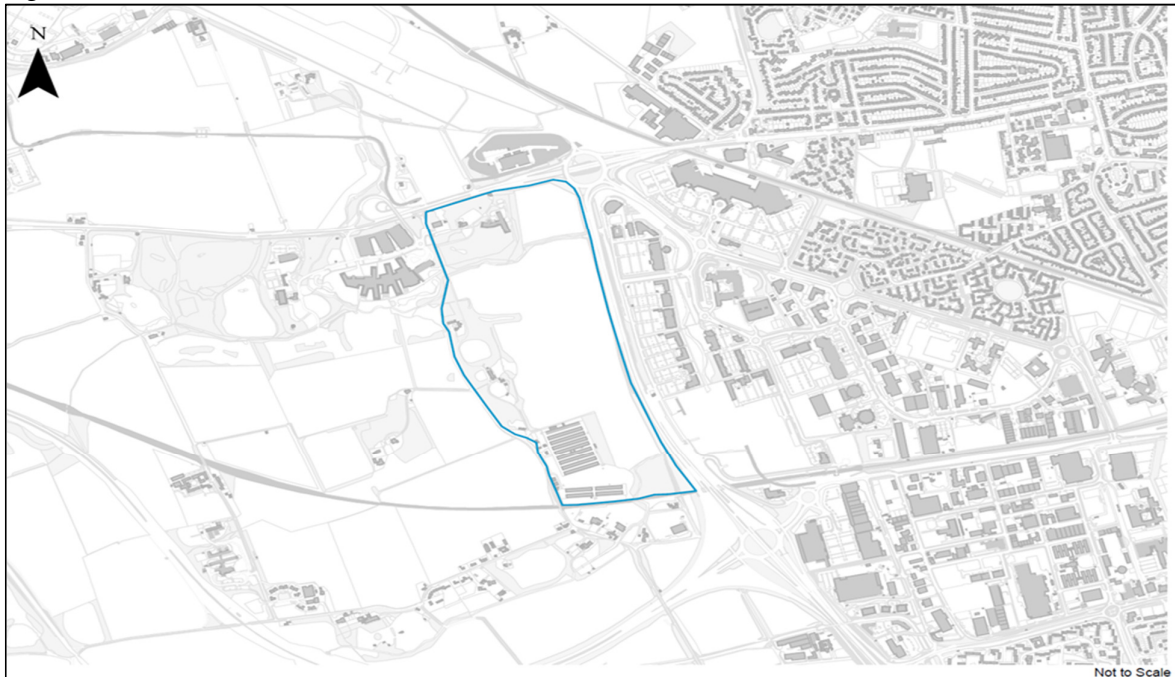
In September 2014, CEC confirmed that an additional development site, located to the east of Milburn Tower required to be assessed as requested in a decision of the Planning Committee (19 June 2014). The location forms part of the larger site regularly referred to by the landowner as the 'Garden District'. The site, called East of Milburn Tower, is subject to flood risk and a flood assessment has been undertaken to establish a suitable area for development and provide an estimate of likely number of units that can be accommodated. From the outcome of the flood assessment, completed at the end of November 2014, it is proposed that the East of Milburn Tower site, for the purposes of this report, can accommodate up to 1,320 units. This number of units was confirmed by CEC for use in the assessment.

CEC require an individual site report but with the development assessed cumulatively with all the other sites considered previously. The assessment was undertaken during November and December 2014.

The East of Milburn Tower site is located within West Edinburgh, at Gogarburn. It lies to the west of the A720 City Bypass, which forms the eastern boundary of the site. The A8 Glasgow forms the northern boundary, with Gogar Station Road being the western boundary. The main Edinburgh - Glasgow railway line forms the southern boundary.

Figure 1 shows the site location.

Figure 1 - East of Milburn Tower Site



Demand Analysis

Demand analysis for the East of Milburn Tower site follows the methodology undertaken for the main sites, together with the additional Addendum sites, as set out in the TA report. The following paragraphs give a summary of the process and more detail is set out in the Main Report. Analysis was undertaken using Microsoft Excel spreadsheet tool, developed specifically for the transport appraisal.

A daily person trip rate per unit of housing was generated from TRICS (Trip Rate Information Computer System), with values of 8.8 for privately owned houses and 7.2 for rented houses, respectively, calculated. It was not possible to differentiate between flats and house size at this point, as this aspect is still to be determined definitively through the planning application process. These trip rates were then applied to the East of Milburn Tower site, with 25% of units allocated to affordable housing, in line with current CEC policy, for two time periods – units implemented by 2020 and the remaining units implemented by 2025.

Once the estimated number of person trips were generated for the site, it was necessary to assign these trips by mode. This was done by applying modal splits. Modal split was assigned based on an estimated modal share for 2010. This estimated modal split was based on a baseline of modal share from 2001 Census data from 'travel to work' statistics for five edge-of-city wards, which was then adjusted with more recent Scottish Household Survey data (in the absence of 2011 Census data, not published at the time of writing of the TA report). (*Note – whilst some 2011 Census data is now available, the East of Milburn Tower site has been assessed in a consistent manner with the other sites previously assessed.*)

For the Baseline (Do Nothing) scenario, a uniform set of modal splits was applied to the site, as across all developments. For the Do Minimum scenario and the Do Something scenario, different modal splits were applied to the site to reflect a more realistic

scenario of how the transport system might look in future years with, firstly, (i) “committed” and, secondly, (ii) site-specific transport interventions in place, respectively, affecting the East of Milburn Tower site.

In order to both distribute trip demand spatially across the transport network and to provide a spatial structure for the development of multi-modal solutions, a broad spatial framework was developed for this study. This focused on a set of strategic corridors, produced in line with the SDP strategy, and key road and public transport routes were identified within these corridors.

Trip demand forecasts were also generated for ‘committed’ housing sites to provide estimated additional trips on strategic corridors from committed development alone and then additionally from the new housing sites. In addition, the forecast demand from the potential housing sites is set against the background of moderate growth in overall traffic levels which may happen in the absence of the LDP proposals.

The calculated demand was then distributed across the spatial framework. To assist with this, gravity models were developed and applied. The gravity models produced a distribution of trips by broad spatial corridor for the potential housing sites and committed residential sites. This distribution was applied to the trip demand within the demand analysis. A further distribution of these trips was carried out within corridors by mode, by peak hour (10% of all trips) and, finally, for car trips, by road. Professional judgement was used to assign proportions of peak car trips across individual key roads within the strategic corridors. Finally, the peak hour trip demand was assessed in terms of its impact on the transport network, in both quantitatively and qualitatively ways.

It should be noted that, due to the limitations of the spreadsheet tool, vehicular trips were allocated to relevant adjacent strategic corridors. It should be noted that some traffic will be likely to use nearby alternative secondary routes, so some impact on a strategic corridor may be higher than would actually occur. In addition, traffic on an initial strategic corridor may connect to a subsequent strategic corridor, for example the Orbital Corridor (which includes the A720 City Bypass and the local Inner Orbital route), meaning that overall impact across the whole network is not provided and may be slightly under-estimated for sections of some routes. However, such under-estimates are probably offset by use of full build-out estimates for 2024/25. Whilst computer modelling would provide clarity on this subject, budget and timescale constraints prevented such an assessment being undertaken.

With regard to main corridor allocations, the following routing assumptions have been made for the East of Milburn Tower site:-

Corridor 1 West (A8)	50%
Corridor 4 North West (A90)	5%
Corridor 5 South West (A71)	35% (A71 80% and A70 20%)
Corridor 7 Orbital	10%

The analysis does not identify direction of flow.

Baseline Scenario

The Baseline Scenario (also considered as Do Nothing) assesses demand from all of the LDP housing sites, including the East of Milburn Site, assuming background traffic growth in the network and the delivery of committed residential development. In terms of modal share, it assumes a baseline (2010) modal split of trips, based on existing values. The scenario assumes no improvements will be made in terms of modal shift to more sustainable transport modes and the baseline modal split observed currently continues.

Throughout this report, sustainable modes are defined as those trips undertaken by walking, cycling, public transport (bus, train and tram), motorcycle and as a car passenger. Taxi trips are excluded, as they tend to have at least as much of an impact on the road network and emissions as a car trip.

For the baseline scenario, a common modal split is used across all sites, with values as set out in Table 1. Realistically, there may be some variation for individual sites but the applied values are considered reasonable for this generalised use. With regard to the East of Millburn Tower site, the assumptions can be viewed as being quite optimistic and are not likely to be achieved. However, it is important that this report is consistent with the methodology used for the original report.

Table 1 - Baseline (Do Nothing) scenario – % modal splits by site (uniform)

Mode	Car Driver +taxi	Car pax	Train	Bus	Cycle	Walk	Other	Total Sustainable
Share	58.9	6.0	1.7	21.6	2.0	7.8	2.0	41.1

The impact analysis results for Scenario 1 – Baseline are shown below. Table 2 shows the cumulative impact, by corridor, for all sites including East of Milburn Tower, whilst Table 3 shows the impact arising from the East of Milburn Tower site alone, on the assumption of a common mode split.

Table 2: Scenario 1 – Baseline Case – Corridor Impact (All Sites) including East of Millburn Tower site.		CORRIDOR 1 - West Edinburgh		CORRIDOR 2 - South East Edinburgh				CORRIDOR 3 - East Edinburgh		CORRIDOR 4 - North West Edinburgh	CORRIDOR 5 - South West Edinburgh		CORRIDOR 6 - South Edinburgh	CORRIDOR 7 - Orbital Edinburgh	
		A8 Glasgow Road	Stenhouse / Broomhouse	A701 Liberton Road	A772 Gilmerton Road	A7 Old Dalkeith Road	Lasswade Road	A1	A6095	A90 Queensferry Road	A71 Calder Road	A70 Lanark Road	A702 Biggar Road	A720 - Outer orbital	Inner Orbital
Baseline peak hour flow		4,447	1,333	1,500	1,102	1,874	740	5,329	875	3,832	2,000	2,465	1,000	6,265	886
2019/20	Corridor impact - by car (peak car trips) (figures in brackets – previous impact)	335 (272)		370				167		89 (82)	232 (188)		0	125 (113)	
2019/20	LDP only	319	16	104	149	73	44	67	100	89	110	122	0	109	16
	LDP only as % over baseline peak hour flow	7.2%	1.2%	7.0%	13.5%	3.9%	6.0%	1.3%	11.5%	2.3%	5.5%	4.9%	0.0%	1.7%	1.8%
	Background growth 2019/20	44	13	15	11	19	7	320	9	230	20	25	10	376	9
	Committed residential 2019/20	156	20	48	71	16	25	17	26	33	34	51	53	55	7
	LDP only as % over baseline peak hour flow plus background plus committed	6.9%	1.2%	6.7%	12.6%	3.8%	5.7%	1%	11.0%	2.2%	5.4%	4.8%	0.0%	1.6%	1.8%
	LDP and committed residential and growth 2019/20	520	49	168	231	108	76	404	135	352	164	197	63	540	32
	% over 2011 baseline peak hour flow	11.7%	3.7%	11.2%	20.9%	5.8%	10.3%	7.6%	15.4%	9.2%	8.2%	8.0%	6.3%	8.6%	3.6%
2024/25	Corridor impact - by car (peak car trips)	2162 (1758)		906				910		601 (561)	489 (232)		0	549 (475)	
2024/25	LDP only	2006	120	313	342	134	118	364	546	601	298	191	0	492	57
	LDP only as % over baseline peak hour flow	45.1%	9.0%	20.8%	31.0%	7.1%	15.9%	6.8%	62.4%	15.7%	14.9%	7.7%	0.0%	7.8%	6.4%
	Background growth 2024/25	89	27	30	22	37	15	533	18	383	40	49	20	627	18
	Committed residential 2024/25	245	40	51	66	12	28	17	26	54	38	57	107	72	9
	LDP only as % over baseline peak hour flow plus background plus committed	42.0%	2.7%	15.3%	28.7%	7.0%	15.0%	6.2%	59.5%	14.1%	14.4%	7.4%	0.0%	7.1%	6.2%
	LDP and committed residential and growth 2024/25	2340	186	394	430	183	160	914	589	1038	377	297	127	1190	84
	% over 2011 baseline peak hour flow	52.6%	14.0%	26.3%	39.1%	9.8%	8.5%	17.2%	67.3%	27.1%	18.8%	12.1%	12.7%	19.0%	9.4%

Table 3: Scenario 1 – Baseline Case – East of Milburn Tower Site – Individual Impact

NUMBER OF PEAK HOUR TRIPS GENERATED	INTERIM			INTERIM			INTERIM			FULL			FULL			FULL		
	2019/20	2019/20	2019/20	2019/20	2019/20	2019/20	2019/20	2019/20	2019/20	2019/20	2019/20	2019/20	2019/20	2019/20	2019/20	2019/20	2019/20	2019/20
LDP site	Committed sites in the vicinity of LDP sites			LDP site only			LDP site plus committed sites			Committed sites in the vicinity of LDP sites			LDP site only			LDP site plus committed sites		
	peak hour daily trips by car	peak hour daily trips by bus	peak hour daily trips by rail	peak hour daily trips by car	peak hour daily trips by bus	peak hour daily trips by rail	peak hour daily trips by car	peak hour daily trips by bus	peak hour daily trips by rail	peak hour daily trips by car	peak hour daily trips by bus	peak hour daily trips by rail	peak hour daily trips by car	peak hour daily trips by bus	peak hour daily trips by rail	peak hour daily trips by car	peak hour daily trips by bus	peak hour daily trips by rail
East of Milburn Tower	0	0	0	126	46	4	126	46	4	0	0	0	739	271	21	739	271	21

Results

Comparison of Table 2 observations with Addendum Table 4, in terms of the impact of the East of Milburn Tower site:-

- Noticeable increases in LDP 2019/20 and 2024/25 peak period trips on Corridor 1 (West) A8 route. Impact of site would be noticeable in 2024/25 against 2011 baseline flows.
- Slight increase in LDP 2024/25 peak period trips on Corridor 4 (North West) but not noticeable against 2011 baseline flows.
- Noticeable increase in LDP 2019/20 peak period trips on Corridor 5 (South West) and major increase by 2024/25, relating to the A71. Noticeable against 2011 baseline flows.
- Noticeable increase in LDP 2024/25 peak period trips on Corridor 7 (Orbital). But very minor compared to 2011 baseline flows.
- Slight increase in 2019/20 LDP values and decrease on Committed values on Corridor 3 (East) is due to a minor correction within spreadsheet from Addendum assessment (a committed site double-counted)
- Slight increase in 2019/20 Committed values on Corridor 5 (South West) is due to a minor correction within spreadsheet from Addendum assessment (a committed site not included).

Caution needs to be exercised when considering some of the results. For example, a road with a low existing baseline flow may experience a significant % increase but this may be accommodated without requiring major enhancements. Conversely, a small % increase on a road with a high baseline flow may cause a disproportionately large increase in congestion.

It should be noted that these increases assume:-

- (i) full build-out by 2024/25, which is unlikely;
- (ii) do not allow for vehicles using secondary roads;
- (iii) do not identify use of just a short section of the corridor, which would have limited impact. But
- (iv) make an optimistic assumption re use of sustainable modes for this particular site.

In terms of the East of Milburn Tower site, it is forecast to generate an additional 739 vehicular trips during the 2024/25 one-hour peak period, with approximately half routing via the A8 Glasgow Road but also impacting on the A71. The site would also generate a significant number of potential peak period trips (271) by bus that would need to be accommodated but current bus service arrangements and walking distances would probably not be attractive enough to achieve these.

Do Minimum Scenario

The Baseline Scenario took no account of transport interventions that can be classified as “committed” for the purposes of this study. These are interventions which are broadly assumed to have a moderate or high degree of certainty of delivery over the assessment period of the LDP housing scenario.

The Do Minimum scenario therefore takes into account potential modal share impacts of these “committed” schemes on the LDP housing sites including the East of Millburn Tower site. (This is effectively the 'Reference' case, in transport appraisal terms.)

A largely qualitative analysis has been carried out on the potential modal share impacts that a set of relevant committed transport interventions could have on the East of Millburn Tower site and are shown in Table 4. Edinburgh tram is assumed to have a noticeable impact, even within the Do Minimum scenario and the majority of the site being some walking distance from tram stops.

Table 4 - Do Minimum scenario – estimated adjusted % modal share for East of Millburn Tower site

Mode	Car Driver +taxi	Car pax	Train/ Tram	Bus	Cycle	Walk	Other	Total Sustainable
Share	56.9	6.0	5.0	19.6	2.5	8.0	2.0	43.1

The impact analysis results for Scenario 2 – Do Minimum are shown below. Table 5 shows the 2024/25 cumulative impact, by corridor, for all the sites, whilst Table 6 shows the impact arising from the East of Millburn Tower site.

Table 5: Scenario 2 – Do Minimum Case – Corridor Impact (All Sites) Incl East of Millburn Tower		CORRIDOR 1 - West Edinburgh		CORRIDOR 2 - South East Edinburgh				CORRIDOR 3 - East Edinburgh		CORRIDOR 4 - North West Edinburgh	CORRIDOR 5 - South West Edinburgh		CORRIDOR 6 - South Edinburgh	CORRIDOR 7 - Orbital Edinburgh	
		A8 Glasgow Road	Stenhouse / Broomhouse	A701 Liberton Road	A772 Gilmerton Road	A7 Old Dalkeith Road	Lasswade Road	A1	A6095	A90 Queensferry Road	A71 Calder Road	A70 Lanark Road	A702 Biggar Road	A720 - Outer orbital	Inner Orbital
Baseline peak hour flow		4,447	1,333	1,500	1,102	1,874	740	5,329	875	3,832	2,000	2,465	1,000	6,265	886
2024/25	Corridor impact - by car (peak car trips) (figures in brackets – previous impact)	1830 (1474)		878				882		564 (525)	470 (222)		0	517 (446)	
2024/25	LDP only	1746	83	302	332	130	114	353	529	564	287	183	0	466	51
	LDP only as % over baseline peak hour flow	39.3%	6.3%	20.1%	30.1%	6.9%	15.4%	6.6%	60.5%	14.7%	14.4%	7.4%	0.0%	7.4%	5.8%
	Background growth 2024/25	89	27	30	22	37	15	533	18	383	40	49	20	627	18
	Committed residential 2024/25	219	27	50	65	12	27	17	26	52	37	56	107	70	9
	LDP only as % over baseline peak hour flow plus background plus committed	36.7%	1.9%	14.7%	27.9%	6.8%	14.5%	6.0%	57.6%	13.2%	13.8%	7.1%	0.0%	6.7%	5.6%
	LDP and committed residential and growth 2024/25	2055	138	382	419	180	156	903	572	999	364	287	127	1163	78
	% over 2011 baseline peak hour flow	46.2%	10.3%	25.5%	38.0%	9.6%	21.8%	16.9%	65.4%	26.1%	18.2%	11.7%	12.7%	18.6%	8.8%

Table 6: Scenario 2 – Do Minimum Case – East of Milburn Tower Site Impact

**NUMBER OF PEAK HOUR TRIPS
GENERATED**

	FULL 2024/25	FULL 2024/25	FULL 2024/25	FULL 2024/25	FULL 2024/25	FULL 2024/25	FULL 2024/25	FULL 2024/25	FULL 2024/25
LDP sites	Committed sites in the vicinity of LDP sites			LDP site only			LDP site plus committed sites		
	peak hour daily trips by car	peak hour daily trips by bus	peak hour daily trips by rail	peak hour daily trips by car	peak hour daily trips by bus	peak hour daily trips by rail	peak hour daily trips by car	peak hour daily trips by bus	peak hour daily trips by rail
East of Milburn Tower	0	0	0	714	246	63	714	246	63

Results

Comparison of Table 5 observations with Addendum Table 7, in regard of the East of Milburn Tower site:-

- Noticeable increases in LDP 2024/25 peak period trips on Corridor 1 (West) A8 route. Impact of site would be probably be noticeable in 2024/25 against 2011 baseline flows.
- Slight increase in LDP 2024/25 peak period trips on Corridor 4 (North West) but not noticeable against 2011 baseline flows.
- Major increase in LDP 2024/25 peak period trips on Corridor 5 (South West), particularly on the A71. Probably noticeable against 2011 baseline flows.
- Noticeable increase in LDP 2024/25 peak period trips on Corridor 7 (Orbital). But very minor compared to 2011 baseline flows.

In terms of the East of Milburn Tower site, it is forecast to generate an additional 714 vehicular trips during the 2024/25 one-hour peak period, routing via the A8 Glasgow Road but also impacting on the A71. This is a slight reduction from the 739 trips forecast in Scenario 1.

The site would still generate a significant number of potential trips by bus (246) that would need to be accommodated. Again, the challenges of the site means it is unlikely all these bus trips would be achieved. There is a noticeable change forecast to be due to a transfer to rail, particularly tram, access and walking distances may prevent these all being achieved.

Do Something Scenario

For all the LDP housing sites, potential transport interventions were identified that would accommodate significant proportions of person trips generated by the new housing and mitigate their impact on the existing transport network. The proposed scale of an individual development site has influenced the extent of suggested interventions while focusing on envisaged impact on the adjacent local transport network and also the Key Corridor deemed to be most affected by a particular site.

Table 7 sets out the estimated modal share assigned to the East of Milburn Tower site which reflect the impacts of the site-specific transport interventions considered appropriate and necessary.

Table 7 - Do Something scenario – estimated adjusted % modal share for East of Milburn Tower site

Mode	Car Driver +taxi	Car pax	Train Tram	Bus	Cycle	Walk	Other	Total Sustainable
Share	45.0	6.0	11.1	23.4	3.5	9.0	2.0	55.0

The impact analysis results for Scenario 3 – Do Something are shown below. Table 8 shows the cumulative impact, by corridor, for all the sites, whilst Table 9 shows the impact arising from the East of Milburn Tower site.

Table 8: Scenario 3 – Do Something Case – Corridor Impact (All Sites)		CORRIDOR 1 - West Edinburgh		CORRIDOR 2 - South East Edinburgh				CORRIDOR 3 - East Edinburgh		CORRIDOR 4 - North West Edinburgh	CORRIDOR 5 - South West Edinburgh		CORRIDOR 6 - South Edinburgh	CORRIDOR 7 - Orbital Edinburgh	
		A8 Glasgow Road	Stenhouse / Broomhouse	A701 Liberton Road	A772 Gilmerton Road	A7 Old Dalkeith Road	Lasswade Road	A1	A6095	A90 Queensferry Road	A71 Calder Road	A70 Lanark Road	A702 Biggar Road	A720 - Outer orbital	Inner Orbital
Baseline peak hour flow		4,447	1,333	1,500	1,102	1,874	740	5,329	875	3,832	2,000	2,465	1,000	6,265	886
2024/25	Corridor impact - by car (peak car trips) (figures in brackets – previous impact)	1572 (1290)		815				821		482 (452)	408 (212)		0	453 (397)	
2024/25	LDP only	1496	75	276	309	123	107	328	493	482	242	166	0	407	46
	LDP only as % over baseline peak hour flow	33.6%	5.6%	18.4%	28.0%	6.5%	14.4%	6.2%	56.3%	12.6%	12.1%	6.7%	0.0%	6.5%	5.2%
	Background growth 2024/25	89	27	30	22	37	15	533	18	383	40	49	20	627	18
	Committed residential 2024/25	202	25	46	65	14	26	17	26	45	36	54	107	66	9
	LDP only as % over baseline peak hour flow plus background plus committed	31.6%	1.7%	13.5%	26.0%	6.4%	13.7%	5.6%	53.7%	11.3%	11.6%	6.5%	0.0%	5.8%	5.0%
	LDP and committed residential and growth 2024/25	1787	127	352	396	174	148	878	536	910	318	270	127	1099	72
	% over 2011 baseline peak hour flow	40.2%	9.5%	23.5%	35.9%	9.3%	20.0%	16.5%	61.2%	23.8%	15.9%	11.0%	12.7%	17.5%	8.1%

Table 9: Scenario 3 – Do Something Case – East of Milburn Tower Site Impact

**NUMBER OF PEAK HOUR TRIPS
GENERATED**

	FULL 2024/25	FULL 2024/25	FULL 2024/25	FULL 2024/25	FULL 2024/25	FULL 2024/25	FULL 2024/25	FULL 2024/25	FULL 2024/25
LDP sites	Committed sites in the vicinity of LDP sites			LDP site only			LDP site plus committed sites		
	peak hour daily trips by car	peak hour daily trips by bus	peak hour daily trips by rail	peak hour daily trips by car	peak hour daily trips by bus	peak hour daily trips by rail	peak hour daily trips by car	peak hour daily trips by bus	peak hour daily trips by rail
East of Milburn Tower	0	0	0	564	293	139	564	293	139

Results

Comparison of Table 8 observations with Addendum Table 10:-

- Still noticeable increases in LDP 2024/25 peak period trips on Corridor 1 (West) A8 route. Impact of site would have a minor noticeable impact in 2024/25 against 2011 baseline flows.
- Slight increase in LDP 2024/25 peak period trips on Corridor 4 (North West) but would not be noticeable against 2011 baseline flows.
- Still a major increase in LDP 2024/25 peak period trips on Corridor 5 (South West), particularly on the A71. Probably still noticeable against 2011 baseline flows.
- Noticeable increase in LDP 2024/25 peak period trips on Corridor 7 (Orbital). But not noticeable compared to 2011 baseline flows.

In terms of the East of Milburn Tower site, it is forecast to generate an additional 564 vehicular trips during the 2024/25 one-hour peak period, routing via the A8 Glasgow Road or the A71. This is a reduction from the 739 trips forecast in Scenario 1 and the 714 trips forecast in Scenario 2.

The site would generate a very high level of potential peak period trips (293) by bus, which is likely to be mainly accommodated only as a result of the proposed site-specific intervention of the site being directly served by bus services running within the site. There would also be an increase in trips by rail (mainly to nearby tram stops but also the Gogar Gateway rail station) as a result of site-specific enhanced access.

Summary of Demand Analysis

This report has presented a summary of the appraisal of the envisaged impact of the East of Milburn Tower site being considered as a potential housing site. As was used for the main TA report and subsequent Addendum, the analysis has not extended to the use of transport computer modelling packages but is based on a proportionate and more appropriate 'first principles' analysis to establish the impact on the existing transport network.

The main objective of the appraisal has been to identify transport interventions deemed necessary to support the potential East of Milburn Tower housing site, with a focus on encouraging sustainable travel and reducing use of the private car.

Three scenarios have been assessed:-

1. Baseline (Do Nothing) Scenario;
2. Do Minimum Scenario; and
3. Do Something Scenario.

The results suggest the proposed transport interventions will reduce the detrimental impact of development of this site on the key corridors and routes the site is likely to impact upon, on the basis that they will achieve the suggested mode share targets.

The analysis undertaken suggests the A8 Glasgow Road corridor would still experience potentially noticeable increases in traffic flows that site-specific interventions are unlikely to address sufficiently to avoid increasing existing congestion. This is to be expected, given the proposed scale of the site and its proximity to the A8. Traffic would use the A8 in both directions. After the Gogar Junction, routing is likely to split onto other roads.

The analysis also suggest the East of Milburn Tower site will have a noticeable impact on the A71 corridor. The A71 is accessed from the site via Gogar Station Road. Although this is not considered a main road, it is likely site-generated traffic would use the road as an alternative to the congested A8 corridor and the Gogar Junction.

The analysis estimates the East of Milburn Tower site will see less than 1% impact (48 vehicular trips) against 2011 baseline peak period flows on the A720 City Bypass, although this is unlikely to occur along the full length of the road. However, it should be noted that, as per the Main TA report and subsequent Addendum, it is likely the analysis may have underestimated the numbers of Edinburgh-based vehicular trips that might use various short sections of the Orbital Corridor, which comprises the A720 City Bypass and Inner Orbital Route, to travel between different parts of the city.

It should be remembered that the 2024/25 results assume full build-out for the site.

The main TA report (Section 8.4) considered the impact the new LDP housing sites would have in terms of cross-boundary trips as people travel from the sites to locations outwith Edinburgh. In general, these are minimal impacts, with the most number of new cross-boundary trips coming from (as expected) those larger developments. For the East of Milburn Tower site, peak period impact from cross-boundary traffic is estimated to be in the order of 13 trips, which would have negligible impact on the wider transport network. This also suggests that the majority of the 48 vehicular trips forecast to use the

A720 is generated by traffic travelling between different Edinburgh wards and using the City Bypass as a route option.

Table 10 shows how estimated total modal share by sustainable modes (that is walking, cycling, public transport which includes bus, train and tram, motorcycle and car passenger trips) across the three scenarios that have been applied for the East of Milburn Tower site. It is suggested the figures set out in the Do Something scenario could be used as the starting point for agreeing Travel Plan targets for the site. It should be noted the values are purely estimates/targets at this time and actual achieved figures would need to be monitored.

Table 10 - Comparison of sustainable modal splits by scenario

Site	Corridor	Baseline	Do Minimum	Do Something	Do Something over Baseline - change
East of Milburn Tower	SW & W	41.1	43.1	55.0	13.9

The East of Milburn Tower site is forecast to achieve a mode shift change of approximately 14%. Significant mode shift is considered feasible as a result of the relevant proximity of trams, although pedestrian and cycle access to the tram stops would need to be enhanced in order to achieve the potential shift. In addition, bus services that directly served the site by running either internally around or through site should also deliver noticeable mode shift. However, it should be recognised that the recommended site-specific public transport interventions are likely to be expensive to deliver, as would the suggested necessary pedestrian and cycle infrastructure interventions.

Assessment of Interventions

As was used in the main TA report and Addendum, the following criteria have been used to assess potential interventions for the East of Milburn Tower site:-

- 1. To facilitate reliable and convenient access to the city and movement within it, in particular by reducing congestion.
- 2. To reduce the need to travel, especially by car.
- 3. To reduce the adverse impacts of travel, including road accidents and environmental damage.
- 4. Promote walking and cycling to reduce use of the private car.
- 5. Integrated public transport to provide for all medium and longer distance movement demands to, from and around Edinburgh.

In addition to the above five criteria, the interventions have also been considered in terms of technical delivery, which considers how difficult implementation might be and if there are any particular relevant issues that might influence implementation of the proposed intervention. This additional criterion also takes account of the standard tests for a planning condition – (i) necessary, (ii) relevant, (iii) enforceable, (iv) precise and (v) reasonable, as it envisaged that developers may be expected to fund some of the proposed interventions and contribute to others.

For all six criteria, the appraisal scoring has been based on following:-

- +3 major compliance with the criteria
- +2 moderate compliance with the criteria
- +1 minor compliance with the criteria
- 0 neutral performance against the criteria
- -1 minor conflict with the criteria
- -2 moderate conflict with the criteria
- -3 major conflict with the criteria

For the Technical Delivery criterion, scoring is undertaken but supported with text as this criterion is considered to be more subjective and, therefore, more difficult to score.

Table 11 sets out the appraisal scoring for the East of Milburn Tower.

Table 11: Proposed Interventions Assessment

Corridor	Site	Interventions proposed	Reduce congestion	Reduce travel by car	Reduce adverse impacts of travel	Promote walking and cycling	Integrated public transport	Technical delivery	Apply - Yes/No
1 West & 5 South West	East of Milburn Tower 1,320 units	Public transport – upgrade existing bus stops on Gordon’s Way. Review condition of existing bus stops on A8 adjacent to site and upgrade in agreement with CEC.	+0	+1	+1	+1	+1	+2 Not complicated Need agreement with Edinburgh Park as Gordon’s Way is a private road	Yes
		Public transport – Option 1 - extend bus services to run internally around site – essential to achieve reasonable PT mode share	+1	+1	+1	+1	+2	-3 Need operator agreement Cost implication – almost certainly need initial pump-priming	Yes
		Public transport – Option 2 – extend bus services to run through site – essential to achieve high PT mode share (requires bridge under/over of A720)	+2	+2	+2	+1	+3	-3 Need operator agreement Cost implication – may need pump-priming Requires suitable vehicular access across A720 (see below)	Yes (as alternative to Option 1)

Table 11: Proposed Interventions Assessment

Corridor	Site	Interventions proposed	Reduce congestion	Reduce travel by car	Reduce adverse impacts of travel	Promote walking and cycling	Integrated public transport	Technical delivery	Apply - Yes/No
		Public transport – Option 3 – shuttle bus service between bus and key locations – essential to achieve high PT mode share	+3	+2	+1	+1	+3	-3 Need operator Cost implication – likely to require operating subsidy Should have single fare structure	No (unless alternative to Option 1 or 2)
		Active travel – high quality pedestrian/cycle routes within site – linking with suitable exit points on site boundary	+1	+1	+1	+1	0	+3 Not complicated as within site	Yes
		Active travel – upgrade existing north A720 underpass vehicular/footpath/cycle track into Edinburgh Park on east side of site, providing some access to tram stop and bus stops (but note long walk and low personal security)	+1	+1	0	+1	+1	+2 Not complicated if not enhancing vehicular access of existing underpass (Personal and Road safety)	Yes

Table 11: Proposed Interventions Assessment

Corridor	Site	Interventions proposed	Reduce congestion	Reduce travel by car	Reduce adverse impacts of travel	Promote walking and cycling	Integrated public transport	Technical delivery	Apply - Yes/No
		Active travel – upgrade existing south A720 underpass footpath/cycle track into Edinburgh Park on east side of site (but note long walk and poor personal security)	+1	+1	0	+1	+1	-3 Major technical challenge to enhance existing underpass structure. River culvert (Personal safety)	Yes
		Active travel – provide new pedestrian/cycle overbridge or underpass to cross A720, to give direct link to Edinburgh Park tram stop	+3	+2	+1	+3	+1	-3 Major structure required Transport Scotland & Edinburgh Park agreements required Visual impact	Yes
		Active travel – upgrade existing pedestrian/cycle route in south east corner of site, to east section of Gogar Station Road. May require new/upgraded rail bridge. Provide new footway on this section of Gogar Station Road	0	+1	+1	+2	0	-2 Not complicated for section within site. New footway may require 3 rd party land (Road safety)	Yes

Table 11: Proposed Interventions Assessment

Corridor	Site	Interventions proposed	Reduce congestion	Reduce travel by car	Reduce adverse impacts of travel	Promote walking and cycling	Integrated public transport	Technical delivery	Apply - Yes/No
		Active travel – contribute to improvements of external pedestrian/cycle routes adjacent to site, as agreed with CEC	+2	+2	+1	+3	+1	-1 Cost implication (Highly desirable to help achieve PT mode share)	Yes
		Travel Plan – implement travel plan (agreed MST, monitoring, soft & hard measures)	+2	+2	+1	+2	+1	+1 Potential future measures have cost implications.	Yes
		Road improvements – use of RBS access road	+1	-1	0	0	+1	-1 May need some road layout adjustments and signage and road markings Need RBS agreement as currently private road and not adopted	Yes

Table 11: Proposed Interventions Assessment

Corridor	Site	Interventions proposed	Reduce congestion	Reduce travel by car	Reduce adverse impacts of travel	Promote walking and cycling	Integrated public transport	Technical delivery	Apply - Yes/No
		Road improvements – provide enhanced vehicular access across A720 to accommodate public transport, walking and cycling only – new underpass or overbridge	+3	+2	+1	+3	+2	-3 Major technical challenge High cost Transport Scotland & Edinburgh Park agreements required	Yes
		Road improvements – widen existing narrow bridge structure on Gogar Station Road to south of RBS, currently with traffic signals, to improve pedestrian and cycle facilities.	+1	0	+1	+1	+1	-2 May require 3 rd party land Existing access junction (Road safety)	Yes
		Road improvements – widen existing railway bridge on Gogar Station Road to accommodate pedestrians and cyclists	+1	0	+1	+1	+1	-3 Technical challenge with rail line (Significant cost) (Road safety)	Yes
		Road improvements – widen existing narrow section of Gogar Station Road to south of Daltons to better accommodate pedestrians and cyclists	+1	0	+1	+1	0	-2 Requires 3 rd party land (Road safety)	Yes

Table 11: Proposed Interventions Assessment

Corridor	Site	Interventions proposed	Reduce congestion	Reduce travel by car	Reduce adverse impacts of travel	Promote walking and cycling	Integrated public transport	Technical delivery	Apply - Yes/No
		Road improvements – provide vehicular access to site using east section of Gogar Station Road (Provide together with improved pedestrian/cycle access)	+1	-1	+1	+1	0	+1 Not complicated if land in control of developer and existing road still public Road safety	Yes
		Road improvements – provide Gogar Junction enhancement scheme	+2	-1	0	0	+1	-3 Cost implication Scale of impact Other developments	No
		Road improvements – help provide Gogar Junction enhancement scheme	+2	-1	0	0	+1	+1 Reduced cost implication (contribution) Relevant	Yes

East of Milburn Tower Site Summary Sheet

Following the interventions appraisal, a summary sheet has been prepared for the East of Milburn Tower site, as was prepared for the other sites considered in the main TA report and Addendum. The summary sheet contains the following information:-

- Site number, site name and suggested unit capacity;
- Key Route Corridor(s);
- Any relevant committed transport intervention;
- Commentary on vehicular site access; and
- The recommended site-specific interventions, under separate headings (public transport, active travel, travel plan and road improvements).

The East of Milburn Tower summary sheet is set out below. It is considered that the recommended interventions are appropriate for this site and will mitigate significant proportions of the new generated development trips and encourage travel by sustainable modes of travel.

Figure 2 summaries where the mitigation measures are required in relation to the site.

Site Name: East of Milburn Tower

Capacity: 1,320 units

(Note: may be developed as part of a larger site, but currently assessed on its own merits)

Route Corridor: 1 - West Edinburgh and 5 South West Edinburgh

Relevant Committed Interventions:

- (i) City-wide ATAP measures – minor impact
 - (ii) Edinburgh Gateway train/tram interchange at Gogar – minor impact (PT users)
 - (iii) Edinburgh trams (Airport to City Centre) – medium impact in absence of further improvements (PT users)
 - (iv) Hermiston P&R extension – minor impact
 - (v) WETA Active Travel measures – minor impact
 - (vi) Gogar Junction capacity enhancements (initial) – minor impact
 - (vii) Newbridge Junction capacity enhancements – minor impact
-

1 Vehicular Access

- (a) Access from Gogar Station Road along east boundary of site – number of accesses required
- (b) Potential use of RBS access road (likely to require some upgrading)
- (c) Potential access from east section of Gogar Station Road at south east corner of site
- (d) Consider bus only access across A720 City Bypass to Edinburgh Park

2 Public Transport

Bus

(a) Bus infrastructure – upgrade existing facilities on Gordon’s Way (need Edinburgh Park agreement, as private road). Review existing bus stops on A8 adjacent to site and upgrade in agreement with CEC, as deemed necessary.

(b) Bus services to serve site, with associated bus stop infrastructure – three potential options (constraint – agreeing existing service(s) to alter current route to serve site or seeking new commercial services

- Option 1 – extend bus services from RBS access road to run internally around site
 - Option 2 – provide arrangement allowing bus services to run through site from RBS access road into Edinburgh Park (may require upgraded vehicular access under/over the A720)
 - Option 3 – provide shuttle bus service between site and key locations (this option should only be considered if Option 1 or 2 were not provided)
-

Train

- (a) Enhance pedestrian/cycle links with train/tram interchange at Edinburgh Gateway – potential major PT facility
- (b) Enhance pedestrian/cycle link with Edinburgh Park Station (train and tram)

Tram

- (a) Pedestrian/cycle links with tram stop at Edinburgh Park – significant PT facility
- (b) Pedestrian/cycle link with tram stop at Gogarburn

3 Active Travel

- (a) High quality pedestrian and cycle routes within site, to link to suitable exit points around site boundary
- (b) Improve existing north A720 underpass connecting site into Edinburgh Park
- (c) Improve existing south A720 underpass connecting site into Edinburgh Park
- (d) provide new pedestrian/cycle overbridge to cross A720 to provide direct access link to Edinburgh Park tram stop
- (e) upgrade pedestrian/cycle access on east section of Gogar Station Road from south east corner of site
- (f) Measures to ensure safe cycling/walking along Gogar station Road including upgrading existing narrow sections of Gogar Station Road
- (g) Contribute to improved pedestrian/cycle links to key surrounding locations, including Edinburgh Gateway train/tram interchange, Gogarburn tram stop and other routes, as agreed with the Council

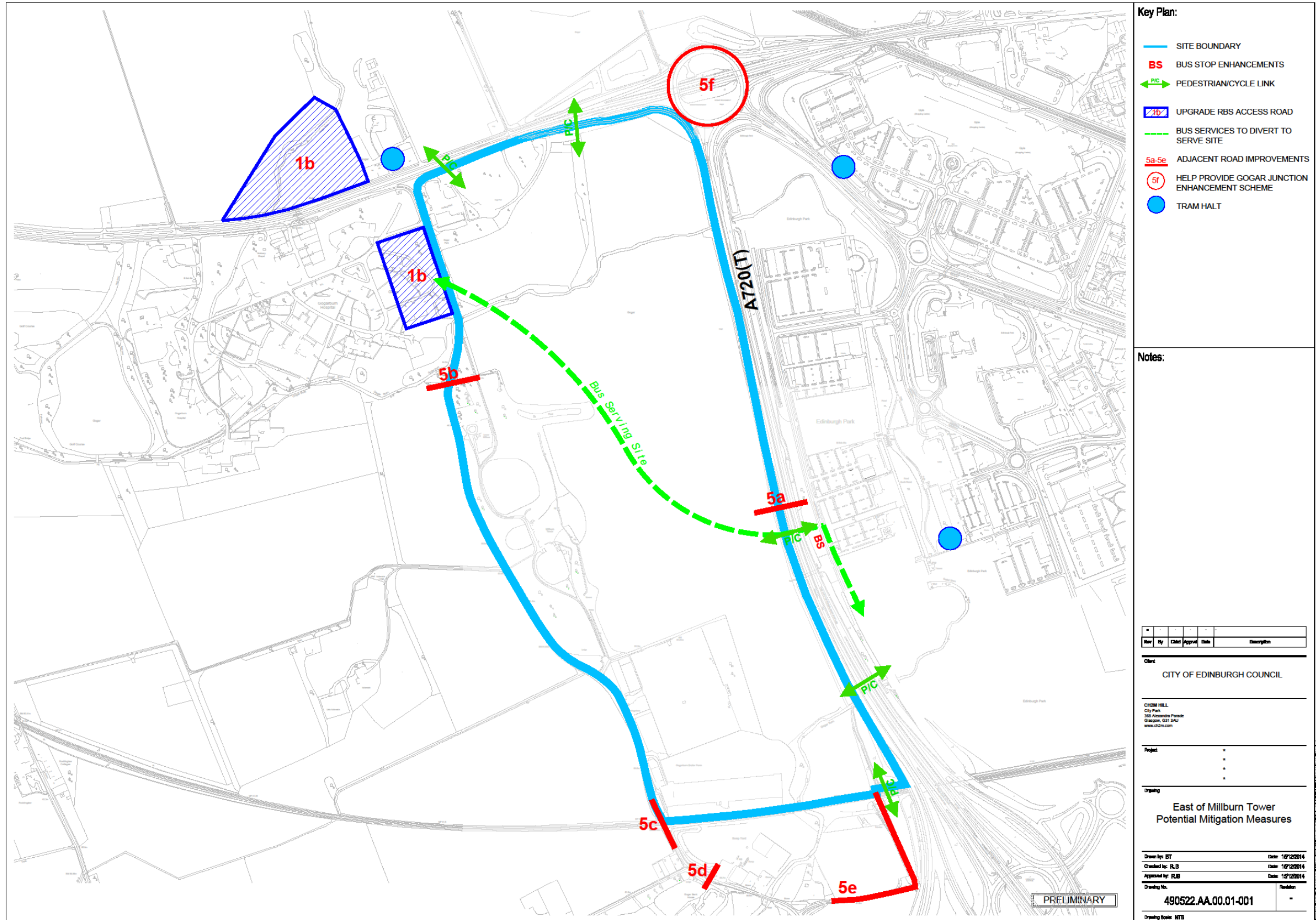
4 Travel Plan

- (a) Implement residential travel plan, with agreed mode share targets, monitoring regime and potential additional mitigation measures.

5 Road Improvements

- (a) Provide enhanced vehicular access across A720 from site into Edinburgh Park (likely to restrict to buses, cyclists and pedestrians)
 - (b) Widen existing road at narrow bridge on Gogar Station South immediately south of RBS site
 - (c) Widen existing railway bridge on Gogar Station Road
 - (d) Widen existing narrow section of Gogar Station Road near Daltons site
 - (e) Upgrade existing east section of Gogar Station Road to link with new south east vehicular access to site
 - (f) Help provide Gogar Junction enhancement scheme
-

Figure 2: Proposed Mitigation Measures



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