1 Purpose

The primary purpose of this document is to set out the quantitative justification for changes to the LEP for the Liverpool City Centre. In order to do this, the gross floor area has been estimated for a range of uses and for a number of 'scenarios' in the subject area:

- existing gross floor area in the subject area;
- the existing floor area with the addition of a number of proposals for particular sites that have not gained approval termed 'current proposals';
- the potential 'supply' under current planning controls, taking into account sites that are unlikely to be redeveloped; and
- the potential supply under the proposed changes to the local environmental plan that would allow a significant
 increase in the amount of residential in the city centre.

This 'supply' is then related to 'demand' for various land uses. This document is not intended to provide a detailed reconciliation of demand and supply. Its purpose is to highlight the abundance of supply of commercial floor space even if the zoning were changed from B3 to B4 - mixed use with built form controls appropriate for the various precincts.

2 Rationale

Current Metropolitan planning policy has identified Liverpool as a 'regional city' in the centres hierarchy. The policy requires that 'regional cities' have areas reserved for the B3 Commercial Core zone, in order to provide a land supply for 'higher order' employment; business services and the like.

This prescriptive approach is reflected in the current LEP that was initiated in 2006 and reviewed in 2008.

This normative approach to land use planning and zoning does not reflect the level of actual demand for this type of development. The rationale for the 'reservation' of this amount of centrally located land that has very good access to amenities, services and transport is questionable.

There is a high demand for residential development in the city centre, while the demand for commercial is limited, particularly for large floor plate office functions. There is also a wide range of estimates for additional retail demand, and this is made even less certain due to the unknown quantity of retail in and around the Western Sydney Airport, suggestions there may be an additional centre at north Bringelly, and the amount of retail that may eventuate in Leppington and Edmondson Park. All of these issues are in flux. However, these developments are likely to reduce demand in the Liverpool city centre.

Conversely, the demand for health related services, education, and cultural and entertainment activities are likely to increase. These other activities would benefit from a higher residential population in the city centre.

Most importantly, the proposed changes to the LEP reflect the shift in planning theory that has started to recognise the importance of the 'liveability' and attractiveness of a centre as means of attracting business, including office location. In other words, the effect of increasing the residential population in centres not only has a direct effect by increasing patronage and spending in the centre but makes the place more attractive to workers and therefore to businesses overall.

The underlying economics of the region, the fundamentals, will be strengthened by the commitment to the Western Sydney Airport, but this potential needs to be catalysed by improved amenity and increased population in the city centre.

This has been evident in the revitalisation of Parramatta and in particular the evolution of its 'eat street' and commitment to public domain improvements.

The theoretical development capacity for commercial floor space is arguably less important than attracting and stimulating business location and investment decisions.

There is no point in having the capacity if no one is interested in developing it.

The current planning controls have been in place since 2006, but the generous height and floor space controls have not proven to be sufficient incentives to stimulate investment. The approach might be caricatured as "zone it and they will build, and then, build it and they will come"- this is not the way the market or investment works.

The idea of a 'central business district' comprised entirely of commercial and retail premises does not fit with the Liverpool market or the aspirations of the Liverpool population. The centre of Liverpool is already well used and would benefit from a higher population in the centres itself.

It is also important to recognise the potential of nearby areas to accommodate a range of different types of employment if the objective is to strengthen Liverpool overall.

The secondary purpose of this document is to provide a guide to the wide ranging analysis and design work that underpins and supports changes to the LEP, and to position these changes in relation to the broader strategic context.

Businesses and landowners across the river from the city centre have been considering relocation and redevelopment, and this has been accelerated by the announcement of the Western Sydney Airport. It is important to recognise that the redevelopment of the eastern bank is not simply to provide additional land for employment within 250m of the Liverpool rail station, but is also critical to reorientation and connecting the city to the river which has been inaccessible since the construction of the railway.

Although detailed planning is yet to be undertaken, indicative yields that may be achievable on these nearby sites are included to provide a broader context.

Similarly, it is important to recognise the different industry sectors and their locational preferences in the city centre, the characteristics of land and land ownership, and the overall structure of the city centre that is emerging: eat street, hospital and educational precincts, the mall and fine grain retail on Macquarie Street, as well as the potential of service ways and lane to provide a rich and complex urban environment. Each of the precincts has the potential to accommodate a range of different types of businesses. The overall approach to the planning may therefore be summarised as 'bottom –up' as much as top down.

The patterns of ownership, owner's expectations and subdivision patterns also need to be recognised as factors that strongly affect the ability to develop different areas: there is simply insufficient incentive for small business owners to shut up shop and redevelop, and there are no developers wishing to develop commercial space in the 'fine-grain' subdivision along Macquarie Street in any case. Furthermore, the fine grain subdivisions, in the southern part of Macquarie Street, have been recognised as being very important to a sense of authenticity both now and in the future. Therefore encouraging amalgamations may not be desirable in any case.

It should be recognised that large sites that are in Government ownership, including the school, bus interchange, Council library and car park, Scott Street, all have considerable potential for redevelopment or intensification as commercial premises should the demand for large floor plate offices eventuate. The hospital also has the potential to expand eastwards and Westfield has the potential to be redeveloped to include commercial premises- particularly related to health services.

3 Scenarios

A number of scenarios were modelled to allow comparison of yield and mix of uses. Refer to Table 1

Scenario 0 – EXISTING

This is the existing condition with estimates of the retail, commercial (office and business), community and residential floor space that exists in the subject area.

Scenario 1 – EXISTING +CURRENT PROPOSALS

There are a number of proposals for sites currently being considered. The floor space of these proposals has been estimated and the net increase added to the balance of the existing floor space. The redevelopment of the Council library site for commercial development has been included

Scenario 2 – CURRENT LEP BASE FSR

Sites that are considered 'undevelopable' for a range of reasons: heritage, substantial existing development, essential infrastructure etc. have been identified and assumed to remain as is. The lowest permissible floor space ratio in the current LEP has been applied to the balance of the 'developable' sites, with land uses permissible under current zoning. It has been assumed that 70% of the ground floor would be occupied by retail. In the mixed use B4 zone it has been assumed that 10% of the remaining allowable floor space above ground level would be developed as commercial space, with the remaining 90% of the balance being developed as residential. It should be noted that this tends to inflate the amount of retail and decrease the number of estimated jobs as retail has been assumed to have an intensity of 1 job per 50sqm while other commercial has been assumed to have an intensity of 1 job per 25sqm.

Scenario 3 – CURRENT LEP BONUS FSR

This scenario is similar to #2 but it is assumed that ALL sites have been amalgamated to be a minimum of 2500sqm in accordance with the LEP that would allow the higher 'BONUS" FSR to apply. It should be noted that this is very unlikely to be achieved and therefore should be recognised as an upper theoretical limit, rather than an achievable target.

Scenario 4 – PROPOSED LEP

This scenario also assumes that sites that are considered 'undevelopable' for a range of reasons: heritage, substantial existing development, essential infrastructure etc. will remain as is. Built forms that respond to the character of the different parts of the city centre and in particular the desired street form and potential to address rear lanes have been modelled and quantified. It should be noted that the proposed built form should allow individual sites to be developed without amalgamation. An average of two levels of car parking below ground has been assumed with significant amounts of above ground parking in major development sites to take advantage of their site depth. There is no parking in the 'fine-grain' area. Very approximate estimates of demand and supply are included.

Scenario 5

This scenario is similar to #4 but towers have been added to the 'mid rise' podiums wherever possible. It should be noted that this will require site amalgamations. Like scenario 3, it should be noted that this is very unlikely to be achieved and therefore should be recognised as an upper theoretical limit, rather than an achievable target.

Table 1 Scenarios modelled

		Total GFA	Retail	Commercial	Community	Residential
0	EXISTING	269,858	68,054	146,914	42,732	12,157
1	EXISTING Incl CURRENT PROPOSALS	605,261	61,755	325,378	32,488	185,640
2	CURRENT LEP BASE FSR (Total)	964,821	119,751	528,798	29,625	286,647
3	CURRENT LEP BONUS FSR (Total)	1,324,650	119,751	685,150	29,625	490,124
4	PROPOSED LEP (Total)	1,083,612	107,787	322,177	29,625	624,023
5	PROPOSED LEP+TOWERS (Total)	1,534,269	112,414	476,554	48,758	896,541

Table 2 Scenarios modelled

		Total	Retail	Commercial	Community	Residential
			jobs	jobs	jobs	units
0	EXISTING	8,092	1,361	5,877	855	135
1	EXISTING Incl CURRENT PROPOSALS	14,900	1,235	13,015	650	2,063
2	CURRENT BASE FSR (Total)	24,139	2,395	21,152	593	3,185
3	CURRENT BONUS FSR (Total)	30,394	2,395	27,406	593	5,446
4	PROPOSAL (Total)	15,635	2,156	12,887	593	6,934
5	MID RISE TOWER (Total)	22,286	2,248	19,062	975	9,962

Table 3 Scenarios modelled

Scenario	0	1	2	3	4	5
	Existing	Existing +Proposals	Current LEP Base FSR	Current LEP Bonus FSR	Proposed LEP	Proposed LEP+towers
Component s	A+B+C	A+B+D	A+D+E	A+D+F	A+D+G	A+D+G+H
A	Non-developable sites (heritage, substantial buildings, special sites remain as is)					
В	Existing GFA on 'developable' sites	Existing GFA on 'developable' sites				
с	Existing GFA on sites with current proposals					
D		Current proposals				
E			Residual 'developable' sites have base FSR and permissible land use applied			
F				Residual 'developable' sites have Bonus FSR and permissible land use applied		
G					GFA derived from proposed finegrain and mid rise	
н						GFA derived from proposed finegrain and mid riseAdditional GFA from towers above mid rise

Note: Component refers to parts of the model that are added to make the individual scenario

4 Detailed methodology for estimating floor space

Estimating the effect on the development potential of the Liverpool City Centre is an important part of the process and justification for the changes to the LEP. The entire city centre has been modelled in 3D from information gained from site inspections, Google Street View and Bing Aerial Obliques, however the focus of this part of the methodology is only concerned with the existing B3 zone and some of the areas immediately adjacent to it; the 'subject area'.

The overall question and issue is whether there will be sufficient supply of commercially zoned land for the projected demand and whether this supply is of the right type and in the right location. These questions are addressed in relation to strategic land use and sectoral demand in more detail subsequently.

The purpose of this section is set out the methodology used to estimate the potential yield in the focus area and the results.

4.1 Overall approach

- Define the public domain based on, and incorporating the Building Our New City projects.
- Define the desired built form to define streets and take advantage of large sites while recognising the desirability of
 retaining and enhancing the fine grain, and developing distinct characters for the different precincts identified in the
 BONC process: 'eat street' at the south, the mall, and Bigge Park.
- Recognise the need for additional public car parking in the southern part of the city
- Quantify the resulting built form in terms of residential, retail and commercial floor space and car parking.
- Estimate the number of jobs and residential units that may be possible within the modelled built form.

4.2 Detailed methodology

- Define the subject area: it is important to recognise that there is considerable development potential outside the B3 zone and that this could accommodate commercial office space: refer to Figure 1.
- Define a number of small areas according to the current zoning, heights and permissible FSR- this facilitates a comparison of the proposed changes and the development potential under current controls: refer to Figure 3.
- Define the sites that are 'non-developable' for a range of reasons: substantial relatively new buildings, essential infrastructure, longer term potential, heritage etc. Refer to Figures 4.
- Identify current proposals and council sites that require special attention. This includes current proposals that may not yet have planning approval.
- Define desirable built form for the different precincts in relation to impacts on public domain and adjoining residential properties.
- Model the desired built form and quantify the resulting floor area with assumed efficiencies for converting the 'Gross Envelope Area' (GEA), the total floor area that is indicated by the outside building envelope, to Gross Floor Area (GFA), in accordance with the Standard LEP definition.
- Define assumptions relating to employment intensity, car parking rates and unit sizes in according with recent ministerial clarification and assumed apartment mix.

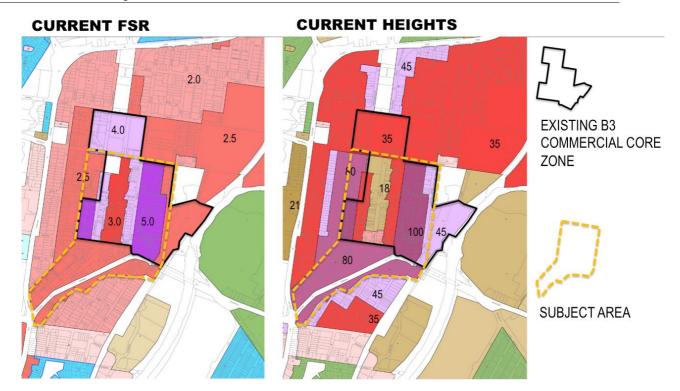
4.2.1 Define the subject area;

It is important to recognise that there is considerable development potential outside the B3 zone and that this could accommodate commercial office space; refer to Figure 2

Figure 1 Subject area and proposed changes to the zoning.



Figure 2 Current FSR and heights



4.2.2 Define a number of small areas according to the current zoning, heights and permissible FSR- this facilitates a comparison of the proposed changes and the development potential under current controls; refer to Figure 3

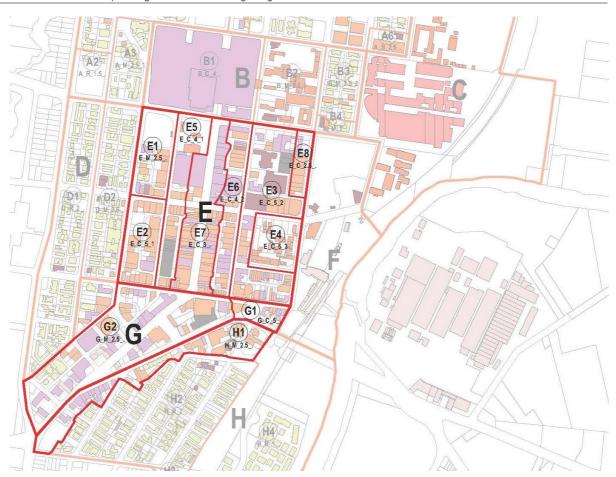


Figure 3 Smaller areas corresponding the different zoning, heights and FSR

4.2.3 Model existing development

Figure 4 Existing development



4.2.4 Define the sites that are 'non-developable' or need to be considered on an individual basis. The sites are 'non-developable' for a range of reasons: substantial relatively new buildings, essential infrastructure, longer term potential, heritage etc; refer to figures 4-

Figure 5 Developable and non developable sites



Liverpool

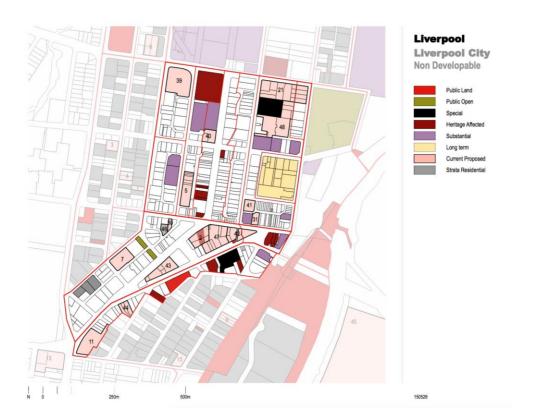
Development Precincts Developable & Non Developable



4.2.5 Identify current proposals and special sites.

This includes council sites, and current proposals that may not yet have planning approval.

Figure 6 Types of 'non-developable' sites



Note: Current proposals include council owned sites. The library site is included due to its potential for large floor plate commercial development in an appropriate location.

Figure 7 Current Proposals



Table 4 Type and amount of floor space in 'current proposals'

AREA	Proposal Reference Number	Retail	Commercial	Community	Residential
E1	39	4,653	19,778	· · · · · · ,	25,798
E3	21	-	33,698		24,402
E3	31	-	5,600		-
E3	41	-	8,638		-
E3	47	2,834	31,324	-	15,000
E5	5	2,790	17,334		-
E7	40	437	1,067	-	7,272
E8	21	-	1,555		17,024
G1	42	-	814		16,346
G2	48	2,834	66,165	-	-
G2	2	-	2,763	-	5,526
G2	7	-	3,870	-	15,161
G2	30	-	1,248		
G2	42	-	1,067		5,965
G2	43	-	1,200		19,914
G2	46	-	-		
H1	11	1,257	-		14,542
H1	44	-	350		6,534
		14,804	196,471	nt munanala	173,483

Note:

Sites 5, 47 and 48 are council owned sites and are not strictly 'current' proposals. Site 5 is the Bathurst Street car park, for which some capacity studies have been undertaken. Site 47 is the Scott street redevelopment site for which some capacity studies have been undertaken. Site 48 is the existing Library site,

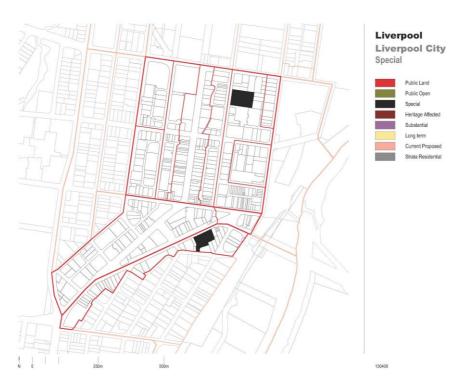
Sites 47 and 48 have the potential for large floor plate office development due to their size and location

Figure 8 Remaining 'developable sites'



Note: 'developable' simply means that a generic approach to the built form or application of FSR can be applied.

Figure 9 Special sites





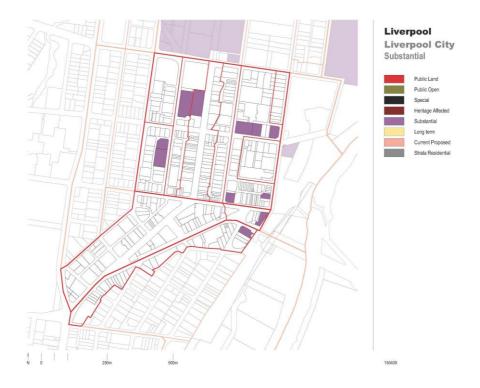
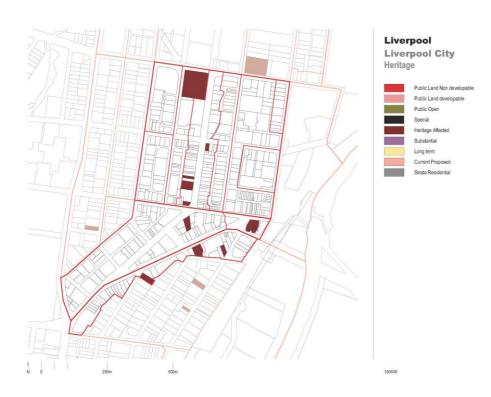




Figure 12 Heritage



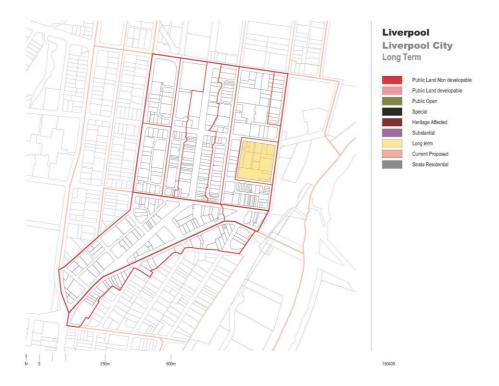


Figure 14 Existing development in the subject area





Figure 16 Current proposals plus fine grain



Figure 17 SCENARIO 4 PROPOSED LEP Current proposals + Fine grain + Mid-rise



Table 5 SCENARIO 4 PROPOSED LEP

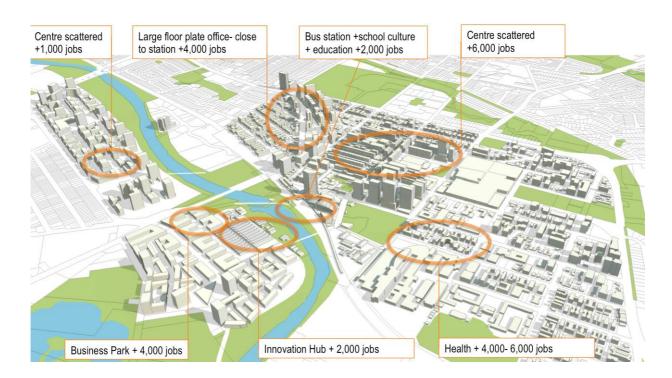
	Total GFA	Retail	Commercial	Community	Residential	Cars above ground	Car below ground	Total Cars
E1	87,286	12,298	19,778	-51	55,260	-	17,349	17,349
E2	60,849	11,342	11,933	-	37,574	-	21,539	21,539
E3	199,183	9,785	94,149	21,626	73,624	-	23,657	23,657
E4	5,178	-	-	5,178	-	-	2,322	2,322
E5	44,664	9,330	20,304	1,392	13,639	-	8,376	8,376
E6	71,021	13,466	10,031	-	47,524	-	29,427	29,427
E7	95,672	20,853	25,439	-	49,380	-	-	-
E8	64,611	3,374	713	-	60,524	-	7,245	7,245
G1	37,405	-	1,559	-	35,846	-	266	266
G2	316,911	13,681	120,164	774	182,293	-	54,969	54,969
H1	100,834	13,659	18,107	707	68,360	-	24,576	24,576
	1,083,612	107,787	322,177	29,625	624,023	-	189,725	189,725
		empl	empl	empl	units	cars	cars	cars
Total Employees	15,635	2,156	12,887	593	6,934	-	5,421	5,421



Table 6 SCENARIO 5- PROPOSED LEP + TOWERS

	Total GFA	Retail	Commercial	Community	Residential	Cars above ground	Car below ground	Total Cars
E1	143,762	12,298	32,074	-	99,390	11,862	17,349	29,211
E2	157,712	11,342	27,735	-	118,634	12,617	21,539	34,155
E3	310,060	12,644	110,721	28,934	157,762	8,994	23,657	32,651
E4	5,178	-	-	5,178	-	-	2,322	2,322
E5	38,893	7,944	19,669	1,392	9,889	-	8,376	8,376
E6	52,855	8,994	13,011	448	30,402	12,883	29,427	42,310
E7	114,529	21,160	26,327	17,663	49,380	-		-
E8	18,579	-	1,555	-	17,024	-	7,245	7,245
G1	19,268	-	2,922	-	16,346	-	266	266
G2	163,975	6,469	80,729	2,383	74,394	64,541	54,969	119,510
H1	118,269	9,624	17,669	707	90,269	14,713	24,576	39,289
	1,143,080	90,475	332,412	56,703	663,490	125,611	189,725	315,335
	.	empl	empl	empl	units	cars	cars	cars
Total Employees	16,240	1,809	13,296	1,134	7,372	3,589	5,421	9,010

5 Neighbouring major sites



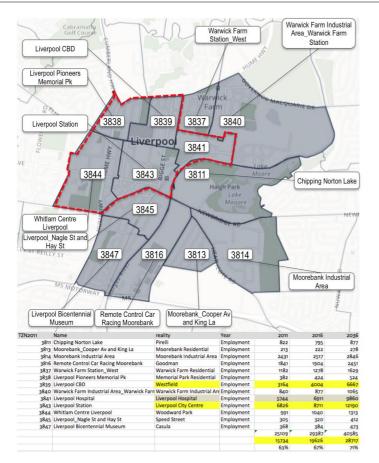
6 Employment projections and floorspace demand

The following figures provide an overview of employment projections and their relationship to land use and format of buildings likely to be required.

Key points:

- Most growth is projected to be in health
- Very small component of growth in sectors that require large floor plate office format, bearing in mind that a single floorplate of 1,000sqm accommodates 40-60 workers in current densities of occupation.
- Employment projections for retail from BTS do not align with projected demand for retail estimated by HillPDA (low estimate of 20,000sqm extra) of Leyshon Consulting (high estimate). Both of these predate WS Airoport announcement.

Figure 19 Travel zones associated with Liverpool city centre and total employment projects.



Travel Zones

BTS uses names that are counter intuitive: 'Liverpool CBD' is actually dominated by Westfield and

'Liverpool Station' is the CBD.

Note that there is a small section of land near the Hoxton Park intersection that is in TZN 3844, but this is relatively small and would not include many employees.

Employment is concentrated in 3 Travel Zones:

3839 Liverpool CBD (Westfield)

3841 Liverpool Hospital3843 Liverpool Station (the actual centre)

From the BTS figures, employment target for the 25 years 2011-2036 are for an additional 13,900 jobs in TZN 3838,3839,3841,3843,3844 which are considered to comprise the 'Liverpool Regional City' in Metropolitan Planning

Figure 20 Projected Employment Growth by Industry Sector

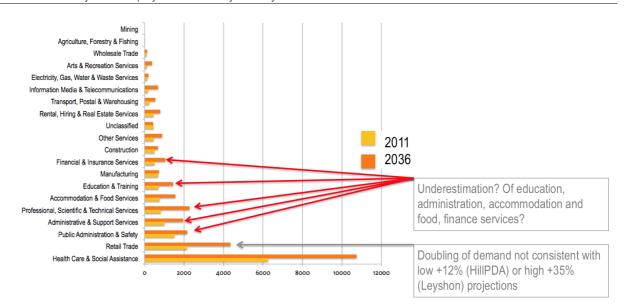
Liverpool City Centre	2011	2016	2036
Mining	0	0	0
Agriculture, Forestry & Fishing	3	4	4
Wholesale Trade	111	109	128
Arts & Recreation Services	120	222	380
Electricity, Gas, Water & Waste Services	142	155	198
Information Media & Telecommunications	171	384	691
Transport, Postal & Warehousing	246	355	545
Rental, Hiring & Real Estate Services	447	586	796
Unclassified	460	411	433
Other Services	461	622	889
Construction	505	545	687
Financial & Insurance Services	506	714	1,045
Manufacturing	690	750	725
Education & Training	718	891	1,454
Accommodation & Food Services	764	1,010	1,569
Professional, Scientific & Technical Services	830	1,396	2,270
Administrative & Support Services	1,007	1,185	1,946
Public Administration & Safety	1,516	1,612	2,151
Retail Trade	2,154	2,806	4,355
Health Care & Social Assistance	6,255	7,036	10,745
	17,106	20,793	31,011

BTS uses names that are counter intuitive: 'Liverpool CBD' is actually dominated by Westfield and 'Liverpool Station' is the CBD. Note that there is a small section of land near the Hoxton Park intersection that is in TZN 3844, but this is relatively small and would not include many employees. Employment is concentrated in 3 Travel Zones: 3839 Liverpool CBD (Westfield) 3841 Liverpool Hospital 3843 Liverpool Station (the actual centre) From the BTS figures, employment target for the 25 years 2011-2036 are for an additional 13,900 jobs in TZN 3838,3839,3841,3843,3844 which are considered to comprise the 'Liverpool Regional

City' in Metropolitan Planning

Figure 21

Projected Employment Growth by Industry Sector



Source: BTS 2014 Update