

# HUTT CORRIDOR TRANSPORT STUDY

## ECONOMIC REVIEW

WELLINGTON REGIONAL COUNCIL



INTERNATIONAL  
CONSULTANTS

# HUTT CORRIDOR TRANSPORT STUDY

## ECONOMIC REVIEW

For  
Wellington Regional Council

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## Hutt Corridor Transport Study, Economic Review

### EXECUTIVE SUMMARY

The long-term outlook for metropolitan Wellington is poor, significant change will continue. Mostly this change is reflected in the type and status of people living in the metropolitan area:

- many head offices have left – in the end firms that provide services to them may move to keep close to their clients
- the finance sector has plateaued
- very little job growth is expected in the CBDs and some may decline
- there is job growth in Wellington but it is outside the Wellington CBD
- there is a drift to Wellington City by people and business
- the population is rapidly aging – over the next 20 years the over 60's increase by around 60%; under 25's decrease by around 30%
- the Hutt Valley population may continue to decline

The reasons for the economic and social problems facing the metropolitan area are many and varied. The prime reason is the changes in the Wellington CBD. The comparatively poor level of service offered by the road network is a component in the decline of the region.

- SH 2 Petone to Ngauranga: the most common route North from Hutt is via SH 2 to Ngauranga (via the most congested part of the Regional road network) and then SH 1 north – an additional or better Hutt Corridor to Western Corridor link would help remove some of the load on SH 2
- poor connections between SH 2 and the local road network in Hutt City
- SH 58: parts of SH 58 are more like a rural road than a State Highway

On the positive side

- education of foreign students is already significant and is expanding rapidly. They will probably be the most significant factor driving economic growth in the Region
- foreign students, estimated to number between 4,000 and 6,000, will continue to hold up house prices in Wellington
- the NZ International Campus in Upper Hutt with its potential for 10,000 foreign students will provide an enormous boost to the Hutt Valley and to the metropolitan area. Other education organisations also have major expansion plans
- the Labour Government has significantly boosted public servant numbers
- the Wellington CBD is the entertainment centre for the Metropolitan area

For the Region to prosper

- it needs to turn itself into the service centre for the lower half of the north island and the top of the south island - it needs to facilitate the movement of people and freight
- the road network needs to be improved. It is a constraint on economic development
- the Wellington CBD needs to be made attractive to business

For the Hutt Valley, the public transport network is good but the road network is relatively poor:

- priority 1 is to improve access along SH 2 to Wellington. It is very congested as 34% of all commuter vehicles use this road
- priority 2 is to improve access from SH 2 to the Hutt City local road network
- priority 3 is to investigate the valley floor connector and the Hutt Valley to Western corridor links. Note, keeping the connectors some distance apart maximises the

benefits of both and helps ensure that both Upper Hutt and Hutt grow. This implies SH 58 and Petone Grenada are preferred road improvement options.

## Hutt Corridor Transport Study, Economic Review

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## INTRODUCTION

1. This economic review forms part of the background to the work being undertaken for the Hutt Corridor Transport Study. The intent is to build a current and future economic and demographic picture of the Hutt Valley as part of the Wellington Region. This results in a status quo picture of the region. The status quo is then used as the basis for a number of scenarios (e.g. that 10,000 foreign language students will enrol at the NZ International Campus in Upper Hutt). The transport implications of each scenario are then evaluated.

### Objective

2. The objective of the economic review is to:
  - a) provide a brief economic and demographic outline of the outlook for the region, plus a more focused outline for Upper Hutt and Hutt Cities. This will be based on a review and update of the economic and demographic scenario work completed for both Cities
  - b) identify, in association with the appropriate cities, of up to 5 scenarios for economic and social growth
  - c) estimate the traffic growth and composition impacts on the Hutt Network that could result from the various scenarios together with the likely origins, destinations and flow paths. This would be developed in conjunction with the cities
  - d) consideration, in conjunction with both cities of how transport may constrain economic and social development both now and in the future and how severe those constraints could be
  - e) estimation of consequential spillover effects on other areas in the region. This could include such things as constraints on traffic to and from the Wairarapa

## OUTLOOK FOR WELLINGTON REGION

3. Our forecasts of what the Wellington Region may look like in the future, based on current trends, are as follows:

### On the positive side

- a) Wellington metropolitan area (the four cities) is gaining in importance as (in order of importance to the metropolitan area):
  - i) an education centre for foreign students (far more important than most people realise, foreign students probably occupy over 30% of CBD “office space”)
  - ii) an entertainment centre (e.g. the success of “send yourself to Wellington” and the Regional Stadium)
  - iii) as a consulting service centre (especially management consultants, information technology, communications and creative media)
  - iv) a distribution centre (but not in Wellington City)
- b) Wellington metropolitan area will remain the key Government centre
- c) region wide, forestry is increasing and regionally focussed light industry is expected to grow (but not in Wellington City)

## On the down side

- d) Wellington City has lost its position as
  - i) the main financial centre
  - ii) the preferred location for head offices of multinationals and large companies
  - iii) we forecast the CBD will continue to decline in importance as a national business centre. This continued decline will have an adverse effect on the rest of the region and, in the end, a decline in the number of consultants
  - iv) however, in a complex repositioning of people and businesses, residents and businesses are moving into Wellington from the other metropolitan cities as rents fall in the Wellington CBD and some cities fall out of favour.
- e) region wide, manufacturing is stagnant or declining

## Survival

- f) the region needs to restructure itself to survive in the future. The factors hindering the region include the inadequate road networks. For example, anecdotal evidence is that the current road network is hurting CentrePort
  - g) the Wellington Metropolitan area is turning into the regional centre for the area south of Taupo (and for the top of the South Island) but this alone will not provide the high paying jobs or enough jobs for the current population.
    - i) it is important for the Region's survival to facilitate, help and enable this shift to being a regional centre to happen
    - ii) there is a need to facilitate the movement of people and freight. Also to enable ready access to the services, distribution companies, port and airport in Wellington. Moreover, those service providers and distribution firms in the metropolitan area need ready access to the wider Southern North Island "Region" and the top of the South Island
  - h) for the consulting services in Wellington City to survive and prosper, they need to gain increasing amounts of revenue from national and international work. This requires fast Internet connections, good access to the airport [and a truly international airport] and good roading access north.
4. Growth projections are as follows:
- the Wellington metropolitan economy is expected to continue to have lower output and employment growth than the New Zealand average
  - we expect job numbers in Wellington City to continue to grow until around 2005, this growth will be mainly low end and part time jobs driven by falls in rentals and rise in retail, cafes and information technology. This is a continuation of the current trend
  - under-representation of traded-products industries (manufacturing, tourism) in Wellington means limited benefit from expansion in exports (which underpins national economic growth)
  - We expect, tourism to grow and IT and communications to slowly decline. The jobs created will, in the end, not replace the lost jobs
  - in the Wairarapa, forestry, grape growing and wine production are helping keep the area from stagnating. Any real boost from forestry processing is not expected until after 2015 at the earliest as that is when the potential log availability doubles. In 2020, the potential log availability is 5 times that available now.

## HUTT VALLEY ECONOMY

### Hutt City

5. If Hutt City continues as now there will be declining population and a decreasing number of jobs in the future unless new opportunities are found. There are opportunities on the horizon in light industry, distribution and retail. It remains to be seen whether Hutt can capitalise on them. Hutt will interact with the rest of the region and the economic future for the residents is likely to still be tied to what happens to Wellington.
6. Weltec Polytechnic expects to grow the student numbers by 2,000 over the next few years. This would be a boost for Petone's economy.
7. Hutt could aim to be the centre for light industry and distribution in the Region to reduce its dependency on Wellington for employment and economic success. There is the land available and consents should not be an issue. Access to the North (State Highway 1), port and airport are important.
8. We see the potential for retail (Queensgate) to double in size, significant potential for light industry to grow in Gracefield/ Seaview, small scale creative in Jackson Street, Petone and slow growth in media around Avalon. However, all the factors needed to enable the potential at Gracefield/ Seaview to be achieved have yet to be put in place. The growth at Queensgate increases traffic during the inter-peak and at weekends. The main route to Gracefield, the Esplanade, is already over-loaded during commuter peaks. The Esplanade is important because it runs along the waterfront and, with the current volume of traffic, separates the City from the shore.

### Upper Hutt City

9. If Upper Hutt continues as now there will be little economic development and some residential development. Given the ample supply of land, we see continued slow growth in residential development, but this relies on the region doing well. However, if the NZ International Campus proposal goes ahead then there will be economic growth and further residential development.
10. Education of Asian students at the NZ International Campus site is the biggest opportunity facing Upper Hutt, and the region. The influx of 10,000 students will significantly boost the economies of Upper Hutt and Hutt and to a lesser extent Wellington. The students will revitalise the Upper Hutt CBD and those that billet with Upper Hutt families will enhance those families.
11. Distribution and light industry are the next main opportunities for growth and this will be concentrated in the industrial area.
12. With the NZ International Campus proposal there will be growth in population and economic development. Without the NZ International Campus proposal all the risks are on the down side. The ties are increasingly to Wellington rather than Hutt and with the poor forecast for Wellington, the outlook is poor.



## HUTT VALLEY DEMOGRAPHICS

13. Note, if there is not a pick up in the Wellington City growth, then these forecasts should be regarded as optimistic

### Hutt City

14. Hutt City's population has declined much faster than expected. We expected in the 2001 Census a 97,800 population, down from 98,300 in 1996, but the outturn was 95,500. There was no increase in the over 60 population, a 900 decline in the 25 to 60 age group and a 2,000 decline in the under 25 age group. We attribute this to the loss of head office and finance jobs in Wellington City, older people moving to Kapiti and other age groups moving to Wellington City.
15. We do not see significant growth in the "permanent" residential population from new developments. However, the growth in Weltec and the NZ International Campus (see paragraphs 20 and 21 below) could result in a significant growth in the temporary population, say 3,000 to 5,000. There is considerable potential for job growth attracting people and Hutt City is focussed on attracting those jobs.
16. If things continue as now we expect a slowly declining and rapidly aging population. The population would decline from 95,000 in 2001 to 90,000 in 2021, a decline of 6%. Over the same time period the under 25 years age group to decline by 27%, the over 60 year olds to increase by 56% and the 25 to 60 population is expected to decline by over 9%. Given that the over 60 population should have increased over the last 5 years, but it did not, then they must have left the Hutt. However, the above assumes that the over 60's stay in Hutt, if they did move then the population could fall further.

### Upper Hutt City

17. If things continue as now we expect a declining and rapidly aging population. The population would decline from 36,000 in 2001 to 33,000 in 2021, a decline of 8%. Over the same time period the under 25 years age group to decline by 33%, the over 60 year olds to increase by 65% and the 25 to 60 population is expected to decline by over 20%.
18. Between 1996 and 2001 Census periods population declined faster than we expected. This decline was in the under 60-year age group. The over sixty population was as expected.
19. The recent growth in residences could slow this down. Moreover, those over 65 tend to be on lower and fixed incomes. This will make life much more difficult for the commercial areas as average household spending falls.
20. However, the advent of the NZ International Campus with potentially 10,000 students could change all this. It would change both the age mix and the disposable income. Moreover this effect will happen even if only, say, 2,000 of the students decide to live in Upper Hutt.
21. We see the students as young and wealthy, with many wanting to be independent and live in the centre of the entertainment district. Accordingly, we consider that the residences of the students could be 2,000 Upper Hutt, 3,000 Hutt and 5,000 Wellington CBD and fringe.

## REGIONAL LAND TRANSPORT STRATEGY

22. The current Regional Land Transport Strategy (RLTS) (1999 to 2004) identifies the following issues and needs for the Hutt Corridor (Upper Hutt to the Ngauranga Merge). We have paraphrased the RLTS:

- low population growth in the Hutt Valley
- importance of the Wellington CBD for employment of Hutt valley residents
- regional slow down in manufacturing
- peak period road congestion
- inadequate peak period rail frequency
- increase in freight movements across the Hutt Valley
- increase in journeys for recreation and shopping
- poor local access in and out of the Hutt Valley
- lack of direct passenger rail access to the Hutt central area
- growing needs for improved roads to meet the increases in tourism.

23. The projects proposed to address these issues are:

- a) Roothing to 2004
  - i) upgrade Korokoro & Dowse intersections
  - ii) upgrade SH 2/SH 58 intersection
  - iii) upgrade Rimutaka Hill Road to 70 kph standard
- b) Public Transport to 2004
  - i) investigate a HOT lane for Petone to Ngauranga
  - ii) additional commercial bus services direct to Wellington
  - iii) additional ferry services
  - iv) increase peak hour train services
  - v) increase feeder bus services
  - vi) provide additional commuter car parks
  - vii) refurbish Upper Hutt and Petone railway stations
- c) Projects beyond 2004
  - i) extend the Melling Line to Waterloo
  - ii) investigate an east west cross valley link road
  - iii) investigate light rail from Stokes Valley to Wellington
  - iv) upgrade remaining railway stations.

### Comment

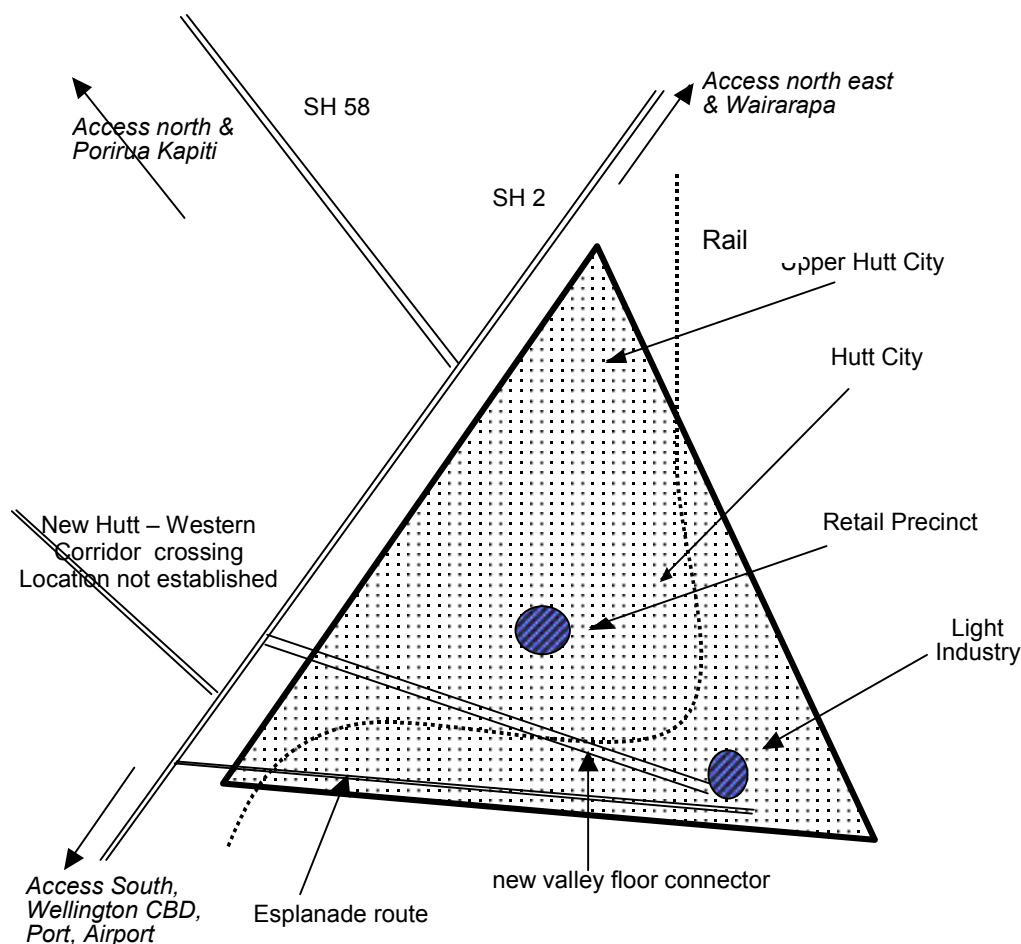
24. There are two aspects to the issues and proposed solutions in the RLTS. There are those issues and solutions aimed at commuters and there are those issues concerning business use of the local transport network.

25. RLTS commuter solutions address short-term mode choice but in the long-term they influence choice of where to live. It appears, when compounded with the comparative economic decline of the region, people have been taking the long-term choice to move out of the Hutt Valley and in many cases out of the Region.

26. Business needs are not adequately met. For instance one business has used helicopters to move vital freight to get around congestion problems. What should be done to improve things is one of the questions addressed by the Hutt Corridor Study. Given that the Hutt Valley is focussed on light industry and distribution and that is truck based, the business need is for an adequate non-congested road network.

## HUTT CORRIDOR NETWORK

27. The following diagram shows what we are looking at. Essentially the valley can be regarded as a triangle with Upper Hutt at the top and Hutt at the bottom. State Highway 2 runs along the west side and provides access to the Wairarapa and the northeast and south to Wellington, port and airport. The link south is also a key route north because of the nature of SH 58 makes it inadequate for large trucks. It is narrow, windy with no easy access to SH 1 at the Porirua end. The proposed new valley floor connector takes the pressure off the Esplanade and provides ready and easy access to Gracefield and the retail precinct. The valley floor connector potentially joins up to a new Hutt Western Corridor link road, which in turn either connects to the proposed Transmission Gully Motorway or to Grenada.



28. All the results clearly indicate that the region is highly interconnected. Indeed, changes to one part of the network usually affect the whole of the network. Moreover, since the region must make itself into the regional centre for the lower half of the North Island (and the top of the South Island) then we need to cast the net further and look at the broader interests of the region.

## Commuter Types & Socio-economic Group

29. There are essentially two types of commuters:
- a) commute to a fixed destination (80% of commuters)
    - i) the destination is usually in or around the Wellington CBD or, to a lesser extent, the CBD in the city they live in
    - ii) public transport is a viable alternative for this group and is a viable option for the Regional Council to provide
    - iii) public transport commuters are usually in the middle class socio-economic group
  - b) commute to no fixed destination (20% of commuters)
    - i) the destination changes by the day and can vary all over the region
    - ii) private car is the only viable alternative for these people and providing public transport is not a viable solution for the Regional Council
    - iii) these commuters are usually from the lower socio-economic group. Generally these are low skill jobs for those at the bottom. The advent of cheap Japanese imports enabled these people to gain access to jobs and considerably improve their standard of living.
30. The biggest concentration of people in the lowest socio-economic strata in metropolitan Wellington lives in the Hutt Valley. 18.4% of Hutt Valley Commuters go to no fixed address. The number rises to 20% for Hutt City North. For these people, job security is at risk if accessibility is an issue. They tend to have the sort of job where you are fired for arriving late.

## Commercial Vehicles

31. There are three types of commercial vehicles:
- a) light commercial vehicles
    - i) courier vans, service vehicles (plumbers etc.) small delivery vehicles
    - ii) hard to distinguish from other vehicles
    - iii) little is known about their movements although some consider that up to 50% of vehicle movements inside a CBD are light commercial vehicles
  - b) medium commercial vehicles
    - i) light truck delivery
  - c) heavy commercial vehicles
    - i) heavy trucks
32. Unfortunately, because light commercial vehicles are indistinguishable from cars we do not know the volume of traffic that is light commercial. We do know that congestion hampers light commercial vehicles and thus business.

## HOW PEOPLE COMMUTE

33. The following data comes from the Statistics NZ 2001 Census. It is based on employees and does not distinguish between full time and part time employees. The numbers in brackets are the 1996 Census figures. Note, the number of people with a job in the Wellington Region is 208,803. In addition, not all employees fall into the definitions below, the numbers that do not are expected to be small.

## Wellington City

34. Points to note for Wellington City are:
- increase in the number of jobs in Wellington City as a whole
  - rapid decline in the number of jobs in the CBD
  - rapid increase in jobs outside the Wellington CBD
  - rapid growth in the number of Wellington jobs held by non-Wellington residents

Description	Number	Comment
number of jobs in Wellington	94,995 (90,177)	number of people working in Wellington
number of jobs in and around the Wellington CBD and fringe	60,393 (66,840)	64% (74%) of Wellington jobs are in the CBD and fringe – CBD is much less important
number of jobs in the rest of Wellington	34,602 (23,340)	36% (26%) work outside the inner city
number of non-Wellington residents who work in Wellington	26,667 (21,186)	28% (23%) of Wellington jobs filled by non-Wellington residents
number of Hutt & Upper Hutt residents who work in Wellington	15,432	16% (16%) of Wellington jobs filled by Hutt Valley residents
number of Porirua & north residents who work in Wellington CBD	10,503	11% (7%) of Wellington jobs filled by Porirua & north residents

## Hutt City

35. Points to note for Hutt City are:
- slight decline in the number of jobs in Hutt City
  - increase in the number of Hutt residents working outside Hutt City

Description	Number	Comment
<b>Hutt City</b>		
number who live in the Hutt and work in Hutt	23,016 (23,748)	49% (44%) find work outside Hutt, (35% in 1991). Accessibility is thus getting more and more important 31% (31%) of Hutt jobs are filled by people from outside
number of Hutt citizens who work in Wellington	12,012 (12,003)	28% of Hutt citizens with a job work in Wellington
number of Hutt citizens who work in Upper Hutt	1,392 (1,377)	3% of Hutt citizens with a job work in Upper Hutt
number of Hutt citizens who work in Porirua	513 (474)	a negligible percentage of Hutt citizens with a job work in Porirua

## Upper Hutt City

36. Points to note for Upper Hutt City are:

- g) slight decline in the number of jobs in Upper Hutt City as a whole
- h) increase in the number of Upper Hutt residents working outside Upper Hutt City

Description	Number	Comment
number of Jobs in Upper Hutt	9,540 (9,906)	the number of people working in Upper Hutt
number who live and work in Upper Hutt	7,017 (7,389)	60% (55%) find work outside Upper Hutt 2,523 (2,517; 25%) people from outside Upper Hutt work there
number of Upper Hutt employees who work in Wellington	3,420 (3,389)	33% (38%) of those in Upper Hutt who work outside Upper Hutt go to Wellington
number of Upper Hutt employees who work in Hutt	3,429 (3,507)	33% (39%) of those in Upper Hutt who work outside Upper Hutt go to Hutt

37. What this all means is that public transport and the road network are very important for commuting:

- Wellington is the major employment destination outside the Hutt Valley for Hutt Valley residents  
15,400 live in the Hutt Valley and work in Wellington
- 3,400 live in Upper Hutt and work in Hutt, about the same number go to work in Wellington
- 1,400 live in Hutt and work in Upper Hutt
- hardly any Hutt Valley residents work in Porirua or north

## How people commute

The number of people commuting<sup>1</sup>, from the 2001 Census, is:

Commuting to	Hutt City	Upper Hutt City	Wellington
From Wellington & Tawa	4,764	534	-
From Porirua and North	2,103	417	-
From Upper Hutt	3,429	7,017	3,420
From Hutt	23,016	1,392	12,012
From Wairarapa	318	174	732

<sup>1</sup> The numbers in the tables on this page all represent one way, "journey to work", trips.

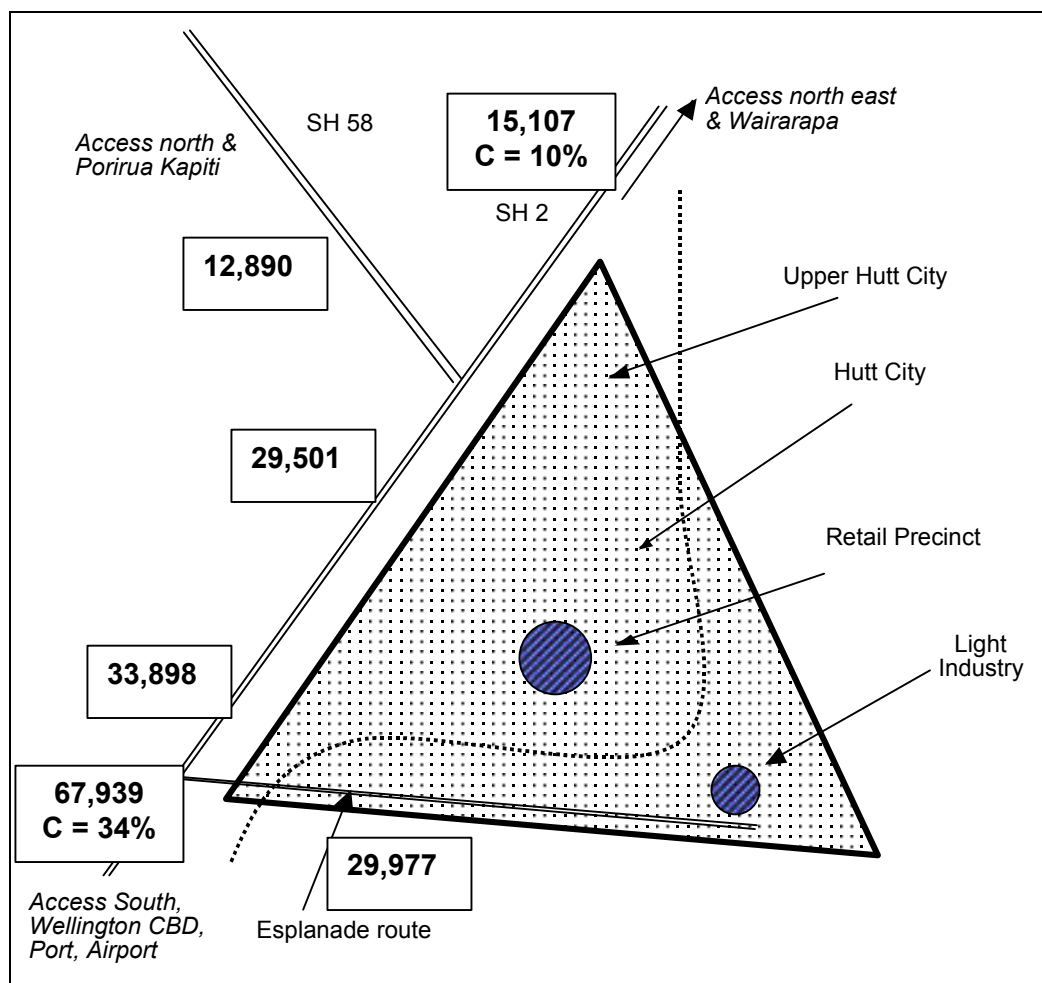
The number arriving by train, bus and private car is shown in the table below. Clearly, public transport has a significant share to Wellington and from the Wairarapa. We consider that this reflects the make up of the jobs in the Hutt Valley. Manufacturing and distribution tend to be in places where public transport does not go. Moreover, it is probably not economic to service by public transport. The big advantage of the private motor vehicle is that it enables the lower socio-economic group to access work.

	Bus	Train	Pubic Transport	People by Motor Vehicle	No. of Motor Vehicles	% of pass' by Public Transport
<b>Commuting to Hutt City</b>			Note: includes Hutt City traffic			
From Wellington & Tawa	258	138	396	3,696	3,522	10%
From Porirua and North	21	42	63	951	1,656	6%
From Upper Hutt	108	90	198	2,790	2,580	7%
<i>From Hutt</i>	<i>867</i>	<i>330</i>	<i>1,197</i>	<i>14,880</i>	<i>13,632</i>	<i>7%</i>
From Wairarapa	3	81	84	192	174	30%
	<b>1,257</b>	<b>681</b>	<b>1,938</b>	<b>22,509</b>	<b>21,564</b>	<b>8%</b>
<b>Commuting to Upper Hutt City</b>			Note: includes Upper Hutt City traffic			
From Wellington & Tawa	18	24	42	423	411	9%
From Porirua and North	0	21	21	351	327	6%
<i>From Upper Hutt</i>	<i>126</i>	<i>81</i>	<i>207</i>	<i>4,209</i>	<i>3,909</i>	<i>5%</i>
From Hutt	27	63	90	1,095	1,029	8%
From Wairarapa	0	42	42	111	102	27%
	<b>171</b>	<b>231</b>	<b>402</b>	<b>6,189</b>	<b>5,778</b>	<b>6%</b>
<b>Commuting to Wellington City</b>			Note: <i>does not</i> include Wellington City traffic			
From Upper Hutt	78	1,023	1,101	1,890	1,644	37%
From Hutt	750	3,171	3,921	6,492	5,775	38%
From Wairarapa	12	312	324	294	258	52%
	<b>840</b>	<b>4,506</b>	<b>5,346</b>	<b>8,676</b>	<b>7,677</b>	<b>38%</b>

Source: Census 2001 Journey to Work

### TRAFFIC VOLUMES

38. The following table give traffic volumes along the main roads in the Hutt Valley. The boxes show the traffic counts as AADT<sup>2</sup>. The figure “C =” is the estimated commuter percentage. For instance on SH 2 between Petone and Ngauranga the AADT is 67,939 and commuters make up 34% of this traffic. We only know the percentage of freight traffic (medium to heavy commercial) on SH 58, which is 5.3%.
39. We have estimated the commuter traffic from the Census information presented above. It is not possible to give a complete picture but:
  - a) 1,500 vehicles (estimated AADT) are driven by commuters to or from the Wairarapa using SH 2 north of Upper Hutt. This is 10% of all traffic
  - b) 23,382 (estimated AADT) are driven by commuters to or from Wellington using SH 2 just south of Petone. This is 34% of all traffic (probably at least 80% of peak traffic).
40. There is a very real danger in making decisions based around commuters in order to promote public transport when the consequential effect on other travellers may be significant and adverse. It is these other travellers who drive the local economy and frustrating their travel plans will adversely affect the local economy.



Source: Transit and Hutt City traffic counts for 2000/2001, “C” = commercial percentage

<sup>2</sup> AADT = annual average daily traffic



## **SCENARIOS & IMPACT OF ECONOMIC AND SOCIAL GROWTH**

### **Introduction - Upper Hutt City**

41. The following areas were reviewed:
- a) retail growth – apart from refocusing the CBD; there is little chance of any other very large retail development
  - b) warehousing and distribution (e.g. Foodstuffs) – slow growth expected
  - c) animal health /animal pharmaceutical (e.g. CSL, Schering Plough) – little growth expected
  - d) light industry (e.g., South Pacific Tires, Acma Industries, Vita) - slow steady growth expected
  - e) Government back office processing (IRD, EDS) – no growth expected
  - f) army base – some growth expected
  - g) prison – will expand by 3 times current size. Significant effect on local traffic and rental accommodation from visitors who come to stay to be near family in prison
  - h) education (CIT) – significant boost with 10,000 Asian students studying at any one time. This will have the largest positive economic impact on the region of any economic growth option reviewed. There would also be significant transport implications

### **Education at the NZ International Campus- Upper Hutt City**

#### Scenario

42. The NZ International Campus Asian student education scenario would see 10,000 students studying at what was the NZ International Campus in Upper Hutt. We expect these students to be well-off, likely to own a car and to want to be near the regional entertainment centre. We consider that 2,000 could live in Upper Hutt, 3,000 could live in Hutt City and 5,000 could live in central Wellington. If they spend \$200 per week, this is an extra \$2 million per week into the Hutt Valley and Wellington economies.

#### Impact of & on the Network

43. We see there being considerable effect on local roads in Upper Hutt and to a lesser extent Hutt. State Highways will not be so affected as the traffic from Wellington City is counter flow to the commuter peak flow. We expect there will be a boost to public transport, especially trains.
44. If we assume half of students have cars and the other half use public transport, then the number of cars on Upper Hutt local roads will double. We expect that the problems with the signalised and at grade intersections on SH 2 will get very much worse and may prove a constraint to general traffic movement.

### **Residential Expansion - Upper Hutt City**

#### Scenario

45. Upper Hutt had 7% growth in residential housing last year. This is because of the available land for development, strong marketing and lifestyle choice. While the developers could keep this up, the relative decline in the economic health of the region will make continued growth hard to achieve. We still consider that a scenario with a 20% growth in households over the next 20 years should be evaluated.

### Impact of & on the Network

46. The network does constrain achievement of this target. The problems on SH 2 from Melling to Aotea Quay are a considerable disincentive to people thinking about moving to Upper Hutt. Moreover, their use of the road will add to the existing problems.

### **Introduction - Hutt City**

47. The following areas were reviewed:
- expansion of IT communications and the media. This was considered to take place in two areas: Avalon, around the Studios; and Petone. We are not sure that the industry has the critical mass to expand much beyond where it is now. This is a very competitive market place.
  - industrial and distribution expansion. This could take off around Seaview and Gracefield and to a lesser extent in Wingate (north Hutt City). The Seaview & Gracefield industrial area could double in size and commercial traffic (light and heavy). Seaview & Gracefield has this potential because there are the sites, the infrastructure exists and it is already an industrial area and thus there is likely to be little opposition.
  - retail expansion. Queensgate has plans to double in size and this could significantly increase the traffic on the local roads and, to a much lesser extent, on the local State Highway.

### **Seaview/ Gracefield Industrial – Hutt City**

#### Scenario

48. There is the potential for significant industrial, distribution and research expansion around Seaview and Gracefield and to a lesser extent in Wingate (north Hutt City). The Seaview & Gracefield industrial area has plenty of available land with little potential resource consent issues. Activity in this area could double in size and commercial traffic.

### Impact of & on the Network

49. It is considered that with the current changes to the intersections and roundabouts in Seaview and Gracefield, the local network could cope with this increase in traffic. However, the Esplanade may need to be four-laned to cope with this volume of traffic, a valley floor connector may be needed. The need would be two fold, firstly to move the traffic away from the waterfront so as to preserve access to the sea and second to handle it in a more appropriate manner and one which interfaces better with SH 2. We see there as being issues on SH 2 and on SH 58. SH 58 is not designed for heavy traffic and is thus a constraint on development – both here and in Upper Hutt.

### **Retail Expansion - Hutt City**

#### Scenario

50. Queensgate has plans to double in size. This would double the employment, and provide a significant boost to the Hutt Valley especially Hutt City. The expansion would be a significant beneficiary of the expected influx of foreign students.

### Impact of & on the Network

51. Queensgate doubling in size could significantly increase the traffic on the local roads and to a much lesser extent on the SH 2. The Resource Consent application considers that this additional traffic will take place during the off peak and thus not overload the local network. Given that the interface between SH 2 and Hutt City's local road network are at best poor and in part the local road network is contorted Queensgate may be seen as hard to get to and may not be as successful as is wished. Accordingly, improvements to the local roads, major intersections and interchanges with SH 2 are probably still necessary.

### **Petone/ Education Expansion - Hutt City**

#### Scenario

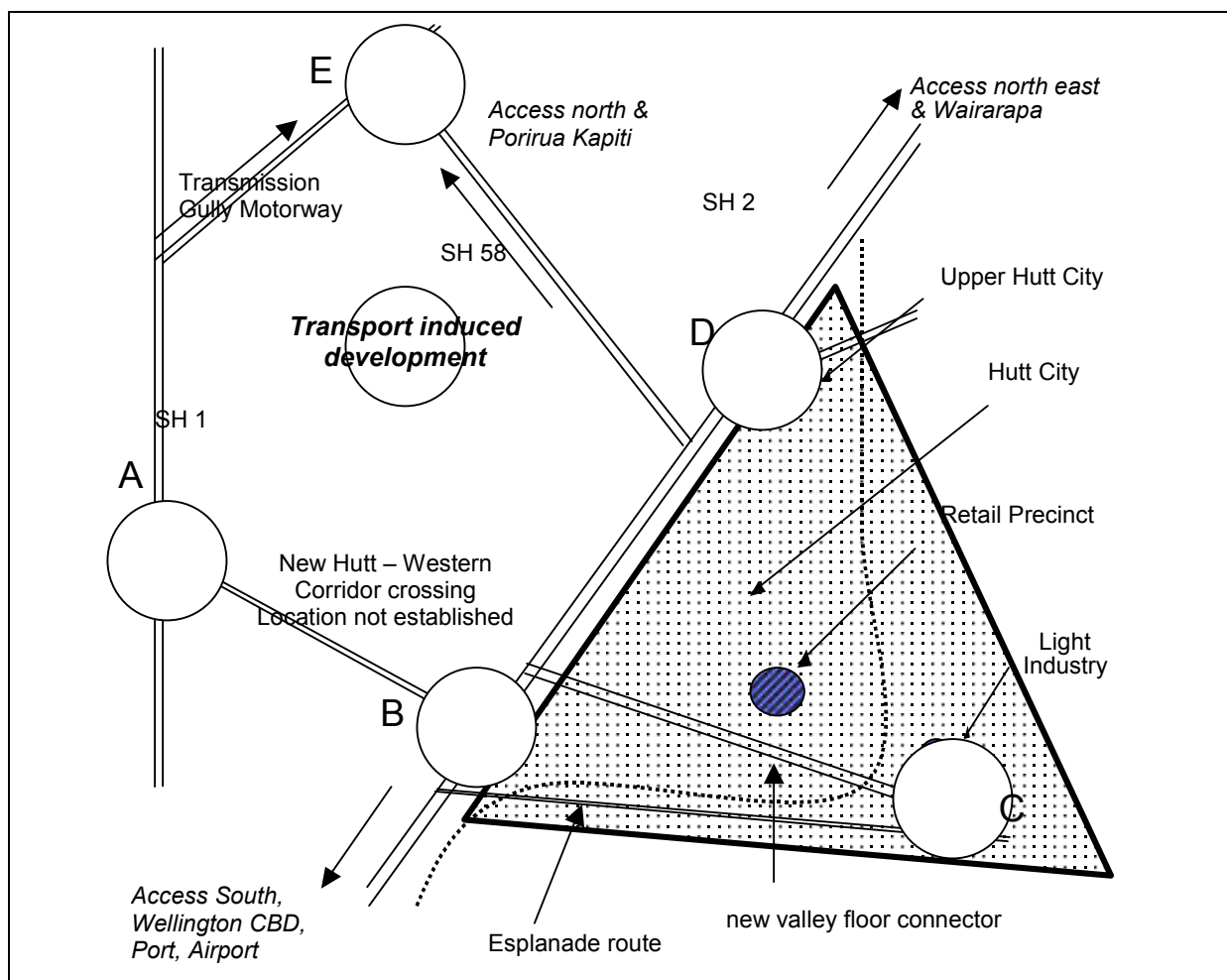
52. Weltec plans to expand and add 2,000 students and we judge that the Jackson Street environment could be very attractive to the creative industries. The issue for the creative industries is access to clients. In addition, there are new education establishments opening up in the Hutt CBD.

### Impact of & on the Network

53. The advantage of Petone is that it is the one area in Hutt City that offers ready access to SH and south to Wellington.. However, access to the central Hutt from SH 2 is not straightforward. If traffic on the Esplanade gets congested during the day then it will be a constraint on economic development in Petone. We judge that education expansion in the Hutt CBD is based around readily available cheap accommodation.

## TRANSPORT AS AN ACTIVITY DRIVER

54. Good transport links also act as a driver of economic development. For instance, the development of the ring road (a motorway in our terms) in Melbourne was notable for the move, initially by distributors and then by industry, to the intersections of the ring road with the radial highways. In addition, three of the highways make a triangle and the area within the triangle is the largest industrialised area in Australia.
55. On the following diagram the circles indicate areas where we suggest there could be transport-induced development because of good accessibility. Note, in general, all industrial sites in Upper Hutt and Hutt benefit from the better access. The key areas are as follows:
- A highly likely – intersection of SH 1 with Petone Grenada link – reasons: plenty of sites available; rural area, few consent issues
  - B less likely - intersection of Petone Grenada link road with SH 2 – reasons: fewer sites available; already a light industrial area
  - C highly likely – Seaview Gracefield – reasons: plenty of sites available; already a light industrial area
  - D less likely - intersection of Silverstream with SH 2 – reasons: sites available; not already a light industrial area; needs Transmission Gully Motorway
  - E highly likely – intersection of SH 58 with Transmission Gully Motorway – reasons: plenty of sites available; rural area, good access in all directions



## SUMMARY: TRANSPORT ISSUES

### Direct Effects

Scenario	Is Traffic a Constraint?
<b>Upper Hutt</b>	
Distribution	Lack of ready access to SH 1 north is a constraint. SH 58 is not an adequate answer because of the part around Whitby. Best solutions are a mix of Transmission Gully Motorway plus an upgraded SH 58. Current network is a constraint and is constraining Upper Hutt's development
Prison	Rimutaka Prison is about to hold 3 times as many inmates. Direct impact will be on the local roads around the prison and cheap rental housing, little effect expected on State Highways Current Highway network is not a constraint but local roads will be affected.
Education at the CIT	No hard information yet on make up of the students, where they may live and how they will get around and their disposable income. Assumptions are set out in the text above. There will be significant problems on <b>local roads</b> near the NZ International Campus and possibly in the Hutt and Wellington – additional 5,000 vehicles on the roads around the NZ International Campus and potentially on SH 2. We expect this to cause problems and it could lead to reduced benefit flow from the venture as fewer students arrive. The network is a constraint to the success of this venture.
Residential Expansion	This scenario would result in a 20% growth in commuter from Upper Hutt by 2016. This will add to the load on the State Highway system. There will be little impact on the local roads. If the congestion issues on SH 2 are not addressed then this option will not occur. The current State Highway network is thus a significant constraint on Upper Hutt's residential growth

Scenario	Is Traffic a Constraint?
<b>Hutt</b>	
Seaview/ Gracefield	Activity in Seaview could double in size and the number of commercial vehicle movements would also double in size. The Esplanade, as it now stands, would need to be improved to cope with this additional traffic, SH 2 between Petone and Aotea Quay would not cope with the increased traffic. Accordingly, such an expansion would not be successful unless the network issues were addressed.
Hutt Retail Expansion	The expansion of Queensgate is predicated on attracting people from outside the Hutt Valley. This requires ready and easy access to the site. However, the problems on SH 2, the interchanges and to a much lesser extent on the local roads mean that ready and easy access is not likely to occur. We cannot see the new Queensgate being as successful as planned unless these issues are addressed.
Petone Expansion	The expansion at Petone relies on good access from Wellington to attract students and provide easy access to clients and business in Wellington. The current State Highway network is between Petone and Aotea Quay is inadequate and may not to provide the responsiveness needed.

## Consequential Effects

### The Wairarapa

56. SH 2 is also a key route for travellers to and from the Wairarapa. Congestion along SH 2 is thus an issue for these travellers. There are two issues: firstly, the Wairarapa is affected because of the constraints on tourist traffic and the Wairarapa needs the tourist traffic to survive. Second, it will not take much more traffic from the Wairarapa before the River Road part of SH 2 becomes unreliable. If this happened it would be a significant constraint on growth in Upper Hutt. Moreover, Wairarapa freight will be diverted north to Port Napier rather than CentrePort.

### River road

57. These scenarios will put pressure on the River Road. The consequences of that pressure will be adverse for the Wairarapa and business in Wellington and access to the Wairarapa becomes increasingly difficult.

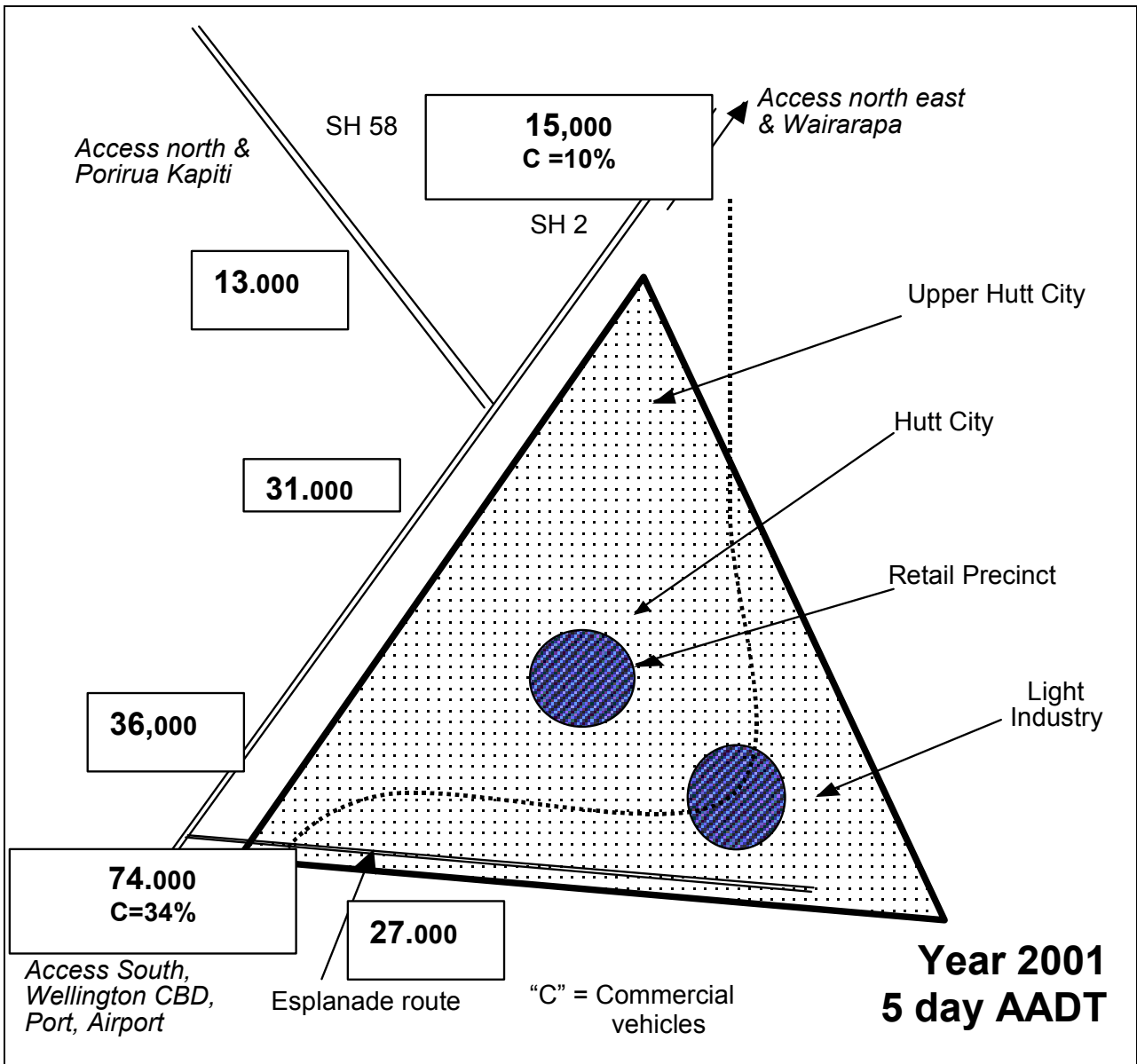
### Melling to Petone & Petone to Ngauranga & Ngauranga to Aotea Quay

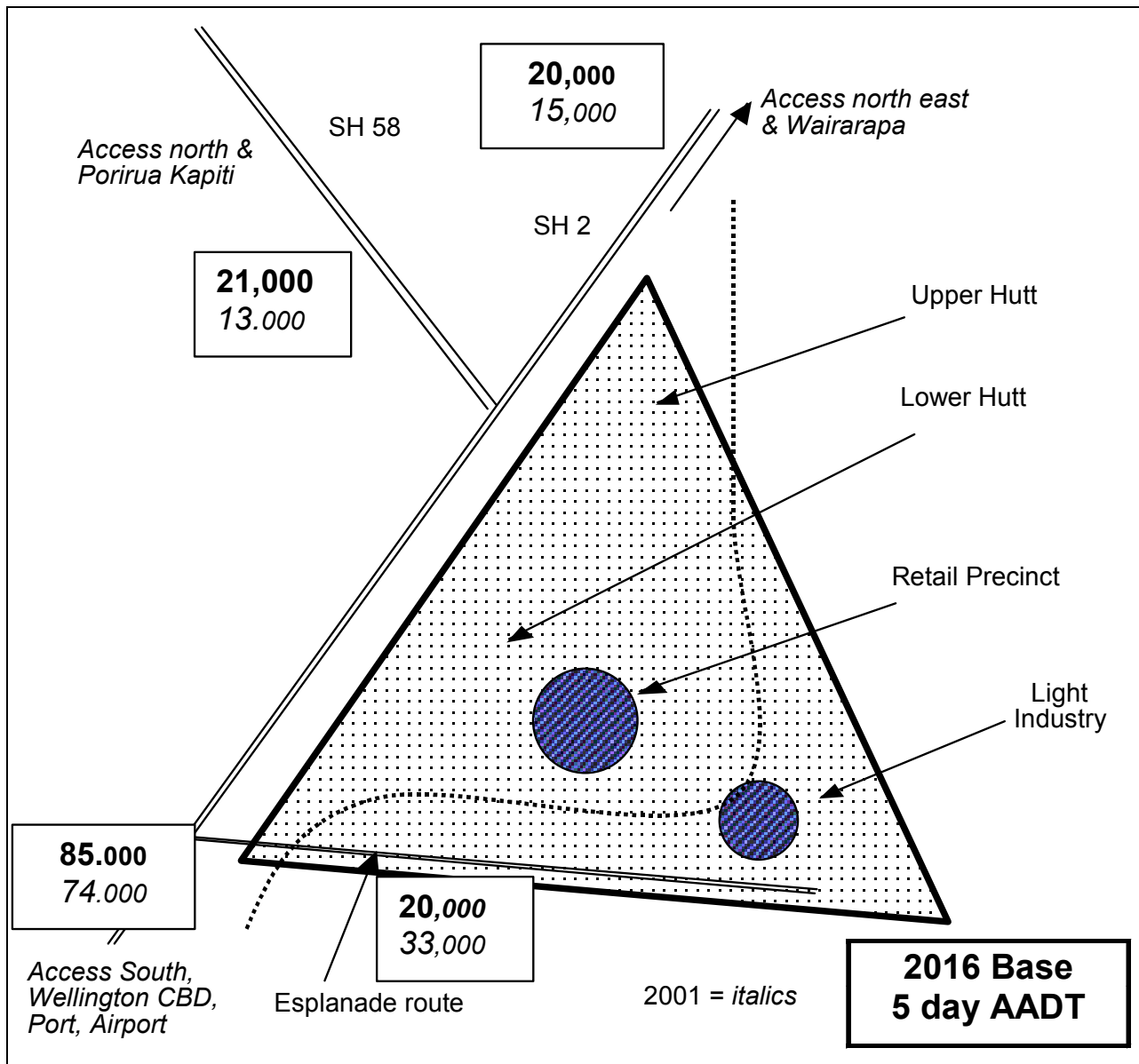
58. These roads are already severely congested at certain times of the day. Unless there is additional capacity then the situation will get worse. This denies companies and people access to the hospital, airport, port and clients in Wellington.

## CONCLUSION

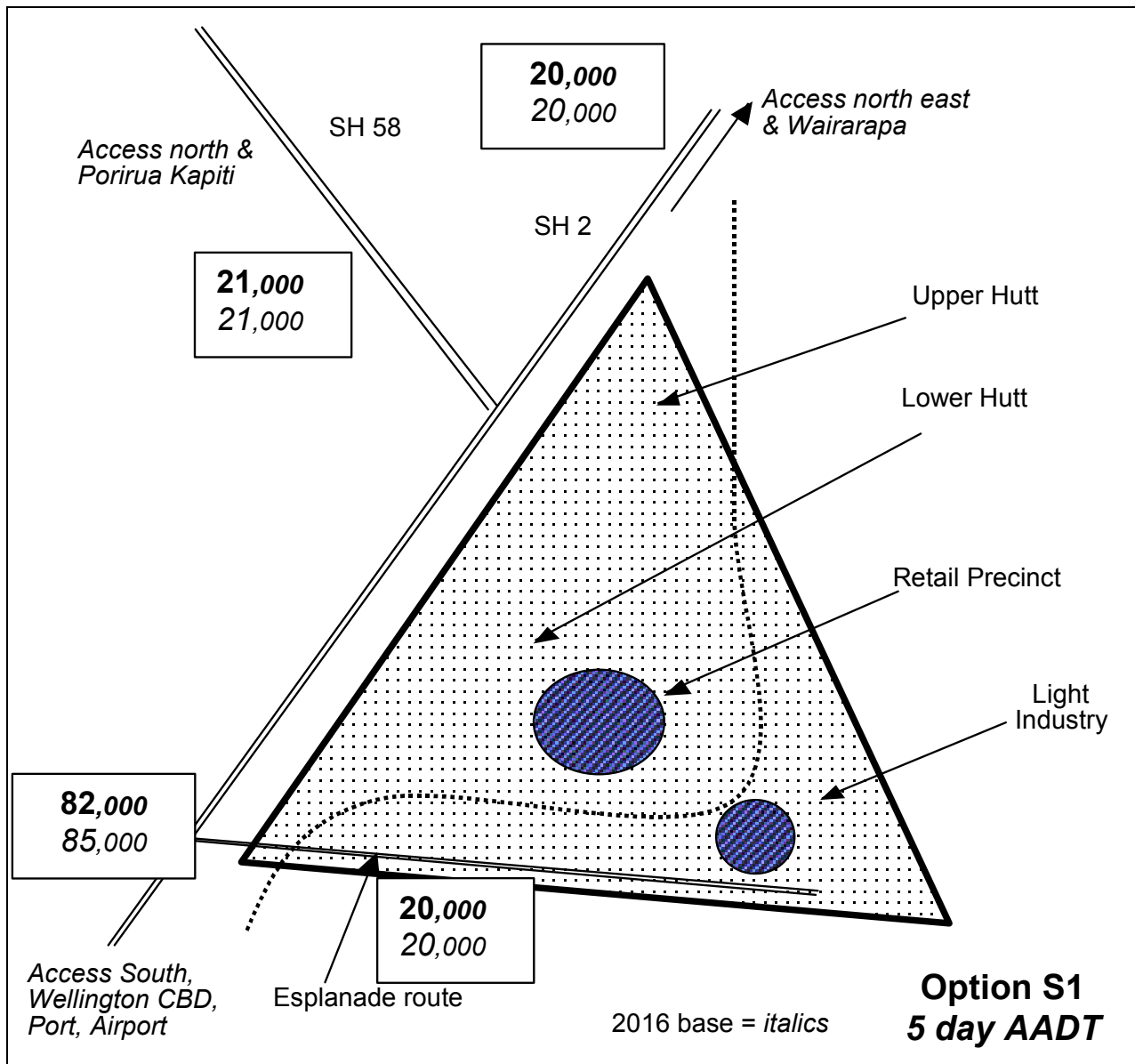
59. The road network is a constraint on economic development in all the scenarios considered. Moreover, the scenarios only need to each happen in part (not necessarily in full) for the transport constraints to appear and curtail development. We do not see those proposals in the scenarios as being fully successful unless the road network is improved.
60. The local road network in both Upper Hutt and Hutt will come under considerable pressure. The combination of the prison and the Education at the NZ International Campus will cause significant problems for Upper Hutt. We cannot see the full gains being made at Seaview and Gracefield without significant changes being made either the Esplanade or possibly a valley floor crossing.
61. Moreover, commuters only represent at the most 34% of the traffic on State Highway 2. Business and freight companies represent the other 66% of traffic. Without an adequate road network they cannot survive and nor can the businesses that commission them. Moreover, we judge that part of the reason for the Hutt Valley population decline in recent years is the inadequate road network. If these issues are not addressed then the decline forecast earlier in this paper could be much worse.
62. Putting in place the improvements being discussed will see transport induced development in a number of areas around the region. One area coincides with an area identified as having potential for business growth (Seaview Gracefield). For Upper Hutt the transport improvements have a more general effect and in part depend upon what happens around the Silverstream Bridge.

### Appendix 1: Vehicle Flows on Major Routes

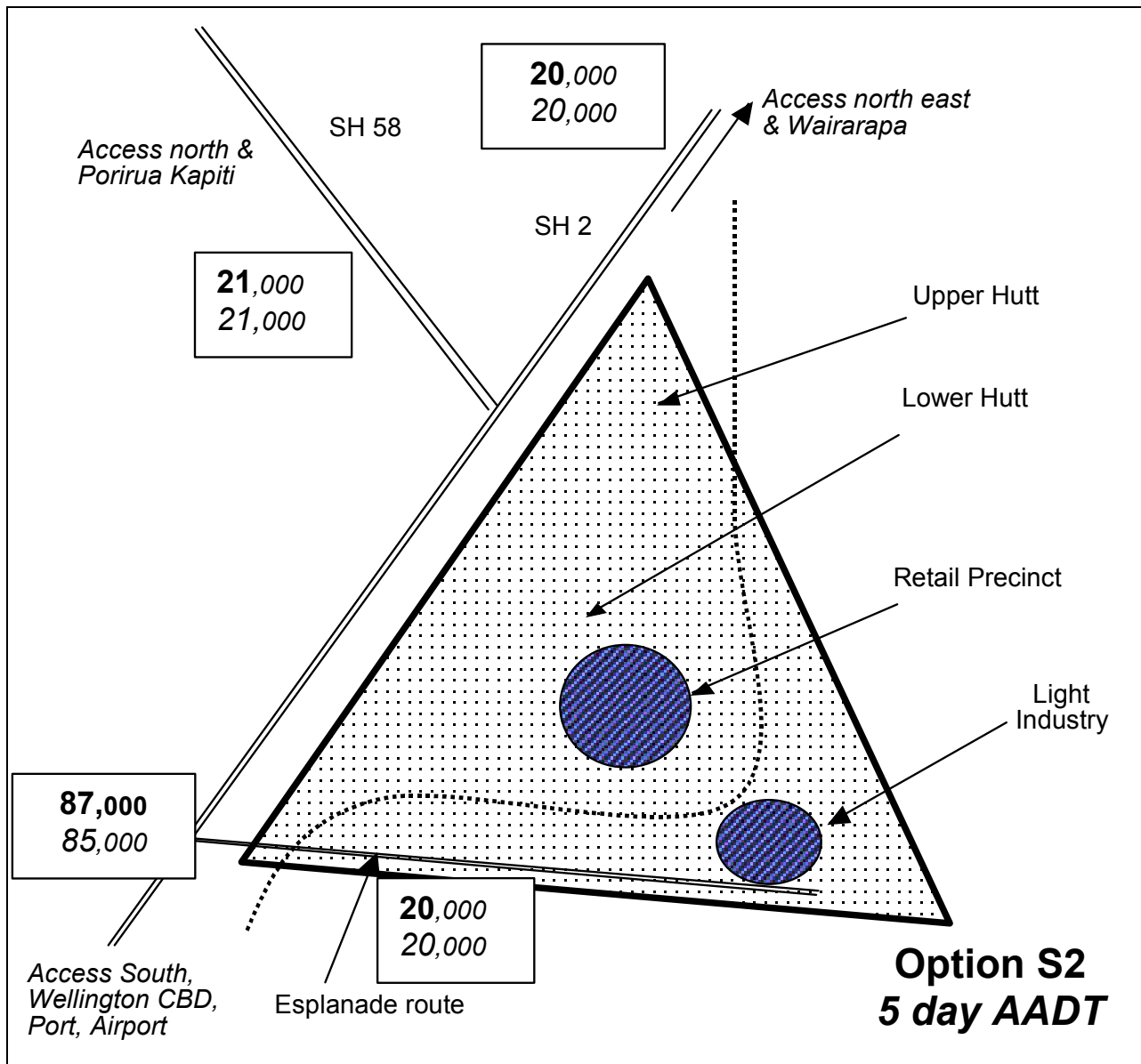




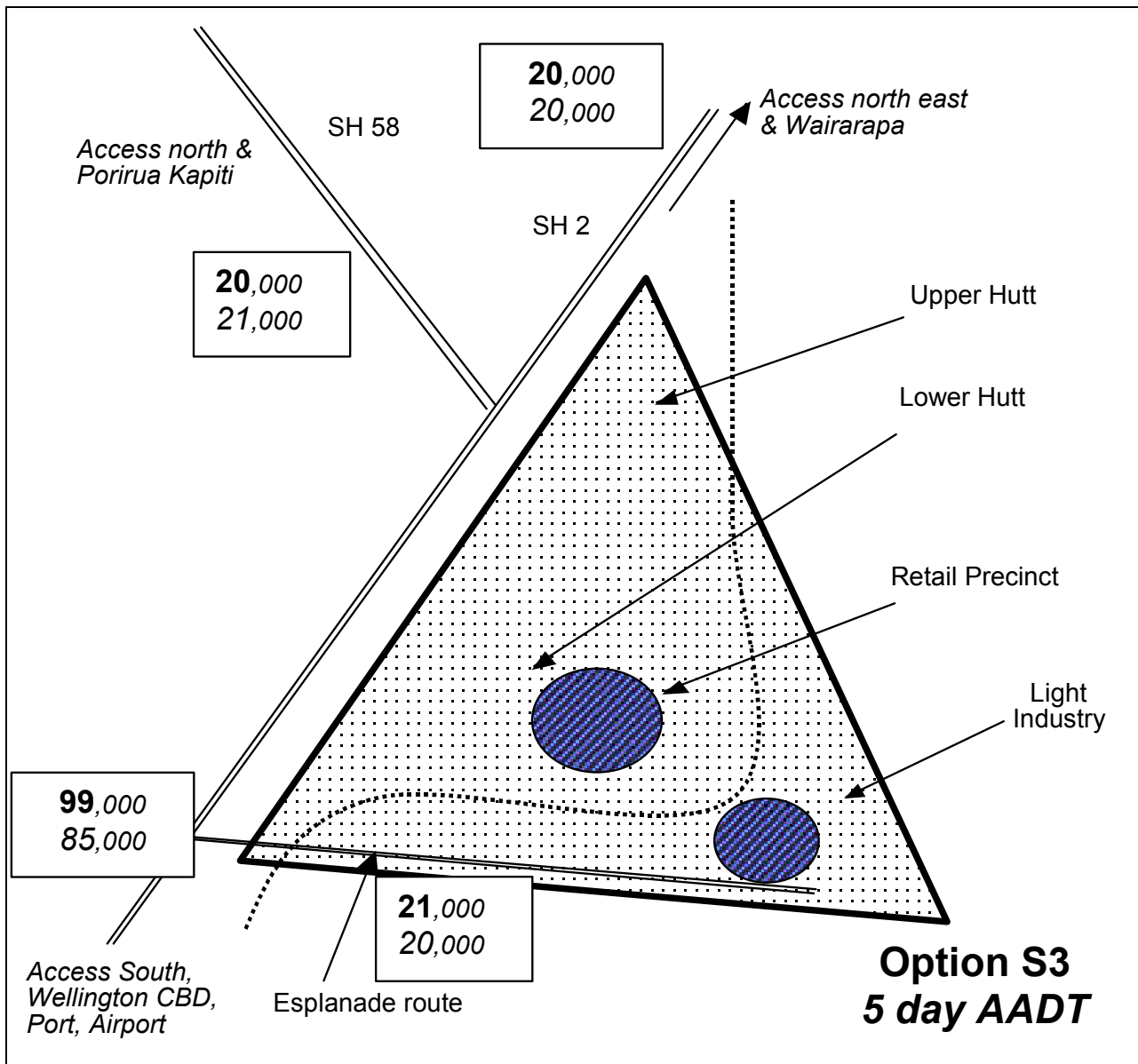




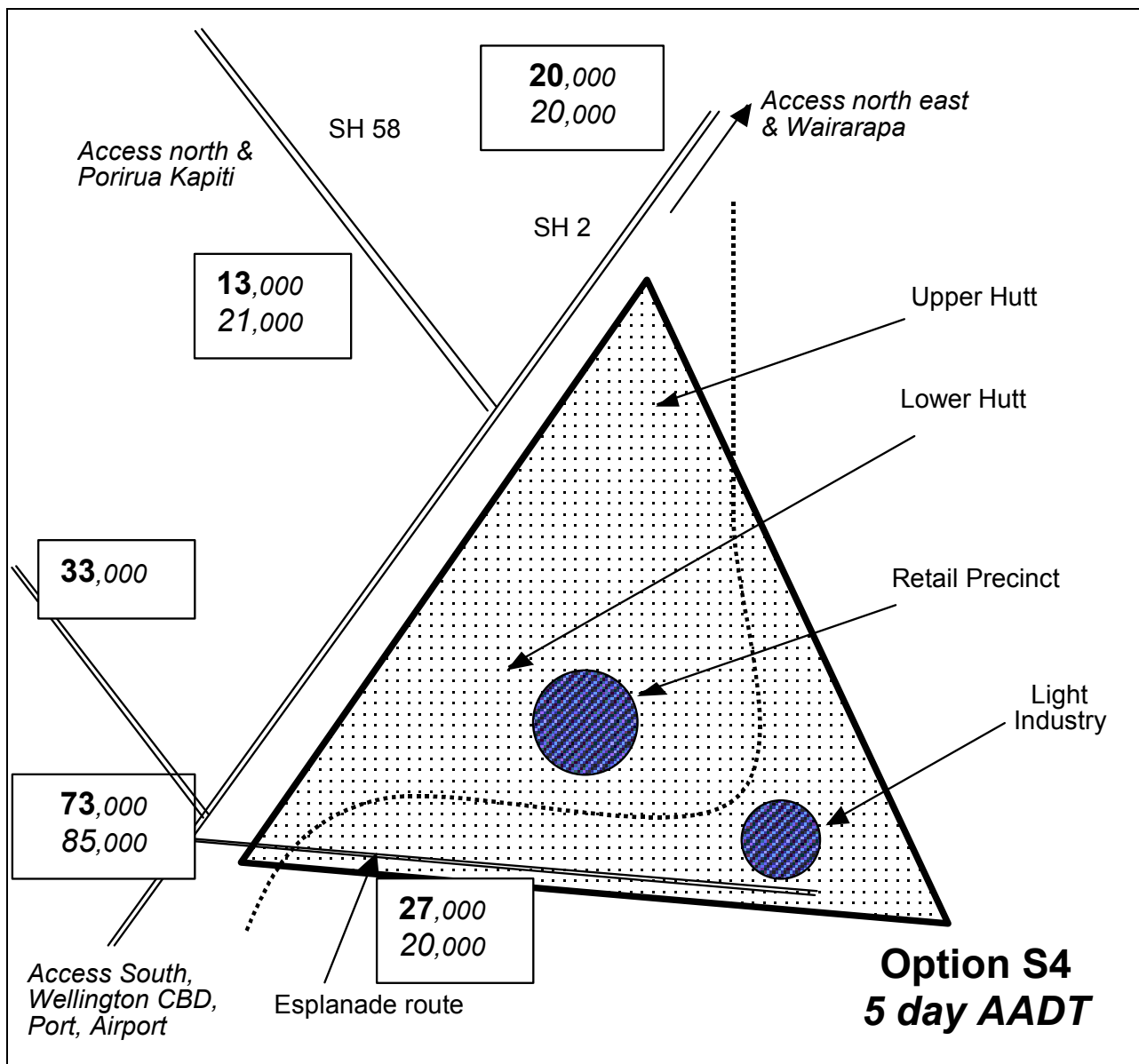
- Hutt expressway, HOT high occupancy toll lane
- Korokoro to a partial grade separated interchange
- Dowse to a grade separated interchange
- SH 58 to a grade separated interchange
- Melling to a grade separated interchange
- Upgrading Silverstream Bridge to 4 lanes
- Haywards bus service
- Rail frequency doubled and speed increased
- New rail stations at Timberlea and Cruickshank Road
- Super bus network Wellington and Upper Hutt Stokes, Valley & Wainuiomata



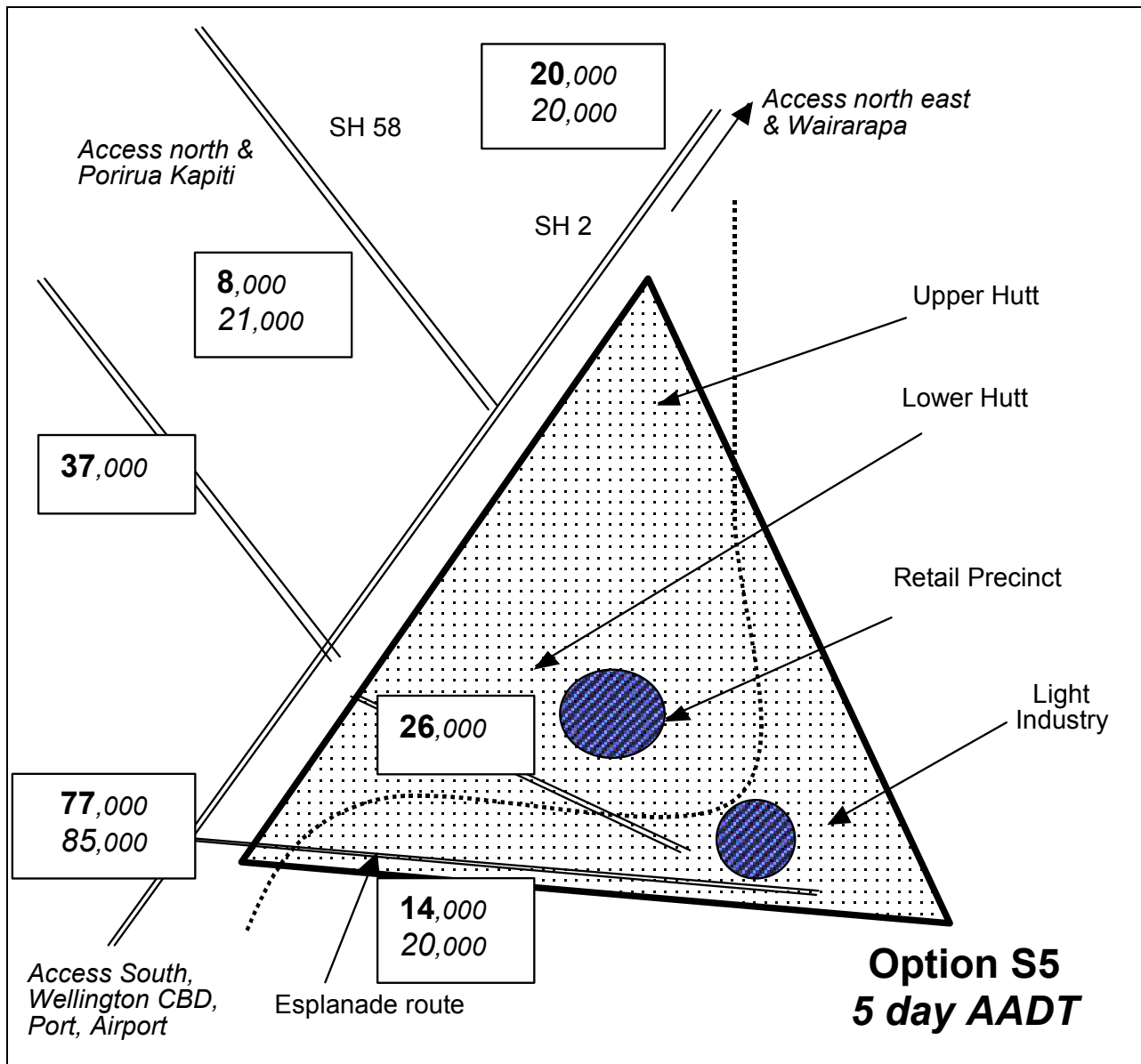
- *Hutt expressway, bus only lane*
- Korokoro to a partial grade separated interchange
- Dowse to a grade separated interchange
- SH 58 to a grade separated interchange
- Melling to a grade separated interchange
- Upgrading Silverstream Bridge to 4 lanes
- Haywards bus service
- Rail frequency doubled and speed increased
- New rail stations at Timberlea and Cruickshank Road
- Super bus network Wellington and Upper Hutt Stokes, Valley & Wainuiomata



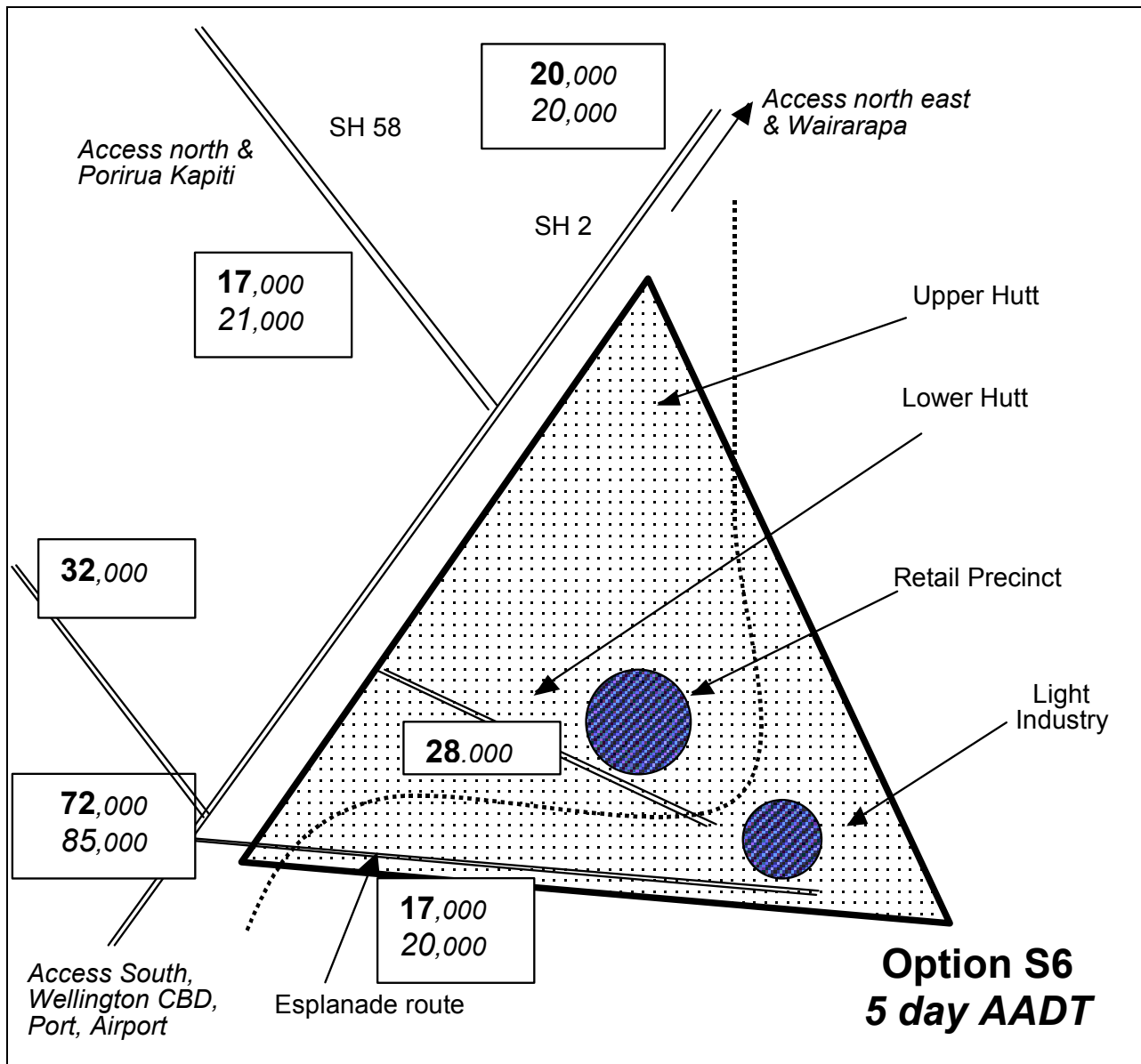
- Hutt expressway, tidal flow
- Korokoro to a partial grade separated interchange
- Dowse to a grade separated interchange
- SH 58 to a grade separated interchange
- Melling to a grade separated interchange
- Upgrading Silverstream Bridge to 4 lanes
- Haywards bus service
- Rail frequency doubled and speed increased
- New rail stations at Timberlea and Cruickshank Road
- Super bus network Wellington and Upper Hutt Stokes, Valley & Wainuiomata



- *Hutt expressway, HOT lane*
- Korokoro to a partial grade separated interchange
- Dowse to a grade separated interchange
- SH 58 to a grade separated interchange
- Melling to a grade separated interchange
- Upgrading Silverstream Bridge to 4 lanes
- Haywards bus service
- Rail frequency doubled and speed increased
- New rail stations at Timberlea and Cruickshank Road
- Super bus network Wellington and Upper Hutt Stokes, Valley & Wainuiomata
- *Petone Grenada link road*
- *Esplanade upgrade*



- *Hutt expressway, HOT lane*
- Korokoro to a partial grade separated interchange
- Dowse to a grade separated interchange
- SH 58 to a grade separated interchange
- Melling to a grade separated interchange
- Upgrading Silverstream Bridge to 4 lanes
- Haywards bus service
- Rail frequency doubled and speed increased
- New rail stations at Timberlea and Cruickshank Road
- Super bus network Wellington and Upper Hutt Stokes, Valley & Wainuiomata
- *Melling Porirua link road*
- *Cross valley link from Whites Line West to Dowse SH 2*



- *Hutt expressway, HOT lane*
- Korokoro to a partial grade separated interchange
- Dowse to a grade separated interchange
- SH 58 to a grade separated interchange
- Melling to a grade separated interchange
- Upgrading Silverstream Bridge to 4 lanes
- Haywards bus service
- Rail frequency doubled and speed increased
- New rail stations at Timberlea and Cruickshank Road
- Super bus network Wellington and Upper Hutt Stokes, Valley & Wainuiomata
- *Petone Grenada link road*
- *Cross valley link from Whites Line West to Dowse SH 2*
- *Melling line relocated across river closer to CBD*