

APPENDIX FOUR

Technical Report on Transportation

ASHBURTON DISTRICT PLAN

PLAN CHANGE 2 TO ASHBURTON DISTRICT PLAN:
PROPOSED BUSINESS 9 ZONE – NORTH EAST ASHBURTON BUSINESS PARK

SECTION 42A REPORT: TRANSPORTATION

PREPARED BY ANTHONY THOMAS PENNY

21 August 2007

INTRODUCTION

1. My name is Anthony Thomas Penny. I am a Fellow of the Institute of Professional Engineers of New Zealand Civil Engineer and I hold a Bachelor Degree in Mathematics and a Bachelor Degree in Civil Engineering from the University of Canterbury. My background of experience includes 30 years in traffic engineering and transportation planning with the Christchurch City Council, the Department of Transport in the United Kingdom, the MVA Consultancy in Hong Kong and Traffic Design Group Limited. I have worked for 20 years practising as a traffic engineering specialist on projects throughout New Zealand and I am currently fulfilling the roles of Managing Director of Traffic Design Group and manager of the firm's Christchurch office. Our firm has been engaged by local authorities and private concerns in many centres to advise on the full range of transportation issues covering safety, management and planning matters of many kinds.

Background

2. In October 2005, Traffic Design Group was engaged by Ashburton District Council to provide advice on transport effects to the Environmental Services Manager for a proposed Plan Change relating to land to the northeast of Ashburton, and to assist in consideration of the Requirement under Section 168A of the Resource Management Act. I have acted as Project Director throughout the commission, having overseen all technical aspects of our work and having reviewed and approved all deliverables.

DESCRIPTION OF PROPOSAL

3. The area which is the subject of proposed Plan Change 2 is some 126ha in size and is located approximately 4km to the northeast of the centre of Ashburton. It is bounded to the northwest by the Main Trunk Railway and to the southeast by Company Road. The boundaries of the area to the northeast and southwest are somewhat more irregular in shape, but are approximated by Works Road and Northpark Road respectively.
4. The site is currently zoned as 'Rural B' under the Ashburton District Plan, which is defined as "low density rural development, with a range of rural activities", and is currently used for agricultural purposes. The proposal is for the area to be rezoned for a range of business and industrial purposes. The area will contain both light and heavy industry, with the proportions generally being dictated by market demand for

these particular different land uses. It is envisaged however that the types of industry will be graduated such that business and light industry land uses will be sited towards the southwest of the site, with heavy industry sited towards the northeast.

5. It is also proposed that provision is made for the rail terminal currently within Ashburton to potentially relocate to the site, adjacent to the Main Trunk Railway.
6. Ancillary uses are also proposed, with a small commercial area and open space being provided to serve those working within the area. A 'buffer' will also be created along the southwestern edge of the site for the purposes of noise attenuation, landscape treatment, walkways and cycleways, and stormwater management with a further open area which provides for stormwater retention located towards the south of the site.
7. Two roading links are proposed onto State Highway 1, making use of the existing points of access at Northpark Road and Works Road. Upgrading of both existing intersections will be required in order to accommodate the increased level of traffic anticipated, with the provision of acceleration and deceleration lanes, plus (for Northpark Road) the provision of a right-turn lane. A further access is proposed onto Company Road such that some movements between Ashburton and the site can be made wholly on district roads. The form and arrangements for upgrading of the Northpark Road intersection is set out in more detail in my report relating to the Notice of Requirement.

SUBMISSIONS

8. I have reviewed the submissions which relate to the traffic and transportation aspects of the proposal, as below.

Submission: E Anne Aldridge, DF & IA Keenan

9. The submitters **oppose** the plan change and wish to see Works Road used as the entrance to the proposed business park. This matter is covered by my report relating to the Notice for Requirement for the proposed designation of land for the state highway intersection upgrade, and therefore I have not commented further here.

Submission: Rural Transport Limited

10. The submitter **supports** the proposed Plan Change but seeks to ensure that right-turn movements from Northpark Road onto State Highway 1 are retained. I refer to this matter in my report relating to the Notice for Requirement for the proposed designation of land for the state highway intersection upgrade.

Submission: Rural Transport Limited

11. The submitter **supports** the proposed Plan Change but seeks to ensure that suitable heavy vehicle access is provided for Lot 1 DP352761. The Plan Change does not preclude such access. I also refer to this matter in my report relating to the Notice for Requirement for the proposed designation of land for the state highway intersection upgrade.

Submission: Barry William and Natalie Elizabeth Quantock

12. The submitters **support in part** the proposed Plan Change but wish to ensure that Tait's Road does not become a through road to the proposed site. I note that the accesses to the Business Park site have been located with this in mind, and that with the Plan Change vehicular access from the site to Tait's Road becomes a Prohibited Activity.

Submission: New Zealand Railways Corporation

13. The submitter **supports** the proposed Plan Change, but requested that the Council explicitly recognises the issue of rail level crossing safety by means of an additional clause within the plan change wording. I understand that the change to the wording of the plan is not now required because OnTrack and the Council have signed a Deed of Grant that allows OnTrack to seek upgrading of the level crossings when daily traffic volumes reach a defined level.

Submission: New Zealand Railways Corporation

14. The submitter **supports** the proposed Plan Change, but requested that the Council discourage pedestrians and cyclists from using the railway corridor, and to that end requested a clause in the plan change wording that 'the alignment of cycleways and walkways shall demonstrate regard for rail safety'. I understand that plans have

been produced by Opus showing that cycle and walk ways can be provided to the satisfaction of OnTrack and that this submission point has been withdrawn.

Submission: New Zealand Railways Corporation

15. The submitter **supports** the proposed Plan Change, but expressed concern that the increased traffic volumes will have an impact upon the safe operation of the existing rail level crossings. They therefore seek that the Council gives consideration to grade-separation of the (existing) railway level crossing at Northpark Road. I note that the matter is to be managed through a Deed of Grant between ADC and OnTrack.
16. This matter was addressed in the Transport Assessment produced for proposed Plan Change 2, where it was noted that at Northpark Road, flashing lights and bells will be required immediately prior to development commencing and an upgrade to half-arm barriers will be required once approximately 15% of the site has been developed. At Works Road, the existing flashing lights and bells are expected to remain appropriate for the volumes of traffic until approximately 50% of the site is developed, whereupon half-arm barriers may be required, depending upon the train speed.

Submission: Rodger Bradford and Others

17. The submitter **supports in part** the proposed plan change, and seeks confirmation that full right-turning facilities will be retained into and out of Northpark Road from Bremners Road. I note that there is no proposal to restrict this movement as part of the Plan Change.

Submission: Rodger Bradford and Others

18. The submitter **supports in part** the proposed plan change, but sets out a view that Chalmers Avenue / Bridge Street / Seafield Road / Company Road route is not of a suitable standard to safely cater for the additional traffic flows. In my opinion this route will be suitable for the level of extra vehicle movements anticipated to use it in the future. While it is not a straight route, the individual roads are classified in the District Plan road hierarchy to carry through traffic.

Submission: Rodger Bradford and Others

19. The submitter **supports in part** the proposed plan change, but considers that Bremners Road will attract significantly higher volumes of traffic than anticipated in the Transport Assessment report, and accordingly, that Bremners Road should be upgraded.
20. With the recent improvement scheme at the East Street / West Street intersection and the proposed access arrangements for the Business Park, I consider that there is little incentive or benefit for traffic heading for most areas of Ashburton or beyond to use Bremners Road rather than the state highway (or Company Road) because of the priority afforded to the state highway route and the higher speed limit. In any event upgrading Bremners Road could provide the potential for more traffic to use Bremners Road. Therefore I do not agree with this submission.

Submission: The Property Manager, Ashburton District Council

21. The submitter **supports** the proposed plan change, but seeks clarification that an internal subdivision road can be connected to Company Road. I agree with this part of the submission and recommend that the wording of the plan change is amended to reflect this.

Submission: The Property Manager, Ashburton District Council

22. The submitter **supports** the proposed plan change, but requests the inclusion of wording to ensure that cyclist and pedestrian safety is not compromised with the provision of landscaping. I support this part of the submission and recommend that the wording of the plan change is amended to reflect this.

Submission: Transit New Zealand

23. *Transit New Zealand has submitted on the proposed plan change seeking:*
 - 1) an appropriate mechanism to address the adverse effects of the proposal on State Highway 1
 - 2) that a Rule be incorporated into the District Plan which addresses the timing and funding of SH1/Northpark Road intersection upgrade

- 3) additional wording in order to provide for intersection upgrade of Works Road intersection with State Highway 1
- 4) additional wording that the Council will maintain and fund an appropriate level of service at intersections with State Highway 1 that are affected by the plan change site
- 5) additional wording which makes specific reference to the agreement between the submitter and the Council regarding trigger levels for intersection upgrading and funding of the Northpark and Works Road intersections with State Highway 1
- 6) a new Policy to avoid, remedy or mitigate vehicle conflicts and potential traffic safety effects of the site on State Highway 1.
- 7) Points 1-4 have since been accomplished through the provision of a side-agreement between the submitter and the Council and therefore I understand no specific changes to the Plan Change are required. The wording suggested by Point 5 could be added to the Plan Change for clarity. While I agree with the principle of the wording suggested in point 6, I consider that the preservation and promotion of road safety is already included within the District Plan. I therefore do not consider that a new Policy is necessary.

Submission: CMP Canterbury Ltd

24. The submitters have **not stated** whether they support or oppose the proposed Plan Change. They wish to ensure that the ability to turn right from the 'Ashcold' site into Northpark Road is retained. I consider that it is desirable to encourage longer-distance vehicles to move to and from the state highway network at the earliest opportunity. However I acknowledge that it is appropriate for local deliveries to be made using district roads and note that the Plan Change does not necessarily preclude the right-turn movement.

Submission: DF & IA Keenan

25. The submitters **oppose** the proposed Plan Change, and wish to see Bremners Road used as a cycle route. Given that there is already industrial development on Bremners Road, I do not consider it is practical to prohibit all motorised traffic from

using it, and I therefore do not support this part of the submission. Furthermore, as set out in the Transport Assessment report, even at the busiest times there will be fewer than ten cyclists per hour generated by the development facilitated by the Plan Change.

STATUTORY CONTEXT

National Policy Statements

26. There are no National Policy Statements relating to transportation that are of relevance to this Plan Change.

Regional Policy Statement

27. The Canterbury Regional Policy Statement (RPS) was made operative on 26 June 1998, and sets out how natural and physical resources are to be managed to promote sustainable resource management. Part 15 of the RPS deals with transport matters, and this in turn provides a framework for the policies and methods set out in the Regional Land Transport Strategy.
28. The Regional Land Transport Strategy (2005-2015) prepared by Environment Canterbury identifies the future transport needs in Canterbury, the roles of all modes of transport and a strategic direction for development of the land transport system. It sets out an overall vision of a land transport system that supports equitable access, a thriving economy and a healthy environment, is safe to use and is responsive to change. The relevant Policies of the RLTS are outlined and addressed below.

Policies 1.1 & 1.2: Support the greater use of walking, ensuring the guiding principles for walking are applied

29. The site is located some distance from most residential areas, and I consider that a minimal number of walking trips will be made to and from the proposed business park. The 2001 census noted that within the Ashburton District, less than 7% of journeys to work were made on foot for similar locations. I therefore conclude that while the location of the site does not necessarily support these policies, the effects will be less than minor.

Policy 1.3: Support the greater use of public passenger transport

30. There are presently no public passenger transport services in Ashburton. However, the proposed Plan Change will serve to focus a large cluster of employment within one discrete area, which will assist the effective provision of a public transport service, should one be introduced in future. I therefore consider that the proposal is consistent with this policy.

Policy 1.4: Provide for people with special transport needs

31. The proposal does not preclude provision being made for these road users and so I consider that the proposal is consistent with this policy.

Policy 1.5: Support rail as an integral part of Canterbury's strategic land transport system

32. The Plan Change will allow for the relocation of the rail terminal which is presently within the town, to a site adjacent to the business park. This will enable direct access to rail for the business park and will also enable the movement of freight to the railway from other locations without the need for all trucks to enter the town centre. The proposed site will provide sufficient area for present and future operations. I therefore consider that the proposal definitively supports this policy.

Policy 2.1: Progressively reduce the number and severity of crashes in Canterbury

33. The proposed access arrangements to the Plan Change site are in accordance with the road controlling authorities requirements, with 'future-proofing' allowed for at the State Highway 1 / Northpark Road intersection, and at the railway crossings. So I do not envisage that any road safety concerns will be introduced by the proposal. Moreover, in assessing the routes which traffic will use to travel to the site, attention has been paid to avoiding locations where there is adverse road geometry. I therefore consider that the proposal is consistent with this policy.

Policy 2.3: Support the maintenance and development of the region's strategic road network

34. The Plan Change site accesses State Highway 1 via Northpark Road and Works Road and the agreement between the Council and Transit New Zealand ensures that the

additional traffic can be accommodated satisfactorily on the strategic road network. I therefore consider that the proposal is consistent with this policy.

Policy 4.1: Promote the locations of... jobs... to support sustainable transport choices and reduce the need to travel, especially by private motor vehicle

35. The site is located some distance from residential areas, and as noted earlier, I consider that a minimal number of walking (and cycling) trips will be made to and from the proposed business park. However, the proposed Plan Change will focus a large cluster of employment within a single discrete area which will enable workers at the business park to carpool and reduce the number of vehicles used to travel to work. The proposal will also assist in the provision of any future public transport service and an area-wide Travel Plan.

36. Overall, I conclude that the policy is supported by the proposal, and that any effects particularly when considered relative to other alternative sites for business activities, will be less than minor.

Policy 4.2: Design and programme development and related infrastructure to support sustainable transport choices, improve interchange between modes and to reduce the need to travel, especially by private motor vehicle

37. As noted for the previous policy, only a minimal number of walking and cycling trips will be made to and from the proposed business park. However the proposed Plan Change will encourage car parking and support the provision of any future public transport services.

38. Since the roading infrastructure will be designed to allow for truck movements, I do not envisage any issues with its use by buses or charter coaches.

39. The proposal does reduce the need to travel, but only to the extent of trips between the respective activities within the business park. Consequently, I conclude that the overall policy is marginally supported by the proposal, but any effects will be less than minor.

Policy 4.3: Ensure that land-use, transportation planning and transport provision are mutually supportive and priorities closely linked

40. Ensuring adequate and appropriate access to the site has been integrated into the proposed Plan Change from the outset, with particular attention paid to the three proposed access locations and the suitability of the routes which generated traffic will use. The provision for the rail terminal also supports transportation facilities.

Policy 4.4: Ensure a high level of accessibility to key business destinations, including ... industrial areas

41. I consider that the proposal is consistent with this policy, since the site will have three points of access, including two roads that link directly to the nearby state highway.

Policy 5.1 Provide for the effective movement of freight in ways that are efficient, safe and sustainable ensuring the guiding principles for freight are applied

42. The Plan Change provides for straightforward and direct access between the state highway network and the freight generators, using accesses accepted by the relevant road controlling authorities as being appropriate. An agreement is in place for the upgrading of the Northpark Road access in due course. The Plan Change also provides for the promotion of interchanging of freight between road and rail with the rail terminal. I therefore consider that the proposal is consistent with this policy.

43. The Canterbury Regional Land Transport Freight Action Plan forms a component of the RLTS. It sets out a framework in respect of planning and policy-making to assist freight movements, and the provision of transport infrastructure. These are outlined and addressed below.

Objective 1: Protect the operation of and access to key freight transport hubs

44. Although the site of Plan Change 2 is not specifically identified in the Action Plan, the definition of a hub as being "where goods are transported in and out by more than one vehicle type and operator for more than one supplier or producer" means that the site will qualify as such a hub.

45. The Plan Change provides for straightforward and direct access between the state highway network and the freight generators, using accesses accepted by the

relevant road controlling authorities as being appropriate. It also provides for the interchanging of freight between road and rail. There is also the opportunity to alleviate reported difficulties at the existing town centre rail terminal, both in terms of freight vehicles encountering increased traffic congestion on the roads, and traffic delays created as a result of trains disrupting traffic at railway crossings. I therefore consider that the proposal is consistent with this objective.

Objective 2: Define and protect the operation of and access to the strategic freight network

46. The access arrangements for the Plan Change site will link very effectively to the strategic freight network (SH1), and I therefore consider that the proposal is consistent with this objective.

Objective 3: Reduce heavy traffic impacts on local communities

47. The Plan Change allows for the rail terminal to relocate away from the town centre, thus reducing the effects of freight movements on the town centre. The business park will also be connected very effectively to SH1. In support of this view, I note that the proposed treatment of the Northpark Road/Business Zone access intersection encourages as much heavy traffic as possible to use SH1 and reduce the use of Bremners Road and Company Road. In my opinion the benefits within the town centre outweigh the effects of the increased heavy vehicle flows in the immediate vicinity of the site. Therefore the Plan Change is consistent with this objective.

Objective 4: Improve freight access provisions to commercial areas

48. The business park does not fall within the definition of a commercial area, and therefore I consider the objective is not relevant to the proposed Plan Change.

District Plan Objectives and Policies

49. The Ashburton District Plan was adopted in 2001, and has a number of Objectives and Policies which relate to traffic and transportation matters as set out below.

Objective 1, Policy 1: To promote the efficient use of all roads within the District by adopting and applying a road hierarchy with associated standards for design, vehicle access and vehicles crossing based upon the intended function of each road

50. Both Works Road and Northpark Road are presently included within the roading hierarchy as Local Roads. With proposed Plan Change 2 in place, the westernmost sections of these roads will carry an increased volume of through traffic. I do not consider that this is commensurate with their designation, or in accordance with this Policy. I therefore recommend that Northpark Road between State Highway 1 and the site access is redesignated as (at least) a Principal Road, and Works Road between State Highway 1 and the site access is redesignated as (at least) a Collector Road.
51. Company Road is presently a Collector Road under the District Plan roading hierarchy. Given the increased traffic volumes expected to use this road as a result of Plan Change 2, I recommend that it is redesignated as (at least) a Principal Road.
52. With these amendments and the application of appropriate design standards for the proposed accesses for the site, I consider that the proposal will be more consistent with this policy.

Objective 1, Policy 2: To protect the efficiency of through traffic on State Highway 1 and its primary role as a carrier of through traffic, by strictly limiting vehicle access and vehicle crossings for high traffic generating activities

53. The proposed Plan Change does not result in any new accesses being formed on to the state highway, with this being an important factor in the identification of a suitable site for the proposed business park. I therefore consider that the proposal is consistent with this policy.

Objective 1, Policy 3: To mitigate the adverse effects of vehicle and fossil fuel usage by reducing potential travel times to home, work, community and business places

54. While the Business Park does not achieve reduced travel times for home based work trips because it is not centrally located, it does provide an integrated area where many business trips will result in lesser adverse effects because of local movements and trip chaining. The overall effect is likely to be minor particularly when it is considered that there is no alternative for a centrally located, integrated site. I therefore consider that the Plan Change is not inconsistent with this policy.

Objective 1, Policy 5: To consider opportunities for encouraging and developing greater use of public transportation facilities

55. As noted previously, the proposed Plan Change will serve to focus a large cluster of employment within one discrete area, which will assist the effective provision of a public transport service, should one be introduced in future. I therefore consider that the proposal is consistent with this policy.

Objective 2, Policy 1: To maintain and where necessary improve safety and accessibility within the District by adopting and applying a road hierarchy with associated standards for design, vehicle access and vehicle crossings based upon the intended function of each road

56. As noted above, it is proposed that sections of Northpark Road and Works Road, plus Company Road, should be redesignated within the road hierarchy. This will promote appropriate design standards and consistency with the roads' function and traffic characteristics, thereby supporting road safety and this policy.

Objective 2, Policy 2: To ensure that the number, location and design of vehicle accesses and vehicle crossings and the intensity and nature of activities along roads is compatible with road capacity and function in order to ensure both vehicle and pedestrian safety. In particular, to strictly limit the establishment of high traffic generating activities with vehicle access and vehicle crossings to State Highway 1

57. As noted previously, there are a limited number of accesses to the business park and there is no direct vehicle access from SH1. I also consider that the intensity and nature of the Business Park is compatible with the capacity of Northpark, Works and Company Roads. The Plan Change is therefore consistent with this policy.

Objective 2, Policy 3: To consider wherever possible opportunities for effective public transport, particularly for people without access to cars

58. The proposed Plan Change will focus a large cluster of employment within one discrete area, which will assist the effective provision of a public transport service, should one be introduced in future. I therefore consider that the proposal is consistent with this policy.

Objective 2, Policy 4: To encourage the development of pedestrian areas and walking tracks, and cycleways within the main townships and on the approaches to schools

59. Although the site is located such that few external walking journeys may be expected, the network of district roads to the southwest of the site which will be largely unaffected by motorised vehicles travelling to and from the site allows for the provision of pedestrian and cycling routes. Accordingly any effects will be minor and the Plan Change is not inconsistent with this policy.

Objective 2, Policy 5: To ensure that convenient parking is available for people using facilities and activities throughout the District, including for people with disabilities

60. Although the internal layout of the site has not yet been confirmed, the size of the area is such that I anticipate that compliance with this policy will be achieved easily.

Objective 3, Policy 2: To adopt techniques to discourage traffic in areas where it would have adverse environmental effects

61. I do not consider that a major increase in traffic, particularly heavy vehicles, will occur on the network of district roads immediately to the south of the proposed site. However, potentially adverse effects could be created in respect of road safety and amenity if traffic did increase on the roads. The access arrangements to the site have therefore been developed to ensure that traffic is actively discouraged from using these routes (including Bremners Road). Therefore I consider the Plan Change is consistent with this policy.

Objective 3, Policy 4: To ensure new roads are designed to visually complement the surrounding area

62. Although there are no firm designs for the roading improvements, I consider that compliance with this policy is able to be achieved.

Objective 3, Policy 5: To incorporate tree and landscape plantings within roading improvements, wherever possible

63. Again while there are no firm designs for the roading improvements, I consider that compliance with this policy is able to be achieved.

Objective 3, Policy 9: To consider opportunities for use of public transport and charter or shuttle buses as an alternative to private motor vehicles

64. The proposed Plan Change will focus a large cluster of employment within one discrete area, which would assist the effective provision of a public transport service or charter services. I therefore consider that the proposal is consistent with this policy.

CONCLUSIONS

65. Overall, I consider that the proposed Plan Change is consistent with regional and district policies, and I do not consider that it will have a significant adverse effect on the (transportation) environment.

66. However to strength the consistency with the policies and to meet some concerns stated by submitters, I recommend that the Plan Change includes:

- clarification that one internal subdivision road should be connected to Company Road;
- clarification that cyclist and pedestrian safety should not be compromised by the provision of landscaping;
- reference to the Deed of Grant signed with OnTrack;
- reference to the agreement between the Council and Transit New Zealand regarding trigger levels for intersection upgrading and funding of the Northpark and Works Road intersections with State Highway 1;
- redesignation of Northpark Road between State Highway 1 and the site access as (at least) a Principal Road, Works Road between State Highway 1 and the site access as (at least) a Collector Road, and Company Road as (at least) a Principal Road.

67. I note that with the two road controlling authorities of Ashburton District Council and Transit New Zealand having reached agreement in relation to the access arrangements on State Highway 1, safe and efficient access to the proposed business park will be assured.

68. On this basis and with the inclusion of these recommendations, I am of the opinion that there are no traffic or transport related matters which would prevent the proposed Plan Change from proceeding.

Tony Penny

21 August 2007