BEFORE THE HEARINGS PANEL

IN THE MATTER	of the Resource Management Act 1991
AND	
IN THE MATTER	of proposed Plan Change G: Aokautere Urban
	Growth to the Palmerston North City Council
	District Plan

SUPPLEMENTARY STATEMENT OF ANDREW BURNS ON BEHALF OF PALMERSTON NORTH CITY COUNCIL

URBAN DESIGN

Dated: 11 March 2024



TABLE OF CONTENTS

Α.	INTRODUCTION	3
В.	SCOPE	3
C.	CHANGES TO STRUCTURE PLANS	3
D.	AOKAUTERE NEIGHBOURHOOD CENTRE PRECINCT PLAN MAP 7A.4C	11
E.	STREET CROSS SECTION CHANGES	12
F.	SUITABILITY OF MEDIUM DENSITY VILLAGE AREA FOR DETACHED HOUSING.	13
G.	APPENDIX A	16



SUPPLEMENTARY STATEMENT OF ANDREW BURNS

A. INTRODUCTION

- [1] My full name is Andrew Davies Burns.
- I prepared a s 42A report dated 15 September 2023 (s 42A Report) and reply evidence dated 28 November 2023 (Reply) on urban design matters for PCG.
- [3] My experience and qualifications are set out in my s 42A Report.
- [4] I repeat the confirmation given in my s 42A Report that I have read and will comply with the Code of Conduct for Expert Witnesses in the Environment Court Practice Note 2023, and that my supplementary report has been prepared in compliance with that Code.

B. SCOPE

- [5] My supplementary statement responds to the following matters raised by the HearingPanel as part of the hearing in the week of 4 December 2023:
 - (a) Changes to the Structure Plans.
 - (b) Aokautere Neighbourhood Centre Precinct Plan.
 - (c) Changes to the Street cross sections.
 - (d) Suitability of Medium Density Area for detached housing.

C. CHANGES TO STRUCTURE PLANS

- [6] The updated Structure Plans and Street cross sections are attached to Ms Copplestone's Supplementary Statement dated 11 March 2024.
- [7] Changes to the Structure Plan are set out in **Table 1** below. The table describes:
 - (a) The geographical location or area within the Structure Plan that has undergone change and the associated Structure Plan(s) to which the change applies;

- The 'existing' situation as set out in the Reply Evidence version of the Structure (b) Plans;
- The Submitter's request that has triggered the change; and (c)
- (d) My recommendation.



Table 1: Changes to PCG Structure Plan

	Location / Area (Map No.s)	Reply Evidence Version of the Structure Plan	Submitter's Request	Recommendation
8(i)	Turitea Terrace Link (Maps 7A.4, 7A.4A, 7A.4B, 7A.4D)	Proposed peri-urban road extension to Valley Views Road, linking to proposed Pacific Drive extension on the plateau. The Peri- urban road included a dog-leg alignment as recommended by Tonkin+Taylor, to negotiate the escarpment.	 S 45 – seeks the Structure Plan reflect the Stage 9 Valley Views Application. See Appendix A of Ms Pilkington's evidence. The proposal provides for a road providing direct access off Turitea Valley Road to Valley Views Road, and taking a straighter alignment up and onto the plateau. 	 The proposed alignment has been reviewed by Ms Fraser, Mr Hudson, Mr Bird and Dr Forbes, as set out in their Supplementary Statements. Submitter's request is accepted in part. a) The revised alignment between Valley Views and the plateau is accepted, as this maintains the Valley Views connection and allows a more direct link to the proposed extension of Pacific Drive. b) However, the Submitter's proposal for continuation of the peri-urban Terrace Link road from Valley Views Road to Turitea Road is not accepted, owing to ecological and traffic constraints (as detailed in the Supplementary Statements of Dr Forbes' and Ms Fraser). c) Submitter's preferred alignment of the peri-urban Valley Views extension road is not accepted. The operative District Plan minimum Rural Residential Overlay lot size (1ha) could not be realised efficiently on the south-west side of the proposed road.

Supplementary Statement – Urban Design Proposed Plan Change G: Aokautere Urban Growth for Palmerston North City Council



8(ii)	Area A (Green Block) (Maps 7A.4, 7A.4A, 7A.4B, 7A.4D)	Area A is zoned Rural.	S 45 - the eastern and western block portions of the Green Block zoned Rural Residential.	Submitter's request accepted in part. a) A more detailed review of geotechnical constraints, landform, flood risk and ecological constraints was carried out by Mr Bird, Ms Baugham and Dr Forbes. The ecological
				investigation identified a natural inland wetland located across the majority of this area (G20). This renders all but the south-eastern portion of the area (circa 2.25Ha within the 2.3Ha area identified by the submitter as 'developable area') unsuitable for Rural Residential.
				b) The Supplementary Statements of Mr Bird and Ms Baugham highlight the potential presence of liquefaction/soft ground and overland flows / ponding.
				c) The submitter's preferred boundary between the Conservation and Amenity Zone and Rural Residential Zone is rejected. If allowed, this change would include the minor escarpment within the Rural Residential Zone. Dr Forbes recommends that the escarpment is included within the Conservation and Amenity Zone (as set out in his Supplementary Statement).
				The updated Structure Plan shows the southern, elevated portion of the site zoned for Rural- Residential, with the wetland and associated

Prepared by Andrew Burns



				hydrologically connected areas zoned Conservation and Amenity Zone. The remaining area is retained as Rural Zone.
8(iii)	Area B (Green Block) (Maps 7A.4, 7A.4A, 7A.4B, 7A.4D)	Area B is zoned Rural.	S 45 - the eastern and western block portions of the Green Block zoned Rural Residential.	 Submitter's request is accepted in part. a) The submitter has provided a plan which identifies potential building platforms. This drawing has been reviewed by Mr Bird and Mr Hudson. Their advice is that these areas can accommodate a dwelling and could be zoned for rural-residential development, subject to the proposed controls in PCG. b) Dr Forbes has reviewed the area and proposed building platforms and identified ecological constraints, leading to a recommendation for an additional gully area (G19) at the eastern extremity of Area B to be zoned Conservation and Amenity Zone. Dr Forbes considers the gully area to be unsuitable for Rural Residential. c) The recommended zoning is Conservation and Amenity Zone over the gully area and Rural-Residential Zone over the remaining areas and this is reflected in the updated Structure Plan.
8(iv)	Area B (Green Block) (Maps 7A.4, 7A.4A, 7A.4B, 7A.4D)	Area B is zoned Rural.	Minor amendment identified through the review undertaken in response to S 45.	Dr Forbes' review also identified the need for minor adjustments to the boundaries of Gullies G8 and G9 to reflect the indigenous vegetation constraints. This resulted in some minor changes



Prepared by Andrew Burns

				to the associated boundaries between the Conservation and Amenity Zone and Residential Zone, which have been amended in the updated Structure Plan.
8(v)	Gully 9 Link Road (Maps 7A.4, 7A.4A,	Peri-urban road runs along southern extremity of Gully 9, providing access to local streets within the Waters Block. Local	S 45 - seeks a different roading configuration within the Structure Plan, along with a notional road connection to the north, to	The proposed alignment has been reviewed by Ms Fraser, Mr Hudson, Mr Bird and Dr Forbes, as set out in their Supplementary Statements.
	7A.4B, 7A.4D)	street provides access to proposed residential lots within the Green Block.	provide for residential development to occur on the Green Block without relying on either a boundary adjustment subdivision, or an intersection to be constructed on the Waters Block.	The submitter's request is accepted and the Structure Plan has been amended, based on the revised drawing supplied by the submitter (dated 7th February 2024). This drawing was revised in response to advice from Ms Fraser on the desired cross-section width.
			See Appendix A of Ms Pilkington's evidence.	The revised trajectory aligns with the gully contours. While access to residential lots is provided entirely within the Green land interests, it is noted that the associated earthworks impact Waters land interests.
8(vi)	South Village (Maps 7A.4, 7A.4A, 7A.4B, 7A.4D)	Peri-urban road connects with south-west corner of South Village. South Village blocks consistently align north-south.	Relocation of the peri-urban Terrace Link Road has implications for street and block alignment within the village.	Peri-urban Terrace Link road connects centrally along the western edge of South Village. As a consequential amendment, the northern blocks have been realigned in the Structure Plan in an east-west orientation. This achieves a direct connection east into the proposed Pacific Drive extension.
8(vii)	Greenfield Residential Area	The Greenfield Residential Area 'overlay' does not extend over the	S 45 - timing of vesting and how gullies accessed for maintenance,	The Greenfield Residential Area overlay should include the Conservation and Amenity Zone and



	(Map 7A.4)	Conservation and Amenity Zone and Recreation Zone areas.	enhancement and installation of public access infrastructure.	Recreation Zone areas. This was intended. This enables subdivision of these areas to be assessed via the provisions in Section 7A, as discussed in Ms Copplestone's Supplementary Statement.
8(viii)	Stormwater Detention Ponds (Map 7A.4)	Stormwater detention ponds have been drawn in two ways. Some are stylised as simple geometric shapes. Others have a specific shape dictated by contours and capacity.	S 45 – allow for developer-led stormwater pond provision, where it serves their development and at the time the infrastructure is required.	The more precise format restricts flexibility in determining the final shape and location of the ponds. Ms Baugham has advised (as set out in her Supplementary Statement) that the final extent, shape and location of the stormwater detention ponds will need to be determined at the subdivision design stage.
				As a result, all detention ponds are now drawn in the same stylised format. This ensures consistency across the Structure Plan and illustrates that the locations of the ponds are indicative.
8(ix)	Aokautere Neighbourhood Centre Precinct Plan (Map 7A.4C)	Precinct Plan prescribes the attributes of a successful local centre for Aokautere. These include position of an anchor tenant, service/parking arrangements, a potential village green, landmark building opportunities and likely building footprints.	S 58 – requests less definition / specificity / restriction within Local Business Zone, with more general location of components of the centre.	The Submitters' request is accepted in part. A full description of the amendments to the Precinct Plan is provided in Section D below.
8(x)	Map 7A.4, 7A.4A, 7A.4B, 7A.4C, 7A.4D	Key for Map 7A.4A, 7A.4D refers to 'flexible location' and 'fixed location'.	S 51 – Opposes street hierarchy maps 7A.4A and street cross section maps 7A.4D as they restrict flexibility. General opposition to	Update the key on Maps 7A.4 and 7A.4C to refer to specific features as 'Fixed', denoted by an asterisk (*). Add note to key of Map 7A.4B that



Prepared by Andrew Burns

		All other Maps (7A.4, 7A.4B, 7A,4C) do not distinguish between fixed and flexible features.	the Plan Change that seeks to impose a specific design solution. Also, opposition to proposed gully edge road to G3.	 the extent of certain areas are 'Fixed', as annotated with (*). Update the key on Maps 7A.4A and 7A.4D to refer to the following street types as 'Fixed' denoted by an asterisk (*) (as set out below): <u>Fixed</u> Urban Connector (Types A, B, E) Activity Streets Add note to key of Map 7A.4D that all cross-section dimensions on Maps 7A.4D 1 – 14 are 'Fixed' (*) and add similar Fixed (*) notation to all Cross Sections at Maps 7A.4D 1- 14. Remove street type Urban Connector F and Activity Street C from the Structure Plan set. Delete any references to 'Flexible Location'.
8(xi)	Map 7A.4B	50 and 55 dBA L _{max} contour lines shown on map	S 76 – oppose rezoning of neighbouring land unless homes are built with professionally designed and approved insulation, with consent notices on properties, adopt the ridgeline as a clear demarcation of the extent of land subject to significant noise.	Update the key on Map 7A.4B to remove 50 and 55 dBA L_{max} references and add hatch fill that describes a 'Gun Club High Noise Area' (former 55dBA Lmax) and 'Gun Club Noise Mitigation Area' (former 50dBA Lmax). This change is to avoid confusion and to reflect the updated policy wording.



D. **AOKAUTERE NEIGHBOURHOOD CENTRE PRECINCT PLAN MAP 7A.4C**

- [8] The Precinct Plan has been reviewed in light of submitters' requests for simplification and reduced prescriptiveness. This has resulted in the following changes:
 - (a) Adjustment of the plan diagram and associated key to remove:
 - (i) Land use activities;
 - (ii) Anchor store tenancy and store entrance location;
 - (iii) Central Landscaped Open Space;
 - (iv) Local Landmark opportunities;
 - (v) Retirement Village boundary; and
 - (vi) Alphabetically indexed annotations.
 - (b) Consolidation of the north-west quadrant to form a single development area.
 - (c) Removal of indicative commercial footprints within the north-east and southeast quadrants and replace with identification of general development areas.
 - (d) Removal of prescribed areas for servicing and car parking and general note added that parking/servicing to be contained behind buildings.
 - (e) Distinction between primary and secondary commercial frontages with a secondary frontage described for part of the north-west quadrant. Primary commercial frontages on the Activity Street are reinforced.
 - (f) Addition of explicit requirements for connection of the Activity Street spine to Pacific Drive and proposed Urban Connector Street.
 - (g) Addition of explicit requirements for two connections with surrounding Local Streets.
 - (h) Identification of 'Fixed' features denoted by an asterisk (*).



- [9] I have considered these changes in light of the outcomes sought for the Aokautere Neighbourhood Centre. I am satisfied that the simplified Precinct Plan still provides sufficient direction to ensure that the neighbourhood centre will be developed in a manner that is consistent with current urban design best practice. Key features of such a centre as depicted in the simplified Plan include:
 - (a) A centrally positioned high street (Activity Street).
 - (b) Good connectivity into surrounding residential areas.
 - (c) Direct frontage to adjoining Urban Connectors.
 - (d) Dual active frontage to Activity Street.
 - (e) Site depths either side of Activity Street suitable for range of commercial tenants.
 - (f) Appropriate orientation and interaction of commercial frontages with Pacific Drive, to attract passing traffic.
- [10] I am also satisfied that the proposed PCG Objectives, Policies and Assessment Criteria support the Precinct Plan with sufficiently detailed direction to achieve a wellfunctioning Neighbourhood Centre.

Ε. STREET CROSS SECTION CHANGES

- [11] Submitter Chris Teo Sherrell (S 43) requested a range of amendments to the proposed street cross sections.
- [12] The recommended changes are a multi-disciplinary response to this submission. The purpose of these changes is to provide more space for cyclists and more separation between vehicles and cyclists, as described in Ms Fraser's Supplementary Statement.¹ The changes also provide more flexibility for how stormwater is captured and treated, as discussed in Ms Baugham's Supplementary Statement.²



Supplementary Statement of Harriet Fraser – Traffic (11 March 2024) at Section K.

Supplementary Statement of Allison Reiko Baugham – Stormwater (11 March 2024) at Section G.

[13] Street Cross Section changes are set out in the table within Appendix A and the updated cross sections are attached to Ms Copplestone's Supplementary Statement.

SUITABILITY OF MEDIUM DENSITY VILLAGE AREA FOR DETACHED HOUSING F.

The submissions of S 51 and S 58 identified concerns that multi-unit housing is not [14] practical or commercially viable. Relevant excerpts from evidence presented on behalf of these submitters at the Hearing include:

> I consider it unlikely that a medium-density typology will be attractive to buyers in most of the PC-G area and I question why the structure plan needs to prescribe outcomes that may not be desirable to develop.³

> PNCC in PCG is attempting to impose strict, prescriptive master planning with unrealistic design criteria - and density, which is out of touch with market reality. There is little doubt that the dense living premise- small site design promoted by PNCC's contracted urban designer consultants for Whakaronga has resulted in the creation of a product there that is not attractive to the average suburban buyer in Palmerston North...⁴

> The existing planning framework of the multi-unit housing areas provisions in the District Plan act as an overlay on top of the residential zone provisions. This approach gives greater flexibility but even with this I doubt that it can be justified across the whole of the North Village Area...⁵

- [15] Proposed PCG sets a minimum net average residential density of 25 dwellings per hectare (25DPH) for the Medium Density Village Area.
- [16] Within the Aokautere Medium Density Village Area, the proposed Structure Plan establishes a street layout with typical block dimensions of 100m by 60m. This layout contains Local Street types with indicative locations, thus providing the potential for minor adjustments to the final subdivision pattern.



S 51 Statement of Evidence of Ms Coats (3 November 2023), at paragraph 31.

S 51 Statement of Evidence of John Farquhar (3 November 2023), at paragraph 11.

S 58 Statement of Evidence of Paul Thomas (27 October 2023), at paragraph 142.

- To achieve the minimum DPH, the typical block can be efficiently subdivided into [17] sixteen lots, each measuring 12.5m in width and 30m in depth.
- [18] In this notional layout, each parcel has an area of 375m². At this size, typical lots are only marginally smaller than proposed minimum lot size of 400m² for the Suburban Low Density Area. In other operative Greenfield Residential Areas in the City, the minimum lot size is 350m², which is smaller than typical parcels for the Medium Density Village Area.
- [19] Given the proposed PCG Performance Standards for this area (Height, Height in relation to Boundary (HIRB), Separation Distance, Coverage, Permeable Area and Outdoor Living), a 12.5m by 30m lot will permit:
 - (a) A single storey standalone dwelling with a potential building footprint of 187.5m². After providing a double garage, this footprint allows a habitable dwelling area of 151m² at ground level (less a modest area of setback to meet the frontage requirement). This is more than adequate for a single-storey, three-bedroom house.
 - (b) Two full storeys each measuring approximately 137.8m² i.e., a total GFA of 275.6m². After providing a double garage, this allows a habitable area of 240m² (less a modest area of setback to meet the frontage requirement). This provides for a generous suburban dwelling. At two full storeys, HIRB dictates a dwelling width of 9.5m. This dimension requires careful design in order to accommodate a garage, entrance and habitable space facing the street.
 - (c) An 11+1m high dwelling i.e., two full floors plus an occupied attic.
 - (d) A range of options for achieving the Outdoor Living performance standards.
- [20] I have undertaken a yield comparison for the Medium Density Village Area. This compares the likely yields of medium density (min 25DPH) housing vs standard low density suburban housing. The study was a plan-based exercise evaluating the actual number of lots achievable under either scenario, as follows:
 - (a) Medium density yield (achieving a min 25 DPH): 296 lots;

Proposed Plan Change G: Aokautere Urban Growth for Palmerston North City Council



Supplementary Statement – Urban Design

- (b) Standard low density suburban yield: 186 lots; and
- Overall uplift in yield achieved for the MD Village Area: 110 lots. (c)
- [21] I support the proposed PCG provisions. As the above demonstrates, these allow for a range of housing types to be developed within the Medium Density Village Area. For the overall plan change area, a mix of housing types and densities is achieved through the provision of standard low-density housing, flexible density on the promontories, rural residential lots and medium density in the village area.

11 March 2024

Andrew Burns



G. **APPENDIX A**

Appendix A: Changes to PCG Street Cross-Sections

	Street (Type Ref.)	Changes to Cross Section
14(i)	Urban Connector A (7A.4D 1)	 Carriageway width reduction (7.5m to 6.5m). Addition of 0.5m buffers between carriageway and cycle lanes.
14(ii)	Urban Connector B (7A.4D 2)	 Carriageway width reduction (6.5m to 6.0m). Addition of 0.5m buffers between carriageway and cycle lanes. Swale/raingarden widths reduced (2.25m to 2.1m). Berm widths reduced (0.8m to 0.6m). Overall legal road width reduced (19.8m to 19.6m).
14(iii)	Urban Connector C (7A.4D 3)	 Carriageway width reduction (6.5m to 6.0m). Addition of cycle lanes either side of carriageway (1.6m each). Addition of 0.5m buffers between carriageway and cycle lanes. Shared path replaced with footpath (3.0m to 1.8m). Addition of swale/raingardens to one side of carriageway (2.1m). Berm widths reduced (1.0m to 0.6m). Overall legal road width varies (13.2m to 15.3m) depending on stormwater requirements for swales/raingardens. Remove note "No stormwater to drain towards gully edge" (as this street type is located on the gully floor). Add note regarding single fall for road.
14(iv)	Urban Connector D (7A.4D 4)	 Carriageway width reduction (6.5m to 6.0m). Addition of cycle lanes either side of carriageway (1.6m each). Addition of 0.5m buffers between carriageway and cycle lanes. Shared path replaced with footpath (3.0m to 1.8m). Addition of terraced swale to one side only between carriageway and footpath (0m to 2.1m). Berm widths reduced (1.0m to 0.6m).

Proposed Plan Change G: Aokautere Urban Growth for Palmerston North City Council

Supplementary Statement – Urban Design

	Street (Type Ref.)	Changes to Cross Section
		 Overall legal road width varies depending on stormwater requirements for swales/raingardens. Add note regarding optional terraced Swale.
14(v)	Urban Connector E	- Carriageway width reduction (6.5m to 6.0m).
	(7A.4D 5)	 Addition of cycle lanes either side of carriageway (1.6m and 1.8m).
		 Addition of 0.5m buffers between carriageway and cycle lanes.
		- Shared path replaced with footpath (3.0m to 1.8m).
		- Swale/raingardens to both sides of street.
		- Swale/raingarden width reduced (2.25m to 2.1m).
		- Berm widths reduced (0.8m and 1.0m to 0.6m).
		- Overall legal road width reduced (17.6m to 17.3 to 19.3m).
14(vi)	Urban Connector F	Street type deleted.
	(7A.4D 6)	Street number reassigned to Activity Street A.
14(vii)	Activity Street A	- Carriageway width reduction (6.5m to 5.8m).
	(7A.4D 7)	 Addition of 0.5m buffers between carriageway and cycle lanes.
	Re-numbered as	- Swale/raingarden width reduced (2.25m to 2.1m).
	(7A.4D 6)	
14(viii)	Activity Street B (7A.4D 8)	 Carriageway width reduction (6.5m to 5.8m). Addition of 0.5m buffers between carriageway and cycle lanes.
	Re-numbered as (7A.4D 7)	- Swale/raingarden width reduced (2.25m to 2.1m).
14(ix)	Activity Street C	Street type deleted.
(,	(7A.4D 9)	Street number reassigned to Local Street B.
14(x)	Local Street A	- Swale/raingarden width reduced (2.25m to 2.1m).
	(7A.4D 10)	- Berm widths reduced (0.8m to 0.6m).
		- Overall legal road width reduced (15.7m to 15.0m).
	Re-numbered as	
	(7A.4D 8)	
14(xi)	Local Street B	- Swale/raingarden widths reduced (2.25m to 2.1m).
	(7A.4D 11)	- Berm widths reduced (0.8m to 0.6m; 1.0m to between 0.6 and 1.0m).

Supplementary Statement – Urban Design

Proposed Plan Change G: Aokautere Urban Growth for Palmerston North City Council

	Street (Type Ref.)	Changes to Cross Section
	Re-numbered as (7A.4D 9)	 Overall legal road width reduced (15.9m to between 15.0m and 15.4m).
14(xii)	Local Street C (7A.4D 12) Re-numbered as	 Raingarden width reduced (2.25m and 2.5m to 2.1m). Berm width reduced (0.8m to 0.6m).
14(xiii)	(7A.4D 10) Local Street D (7A.4D 13) Re-numbered as (7A.4D 11)	 Raingarden/swale width reduced (2.25m to 2.1m). Berm width reduced on one side (0.8m to 0.6m). Footpath width reduced (2.0m to 1.8m). Overall legal road width reduced (9.65m to 9.1m).
14(xiv)	Local Street E (7A.4D 14) Re-numbered as (7A.4D 12)	 Raingarden/swale width reduced (2.25m to 2.1m). Berm widths reduced (0.8m to 0.6m; 1.0m to between 0.6 and 1.0m). Overall legal road width reduced (14.85m to between 14.1m and 14.5m). Add note regarding stormwater treatment within designated Swales and not within Wetland feature.
14(xv)	Local Street F (7A.4D 15) Re-numbered as (7A.4D 13)	 Raingarden/swale width reduced (2.25m to 2.1m). Berm widths reduced (0.8m to 0.6m). Overall legal road width reduced (13.45m to 12.9m).
14(xvi)	Peri-Urban Road A (7A.4D 16) Re-numbered as (7A.4D 14)	Minor change to add text note as follows: "Additional legal width may be needed where the road is in a cutting or on an embankment".

