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URBAN DESIGN EXPERT REPORT LOCKERBIE PLAN CHANGE MORRINSVILLE

Prepared by: Wayne Bredemeijer, Senior Associate, Urbanismplus Ltd

Date: 13 July 2022

Section 1. Introduction

Section 1.1. This report

This report contains a review of the urban design aspects of the Lockerbie Private Plan Change application (PPC 56) in Morrinsville, for Matamata-Piako District Council (MPDC). It includes the following sections:

- → Section 1. Introduction, in which the background of my involvement with PPC 56 is explained.
- → Section 2. **Summary of this report**, in which the key findings are listed.
- → Section 3. **Urban design review late 2021 and early 2022**, in which the previous review and advice are summarised.
- → Section 4. **Review of the applicant's notified urban design report**, in which the urban design report included in the notified application is analysed.
- → Section 5. **Review of post-notification changes**, in which changes made to the application post-notification are reviewed.
- → Section 6. **Review of PPC 56 provisions**, in which the urban design aspects of these provisions are discussed
- → Section 7. **Review of the applicant's expert evidence**, in which the urban design evidence provided for the hearing is analysed.
- → Section 8. **Response to submissions**, in which responses to those submissions that are relevant to my expertise are provided.
- → Section 9. **Conclusions and recommendations**, in which the conclusions of this report are summarised, and recommendations are made.

Section 1.2. The author of this report

This report has been prepared by Wayne Bredemeijer, Senior Associate at Urbanismplus, a specialist urban design consultancy, based in Auckland.

I am an urban designer with approximately 20 years full-time professional experience, of which 17 years has been in New Zealand. I trained at Delft University of Technology (Department of Architecture) in The Netherlands and have worked for several specialised Urban Design consultancies in The Netherlands and New Zealand (including 14 years at Urbanismplus), working as a senior consultant and project manager for both private and public sector clients.

I have expertise in strategic urban design input in revitalisation and urban growth projects and high-level through to detailed design input into structure plans and master plans. I have also provided input as a

member of urban design panels, through urban design assessments for both councils and applicants, and as expert witness in numerous Council and Environment Court hearings.

Of particular relevance is that Urbanismplus is currently involved in masterplanning projects in the Peacocke growth area in Hamilton, for a rural village in Karaka-North, and with development planning for settlements in the Waikato District.

Section 1.3. Expert code of conduct

I confirm that I have read and am familiar with the Code of Conduct for Expert Witnesses in the Environment Court, Practice Note (2014), and agree to comply with that Code of Conduct. I state where I have relied on the statements of evidence of others for my assessment. I have not omitted to consider material facts known to me that might alter or detract from my opinions.

Section 1.4. Background of my involvement with PPC 56

In late 2021 and early 2022 Urbanismplus undertook a review of the urban design aspects of the Lockerbie Plan Change application in Morrinsville (then in a draft state), for MPDC. This review included an analysis of the applicant's original urban design report, of the draft plan change provisions, recommendations for adjustments, and the subsequent involvement in communications with the MPDC team and the applicant to agree on adjustments. Refer to Section 3 for detailed information on this review.

Section 1.5. Site visit

The 2021 review by Urbanismplus took place during Covid-19 Level 4 and Level 3 restrictions, hence reliance was placed on Google Maps, Google Earth, Google Streetview and general knowledge of Morrinsville.

For this current review and hearing preparation a physical site visit was undertaken on 6 July 2022, which included an inspection of the site, its immediately surroundings, as well as the wider town.

Section 2. Summary of this report

This review concludes that:

- → PPC 56 is supported from an urban design perspective, subject to the implementation of the recommendations explained in this report and succinctly listed in Section 9.2. These relate to several clarifications of and additions to the plan provisions, with the aim of achieving greater consistency and a more appropriate degree of streetscape quality. This is partly in response to several submissions.
- → Several concerns related to urban design and voiced by submitters are not considered valid, while some points raised are addressed by recommendations made in my report.
- → A review of the applicant's urban design and landscape evidence has not resulted in any change in my professional opinion on PPC 56.

Section 3. Urban design review late 2021 and early 2022

Section 3.1. Review process

In late 2021 and early 2022 Urbanismplus undertook a review of the urban design aspects of the Lockerbie Plan Change application in Morrinsville (then in a draft state), for MPDC. This review included:

- → An analysis of the applicant's Urban Design Assessment report titled, Lockerbie Estate Subdivision -Private Plan Change, Urban Design Assessment, final 25 August 2021, Revision 0, by Boffa Miskell.
- → Analysis of the Lockerbie Plan Change Provisions, 30 August 2021 v2, noting that this did not constitute a full planning review but focussed on the urban design aspects of these provisions only.
- → A discussion of provisional findings with several MPDC officers.
- → The production of a report titled, *Urban Design Review Lockerbie Plan Change Morrinsville*, dated 28 September 2021.
- → A review of transport matters related to urban design (early October 2021).
- → Discussions with the applicant on their responses to my review (late October 2021).
- → A review of the adjusted plan identifying suggested further revisions, and discussions with the MPDC project team (early November 2021).
- → Involvement in discussions with the MPDC team and the applicant regarding south-facing backyards (December 2021).
- → Provision of advice to the MPDC team regarding private open space rules and discussions on this with the MPDC project team and the applicant (January 2022).

Section 3.2. Summary of Urbanismplus' 2021 review

The 2021 review of the applicant's Urban Design Assessment and Plan Change Provisions (both August 2021) is summarised as follows:

Aspects supported from an urban design perspective:

- → The proposed residential density is considered positive, except for the concerns outlined below.
- → The Residential Zone (RZ) around most of the edges of the Plan Change area will provide an appropriate transition between the various zones around the area and the relatively higher density in the interior of the area.
- → Most of the proposed open space network and retention of landscape features will provide an attractive setting for residential development and amenity in the form of a pedestrian loop.
- → The proposed movement network will provide an appropriate degree of connectivity for vehicles, pedestrians and cyclists, both within the site and with the area surrounding the site.
- → The proposal to urbanise both Studholme Street and Taukoro Road as well as the two future connections to the northeast are effective ways to anticipate a possible further extension of Morrinsville in a northern and / or eastern direction.
- → The density, bulk and location standards will result in appropriate amenity outcomes for the public realm, neighbours, and residents. However, some additions are proposed.
- → The design guide referred to in the urban design report will, in principle, be an effective tool to ensure high-quality architectural and landscape design outcomes, although the content of the guide has not been reviewed and MPDC has little control over the extent of guidance followed or enforced, both in the immediate term and in the future.

Matters of concern from an urban design perspective:

→ Part of the proposed high-density housing, LMDP, will be in an isolated and relatively poorly connected location.

- → There is a high likelihood of poor interfaces between housing and reserves where back fences will line large extents of the reserve edges, causing safety concerns related to both private properties and the public realm and effectively privatising parts of the reserves.
- → There is a lack of certainty that the south-eastern leg of the proposed pedestrian route will have a good interface ensuring the safety and amenity of this route.
- → Related to the above, there is scope for improvement of standard MDRZ R1(4) Interface between public and private. Several of these issues are highlighted by the illustrative dwelling typologies in the Urban Design Assessment report.
- → It is understood that the proposed Plan Change will rely on the current rule that any subdivision creating over 10 lots will have a Restricted Discretionary activity status, with the 'Seven Cs' of the New Zealand Urban Design Protocol serving as matters for discretion. The 'Seven Cs' are however not specific enough to ensure high-quality subdivision design, especially not at the scale enabled by the Plan Change.
- → There is insufficient certainty for MPDC that architectural variation will be achieved, and monotony avoided.
- There is a lack of flexibility of elements like roads and zone and precinct boundaries, including the location of the pocket park within the LMDP.

Recommendations made:

→ Address the isolated area of LMDP:

- Zone the isolated area as MDRZ instead of the proposed LMDP, or
- Significantly improve connectivity of this area with Werewere Street.

→ Improve the interface between housing and reserves:

- Line parts of the interface with streets instead of backs of lots, and / or
- Modify the street system in such a way that views from these streets into the reserves will be allowed, and / or
- Locate lots side-on with the reserves, instead of backing onto reserves.

→ Improve the interface with the south-eastern leg of the proposed pedestrian route:

- Line this part of the route with a low-order residential street to provide certainty that at least some vehicular traffic and dwelling frontages provide passive surveillance over this route.

→ Adjust parts of MDRZ R1(4) Interface between private and public (also applicable to Lockerbie Medium Density Precinct (LMDP)):

- Require frontages with at least 4.5m non-garage width, linked with requirements for minimum lot widths related to the dwelling type.
- Require 20% clear glazed windows in street facades.
- Require corner dwellings to have clear-glazed windows in habitable rooms facing the street.
- Require a maximum front fence height of 1.2m regardless of the orientation of this front yard.
- For lot boundaries immediately along a reserve, require a maximum fence height of 1.5m, with max 1.2m for at least 50% of the boundary length.
- Require minimum lot widths in LMDP of 5m, but limited to four in a row, with a 9m wide lot on either end to accommodate 'active bookends'.

→ Draw conclusions from the dwelling typologies in the Urban Design Assessment report:

- These highlight the need to refine lot width requirements to improve the interface between private and public.

→ Strengthen the assessment criteria for Restricted Discretionary subdivision of the site:

- Optimise connectivity.
- Clearly define public and private realms through well-arranged backs and fronts.
- Create active edges.
- Optimise solar orientation and public activation through good block and lot design.

→ Increase certainty that architectural variation will be achieved, and monotony avoided:

- Require wider corner lots and corner dwellings to provide activation to streets and other public

- spaces surrounding the dwellings on two sides to increase the likelihood that corner dwellings will look significantly different from middle dwellings.
- Through assessment criteria promote architectural variation at Land Use Consent stage, involving multiple dwellings.
- Negotiate with the developer to establish a role in the administration of the private Development Design Guidelines, assuming that this guide promotes architectural variation.

→ Provide flexibility of boundaries and road alignments:

 Make allowance for a degree of flexibility in the exact location of zone boundaries and road alignments to accommodate lot widths and depths determined by detailed design.

→ Address the following matters related to Plan Change provisions:

- Set the outdoor living space for terraced housing at a minimum of 20m² with no dimension less than
- Require a balcony of 9m² with no dimension less than 1.8m for dwellings with the main living functions above ground floor.
- Require that an outdoor living space should be directly accessible from the main living area or a dining room.
- Require a service court for clothes drying and rubbish bin storage of at least 10m², with no dimension less than 1.5m.
- Link average building coverage to stormwater effects, as appropriate urban design-related density outcomes are best determined by bulk and location criteria.
- Use a height to boundary standard of 3m + 45 degrees in a medium density setting (with boundaries internal to a proposed development and party walls exempt from this).
- Include outlook rules: main living room: d=6m, w=4m; main bedroom: d=3m, w=3m; all other habitable rooms: d=1m, w=1m.

Conclusions reached:

- → The proposed density is generally acceptable, except for the full extent of the LMDP which is recommended be reduced in a location relatively isolated by the Reserve Precinct.
- → There are several issues with the interface between the public and private realms, which should be addressed as follows:
 - Some changes to the Development Area Plan are required to ensure the Reserve Precinct is overlooked from streets and private properties, and has a perceivable public character.
 - Some changes to rule MDRZ R1(4) Interface between public and private are required to ensure streets and reserves are, to an appropriate degree, overlooked from private properties.
 - There is a need for the introduction of subdivision rules or guidelines to address these and other issues.
- → An appropriate degree of residential amenity should be secured by improvements to the Plan Change provisions related to height relative to site boundaries, outdoor living space, outlook, and daylight, as well as through the introduction of subdivision rules or guidelines.

Section 3.3. Changes made to the urban design assessment in response to Urbanismplus' review

The following key changes have been made since that review:

- → The existing Figure 1. Development Area Plan has been changed as follows (refer to numbering on Figure 3-1):
 - 1) Several connections added to the proposed pedestrian network.
 - 2) Street interface added to south-western reserve.
 - 3) South-eastern pedestrian link now combined with street connection.
 - 4) Central reserve extended to open up to the street.

- 5) North-western MDRZ block and parts of the Lockerbie Precinct boundaries adjusted to ensure better interfaces with the reserve.
- 6) The strip of land zoned Residential Zone along the central part of Taukoro Road extended so the reserve will no longer be opened up to Taukoro Road.
- 7) The strip of land zoned Residential Zone along the northern part of the eastern site boundary extended so the entire eastern boundary will be lined with Residential Zone land instead of being interrupted with some reserve land.

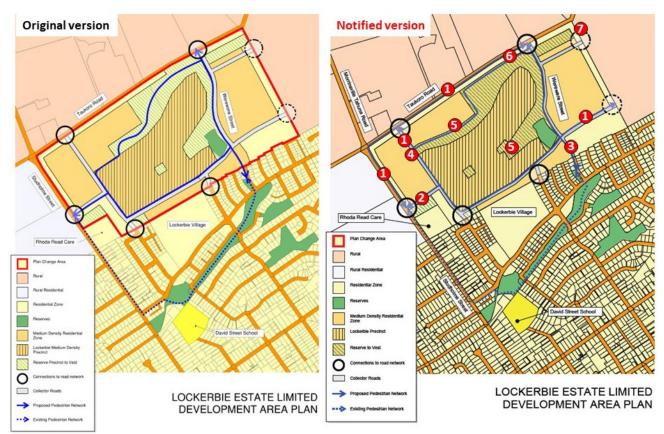


Figure 3-1: Comparison between the original version (reviewed in late 2021) and the notified version (subject of this review) of the Development Area Plan.

- → A new Figure 4. PPC Area Open Space and Connectivity Concept Plan has been included, with key features:
 - A, compared to the Development Area Plan, much more detailed street network indicating a reasonably connected movement network and perimeter blocks mostly in a north-south orientation
 - A, compared to the Development Area Plan, much more detailed street network indicating several lower-order streets along reserve edges and other ways of the street network integrating with reserves to create visibility between these.
 - Three types of recreation links (shared paths), located along some streets, along and through some reserves and cutting through blocks.
 - Five footbridges across the Maungahaumia Stream branches.
- → A new subsection introducing *streetscape and outlook provisions* is included.
- → A new *Table 1. Housing Typology Standards* has been included detailing lot widths based on different combinations of living room + front door, garage width and side setbacks, with key characteristics:
 - This table is very similar to the one proposed in the Urbanismplus review.
 - Provision of at least 4.5m non-garage width to allow for a front door and living room (or similar) to activate the frontage.

- Provision for single- or double-width garages.
- Provision for variation in side setbacks, including 3m on street corners.
- → The set of indicative dwelling typologies has been adjusted to reflect the new active frontage requirements (4.5m non-garage width, and bookend units in rows of narrow terraces) contained in *Table 1. Housing Typology Standards*.

These changes are discussed in more detail in Section 4.

Section 3.4. Changes made to PPC 56 provisions in response to Urbanismplus' review

The following key changes have been made since that review:

- → The minimum lot sizes in the Lockerbie Precinct have been slightly lowered.
- → The minimum household recreational space (outdoor living) areas and minimum dimensions have been slightly lowered in the Residential Zone (Lockerbie specific), Medium Density Residential Zone, and Lockerbie Precinct.
- → A minimum service area has been added to the Medium Density Residential Zone (one requirement for standalone dwellings and one for duplexes).
- → The building length requirement has been modified with more and less specific ways of visually breaking up long facades.
- → The height to boundary requirements for the Medium Density Residential Zone and Lockerbie Precinct have been simplified.
- → A standard has been added for the Medium Density Residential Zone and Lockerbie Precinct requiring a minimum non-garage width of 4.5m.
- → A standard has been added for the Medium Density Residential Zone and Lockerbie Precinct requiring a minimum proportion of clear-glazed windows in walls facing the street (except the wall containing the garage door).
- → A standard has been added for the Medium Density Residential Zone and Lockerbie Precinct requiring that for front sites the primary entrance on the ground floor facing the street and pedestrian access be separated from the driveway.
- → A standard has been added for the Medium Density Residential Zone and Lockerbie Precinct requiring at least one habitable room with a clear-glazed window facing the street (or streets / public open spaces in the case of corner sites).
- → Fence and retaining walls standards have been added for the Medium Density Residential Zone and Lockerbie Precinct.
- → Outlook standards have been added for the Medium Density Residential Zone Lockerbie Precinct.
- → Additional Performance Standards for Subdivision or Development related to the Lockerbie Development Area Plan have been added. These require that subdivision and development within the LDAP should be considered against principles regarding:
 - Connectivity and block design.
 - Clearly defined public and private realms / backs and fronts.
 - Active edges.
 - Block and lot design.
 - Architectural variation.

These changes are discussed in more detail in Section 6 as part of the full review of PPC 56 standards from an urban design perspective.

Section 4. Review of the applicant's notified urban design report

The applicant has provided in Appendix F to the application, an updated Urban Design Assessment report titled, Lockerbie Estate Subdivision - Private Plan Change, Urban Design Assessment, final 25 August 2021, Revision 1, by Boffa Miskell.

Section 4.1. Changes to the Development Area Plan

The changes to the Development Area Plan are considered mostly positive and especially the following aspects are worth noting and address issues raised in the original urban design review:

- → Several connections are added to the proposed pedestrian network, including along Studholme Street, along Taukoro Road, an additional connection to Taukoro Road, and a connection to the land to the northeast of the site. These connections will contribute to the urbanisation of Studholme Street and Taukoro Road and provide additional attractive options for walking and cycling.
- → The stormwater reserve in the southwest of the site will now be lined with a public street (collector road) where it was formerly backed onto by lots. This will provide opportunities for passive surveillance from passing traffic and dwelling frontages, which will assist with the safety in this reserve.
- → The south-eastern leg of the pedestrian network will now be combined with a street connection (collector road). This will ensure that this connection will be overlooked by passing traffic and from dwelling frontages, which will assist with the safety in this path.
- → The central reserve will now open up to the street (collector road). This will provide views into this reserve from passing traffic, which will improve the safety and legibility of this area.
- → The north-western MDRZ block and parts of the Lockerbie Precinct boundaries will now have better interfaces with the reserve.

The following aspects of this plan are still considered negative:

- → This plan does not specify an appropriate proportion of reserve edges lined with streets (to make these perceivably public and well-overlooked areas). These streets are however specified on the PPC Area Open Space and Connectivity Concept Plan, but it is unclear what the status is of the streets shown on this plan (refer to Sections 4.2 and 4.3).
- → The stormwater reserve in the northeast of the site will be hidden behind rows of lots on two long sides, giving rise to concerns about the safety of this area as it will not be overlooked by frontages and from public streets. From discussions with the applicant, it is understood that this area will not be publicly accessible. It remains however unclear how this will be enforced, what the status and ownership of this area will be, and how it will be accessed and maintained.
- → The main recreational reserve will no longer be opened up to Taukoro Road as the strip of land zoned Residential Zone along the central part of Taukoro Road has been extended. This will mean that much less of the reserve will be overlooked from the north, i.e. from passing traffic along Taukoro Road.
- → The narrow strip of Residential Zone lots in the very northeast of the site seems very impractical as there is no access, unless an inefficient street is constructed specifically for this narrow strip of land.
- → It is unclear whether there is any flexibility in the alignment of streets and locations of zone and precinct boundaries on this plan.

Section 4.2. Proposed further changes to the Development Area Plan

The adjustments listed below are proposed to address several of the concerns listed above (refer to the numbering on **Figure 4-1**). Many of the adjustments will 'lock in' several crucial elements and aspects of the PPC Area Open Space and Connectivity Concept Plan, that has a relatively weak legal status, but played a

major role in addressing the concerns identified by Urbanismplus' 2021 review during conversations between the applicant and the Council team in late 2021.

- a) A street along the reserve edge in the northwest of the site, as indicated, should be added to provide legibility, a perceivable public character, and passive surveillance from the street and properties fronting this street over this part of the reserve.
- b) A street along the reserve edge in the centre of the site, as indicated, should be added to provide legibility, a perceivable public character, and passive surveillance from the street and properties fronting this street over this part of the reserve, which will otherwise be relatively hidden behind backs of lots.
- c) Several small areas of Residential Zone and Lockerbie Precinct should be changed to Reserve, as indicated, to open up views into the reserve and line it with streets. Especially the increase in interface of the reserve with Taukoro Road is crucial for the amenity, safety and character of this area. It will also help the development to better integrate into the context of Morrinsville as a rural town.
- d) Streets should be located on two sides of the reserve, as indicated, to provide legibility, a perceivable public character, and passive surveillance from the street and properties fronting this street over this neighbourhood park.
- e) Pedestrian connections that are integrated with the wider street network should link across the stream in at least the four locations indicated.
- f) The stormwater reserve in the northeast of the site should be shifted to the north so it will be located along, and overlooked from, Taukoro Road. This reserve, as opposed to a strip of Residential Zone lots, would then also form a suitable transition between rural and urban, and present this stormwater reserve to those approaching Morrinsville from the north. This will help the development to better integrate into the context of Morrinsville as a rural town. Medium Density Residential Zone land in this area could be extended to the north and the east-west collector road shifted accordingly.



Figure 4-1: Proposed changes to the notified version of the Development Area Plan, resulting from this review.

Section 4.3. Inclusion of the PPC Area Open Space and Connectivity Concept Plan

The inclusion of *Figure 4. PPC Area Open Space and Connectivity Concept Plan* is considered positive, as many aspects of this plan demonstrate that an appropriate urban design outcome can be achieved in Lockerbie. However, it is understood that this plan is conceptual and that only the pedestrian and cycling routes on the plan are directly referenced in the plan provisions. As explained, the proposed further changes to the Development Area Plan listed in Section 4.2 address this and propose that key aspects of this Concept Plan receive an elevated status by including these on the Development Area Plan.

The following aspects are considered especially positive and address issues raised in the original urban design review:

- → The high degree of connectivity of the street network.
- → The creation of perimeter blocks with public frontages which will activate the public realm, and private backs of lots which will provide natural privacy behind the dwellings, away from the public realm.
- → The predominance of blocks with a north-south orientation, which will result in mostly east-west lots with generally an optimum combination of solar access and open space privacy.
- → Several lower-order streets located along reserve edges and other ways of the street network integrating with reserves to allow for public visibility between these.
- → The comprehensiveness of the pedestrian network.
- → The pedestrian connection between the Lockerbie Precinct housing across the Maungahaumia Stream branches to Werewere Street.

Section 4.4. Inclusion of streetscape and outlook provisions

The inclusion of a new subsection introducing streetscape and outlook provisions is considered positive. These are in line with the Urbanismplus recommendations and will result in appropriate urban design outcomes.

Section 4.5. Inclusion of table with housing typology standards

The inclusion of a new *Table 1 Housing Typology Standards* is considered positive. These are in line with the Urbanismplus recommendations and will result in appropriate urban design outcomes.

Section 4.6. Design guide

Reference to a design guide is also made in the applicant's updated urban design report. The following comments are made:

- → This design guide has not been provided for review.
- → It is understood that enforcement of the guidance contained in it will be a private matter between the developer and buyers and / or builders, without Council involvement.
- → The original Urbanismplus review included the recommendation for MPDC to negotiate with the developer a role in the administration of this design guide. This was in response to the Council team's concern to create high-quality architecture and especially architectural variation. However, I am now satisfied that this is no longer necessary as PPC 56 contains several rules promoting architectural quality and variation. Especially worth noting is, MRZ R2(1) Matters of Discretion for Medium Density Residential Zone and PREC1- Lockerbie (e)The degree to which subtle variation in the building mass, cladding materials and colours is applied to ensure that no more than two residential units in a row are identical in terms of both form, exterior materials, and colours.

Section 4.7. Dwelling typologies

The following observations are made:

- → The alignment of Table 1 with housing typology standards is considered positive.
- → T2 is identical to T1, except for the lot width and backyard depth annotations. It is assumed this is a mistake and the intention was to include a double-width garage on the 13.5m wide lot for T2.
- → Dwelling T4 does not have the required width to provide an active front in the form of a 4.5m (1m + 3.5m) front door and living room portion adjacent to the garage. However, the lot width of 9m can accommodate this.
- → The corner dwellings in T5 do not have the required width to provide an active front in the form of a 4.5m (1m + 3.5m) front door and living room (with street-facing windows) portion adjacent to the garage. However, the lot width of 9m can accommodate this.

Section 5. Review of post-notification changes

Section 5.1. Post-notification discussions

Following my review of the notified application and public submissions, the Council team and the applicant engaged in voluntary discussions. The aim of these discussions was to explore the possibility of coming to an agreed position on urban design matters, and particularly the proposed further changes to the Development Area Plan listed in Section 4.2. This has indeed led to several agreed changes considered positive from an urban design perspective.

Section 5.2. Post-notification changes

The post-notification changes to the Development Area Plan are listed below and indicated on **Figure 5-1** (refer to the numbering on this figure).



Figure 5-1: Changes to the notified version of the Development Area Plan made by the applicant in response to the initial review of the notified version and public submissions.

These include the following:

- a) A local street along the reserve edge in the northwest of the site has been added, as indicated. This will provide legibility, a perceivable public character, and passive surveillance from the street and properties fronting this street over this part of the reserve.
- b) A local street along the reserve edge in the centre of the site has been added, as indicated. This will provide legibility, a perceivable public character, and passive surveillance from the street and properties

- fronting this street over this part of the reserve, which will otherwise be relatively hidden behind backs of lots
- c) The strip of Residential Zone located along Taukoro Road has been shortened and partly changed to Reserve, as indicated. This will increase the interface of the reserve with Taukoro Road, which is crucial for the amenity, safety and character of this area and which will also help the development to better integrate into the context of the site's location at the interface with the surrounding rural area.
- d) The location and shape of the proposed Neighbourhood Park Streets has been changed to indicative so it will be able to be integrated with the finer-grain street network as and when designed. Additionally, a rule has been added requiring that subdivision and development within the Lockerbie Development Area Plan should be considered against the principle, among others, that streets should be provided on at least two sides of the neighbourhood park. This is crucial for the legibility and a perceivable public character of this park, as well as to enable passive surveillance from the street and properties fronting this street over this neighbourhood park.
- e) Pedestrian connections integrated with the wider street network will link across the stream in at least the four locations indicated.
- f) The stormwater reserve in the northeast of the site will now be located along, and be overlooked from, Taukoro Road, as indicated. This reserve, as opposed to a strip of Residential Zone lots, will also form a suitable transition between rural and urban, and present this stormwater reserve to those approaching Morrinsville from the north. This will help the development to better integrate into the context of the site's location at the edge of Morrinsville and interfacing with the surrounding rural area. Medium Density Residential Zone land in this area has also been extended to the north and the east-west collector road shifted accordingly.

Section 5.3. Review of the post-notification changes

The post-notification changes to the Development Area Plan have alleviated all concerns indicated in the earlier review. The changes will contribute to appropriate urban design outcomes, balanced with commercial reality. The following high-level outcomes of the post-notification process should be noted:

- → Increased legibility, public character, and passive surveillance from roads, streets and properties over open spaces.
- → Greater connectivity for active modes.
- → Better integration of the proposed development into the context of the site's location at the edge of Morrinsville and interfacing with the surrounding rural area.

Section 6. Review of PPC 56 provisions

Section 6.1. Review of planning provisions

The following table contains the PPC 56 provisions relevant to urban design, as per the post-notification version, dated 4 July 2022. These have been summarised to help with the legibility of this review, and are partly based on *Table 2 Lockerbie Development Standards* in the applicant's urban design assessment, but expanded upon for:

- → Minimum non-garage width
- → Minimum proportion of clear-glazed windows facing the street
- → Primary entrance
- → Habitable room with a clear-glazed window facing the street
- → Fences and retaining walls
- → Outlook
- → Subdivision principles
- → Transport connections
- → Walking and cycling
- → Reserves.

The right-hand column contains a review of the PPC 56 provisions.

	Residential Zone (Lockerbie specific)	Medium Density Residential Zone	Lockerbie Precinct	Review
Minimum lot size	600m²	325m² (or 273m² with land use consent for standalone and 400m² for a duplex (i.e. 200m² each unit))	130m² minimum net site area for central units or 234m² for end units + MRZ standards for standalones and duplexes	These standards are appropriate.
Maximum building coverage	35% of net site area + 45% option with reserve payment	55% of net site area	60% of net site area for terrace housing	These standards are of little relevance to urban design and primarily relate to storm water.
Development Suitability	To contain a 150m ² (10m x 15m) rectangle and provision for a 6m diameter circle to the north, east or west of it	To contain a 7.5m x 15m rectangle	Nil	These standards are appropriate.
Minimum permeable surface area	Nil	20% of net site area		These standards are of little relevance to urban design and primarily relate to storm water.
Minimum outdoor living space	50m ² with a minimum dimension of no less than 4m	Duplex: 36m² with a minimum dimension of no less than 4m	Terrace Housing: 20m² with a minimum dimension of no less than 4m, or a	These standards are appropriate.

	1	1	1	1
			9m² balcony with a	
			minimum	
			dimension of 1.8m	
Minimum	Nil	20m² for	Nil	These standards are
service Area		standalones and 10m² for duplex		appropriate.
Maximum	9m	9m		These standards are
height				appropriate.
Building length	Nil	An exterior wall shal	l not exceed 15m	These standards are
		without being horizontally or vertically		appropriate.
		stepped or containing a material change		
Height to	2m plus the	3m and 45-degree re	ecession plane, unless	These standards are
boundary	shortest horizontal	attached		appropriate.
recession plane	distance between			'' '
	that part of the			
	building and the			
	nearest site			
	boundary			
Minimum front	3m, unless fronting	3m		These standards are
yard setback	Studholme Street			appropriate.
	or Taukoro Road,			
	where the setback			
	is 5m			
Minimum	5m	5m		These standards are
garage setback				appropriate.
Minimum side	1.5m	1.5m where not attached		These standards are
yard setback				appropriate.
Minimum rear	1.5m	1.5m		These standards are
yard setback				appropriate.
Minimum	1.5m	1m from road and private way boundary		These standards are
setback on rear		with at least 5m setback for garage		appropriate.
access lot				
Corner site	One front yard may	3m on both sides		These standards are
minimum front	be reduced to 3m			appropriate.
yards				
Minimum	5m	N/A	N/A	These standards are
setback from				appropriate.
Rural zone				' '
Minimum non-	Nil	4.5m	1	These standards are
garage width				appropriate and not
garage man				considered an issue in
				Residential Zone (Lockerbie
				specific), due to the widths
				of the lots anticipated in
				this zone.
Minimum	Nil	20% (except in the wall containing the		These standards are
-	INII	20% (except in the wall containing the		
proportion of		garage door)		appropriate.
clear-glazed				However, for consistency in
windows facing				the streetscape these
the street				provisions should also
				apply to the Residential
				Zone (Lockerbie specific).

Primary entrance Habitable room with a clear-glazed street facing window	Nil	Primary entrance on the ground floor shall face the street and pedestrian access shall be separated from the driveway At least one habitable room with a clear-glazed window shall face the street (or streets / public open spaces in the case of corner sites)	These standards are appropriate. However, for consistency in the streetscape these provisions should also apply to the Residential Zone (Lockerbie specific). These standards are appropriate. However, for consistency in the streetscape these provisions should also apply to the Residential Zone (Lockerbie specific).
Fences and retaining walls	Nil	Front and side boundary fences and/ or retaining walls located forward of the front wall of the residential unit: → Maximum height of a fence is 1.2m and 50% visually permeable, except where the outdoor living area is adjacent to the fence the maximum fence height is 1.5m and 50% visually permeable → Maximum height of a retaining wall is 0.6m → No combination of fence and retaining wall shall exceed 1.5m For boundaries of sites adjoining an Open Space Area that sits lower than the adjacent private lots: → Maximum height of a fence is 1.2m and 50% permeable → Maximum height of a retaining wall is 1.5m, whereby retaining walls over 1.2m in height shall be stepped by at least 500mm → No combination of fence and retaining wall shall exceed 2.5m. → The fence shall be set back from the face of the retaining wall by at least 500mm For boundaries of sites adjoining an Open Space Area that sits higher than the adjacent private lots: → Maximum height of a fence is 1.2m and 50% permeable → Maximum height of a retaining wall is 0.6m → No combination of fence and retaining wall shall exceed 1.8m → The fence shall be set back from the face of the retaining wall by at least 500mm All other boundary fences or walls:	These standards are appropriate. However, for consistency in the streetscape and to achieve a high-quality presentation of the development to surrounding roads these provisions should also apply to the Residential Zone (Lockerbie specific).

	Ţ. T	Navirous bill for the	T
		→ Maximum height of a fence is 1.8m	
		Maximum height of a retaining wall is	
		1.5m	
		No combination of fence and retaining well shall evered 2m.	
Outlook	NII	and retaining wall shall exceed 3m	The second and second
Outlook	Nil	Minimum outlook spaces:	These standards are
standards		 → Main living room: d=6m, w=4m → Main bedroom: d=3m, w=3m 	appropriate.
		→ All other habitable rooms: d=1m,	
		w=1m	
Subdivision	Subdivision and dovol-	opment within the LDAP shall be	These standards are
	considered against the	•	
principles	_	block design: breaking up block lengths	appropriate.
		nkages and/or streets; and streets on at	
		the neighbourhood park.	
		ublic and private realms / backs and fronts:	
	1	early perceived as either public or private.	
		architectural variation: activation;	
	_	k walls on the street edge; and garages to	
	be set back.	in waits on the street eage, and garages to	
		gn: blocks orientated north to south so	
		orientate east and west; minimisation of	
	rear lots; wider co		
	sufficient width fo		
		e width of the garage and the type of	
		dalone, duplex or terraced); maximum	
	_	I housing in a row.	
		ation: architectural variation in the built	
	form.		
Transport	Subdivision and develo	opment within the LDAP shall incorporate	These standards are
connections	the following connecti	ions and upgrades:	appropriate.
		ctions to the existing roading network and	However, the requirement
		nment located to the south of the LDAP.	to provide local streets on
	→ Provide for the collector roads and connections to Taukoro		specified reserve edges, as
		sville-Tahuna Road as per the LDAP.	explained in Section 5 and
	→ Two collector road links and connections shall be provided		Figure 5-1 of this review,
	to enable two road corridors through to the rural zoned land		should be added:
	to the north-east		Silouid be added.
		ollector Roads shall provide safe and direct	
	connections.	anastians to Taukara Daad are established	→ Provide for the Key
	_	nnections to Taukoro Road are established,	Local Roads that are
		all be upgraded across the frontage of the	important for fine-grain
	section).	ccordance with Figure 2 (road cross	connectivity and
	•	onnection to Morrinsville-Tahuna Road	reserve activation, as
	_	ead hospital is established and there are	per the LDAP.
		nting Morrinsville-Tahuna Road,	
		na Road shall be upgraded across the	
		DAP in general accordance with Figure 1	
	(road cross sectio		
Walking and		opment within the LDAP shall provide for	These standards are
cycling		and cycling network including connections	appropriate.
2,26	_	and corridors. The network shall include	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~
	but not be limited to:		
I	→ 3m wide shared p	aths as shown in Figure 3 (pedestrian	
	/ Sill wide silated b		

	network plan). → Footpaths along Morrinsville-Tahuna and Taukoro Roads as per the Figure 1 and Figure 2 (road cross sections) → Pedestrian connections through the green recreation links as	
	shown in Figure 3 (pedestrian network plan).	
Reserves	Subdivision and development within the LDAP shall provide for a reserve network that provides both active and passive recreational opportunities and provides for stormwater disposal. Reserves shall include, but not be limited to: → A reserve network in general accordance with the LDAP which core function is stormwater treatment, but has a secondary role of providing for connectivity as demonstrated in Figure 3 (pedestrian network plan). → A neighbourhood park within the PREC1- Lockerbie with a minimum size of 2,500m². → Reserves that break up block lengths and provide	These standards are appropriate.
	connections between the reserves, as in the locations demonstrated in Figure 3 (pedestrian network plan).	

Section 6.2. Recommendations regarding planning provisions

In summary, these provisions are appropriate, with the exception of the following adjustments:

- 1. The following provisions for the Medium Density Residential Zone and Lockerbie Precinct should also apply to the Residential Zone (Lockerbie specific):
 - Minimum proportion of clear-glazed windows facing the street
 - Primary entrance
 - Habitable room with a clear-glazed street facing window

The reason for this is that a consistent outcome for the streetscape would be desirable in situations where the Residential Zone interfaces with other zones.

- 2. The provisions for Fences and retaining walls in the Medium Density Residential Zone and Lockerbie Precinct should also apply to the Residential Zone (Lockerbie specific). The reason for this is that a consistent outcome for the streetscape would be desirable in situations where the Residential Zone interfaces with other zones. Additionally, a high-quality presentation of the development to surrounding roads should be achieved, and these provisions are considered crucial for that.
- 3. Under Transport connections, the following provision should be added: 'Provide for the Key Local Roads that are important for fine-grain connectivity and reserve activation, as per the LDAP.' The reason for this is consistency, since other important features of the LDAP are described in words under this heading, while the provision for Key Local Roads is missing.

I understand from legal and planning advice that recommendation (1.) may not be within the scope of this plan change. However, in Section 8.2 of this report the relationship between these recommendations and various submissions is explained.

Section 7. Review of the applicant's expert evidence

The applicant team submitted evidence on 4 July 2022. Below I provide a summary of the outcomes of my review of the evidence with direct and indirect relevance to urban design.

Section 7.1. Urban design evidence of Morné Hugo

After review, I make the following observations regarding Mr Hugo's statement of evidence:

- → It provides a summary of his urban design assessment of which I have provided an extensive review in Section 4 of this report. I concur with the findings of this assessment and there are no parts that give reasons for changes to the PPC provisions (the version in Section 6.1 of this report), other than those changes described in Section 6.2 of this report.
- → It responds to the various submissions that raise questions or concerns regarding the proposed housing typologies, density, urban design quality and open space amenity within the PPC area. I concur with Mr Hugo's response to these submissions, as evidenced by my own responses to submissions in Section 8 of this report.
- → It provides a conclusion on the appropriateness of PPC, which I agree with.

Section 7.2. Landscape evidence of Oliver May

After review, I make the following observations regarding Mr May's statement of evidence:

- → It provides a summary of his Landscape and Visual Effects assessment, which has been helpful for my review of the appropriateness of the PPC application.
- → It reiterates the mitigation and design control measures related to the Rural facing boundaries, Collector Road planting and the Landscape Plan, which I agree are crucial for the quality of the development being implemented.
- → It responds to the various submissions that raise questions or concerns regarding reverse sensitivity relating to the interface between the emergent urban development and the enduring rural landscape character. Mr May's response highlights the importance of the larger minimum lot sizes and setbacks that apply to the perimeter of the site.
- → It provides a conclusion on the appropriateness of PPC, which I agree with insofar as this is within my expertise.

Section 7.3. Other evidence

I have also taken note of the following statements of evidence:

- → Development evidence by GD Jones.
- → Planning evidence by Kathryn Drew.
- → Traffic evidence by Michael Hall.
- → Economic evidence by Timothy Heath.
- → Cultural evidence by Norman Hill.

Section 8. Response to submissions

Submissions relevant to urban design have been reviewed and below my responses are provided to categories of submissions.

Section 8.1. Submissions relating to the effects on the character of Morrinsville

Several submitters commented that the proposed development will have adverse effects on the character of Morrinsville. This concern is not considered valid from an urban design perspective for the following reasons:

- → Care has been taken to integrate the proposed development into its context, as per the conclusions of the Landscape and Visual Effects Assessment (LVEA), by Boffa Miskell. This integration will be more successful if the recommendations in the LVEA are implemented. Also, the implementation of most of the recommendations made in Section 4.2 of this report during the post-notification process, as described in Section 5, has contributed to an improved integration of the proposal in its context. This is especially the case for items (c) and (f) relating to the interface with Taukoro Road and other changes relating to improving the interfaces with the central public open space on the site.
- → The character of Morrinsville, and any town or city for that matter, should not be considered as static but as inevitably dynamic and evolving. Redevelopment, infill, intensification and expansion has incrementally changed Morrinsville in the past to what it is today and will continue to influence the character of Morrinsville. Lockerbie PPC 56 may be perceived as resulting in a step-change due to the scale of the plan, however it will be implemented over 10 to 20 years (according to the statement of evidence by GD Jones).
- → During the production of Plan Change 47 Morrinsville's zoning was comprehensively reviewed in the context of all towns in the district. This plan change introduced the Future Residential Overlay for the site, signalling that this land is suitable for a residential use, conditional on a required zone change.
- → Large public, recreational, open spaces with play opportunities and pedestrian and cycle routes will be provided in the PPC 56 area, including along the Maungahaumia Stream branches. This will contribute to a sense of place and celebrate a key feature of the local landscape that could be enjoyed by all members of the community. This is similar to the integration of natural features (landform and trees) on Fairway Drive in the earlier stages of Lockerbie, which in my view has been successful.
- → The Lockerbie PPC 56 area will accommodate lower density housing with setbacks at the direct interface with rural land, and specifically at the northern entrance / into the town, which will form an appropriate transition.
- → The 9m height limit will allow for double-storey (plus roof structure) housing, while the applicant's urban design report indicates a mixture of single- and double-storey dwellings. This will be an appropriate addition to the town's housing stock which consists of mostly single-storey with sporadic double-storey dwellings.
- → A fine-grain network of streets and paths will be extended from the southeast into the PPC 56 area to connect and integrate the neighbourhood into its urban context.
- → It is understood that Lockerbie will accommodate some non-residential facilities to provide for the needs of Morrinsville residents. Additional residents in the Lockerbie area will help with the viability of these and other facilities and services already present in the town. It is also acknowledged that additional community facilities (such as medical, educational, and cultural) may be needed to provide for a growing population.

Section 8.2. Submissions relating to density and dwelling typologies

Several submitters expressed concern that the density of the proposed development will be inappropriately

high and the dwellings and lots too small.

In response to the submissions referenced below, I recommend (as detailed in Section 6.2 of this report) that the following Medium Density Residential Zone and Lockerbie Precinct provisions should also apply to the Residential Zone (Lockerbie specific):

- → Minimum proportion of clear-glazed windows facing the street;
- → Primary entrance;
- → Habitable room with a clear-glazed street facing window; and
- → Fences and retaining walls.

This is in response to the following submissions:

- → **Submission 16**, which supports the use of semi-detached and terraced accommodation, but argues for compensation by increasing the surrounding outdoor living area. It is my view that a visual relationship with the street and open spaces would improve the connection of residents with the communal open space that this submitter is requesting. For consistency this should apply to all zones in the PPC area.
- → **Submission 27**, which requests that further consideration needs to be given to the effect on the existing Township. It is my view that the presentation of the development when approaching the town from the north is crucial and as part of that a good visual relationship, as opposed to dwellings turned away and hidden behind blank walls, is important.
- → **Submission 20**, which calls for the creation of a positive living environment. It is my view that part of a positive living environment is a visual relationship between private and public. For consistency this should apply to all zones in the PPC area.

Otherwise, these concerns are not considered valid from an urban design perspective for the following reasons:

- → Given New Zealand's housing shortage and affordability issues, there is a strong imperative to provide high-quality, affordable housing, as per the National Policy Statement on Urban Development (NPS-UD) and the more recently released Resource Management (Enabling Housing Supply and Other Matters) Amendment Bill. PPC 56 responds to this.
- → The density proposed in the application is aimed at making efficient use of the land and keeping the town more compact than if the same number of properties were to be created at a conventional density. This is also in line with sustainable urban design practice in response to a relatively scarce resource.
- → The provisions of the application ensure that private open spaces will be useable in terms of their size, orientation, connection with indoor functions, and degree of privacy. Front and side setbacks will ensure privacy and space for planting.
- → A relatively large amount of public open space will be created to complement the private open spaces on the proposed properties. This public open space will offer opportunities for exercising, playing, and community interaction.
- → The range of dwelling types and sizes will cater for the different demographics and financial situations that can be found within the population.
- → The smaller lots cater for those in the community who prefer a lower maintenance private garden.
- → The application provides for smaller properties for first-home buyers or those wanting to downsize. The latter will potentially free up larger properties elsewhere.
- → In the PPC 56 area the demand for more compact housing can be met in an integrated way and with its own appeal. This may reduce pressure for ad-hoc, site by site, infill in existing low-density residential areas, where adverse impacts on the established character of the immediate surroundings are often harder to avoid.

Section 8.3. Submission with impact on residential amenity

Submission 13 by the Waikato VHF Group Inc. seeks provision for aerials associated with the operation of amateur radio installations as a permitted activity. I have been advised that the request is that the same rules that apply to the MPDC Settlement Zone (District Plan Chapter 16, PREC1(10)) also apply to Lockerbie. I understand that these rules in essence allow (as of right) a pole or lattice mast up to 20m in height with supporting guy wires and aerials / wiring coming off the mast.

This submission should be declined. The reason for this is that installations of the scale proposed can likely not be appropriately integrated in Lockerbie, since this development will be much denser than the Settlement Zone. A radio mast of 20m in height will have an undue adverse effect on the amenity of a mostly medium density residential environment where all parts of the built environment as well as vegetation determine the quality of the streetscape and the community's enjoyment of the neighbourhood.

Section 9. Conclusions and recommendations

Section 9.1. Conclusions

This review concludes that PPC 56, adjusted during the period between notification and the hearing, is supported from an urban design perspective, subject to the implementation of the recommendations listed in Section 9.2. The following high-level aspects are noted:

- The proposal is considered to be in line with sustainable urban design practices, which aims for efficient urban development and provision for diverse housing needs.
- → The proposed development will contribute positively to the wider urban environment through the provision of connections for all modes of transport to and through the site, passive recreation spaces, and non-residential facilities.
- → Although improvements are recommended, the proposed provisions allow for dwellings with a massing that responds appropriately to the surrounding private and public realm. This includes consideration of overshadowing, outlook, and passive surveillance.
- → The proposed provisions allow for dwellings which will have an appropriate degree of residential amenity, taking into account functionality, solar orientation, privacy, and indoor-outdoor relationship.

After review of submissions relevant to my expertise I conclude that several concerns related to urban design and voiced by submitters are not considered valid, while some points raised are already addressed by recommendations made in my report.

A review of the applicant's urban design and landscape evidence has not resulted in any change in my professional opinion on PPC 56.

Section 9.2. Recommendations

The following key recommendations are made regarding the plan provisions, as explained in detail in Section 6:

- → Several provisions relating to street activation should also apply to the Residential Zone (Lockerbie specific provisions).
- → Provisions for the maximum heights of fences and retaining walls should also be provided for the Residential Zone (Lockerbie specific provisions).
- → Regarding Transport Connections (9.4.2 in Part 10 Appendix 9), the requirement to provide Key Local Roads on specified reserve edges, as explained in Section 5 and Figure 5-1 of this review, should be added.