

MDH/3

Medium Density Housing Assessment Tools: Case Studies



**The Brickworks
(Hobsonville Point,
Auckland) and
Hypatia (Grafton,
Auckland)**

**A report prepared by Beacon Pathway
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About This Report

Title

Medium Density Housing Assessment Tools: Case Studies

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Abstract

This summary report provides results from evaluation of the prototype assessment tools developed under Beacon's MBIE and BRANZ Levy funded project relating to the assessment of medium density housing in New Zealand. The report provides an overview of the case study process and method, presents results from the two case studies (undertaken at The Brickworks apartments in Hobsonville Point and Hypatia Apartments located in Grafton, Auckland) and concludes with an overview of recommendations for the ongoing project.

Reference

Ryan, V. and Smith, B. (2017). Medium Density Housing Assessment Tools: Case Studies. Report MDH/3 by Beacon Pathway.

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1 Executive summary

This report provides a summary of findings from two case study applications of the Medium Density Assessment Tool developed as part of Beacon's Medium Density Housing (MDH) research funded by the Building Levy and MBIE.

The overall project addresses the following questions:

1. *How is success of MDH measured at the individual development and neighbourhood level?*
2. *What evaluation method is best suited for New Zealand to assess, measure, and target best practice in medium density communities?*
3. *What overseas tools are relevant to New Zealand, and what should be developed or adapted here that would provide a means to measure progress on key outcomes sought by government and industry in medium density communities?*

This report outlines the process of undertaking the two case studies including the overall methodology, approach and a summary of results from each. More in depth details regarding the approaches to assessment, discussion of the proposed target audiences, the scoring approach, the language and use of surveying techniques are covered in earlier documentation provided (specifically reports MDH/1 and MDH/2¹).

Part One of the report starts with a succinct overview of the process and method for selecting, undertaking and analysing the case studies before delivering the results from each case study site separately in **Part Two** of the report. The case studies chosen were:

- The Brickworks apartments in Hobsonville Point (overseen by Homes, Land, Community HLC 2017 – formerly Hobsonville Land Company, and a subsidiary of Housing New Zealand Corporation).
- Hypatia Apartments in Grafton, Auckland (developed by Ockham Residential).

Both case studies yielded results that were of significant interest for both developers and the communities that they build for; and the approach, process and framework underpinning the application of the tools appears to deliver a robust analytical method for determining the success (or otherwise) of medium density development.

The report concludes in **Part Three** with a summary of the main conclusions drawn from the case studies as well as an outline of the next steps for the project and ongoing research and development of the medium density assessment tools.

¹ Ryan, V. and Smith, B. (2016). *Medium Density Housing Assessment Tools: Discovery Phase Working Paper. Report MDH/1 by Beacon Pathway.*

Ryan, V. and Smith, B. (2017). *Medium Density Housing Assessment Tools: Framework Development Working Paper. Report MDH/2 by Beacon Pathway.*

PART ONE: CASE STUDY OVERVIEW

2 Introduction and background

This report summarises results from the fifth phase of Beacon’s Medium Density Housing (MDH) research funded by the BRANZ Building Levy and MBIE. The fifth phase involved application of the developed prototype tool to two medium density case studies. To provide context to the full project the various phases are outlined below:

PHASE	Status & Time frame
1 – Discovery: Setting the foundations for the project including desktop review and setting up advisory group	Complete
2 - Framework Development: Evolving an evaluative framework to assess medium density and community aspects of developments in NZ	Complete
3 – Tool Synthesis and Best Tool Evaluation: A range of tools (identified in phase one) have been evaluated against a set of agreed criteria developed in consultation with the advisory group.	Complete
4 – Prototype Tool(s) Development: A prototype tool (or tools) is currently in development based on the foundations of the framework and the tool synthesis phase.	Complete
5 – Pilot Tool Case Studies: The prototype tool will be applied and tested against two medium density case study sites.	Complete
6 – Reporting Results / Outputs: The results of the previous five phases will be collated and analysed to highlight lessons learned, recommendations for improvement, and recommendations for further development.	Underway

The project addresses the question highlighted under the 2016 Levy Prospectus *Programme 1: Giving industry the tools to deliver medium density housing that meets the needs of New Zealanders*, which asks “**How is success of MDH measured at the individual development and neighbourhood level?**” Further to that question, two further sub-questions arise:

1. *What evaluation method is best suited for New Zealand to assess, measure and target best practice in medium density communities?*
2. *What overseas tools are relevant to New Zealand, and what should be developed or adapted here that would provide a means to measure progress on key outcomes sought by government and industry in medium density communities?*

The research addresses a missing element in present knowledge and practices relating to the assessment of medium density housing and the tools that might best help deliver outcomes for medium density housing developments. Whilst previous work has been done in New Zealand and internationally to deliver design guidance of best practice, this will be the first time that a framework has been delivered to specifically assess *community* and *neighbourhood* aspects in medium density settings.

In earlier phases of the work, an in-depth review of national and international tools highlighted a gap (see Figure 1 below) in current understanding of medium density housing relating to the needs and wants of residents and community members. This has been addressed by an approach to assessment that includes not just the quality of design but also its outcomes in terms of functionality, sustainability, liveability, as well as opportunities to contribute to wider community development. The ‘gap’ that the prototype tools address is illustrated in the diagram below:

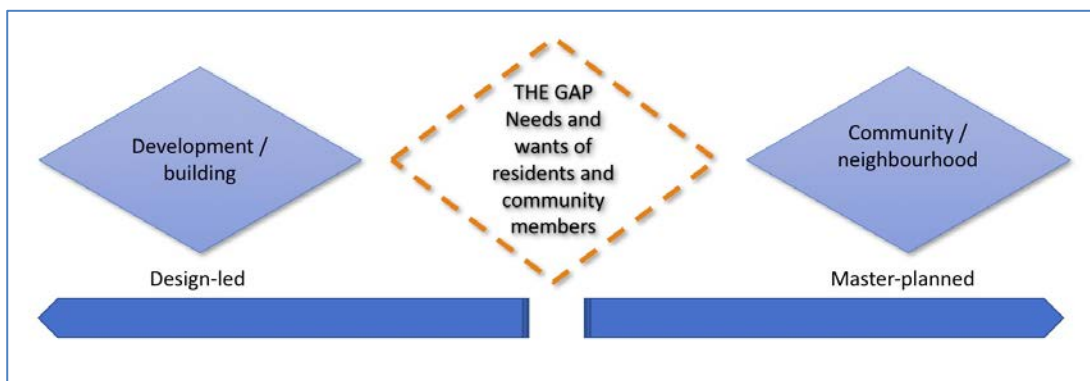


Figure 1: The gap in current housing assessment

Discussion of these aspects and development of the accompanying Framework for Medium Density Assessment has, to date, been reported in a number of documents developed by the research team. Two earlier project deliverable reports provide detailed background information relating to the development of the medium density assessment framework and provide a context for the tools that have been applied to the case study sites in this report. These are:

- Ryan, V. and Smith, B. (2016). *Medium Density Housing Assessment Tools: Discovery Phase Working Paper*. Report MDH/1 by Beacon Pathway.
- Ryan, V. and Smith, B. (2017). *Medium Density Housing Assessment Tools: Framework Development Working Paper*. Report MDH/2 by Beacon Pathway.

2.1 Report – aims and structure:

The aim of this report is to present results from the application of the Medium Density Assessment Tools to two case study sites in Auckland. The report is structured in three main parts as follows:

Part One of the report starts with a succinct overview of the process and method for selecting, undertaking and analysing the case studies before delivering the results from each case study site separately in **Part Two** of the report.

It should be noted that the case study results presented in Part Two mirror reports provided for the developers who took part in the case studies. It is for this reason that they appear almost separately in Part Two (as pull out sections) and retain their unique sequential page and heading numbering. In addition, the introductory sections of each report outlined in Part Two are similar – with a repetition of the background information relating to the tables etc. in each report.

This report concludes with **Part Three** and a section summarising the main recommendations arising from the case study, alongside a brief discussion of the case study findings. An overview of the overall Medium Density Assessment Framework (drawn from Ryan and Smith, 2017) is provided in the Appendices (Appendix 4: Draft Assessment Framework) for easy reference to the main tables appearing in this report.

3 Framework and tool development

The Medium Density Assessment Framework developed in earlier stages of this project provided the foundations for Beacon's Medium Density Assessment Tools as well as the process of applying them to the case study sites. The framework, and its evolution, is fully presented and discussed in the report 'Ryan, V. and Smith, B. (2017). *Medium Density Housing Assessment Tools: Framework Development Working Paper. Report MDH/2 by Beacon Pathway*'. It forms the basis of the case study application and reporting framework and so the main framework is repeated in the Appendices to this report. As the reader will note, the Framework also provides a useful mechanism for reporting results to developers (see Part Two of this report).

The original framework, and the corresponding survey tools, have been designed to be flexible and adaptable and can be used to assess medium density housing developments taking into account resident experiences, , and the potential for developers to contribute to their surrounding communities and neighbourhoods.

The approach can be used to guide designs, assess both proposed and built developments, support consultation and community participation, as well as inform design reviews. One of the main aims of the work has been to create a tool that is accessible and easily applied by developers seeking to better understand the context of the neighbourhood development area and to apply principles of best practice in both design and community building. The addition of a post-construction residents' survey enables developers to further appreciate the needs of their occupants and to continually improve approaches to the provision of more liveable and sustainable medium density housing.

The framework, as covered in several sections of this report, is split into 5 main Category Sections – the 'outcome focused principles' of:

- Character, context and identity
- Choice
- Connectivity
- Liveability
- Sustainability.

These core principles, and their component outcomes were determined through an evaluation of the best tools currently available² and were later finalised based on further input from the TARGET Advisory Group. The overall result of this process was the prototype framework (which for ease of reference is summarised in the appendices to this report).

Taking account of the target audiences, the need to balance assessment and guidance, and to align with other tools, the next key consideration was how any new MDH assessment tool would be delivered in practice.

■ ² And more fully described in the report Ryan, V. and Smith, B. (2017). *Medium Density Housing Assessment Tools: Framework Development Working Paper. Report MDH/2 by Beacon Pathway*

There were three key elements that were considered and these are summarised below:

1. Target audience engagement

It was considered important to provide a tool that enables a wide target audience to understand and reflect on the key pros and cons that a new MDH development will have for the neighbourhood, community, and wider environment. That said, it was also vital that any tool specifically engages residents and developers in the assessment process in order to determine if developers' aspirations or plans for a site are delivered on the ground to residents (and proved through post-occupancy surveying). As a result, it was important that this new assessment methodology included a residents' survey which can be closely aligned with an assessment of the site itself - completed either by smaller developers (who are self-assessing in order to determine areas for improvement) or through independent observation of larger sites that may wish to gain some accreditation or recognition of good practice that a new MDH tool might provide. Given the range and type of topics covered in the core principles and outcomes, the assessment was deemed to require a mixture of desktop evaluation as well as direct observation.

2. Approaches to ranking or scoring

The approach to developing assessment scores was developed by the research team and was informed by the in-depth review of other tools. It was considered vital that any scoring or ranking methodology was well explained, simple to follow, robust, and likely to be replicable (i.e. the same score would likely be given on any specific topic, at any specific site, by different people). Secondly, it was important that any scores provided by residents could be easily compared with associated scores provided through the observation and/or developer's site assessment. For example, residents' questions relating to their feelings of security during the day and night can be compared with site-based scores relating to the extent of passive and active surveillance and lighting.

3. Synthesising data assessments to determine key areas for improvement

Given this parallel approach to assessment, the next consideration was how the residents' and site-based rankings could most effectively be synthesised to provide meaningful guidance to developers, while easily being understood by residents and other interested stakeholders. This process required significant refinement as the outcome principles and their components were developed into specific questions for the resident and site-based instruments. Furthermore, it was considered essential that any resulting synthesis should include clear information, guidance or recommendations for improvement, without conveying a sense of failure that might otherwise reduce further engagement. Finally, it was recognised that residents would require at least a summary of results from the assessment so they too remain engaged in any future efforts to improve their neighbourhood.

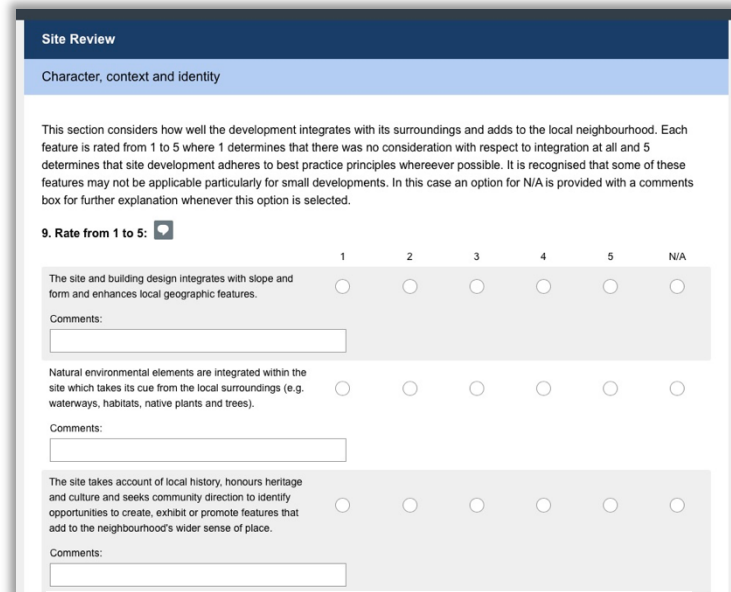
The resulting survey tool(s) comprises of two main components:

- i. A site review with accompanying developer's interview questions and;
- ii. A residents'/occupants' survey (conducted in parallel or shortly after the site review).

Both survey tools are provided in the appendices to this report. Key features of each survey are outlined below:

Developer's Survey

- Interview of up to an hour conducted following a desktop mapping and local context session
- Using simple language – accessible and easily understood
- Answers provided in a consistent 1 to 5 scoring framework
- N/A column to cover a range of developments without penalising developer
- Identifies best practice with potential to link to examples/exemplars



Site Review

Character, context and identity

This section considers how well the development integrates with its surroundings and adds to the local neighbourhood. Each feature is rated from 1 to 5 where 1 determines that there was no consideration with respect to integration at all and 5 determines that site development adheres to best practice principles wherever possible. It is recognised that some of these features may not be applicable particularly for small developments. In this case an option for N/A is provided with a comments box for further explanation whenever this option is selected.

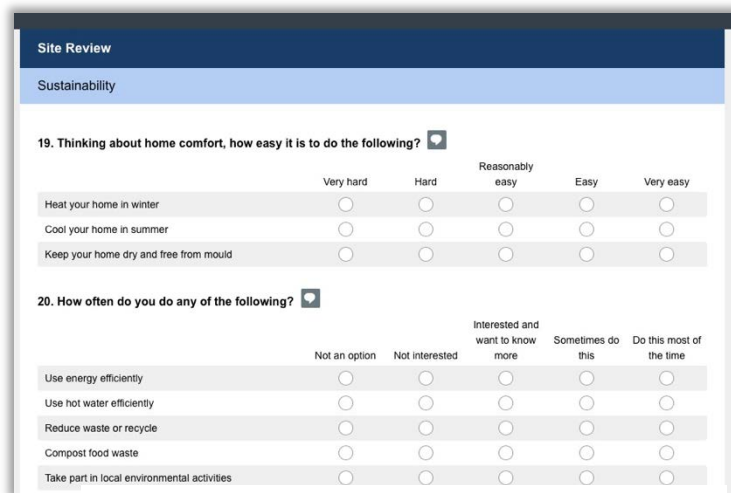
9. Rate from 1 to 5: ☐

	1	2	3	4	5	N/A
The site and building design integrates with slope and form and enhances local geographic features.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments:	<input type="text"/>					
Natural environmental elements are integrated within the site which takes its cue from the local surroundings (e.g. waterways, habitats, native plants and trees).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments:	<input type="text"/>					
The site takes account of local history, honours heritage and culture and seeks community direction to identify opportunities to create, exhibit or promote features that add to the neighbourhood's wider sense of place.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments:	<input type="text"/>					

Figure 2: Example of page from developer's survey

Residents' Survey

- Using simple language – accessible and easily understood
- Answers use a similar 1 to 5 scoring system throughout
- Room for additional qualitative comment boxes
- Designed to be short and not taxing
- Online or hard copy survey format



Site Review

Sustainability

19. Thinking about home comfort, how easy it is to do the following? ☐

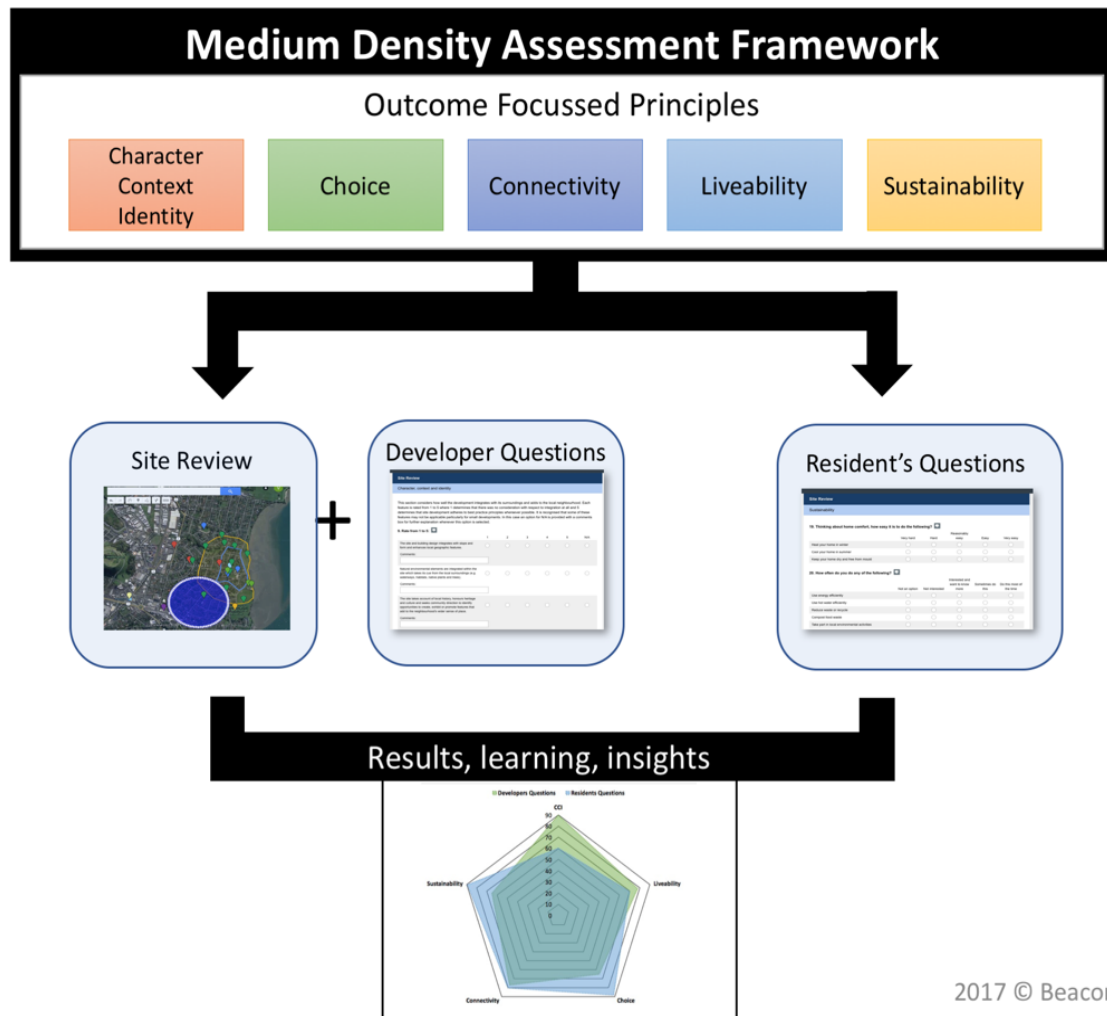
	Very hard	Hard	Reasonably easy	Easy	Very easy
Heat your home in winter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cool your home in summer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Keep your home dry and free from mould	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

20. How often do you do any of the following? ☐

	Not an option	Not interested	Interested and want to know more	Sometimes do this	Do this most of the time
Use energy efficiently	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use hot water efficiently	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reduce waste or recycle	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Compost food waste	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Take part in local environmental activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Figure 3: Example of page from residents' survey

These surveying processes and techniques were applied and tested on the two comprehensive developments to assess how the underlying framework and the main components of the tool worked alongside each other. A conceptual overview of how the tools are applied is presented in the diagram below:



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Figure 4: How the tools work together

4 Case study selection

There was considerable discussion relating to case study selection by both the project research team and the technical advisory group (or TARGET Group as they are known). The following questions are indicative of the type that were evaluated:

- Should the case study compare and contrast a good version of medium density with a poor one?
- How many units or dwellings are required, and at what density to count as medium density assessment?
- How long should residents have lived in the dwellings prior to surveying?
- Should the project team look for a geographic spread or differing sector dynamics to explore results (e.g. a community housing example compared to a high-end development)

In the end, as with many of these types of project, the relationships built within the existing development community leads researchers to select case studies that:

- Have a level of ‘buy in’ or enthusiasm to take part from the developer
- Are within reasonable survey reach to minimise travel and associated costs
- Are more likely to provide results that can be explored within the safety of a trusted relationship (researcher and interested /engaged developer)
- Have parameters that sit comfortably within the range of what the project defines as medium density development
- Have aspects that can be tested in the tools (e.g. proximity to amenity, transport, environmental infrastructure etc.)

Not surprisingly, two or three of the developers involved in the TARGET Group expressed an interest in being involved and potentially being part of the case study work. The process of taking the developers from initial interest through to signing up to take part in the case studies took somewhat longer than expected. The combination of reasons outlined below highlighted some valuable insights for the project team for future survey work:

- The sector is incredibly busy delivering housing under constrained conditions
- Communicating the case study process to all relevant staff from the development company who will be involved can be time consuming – especially when this comes as an addition to their usual job requirements
- Many medium density developments are managed under a body corporate structure – and this requires approval to undertake survey work (if not ethically then simply out of courtesy). Body corporate structures have a variety of communication devices at their disposal for residents – but many require approval at set meeting times of a quorum of residents.
- The residents’ surveying, which takes place over a two to three-week period, must be planned and work in with other external events taking place – e.g. other survey work being undertaken in the area, restrictions on surveying during election cycles etc.

The final decision was made to examine the following two developments:

- The Brickworks apartments in Hobsonville Point (overseen by Homes, Land, Community HLC 2017 – formerly Hobsonville Land Company, and a subsidiary of Housing New Zealand Corporation).

Advantages included a strong relationship with the developer who had extensive background and understanding of the tools and was interested in surveying residents; as well as familiarity with Hobsonville Point due to prior work undertaken by Beacon Pathway in that area.

- Hypatia Apartments in Grafton, Auckland developed by Ockham Residential. Advantages included a strong relationship with the developer, ease of access to the development, a high level of engagement and interest from the developer and staff in the assessment framework and significant curiosity regarding their recently settled residents.

5 Case study approach

The following section outlines the process and overall approach used to undertake the case studies of The Brickworks and Hypatia apartment developments in Auckland.

5.1 Survey process

As set out in Section Two and illustrated in Figure 4 above, two surveys and a site review process were developed in order to gather data to feed into the framework. The site review is a mainly desk based exercise designed to simplify the developers review and map key connectivity data for the site.

The overall assessment process was conducted as follows:

1. Sign up

- 1.1. The project team ensured that the developer was comfortable with applying the tool in reference to the particular development that they felt was appropriate for the case study (Hypatia in the case of Ockham and Brickworks in the case of HLC)
- 1.2. In consultation with the developer (and appointed staff) the project team arranged a timetable for the application of the tools that suited the developer and residents alike.
- 1.3. A simple MoU was agreed setting out simple terms of reference for the developer's involvement in undertaking the work.

2. Site review / Developer interview

- 2.1. The project team undertook a desk-based exercise to gather data and map local information such as transport options and local amenities – this gives the team a useful context for the area as well as an understanding of the overall neighbourhood that houses the development.
- 2.2. The project team then walked around the development / apartment complex (where access was provided) as well as the wider neighbourhood to gain a feeling for the area and an understanding of the level of quality, facilities and infrastructure supporting the development.
- 2.3. Following the site visit, a developer interview was booked with appropriate staff. The interview format of the survey is designed to be conducted with the main developer and/or appointed design/development staff. For example, at Hypatia, the main developer interview was booked with Mark Todd, lead developer and part-owner of Ockham Residential. At Hobsonville Point, the interview was booked with Hayley Fitchett, Manager – Master planning & Urban Design, HLC.
- 2.4. The developer interview was conducted by two people on the research team – one interviewing and asking questions of the developer whilst the other records scores and responses. The developer interviews varied in time between 90 minutes and two hours. Provided some of the key information is collated prior to the interview the project team are confident that the developer interview can be kept to below 90 minutes.
- 2.5. Following the desktop mapping exercise, site visit and developer interview all aspects of the site review are collated and analysed.
- 2.6. Initial feedback from the site review /developer interview can be provided to the developer at that stage should they desire it.

- 2.7. A final aspect of the developer interview is to discuss and agree the final version of the residents' survey questions that follow. This enables the developer to fine tune or add additional questions relating to specific aspects of the development that they would like feedback about (e.g. particular issues, both good and bad, that the developer would like to gather information about).

3. Residents' survey

- 3.1. In cooperation with the developer and appropriate staff, and/or body corporate structures, the project team organises the key aspects of the residents' survey including approach, process and timing.
- 3.2. The residents' survey is designed to work best in an online format utilising survey monkey. This way residents enter data online and it is automatically compiled with some initial analysis taking place. However, in order to maximise the response rate, a paper-based version is also developed – to be dropped off to those who have not attempted the online version.
- 3.3. If the survey is to be distributed in a paper-based format then the research team require access to any apartment building and/or mail drop boxes in order to distribute paper surveys. This may necessitate liaison / agreement with a body corporate structure or building managers.
- 3.4. Supporting communication for the survey is also developed at this stage including emails and letters from the development organisation that can assist with warming the residents up to the impending survey. The survey was also incentivised by a \$20 Countdown Voucher being available for every household who completed the survey. Examples of marketing and survey collateral are provided in the appendix.
- 3.5. Once planning and dates have been set in place for the survey the survey team set about implementing the survey. For the two case studies it was conducted using the following methods:
 - Online via survey link distributed via email
 - Online via survey link distributed via posted flyers and posters
 - Hard copy mailed to residents (with timed pick up, central drop off or post back options available)
 - Survey completed at the doorstep with the surveyor (this was available as an option but was not requested by any respondents)
- 3.6. Experience from similar Beacon Pathway community surveying suggested to the research team that residents would need to be contacted and reminded at least three times to encourage a reasonable response rate (surveys are coded so that once a response is in the resident is not contacted again). Examples of survey collateral are included in the appendices of this report.

4. Results:

- 4.1. Results from the survey work and the site review /developer interview were collated and compared for any anomalies and to highlight specific insights or lessons learned.
- 4.2. The results from the residents' survey work is analysed and graphically represented as an infographic summarising the results for residents (see Part Two of this report). The aim is to communicate succinctly and in a positive interesting way for residents who have indicated that they were interested in seeing the results from fellow residents. The summary for residents is sent to the developer for final approval before being sent to residents. This may flag up divisive or controversial comments from residents which may need to be communicated very carefully to residents. The intention is not to censor the information; however, this protocol was followed as a courtesy for the developers taking part in these two case studies.

- 4.3. The results from the developer's interview and site review process are analysed and compared to the residents' survey. These are written up in a brief summary report for the developer (or presentation) which is then sent to the developer as a draft for comment (see examples in Part Two of this report). A final version is then issued to the developer and, if desired, this could also be made available for residents to view online.
- 4.4. Additional analysis and interactions with the data are then available on request to developers. This may assist then in understanding some of the finer grain issues – or perhaps exploring the breakdown of responses for certain questions (e.g. number of residents indicating satisfaction with living in the development and the percentage responses in each of the categories from not satisfied to fully satisfied).
- 4.5. Finally, the project research team undertook a more in-depth review of the assessment findings. This helps to inform further evolution and refinement of the medium density assessment framework and the resulting tools. This was conducted as part of the case studies but the intention is to retain this function for continual improvement of the assessment tools going forward.

6 Results analysis and reporting

Results of both the developer interviews and site reviews, as well as the residents' surveys, are presented fully in Part Two of this report and therefore are not repeated here. Each of the two case study survey reports presented in Part Two include an introduction to the scoring techniques and an explanation of how the different surveys employed fit within the assessment process. The results are also explored in depth, utilising the framework as the backdrop to developers' and residents' scores – and again, to avoid repetition are not duplicated here.

Response rates in both case study sites were considered high and certainly provide significant results for the developers taking part. They were as follows:

Table 1: Responses from the residents' surveys

Development	Number of dwelling units	Number of Responses (1 allowed per dwelling)	Percentage response
Hypatia	57	30	53%
The Brickworks	60	36	72%

6.2 Data collection and handling

6.2.1 Developer interview

Data from the developer interviews (scoring and commentary) was entered into Survey Monkey as the interview took place. Results were later extrapolated into spreadsheet format in order to manipulate data and derive averages, weighted scores, median values etc. Once full analysis had taken place, including the design of the spider or radar diagram, these results were used to populate tables in Microsoft Word for the developers' summary reports. Arguably, this extrapolation, manipulation and presentation of results using different software and formats is overly time consuming, and any further development of the tool should seek to shortcut and automate much of this process.

6.2.2 Residents' survey

Once the residents' survey had been published online and the email (with web-link and QR code) had been sent to residents, data started to compile on the online database. Data from any filled in and returned paper-based surveys was entered manually into survey monkey for additional storage and analysis. Following closure of the survey (after a period of approx.. 14 days) data was exported from Survey Monkey into Excel for further analysis. Residents' scores, comments and information were compiled and analysed with the results being exported into Word and being utilised for the developer's summary report as well as the residents' summary.

Full results from each case study are presented in the next section of this report - **Part Two**

PART TWO: CASE STUDY RESULTS

7 Hypatia Apartments, Ockham Residential

7.1 Introduction and approach

The following report presents an overview of results from the Medium Density Assessment Tool Case Study undertaken at Hypatia in Nov/Dec 2017.

The results of the developer's interview and residents' survey are presented as they relate to the following Category areas of the Medium Density Housing Assessment Tool:

- Site and residents overview including site and building details and residents demographics
- Character, Context and Identity (CCI)
- Choice
- Connectivity
- Liveability
- Sustainability

In order to simplify the language used for residents and streamline the survey, technical jargon was removed (with sub-categories labelled differently) and some sub-categories combined. These differences are indicated below:

Section	Developer's interview	Residents' survey
1	Character Context and Identity	About your neighbourhood
2	Choice	Living in your community
3	Connectivity	Getting around
4	Liveability	Living in your home
5	Sustainability	Sustainability questions included in the 'Living in your home section'

Following data collection on the overall site and residents' demographics, the approach to the remaining topic questions has been adapted to each audience:

For developers:

- Interview questions under each Category (and Sub-Category) determined the extent to which a particular outcome had been achieved
- The language for developer questions was more formal than for residents (in terms of urban design and building definition), without being overly technical
- Developer responses were scored from 1 to 5, where 5 indicates that an action has achieved the best possible outcome and 1 indicates that no action has been taken, or no outcome has been achieved. A 'Not Applicable' (N/A) option was also included for any elements that are not relevant - either due to the scale of the development or due to particular constraints relating to the site parameters or other aspects.
- A comments section was included for each question in order that responses could be expanded on and the resulting score justified.

- The developer's questions were asked using an interview framework; methodically working through the Categories and Sub-Categories.

For residents:

- Questions under each topic determined the residents' perceptions of outcomes and, where relevant, how this has impacted on their choices or behaviours.
- The language was less technical, and aimed to understand a particular issue from the householder's perspective.
- As a result, residents' questions were set in a conversational style which explored the extent to which they agreed or disagreed, or were satisfied or unsatisfied, that a particular outcome had been met.
- The residents' answers were then weighted numerically, for example:

Residents' response	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	N/A
Ranking	1	2	3	4	5	N/A

- This provided the most appropriate means of generating a numerical score for each resident response and an average score for the combined residents' responses to each question. The tallying of adapted average scores for each question allowed an average 'Category Score' to be developed.
- A total of 28 residents' surveys were completed online and a further 2 were completed as paper copies which had been distributed to every post box in the apartment building.
- Compared to the number of apartments in Hypatia this represents a 53% response rate.

Comparing developer and resident responses

Average scores for residents' responses were developed to provide an indication of their combined perspective of a particular outcome. While the different approach to the developer's interview and residents' survey means that the results are not 100% comparable, the results of the Residents' Survey can be placed alongside the developer's interview scores to highlight any differences in both groups perceptions. Exploring these differences can provide valuable insights for users of the tool including:

- Identifying where the residents consider that the developer objectives have been met
- Highlighting areas where residents' expectations may not have been met by the developer's intent
- An indication of areas of conflict or convergence
- Context and background to residents' specific feedback and comments.

With this in mind, developer and resident responses to each Category area are shown in the results section below, following a brief overview of the site and its current residents.

7.2 Results from Hypatia

The following section presents the results of the developer's interview alongside the residents' survey. It includes an overview of the site and resident demographics and results for each of the five main Category areas. Developer and residents' responses are presented side by side in summary tables to provide an indicative comparison.

Each of the five Category results tables below is followed by a brief discussion of key highlights and specific issues raised by the results. Inclusion of comments offered by residents, both positive and negative, provides

significant insight to the issues raised in the survey. However, it should be noted that such individual comments are often from a small, but vocal, minority.

7.2.1 Overview of the site and residents

7.2.1.1 The site and development

Background information regarding the site and overall development was collected from a combination of desktop review and interview conversations with the developers. This is summarised below:



Hypatia is a modern apartment building completed in concrete and brick and situated in the neighbourhood of Grafton.

Site name	Hypatia
Site Address:	Khyber Pass Road, Grafton
Date of completion	2016
Developer	Ockham Residential Ltd
Types of dwelling	Apartments (with additional commercial space on the ground floor)
Levels	2 levels of basement parking and 6 levels of apartments above
Numbers of dwellings	59 apartment dwellings consisting of 57 apartments and 2 commercial grade units (that can be set up as apartments). 1 Bed: 21 / 2 Beds: 31 / 3 Beds: 7

7.2.1.2 The Residents

Demographic questions were asked of residents to gain a snapshot of the type of people living in the building and answering the survey. The majority of apartments were housing two people (63%) followed by single person occupancy (26%) and finally 3 person households (11%). The majority of respondents owned their own home (65%) compared to renting from a private landlord (35%). Respondents lived in a variety of the dwelling stock as follows:

- 1 bed apartment: 26% (compared to Hypatia total building ratio of 36%)
- 2 bed apartment: 67% (compared to Hypatia total building ratio of 53%)
- 3 bed apartment: 7% (compared to Hypatia total building ratio of 12%)

As could be expected from a case study of a single development, the survey reveals some quite different demographic patterns than those for Auckland overall. Perhaps the biggest difference was a high estimated household income, with 63% of residents reporting an estimated income in excess of \$100,000 and 22% reporting income of between \$70,000 and \$100,000. The remaining 15% of respondents (14.81%) did not answer this question.

Of the residents who answered the question about age, the following was recorded for all members of the household:

Age Range	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70+
Percentages	0%	0%	24%	16%	16%	22%	18%	4%

Ethnically the respondents (and those counted in their household) identified primarily as being New Zealand European (49%) followed by Asian (30%), European (11%) and finally Maori (2%) and Pacific (2%).

7.2.2 Character context and Identity – About your neighbourhood

This section explores a range of site and building related outcomes (including relationships with the physical landscape, heritage, culture and sense of identity). Comparative scores for each of the outcomes is shown in Table 2. It should be noted that throughout the framework, not all questions were appropriate to ask each group and these are indicated in red text (e.g. **developer only question** or **resident only question**).

The residents' questions and *average score* can be seen on the left of the table. These have been adapted from their actual responses (e.g. Strongly disagree = 1, Strongly agree = 5). The number of completed responses to the survey was 30, however, not every respondent answered every question. Therefore, the number of residents' responses to each question is also provided.

For the developer's interview, scores are shown along with any additional commentary made at the time of the main review meeting.

Table 2: Results for Hypatia: Character, Context and Identity

Character, Context and Identity						
Related aims and outcomes: To develop a site and buildings that integrate with or relate to existing building form and style in the surrounding neighbourhood with relation to the subcategories below						
RESIDENTS SURVEY				DEVELOPERS REVIEW		
	About your neighbourhood Survey Text: <i>"These questions help us understand how you feel about your neighbourhood."</i>			Character, Context and Identity Survey Text: <i>"This section considers how well the development integrates with its surroundings and adds to the local neighbourhood. Each feature is rated from 1 to 5 where 1 determines that there was no consideration with respect to integration at all and 5 determines that site development adheres to best practice principles wherever possible. It is recognised that some of these features may not be applicable particularly for small developments. In this case an option for N/A is provided with a comments box for further explanation whenever this option is selected."</i>		
Framework Sub-Category	Survey questions. Thinking about the place you live, how much do you agree or disagree with the following? [Strongly disagree (1) to strongly agree (5)]	Adapted Score	Responses	Scores given against Outcomes for Framework Sub-categories via interview with developer and site review [Scored from 1 to 5]	Score	Developer comments
Environmental landscape	"It works well with the surrounding natural environment"	3.80	30	Natural environmental elements are integrated within the site which takes its cue from the local surroundings (e.g. waterways, habitats, native plants and trees).	N/A	N/A as the area was on a highly urbanised site, however this has been achieved where practically possible
Physical landscape	Developer only question			The site and building design integrates with slope and form and enhances local geographic features.	N/A	Humanised the space between the Rail corridor and Khyber Pass from a pedestrian point of view

Heritage and culture	"It has a sense of local history, heritage and culture"	3.63	30	The site takes account of local history, honours heritage and culture and seeks community direction.	5	<i>Conceptual design was undertaken by Ngai Tai Ki Tamaki utilising a 'resource' concept and recognising that Hypatia is built on an area that was traditionally the most densely populated part of Auckland. The design honours the area as a former Maori City. It utilised a chief carver and the whole process cost \$400,000 for the development of the design and mould facings</i>
Identity and sense of place	"It has an identity that adds to the local neighbourhood"	4.03	30	Site design and layout, key features and artistic works have been developed to create an identity and 'sense of place'.	5	<i>Key aspects of the design reflect a strong local identity and reflect history and cultural heritage.</i>
	"We feel proud to live in this place"	4.23	30	Residents only question		
Building character	Developer only question			The building design and materials integrate with and enhance the surrounding neighbourhood character.	4	<i>The design does, but not the materials as there are not a lot of brick buildings at the south end. The building therefore provides a buffer that adds to the street scape.</i>
Street scape	"It feels welcoming"	3.97	30	Entranceways and frontages are designed to be welcoming, accessible, and are in context with and enhance the overall character.	5	<i>Good effort was made on the entrance ways - the back-lit stair well provides a bright space at night</i>

Overall Category Score:
Character, Context and Identity
Residents' Average
3.93
Developer's Average
4.75

7.2.2.1 Environmental and physical landscapes

The developer considered that the questions relating to site integration with slope and form and natural environmental elements were not applicable (N/A). However, additional comments provided by the developer show an understanding of these topics and wider discussion indicated that extensive thought had been put into how the site connects with its surroundings. Overall, residents consider that the site ‘works well with the surrounding natural environment’, providing an average overall score of 3.8 out of 5. A total of 63% of respondents agreed with the statement and 3% strongly agreed.

7.2.2.2 Heritage and culture

The developer described well considered cultural references inside and out. While current residents generally agreed (providing an overall score of 3.63 out of 5), 43% agreed, only 17% strongly agreed whilst 30% remained neutral.

7.2.2.3 Identity and sense of place

Residents were more positive about the site having an identity that adds to the local neighbourhood (score of 4.03) and even more so about feeling ‘proud to live in this place’ (score of 4.23). For this latter question 37% agreed and 47% strongly agreed. This endorses the developer’s efforts in these areas. It may suggest that residents have either missed some of the heritage and cultural references provided in the artworks and overall design, or have no interest, resulting in a lower than expected score in the previous question.

7.2.2.4 Building character

The question pertaining to building character related to the use of design and materials as a means of enhancing the character of the surrounding neighbourhood. As this was considered more technical and design focussed in nature it was only asked of the developer, who noted that the use of bricks acted as a buffer to the street scape.

7.2.2.5 Street scape

These questions aimed at both residents and developers help determine whether the effort undertaken to make entranceways and frontages welcoming has been achieved. The developer indicated that detailed design aimed to create a welcoming space (scoring 5 of 5). 53% of residents agree and 23% strongly agree leading to an average overall score of 3.97 out of 5.

7.2.2.6 Comparative scores for the Category

Taken together, the overall average scores of residents for this category of ‘*Character, Context and Identity*’ was 3.93 compared with the average overall score from the developer of 4.75. While not all questions were relevant to each audience, the scores do show broad alignment across these outcome areas. This is further explored in the spider diagram at the conclusion of this report.

7.2.3 Choice – Why We Live Here

This section considers factors that enable dwelling choice and opportunity amongst residents and provide for a diverse community. These include the opportunities afforded by proximity to key destinations, the types of dwellings available, affordability, tenure arrangements, building adaptability and whether the population density of the development aligns with the provision of infrastructure and services.

Table 3: Results for Hypatia: Choice

Choice						
<i>Related aims and outcomes: The development provides for and enables occupancy by a diverse range of residents who can benefit from and support a thriving local economy; with the understanding that high levels of diversity and optimum residential density make the development viable in terms of marketability and cost per unit (see subcategories below)</i>						
RESIDENTS SURVEY				DEVELOPERS REVIEW		
	Living in your community <i>Survey Text:</i> <i>"This section helps explain why you chose to live in this area and whether your home suits the needs of your household."</i>			Choice <i>Survey Text:</i> <i>"This section considers how the development provides for and enables occupancy by a diverse range of residents who can benefit from and support a thriving local economy. High levels of diversity and optimum residential density make the development viable in terms of marketability and cost per unit. This section is primarily undertaken through a desktop review exercise based on available local statistical data with additional information from a site review and/or developer responses."</i>		
Framework Sub-Category	Survey questions	Adapted score	Responses	Scores given against Outcomes for Framework Sub-Categories via interview with developer and site review [Scored from 1 to 5]	Score	Developer comments
Opportunity	Why did your household choose to live in this area? (select as many as you like) Easy access to work or study Access to schools or day-care Close to friends or relatives Play areas for young children Good public transport Variety of local shops Local community facilities (e.g. library / halls)	Shown in separate graph – see section 2.3.1 below		Residents only question		

	<p>Near to health care services</p> <p>Leisure facilities (e.g. sports, skate, swimming)</p> <p>Access to green spaces or water</p> <p>The quality of the local environment</p> <p>A feeling of safety / security</p> <p>The design and quality of the home</p> <p>The feel of the local neighbourhood</p> <p>Our circumstances made this the only option</p> <p>Other, please specify...</p>					
	<p>A score of 4.61 has been derived from an average of connectivity scores for selected key destinations (see section 2.4)</p>	4.60	28		<p>Proximity to local centres and other key destinations enables residents to live, work and play in their surrounding neighbourhood. (Developments with a mix of commercial / residential premises enable employment opportunities within the site)</p>	<p>5</p> <p><i>The site integrates office space and 22 staff work on the lower floor</i></p>
Residential dwelling typology	<p>How much do you agree or disagree with the following? [Strongly disagree (1) to strongly agree (5)]</p> <p>"The home suits our household needs"</p>	4.10	30		<p>The provision of dwelling typologies offers an appropriate choice with regards to existing neighbourhood demographics as well as the demographics of targeted residents (including expected age range and household size)</p>	<p>5</p> <p><i>Wide range of typologies from 1 - 3 bed options - \$425k upwards - all but one apartment has been sold to date. 40% of occupants of Asian descent. There are 6-7 children living in the building.</i></p>
Affordability	<p>How much do you agree or disagree with the following? [Strongly disagree (1) to strongly agree (5)]</p> <p>"This home is affordable for our household"</p>	3.70	30		<p>A range of dwelling options and supporting financial instruments provide residents of varying means with the ability to live in quality accommodation (e.g. starter home / buy to let / financial assistance)</p>	<p>4</p> <p><i>Residents are offered an Ockham Foundation interest free loan - though no one has taken this up. (Additional detail - The Foundation has raised \$4m).</i></p>

Tenure	Do you own or rent your home? (65% owned and 35% rented)		26	Diverse and flexible tenure arrangements provide opportunities for residents to either own or rent quality accommodation	5	<i>Currently half and half owners / tenants.</i>
Building adaptability	Developer only question			Building designs exhibit a range of adaptability and floor plan flexibility responding to changing requirements and the potential for mixing use over time (e.g. the ability to adapt a residential building to incorporate commercial activity)	2	<i>The commercial area is flexible but not the apartments</i>
Population density	Developer only question			The number of dwellings per hectare and population density are in line with existing and planned infrastructure and services (e.g. transport, stormwater, local amenities)	5	<i>There are nearly 60 dwellings on 1400 sq meters (not counting the commercial space)</i>

**Overall
Category
Score:
Choice**

Residents' Average 4.13

Developer's Average 4.33

7.2.3.1 Opportunity

The first residents' question in this category of 'Choice' (or 'why we live here' in simplified language), sets some context to this topic by asking participants to select the reasons that their household chose to live in the area. Respondents could select as many options that were relevant from a checklist. A total of 28 residents answered this question. Their selections and frequency of responses are shown below:

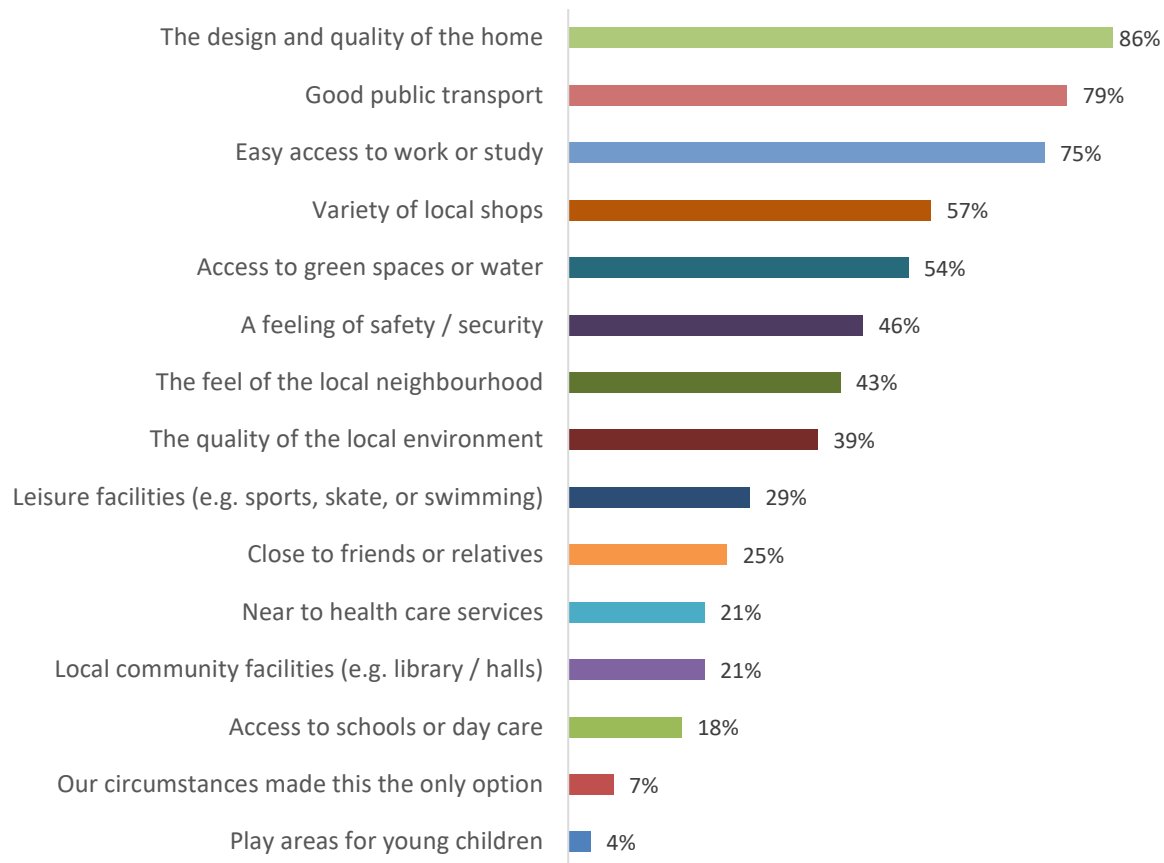


Figure 5: Results for Hypatia: Reasons for choosing to live in the area

The graph shows that the most selected reason that households chose to live in this area is “The design and quality of the home” selected by 86% (or 24) respondents followed by “good public transport” and “easy access to work or study”. Overall the rankings show that the residents recognise the opportunities afforded to them by the physical location of the development.

A further indication of opportunity is derived by a more objective review of residents' accessibility to a range of commuting services and other essential destinations. This was achieved by a desktop assessment which identified distances and transport options and determined how easily residents could access these destinations by walking, cycling, public transport and use of a private vehicle. The approach that was taken is described more fully in the Connectivity section below (2.4.2). Overall, a score of 4.5 out of 5 represents a high level of proximity to key destinations. The developer also recognises this proximity and access and there is additional

opportunity provided for as the site itself has been designed as a place of work, resulting in a developer score of 5 out of 5.

7.2.3.2 Residential dwelling typology and affordability

The sub-categories of typology and affordability help to determine whether the types of residences on offer suited householders' needs and whether they were considered to be affordable. In terms of typology, residents largely agreed that the household suited their needs (47%) with a further 33% strongly agreeing.

In terms of affordability, the developer noted that they offered financial support via a shared-equity no-interest loan should residents desire it; however, this opportunity had not been widely taken up. Residents' themselves provided an average score of 3.7 out of 5 in respect to affordability. Out of the 30 residents that answered the question, 2 strongly disagreed (3%) whereas 53% agreed and 17% strongly agreed.

7.2.3.3 Tenure

The developer review indicated that tenure arrangements were flexible and that ownership and renters were evenly represented on the site. Of the residents that answered this question, 65% owned their home compared with 35% who rented.

7.2.3.4 'Do you have any other comments about your neighbourhood or why you chose to live here?'

Presented with an open text box, participating residents made the following selected comments:

- *I chose to live here because convenience and traffic (Grafton Station)*
- *Good sun, modernity (heat pumps and sound proofing)*
- *The main reason was that it was centrally located to everything*
- *My neighbourhood is kind and nice. As I can't drive, it is easy for me to take the public transportation such as bus and train.*
- *We also liked they had a pool. That has however been closed for so long that we don't like the place now.*
- *Safe – modern – handy to schools, motorway, shops and everything. Great!*
- *Inner city fringe. Close proximity to all activity.*
- *Train below us and handy to domain*
- *The neighbourhood is lacking a local corner store*
- *Lack of a good local bar - like Gypsy Tea Rooms*

7.2.3.5 Comparative scores for the Category

Taken together, the overall average scores of residents for this category of 'Choice' was 4.13 compared with the average overall score from the developer of 4.33. The relatively close alignment between the average scores in this category is an indication of convergence of both developer's and residents' perceptions.

7.2.4 Connectivity – Getting Around

The connectivity questions consider accessibility, based on infrastructure and travel choices, access through and around the site, wayfinding, safety and parking. The first part of the residents' survey determined the access residents had to vehicles, cycles and the need for mobility aids. This was supplemented with a desktop review that determined the accessibility scores to key destinations and compared these with a representation (based on responses and amended scores) of how residents actually travelled to these places. The approach to these topics are described following the summary table below.

Table 4: Results for Hypatia: Connectivity

Connectivity	
<i>Related aims and outcomes: Connecting Infrastructure enables safe, universal access using active, mobility, shared and private modes of transport within and through the site to identified key destinations (see Sub-Categories below)</i>	
RESIDENTS SURVEY	DESKTOP and DEVELOPERS REVIEW
<p>Getting around Survey Text: <i>"This section tells us how you travel around and helps us understand what might make it easier."</i></p>	<p>Connectivity Survey Text: <i>"This section considers how well the development and connecting infrastructure enables safe, universal access to key destinations for residents whilst also encouraging a range of active mobility options.</i> <i>A desktop procedure is initially used to assess a range of current and future transport options as well as providing identification of key destinations. The site review then provides a rating from 1 to 5 on certain features where 1 determines that there was no consideration with respect to the feature described and 5 determines that site development adheres to best practice principles wherever possible. It is recognised that some of these features may not be applicable particularly for small developments. In this case an option for N/A is provided with a comments box for further explanation whenever this option is selected."</i></p>

Framework Sub-Category	Survey questions	Score	Responses	Trips	Scores given against Outcomes for Framework Sub-categories via interview with developer and site review	Score	Developer comments
	Thinking about how your household travels around: How many vehicles are there in your household? How many working bicycles? How many household members need support with their mobility including push chairs, wheelchairs or walking aids?	Numerical answers See section 2.4.1 below			Residents only question		
Accessibility to key destinations	Tell us all the ways your household travels to the following places? <i>[selections include Walk / Cycle / Bus train or ferry / Park and ride to the bus train or ferry / Private transport (motorbike/scooter/car)]</i>				The extent of accessibility to key destinations is based on distance, infrastructure and services that enable safe travel on foot, by cycle, on frequent public transport, by car, or with mobility aids. Select the options that are available for residents to travel to the following places: [Matrix includes Walk / Cycle / Bus train or ferry / Park and ride to the bus train or ferry / Private transport (motorbike/scooter/car)]		(note: a large section of this category is assessed during a desktop review exercise)
	Work	2.94	26	53	Work (walkable to approx. 2km)	5	Desktop review
	Schools	3.50	6	6	Schools (walkable between approx. 500m-2km depending on age range)	4	Desktop review
	Tertiary study or training	4.00	6	9	Tertiary study or training (walkable to approx. 2km)	5	Desktop review

	Tell us all the ways your household travels to the following destinations? <i>[Selections include Walk / Cycle / Motorbike, scooter / Bus train or ferry / Park and ride to the bus train or ferry / Car / N/A]</i>				Select the travel options available to the following destinations: <i>[Matrix includes Walk / Cycle / Bus train or ferry / Park and ride to the bus train or ferry / Private transport (motorbike/ scooter/car)] - approx. walkable distances shown alongside each destination]</i>		
	Local shop or dairy	3.93	29	43	Local shop or dairy (2km)	4	Desktop review
	Supermarket	2.72	29	46	Supermarket (up to 500m)	5	Desktop review
	Children's play area	3.38	5	8	Children's play area (1km)	5	Desktop review
	Parks or open spaces	4.26	28	38	Parks or open spaces (1km)	5	Desktop review
	Community facilities / Library, hall etc.	3.51	25	39	Community facilities / Library, hall etc. (1km)	4	Desktop review
	Medical centre	2.66	26	35	Medical centre (500m)	4	Desktop review
	Developer only question				Describe any planned developments in terms of destinations, facilities or transport infrastructure that will affect future accessibility for residents. [Comment]	N/A	
Permeability	Developer only question				<i>[Score from 1 to 5]</i> Permeability within and through the site supports wider neighbourhood connectivity and facilitates access to surrounding destinations	N/A	

Transport choice	<p>What do you think of the following? [Very poor / Poor / Reasonable / Good / Excellent / N/A]</p> <p>The range of different travel options from your home</p>	4.46	28		<p>[Score from 1 to 5]</p> <p>Proactive measures to encourage active and shared transport including pool vehicles, charging points for electric vehicles and options for telecommuting</p>	1	
Safety from vehicles	<p>What do you think of the following? [Very poor / Poor / Reasonable / Good / Excellent / N/A]</p> <p>Your feeling of safety from cars when you walk or cycle</p>	3.23	26		<p>[Score from 1 to 5]</p> <p>Design considerations reduce physical conflict between cars and other users within the site and at access points</p>	4	<i>The site is placed on the corner of a one-way street - a previous traffic report stated that 65% of traffic on the street was going wrong way to access the existing households</i>
Wayfinding	<p>What do you think of the following? [Very poor / Poor / Reasonable / Good / Excellent / N/A]</p> <p>How easy it is for new visitors to find your home</p>	3.96	28		<p>[Score from 1 to 5]</p> <p>Wayfinding and signage to and around the site facilitates visitor movement and the identification of resident dwellings while ensuring that designs and naming are appropriate to the site's overall identity</p>	3	<i>Visitors and some residents go through the wrong door - using the office entrance</i>
	<p>What do you think of the following? [Very poor / Poor / Reasonable / Good / Excellent / N/A]</p> <p>How easy it is for delivery services to find your home</p>	3.44	27				
Access for services	Developer only question				<p>[Score from 1 to 5]</p> <p>Design enables ease of access and egress for emergency, delivery and service vehicles</p>	4	

Parking provision and management	How do you rate parking? [Very poor / Poor / Reasonable / Good / Excellent / NA]					Tell us: How many dedicated parking spaces are there for residents?	70	
	Car parking for residents	3.85	26			How many dedicated parking spaces are there for visitors?	0	
	Car parking for visitors	1.88	25			How many bicycles can be securely parked on site?	70	
	Secure cycle parking for residents and visitors	4.19	21					
	Scooter / moped parking for residents & visitors	3.36	11					
	Overall management of parking on-site	3.71	24					

Overall Category Score:

Connectivity

Residents' Average 3.50

Developer's Average 4.08

7.2.4.1 Access to vehicles

How many vehicles are there in your household?

- 10% indicated they had no vehicles
- 59% had one
- 31% of respondents had two vehicles.

How many working bicycles?

- 21% had one bicycle
- a further 21% had two
- 3% had three bikes
- 55% had none.

How many household members need support with their mobility including push chairs, wheelchairs or walking aids?

Of all the respondents, only one reported that they had two residents requiring mobility aids in their home.

7.2.4.2 Accessibility to key destinations

The desktop review identified and mapped work, study, shopping and leisure locations in the surrounding area. Distances were then laid at 500m, 1000m and 2000m as shown below. Note that these were based on actual walkable routes as opposed to a ‘crow-flies’ radius.

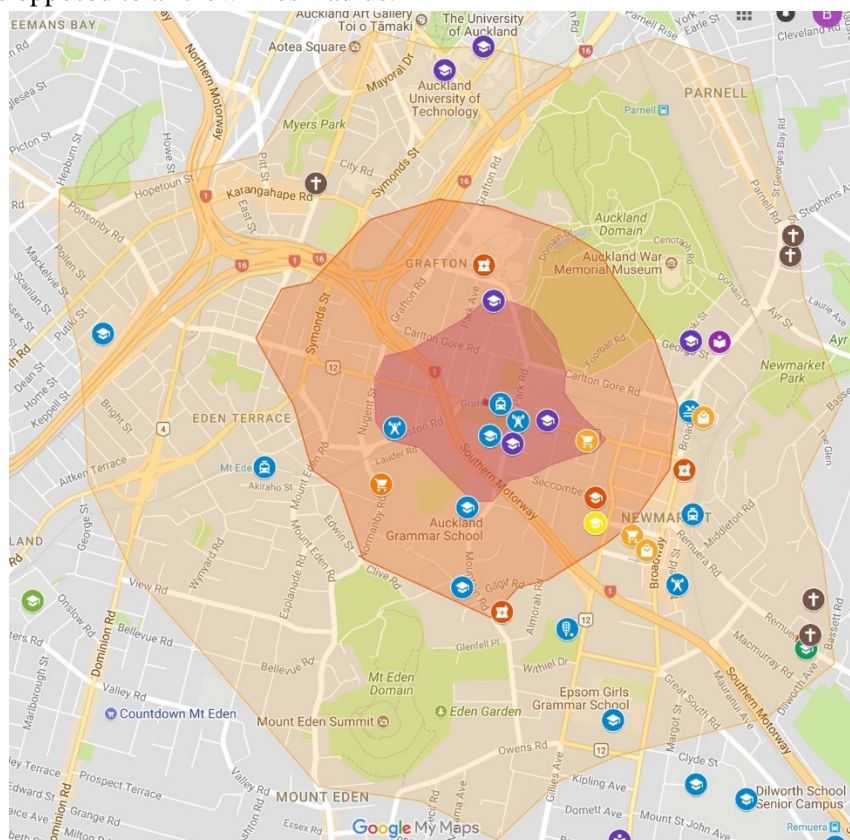


Figure 6: Map showing access and distances to key destinations (Hypatia)

Destination analysis then determined the mode options that would be available for a range of destinations with a point (1.0) or half point (0.5) awarded for access by either walking, cycling, public transport, park and ride to public transport and private transport (car, motorbike or scooter). The results are shown in the table below:

	Walk	Cycle	Bus, train or ferry	Park and ride to bus, train or ferry	Private transport	TOTALS
Work (walk within 2km)	1.0	1.0	1.0	1.0	1.0	5.0
School (within 2km)	0.5	1.0	1.0	1.0	1.0	4.5
Tertiary study or training (walk within 2km)	1.0	1.0	1.0	1.0	1.0	5.0
Local Shop or dairy (walk within 2km)	1.0	1.0	1.0	1.0	1.0	5.0
Supermarket (walk within 500m)	0.0	1.0	1.0	1.0	1.0	4.0
Children's play area (walk within 1km)	1.0	1.0	1.0	1.0	1.0	5.0
Parks or open spaces (walk within 1km)	1.0	1.0	1.0	1.0	1.0	5.0
Community facilities (walk within 1km)	0.0	1.0	1.0	1.0	1.0	4.0
Medical centre (walk within 500m)	0.0	1.0	1.0	1.0	1.0	4.0
					AVERAGE	4.60

The table shows high levels of accessibility for all destinations, with an average score of 4.60 (as already noted in section 2.3.1).

Linked to the accessibility of key destinations is the assessment of residents' travel behaviours which is based on a determination of how they reported travelling to these same destinations. In this case:

- 5 points were awarded for each walking trip
- 4 for each cycling trip
- 3 for each public transport trip
- 2 for each park and ride trip
- 1 for each trip made by private transport (car / motorbike or scooter)

The total points for each destination were then averaged by the number of trips made. For example, for trips to work:

	Walk (5)	Cycle (4)	Bus, train or ferry (3)	Park and ride to bus, train or ferry (2)	Car, motorbike, scooter (1)	TOTALS
Work trips	16	5	11	2	19	53
Score	80	20	33	4	19	156
AVERAGE						2.94

The average score is 2.94 for residents' travel to work. This is shown against the above score for 'accessibility' to work of 5. Obviously, this is not a direct comparison but does suggest that either some residents are using private modes to access workplaces that could be travelled by other modes, or that some have chosen to live in Hypatia and work in locations that are only easily accessible by private modes.

The presentation of the desktop and residents' results is shown for each of the key destinations and shows that residents are generally making the most of shared and active travel options; though they are more likely to drive to the supermarket (likely due to the need to carry shopping loads) and to medical facilities – which is also unsurprising.

7.2.4.3 Transport choice

Following the above assessment, the range of options from the site received further endorsement from residents who score the range of different travel options from their home at 4.46 out of 5. The developer notes that they take no special actions to encourage active or shared transport modes, nor supply infrastructure to support electric transport vehicles or telecommuting (outside of the site being located above an electrified rail network). Such actions may increase residents' travel scores in future.

7.2.4.4 Safety from vehicles

Residents noted that they felt reasonably safe from cars when walking or cycling (46%). A total of 27% felt safety was good and only 12% considered it was excellent resulting in an average score of 3.23 out of 5. This slightly lower score may reflect the fact that the main entrance to the site leads directly onto the busy Khyber Pass road.

7.2.4.5 Wayfinding and access for services

Overall, residents considered it was easier for visitors to find their home (3.96) than for delivery services (3.44) however both scores are perhaps lower than could be expected. This may suggest some additional wayfinding signage could be useful – particularly for the front entrance. The developer also noted that some visitors tried to gain access to the building through the wrong entrance. Alongside this, the developer scored physical access for emergencies and deliveries at 4 out of 5.

7.2.4.6 Parking provision and management

Residents parking received a higher score (3.85 out of 5) with 27% rating this as good and 38% rating this as excellent. This is consistent with the developer reporting 70 dedicated parking spaces for residents. Visitor parking provision was scored 1.88 out of 5 with 44% rating visitor parking as poor and 36% rating it as very poor. This reflects that no visitor parking spaces are provided on-site and visitors need to find spaces in the busy surrounding area which also has areas of restricted parking.

Secure cycle parking offers the highest rated score for this topic at 4.19 and overall parking management scored 3.71 with 41% stating that this was good and 21% considering it to be excellent.

7.2.4.7 Do you have any other comments about travel or parking?

Presented with an open text box, nine residents made the following comments:

- *Car parking space so very small (narrow) so I worried about crash beside car (next my car)*
- *Visitors don't feel they can find parking to visit unlike living in the suburbs*
- *Obviously at the edge of a busy road visitor parking is going to be limited, especially next to a hospital. I think it is not reasonable to expect great visitor parking in such an area.*
- *I can't have guest unless they take public transport or arrive Sunday.*
- *We would cycle more if Khyber Pass was safer to cycle on. We also find it difficult to walk along Khyber Pass. The pedestrian phasing at the lights is awkward and lack of footpath delineation.*
- *Not enough parking*
- *Not enough. Live in apartment and have two parks nothing for visitors*
- *No visitor parking*
- *Need more for visitors. No options in surrounding streets e.g. Huntly Ave.*

7.2.4.8 Comparative scores for the Category

The average overall residents' score for the '**Connectivity**' category comes to 3.50. This compares to an average score from the desktop and developers review of 4.08.

7.2.5 Liveability – Living in Your Home

The Liveability questions cover a wide range of topics including building quality, dwelling personalisation and storage space, noise, privacy, security, outdoor space and engagement with the wider community.

Table 5: Results for Hypatia: Liveability

Liveability						
Related aims and outcomes: Providing quality facilities and facilitating positive interactions between residents and the wider community (see Sub-Categories below)						
RESIDENTS SURVEY				DEVELOPERS REVIEW		
	Living in your home Survey Text <i>"These questions tell us more about your living space, as well as your feelings of security, and your household's involvement in the wider community."</i>			Liveability Survey Text: <i>"This section looks at the provision of quality features and approaches that facilitate positive interactions between residents and the wider community and enable residents to lead fulfilled, engaged and satisfied lives. Each feature is rated from 1 to 5 where 1 determines that there was no consideration with respect to providing for the particular liveability aspect and 5 determines that the development follows best practice principles."</i>		
Framework Sub-Category	Survey questions	Adapted Score	Responses	Scores given against Outcomes for Framework Sub-Categories via interview with developer and site review [Scored from 1 to 5]	Score	Developer comments
Building quality	How do you rate the following? [Very poor / Poor / Reasonable / Good / Excellent / NA] <i>"Quality and durability of your home"</i>	4.21	28	The building design and use of materials provide quality homes that are durable and easy to maintain	5	High quality materials - Outside requires zero maintenance as the facade is brick
Personalised dwellings	How do you rate the following? [Very poor / Poor / Reasonable / Good / Excellent / NA] <i>"How easily you can modify your home as your needs change"</i>	2.91	22	Dwellings and private spaces can be personalised or modified to account for changing needs over time including appropriate provision of universal designed dwellings	5	Residents are free to decorate their spaces and undertake planting on their decks - 20% of apartments are universally designed

Storage	How do you rate the following? [Very poor / Poor / Reasonable / Good / Excellent / NA] "Storage available for your household's lifestyle or hobbies"	3.43	28	Residents are provided with appropriate personal or shared storage space to accommodate their lifestyle requirements	5	<i>Storage lockers are provided in the basement for each apartment</i>
Technological integration	Developer only question			Utilities are easily accessible enabling the integration of new technologies into buildings	3	<i>The is nothing specific here - There is an accessible distribution board - there is BB fibre already installed and easy access ducts</i>
Noise control	What do you think of other features of your home? [Very poor / Poor / Reasonable / Good / Excellent / N/A] "Level of noise from other residents and the wider neighbourhood"	4.11	27	Design and ongoing management reduce noise to acceptable levels between dwellings as well as between dwellings and public spaces	5	<i>Designed to be over spec and beyond code (63 STC) - There are no reported problems with vertical acoustics - However there can be horizontal noise transfer between apartments with hard shoes on wooden floors</i>
Privacy	What do you think of other features of your home? [Very poor / Poor / Reasonable / Good / Excellent / N/A] "Sense of privacy within your home"	4.14	28	Dwelling design provides adequate, quiet, private space allowing residents a sense of retreat	4	<i>There is a garden area off the pool.</i>
Interactive space	What do you think of other features of your home? [Very poor / Poor / Reasonable / Good / Excellent / N/A] "Any shared laundry and drying facilities"	2.60	5	Provision and maintenance of high quality internal spaces where people are likely to interact (e.g. laundry, shared rooms or other communal spaces)	4	<i>There is a pool - large lobby - spa and outdoor garden</i>
Outdoor space	What do you think of other features of your home? [Very poor / Poor / Reasonable / Good / Excellent / N/A]	3.08	25	Residents have direct access to well-maintained public outdoor space with facilities that are appropriate to the resident demographic	5	<i>Apart from the garden area off the pool there is very easy access to the Auckland Domain</i>

	"Quality of outdoor spaces including gardens and play area"					
	What do you think of other features of your home? [Very poor / Poor / Reasonable / Good / Excellent / N/A] "Overall maintenance of the building and surrounding outside spaces"	3.75	28	Residents only question		
Security	How safe or unsafe do you feel in the following situations? [Very unsafe / A bit unsafe / Fairly safe / Mostly safe / Very safe] In your home after dark	4.68	28	Provision of security features, lighting, active and passive surveillance provides a safe environment for all residents within their homes and throughout the site	5	<i>There are lighting sensors and security cameras at entrances and on each floor</i>
	Around your property after dark	4.21	28			
	Walking alone in your neighbourhood after dark	3.61	28			
	Safety of children under 14 when playing around your property at all times	3.15	26			
Emergency preparedness	Does your household have a plan for how to respond to emergencies? [Yes / No / Don't know] - <i>50% yes / 21% No/ 29% Don't know</i>	2.5	28	Design considerations and a site based emergency preparedness plan take account of residents' needs while supporting wider neighbourhood resilience	2	<i>A standard fire plan - but no wider community plan</i>
Engagement	How would you best describe your household's involvement with residents' activities and issues? Not interested Interested but not active Read information or interact online Attend meetings or events Organise meetings or events	3.1	28	Residents are encouraged to engage with issues affecting site operation and management and maintain active interactions with each other and the surrounding community (e.g. residents' newsletters and meetings and wider community events)	3	<i>There is an active body corporate that has quarterly meetings but no other encouragement</i>

	How would you describe your households' relationship with the wider community? No interest in the community The community is not very welcoming We are getting to know people and places We take part in some community events We are fully part of the community	2.7	28			
Satisfaction	Developer only question				Resident satisfaction with the site, building and wider neighbourhood is regularly monitored to continually improve site management and inform future development	4
	Overall, how would you rate your neighbourhood as a place to live? {Very poor / Poor / Reasonable / Good / Excellent}	3.89	27		Residents only question	

Overall Category
Score:
Liveability
Residents' Average 3.50
Developer's Average 4.17

7.2.5.1 Building quality

The residents provided an overall average score of 4.21 out of 5 for the ‘quality and durability’ of their home with 39% rating this as good and 43% rating this as excellent. The developer’s comments highlight the quality of materials that are used and that a brick façade requires little exterior maintenance.

7.2.5.2 Personalised dwellings and storage

The developers provided ratings of 5 out of 5 for both these categories stating that residents could decorate their spaces and that apartments had additional storage in the basement. Residents rated these elements lower. They provided a score of 2.91 for ease of modifying their home (with 7% of respondents stating this was excellent). In respect to storage, the residents’ average score was higher at 3.43 (11% stating that this was excellent).

7.2.5.3 Noise control and privacy

Overall, noise control and privacy were rated quite highly by residents at 4.11 and 4.14 respectively. Of the 27 respondents who rated the ‘level of noise from other residents and the wider neighbourhood’, only one rated it as poor while 11 rated it as good (41%) and 10 (37%) rated it as excellent. 46% rated the sense of privacy within their home as excellent providing this category with a higher overall rating than given by the developer.

7.2.5.4 Interactive and outdoor space

The rating of interactive spaces perhaps provides the greatest discrepancy in terms of questions and answers, as residents were specifically asked about laundry and drying facilities and the developer question included these as well as other features. This explains why the developer scored this highly – referencing the pool, spa, lobby and shared garden areas. Only 5 respondents answered this question providing a low average score (2.6) for non-existent shared laundry facilities. Interestingly enough one resident actually provided a score for these facilities. This question will be revised in future editions of the survey in order to more closely align the ‘interactive space’ questions for developers and residents.

In terms of outdoor space, residents were asked about the quality of these and the overall maintenance of the building and surrounding spaces. These received a score of 3.08 and 3.75 respectively. Over a quarter (28%) considered the quality of outdoor spaces to be poor however 68% considered these to be from reasonable to excellent. ‘Overall maintenance of the building and surrounding outside spaces’ was rated as excellent by 25% of respondents, as good by 46%, and reasonable by 14%.

7.2.5.5 Security

Residents were asked a number of questions relating to their feelings of safety. A total of 82% stated that they felt ‘very safe’ in their homes after dark with only one respondent stating they felt ‘very unsafe’. 43% felt ‘mostly safe’ around the property after dark and a further 43% felt ‘very safe’. Two people (7%) felt ‘very unsafe’ walking alone in the neighbourhood after dark compared with 12 (43%) that felt mostly safe and 6 (21%) that felt very safe. Of the 26 residents that rated the ‘safety of children under 14 playing around the property at all times’, 19% stated this felt ‘a bit unsafe’ and 12% stated that it felt ‘very unsafe’. However, 50% considered it was mostly safe.

7.2.5.6 Emergency preparedness

The developer stated that there was no specific community-based emergency preparedness plan. However, half of the residents noted that they had a personal plan. In order to generate an adapted average for this sub-category, these 50% were converted to 50% of a maximum score, i.e. 50% of 5 = 2.5.

7.2.5.7 Engagement

The developer noted that, other than the active body corporate, there was no specific efforts to encourage resident interaction on site or with the wider community. The residents themselves showed a reasonable amount of interaction with 32% stating they were interested but not active, 28% stating they read information or interacted online, 36% stating they attended meetings and events and one resident noting that they organised meetings or events.

In response to the question, “How would you describe your households’ relationship with the wider community?”, 9% stated they had no interest in the community, 18% considered that the community is not very welcoming, 64% noted they were getting to know people and places, and 9% took part in some community events. Given that the development is reasonably new, it is unsurprising that no resident stated that they were fully part of the community. However, these responses may warrant some further consideration in order to understand why some residents feel less welcome in the wider neighbourhood.

7.2.5.8 Satisfaction

The final rating question for developers in this section determined how regularly resident satisfaction was monitored in order to pick up on issues and inform future development. The developer noted that their very involvement in the Medium Density Assessment Tool case study project indicated their willingness to gain feedback, and that, overall, communication with residents has been very positive to date. Residents were asked, overall ‘how they rated their neighbourhood as a place to live’. A total of 27 respondents provided an average rating of 3.89 with 30% stating it was reasonable, 52% stating it was good and 19% stating that it was excellent.

7.2.5.9 Do you have comments about living in your home?

A total of six residents made comments – the following is a selection of points raised:

- *Pool construction period was too long*
- *Drying laundry outside is discouraged. One of the aspects I miss about living in a normal house..*
- *Safe and good environment.*
- *The pool takes ages to fix (more than 4 months and still going). Our appliances have horrible energy rating but we are not allowed to change it as tenants. We get roughly 2 hours of sun a day when we are not home (around 2-4 pm). We are not allowed to dry our clothes outside*
- *Storage area is proving to be damp. Pool has issues.*

7.2.5.10 Comparative scores for the Category

The average overall residents’ score for the category of ‘**Liveability**’ comes to 3.50. This compares to an average score from the developers review of 4.17. Although not a huge disparity in scores, the divergence of the residents’ and developer’s assessment may be partially explained by the teething issues regarding the pool and commissioning / maintenance of some aspects in the apartments.

7.2.6 Sustainability

The sustainability questions aimed to determine infrastructural elements and features that enabled the efficient use of resources, and whether residents utilised these to their fullest extent. Sub-categories related to climate adaptability, use of building materials, solar gain, warmth and dryness, energy and water efficiency, waste minimisation, ecology and storm water management.

A note of caution is recommended when reviewing the developers scores for this section. Conversations with the developer highlighted a thorough knowledge of sustainable design issues, technologies and approaches. In addition, Ockham Residential have been industry leaders in relation to incorporating sustainability features into many of their buildings (with very high Homestar rated developments currently under construction). As a result, the scores provided by the developer in this Category reflect the extent to which they felt they could, and have done, better in these areas in other developments. The reviewers undertaking the interview felt that the developer was potentially being overly self-critical – and an independent or comparative review against other ‘business as usual’ developments is likely to have scored Hypatia more highly.

Table 6: Results for Hypatia: Sustainability

Sustainability						
Related aims and outcomes: Efficient and cost-effective resource use through design, behaviour and technological advancement (see subcategories below)						
RESIDENTS SURVEY				DEVELOPER REVIEW		
	<i>Note: sustainability questions for residents were included in the ‘liveability’ section of the Residents’ Survey to simplify and shorten the survey design and maximise engagement</i>			Sustainability <i>Survey Text “This section looks at features and aspects of the development (site and buildings) that enable and encourage efficient cost-effective resource use through design, behaviour and technological advancement. Each aspect is rated from 1 to 5 where 1 determines that there was no consideration with respect to providing for sustainability and 5 determines that the development follows best practice principles.</i>		
Framework Sub-Category	Survey questions	Adapted score	Responses	Scores given against Outcomes for Framework Sub-Categories via interview with developer and site review [Scored from 1 to 5]	Score	Developer comments
Climate adaptability	Developer only question			Design considerations account for extreme weather variations (e.g. temperature, rainfall, wind), changing sea levels, flooding and wild fire where appropriate	4	Extensive considerations to exceed specs - Homestar 6 rating. There is an extra .5mm of glazing to control

						sound and reflective materials to reduce heat
Building materials	Developer only question				Building materials can demonstrate durability and third party eco-labelling or responsible sourcing (e.g. FSC / NZ Environmental choice) while ensuring that any waste is recycled and any soil contamination on site is remediated	2 Not specifically - not much attention was paid to this
Solar gain	What do you think of other features of your home? [Very poor / Poor / Reasonable / Good / Excellent / N/A] "The amount of sunlight coming into your home"	4.04	28		Building orientation takes account of seasonal variations to minimise heating, cooling and lighting requirements	3 Not much additional attention was paid to this
Warmth and dryness	Thinking about home comfort, how easy it is to do the following? [Very hard / Hard / Reasonable / Easy / Very easy]				Building design maximises thermal efficiency and comfort and effectively controls moisture through insulation, glazing and ventilation	4 The design model was developed to meet Homestar 6. There are movable screens on the sunny side and more overhang for this building than might usually be expected
	Heat your home in winter	4.57	28			
	Cool your home in summer	4.29	28			
	Keep your home dry and free from mould	4.25	28			
	Dry your clothes outside	1.61	28			
Energy efficiency	How often do you do the following? [Not an option / Not interested / Interested and want to know more / Sometimes do this / Do this most of the time]				Energy management maximises the use of renewable supply, the use of efficient appliances and reduces the need for energy use where appropriate (e.g. through the provision of outside areas for clothes drying)	2 The apartment is on the grid- There were no specific choice options for appliances - There are no communal areas for drying clothes
	Save energy	3.86	28			

Water supply and heating	<p>How often do you do the following? <i>[Not an option / Not interested / Interested and want to know more / Sometimes do this / Do this most of the time]</i></p> <p>Save water</p>	2.68	28		Water management reduces demand through low flow devices and efficient water heating technologies and optimises supply through rain water harvesting and grey water recycling	3	Water devices are standard low flow - progressively moving to front loader washing machines when possible
Recycling and composting	<p>How often do you do the following? <i>[Not an option / Not interested / Interested and want to know more / Sometimes do this / Do this most of the time]</i></p> <p>Reduce waste or recycle</p>	4.39	28		Provision and active management of waste, recycling and composting facilities to ensure appropriate site placement and ease of use	5	The site has a worm farm - Organic waste is coming, cardboard, recycling and waste is already separated
	<p>How often do you do the following? <i>[Not an option / Not interested / Interested and want to know more / Sometimes do this / Do this most of the time]</i></p> <p>Compost food waste</p>	3.04	26				
	<p>What do you think of other features of your home? <i>[Very poor / Poor / Reasonable / Good / Excellent / N/A]</i></p> <p>Waste management facilities</p>	3.71	28				

Native ecology	<p>How often do you do the following? <i>[Not an option / Not interested / Interested and want to know more / Sometimes do this / Do this most of the time]</i></p> <p>Take part in local environmental activities</p>	2.82	28		Proactive approaches monitor air and water quality and encourage residents to enhance biodiversity through the protection of local habitats and waterways	1	
Gardening and food production	<p>How often do you do the following? <i>[Not an option / Not interested / Interested and want to know more / Sometimes do this / Do this most of the time]</i></p> <p>Garden or grow your own food</p>	1.93	28		Space is provided for outdoor activities (e.g. gardening or growing food) where possible or appropriate	1	No space allocated for this
	Buy locally grown food	3.43	28		Residents only question		
Home user guide	Developer only question				Information is provided to residents on the efficient use of building features, appliances and neighbourhood facilities	3	Nothing other than standard manuals
Storm water management	Developer only question				Storm water management minimises flooding, run-off and associated pollution	3	Drainage work improved the existing drainage - Otherwise nothing above the required specifications

Overall Category
Score:
Sustainability
Residents' Average
3.51
Developer's Average
2.82

7.2.6.1 Climate change and building materials

The first two sub-categories were only asked of the developer who noted that there were considerable efforts to exceed specifications resulting in an overall Homestar rating of 6 and resulting in their score for climate adaptability of 4 out of 5. The developer then noted that although building materials had been chosen for durability and low-maintenance longevity, no specific attention was paid to the use of eco-labelled or eco-sourced materials. Therefore, a score of 2 out of 5 was suggested (by the developer) for this sub-category.

7.2.6.2 Solar gain

While the developer noted that there was not much attention paid to overall solar gain, the residents rated the amount of sunlight coming into their home as 4.04 out of 5 with 29% stating that this was 'good' and 43% stating that this was 'excellent'.

7.2.6.3 Energy efficiency

The developer noted that there were no specific efforts to provide renewable energy supply and that there were no options for energy efficient appliances. Alongside this, residents on average provided a score of 3.86 out of 5 when asked how often they saved energy. Interestingly, 46% stated that they saved energy most of the time, while 29% stated that they were interested and wanted to know more. This suggests that residents would indeed be interested in, and benefit from, more energy efficient appliances which could help to lower energy costs and reduce their overall carbon foot-print.

7.2.6.4 Water supply and heating

The developer noted that water devices within apartments are standard low flow and that front loader washing machines would replace top loaders when possible. 32% of residents wanted to know more about saving water while 32% stated that they saved water most of the time, and 21% saved water sometimes.

7.2.6.5 Recycling and composting

The developer noted that a worm-farm was available, that cardboard and recyclables were already separated and that organic waste collection was coming as part of increased Auckland Council services. Residents generally scored the building's waste management facilities as 3.71 out of 5 although they were less likely to compost food waste (score of 3.04) than they were to reduce waste or recycle (score of 4.39).

7.2.6.6 Native ecology, gardening and food production

The developer noted that there was no ongoing monitoring of air or water quality and that there was no available space for gardening or food production on site. The residents, however, made some effort to take part in environmental activities with 8 either doing this 'sometimes' or 'most of the time'. A further 8 residents were interested and wanted to know more. 6 residents noted that they sometimes grew their own food, while 9 sometimes bought locally grown food and 7 did this most of the time. This last question provided an average score of 3.43; however, this was not included in the overall average rating for this Category section as it is not something that developers have much opportunity to change.

7.2.6.7 Comparative scores for the Category

The average overall residents' score for the Category of '**Sustainability**' comes to 3.51. This compares to an average score from the developer's interview of 2.82. As noted above, this is considered to be based on the reflections of a knowledgeable developer who clearly understands the strong contribution that sustainable buildings can make. Having said that, the similarly low score from residents is also indicative that without key sustainability features in place (as per other higher Homestar rated buildings in Ockham Residential's portfolio), householders find it harder to achieve sustainable outcomes.

7.3 Summary scores

The table and the graph below provide an indication of the summary scores for each category and broadly compares both the residents' overall average category scores with the scores provided through the developer and site review.

	CHARACTER CONTEXT, IDENTITY	CHOICE	CONNECTIVITY	LIVEABILITY	SUSTAINABILITY
Developer's interview	4.75	4.33	4.08	4.17	2.82
Residents' Survey	3.97	4.13	3.50	3.50	3.51
Comparative Differential	0.78	0.2	0.58	0.67	0.69

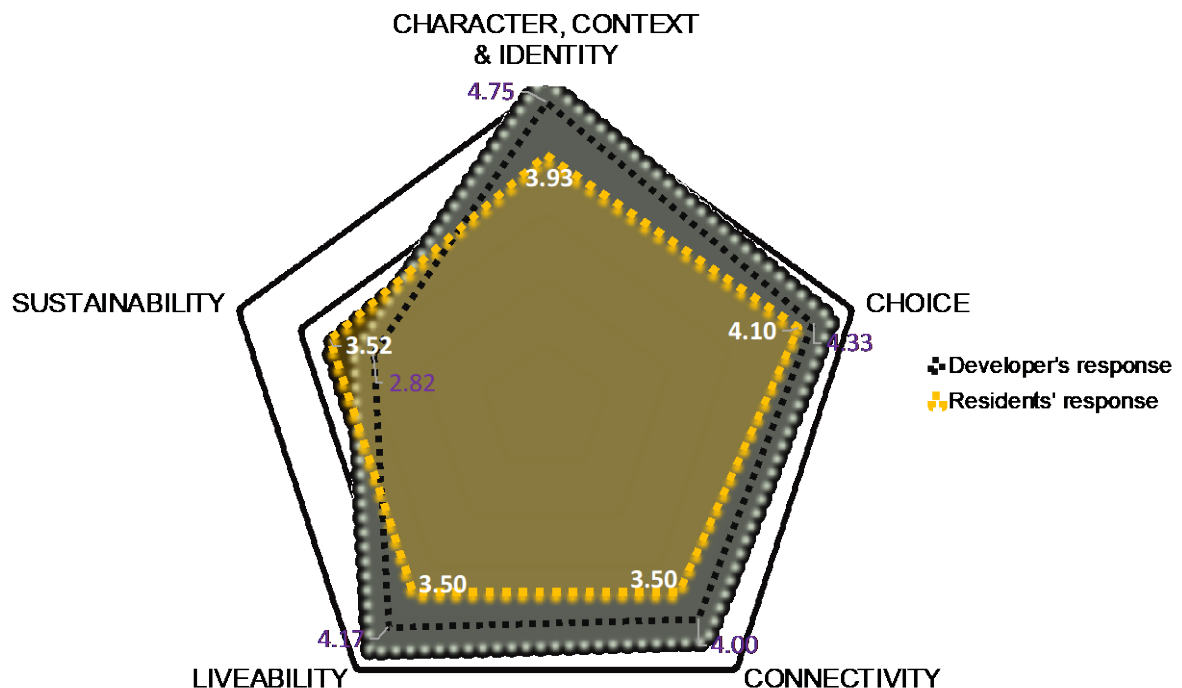


Figure 7: Hypatia Resident and Developer Category Result Spider Diagram

The diagram shows that the developers scores are generally higher than the average of the residents scores for most sections except for sustainability, which, as noted, is subject to particularly 'firm' scoring from the developer. There is generally solid alignment with Character, Context and Identity being the most varied with a comparative differential of 0.82 (out of 5).

The spider or radar diagram provides a simple visual snapshot of the assessed development. In general terms Hypatia scores well across the bulk of the categories, sub-categories and outcome focussed areas leading the research team to conclude that this is a very good example of medium density development.

7.4 Summary of results for developers

Living at Hypatia

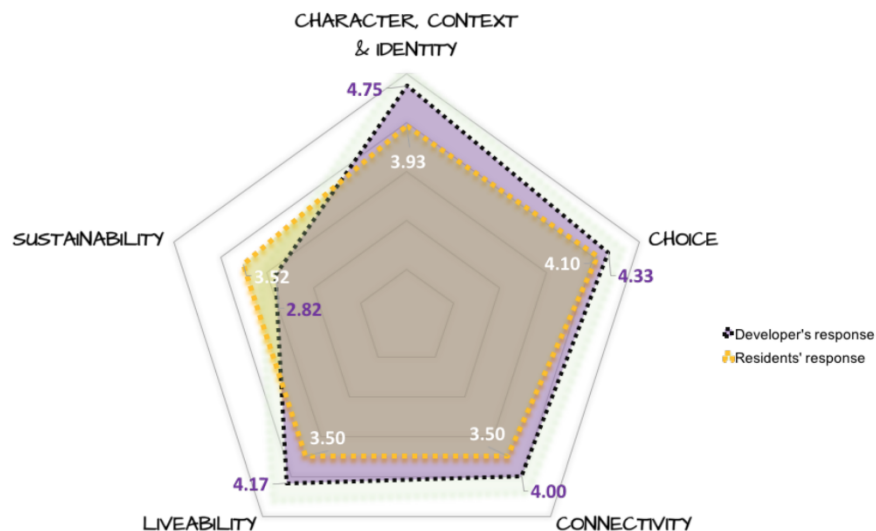
A comparison of resident and developer perspectives



Residents and developer were asked to rate a range of aspects relating to their site, building, living spaces, and access to key destinations. The residents' average score for each topic has been adapted from their survey responses, while the developer's scores were collected during an interview. Scores are from 1-5 and are presented for the following five sections:

- 1 Character, context and identity
- 2 Choice
- 3 Connectivity
- 4 Liveability
- 5 Sustainability






A broad comparison of residents and developer scores for each category can be seen below:



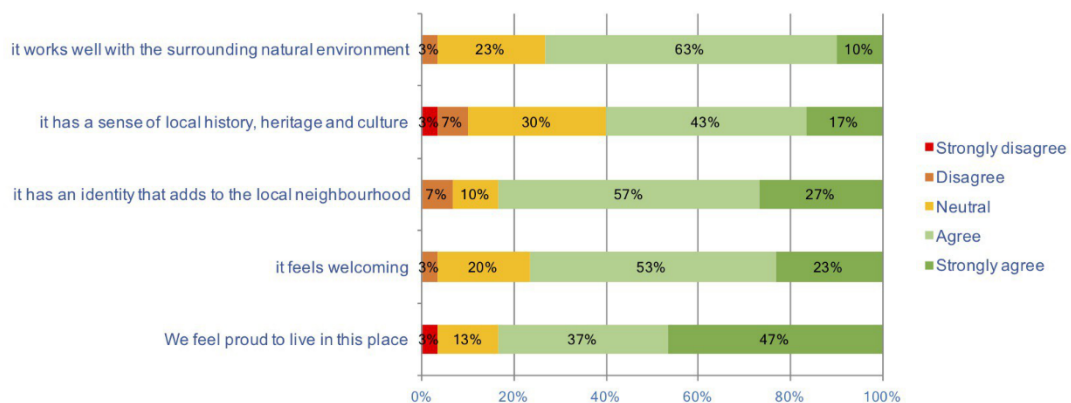
Each of the following sections outline the results in more detail with any additional information that was collected from residents, the developer, or during an independent site review.

Character, context and identity

To develop a site and buildings that integrate with, or relate to, the existing natural and physical environment as well as building form and style in the surrounding neighbourhood







	Residents	Developer
 Environment and physical landscape Natural environmental elements are integrated within the site which aligns with slope and form and enhances geographic features.	3.80	N/A
 Heritage and culture The site takes account of local history, honours heritage and culture, and seeks community direction.	3.63	5.00
 Identity and sense of place Site design and layout, key features, and artistic works have been developed to create an identity and 'sense of place'.	4.13	5.00
 Building character The building design and materials integrate with, and enhance, the surrounding neighbourhood character.	N/A	4.00
 Streetscape Entranceways and frontages are designed to be welcoming, accessible, and are in context with and enhance the overall character.	3.97	5.00
	Average 3.93	Average 4.75

More detail on residents' responses to this section is shown below:



Choice

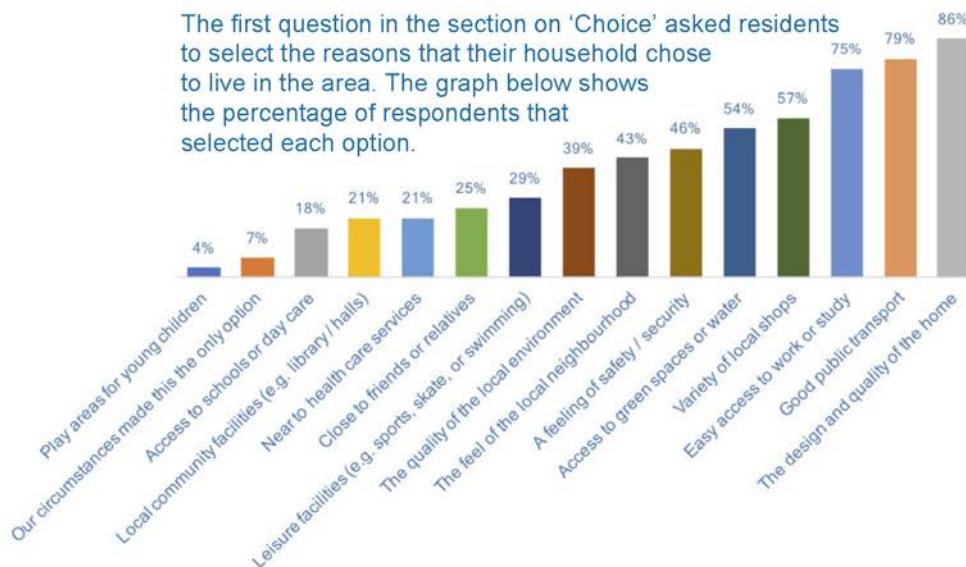
The development provides for, and enables, occupancy by a diverse range of residents who can benefit from, and support, a thriving local economy

	Residents	Developer
 Opportunity Proximity to local centres and other key destinations enables residents to live, work and play in their surrounding neighbourhood.	4.61	5.00
 Residential dwelling typology The provision of dwelling typologies offers an appropriate choice with regards to existing neighbourhood demographics as well as the demographics of targeted residents.	4.10	5.00
 Affordability A range of dwelling options and supporting financial instruments provide residents of varying means with the ability to live in quality accommodation (e.g. starter home / buy to let / financial assistance).	3.70	4.00
 Tenure Diverse and flexible tenure arrangements provide opportunities for residents to either own or rent quality accommodation.	N/A	5.00
 Building adaptability Building designs exhibit a range of adaptability and floor plan flexibility responding to changing requirements, and the potential for mixing use over time (e.g. the ability to adapt a residential building to incorporate commercial activity).	N/A	2.00
 Population density The number of dwellings per hectare and population density are in line with existing and planned infrastructure and services (e.g. transport, stormwater, local amenities).	N/A	5.00
Average	4.13	4.33

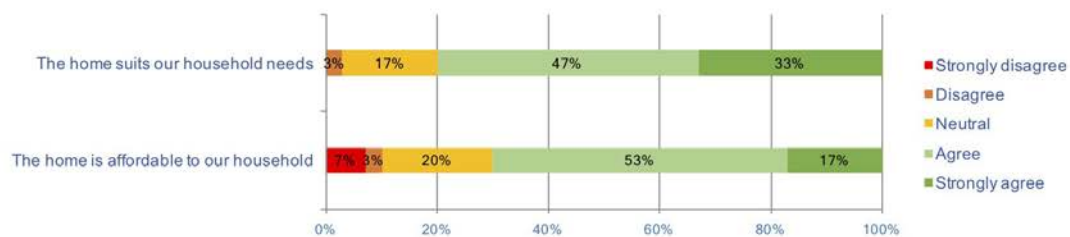
Choice

A more detailed look at residents' responses...

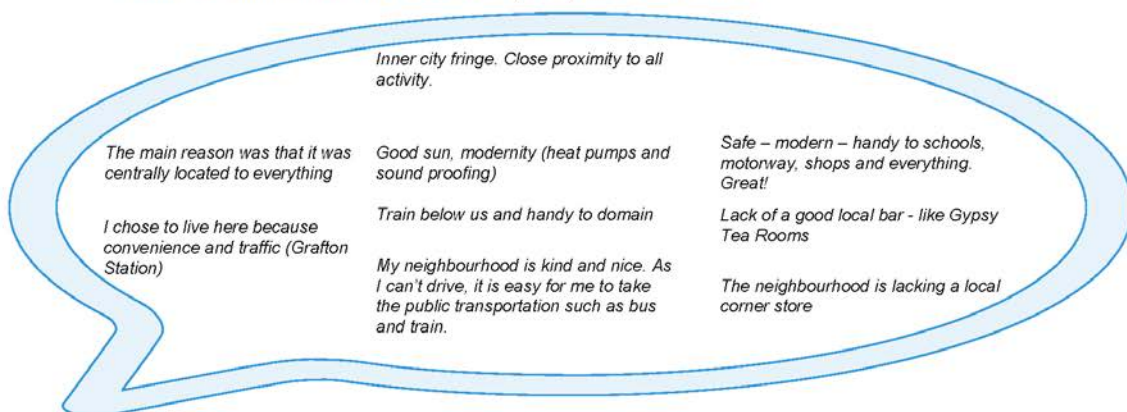
The first question in the section on 'Choice' asked residents to select the reasons that their household chose to live in the area. The graph below shows the percentage of respondents that selected each option.



Additional questions on suitability and affordability were weighted to help to determine residents' average scores:









Residents' comments on the area and why they chose to live here...



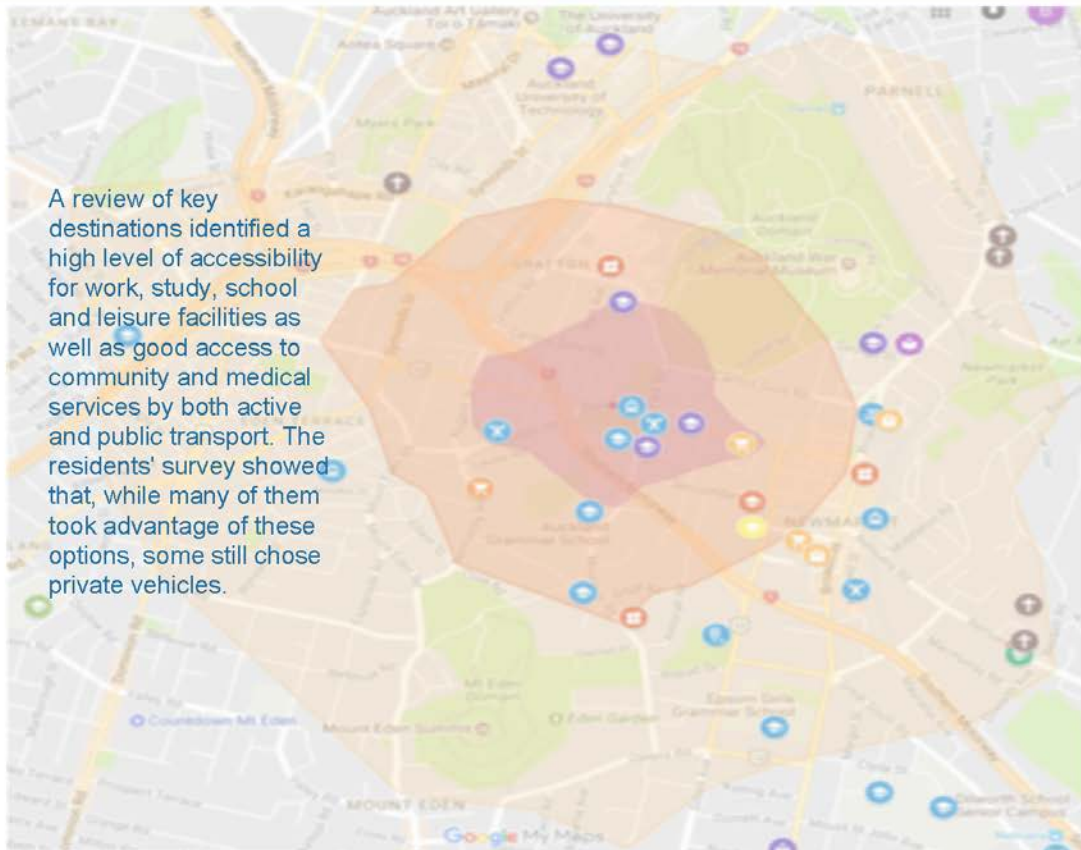
Connectivity

Connecting infrastructure enables safe, universal access using active, assisted mobility, shared, and private modes of transport within and through the site to identified key destinations

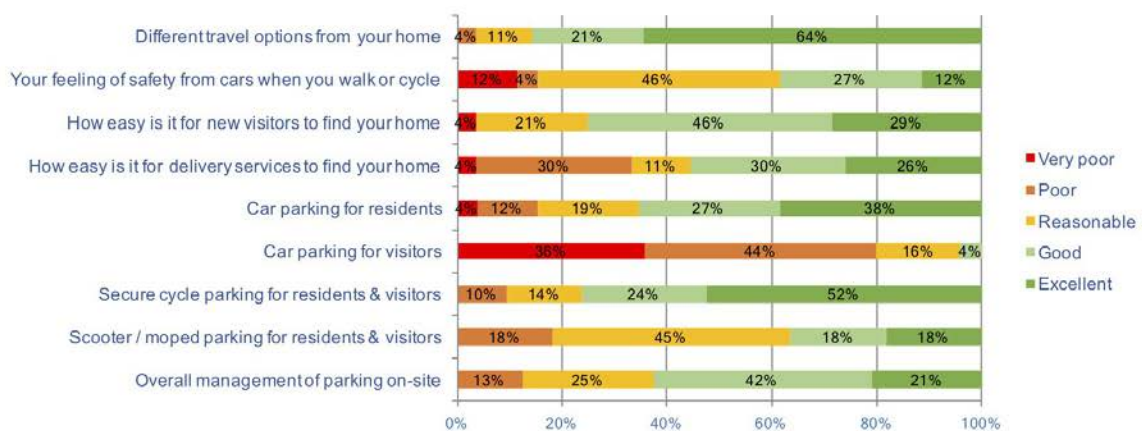
	Residents	Developer
 Accessibility to key destinations <p>The extent of accessibility to key destinations is based on distance, infrastructure and services that enable safe travel on foot, by cycle, on frequent public transport, by car, or with mobility aids.</p>	3.43	4.56
 Permeability <p>Permeability within and through the site supports wider neighbourhood connectivity and facilitates access to surrounding destinations.</p>	N/A	N/A
 Transport choice <p>Residents considered the range of transport choice from their home, while the developer scored the extent of proactive measures to encourage active and shared transport.</p>	4.46	1.00
 Safety from vehicles <p>Design considerations reduce physical conflict between cars and other users within the site and at access points.</p>	3.23	4.00
 Wayfinding and access for services <p>Wayfinding and signage to and around the site facilitates visitor movement and the identification of resident dwellings, while ensuring that designs and naming are appropriate to the site's overall identity.</p>	3.70	3.00
 Parking provision and management <p>The residents ranked a number of factors including vehicle, moped, and cycle parking for residents and visitors, and overall management of the site.</p>	3.40	N/A
Average	3.50	4.08

Connectivity

More detail on residents' responses










Additional questions on travel options and parking were weighted to help to determine residents' average scores:



Liveability

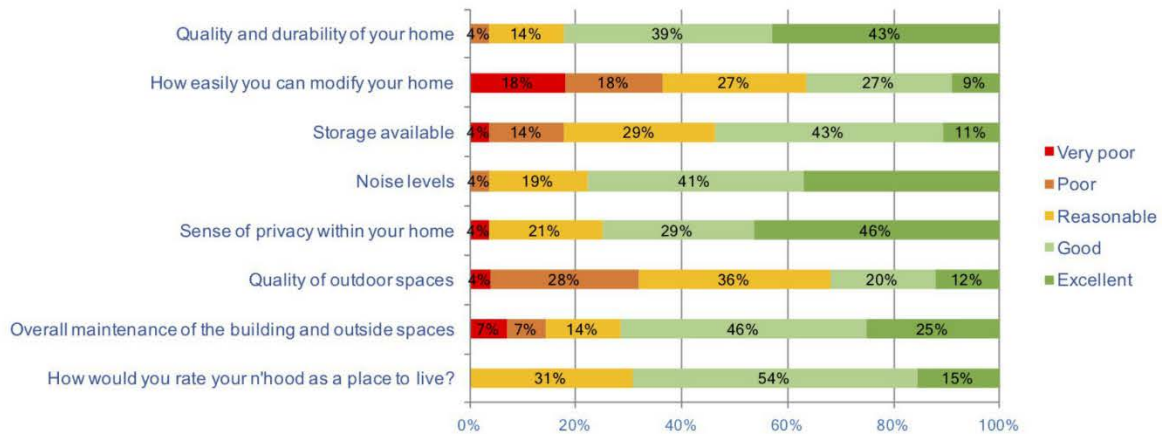
Providing quality facilities and facilitating positive interactions between residents and the wider community

	Residents	Developer
 <p>Building quality</p> <p>The building design and use of materials provide quality homes that are durable and easy to maintain.</p>	4.21	5.00
 <p>Personalised dwellings and storage</p> <p>Dwellings and private spaces can be personalised or modified to account for changing needs over time and have appropriate storage for lifestyle requirements.</p>	3.17	5.00
 <p>Technological integration</p> <p>Utilities are easily accessible enabling the integration of new technologies into buildings.</p>	N/A	3.00
 <p>Noise control and privacy</p> <p>Design and ongoing management reduce noise to acceptable levels between dwellings as well as between dwellings and public spaces, while overall dwelling design provides adequate, quiet, private space allowing residents a sense of retreat.</p>	4.13	4.50
 <p>Interactive and outdoor space</p> <p>Provision and maintenance of high quality internal and outdoor spaces where people are likely to interact (e.g. laundry, shared rooms or other communal spaces).</p>	3.46	4.50
 <p>Security and emergency preparedness</p> <p>Provision of security features, lighting, active and passive surveillance provides a safe environment for all residents within their homes and throughout the site.</p>	3.63	3.50
 <p>Engagement and satisfaction</p> <p>Residents are encouraged to engage with issues affecting site operation and maintain active interactions with each other and the surrounding community. Resident satisfaction is regularly monitored.</p>	3.23	3.50
Average	3.50	4.17

Liveability

A closer look at residents' responses

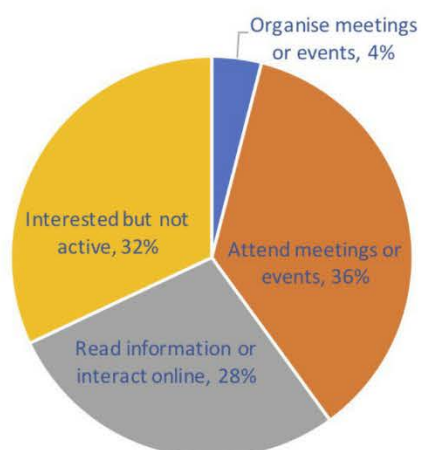
Residents were asked to rate aspects of their home and surroundings:



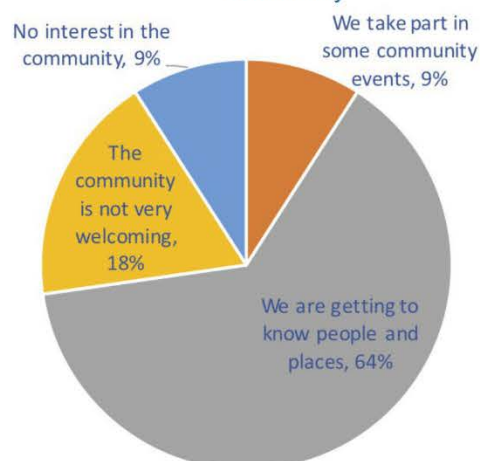
They also gave feedback on their feelings of safety and security:



They were asked what best described their household's involvement with residents' activities and issues






...and what best described their household's relationship with the wider community



Sustainability

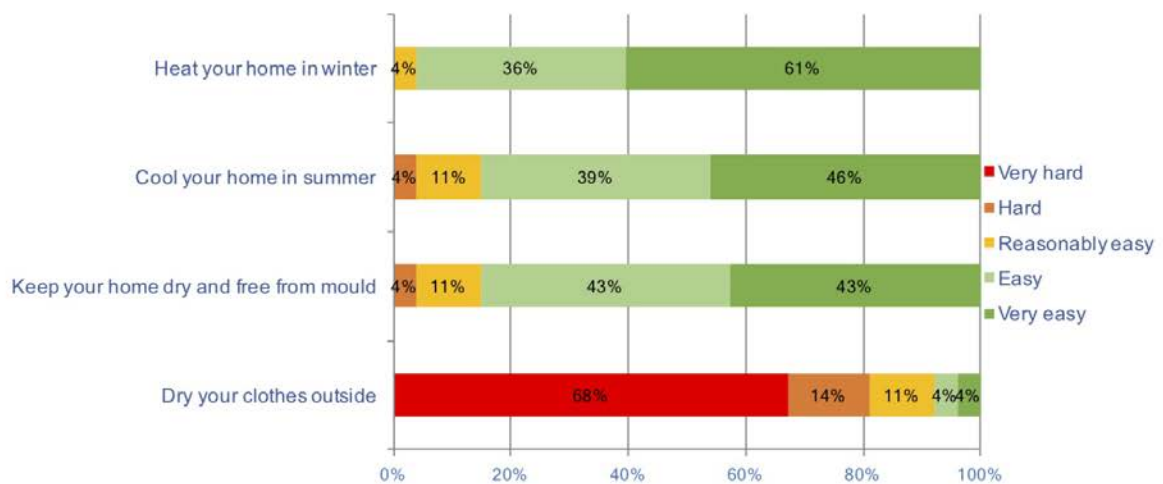
Efficient and cost-effective resource use through design, behaviour and technological advancement

	Residents	Developer
 Climate adaptability <p>Design considerations account for extreme weather variations (e.g. temperature, rainfall, wind), changing sea levels, flooding and wild fire where appropriate.</p>	N/A	4.00
 Building materials <p>Building materials can demonstrate durability and third party eco-labelling or responsible sourcing, while ensuring that any waste is recycled and any soil contamination on site is remediated.</p>	N/A	2.00
 Solar gain <p>Building orientation takes account of seasonal variations to minimise heating, cooling and lighting requirements.</p>	4.04	3.00
 Warmth and dryness <p>Building design maximises thermal efficiency and comfort, and effectively controls moisture through insulation, glazing and ventilation.</p>	3.68	4.00
 Energy and water efficiency <p>Energy and water management maximises the use of renewable supply as well as the use of efficient appliances where appropriate.</p>	3.77	2.50
 Recycling and composting <p>Provision and active management of waste, recycling and composting facilities to ensure appropriate site placement and ease of use.</p>	3.71	5.00
 Native ecology, gardening and food production <p>Proactive attempts to enhance environmental quality and biodiversity and provision of outdoor space for gardening, and food production.</p>	2.73	2.00
Average	3.51	2.82

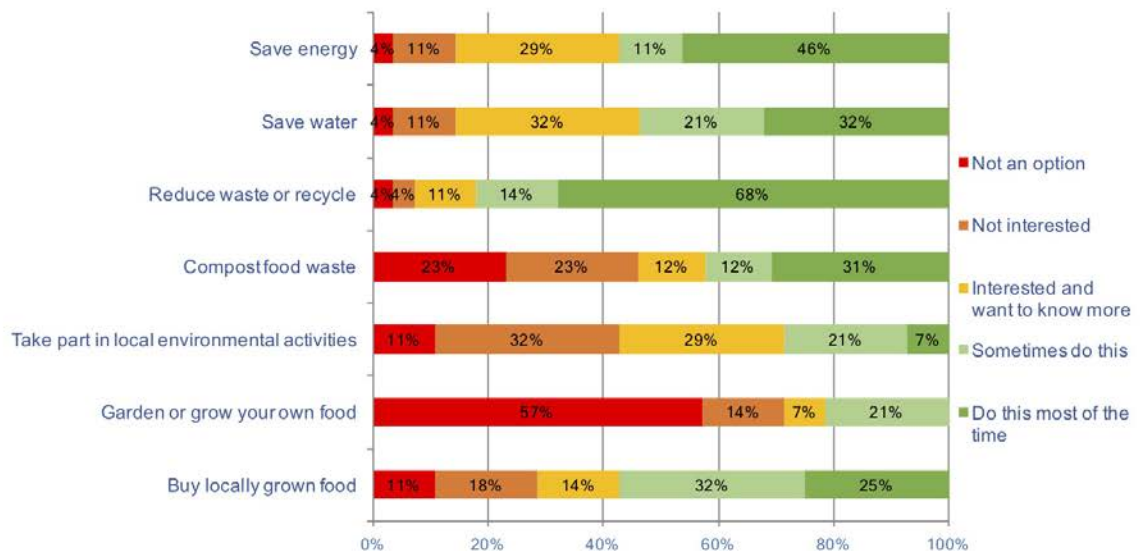
Sustainability

More information on residents' environmental behaviours

Residents stated the ease with which they could control temperature and moisture in their homes:



...and how often they engaged in some sustainable actions:



7.5 Summary of results for Hypatia residents

Living at Hypatia

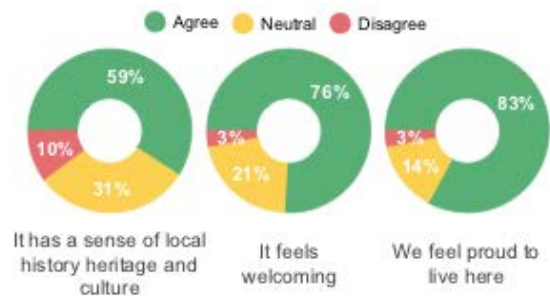
A total of 30 residents kindly responded to our survey request representing around 45% of all households. This is a summary of what you told us...



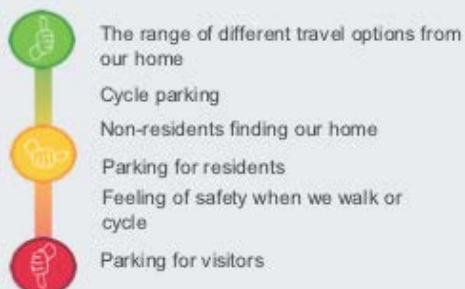
Top 5 reasons why we moved here...



How we feel about Hypatia...



How we rate travel and parking...



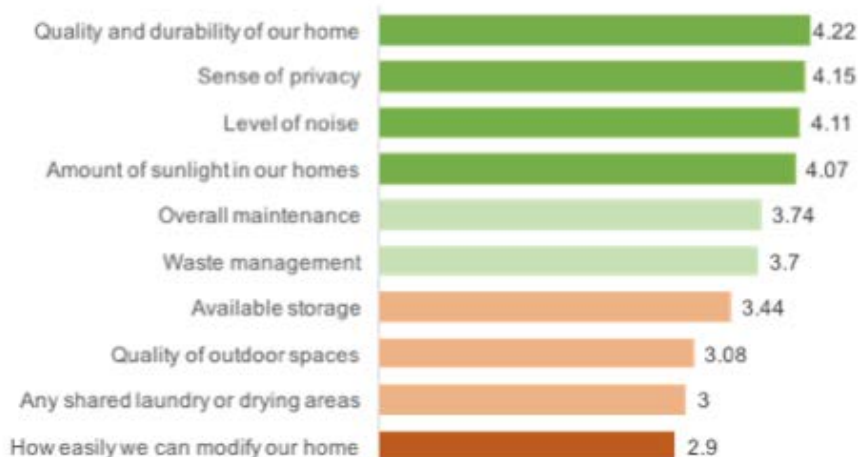
How we travel to work, school & study (%)



How we travel to other destinations (%)



How we ranked other things (as a score out of 5)...



Overall we...

Find it very easy to:

Heat and cool our homes,
keep them dry and free from mould

Find it a harder to:

Dry our clothes outside

Are more likely to:

Reduce or recycle our waste and save energy
and save water

Are less likely to:

Take part in local environmental activities, compost
food waste or grow our own food



Hypatia feels like a safe place to live
around the clock



Over half of residents have an emergency response plan



Over 60% of us keep informed about our local community
by reading information or attending meetings

While a few residents take part in community events, over
half feel they are still getting to know people and places



Things we love...



Quality design
How well the home suits
our needs
Great access

Not so much...



Problems with the pool
People keeping to themselves
Some maintenance issues

Of those that answered the survey:



69% of us rate Hypatia as either a good or an excellent place to live



8 Brickworks Development, Hobsonville Point (HLC)

8.1 Introduction and approach

The following report presents an overview of results from the Medium Density Assessment Tool Case Study undertaken at Brickworks in Nov/Dec 2017.

The results of the developer's interview and residents' survey are presented as they relate to the following Category areas of the Medium Density Housing Assessment Tool:

- Site and residents overview including site and building details and residents demographics
- Character, Context and Identity (CCI)
- Choice
- Connectivity
- Liveability
- Sustainability

In order to simplify the language used for residents and streamline the survey, technical jargon was removed (with sub-categories labelled differently) and some sub-categories combined. These differences are indicated below:

Section	Developer's interview	Residents' survey
1	Character Context and Identity	About your neighbourhood
2	Choice	Living in your community
3	Connectivity	Getting around
4	Liveability	Living in your home
5	Sustainability	Sustainability questions included in the 'Living in your home section'

Following data collection on the overall site and residents' demographics, the approach to the remaining topic questions has been adapted to each audience:

For developers:

- Interview questions under each Category (and Sub-Category) determined the extent to which a particular outcome had been achieved
- The language for developer questions was more formal than for residents (in terms of urban design and building definition), without being overly technical
- Developer responses were scored from 1 to 5, where 5 indicates that an action has achieved the best possible outcome and 1 indicates that no action has been taken or no outcome has been achieved. A 'Not Applicable' (N/A) option was also included for any elements that are not relevant - either due to the scale of the development or due to particular constraints relating to the site parameters or other aspects.
- A comments section was included for each question in order that responses could be expanded on and the resulting score justified.
- The developer's questions were asked using an interview framework; methodically working through the Categories and Sub-Categories

For residents:

- Questions under each topic determined the residents' perceptions of outcomes and, where relevant, how this has impacted on their choices or behaviours
- The language was less technical, and aimed to understand a particular issue from the householder's perspective.
- As a result, residents' questions were set in a conversational style which explored the extent to which they agreed or disagreed, or were satisfied or unsatisfied, that a particular outcome had been met.
- The residents' answers were then weighted numerically, for example:

Residents' response	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	N/A
Ranking	1	2	3	4	5	N/A

- This provided the most appropriate means of generating a numerical score for each resident response and an average score for the combined residents' responses to each question. The tallying of adapted average scores for each question allowed an average Category Score to be developed.
- A total of 31 residents' surveys were completed online through Survey monkey and a further 5 were completed as paper copies which had been distributed to every post box in the apartment building.
- Compared to the number of apartments in Brickworks this represents a 60% response rate.

Comparing developer and resident responses

- Average scores for residents' responses were developed to provide an indication of their combined perspective of a particular outcome. While the different approach to the developer's interview and residents' survey means that the results are not 100% comparable, the results of the Residents' Survey can be placed alongside the developer's interview scores to highlight any differences in both groups' perceptions. Exploring these differences can provide valuable insights for users of the tool including:
 - Identifying where the residents consider that the developer objectives have been met
 - Highlighting areas where residents' expectations may not be met by the developer's intent
 - An indication of areas of conflict or convergence
 - Context and background to residents' specific feedback and comments.

With this in mind, developer and resident responses to each Category area are shown in the results section below, following a brief overview of the site and its current residents.

8.1 Results from Brickworks

The following section presents the results of the developer's interview alongside the residents' survey. It includes an overview of the site and resident demographics and results for each of the five main Category areas. Developer and residents' responses are presented side by side in summary tables to provide an indicative comparison.

Each of the five Category results tables below is followed by a brief discussion of key highlights and specific issues raised by the results. Inclusion of comments offered by residents, both positive and negative, provides significant insight to the issues raised in the survey. However, it should be noted that such individual comments are often from a small, but vocal, minority.

8.1.1 Overview of the site and residents

8.1.1.1 The site and development

Background information regarding the site and overall development was collected from a combination of desktop review and interview conversations with the developers. This is summarised below:



Site name	Brickworks
Site Address:	Hobsonville Point Road, Hobsonville
Date of completion	2015
Developer	Homes Land Community (HLC)
Types of dwelling	Apartments (with some integrated commercial space)
Levels	Up to 5 storeys
Numbers of dwellings	60 apartment dwellings: 1 Bed: 4 2 Beds: 55 3 Beds: 1

8.1.1.2 The residents

Demographic questions were asked of residents to gain a snapshot of the type of people living in the building and answering the survey. The majority of apartments were housing two people (84%) followed by single person occupancy (13%) and finally 3 person households (3%). The majority of respondents owned their own home (63%) compared to renting from a private landlord (37%).

In terms of income 23% of residents estimated income in excess of \$100,000, 35% reported income of between \$70,000 and \$100,000, 10% between \$50,000 and \$70,000, and 3% each between \$30,000 and \$50,000, and between \$10,000 and \$30,000. The remaining 26% of respondents did not answer this question.

Of the residents who answered the question about age, the following was recorded for all members of the household:

Age Range	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70+
Percentages	7%	14%	20%	13%	20%	12%	13%	0%

Ethnically the respondents (and those counted in their household) identified primarily as being New Zealand European (40%) followed by Asian (23%), European (18%), African (10%), Middle Eastern (3%), Maori (2%) and Other (3%).

8.1.2 Character context and identity – About your neighbourhood

This section explores a range of site and building related outcomes (including relationships with the physical landscape, heritage, culture and sense of identity). Comparative scores for each of the outcomes is shown in Table 7. It should be noted that throughout the framework, not all questions were appropriate to ask each group and these are indicated in red text (e.g. **developer only question** or **resident only question**).

The residents' questions and *average score* can be seen on the left of the table. These have been adapted from their actual responses (e.g. Strongly disagree = 1, Strongly agree = 5). The number of completed responses to the survey was 36, however, not every respondent answered every question. Therefore, the number of residents' responses to each question is also provided.

For the developer's interview, scores are shown along with any additional commentary made at the time of the main review meeting.

Table 7: Results for Brickworks: Character, Context and Identity

Character, Context and Identity <i>Related aims and outcomes: To develop a site and buildings that integrate with or relate to existing building form and style in the surrounding neighbourhood with relation to: (see subcategories below):</i>						
RESIDENTS SURVEY				DEVELOPERS REVIEW		
	About your neighbourhood <i>Survey Text:</i> <i>"These questions help us understand how you feel about your neighbourhood."</i>			Character, Context and Identity (CCI) <i>Survey Text:</i> <i>"This section considers how well the development integrates with its surroundings and adds to the local neighbourhood. Each feature is rated from 1 to 5 where 1 determines that there was no consideration with respect to integration at all and 5 determines that site development adheres to best practice principles wherever possible. It is recognised that some of these features may not be applicable particularly for small developments. In this case an option for N/A is provided with a comments box for further explanation whenever this option is selected."</i>		
Framework Sub-Category	Survey questions. Thinking about the place you live, how much do you agree or disagree with the following? [Strongly disagree (1) to strongly agree (5)]	Adapted Score	Responses	Scores given against Outcomes for Framework Sub-categories via interview with developer and site review [Scored from 1 to 5]	Score	Developer comments
Environmental landscape	"It works well with the surrounding natural environment"	3.97	36	Natural environmental elements are integrated within the site which takes its cue from the local surroundings (e.g. waterways, habitats, native plants and trees).	4	It was critical to control quality of storm water which goes into the harbour, linking to reed beds in the adjacent parks. A thorough stock-take recognised a number of native species that informed the planting around the block and in the wider area. Mana Whenua were involved in developing the plant pales.

Physical landscape	Developer only question				The site and building design integrates with slope and form and enhances local geographic features.	N/A	
Heritage and culture	"It has a sense of local history, heritage and culture"	3.86	36		The site takes account of local history, honours heritage and culture and seeks community direction.	4	<i>There was a comprehensive development plan for the site and significant development of local history and culture for the wider precinct.</i>
Identity and sense of place	"It has an identity that adds to the local neighbourhood"	3.94	36		Site design and layout, key features and artistic works have been developed to create an identity and 'sense of place'.	5	<i>Brickworks has become a local landmark - strongly states sense of identity as it's the first apartment and is mixed use</i>
	"We feel proud to live in this place"	4.14	36		Residents only question		<i>Bricks didn't originally integrate but now have over time and set a precedent for other buildings to include brick. Cedar is not wearing well - local builders are learning from this.</i>
Building character	Developer only question				The building design and materials integrate with and enhance the surrounding neighbourhood character.	4	<i>Not memorable and hard to find. Future apartments will have more delineated entrances through stronger architectural form. This current development was cheap and functional - Breeze ways need to have multiple functions. Carpark was designed for human scale and to be pedestrian friendly</i>
Street scape	"It feels welcoming"	3.92	36		Entranceways and frontages are designed to be welcoming, accessible, and are in context with and enhance the overall character.	2	

Overall Category Score:
Character, Context and Identity
Residents' Average
3.97
Developer's Average
3.80

8.1.2.1 Environmental and physical landscapes

The developer noted the importance of controlling storm water quality and that this informed many of the design decisions relating to the block and surrounding area. The residents considered that this has been achieved effectively with an overall score of 3.97 out of 5. Of those that answered this question, 83% either agreed or strongly agreed that the site worked well with the surrounding natural environment. For integration with the physical landscape, the developer considered that there were no significant geographical features so provided a score of 'N/A'.

8.1.2.2 Heritage and culture

The developer reflected that there was significant consideration of local history for the wider precinct, scoring this sub-category 4 out of 5. Residents provided a score of 3.86 out of 5, with 75% either agreeing or strongly agreeing that 'the site has a sense of local history, heritage and culture'.

8.1.2.3 Identity and sense of place

Residents were more positive about the site having an identity that adds to the local neighbourhood (score of 3.94) and even more so about feeling 'proud to live in this place' (score of 4.14). For this latter question 69% agreed and 25% strongly agreed and endorses the developer's efforts in these areas.

8.1.2.4 Building character

The question pertaining to building character related to the use of design and materials as a means of enhancing the character of the surrounding neighbourhood. The developer provided a score of 4 out of 5 noting that the building was not particularly memorable and hard to find.

8.1.2.5 Street scape

A question for both residents and developers aimed to determine whether the effort undertaken to make entranceways and frontages welcoming had been achieved. The developer provided a score of 2 out of 5 however the residents considered the streetscape to be quite welcoming providing a score of 3.92, with 78% either agreeing or strongly agreeing this was the case.

8.1.2.6 Comparative scores for the Category

Taken together, the overall average scores of residents for this category of '*Character, Context and Identity*' was 3.97 compared with the average overall score from the developer of 3.80. While not all questions were relevant to each audience, the scores do show broad alignment across these outcome areas. This is further explored in the spider diagram at the conclusion of this report.

8.1.3 Choice – Why We Live Here

This section considers factors that enable dwelling choice and opportunity amongst residents and provide for a diverse community. These include the opportunities afforded by proximity to key destinations, the types of dwellings available, affordability, tenure arrangements, building adaptability and whether the population density of the development aligns with the provision of infrastructure and services.

Table 8: Results for Brickworks: Choice

Choice						
<i>Related aims and outcomes: The development provides for and enables occupancy by a diverse range of residents who can benefit from and support a thriving local economy; with the understanding that high levels of diversity and optimum residential density make the development viable in terms of marketability and cost per unit (see subcategories below):</i>						
RESIDENTS SURVEY				DEVELOPERS REVIEW		
	Living in your community Survey Text: <i>"This section helps explain why you chose to live in this area and whether your home suits the needs of your household."</i>			Choice Survey Text: <i>"This section considers how the development provides for and enables occupancy by a diverse range of residents who can benefit from and support a thriving local economy. High levels of diversity and optimum residential density make the development viable in terms of marketability and cost per unit. This section is primarily undertaken through a desktop review exercise based on available local statistical data with additional information from a site review and/or developer responses."</i>		
Framework Sub-Category	Survey questions	Adapted score	Responses	Scores given against Outcomes for Framework Sub-Categories via interview with developer and site review [Scored from 1 to 5]	Score	Developer comments
Opportunity	Why did your household choose to live in this area? (select as many as you like): Easy access to work or study Access to schools or daycare Close to friends or relatives Play areas for young children Good public transport Variety of local shops		Shown in separate graph – see section 2.3.1 below	Residents only question		

	<p>Local community facilities (e.g. library / halls)</p> <p>Near to health care services</p> <p>Leisure facilities (e.g. sports, skate or swimming)</p> <p>Access to green spaces or water</p> <p>The quality of the local environment</p> <p>A feeling of safety / security</p> <p>The design and quality of the home</p> <p>The feel of the local neighbourhood</p> <p>Our circumstances made this the only option</p> <p>Other, please specify...</p>					
	<p>A score of 4.56 has been derived from an average of connectivity scores for selected key destinations (see section 2.4)</p>	4.56			<p>Proximity to local centres and other key destinations enables residents to live, work and play in their surrounding neighbourhood. (Developments with a mix of commercial / residential premises enable employment opportunities within the site)</p>	<p>5</p> <p><i>Potential to live and play in a walkable neighbourhood - work will come in time. Catalina Bay will have commercial units - Panuku - mixed use precinct in time. Some mixed-use units along Hobson Point Road</i></p>
Residential dwelling typology	<p>How much do you agree or disagree with the following? [Strongly disagree (1) to strongly agree (5)]</p> <p>"The home suits our household needs"</p>	4.09	34		<p>The provision of dwelling typologies offers an appropriate choice with regards to existing neighbourhood demographics as well as the demographics of targeted residents (including expected age range and household size)</p>	<p>5</p> <p><i>Apartments have been sold</i></p>
Affordability	<p>How much do you agree or disagree with the following? [Strongly disagree (1) to strongly agree (5)]</p> <p>"This home is affordable for our household"</p>	3.54	35		<p>A range of dwellings options and supporting financial instruments provide residents of varying means with the ability to live in quality accommodation (e.g. starter home / buy to let / financial assistance)</p>	<p>4</p> <p><i>Axis series has been hugely successful. Trying to get other dwelling options and are currently choosing new models. Currently working with local iwi to produce secure affordable rental in future</i></p>

Tenure	Do you own or rent your home? (63% owned, 34% rent from private landlord and 3% rent from Housing NZ)		32		Diverse and flexible tenure arrangements provide opportunities for residents to either own or rent quality accommodation	5	<i>There is a mix - probably have a few more rentals than most blocks. There are no apparent constraints on renting however considered to be an equity issue that renters are not represented on Body Corporates. There are considerations for how this could be improved</i>
Building adaptability	Developer only question				Building designs exhibit a range of adaptability and floor plan flexibility responding to changing requirements and the potential for mixing use over time (e.g. the ability to adapt a residential building to incorporate commercial activity)	3	<i>Not its point - commercial activity was required</i>
Population density	Developer only question				The number of dwellings per hectare and population density are in line with existing and planned infrastructure and services (e.g. transport, stormwater, local amenities)	5	<i>Agreements specified yields vs price points</i>

**Overall
Category
Score:
Choice**

Residents' Average 4.06

Developer's Average 4.50

8.1.3.1 Opportunity

The first residents' question in this category of 'Choice' (or 'why we live here' in simplified language), sets some context to this topic by asking participants to select the reasons that their household chose to live in the area. Respondents could select as many options that were relevant from a checklist. A total of 29 residents answered this question. Their selections and frequency of responses are shown below:

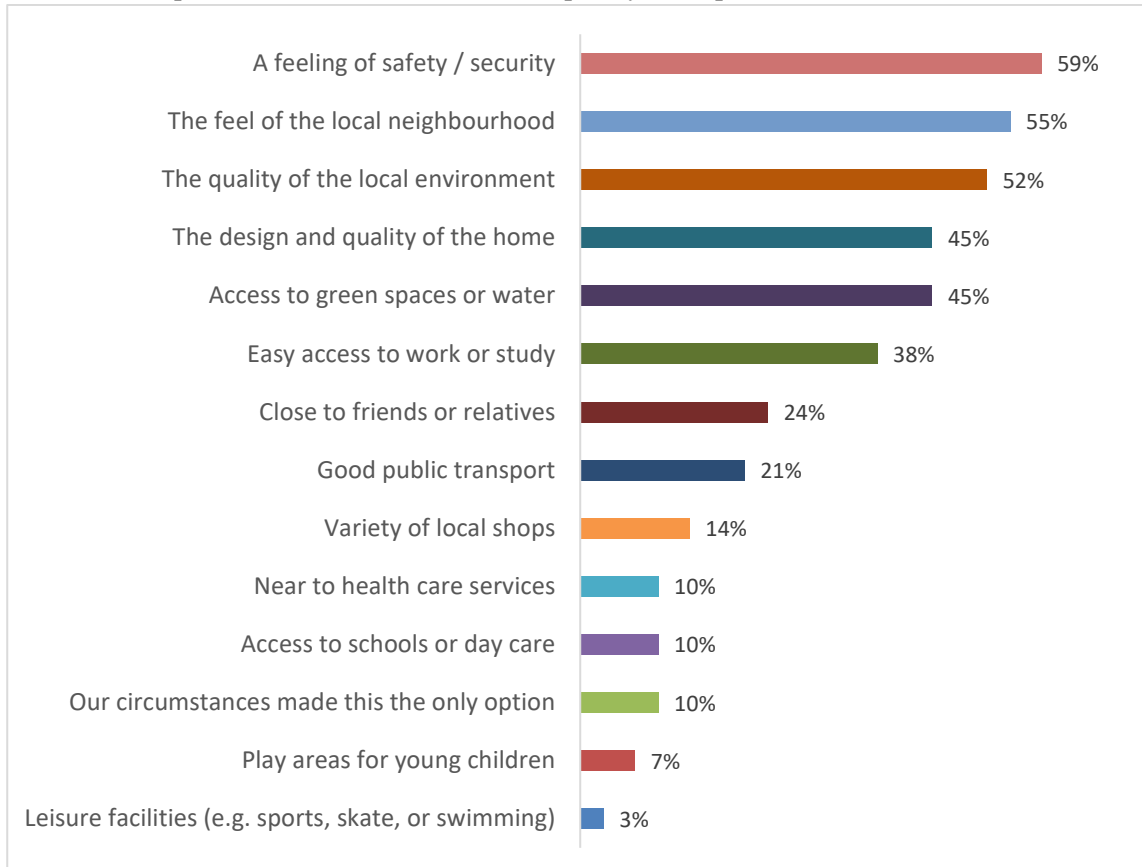


Figure 8: Reasons for choosing to live in the area (Brickworks)

The graph shows that the most selected reason that households chose to live in this area is “A feeling of safety / security” selected by 59% (or 17) respondents followed by “The feel of the local neighbourhood” and “The quality of the local environment”. Overall, the rankings show that the residents highly value the opportunity to live in a safe neighbourhood surrounded by green space and amenity.

An objective review of residents' accessibility to a range of key destinations highlights their opportunities to work, live and play in the area. This was achieved by a desktop assessment which identified distances and transport options and determined how easily residents could access these destinations by walking, cycling, public transport and use of a private vehicle. The approach that was taken is described more fully in the Connectivity section below (2.4.2). Overall, a score of 4.56 out of 5 represents a high level of proximity to key destinations. The developer also recognises this proximity and access (providing a score of 5 out of 5) and notes that there will be increasing opportunity as the precinct offers greater mixed use over time.

8.1.3.2 Residential dwelling typology and affordability

The sub-categories of typology and affordability help to determine whether the types of residences on offer suited householders' needs and whether they were considered to be affordable. In terms of typology, residents largely agreed that the household suited their needs (59%) with a further 26% strongly agreeing.

In terms of affordability, the developer noted the success of the 'Axis Series'. Residents' provided an average score of 3.54 out of 5 in respect to affordability. Out of the 35 residents that answered the question, 1 strongly disagreed (3%) whereas 54% agreed and 9% strongly agreed.

8.1.3.3 Tenure

The developer review indicated that tenure arrangements were flexible and that renters were probably more evident than in other blocks. Of the residents that answered this question, 63% owned their home compared with 37% who rented.

8.1.3.4 'Do you have any other comments about your neighbourhood or why you chose to live here?'

Presented with an open text box, participating residents made the following selected comments:

- *I really like the general feel of Hobsonville Point and the quality of the housing has created a pleasant community.*
- *Living in the Brickworks makes us central to what we are here to do.*
- *Neighbourhood lovely. Brickworks building shoddy. Appliances / finish poor quality*
- *It is on good bus routes to Westgate and ferry to the city*
- *I believe when all the houses been built, it will have better access in terms of transportation and other facilities.*
- *Lovely walks to go on. Feels safe and friendly*

8.1.3.5 Comparative scores for the Category

Taken together, the overall average scores of residents for this category of 'Choice' was 4.06 compared with the average overall score from the developer of 4.50 suggesting developers feel stronger about accomplishments in this category.

8.1.4 Connectivity – Getting Around

The connectivity questions consider accessibility, based on infrastructure and travel choices, access through and around the site, wayfinding, safety and parking. The first part of the residents' survey determined the access residents had to vehicles, cycles and the need for mobility aids. This was supplemented with a desktop review that determined the accessibility scores to key destinations and compared these with a representation (based on responses and amended scores) of how residents actually travelled to these places. The approach to these topics are described following the summary table below.

Table 9: Results for Brickworks: Connectivity

Connectivity							
Related aims and outcomes: Connecting Infrastructure enables safe, universal access using active, mobility, shared and private modes of transport within and through the site to identified key destinations (see subcategories below):							
RESIDENTS SURVEY					DESKTOP and DEVELOPERS REVIEW		
	Getting around Survey Text: <i>"This section tells us how you travel around and helps us understand what might make it easier."</i>				Connectivity Survey Text: <i>"This section considers how well the development and connecting infrastructure enables safe, universal access to key destinations for residents whilst also encouraging a range of active mobility options. A desktop procedure is initially used to assess a range of current and future transport options as well as providing identification of key destinations. In this case an option for N/A is provided with a comments box for further explanation whenever this option is selected."</i>		
Framework Sub-Category	Survey questions	Score	Responses	Trips	Scores given against Outcomes for Framework Sub-categories via interview with developer and site review	Score	Developer comments

	Thinking about how your household travels around: How many vehicles are there in your household? How many working bicycles? How many household members need support with their mobility including push chairs, wheelchairs or walking aids?	See section 2.4.1 below			Residents only question		
Accessibility to key destinations	Tell us all the ways your household travels to the following places? <i>[selections include Walk / Cycle / Bus train or ferry / Park and ride to the bus train or ferry / Private transport (motorbike/scooter/car)]</i>	Score	Responses	Trips	The extent of accessibility to key destinations is based on distance, infrastructure and services that enable safe travel on foot, by cycle, on frequent public transport, by car, or with mobility aids. Select the options that are available for residents to travel to the following places: [Matrix includes Walk / Cycle / Bus train or ferry / Park and ride to the bus train or ferry / Private transport (motorbike/scooter/car)]	Score	Developer comments <i>(note: a large section of this category is assessed during a desktop review exercise)</i>
	Work	2.00	32	47	Work (walkable to approx. 2km)	4	Desktop review
	Schools	3.91	10	11	Schools (walkable between approx. 500m-2km depending on age range)	5	Desktop review
	Tertiary study or training	2.50	7	8	Tertiary study or training (walkable to approx. 2km)	3	Desktop review

	Tell us all the ways your household travels to the following destinations?: <i>[Selections include Walk / Cycle / Motorbike, scooter / Bus train or ferry / Park and ride to the bus train or ferry / Car / N/A]</i>				Select the travel options available to the following destinations: <i>[Matrix includes Walk / Cycle / Bus train or ferry / Park and ride to the bus train or ferry / Private transport (motorbike/scooter/car)] - approx. walkable distances shown along side each destination]</i>		
	Local shop or dairy	3.62	33	45	Local shop or dairy (2km)	5	Desktop review
	Supermarket	2.00	35	46	Supermarket (up to 500m)	4	Desktop review
	Children's play area	4.39	20	23	Children's play area (1km)	5	Desktop review
	Parks or open spaces	4.30	35	43	Parks or open spaces (1km)	5	Desktop review
	Community facilities / Library, hall etc.	2.90	25	30	Community facilities / Library, hall etc. (1km)	5	Desktop review
	Medical centre	2.84	32	37	Medical centre (500m)	5	Desktop review
	Developer only question				Describe any planned developments in terms of destinations, facilities or transport infrastructure that will affect future accessibility for residents: [Comment]	N/A	
Permeability	Developer only question				Rank the following from 1 to 5: Permeability within and through the site supports wider neighbourhood connectivity and facilitates access to surrounding destinations	N/A	Not through the site - views through it could be better
Transport choice	What do you think of the following?: <i>[Very poor / Poor / Reasonable / Good / Excellent / N/A]</i>	3.50	34		Proactive measures to encourage active and shared transport including pool vehicles, charging	2	No charging points - there is a shared car (City Hop) nearby but this under used. - The

	The range of different travel options from your home					points for electric vehicles and options for telecommuting		<i>allocated Community Vehicle space remains a mystery</i>
Safety from vehicles	Your feeling of safety from cars when you walk or cycle	3.94	34			Design considerations reduce physical conflict between cars and other users within the site and at access points	2	<i>Flush crossings and access ways are fine however internal design is poor</i>
Wayfinding	How easy it is for new visitors to find your home	3.52	34			Wayfinding and signage to and around the site facilitates visitor movement and the identification of resident dwellings while ensuring that designs and naming are appropriate to the site's overall identity	2	<i>Retail signage is fine but not for the building</i>
	How easy it is for delivery services to find your home	3.00	34					
Access for services	Developer only question					Design enables ease of access and egress for emergency, delivery and service vehicles	3	<i>Average</i>
Parking provision and management	How do you rate parking? [Very poor / Poor / Reasonable / Good / Excellent / NA]					Tell us: How many dedicated parking spaces are there for residents?	61	
	Car parking for residents	3.41	34			How many dedicated parking spaces are there for visitors?	0	
	Car parking for visitors	2.68	34					
	Secure cycle parking for residents and visitors	3.14	29			How many bicycles can be securely parked on site?	TBD	
	Scooter / moped parking for residents & visitors	2.80	15					
	Overall management of parking on-site	3.36	33					

Overall Category

Score:

Connectivity

Residents' Average 3.21

Developer's Average 3.85

8.1.4.1 Access to vehicles

How many vehicles are there in your household?

- 6% indicated they had no vehicles
- 46% had one, 40% of respondents had two vehicles
- 9% had three

How many working bicycles?

- 11% had one bicycle
- 14% had two
- 9% had three bikes
- 66% had none.

How many household members need support with their mobility including push chairs, wheelchairs or walking aids?

Two households reported having a single resident that required assistance with mobility, and one household reported having two residents that needed support.

8.1.4.2 Accessibility to key destinations

The desktop review identified and mapped work, study, shopping and leisure locations in the surrounding area. Distances were then laid at 500m, 1000m and 2000m as shown below. Note that these were based on actual walkable routes as opposed to a 'crow-flies' radius.

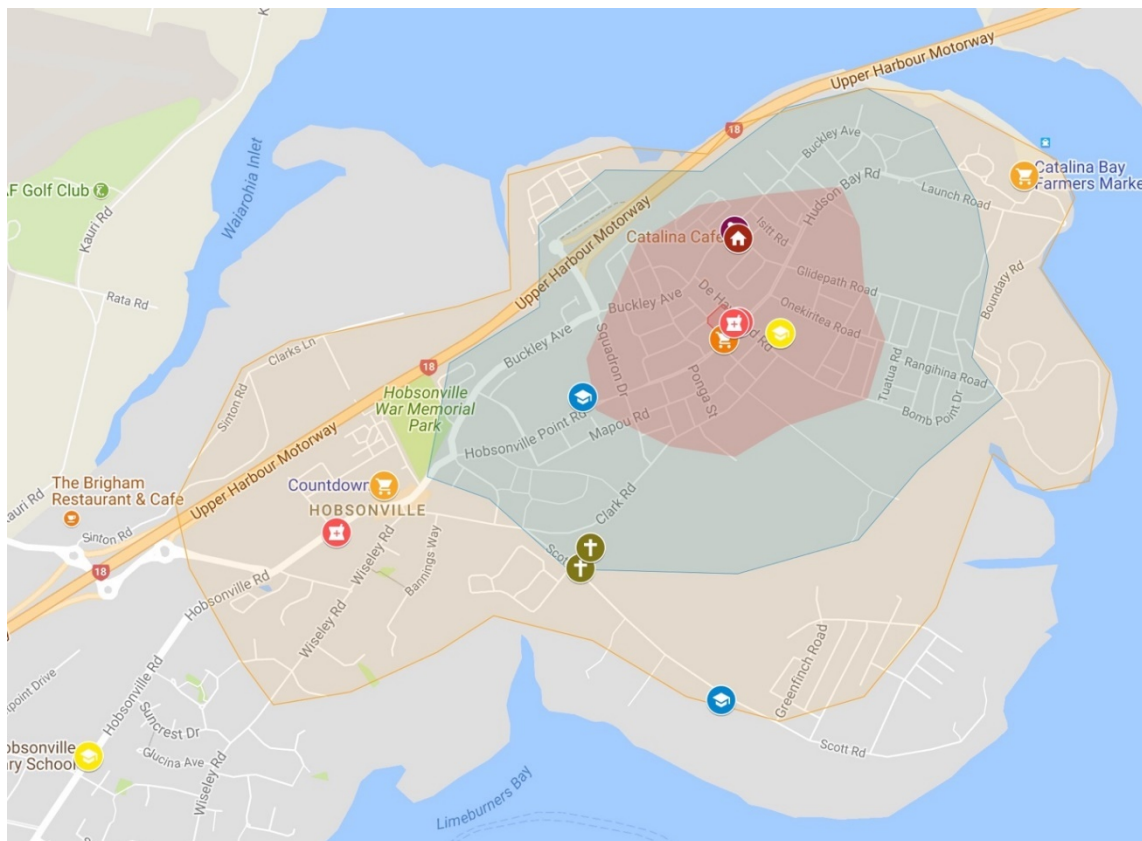


Figure 9: Map showing access and distances to key destinations (Brickworks)

Destination analysis then determined the mode options that would be available for a range of destinations with a point (1.0) or half point (0.5) awarded for access by either walking, cycling, public transport, park and ride to public transport and private transport (car, motorbike or scooter). The results are shown in the table below:

	Walk	Cycle	Bus, train or ferry	Park and ride to bus, train or ferry	Private transport	TOTALS
Work (walk within 2km)	0.0	1.0	1.0	1.0	1.0	4.0
School (within 2km)	1.0	1.0	1.0	1.0	1.0	5.0
Tertiary study or training (walk within 2km)	0.0	0.0	1.0	1.0	1.0	3.0
Local Shop or dairy (walk within 2km)	1.0	1.0	1.0	1.0	1.0	5.0
Supermarket (walk within 500m)	0.0	1.0	1.0	1.0	1.0	4.0
Children's play area (walk within 1km)	1.0	1.0	1.0	1.0	1.0	5.0
Parks or open spaces (walk within 1km)	1.0	1.0	1.0	1.0	1.0	5.0
Community facilities (walk within 1km)	1.0	1.0	1.0	1.0	1.0	5.0
Medical centre (walk within 500m)	1.0	1.0	1.0	1.0	1.0	5.0
					AVERAGE	4.56

The table shows high levels of accessibility for all destinations, with an average score of 4.56.

Linked to the accessibility of key destinations is the assessment of residents' travel behaviours which is based on a determination of how they reported travelling to these same destinations. In this case:

- 5 points were awarded for each walking trip
- 4 for each cycling trip
- 3 for each public transport trip
- 2 for each park and ride trip
- 1 for each trip made by private transport (car / motorbike or scooter)

The total points for each destination were then averaged by the number of trips made. For example, for trips to work:

	Walk (5)	Cycle (4)	Bus, train or ferry (3)	Park and ride to bus, train or ferry (2)	Car, motorbike, scooter (1)	TOTALS
Work trips	4	1	12	4	26	47
Score	20	4	36	8	26	94
					AVERAGE	2.00

The average score is 2.00 for residents' travel to work. This is shown against the above score for 'accessibility' to work of 4. Obviously, this is not a direct comparison but does suggest that either some residents are using private modes to access workplaces that could be travelled by other modes, or that some have chosen to live in Brickworks and work in locations that are only easily accessible by private modes.

The presentation of the desktop and residents' results is shown for each of the key destinations and shows that residents sometimes use shared and active travel options; though they are more likely to drive to the supermarket (likely due to the need to carry shopping loads). In addition, the discrepancy in scores for access to medical centres perhaps reflects that residents will drive to larger facilities (e.g. their doctors or to hospital) while they will walk to the pharmacy situated within their residential block.

8.1.4.3 Transport choice

Following the above assessment, the range of options from the site received a further review from residents who score the range of different travel options from their home at 3.50 out of 5. The developer notes that they take no special actions to encourage active or shared transport modes, nor supply infrastructure to support electric vehicles or telecommuting. Such actions may increase residents' travel scores in future.

8.1.4.4 Safety from vehicles

Residents noted that they felt reasonably safe from cars when walking or cycling. A total of 38% felt safety was good and 29% considered it was excellent resulting in an average score of 3.94 out of 5.

8.1.4.5 Wayfinding and access for services

Overall, residents considered it was easier for visitors to find their home (3.52) than for delivery services (3.00) however both scores are perhaps lower than could be expected. This may suggest some additional wayfinding signage could be useful – particularly for the front entrances. The developer also noted difficulties with wayfinding providing a score 2 out of 5. Alongside this, the developer scored physical access for emergencies and deliveries at 3 out of 5.

8.1.4.6 Parking provision and management

The question relating to visitor parking provision provided a score of 2.68 out of 5 with 32% rating visitor parking as poor and 9% rating it as very poor. This reflects that fact that no visitor parking spaces are provided on-site and visitors need to find spaces in the surrounding area. Residents parking received a higher score (3.41 out of 5) with 14% rating this as good and 26% rating this as excellent.

Secure cycle parking offered an average score of 3.14 and overall parking management scored 3.36 with 39% stating that this was good and 9% considering it to be excellent.

8.1.4.7 Do you have any other comments about travel or parking?

Presented with an open text box, ten residents made the following comments:

- *Area needs more public / visitor parking. Would prefer undercover parking for residents vehicles*
- *Many people do not use the parking bays but park on the road instead, at times blocking off access along the road completely. Maybe a yellow line would help prevent this? It would be good if ferries went to town on the weekend.*
- *There is no direct transport to the CBD (aside for the ferry, which doesn't run often enough for work hours and is expensive \$70 per week for five days of transport)*
- *We were not very happy about some of the streets near Brickworks becoming a time limit zone as sometimes there are no other spaces available nearby*
- *Ferry travel could be a lot better all year round and particularly in the weekend*
- *Parking is absolutely horrible, the downside to living in Hobsonville Point especially brickworks. So difficult to have any visitors, retail customers and even parking for yourself*
- *Need more parking spaces and more bus/freely route to difference places*
- *We bought from plans and right at the beginning could see parking was going to be insufficient considering there are cafes and medical centre etc. requiring all of the available parks around the building.*
- *Shortage of parks for Brickworks residents*
- *Travelling to anywhere in Auckland is a challenge as the time tables do not work for interconnecting services. Parking is always and will always be a challenge at Hobsonville Point.*
-
-

8.1.4.8 Comparative scores for the Category

The average overall residents' score for the '**Connectivity**' category comes to 3.21. This compares to an average score from the desktop and developers review of 3.85.

8.1.5 Liveability – Living in your home

The Liveability questions cover a wide range of topics including building quality, dwelling personalisation and storage space, noise, privacy, security, outdoor space and engagement with the wider community.

Table 10: Results for Brickworks: Liveability

Liveability						
Related aims and outcomes: Providing quality facilities and facilitating positive interactions between residents and the wider community (see subcategories below):						
RESIDENTS SURVEY				DEVELOPERS REVIEW		
	Living in your home Survey Test <i>"These questions tell us more about your living space, as well as your feelings of security, and your household's involvement in the wider community."</i>			Liveability Survey Text: <i>"This section looks at the provision of quality features and approaches that facilitate positive interactions between residents and the wider community and enable residents to lead fulfilled, engaged and satisfied lives. Each feature is rated from 1 to 5 where 1 determines that there was no consideration with respect to providing for the particular liveability aspect and 5 determines that the development follows best practice principles."</i>		
Framework Sub-Category	Survey questions	Adapted Score	Responses	Scores given against Outcomes for Framework Sub-Categories via interview with developer and site review [Scored from 1 to 5]	Score	Developer comments
Building quality	How do you rate the following? [Very poor / Poor / Reasonable / Good / Excellent / NA] <i>"Quality and durability of your home"</i>	3.94	34	The building design and use of materials provide quality homes that are durable and easy to maintain	4	Brick works well but the cedar does not
Personalised dwellings	How do you rate the following? [Very poor / Poor / Reasonable / Good / Excellent / NA] <i>"How easily you can modify your home as your needs change"</i>	2.90	34	Dwellings and private spaces can be personalised or modified to account for changing needs over time including appropriate	5	There is some variation in the ability of apartmts to be personalised - some are spec'd

					provision of universal designed dwellings		<i>differently - Life Mark could be done in future</i>
Storage	How do you rate the following? [Very poor / Poor / Reasonable / Good / Excellent / NA] "Storage available for your household's lifestyle or hobbies"	2.73	33		Residents are provided with appropriate personal or shared storage space to accommodate their lifestyle requirements	3	<i>There is some separated storage - CDP planning section states storage requirements. There are separate wardrobes in each apartment</i>
Technological integration	Developer only question				Utilities are easily accessible enabling the integration of new technologies into buildings	N/A	Unknown
Noise control	What do you think of other features of your home? [Very poor / Poor / Reasonable / Good / Excellent / N/A] "Level of noise from other residents and the wider neighbourhood"	3.56	34		Design and ongoing management reduce noise to acceptable levels between dwellings as well as between dwellings and public spaces	5	<i>Double glazing is installed as required</i>
Privacy	What do you think of other features of your home? [Very poor / Poor / Reasonable / Good / Excellent / N/A] "Sense of privacy within your home"	3.82	34		Dwelling design provides adequate, quiet, private space allowing residents a sense of retreat	3	<i>Balconies are exposed and internal space is not private</i>
Interactive space	What do you think of other features of your home? [Very poor / Poor / Reasonable / Good / Excellent / N/A] "Any shared laundry and drying facilities"	2.43	7		Provision and maintenance of high quality internal spaces where people are likely to interact (e.g. laundry, shared rooms or other communal spaces)	1	<i>These are not included</i>
Outdoor space	What do you think of other features of your home? [Very poor / Poor / Reasonable / Good / Excellent / N/A]	3.73	30		Residents have direct access to well-maintained public outdoor space with facilities that are appropriate to the resident demographic	5	

	"Quality of outdoor spaces including gardens and play area"					
	What do you think of other features of your home? [Very poor / Poor / Reasonable / Good / Excellent / N/A] "Overall maintenance of the building and surrounding outside spaces"	3.76	34		Residents only question	
Security	How safe or unsafe do you feel in the following situations?: [Very unsafe / A bit unsafe / Fairly safe / Mostly safe / Very safe] In your home after dark	4.65	34		Provision of security features, lighting, active and passive surveillance provides a safe environment for all residents within their homes and throughout the site	5 CCTV is to be added -This is a remarkably low crime area
	Around your property after dark	4.18	34			
	Walking alone in your neighbourhood after dark	3.71	34			
	Safety of children under 14 when playing around your property at all times	3.44	32			
Emergency preparedness	Does your household have a plan for how to respond to emergencies? [Yes / No / Don't know] - 68% Yes / 17% Don't know / 15% No	3.4	28		Design considerations and a site based emergency preparedness plan take account of residents' needs while supporting wider neighbourhood resilience	N/A Unknown –people are well networked and active through a Residents Society / Body Corporate - Plans may be part of constitution
Engagement	How would you best describe your household's involvement with residents' activities and issues? Not interested Interested but not active Read information or interact online Attend meetings or events Organise meetings or events	2.5	33		Residents are encouraged to engage with issues affecting site operation and management and maintain active interactions with each other and the surrounding community (e.g. residents' newsletters and meetings and wider community events)	5 Positive interactions have been reported and there has been interaction on external issues including a nearby toilet

	How would you describe your households' relationship with the wider community? No interest in the community The community is not very welcoming We are getting to know people and places We take part in some community events We are fully part of the community	3.1	34			
Satisfaction	Developer only question Overall, how would you rate your neighbourhood as a place to live? {Very poor / Poor / Reasonable / Good / Excellent}				Resident satisfaction with the site, building and wider neighbourhood is regularly monitored to continually improve site management and inform future development	5 <i>Regularly monitored to inform future development - Ongoing considerations to ensure that residents have the right amount of access and interaction to reduce social isolation</i>
		4.44	34		Residents only question	

Overall Category
Score:
Liveability
Residents' Average 3.52
Developer's Average 4.10

8.1.5.1 Building quality

The residents provided an overall average score of 3.94 out of 5 for the ‘quality and durability’ of their home with 38% rating this as good and 29% rating this as excellent. The developer’s comments highlight that the cedar elements have not weathered well.

8.1.5.2 Personalised dwellings and storage

The developers provided a rating of 5 out of 5 for personalised dwelling flexibility indicating the variety outlined in initial specifications. Residents however scored personalisation at 2.90 suggesting they consider few options in this sub-category. Residents also offered a score of 2.73 for available storage (similar to the developer’s score of 3). In this case, a total of 24% of residents considered that storage was poor and a further 18% considered it to be very poor.

8.1.5.3 Noise control and privacy

Overall, noise control and privacy were rated as reasonable by residents at 3.56 and 3.82 respectively. Of the 34 respondents who rated the ‘level of noise from other residents and the wider neighbourhood’, 12% rated it as poor, 44% reasonable, 21% good and 24% excellent. 29% rated the sense of privacy within their home as excellent providing this category with a higher overall score than the 3 out of 5 given by the developer.

8.1.5.4 Interactive and outdoor space

Only seven residents rated interactive space “any shared laundry and drying facilities” providing an average of 2.43 out of 5. The developer noted that these were not available scoring 1 out of 5.

In terms of outdoor space, residents were asked about the quality of these and the overall maintenance of the building and surrounding spaces. These received a score of 3.73 and 3.76 respectively. 12% considered the quality of outdoor spaces to be poor however the 53% considered these to be good to excellent. ‘Overall maintenance of the building and surrounding outside spaces’ was rated as excellent by 24% of respondents, as good by 41%, and reasonable by 24%.

8.1.5.5 Security

Residents were asked a number of questions relating to their feelings of safety. A total of 71% stated that they felt ‘very safe’ in their homes after dark. 47% felt ‘very safe’ around the property after dark and a further 29% felt ‘mostly safe’. A total of 4 people (12%) felt ‘a bit unsafe’ walking alone in the neighbourhood after dark compared with 11 (32%) that felt ‘fairly safe’, 10 (29%) that felt ‘mostly safe’ and 9 (26%) that felt ‘very safe’.

Of the 32 residents that rated the ‘safety of children under 14 playing around the property at all times’, 3% felt this felt ‘very unsafe’, 13% stated this felt ‘a bit unsafe’, 34% stated that it felt ‘fairly safe’, while, 50% considered it was ‘mostly’ or ‘very safe’.

8.1.5.6 Emergency preparedness

The developer was unsure of any specific community-based emergency preparedness plans. However, 68% of residents noted that they had a personal plan. In order to generate an adapted average for this sub-category, these 68% were converted to 68% of the maximum score, i.e. 68% of 5 = 3.4.

8.1.5.7 Engagement

The developer noted that, there were high levels of interactions in internal and external issues scoring 5 out of 5.. The residents themselves showed a reasonable amount of interaction at 2.5 out of 5, with 18% stating they had no interest in residents' activities, 27% stating they were interested but not active, 33% stating they read information or interacted online and 18% stating they attended meetings and events.

In response to the question, "How would you describe your households' relationship with the wider community?", 15% stated they had no interest in the community, 6% considered that the community is not very welcoming, 38% noted they were getting to know people and places, and 26% took part in some community events and 9% noted that they were fully part of the community.

8.1.5.8 Satisfaction

The final rating question for developers in this section determined how regularly resident satisfaction was monitored in order to pick up on issues and inform future development. The developer noted that their very involvement in the Medium Density Assessment Tool case study project indicated their willingness to gain feedback, and that, overall, communication with residents has been very positive to date.

Residents were asked, overall 'how they rated their neighbourhood as a place to live'. A total of 34 respondents provided a high average rating of 4.44 with 15% stating it was reasonable, 26% noting it was good and 59% stating it was excellent.

8.1.5.9 Do you have comments about living in your home?

A total of nine residents responded. The following selected comments outline the main points:

- *Love it!!*
- *Bringing groceries and bags through self-closing doors can be annoying.*
- *There have been a number of nights where cars have raced around the streets and a few times groups of drunk youths have been walking around yelling etc...*
- *Some areas need updating such as the paint around the walking areas - we have enquired when this will be fixed but nothing has been done*
- *It is very hot. These apartments need air conditioning*
- *Just moved in... need a bit more time to have some ideas*
- *Good neighbours*
- *Apartment living has been very good for my wife and I.*

8.1.5.10 Comparative scores for the Category

The average overall residents' score for the category of 'Liveability' comes to 3.52. This compares to an average score from the developer's interview of 4.10.

8.1.6 Sustainability

The sustainability questions aimed to determine infrastructural elements and features that enabled the efficient use of resources, and whether residents utilised these to their fullest extent. Sub-categories related to climate adaptability, use of building materials, solar gain, warmth and dryness, energy and water efficiency, waste minimisation, ecology and storm water management.

Table 11: Results for Brickworks: Sustainability

Sustainability						
Related aims and outcomes: Efficient and cost-effective resource use through design, behaviour and technological advancement (see subcategories below):						
RESIDENTS SURVEY				DEVELOPER REVIEW		
	<p><i>Note: sustainability questions for residents were included in the 'liveability' section of the Residents' Survey to simplify and shorten the survey design and maximise engagement</i></p>			<p>Sustainability <i>Survey Text "This section looks at features and aspects of the development (site and buildings) that enable and encourage efficient cost-effective resource use through design, behaviour and technological advancement. Each aspect is rated from 1 to 5 where 1 determines that there was no consideration with respect to providing for sustainability and 5 determines that the development follows best practice principles."</i></p>		
Framework Sub-Category	Survey questions	Adapted score	Responses	Scores given against Outcomes for Framework Sub-Categories via interview with developer and site review [Scored from 1 to 5]	Score	Developer comments
Climate adaptability	Developer only question			Design considerations account for extreme weather variations (e.g. temperature, rainfall, wind), changing sea levels, flooding and wild fire where appropriate	3	Not particularly considered
Building materials	Developer only question			Building materials can demonstrate durability and third party eco-labelling or responsible sourcing (e.g. FSC / NZ Environmental choice) while	3	Unsure about eco labelling - All contaminated soil was remediated

					ensuring that any waste is recycled and any soil contamination on site is remediated		
Solar gain	What do you think of other features of your home? [Very poor / Poor / Reasonable / Good / Excellent / N/A] The amount of sunlight coming into your home	4.09	34		Building orientation takes account of seasonal variations to minimise heating, cooling and lighting requirements	4	<i>A requirement for performance standards for solar gain has to be balanced with urban design constraints</i>
Warmth and dryness	Thinking about home comfort, how easy it is to do the following? <i>[Very hard / Hard / Reasonable / Easy / Very easy]</i> Heat your home in winter	3.88	34		Building design maximises thermal efficiency and comfort and effectively controls moisture through insulation, glazing and ventilation	4	<i>All to specification - no knowledge of additional actions</i>
	Cool your home in summer	3.15	34				
	Keep your home dry and free from mould	3.94	34				
	Dry your clothes outside	3.00	33				
Energy efficiency	How often do you do the following? <i>[Not an option / Not interested / Interested and want to know more / Sometimes do this / Do this most of the time]</i> Save energy	4.15	33		Energy management maximises the use of renewable supply, the use of efficient appliances and reduces the need for energy use where appropriate (e.g. through the provision of outside areas for clothes drying)	2	<i>A laundry/drying space is required</i>
Water supply and heating	How often do you do the following? <i>[Not an option / Not interested / Interested and want to know more / Sometimes do this / Do this most of the time]</i> Save water	4.09	34		Water management reduces demand through low flow devices and efficient water heating technologies and optimises supply through rain water harvesting and grey water recycling	3	<i>There was no room for tanks for rain water harvesting however it is likely that low water flow devices have been installed</i>

Recycling and composting	How often do you do the following? <i>[Not an option / Not interested / Interested and want to know more / Sometimes do this / Do this most of the time]</i> Reduce waste or recycle	4.35	34		Provision and active management of waste, recycling and composting facilities to ensure appropriate site placement and ease of use	5	There are local workshops and the Residents' Society organise composting and green waste collection
	How often do you do the following? <i>[Not an option / Not interested / Interested and want to know more / Sometimes do this / Do this most of the time]</i> Compost food waste	1.97	30				
	What do you think of other features of your home? <i>[Very poor / Poor / Reasonable / Good / Excellent / N/A]</i> Waste management facilities	4.29	28				
Native ecology	How often do you do the following? <i>[Not an option / Not interested / Interested and want to know more / Sometimes do this / Do this most of the time]</i> Take part in local environmental activities	2.56	32		Proactive approaches monitor air and water quality and encourage residents to enhance biodiversity through the protection of local habitats and waterways	3	Built in to the wider plan as part of construction process - but ongoing monitoring not likely

Gardening and food production	How often do you do the following? <i>[Not an option / Not interested / Interested and want to know more / Sometimes do this / Do this most of the time]</i> Garden or grow your own food	2.18	34		Space is provided for outdoor activities (e.g. gardening or growing food) where possible or appropriate	5	<i>Yes, there are balconies and a nearby community garden with a gardening club and a shared tool shed</i>
	Buy locally grown food	3.88	33		Residents only question		
Home user guide	Developer only question				Information is provided to residents on the efficient use of building features, appliances and neighbourhood facilities	5	<i>Builders provide these and the Residents' Association website does this as well as lists events</i>
Storm water management	Developer only question				Storm water management minimises flooding, run-off and associated pollution	5	<i>Ongoing maintenance of swales is required - not sure how this is happening though</i>

Overall Category

Score:

Sustainability

Residents' Average 3.47

Developer's Average 3.82

8.1.6.1 Climate change and building materials

The first two sub-categories were only asked of the developer who noted that Climate adaptability was not particularly considered, that they were unsure about any eco-labelling but did highlight that all contaminated soil was remediated as required.

8.1.6.2 Solar gain

Developer noted that solar gain was a required performance standard providing a score of 4 out of 5. This was similarly scored by residents who rated the amount of sunlight coming into their home as 4.09 out of 5, with 21% stating that this was 'good' and 47% stating that this was 'excellent'.

8.1.6.3 Energy efficiency

The developer noted that there were no specific efforts to provide renewable energy supply and above required specifications. Alongside this residents on average provided a score of 4.15 out of 5 when asked how often they saved energy. Interestingly 45% stated that they saved energy most of the time and 39% did this some of the time, while only 3% stated that they were interested and wanted to know more.

8.1.6.4 Water supply and heating

The developer noted that water devices within apartments were likely to have been 'low flow'. For their part, only 6% of residents wanted to know more about saving water while 38% stated that they sometimes saved water and 44% stated that they saved water most of the time.

8.1.6.5 Recycling and composting

The developer noted that there were local composting and gardening workshops and that collections had been arranged by the Residents' Society. Residents generally scored the building's waste management facilities as 4.29 out of 5 although they were less likely to compost food waste (score of 1.97) than they were to reduce waste or recycle (score of 4.35). This suggests that the Residents' Society collections services could perhaps be more widely publicised.

8.1.6.6 Native ecology, gardening and food production

The developer noted that there was no ongoing monitoring of air or water quality. The residents however make some effort to take part in environmental activities with 9 doing this 'sometimes'. A further 4 residents were interested and wanted to know more. A total of 8 residents noted that they sometimes grew their own food, while 18 sometimes bought locally grown food and 8 did this most of the time – perhaps from the local farmers market. This last question provided an average score of 3.88 – however, it should be noted that this was not included in the overall average rating for this Category section as it is not something that developers have much opportunity to change.

8.1.6.7 Home user guide

The developers noted that builders provide information on appliances to residents and that the Residents' Association website also has comprehensive information on neighbourhood facilities.

8.1.6.8 Stormwater management

The sensitive nature of the area requires comprehensive and ongoing stormwater management.

8.1.6.9 Comparative scores for the Category

The average overall residents' score for the Category of 'Sustainability' comes to 3.47. This compares to an average score from the developer's interview of 3.82.

8.2 Summary scores

The table and the graph below provide an indication of the summary scores for each category and broadly compares both the residents overall average category scores with the scores provided through the developer and site review.

	CHARACTER CONTEXT, IDENTITY	CHOICE	CONNECTIVITY	LIVEABILITY	SUSTAINABILITY
Developers Interview	3.80	4.50	3.85	4.10	3.82
Residents' Survey	3.97	4.06	3.21	3.52	3.47
Comparative Differential	-0.17	0.44	0.63	0.58	0.35

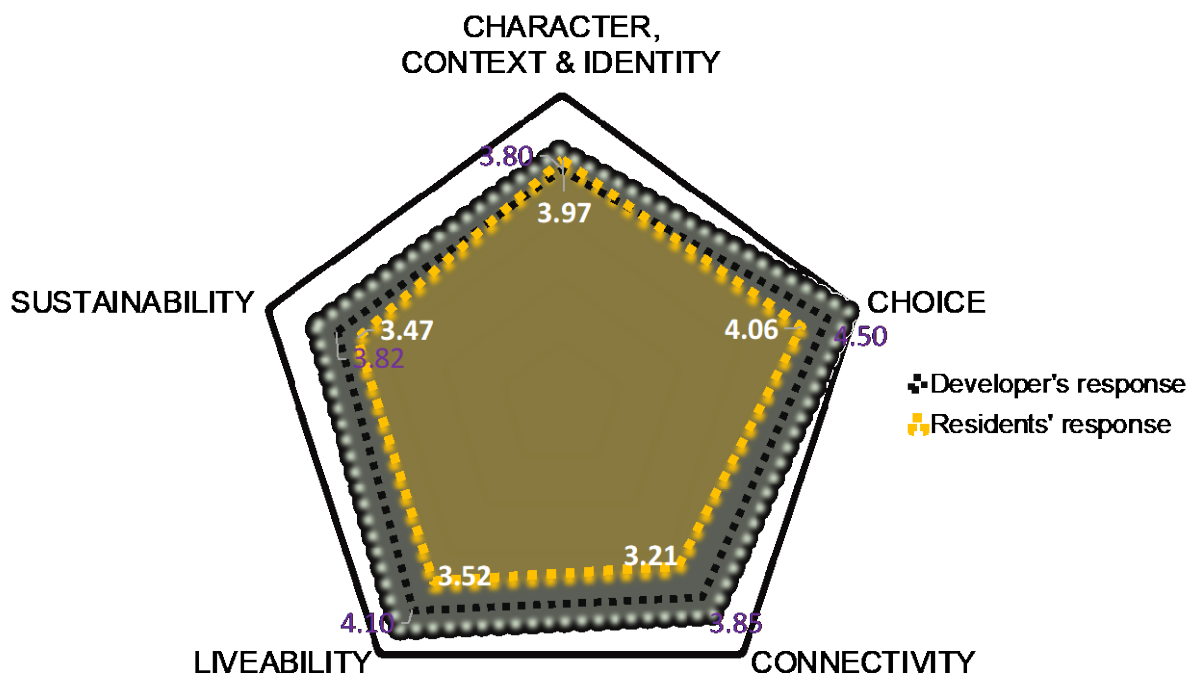


Figure 10: Brickworks Resident and Developer Category Result Spider Diagram

The diagram shows that the developers scores are generally higher than the average of the residents scores for most sections except for Character Context and Identity. Otherwise there is close alignment with Connectivity being the most varied with a comparative differential of 0.63 (out of 5)

The spider or radar diagram provides a simple visual snapshot of the assessed development. In general terms Brickworks scores well across the bulk of the categories, sub-categories and outcome focussed areas leading the research team to conclude that this is a good example of medium density development.

8.3 Summary of results for developers

Living at Brickworks

A comparison of resident and developer perspectives



Residents and the developer were asked to rate a range of aspects relating to their site, building, living spaces, and access to key destinations. The residents' average score for each topic has been adapted from their survey responses, while the developer's scores were collected during an interview. Scores are from 1-5 and are presented for the following five sections:

1 Character, context and identity

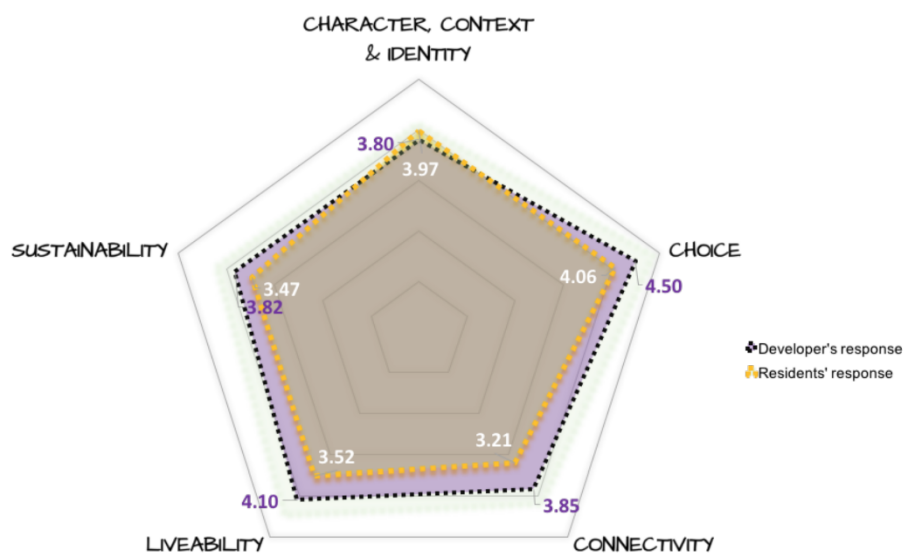
2 Choice

3 Connectivity

4 Liveability

5 Sustainability






A broad comparison of residents and developer scores for each category can be seen below:



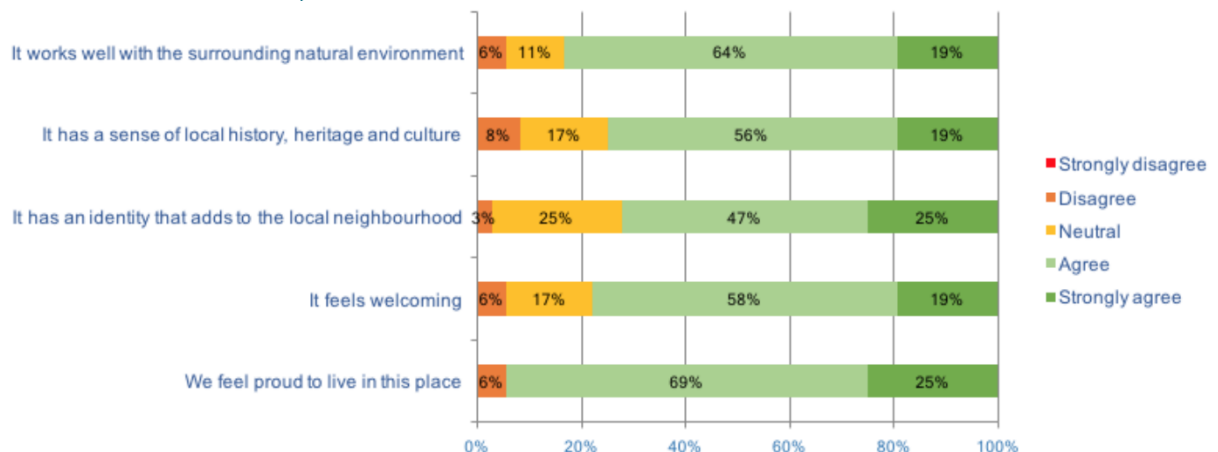
Each of the following sections outline the results in more detail with any additional information that was collected from residents, the developer, or during an independent site review.

Character, context and identity

To develop a site and buildings that integrate with, or relate to, the existing natural and physical environment as well as building form and style in the surrounding neighbourhood







	Residents	Developer
 Environment and physical landscape Natural environmental elements are integrated within the site which aligns with slope and form and enhances geographic features.	3.97	4.00
 Heritage and culture The site takes account of local history, honours heritage and culture, and seeks community direction.	3.86	4.00
 Identity and sense of place Site design and layout, key features, and artistic works have been developed to create an identity and 'sense of place'.	4.04	5.00
 Building character The building design and materials integrate with, and enhance, the surrounding neighbourhood character.	N/A	4.00
 Streetscape Entranceways and frontages are designed to be welcoming, accessible, and are in context with, and enhance, the overall character.	3.92	2.00
Average		3.80

More detail on residents' responses to this section is shown below:



Choice

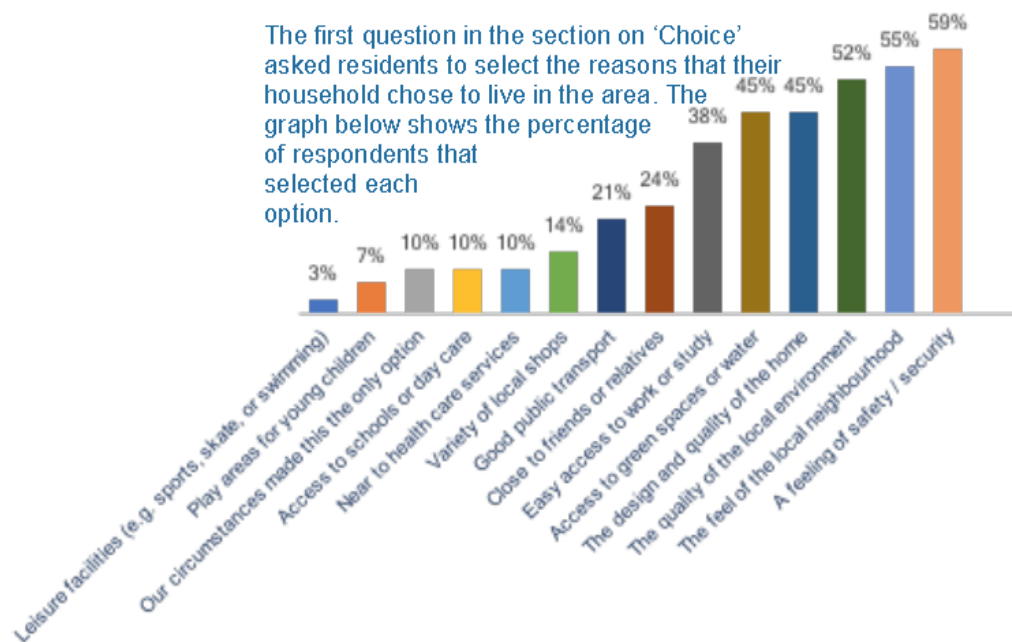
The development provides for, and enables, occupancy by a diverse range of residents who can benefit from, and support, a thriving local economy

	Residents	Developer
 Opportunity Proximity to local centres and other key destinations enables residents to live, work and play in their surrounding neighbourhood.	4.56	5.00
 Residential dwelling typology The provision of dwelling typologies offers an appropriate choice with regards to existing neighbourhood demographics as well as the demographics of targeted residents.	4.09	5.00
 Affordability A range of dwelling options and supporting financial instruments provide residents of varying means with the ability to live in quality accommodation (e.g. starter home / buy to let / financial assistance).	3.54	4.00
 Tenure Diverse and flexible tenure arrangements provide opportunities for residents to either own or rent quality accommodation.	N/A	5.00
 Building adaptability Building designs exhibit a range of adaptability and floor plan flexibility responding to changing requirements, and the potential for mixing use over time (e.g. the ability to adapt a residential building to incorporate commercial activity).	N/A	3.00
 Population density The number of dwellings per hectare and population density are in line with existing and planned infrastructure and services (e.g. transport, stormwater, local amenities).	N/A	5.00
Average	4.06	4.50

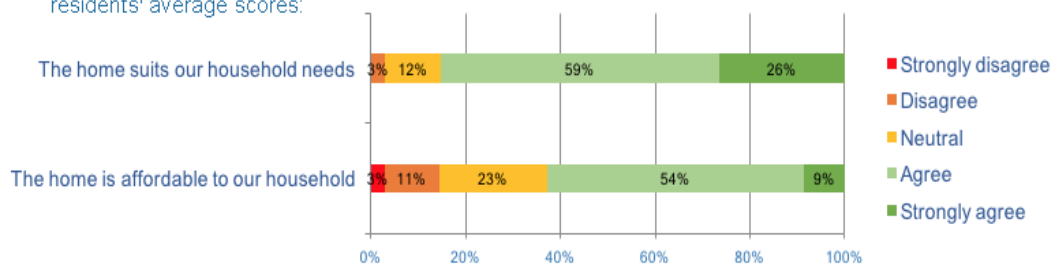
Choice

A more detailed look at residents' responses...

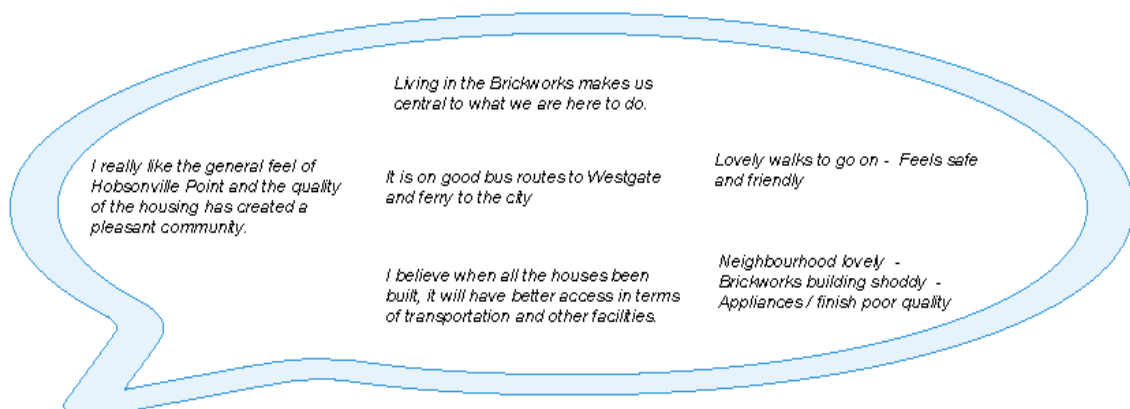
The first question in the section on 'Choice' asked residents to select the reasons that their household chose to live in the area. The graph below shows the percentage of respondents that selected each option.



Additional questions on suitability and affordability were weighted to help to determine residents' average scores:









Residents' comments on the area and why they chose to live here...



Connectivity

Connecting infrastructure enables safe, universal access using active, assisted mobility, shared, and private modes of transport within and through the site to identified key destinations

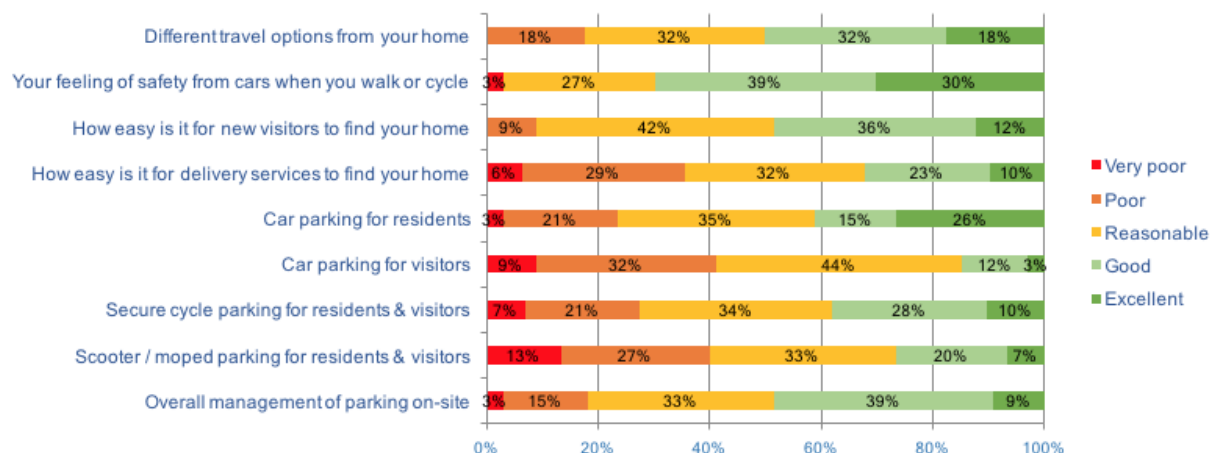
	Residents	Developer
 Accessibility to key destinations <p>The extent of accessibility to key destinations is based on distance, infrastructure, and services that enable safe travel on foot, by cycle, on frequent public transport, by car, or with mobility aids.</p>	3.16	4.56
 Permeability <p>Permeability within and through the site supports wider neighbourhood connectivity and facilitates access to surrounding destinations.</p>	N/A	N/A
 Transport choice <p>Residents considered the range of transport choice from their home, while the developer scored the extent of proactive measures to encourage active and shared transport.</p>	3.50	2.00
 Safety from vehicles <p>Design considerations reduce physical conflict between cars and other users within the site and at access points.</p>	3.94	2.00
 Wayfinding and access for services <p>Wayfinding and signage to and around the site facilitates visitor movement and the identification of resident dwellings, while ensuring that designs and naming are appropriate to the site's overall identity.</p>	3.26	2.5
 Parking provision and management <p>The residents ranked a number of factors including vehicle, moped, and cycle parking for residents and visitors, and overall management of the site.</p>	3.08	N/A
Average	3.21	3.85

Connectivity

More detail on residents' responses










Additional questions on travel options and parking were weighted to help to determine residents' average scores:



Liveability

Providing quality facilities and facilitating positive interactions between residents and the wider community

	Residents	Developer
 Building quality <p>The building design and use of materials provide quality homes that are durable and easy to maintain.</p>	3.94	4.00
 Personalised dwellings and storage <p>Dwellings and private spaces can be personalised or modified to account for changing needs over time, and have appropriate storage for lifestyle requirements.</p>	2.82	4.00
 Technological integration <p>Utilities are easily accessible, enabling the integration of new technologies into buildings.</p>	N/A	N/A
 Noise control and privacy <p>Design and ongoing management reduce noise to acceptable levels between dwellings as well as between dwellings and public spaces, while overall dwelling design provides adequate, quiet, private space allowing residents a sense of retreat.</p>	3.69	4.00
 Interactive and outdoor space <p>Provision and maintenance of high quality internal and outdoor spaces where people are likely to interact (e.g. laundry, shared rooms or other communal spaces).</p>	3.31	3.00
 Security and emergency preparedness <p>Provision of security features, lighting, active and passive surveillance provides a safe environment for all residents within their homes and throughout the site.</p>	3.88	5.00
 Engagement and satisfaction <p>Residents are encouraged to engage with issues affecting site operation and maintain active interactions with each other and the surrounding community. Resident satisfaction is regularly monitored.</p>	3.35	5.00
Average	3.52	4.10

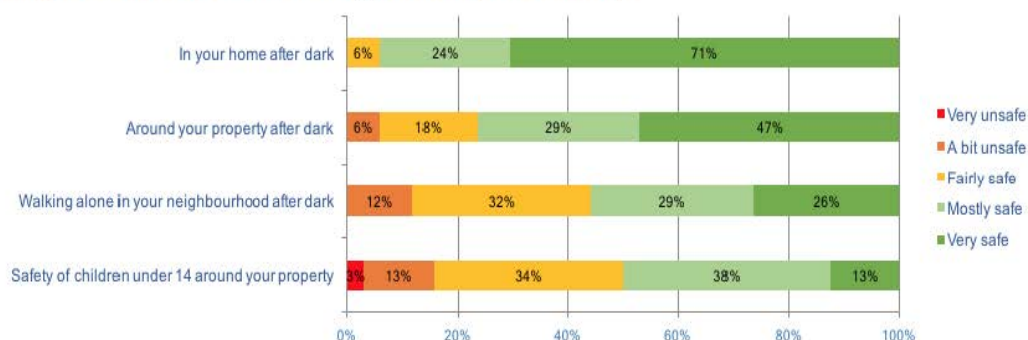
Liveability

A closer look at residents' responses

Residents were asked to rate aspects of their home and surroundings:



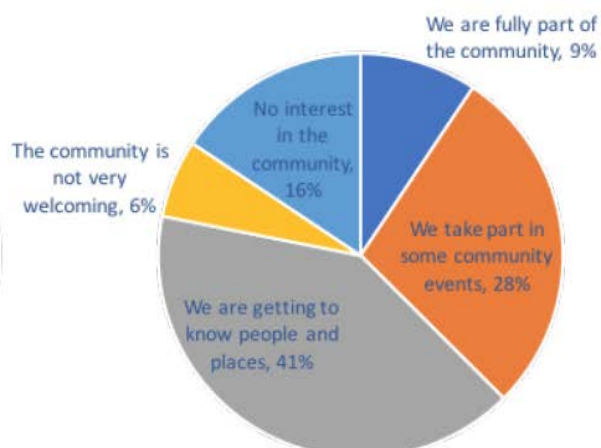
They also gave feedback on their feelings of safety and security:



They were asked what best described their household's involvement with residents' activities and issues




...and what best described their household's relationship with the wider community



Sustainability

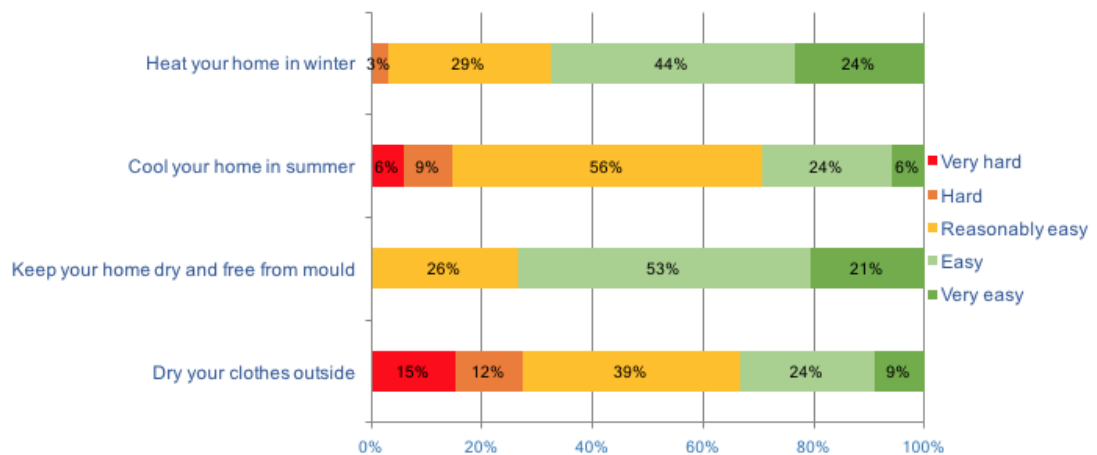
Efficient and cost-effective resource use through design, behaviour, and technological advancement

	Residents	Developer
 Climate adaptability Design considerations account for extreme weather variations (e.g. temperature, rainfall, wind), changing sea levels, flooding and wild fire where appropriate.	N/A	3.00
 Building materials Building materials can demonstrate durability and third party eco-labelling or responsible sourcing, while ensuring that any waste is recycled and any soil contamination on site is remediated.	N/A	3.00
 Solar gain Building orientation takes account of seasonal variations to minimise heating, cooling and lighting requirements.	4.09	4.00
 Warmth and dryness Building design maximises thermal efficiency and comfort, and effectively controls moisture through insulation, glazing and ventilation.	3.39	4.00
 Energy and water efficiency Energy and water management maximises the use of renewable supply as well as the use of efficient appliances where appropriate.	4.12	2.50
 Recycling and composting Provision and active management of waste, recycling and composting facilities to ensure appropriate site placement and ease of use.	3.54	5.00
 Native ecology, gardening and food production Proactive attempts to enhance environmental quality and biodiversity and provision of outdoor space for gardening, and food production.	2.87	4.00
Average	3.47	3.82

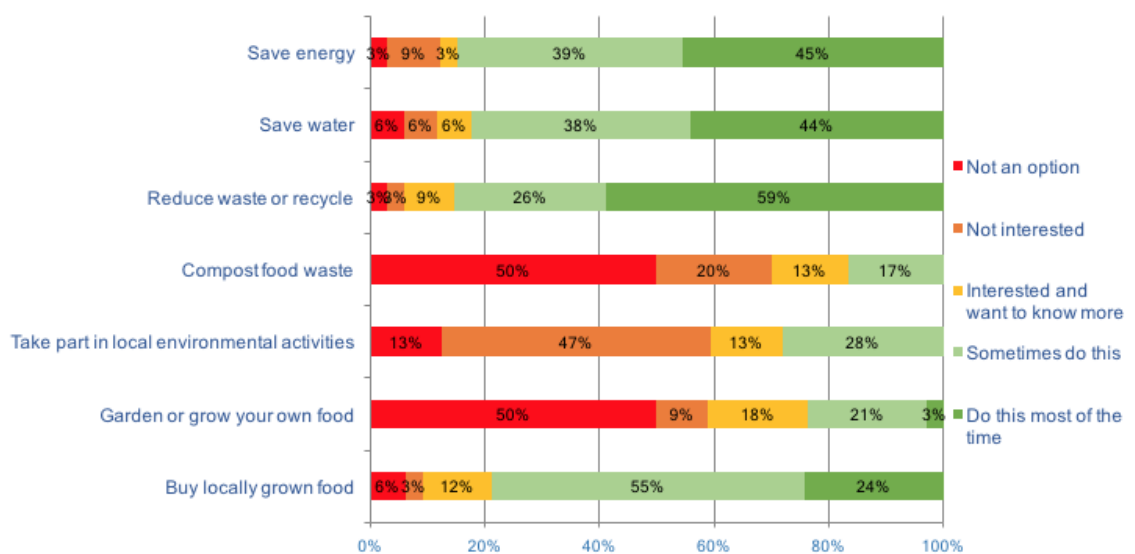
Sustainability

More information on residents' environmental behaviours

Residents stated the ease with which they could control temperature and moisture in their homes:



...and how often they engaged in some sustainable actions:



8.4 Summary of results for Brickworks residents

Living at Brickworks

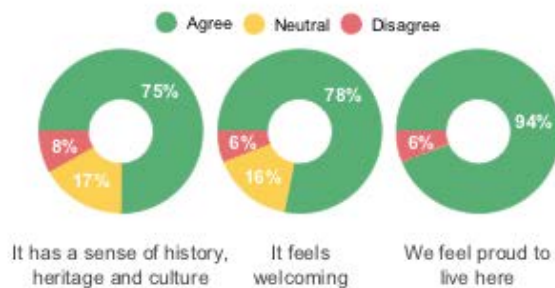
A total of 36 residents kindly responded to our survey request representing over 60% of all households. This is a summary of what you told us...



Top 5 reasons why we moved here...



How we feel about Brickworks...



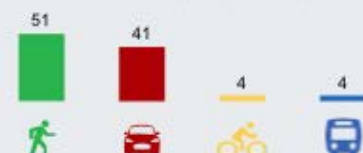
How we rate travel and parking...



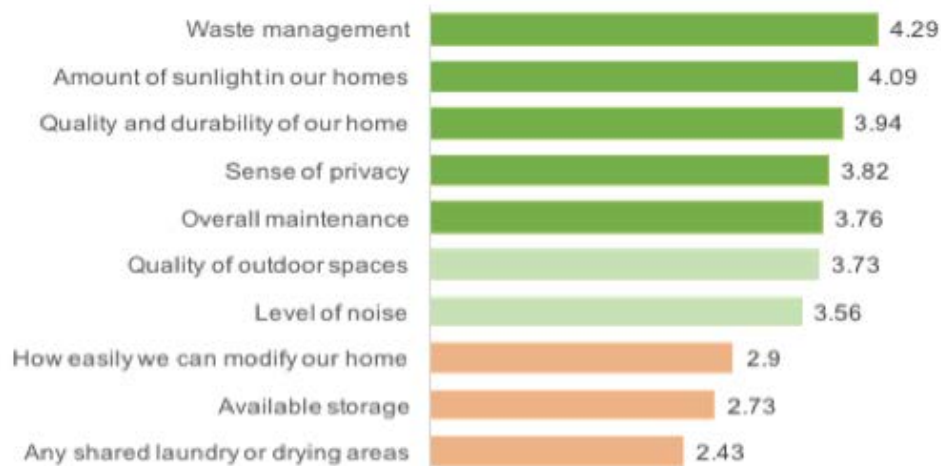
How we travel to work, school & study (%)



How we travel to other destinations (%)



How we ranked other things (as a score out of 5)...



Overall we...

Find it reasonably easy to:

Heat our homes and keep them dry
and free from mould

Find it a bit harder to:

Dry our clothes outside and
keep our homes cool on hot days

Are more likely to:

Reduce or recycle our waste, save energy and
water and buy locally grown food

Are less likely to:

Take part in local environmental activities, grown
our own food or compost food waste

Even so
around 20%
sometimes
do these

Brickworks feels like a safe place to live
around the clock



And almost two thirds of residents have an emergency response plan



Just over half of us keep informed about our local
community by reading information or attending meetings

25% take part in community events and close to 40% are still
getting to know people and places



Things we love...



Feeling of security
Safety when walking and cycling
The local environment

Not so much...



Variety of local shops
Hard to dry clothes
Some maintenance issues

Of those that answered the survey:

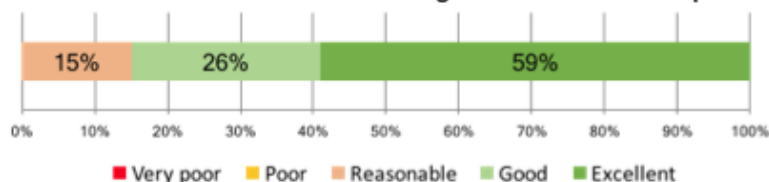
Own

62%

38%

Rent

85% of us rate Brickworks as either a good or an excellent place to live



PART THREE: CONCLUSIONS

9 Conclusions and next steps

This paper summarises results from the application of the prototype medium density assessment tool to two case studies of medium density housing in New Zealand. The results have indicated that the broad framework has useful application to medium density settings in New Zealand and has potential to add value and inform developers and communities as they plan, design and inhabit their developments.

This BRANZ Levy and MBIE-funded research is addressing the question “*How is success of MDH measured at the individual development and neighbourhood level?*”; and this report provides results from case study application of a suitable New Zealand prototype assessment framework and resulting assessment tools for medium density developments.

The Framework Development and Tool Evaluation Phases included a detailed review of nine existing approaches to the guidance and assessment of medium density and built form which helped the project team to refine the framework and undertake the case studies. The tool was based on this earlier work which had evolved the core outcome principles into the five following key category areas:

- Character, Context and Identity
- Liveability
- Connectivity
- Choice
- Sustainability

The review and refinement of core outcome principles and the evolution of the Medium Density Assessment Framework proved essential in determining how these outcomes directly relate to the developments (in terms of the site and building design) the residents, and the wider community. The framework also enabled a direct assessment of these key outcomes, both by residents, and by developers, and the methodology that was developed helped the project team combine their scores to provide specific feedback and guidance for improved MDH design.

The earlier tool evaluation and framework development phases of the project have provided a solid foundation for the developing prototype tool for assessment in New Zealand. The assessment methodology and associated assessment processes developed as part of the case study applications have proved robust and successful when applied to the case study developments. The process has yielded a useful and tested set of observational assessment review questions for developers and a set of post-occupancy evaluation questions for residents (these can be viewed in the appendices of this report).

The assessment methodology and corresponding survey techniques were grounded in the set of outcome-focused principles developed at the earlier stages of the project. These provided a robust framework for our target audiences to understand what makes medium density successful.

During the course of applying the framework and assessment tools to the two case studies, the research team have been compiling a list of recommendations for refinement of the framework and tools, as well as opportunities for further development. Many of these recommendations will be further expanded on in the final project report due March 2018.

10 Appendix 1: The Developer's Survey

Site Review

About the site

These introductory questions collect background information about the development and the residents' household situation.

1. What is the size of the site (m2)?

2. How many residential properties are on the site?

3. What is the number of 1,2,3,4,5+ bedroom properties on site?

1 bedroom	<input style="width: 60px;" type="text"/>
2 bedroom	<input style="width: 60px;" type="text"/>
3 bedroom	<input style="width: 60px;" type="text"/>
4 bedroom	<input style="width: 60px;" type="text"/>
5+ bedroom	<input style="width: 60px;" type="text"/>

4. What is the current / expected population of residents on site?

5. What proportion of properties are/will be developed as affordable dwellings targeting new or lower-income households (%)?

6. What proportion of properties are/will be developed as affordable dwellings targeting new or lower-income households (%)?

7. Indicate the proportion of dwellings under each of the following categories (%):

Apartments	<input style="width: 60px;" type="text"/>
Terraces	<input style="width: 60px;" type="text"/>
Stand-alone	<input style="width: 60px;" type="text"/>
Accessible (design features and/or fittings to assist mobility)	<input style="width: 60px;" type="text"/>

8. Add comments or qualifications for any of the above questions.

Site Review

Character, context and identity

This section considers how well the development integrates with its surroundings and adds to the local neighbourhood. Each feature is rated from 1 to 5 where 1 determines that there was no consideration with respect to integration at all and 5 determines that site development adheres to best practice principles wherever possible. It is recognised that some of these features may not be applicable particularly for small developments. In this case an option for N/A is provided with a comments box for further explanation whenever this option is selected.

9. Rate from 1 to 5:

	1	2	3	4	5	N/A
The site and building design integrates with slope and form and enhances local geographic features.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments: <input type="text"/>						
Natural environmental elements are integrated within the site which takes its cue from the local surroundings (e.g. waterways, habitats, native plants and trees).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments: <input type="text"/>						
The site takes account of local history, honours heritage and culture and seeks community direction.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments: <input type="text"/>						
Site design and layout, key features and artistic works have been developed to create an identity and 'sense of place'.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments: <input type="text"/>						
The building design and materials integrate with and enhance the surrounding neighbourhood character.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments: <input type="text"/>						
Entranceways and frontages are designed to be welcoming, accessible, and are in context with and enhance the overall character.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments: <input type="text"/>						

Site Review

Choice

This section considers how the development provides for and enables occupancy by a diverse range of residents who can benefit from and support a thriving local economy. High levels of diversity and optimum residential density make the development viable in terms of marketability and cost per unit. This section is primarily undertaken through a desktop review exercise based on available local statistical data with additional information from a site review and/or developer responses.

10. Rate from 1 to 5:

	1	2	3	4	5	N/A
Proximity to local centres and other key destinations enables residents to live, work and play in their surrounding neighbourhood. (Developments with a mix of commercial / residential premises enable employment opportunities within the site).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments:	<input type="text"/>					
The provision of dwelling typologies offers an appropriate choice with regards to existing neighbourhood demographics as well as the demographics of targeted residents (including expected age range and household size).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments:	<input type="text"/>					
A range of dwellings options and supporting financial instruments provide residents of varying means with the ability to live in quality accommodation (e.g. starter home / buy to let / financial assistance).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments:	<input type="text"/>					
Diverse and flexible tenure arrangements provide opportunities for residents to either own or rent quality accommodation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments:	<input type="text"/>					
Building designs exhibit a range of adaptability and floor plan flexibility responding to changing requirements and the potential for mixing use over time (e.g. the ability to adapt a residential building to incorporate commercial activity).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments:	<input type="text"/>					
The number of dwellings per hectare and population density are in line with existing and planned infrastructure and services (e.g. transport, stormwater, local amenities).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments:	<input type="text"/>					

Site Review

Connectivity

This section considers how well the development and connecting infrastructure enables safe, universal access to key destinations for residents whilst also encouraging a range of active mobility options. A desktop procedure is initially used to assess a range of current and future transport options as well as providing identification of key destinations. In this case, walkable distances vary in relation to specific destinations with approximate distances shown below. Cycling distances are approximately double the walking distances however specific topographies will need to be taken into account.

The site review then provides a rating from 1 to 5 on certain features where 1 determines that there was no consideration with respect to the feature described and 5 determines that site development adheres to best practice principles wherever possible. It is recognised that some of these features may not be applicable particularly for small developments. In this case, an option for N/A is provided with a comments box for further explanation whenever this option is selected.

11. Select the options that are available for residents to travel to the following places:

	Walk	Cycle	Bus, train or ferry	Park and ride on the bus, train or ferry	Private transport (car / motorbike / scooter)	Not Applicable
Work (walkable to approx 2km)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
School (walkable between approx 500m-2km depending on age range)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tertiary study or training (walkable to approx 2km)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments

12. Select the travel options available to the following destinations:

	Walk	Cycle	Bus, train or ferry	Park and ride on the bus, train or ferry	Private transport (car / motorbike / scooter)	N/A
Local shop or dairy (walkable to approx 2km)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Supermarket (walkable to approx 500m due to loads)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Childrens' play area (walkable to approx 1km)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Parks or open spaces (walkable to approx 1km)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Community facilities / Library, hall etc. (walkable to approx 1km)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Medical Centre (walkable to approx 1km)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments

13. Describe any planned developments in terms of destinations, facilities or transport infrastructure that will affect future accessibility for residents:

14. Rank the following from 1 to 5:

	1	2	3	4	5	N/A
Permeability within and through the site supports wider neighbourhood connectivity and facilitates access to surrounding destinations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments:	<input type="text"/>					
Proactive measures to encourage active and shared transport including pool vehicles, charging points for electric vehicles and options for telecommuting.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments:	<input type="text"/>					
Design considerations reduce physical conflict between cars and other users within the site and at access points.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments:	<input type="text"/>					
Wayfinding and signage to and around the site facilitates visitor movement and the identification of resident dwellings while ensuring that designs and naming are appropriate to the site's overall identity.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments:	<input type="text"/>					
Design enables ease of access and egress for emergency, delivery and service vehicles.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments:	<input type="text"/>					

15. Tell us:

How many dedicated parking spaces are there for residents?

How many dedicated parking spaces are there for visitors?

How many bicycles can be securely parked on site?

Site Review

Liveability

This section looks at the provision of quality features and approaches that facilitate positive interactions between residents and the wider community and enable residents to lead fulfilled, engaged and satisfied lives. Each feature is rated from 1 to 5 where 1 determines that there was no consideration with respect to providing for the particular liveability aspect and 5 determines that the development follows best practice principles. It is recognised that some of these features may not be applicable - particularly for small developments. In this case, an option for N/A is provided with a comments box for further explanation whenever this option is selected.

16. Rank the following from 1 to 5:

	1	2	3	4	5	N/A
The building design and use of materials provide quality homes that are durable and easy to maintain.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments:	<input type="text"/>					
Dwellings and private spaces can be personalised or modified to account for changing needs over time including appropriate provision of universal designed dwellings.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments:	<input type="text"/>					
Residents are provided with appropriate personal or shared storage space to accommodate their lifestyle requirements.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments:	<input type="text"/>					
Utilities are easily accessible enabling the integration of new technologies into buildings.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments:	<input type="text"/>					
Design and ongoing management reduce noise to acceptable levels between dwellings as well as between dwellings and public spaces.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments:	<input type="text"/>					

Dwelling design provides adequate, quiet, private space allowing residents a sense of retreat.

☐ ☐ ☐ ☐ ☐ ☐

Comments:

Provision and maintenance of high quality internal spaces where people are likely to interact (e.g. laundry, shared rooms or other communal spaces).

☐ ☐ ☐ ☐ ☐ ☐

Comments:

Residents have direct access to well-maintained public outdoor space with facilities that are appropriate to the resident demographic.

☐ ☐ ☐ ☐ ☐ ☐

Comments:

Provision of security features, lighting, active and passive surveillance provides a safe environment for all residents within their homes and throughout the site.

☐ ☐ ☐ ☐ ☐ ☐

Comments:

Design considerations and a site based emergency preparedness plan take account of residents' needs while supporting wider neighbourhood resilience.

☐ ☐ ☐ ☐ ☐ ☐

Comments:

Residents are encouraged to engage with issues affecting site operation and management and maintain active interactions with each other and the surrounding community (e.g. residents newsletters and meetings and wider community events).

☐ ☐ ☐ ☐ ☐ ☐

Comments:

Resident satisfaction with the site, building and wider neighbourhood is regularly monitored to continually improve site management and inform future development.

☐ ☐ ☐ ☐ ☐ ☐

Comments:

Site Review

Sustainability

This section looks at features and aspects of the development (site and buildings) that enable and encourage efficient cost effective resource use through design, behaviour and technological advancement. Each aspect is rated from 1 to 5 where 1 determines that there was no consideration with respect to providing for sustainability and 5 determines that the development follows best practice principles. It is recognised that some of these features may not be applicable - particularly for small developments. In this case an option for N/A is provided with a comments box for further explanation whenever this option is selected.

17. Rank the following from 1 to 5:

	1	2	3	4	5	N/A
Design considerations account for extreme weather variations (e.g. temperature, rainfall, wind), changing sea levels, flooding and wild fire where appropriate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments:	<input type="text"/>					
Building materials can demonstrate durability and third party eco-labelling or responsible sourcing (e.g. FSC / NZ Environmental choice) while ensuring that any waste is recycled and any soil contamination on site is remediated	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments:	<input type="text"/>					
Building orientation takes account of seasonal variations to minimise heating, cooling and lighting requirements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments:	<input type="text"/>					
Building design maximises thermal efficiency and comfort and effectively controls moisture through insulation, glazing and ventilation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments:	<input type="text"/>					

Energy management maximises the use of renewable supply, the use of efficient appliances and reduces the need for energy use where appropriate (e.g. through the provision of outside areas for clothes drying)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments:						
<input type="text"/>						

Water management reduces demand through low flow devices and efficient water heating technologies and optimises supply through rain water harvesting and grey water recycling	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments:						
<input type="text"/>						

Provision and active management of waste, recycling and composting facilities to ensure appropriate site placement and ease of use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments:						
<input type="text"/>						

Proactive approaches monitor air and water quality and encourage residents to enhance biodiversity through the protection of local habitats and waterways	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments:						
<input type="text"/>						

Space is provided for outdoor activities (e.g. gardening or growing food) where possible or appropriate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments:						
<input type="text"/>						

Information is provided to residents on the efficient use of building features, appliances and neighbourhood facilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments:						
<input type="text"/>						

Storm water management minimises flooding, run-off and associated pollution	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments:						
<input type="text"/>						

11 Appendix 2: The Residents' Survey

Living at XXXXX

What is it like to live in your neighbourhood?

Tell us before 5th December and we'll send you a

\$20 Countdown voucher (*one per household*)

Fill in this paper version and send it in the envelope provided

Or visit: <https://www.surveymonkey.com/XXXXXX>

Or scan this QR code: XXXXX

All the information in the questionnaire **is confidential**.

Thank you very much for your time.

Please contact verneyr@beaconpathway.co.nz
if you have any questions.

ABOUT YOUR NEIGHBOURHOOD

These questions help us understand how you feel about your neighbourhood.

1. Thinking about the place where you live, how much do you agree or disagree with the following? <i>Please tick ✓ ONE answer for each statement</i>	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
it works well with the surrounding natural environment					
it has a sense of local history, heritage and culture					
it has an identify that adds to the local neighbourhood					
it feels welcoming					
We feel proud to live in this place					

WHY WE LIVE HERE

These questions help explain why you chose to live in this area and whether your home suits the needs of your household.

2. Why did your household choose to live in this area? (select as many as you like):

- | | | |
|--|---|--|
| <input type="checkbox"/> Easy access to work or study | <input type="checkbox"/> Variety of local shops | <input type="checkbox"/> The quality of the local environment |
| <input type="checkbox"/> Access to schools or daycare | <input type="checkbox"/> Local community facilities (e.g. library / halls) | <input type="checkbox"/> A feeling of safety / security |
| <input type="checkbox"/> Close to friends or relatives | <input type="checkbox"/> Near to health care services | <input type="checkbox"/> The design and quality of the home |
| <input type="checkbox"/> Play areas for young children | <input type="checkbox"/> Leisure facilities (e.g. sports, skate park or swimming) | <input type="checkbox"/> The feel of the local neighbourhood |
| <input type="checkbox"/> Good public transport | <input type="checkbox"/> Access to green spaces or water | <input type="checkbox"/> Our circumstances made this the only option |

3. How much do you agree or disagree with the following?

Please tick ONE ✓ answer for each statement

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
The home suits our household needs					
This home is affordable for our household					

Do you have any other comments about your neighbourhood or why you chose to live here?

GETTING AROUND

This section tells us how you travel around and helps us understand what might make it easier.

4. Thinking about how your household travels around:

How many vehicles are there in your household?	
How many working bicycles?	
How many household members need support with their mobility including push chairs, wheelchairs or walking aids?	

5. Tell us all the ways your household travels to the following places

Please tick ✓ ALL options that you use

	Walk	Cycle	Motorbike / Scooter	Bus, train or ferry	Park and ride (bus train ferry)	Car / van	Not applicable
Work							
School							
Tertiary study or training							

6. Tell us all the ways your household travels to the following places

Please tick ✓ ALL options that you use

	Walk	Cycle	Motorbike / Scooter	Bus, train or ferry	Park and ride (bus)	Car / van	Not applicable
Local shop or dairy							
Supermarket							
Childrens' play area							
Parks or open spaces							
Community facilities (Library, hall etc)							
Leisure and recreational facilities							
Medical facilities							

7. What do you think of the following? <i>Please tick ✓ ONE answer for each statement</i>	Very poor	Poor	Reasonable	Good	Excellent	Not applicable
The range of different travel options from your home						
Your feeling of safety from cars when you walk or cycle						
How easy is it for new visitors to find your home						
How easy is it for delivery services to find your home						

8. How do you rate parking? <i>Please tick ✓ ONE answer for each statement</i>	Very poor	Poor	Reasonable	Good	Excellent	Not applicable
Car parking for residents						
Car parking for visitors						
Secure cycle parking for residents & visitors						
Scooter / moped parking for residents & visitors						
Overall management of parking on-site						

Do you have any other comments about travel or parking?

LIVING IN YOUR HOME

These questions tell us more about your living space, as well as your feelings of security, and your household's involvement in the wider community.

9. How do you rate the following? <i>Please tick ✓ ONE answer for each statement</i>	Very poor	Poor	Reasonable	Good	Excellent	Not applicable
Quality and durability of your home						
How easily you can modify your home as your needs change						
Storage available for your household's lifestyle or hobbies						

10. What do you think of other features of your home? <i>Please tick ✓ ONE answer for each statement</i>	Very poor	Poor	Reasonable	Good	Excellent	Not applicable
The amount of sunlight coming into your home						
Level of noise from other residents and the wider neighbourhood						
Sense of privacy within your home						
Quality of outdoor spaces including gardens and play areas						
Any shared laundry and drying facilities						
Waste management facilities						
Overall maintenance of the building and surrounding outside spaces						

11. Thinking about home comfort, how easy it is to do the following?

Please tick ✓ ONE answer for each statement

	Very hard	Hard	Reasonable	Easy	Very easy
Heat your home in winter					
Cool your home in summer					
Keep your home dry and free from mould					
Dry your clothes outside					

12. How often do you do any of the following?

Please tick ✓ ONE answer for each statement

	Not an option	Not interested	Interested and want to know more	Sometimes do this	Do this most of the time
Save energy					
Save water					
Reduce waste or recycle					
Take part in environmental activities					
Garden or grow your own food					
Buy locally grown food					

13. How safe do you feel in the following situations?

Please tick ✓ ONE answer for each statement

	Very unsafe	A bit unsafe	Fairly safe	Mostly safe	Vary safe
In hour home after dark					
Around your property after dark					
Waking alone in your neighbourhood after dark					
Safety of children under 14 when playing around your property at all times					

14. Does your household have a plan for how to respond to emergencies?

Please tick ✓ ONE response

☐ Yes

☐ No

☐ Don't know

Do you have comments about living in your home?

LIVING IN YOUR COMMUNITY

15. How would you best describe your household's involvement with residents' activities and issues

Please tick ✓ ONE answer

- | | | |
|--|--|--|
| <input type="checkbox"/> No interested | <input type="checkbox"/> Interested but not active | <input type="checkbox"/> Read information or interact online |
| <input type="checkbox"/> Attend meetings or events | <input type="checkbox"/> Organise meetings or events | |

Other – please tell us:

16. How would you describe your household's relationship with the wider community?

Please tick ✓ ONE answer

- | | | |
|---|--|---|
| <input type="checkbox"/> No interest in the community | <input type="checkbox"/> The community is not very welcoming | <input type="checkbox"/> We are getting to know people and places |
| <input type="checkbox"/> We take part in community events | <input type="checkbox"/> We are fully part of the community | |

Other – please tell us:

17. Overall, how would you rate your community as a place to live?

	Very poor	Poor	Reasonable	Good	Excellent
Please tick ✓ ONE answer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

AND FINALLY, SOME QUESTIONS ABOUT YOUR HOUSEHOLD

18. How long have you lived in your home?

Please tick ✓ ONE answer

- ☐ Less than one year
 ☐ 1-2 years
 ☐ 3-4 years
☐ 5-9 years
 ☐ 10 years or more

19. How many bedrooms does your home have?

Please tick ✓ ONE answer

- ☐ 1
 ☐ 2
 ☐ 3
☐ 4
 ☐ 5 or more

20. Do you own or rent your home?

Please tick ✓ ONE answer

- ☐ Own
 ☐ Rent from a private landlord
 ☐ Rent from Housing New Zealand

Other – please tell us:

21. How many people live in your home?

22. Please tell us a bit about your household members (if more than 6 please tell us in the comments box below):

	Age	Ethnicity
1 st member		
2 nd member		
3 rd member		
4 th member		
5 th member		
6 th member		

Please tell us the age and ethnicity of any additional household members

--

23. Can you please estimate your total household income?

Knowing household income helps us understand how this might affect the types of issues people

face and the decisions they make. You don't need to answer this if you don't want to.

Please tick ✓ ONE answer

- | | | |
|--|---|---|
| <input type="checkbox"/> I'd rather not say | <input type="checkbox"/> Less than \$10,000 | <input type="checkbox"/> \$10,001-\$30,000 |
| <input type="checkbox"/> \$30,001-\$50,000 | <input type="checkbox"/> \$50,001-\$70,000 | <input type="checkbox"/> \$70,001-\$100,000 |
| <input type="checkbox"/> More than \$100,000 | <input type="checkbox"/> Don't know | |

CLAIMING YOUR \$20 VOUCHER

24. Thank you very much for your time. Please tell us if you would like to hear about the results of this project?

- ☐ Yes
 ☐ No

25. We are offering one \$20 voucher for Countdown for a completed questionnaire. If you would like one, please enter your name and contact details below.

Please note that we can only offer one voucher for each household.


Your name	
Apartment number (at Brickworks)	
Telephone	
Email	

**If you have completed this questionnaire we will send you
your voucher in the post.
Thank you very much for your time.**

12 Appendix 3: Examples of survey collateral

What's it like to live here?

HLC is working with Beacon Pathway to ask residents what it's like to live in this neighbourhood.



Our 10-minute questionnaire gives you a chance to tell us about your home, your streets, your community and how you get around.

Please take our survey!

Scan the QR code

Or use the link below:

www.beaconpathway.co.nz/brickworks

Take part before XXXX and we will send you a **\$20 voucher** for XXXXXX

Proudly supported by:

HLC Homes, Land, Community.

In partnership with:



What's it like to live here?

Fill in our short online survey before December 5th and claim a

\$20 voucher for Countdown



Scan the QR code



or go to www.surveymonkey.com/r/BrickworksResidents

Proudly supported by:

HLC Homes, Land, Community.

In partnership with:



What's it like to live here?



Beacon Pathway is working with Hypatia residents to find out what it's like to live in this neighbourhood.

Our questionnaire takes 5-10 minutes.

It gives you a chance to tell us about your home, your streets, your community and how you get around.

Please take our survey!

Scan the QR code

Or use the link below:

www.surveymonkey.com/r/Hypatia-Residents



Take part before December 5th and, if you like, we will send you a **\$20 voucher** for Countdown

Proudly delivered by:



See: www.beaconpathway.co.nz
for more information
about our projects

13 Appendix 4: Draft Assessment Framework

The following pages present the draft assessment framework as it appeared in report MDH/2:

Character, Context and Identity (CCI)

Scale of Influence				Outcome Focussed Principles	
Site	Building	People	N'hood	Aims: To develop a site and buildings that integrate with or relate to existing building form and style in the surrounding neighbourhood with relation to:	
✓	✓		✓	Physical landscape	The building design integrates with and enhances local geographic features
✓		✓	✓	Environmental landscape	Natural environmental elements are incorporated into the site which takes its cue from the local surroundings (e.g. waterways, bush etc.).
✓	✓	✓	✓	Heritage and culture	The site takes account of local history, honours heritage and culture, and seeks community direction to identify opportunities to create, exhibit or promote features that add to the neighbourhoods wider sense of place
✓	✓	✓	✓	Sense of place	Site design and layout, key features and artistic works have been developed to create a 'sense of place' recognising and aligning with the existing cultural and community context
	✓		✓	Building character	The building design and materials have been chosen to integrate with and enhance the surrounding neighbourhood character using locally sourced and culturally appropriate materials where possible
✓	✓	✓	✓	Street scape	Entranceways and frontages are welcoming and are in context with and enhance the overall character
✓	✓	✓	✓	Identity	The overall design instills a sense of pride amongst residents

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Choice

Site	Building	People	N'hood	Aims: The development provides for and enables occupancy by a diverse range of residents who can benefit from and support a thriving local economy; with the understanding that high levels of diversity and optimum residential density make the development viable in terms of marketability and cost per unit. These aims relate to:	
	✓	✓	✓	Residential dwelling typology	The provision of dwelling typologies offer an appropriate choice with regards to existing neighbourhood demographics as well as the demographics of targeted residents (including expected age range, work status, household sizes)
	✓	✓	✓	Building adaptability	Building designs exhibit a range of adaptability and floor plan flexibility responding to changing requirements and the potential for mixing use over time
		✓	✓	Tenure	Diverse tenure arrangements provide opportunities for residents to either own or rent in quality accommodation
	✓	✓	✓	Affordability	A range of dwelling options and supporting financial instruments provide residents of varying means with the ability to live in quality accommodation (e.g. starter home / buy to let / financial assistance)
✓		✓	✓	Opportunity	Proximity to local centres provides employment opportunities and other key destinations enable the target residents to work, live and play in their surrounding neighbourhood. In addition, developments with a mix of commercial / residential premises encourage/enable employment opportunities within the site
✓	✓	✓	✓	Population density	The number of dwellings per hectare and the range of sizes on offer to residents are in line with existing and future supporting infrastructure and services.

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Connectivity

Site	Building	People	N'hood	Aims: Connecting infrastructure enables safe, universal access using active, mobility, shared and private modes of transport within and through the site to identified key destinations	
✓		✓	✓	Key destinations	The identification of likely key destinations appropriate to the target residents determines the feasibility and potential use of various travel options
✓		✓	✓	Accessibility	Determining the extent of current and future accessibility to key destinations based on distance, infrastructure and services that enable safe travel on foot, by cycle, on public transport, by car, or with mobility aids
✓	✓	✓	✓	Transport choice	Proactive measures to encourage active and shared transport including pool vehicles, charging points for electric vehicles and options for telecommuting
✓		✓	✓	Permeability	Permeability within and through the site supports wider neighbourhood connectivity and facilitates access to surrounding destinations
✓		✓	✓	Safety from vehicles	Design considerations reduce physical conflict between cars and other users within the site and at access points
✓	✓	✓	✓	Parking provision and management	Supply of parking for cars and facilities for cycles are appropriate for residents and visitors and are managed and adapted to encourage active and shared modes over time
✓	✓	✓		Access for services	Design enables ease of access and egress for emergency, delivery and service vehicles
✓	✓	✓	✓	Wayfinding	Wayfinding and signage to and around the site facilitates visitor movement, the identification of resident dwellings while ensuring that designs and naming is appropriate to the site's overall identity

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Liveability

Site	Building	People	N'hood	Aims: Providing quality facilities and facilitating positive interactions between residents and the wider community	
	✓	✓		Building quality	The building design and use of materials provide quality homes that are efficient to run and easy to maintain
✓	✓	✓		Technological integration	Utilities are easily accessible enabling the integration of future technologies into buildings
	✓	✓		Personalised dwellings	Dwellings and private spaces can be personalised or modified to account for changing needs over time including appropriate provision of universal designed dwellings
	✓	✓		Storage	Residents are provided with appropriate personal or shared storage space to accommodate their lifestyle requirements
	✓	✓	✓	Noise control	Design and ongoing management reduces noise to acceptable levels between dwellings as well as between dwellings and public spaces
	✓	✓		Privacy	Building design provides adequate, quiet, private space allowing residents a sense of retreat
	✓	✓		Interactive space	Provision and maintenance of high quality internal spaces where people are likely to interact (e.g. laundry, shared rooms or other communal spaces)
✓		✓	✓	Outdoor space	Residents have direct access to well-maintained public outdoor space with facilities that are appropriate to the resident demographic
✓	✓	✓		Security	Provision of security features, lighting, active and passive surveillance provides a safe environment for all residents within their homes and throughout the site at all times
✓	✓	✓		Emergency preparedness	Design considerations and a site-based emergency preparedness plan take account of residents' immediate needs while supporting wider neighbourhood resilience
✓	✓	✓	✓	Engagement	Residents are encouraged to engage with issues affecting site operation and management and maintain active interactions with each other and the surrounding community
✓	✓	✓	✓	Satisfaction	Resident satisfaction with the site, building and wider neighbourhood is regularly monitored to continually improve site management and inform future development

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Sustainability

Site	Building	People	N'hood	<i>Aims: efficient and cost effective resource use through design, behaviour and technological advancement</i>	
✓	✓			Climate adaptability	Design considerations account for extreme weather variations (e.g. temperature, rainfall, wind), changing sea levels / flooding and wild fire where appropriate
	✓			Building materials	Building materials can demonstrate durability and third party eco-labelling or responsible sourcing (e.g. FSC / NZ Environmental choice) while ensuring that any waste is recycled and any contamination is remediated
✓	✓	✓		Solar gain	Building orientation takes account of seasonal variations to minimise heating, cooling and lighting requirements
	✓	✓		Warmth and dryness	Building design maximises thermal efficiency and comfort and effectively controls moisture through insulation, glazing and ventilation
✓	✓	✓		Energy efficiency	Energy management maximises the use of renewable supply, the use of efficient appliances, and reduces the need for energy use where appropriate (e.g. through the provision of outside areas for clothes drying)
✓	✓	✓		Water supply and heating	Water management reduces demand through low flow devices and efficient water heating technologies and optimises supply through rain water harvesting and grey water recycling
✓	✓		✓	Storm water management	Storm water management minimises flooding, run-off and associated pollution
✓	✓	✓		Recycling	Provision and active management of waste, recycling and composting facilities
✓		✓	✓	Native ecology	Proactive approaches monitor air and water quality and encourage residents to enhance biodiversity through the protection of local habitats and waterways
✓		✓		Gardening and food production	Space is provided for outdoor activities (e.g. gardening or growing food) where possible or appropriate
✓	✓	✓	✓	Home user guide	Information is provided to residents on the efficient use of building features, appliances and neighbourhood facilities

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14 References

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