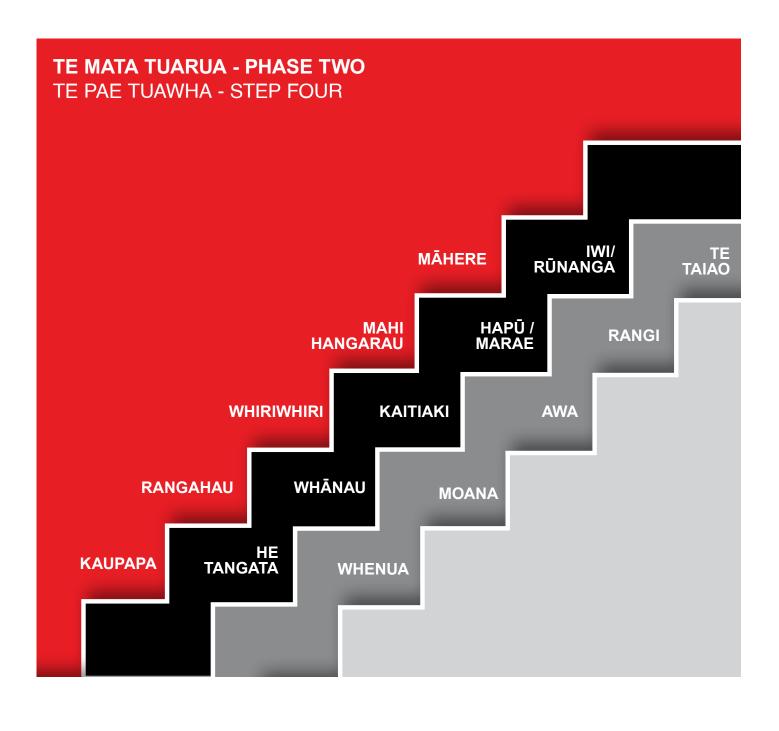
Te Keteparaha mō ngā Papakāinga

Māori Housing Toolkit



Whānau Papakāinga Building Communities













Kōrero Whakamārama / Cover story

TE KITEPARAHA MŌ NGĀ PAPAKĀINGA Translates to "Māori Housing Toolkit or Papakāinga Toolkit"

The traditional Poutama stairway pattern is commonly seen as a tukutuku panel in many meeting houses across the motu. Poutama symbolises our whakapapa (genealogies) relationships, mātauranga whānau, hapū and lwi at various levels of learning and intellectual achievement. The Poutama pattern also represents the journey of ascent undertaken by Tāne-ote-wānanga to reach the top-most realm of the heavens in his quest for superior knowledge and attainment of Ngā Kete Aronui, Tuatea and Tuauri.

The 5 Steps discussed in this guide are Kaupapa, (purpose, values and vision) for the Trust and shareholders; Rangahau (research, fact finding) on the sustainability and innovation; Whiriwhiri (meetings and discussion with owners); Mahi Hangarau (technical expertise and skills) required to explore the design and engineering options for homes and services, and Māhere (a papakāinga concept / master plan) that shows the layout of homes and the appropriate infrastructure services with indicative construction and costs.

Underpinning the 5 Steps are the traditional Māori family structures (in blue): tangata (individual), whānau (family), kaitiaki (trustees / boards), hapū / marae (sub-tribe / marae), and iwi / rūnanga (tribal authority) that may be involved and support your papakāinga proposal. The green pathway identifies those cultural connections with Papatūānuku and Ranginui that connect mana whenua with the whenua (land), moana / tāhuna (sea / harbour), awa (river or stream) Ranginui (the sky and air we breathe) as te taiao (our natural environment).

The learnings gained from each of the 5 Steps add value by building the intergenerational capability and capacity of whānau to manage and administer the whenua, homes and infrastructure services on your papakāinga.

MĀHERE

sustainability and innovation; Whiriwhiri (meetings and discussion with owners);		MAHI HANGARAU	A papakāinga development plan	
		WHIRIWHIRI	Technical advice and expertise	lwi/Rūnanga
	RANGAHAU	Working and meeting with land owners	Hapū / Marae	Te Taiao
KAUPAPA	Fact finding and research	Kaitiaki	Rangi	
Developing an idea and vision	Whānau	Awa		
He Tangata	Moana			
Whenua				

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Ngā Mahi Hangarau Technical Advice and Support

E raka te mauī, e raka te katau "A community can use all the skills of its people."

Te Pae Tuawha (Step 4) Ngā Mahi Hangarau (technical work) refers to the detailed technical design, drawings, options and associated costs necessary to progress and confirm the Trust's papakāinga proposal. The Trust's proposal is likely to be revised several times in response to the key technical issues for the papakāinga proposal before it is supported and approved by the owners and the local authority. Each papakāinga site will have its own unique physical characteristics with its own challenges and opportunities that the Trustees will need to address and resolve. Ngā Mahi Hangarau will assist the Trustees in identifying the key technical development issues for the papakāinga proposal and what further information may be needed to assist the Trust and owners to make the best decisions for the overall papakāinga development proposal.

Ko ngā Putanga o ngā Pae Tuatahi Tuarua me Te Tuatoru / The Outcomes from Steps One, Two and Three.

Your papakāinga proposal should not proceed with Step 4 unless you and the Trustees have completed Steps 1, 2 and 3:

An appropriate Trust has been established through the Māori Land Court with a Trust
 Order that enables shareholders / owners to build homes on the whenua. It would be an advantage to the Trust if the trustees have received some form of training on their roles, responsibilities, governance and management as trustees.
 There is agreement and support from the beneficial owners of the block to a common vision for the property and for the Trustees or a sub-committee to investigate the development of a papakāinga housing proposal on the Trust's property.
 The Trustees and owners have a clearer understanding of the planning requirements of

the respective local authority i.e. TCC or WBOPDC and the BOPRC. In completing Step 3 the Trust has established a formal relationship with appropriate Council.

The initial physical constraints and opportunities of the block have been identified through Trust meetings, site visits and interviews with the respective Council.

The critical information to consider in this Step includes:

- 1. Confirm the location and number of the papakāinga house sites in the proposal.
- What are the Council planning and resource consent requirements for the proposed papakāinga concept plan.
- Consider what the Council development and financial contribution fees are for each house site and the total Council fees for the whole papakāinga development.
- Investigate the engineering design details and costs for the infrastructure services required for each house site and other communal facilities in the proposed papakāinga concept plan.

- 5. Appropriate management and development policies that facilitate housing whānau and other appropriate land use activities by shareholders on the whenua.
- Promote sustainable house design, building materials, alternative technologies and energy solutions and collective approach to building.

The Trust will need to collectively identify and address the papakāinga information gaps to enable the Trust to make the best housing development decisions with the beneficial owners for the future generations. The following table summarises the information requirements for Step 4 and the papakāinga outcomes for the Trust and shareholder.



PAPAKĀINGA HOUSE SITES AND KEY RELATIONSHIPS'	DETERMINE THE DESIGN AND COST OF THE SERVICES	WHAT ARE THE COUNCIL COSTS AND FEES	THE TRUST'S MANAGEMENT PROCESS FOR HOUSE SITES	INITIAL HOUSE DESIGN AND COSTS	CONCEPT PLAN AND INITIAL COSTS
 Confirm location(s) of house sites. Confirm the number of sites in each cluster. Staging of the development where appropriate. Identify cultural heritage, ecological and other areas of significance to the owners and Trust. Whānau connections with the local Marae, urupā, natural resource areas e.g. pā harakeke or mahinga kai areas 	 Internal roads and property access. Water services: waste, storm and supply/reticulation. Electricity supply. Wind, solar energy and natural gas options. Park, playground, recreational area, field and open space. Communications, telephone, broad band. Wharf, jetty or boat landing area. Other services or facilities. Would the Trust consider providing rental properties? Communications, telephone, fibre broadband. Wharf, jetty or boat landing area. Other services or facilities. Would the Trust consider providing rental properties? Wharf, jetty or boat landing area. Other services or facilities. Would the Trust consider providing rental properties? 	 Resource and land use consent application. Local and City or District wide financial contributions for: Roading Water Waste water Waste water Storm water Recreation and leisure. Meet with council staff to identify the above fees & costs. Building impact and inspection fees. How can these costs be reduced? 	 Reviewed the Trust Order. Adopted a Papakāinga Development Plan Finalise a "Licence to Occupy" with the beneficial owners. The Trust has Papakāinga Policy and Procedures which include criteria for allocating house sites and application form. The Trust maintains an efficient record keeping system for all papakāinga decisions. The Trusts Licence to Occupy is registered in the Māori Land Court. 	 House size 2, 3 or 4 bedrooms. Consider alternative building materials. Investigate sustainable housing and Māori design principles. Meet with other papakāinga Trusts in Tauranga, WBOP or the Waikato region Initial costs for proposed Trust dwellings / units. 	 Costs and rationale for all the services. Survey plan of the final papakāinga proposal. Present the final survey plan and technical reports to a meeting of owners. Review responses to final Papakāinga Development Plan from the owners and the respective Council. Start to prepare a resource consent application

TECHNICAL REPORTS:

- Geotechnical report describing the soil types · Landscape and and suitability for housing,
- · Foundations, waste-water, storm-water etc.
- · Engineering report detailing the design and cost options for each of the infrastructure services.
- · Planning report on the respective Council papakāinga rules and most appropriate option for the Trust.
- **Ecological Impact** Assessment Reports.
- · Valuation Report.
- · Where required.
- · Legal advice on the: · Energy efficiency
- Trust Order
- Licence to Occupy
- Criteria and allocation process
- Māori Land Court advice on the noting process
- - · Solar energy
 - Housing Insulation Water collection and disposal
 - Review of various Websites
- Survey plan and drawings showing the final location of the individual house sites, the location of the respective services and other communal facilities in the papakāinga.

Many Trusts have limited capacity, capability, time and funds available to progress their initial papakāinga concept plan through to an approved structure plan with TCC or WBOPDC.

Trust is successful with capacity funding application(s).

PM engages consultants based on quotes to prepare reports and lodge consent application

6

4

What are Council's planning consent and infrastructure service info requirements for papakāinga on Māori land?

The Trust's

Papakāinga Resource Consent(s) granted by appropriate Councils. The PM now seeks quotes to construct the services for all of the papakāinga house sites and infrastrucutre services as one or in stages

PM completes funding applications for planning and infrastrucure services reports

Identify Iocal and national funding sources for the Trusts to meet the key technical info required by Council to approval the papakāinga structure plan

3

Trust appoints papakāinga project manager (PM). Obtain quotes for consultancy reports that meet Council papakāinga provisions with fully service sites and identified costs and fees.

Check List

The Trust has an established Papakāinga Vision.

The Trust, Trustees and Trust Order with appropriate housing provisions have been established through the Māori Land Court.

) Support by the beneficial owners for the papakāinga project.

Initial awareness and understanding of the papakainga process.

Papakāinga sketch plan showing housing areas.

The Council has had initial interviews with the Trust in Step 3.

Confirm the Locations and the Number of the Papakāinga House Sites

The location of the proposed house sites would have been raised during the initial meetings, site visits and visioning with the Trustees and owners in the first 3 Steps. The Trust will need to confirm the location(s) of the proposed house sites on the property.

The location of the house sites may be influenced by where people would like to build, because of a special relationship with a specific area on the property, i.e. an old family homestead location, historical relationship to an area prior to an earlier amalgamation etc. A papakāinga may comprise more than one group of houses which may be referred to as clusters. These options will become part of the assessment in the technical reports.

In some situations the selection of possible papakāinga areas will be straight forward and obvious while other areas will require further technical advice. These areas could include properties with more challenging natural land features, soil structures, sloping or undulating topography; location near a river, stream, wetlands, estuary or foreshore area; low lying and prone to flooding; or parts of the property may have no access. An engineering assessment report would discuss all of these features and provide an indication of the suitability of the proposed site for housing.

The size and scale of the development

The size and scale of the papakāinga proposal refers to the total number of house sites in the papakāinga and the area for each house site. This is also known as the housing density. As the density number rises, the size of the sections reduce i.e. a housing density of 10 lots per hectare equates to a section size of 1000m²; a density of 16 lots per hectare equates to 625m².

The number of house sites will be determined by considering the physical nature and constraints of the area, the Trust's assessment of the housing needs of the owners and the minimum size for a house site in the provisions of the respective District or City Plan.

Papakāinga survey

The trustees may want to quantify the housing needs of the owners through a survey at a meeting of owners and then post or email the survey out to other owners. A sample survey is attached in Appendix 1.

From the responses to the questions and what you have heard at various meetings of owners, the Trust will have a clearer picture and understanding of how many owners are intending to build a home on the property and some indication of when. These are the key indicators that the Trust needs to know to enable the development and management of the property.

The Trust may look to address the immediate housing needs of the beneficial owners as well as the medium-term requests of others. The long-term aspirations and expectations of future generations to utilise the land and return to the papakāinga will become greater over time.

The recommendations from technical reports will provide the Trustees and a Trust subcommittee with the information and rationale as to why these sites have been chosen as the most appropriate areas to develop for housing.

The final decision on the location(s) and the number of house sites should be transparent and open to scrutiny by the owners at Trust meetings and in particular the AGM.

Staging options for the development

A Trust with a large papakāinga proposal or with several clusters may want to consider the option of staging the development in a specific order or sequence to align with the demand and timeframes from the owners. The staging may in some cases follow the availability of the funding for the infrastructure services and a more effective apportionment of costs to each home / property owner.

Location Check List:

Have you confirmed the location of the house sites?

 Are these sites surveyed?

 How many stages are there to the development?

) What whanau facilities (e.g. park or playground for the kids, whanau whare) are provided for the papakainga residents?

) Has the Trust identified or set aside any waahi tapu or significant sites or areas for the Trust as a reserve?

The Design and Costs of Appropriate Infrastructure Services

The Trust will need to investigate and determine what the expected development costs are for all of the proposed papakāinga house sites and facilities. This will be achieved through the commissioning of various engineering technical reports by consultants that address:



The onsite earthworks, access to the property, internal roads, footpaths and street lighting, water supply, waste-water and storm-water disposal, electricity supply and communications. (A list of infrastructure services is provided in Appendix 2.) The engineering report should analyse various design options, materials, supply, installation and maintenance costs for each service type.

Other major development items may include bridges, culverts, landings / wharves / jetties for those more rural isolated locations.

Internal resources, skills and experience within the Trust may be highlighted through the papakāinga survey, i.e. architect, engineer, surveyor, lawyer / solicitor, builder, plumber, drain layers, painter, trade supplies etc. The Trust could develop a "skills data base" of beneficial owners who may be able to assist with the papakāinga development.

Any other communal facilities for the papakāinga.

Actual building costs of the dwellings and any other site buildings.

It is important to develop a good working relationship with your technical advisor(s) by providing clear instructions which outline what the required outcomes are from the outset. All technical reports should be presented to the Trustees in draft before they are finalised and then presented to the beneficial owners.

There are cost-benefits to individual owners if they can work collectively with other owners to leverage on costs during the housing construction phase of their homes.

The outcome from all of the technical reports is to produce an overall development plan that confirms the roading layout, the location and size of each section with the details of the infrastructure service connections.

Who will pay for the cost of the services and when?

The Trust and the beneficial owners should be made aware that the funding for the technical reports and investigations for Step 4 will probably be sourced from your own resources. The Trust is encouraged to make applications to local, regional or national organisations such as local charities, Bay of Plenty Regional Council, Te Puni Kōkiri, the Lotteries Commission and other funding sources. Trusts will have to organise fund raising events and activities to supplement the individual contributions from owners for these technical reports.

The Trust and the beneficial owners who want to build a home on the property, now and in the future, will have to pay and contribute towards the development costs. This discussion should happen sooner rather than later and will gather momentum as more technical information and advice is added to the development concept.

In many situations the Trust will be working from very limited resources and will have to ensure they have the funds available, or do some fund raising, before they engage the various technical professionals at each step. Some Trusts may have funds available to carry out these initial reports due to other income sources.

Infrastructure Services Check List:

Have you completed investigations into the design and costs for all services including: roading, waste water, water supply, storm water, power supply, telephone etc?
 Have you considered any alternatives to conventional services, e.g. pavers, water tanks or bore, wind power, compositing toilets, communal waste-water, treatment systems etc?

What are the benefits and risks of the final service options?

Do you have copies of all the technical reports for your proposal?

Who will pay for technical reports and the actual services?

Council Development or Financial Contributions, Fees and Costs

The relevant development or financial contributions for your papakāinga proposal are a key cost component that the Trust and the owners must identify as part of this technical phase of the process. These cost items should, in reality, be straight forward to determine by the respective Council once the Trust is in a position to clearly answer the first 2 project categories. The Trust or the papakāinga project team should meet with the respective Council to discuss these matters as soon as possible.

The development or financial contributions charged by TCC and WBOPDC are based respectively on the Local Government Act 2002 or the Resource Management Act 1991. The main purposes of these types of contributions are to fund the additional capital costs incurred by the Council to provide the infrastructure services (roads, waste-water, watersupply, stormwater and reserves etc) that are required to accommodate the anticipated population growth in the area.

Tauranga City Council (TCC)

- TCC have two types of development contributions:
- Local Development contributions fund the development of local infrastructure in particular parts of the city. This fee is generally payable on subdivision consent to create additional allotments. Local development contributions are not applicable to papakāinga proposals that utilise a licence to occupy, occupation order or a hapū partition.
- City-wide Development Contributions are infrastructure service costs that benefits the "whole city" regardless of where you live. This fee is generally payable when you are applying to build your home and connect to services for a new residential dwelling or papakāinga site.

TCC will also require fees and charges related to the resource consent and building inspection fees during the process. The Trust should raise this at the meeting. Details of fees and charges are available on the TCC website, search "Development Contributions" on the TCC <u>website: www.tauranga.govt.nz.</u>

Western Bay of Plenty District Council (WBOPDC)

The WBOPDC has based their financial contributions on RMA levies that are charges to recover the cost of infrastructure services provided by the Council and utilised by the community. There are also levies for the provision of reserves and impacts on the District's biodiversity values. These contributions are payable by all new subdivided lots including papakāinga and other intensified activities on a property.

The relevant development or financial contributions for your papakāinga proposal are a key cost component that the Trust and the owners must identify as part of this technical phase of the process. These cost items should, in reality, be straight forward to determine by the respective Council once the Trust is in a position to clearly what the possible infrastructure and housing costs are for your papakāinga. Homes being built on multiple-owned Māori land could be eligible for a reduction of financial contributions by 50% if the applicant and/or the Trust:

- a. Has completed the Papakāinga Toolkit process; or
- Has obtained funding through the Kāinga Whenua Loan Scheme or the Kāinga Whenua Infrastructure Grant to contribute towards the cost of their financial contributions.

The Trust or your papakāinga project team should meet with Council staff discuss the above financial contributions and what the fees and charges are relating to the building consent and inspection fees based on your proposal. Here is a link the WBOPDC fees and charges for 2020/2021: https://www.westernbay.govt.nz/repository/libraries/ id:25p4fe6mo17q9stw0v5w/hierarchy/council/plans-andstrategies/annual-plans/2020-2021%20Annual%20Plan/ Schedule%20of%20fees%20and%20charges%20for%20 2020_2021.pdf

Council Check List:

What Council infrastructure services are you connecting to?
What infrastructure services are provided by the Trust?
Have you organised a meeting with Council to identify their costs and fees?
Can the Trust make a submission to Council for a reduction of these fees?
How will these costs be funded

House Design, Sustainable Materials, Techniques and Costs

At this stage of the process this is an opportunity for the Trust and the potential home owners to investigate the most appropriate housing design, energy options, water use, materials and construction options that contribute to more efficient, safe and cost-effective homes.

Research on the Internet / Websites

There are a large number of options that you can consider and of course some will be more expensive than others. There are many web sites that you can use including the following:

- Energy Efficiency and Conservation Authority
 encourages, supports, and promotes energy efficiency,
 energy conservation, and the use of renewable sources of
 energy in NZ: http://www.eeca.govt.nz/
- Other EECA links provide more information on warmer, drier and healthier homes and some funding options
 - » <u>https://www.energywise.govt.nz/at-home/creating-a-</u> warm-and-dry-home/_
 - » <u>https://www.energywise.govt.nz/funding-and-support/</u> <u>funding-for-heaters-and-insulation/</u>
 - » <u>https://www.homefit.org.nz/</u>
- The **Smarter Homes** website promotes practical advice, guidelines, tools & resources and case studies that discuss 7 key elements (i.e. site & location; design, construction materials, air quality, moisture & ventilation, water & waste, power, lighting & energy saving and heating, cooling and insulation) that all contribute to a smarter more efficient home that is healthier, drier, warmer and affordable: <u>http://</u> <u>www.smarterhomes.org.nz/</u>
- Level is a more technical / engineering website that will assist you to design and build homes that have less impact

on the environment and are healthier, more comfortable, and have lower running costs: <u>http://www.level.org.nz/</u>

- Lifetime Design website promotes the 5 principles that recognise the need for places and products to match the needs of people rather than people having to adjust and fit into the place: <u>http://www.lifetimedesign.org.nz/</u>
- The Quality Planning website provides an overview of the planning process with respect to the RMA guidance on the planning development process in NZ: <u>https://qualityplanning.org.nz/</u>
- The Sustainability website was developed and maintained by the Ministry for the Environment (MfE) to help you reduce your impact on the environment and save money, without compromising your lifestyle: <u>http://www.sustainability.govt.</u> nz/
- BRANZ is an independent and impartial research, testing, consulting and information company providing resources for the building industry: <u>http://www.branz.co.nz/cms_display.php</u>
- **Beacon** is a collaborative research group that works to find affordable ways to make New Zealand homes more resource-efficient, cheaper to run, healthier to live in, and kinder to our environment: <u>http://www.beaconpathway.co.nz/</u>

Learning from other Papakāinga developments in the region.

The Trustees and owners may want to meet with other Trusts who have built homes on their whenua and to discuss their development and housing experiences and lessons with you. This could occur at any stage of the process and is only limited by a phone call to one of the Trustees.

Housing Design Check List:

Have you considered the orientation of your house to best utilise the energy from sun; or alternative energy options such as gas, solar and/or wind; onsite water collection / storage; reuse of grey-water; or material and construction options to improve the energy efficiency of your home?

Have you used any of the above websites?

Has the Trust met with another papakāinga land Trust to discuss their experiences?

Outcomes from Step 4

The outcomes from Step 4 are important to the success of the total development and may take up to two years or more to achieve. The lengthy time frames are due to requirements to consult with the owners to progress development decision making process.

The Trust would have gathered as much information as possible to understanding why the proposed layout of the house sites or housing platforms with the appropriate infrastructure services are shown on their papakāinga concept plan. The details of the infrastructure services are provided in the geotechnical and engineering design reports.

The Trust overall papakāinga development plan will address the housing needs of the owners on a collective and managed approach over a series of papakāinga stages. The overall plan once consented and approved can be reviewed over time without having to reinvent a papakāinga plan each time one of the shareholders / owners wants to return home and build a home.

Self- Assessment and Final Check List

Before progressing to the next step you should assess your responses to the following questions to determine if you have all of the information and reports necessary to prepare a funding application for your project:

\bigcirc	Has the Trust / papakainga project team completed all of the above stages?
0	Does the Trust have a survey plan of the papakāinga proposal showing the layout of the proposed house sites with all of the services, communal facilities and open space areas?
0	Has the Trust kept meeting records of all the major hui such as the Trust AGM and key hui where papakāinga processes, funding / design approvals, allocation decisions and technical reports are discussed and received?
0	Does the Trust have appropriate papakāinga processes and procedures to allocate house sites to beneficial owners?
0	Has the Trust met with and obtained from Council their consent fees and financial contributions for the Trust's papakāinga proposal?
0	Have you and other owners considered more sustainable and efficient design principles, materials and construction methods for homes on the property?

Conclusion

There are some major challenges for the Trust in this Step that will take considerable time, resources and discussion to work through.

Decisions, direction and outcomes made by the Trust are based on the technical reports commissioned from professionals that have produced a final plan showing the location of the house sites, services and the development costs. In addition to this the Trust has maintained its working relationship with Council by keeping them up to date on progress and costings for the proposal. It is assumed that all of this information and decisions have been agreed to and supported by the beneficial owners.

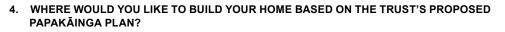
Apitihanga Tuatahi: He Tatauranga Kainga mo nga Uri / Appendix 1: Housing Survey of Beneficial Owners.

1. ARE YOU READY AND WILLING TO MOVE HOME AND BUILD ON THE TRUST WHENUA / PROPERTY?

In the next 12 – 24 months	(Date:)	House size:
In 2 to 5 years?			
In 6 to 10 years?			
More than 10 years?			

2. HAVE YOU ORGANISED YOUR FINANCES AND DOES IT SUPPORT YOUR TIMEFRAMES?

3. WHERE WOULD YOU LIKE TO BUILD YOUR HOME BASED ON THE TRUST'S PROPOSED PAPAKAINGA PLAN?



Pākeke: Tane ()	Wahine ()	Kuia ()	Koroua ()
Tamariki: Tama ()	Kōtiro ()	Total Number in your whānau: ()	

5. DO YOU HAVE ANY SPECIAL HOUSING REQUIREMENTS OR NEEDS: WHEELCHAIR ACCESS, RAMPS, ETC?

6. DO YOU HAVE ANY BUILDING SKILLS, QUALIFICATIONS, EXPERIENCE AND/OR CONTACTS THAT THE TRUST COULD UTILISE FOR THE PAPAKĀINGA PROJECT?

7. ARE YOU PREPARED TO SHARE THE COST FOR COMMON SERVICES IN THE DEVELOPMENT FOR ROADING, WATER RETICULATION, FIRE FIGHTING, WASTE-WATER, ELECTRICITY SUPPLY ETC.

Āpitihanga Tuarua: Ngā Take Hangarau me Whakaarohia e te Tarahitī

Appendix 2: Technical Issues the Trust Should Consider.

1. ENGINEERING AND GEOTECHNICAL REPORTS	INTERNAL SOURCES	EXTERNAL OPTIONS
The Trust will need report(s) on the soil structure and engineering characteristics of your whenua that will determine the suitability and types of building foundations, location of building platforms, waste-water and storm-water design and options, setback margins from slopes, cliffs or waterways, the depth of the water table in urban and or rural areas.		
2. WASTE-WATER	INTERNAL SOURCES	EXTERNAL OPTIONS
Conventional waste-water septic tank system filters and trenches to meet EBOP standards.		
Alternative options based on the number of house sites, location and soil type / structure.		
Engineering system design and costs.		
Maintenance and compliance costs for final system.		
Project management costs to meet approved system.		
3. WATER SUPPLY	INTERNAL SOURCES	EXTERNAL OPTIONS
Water tanks - rain water from the roof.		
Water bore.		
Reticulation around the papakāinga		

Engineering system design and costs.

		•	
4. STORM-WATER	INTERNAL SOURCES	EXTERNAL OPTIONS	
Onsite trenches or pits.			
Engineering system design and costs based in the outcomes from your geotechnical report.			
Other onsite flooding issues.			
5. ELECTRICITY SUPPLY	INTERNAL SOURCES	EXTERNAL OPTIONS	
Where is the nearest electricity source to the property?			
Underground or overhead options?			
Is a transformer required?			
Alternative power sources: solar, wind or water.			
6. ROADING	INTERNAL SOURCES	EXTERNAL OPTIONS	
Access from a road maintained by TCC or WBOPDC.			
Internal layout and access to each house site, road widths (3.5 m to 6.0m).			
Location of roads.			
Type of roading material: tare seal, concrete, paving			
Curb and channelling.			
Footpaths?			
Cycle lanes .			
7. COMMUNICATIONS	INTERNAL SOURCES	EXTERNAL OPTIONS	
Telephone i.e. land line versus mobile phone			
Internet and fibre connection, wireless internet at home.			
Other.			

8. COMMUNITY FACILITIES FOR YOUR PAPAKĀINGA

Whānau / community whare.
Open space, playground / sports fields.
Garden areas, fruit trees, puna (spring), awa, manga (stream).
Hauora & education facility.
Trust rental units / homes for kaumātua and or whānau.
Cultural heritage sites / reserves.
Urupā.

EXTERNAL OPTIONS

9. HOUSING DESIGN OPTIONS CONVEN	ITIONAL MĀORI DES	
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INTERNAL SOURCES

Visit show homes around town and or do research on the internet to explore websites that identify options that you may want to consider as part of the design of your home. This is a huge field that includes:

- selecting a building site with good access to the sun
- · insulating your home so its stays warm in winter
- · orienting windows so the sun can heat your home
- · choosing materials that don't use or emit harmful chemicals
- · Planning to make sure your home will meet current and future family needs.
- · Being energy efficient and using resources wisely.
- · Choosing and building with materials that are sustainable.
- · Maximise the occupants' health and comfort needs, while also costing efficient.

3, 4 or 5 bedrooms	
 Functional design: Orientation of the house to face north or north-east. Flexibility in layout, multi-purpose with functionality. Large living areas, family and children space, marae sleeping area options. Large bathroom and toilet or separate toilet & bathroom. Incorporates indoor and outdoor use and connections. 	
 Landscaping, fencing, planting plan, decks and paving. Garaging / carport, washing line. Other onsite buildings / structures: garden shed, pergola etc. 	

10. ENVIRONMENTAL IMPACT ASSESSMENT	CONVENTIONAL	MĀORI DESIGN
Long term effects on the block and neighbouring properties.		
Impact on any streams, creeks, rivers and / or harbour.		
Impacts from the disposal of waste-water from the site.		
Protection of our whānau, hapū and lwi cultural sites		
Community, social and economic impacts.		

11. FUNDING OPTIONS FOR TECHNICAL ADVICE

INTERNAL SOURCES

EXTERNAL OPTIONS

Whānau expertise and contacts.

Te Puni Kōkiri

Kāinga Ora - Homes and Communities.

Ministry of Housing and Urban Development (HUD)

Other Government Agencies: Department of Internal Affairs (DIA), Ministry of Social Development (MSD).

TCC, WBOP and or BOPRC.

Local Funding Trusts (TECT).

National Trusts (FIRST).

