



SQUASH
AUCKLAND

REGIONAL FACILITIES PLAN

JULY 2018

VERSION 1.0

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Section 1. Executive Summary

1.1 Plan Outline

The aim of the Squash Auckland Regional Facilities Plan is to provide a framework for the development of squash facilities in the Auckland region, identifying the priorities within our network to support ongoing facility development to drive membership and participation growth in club and community squash.

The plan will enable Squash Auckland, Squash NZ, Auckland Council, squash clubs, funders, and other key stakeholders and partners to;

- Consider changing population demographics and to identify the potential future demand for squash
- Identify the key challenges facing squash facilities and the priorities to address these
- Prioritise future investment to ensure that the right facilities are provided, in the right locations, and for the right reasons

1.2 Key Issues for Provision

The current distribution of squash facilities is deemed adequate with very few operating at or near the capacity benchmark. Given forecasted future population changes, squash is well positioned to cater for increased demand should the sport experience a peak in community participation as a result of improved programming and squash facility condition and access related improvements.

There may be a reduction or shortage in the number of squash courts available in the community over time as the majority of squash facilities are nearing 60 years old. As a result, a large number are reaching the end of their economic lives, making these squash facilities financially unviable and leaving some areas somewhat vulnerable.

A decline in squash participation and membership levels throughout the majority of the country between 2002 and 2012, coupled with the current widespread distribution and adequate number of squash facilities suggests short-term future investment, planning and resources should be primarily directed towards improving existing squash facility condition and utilisation. However, the number of people participating in squash outside of the traditional membership model (i.e. club-run business house competition, casual play) are continuing to grow making accessibility another key element to unlocking the future potential of current facilities.

Installing moveable squash court walls (to allow for other activities and create doubles squash courts), LED lighting and glass-back courts are considered best practice for squash facility upgrades as this allows for increased multi-use, more efficient programming opportunities and improved squash facility income.

There are several cases highlighting the positive impact that building a new squash facility (see Tauranga Squash Club) and upgrading of existing facilities (see Cromwell, Mount Maunganui and Christchurch Football and SquashGym Palmerston North club case studies) can have on both a community and the game.

The ongoing sustainability of the squash District Associations and clubs is an issue identified throughout most of the country. A review of the financial position of affiliated squash organisations highlighted that the majority are able to meet the day to day operational costs involved with administering the game, but meeting the repair, maintenance and development costs is a challenge. For some squash clubs, membership is at levels that make the club not financially viable. Very few have cash reserves that would be able to support the club through tough financial circumstances.

Stakeholder consultation showed the key barriers to increasing participation levels in squash included the low profile of the sport, challenges around club capability, changing demographics, inadequate squash facility condition and a lack of resources and funding. If there are barriers to be overcome, a collaborative

approach is required to improve not only existing squash facility condition and accessibility, but to rebuild and reinvigorate the sport at a community level. All clubs need to open dialogue and start building relationships with their Local Board to assist with this process.

Squash court surface, walls and lighting were seen as the most required 'court' improvements across all squash facilities. Spectator seating / viewing, facility heating / ventilation, player change amenities, kitchen / catering amenities, disabled access and clubrooms / lounge areas were seen as the other priorities for squash facility development.

While current need for additional squash facilities is low, improved squash facility condition and accessibility, greater promotion, targeted programming and more innovative facility management combined with forecaster population growth suggests future consideration should be given to the investigation of new squash facility developments in high participation and growth areas.

Section 2. Introduction

2.1 Background of Squash Facilities

Set against a backdrop where a number of Kiwis have achieved significant levels of elite success in squash on the world stage, growth of the game at the community level remains limited by a common criticism that most squash facilities are cold, smelly, and uninviting places. Until this perception is addressed it is likely that the sport will be unable to grow beyond the current limitations imposed on it by factors that are largely outside its control.

Squash Auckland have designed this Regional Squash Facilities Strategy, in partnership with Squash NZ, to assist our local clubs, Territorial Authorities (TAs), and Regional Sports Trusts (RSTs) to provide a framework for the provision and development of welcoming squash facilities within each region. Opportunities exist to rationalise, or optimise existing facilities, while also developing new facilities using the latest in squash court technology to create multi-purpose spaces, all in a collaborative way to better meet future needs and grow the sport in the Auckland region.

Through a mixture of consultation and research this strategy has collected a comprehensive set of facility data from the 26 affiliated squash clubs and 19 other facilities (leisure and recreation centres, schools, tertiary institutes). This will enable informed decisions to be made about whether investment in squash facilities are required to;

- Increase court utilisation across all squash facilities;
- Protect, retain, and maintain existing squash facilities;
- Rationalise facilities as part of a targeted reinvestment strategy into priority areas or projects;
- Improve existing squash facility conditions, accessibility and management; and/or
- Develop additional squash facilities

2.2 The Value of Squash

Voted by Forbes Magazine as the world's healthiest sport across a broad range of criteria, squash is a fun, fast and exciting sport that is easy to learn and can be played all year-round – no matter your age, skill level, or gender.

Squash is a safe non-contact sport. It can be practised alone or played with 2, 3, or 4 people and is one of the easiest sports to participate in. There are many modified game types and various equipment can be used to suit every size and skill level, enabling squash to be played as either a leisure or competitive sport.

Unlike many other sports, squash is gender neutral and gives equal opportunities for males and females to participate, enjoy and achieve. It is not uncommon during our regional open interclub competition to see a junior 11 years old take on a senior player aged over 50. Our Masters Interclub competition that regularly has between 450-500 players registered for each round is a fully mixed-gender competition, as is the Auckland Junior Interclub competition that has between 75-100 competitors per term. Internationally, seven of the eight professional PSA World Series events have equal prizemoney for the men's and women's draws and is one of the few sports in which women and men compete in the same event at the same time, under the same rules, scoring system, and size of playing area.

Squash is also one of the most widely played sports in the world. The World Squash Federation has over 145 National Squash Federations. Apart from the various professional and amateur tournaments, it is also a Commonwealth Games sport while constantly attempting (so far unsuccessfully) to be included in the Olympics.

Squash has the potential to assist in addressing issues relating to health, education, inclusion opportunities, aspiration, anti-social behaviour and meaningful employment.

Some of the social and health benefits from participating in squash include;

- Develops agility
- Sharpens hand-eye coordination
- Compels flexibility
- Pinpoints concentration
- Imposes strength and fitness
- Boosts heart and lung health
- Coaches social skills
- Improves self-confidence
- Ensures mental well-being
- Alleviates stress

Section 3 – Context

3.1 **Strategic Context - National**

Squash New Zealand's strategic plan for 2016-2021: 'Squash on the Move' has set the target of having a national membership database of over 25,000 members ('Participation Growth') taking part in year-round community participation programmes for all ages, levels and abilities. Current membership numbers sit at 17,926 as per the 2017 membership returns submitted by affiliated clubs.

This projected increase in activity will place increased pressure on all squash facilities, as will the growing demand for access to squash courts on a casual 'Pay-to-Play' basis. Therefore, access to sufficient and quality places to play ('Welcoming Facilities') has been identified as a key determinant of growth of the sport.

Over and above most participation sports, squash facilities are crucial to playing squash and it is clubs, TAs, the education sector and private providers who are primarily responsible for these in New Zealand.

To achieve the 'Welcoming Facilities' strategic outcome, Squash New Zealand has identified priorities and actions that focus on improving the overall condition, utilisation and accessibility of existing squash facilities throughout the country to ensure future sustainability and financial viability ('Financial Health') of the sport - unless there is demand or opportunity for new facility developments.

Clubs are being encouraged to have a casual play offering available to meet this demand, particularly to increase facility usage in off-peak times. This can be done in a number of different ways from manual bookings done by an on-site administrator, to a fully automated system using integrated software such as Squash NZ's national database iSquash (<http://nzsquash.co.nz/for-clubs/isquash-online-booking.cfm>) or third-party companies such as Pay2Play (<http://www.pay2play.co.nz/>). Social competitions which are run by clubs but don't require players to be club members to participate, such as Business House tournaments, are also growing in popularity.

Achieving these strategic goals will require a collaborative effort ('Unified Delivery') from Squash New Zealand, regional District Associations and local clubs with the support of schools, TAs and RSTs.

Link – [Squash New Zealand Strategic Plan 2016-2021](#)

3.2 **Strategic Context - Regional**

Squash Auckland's Strategic Plan for 2016-2019 is set around four pillars;

- Club and Facility Support
- People and Participation
- Communication and Relationships
- Competition

While it is widely acknowledged that squash currently has sufficient facilities with room for growth of the sport among the current network, Squash Auckland must ensure that it works with regional bodies and local boards to advocate for squash to be included in future plans and developments.

As squash is played on specialised, bespoke courts, all of the four strategic pillars are closely linked with having welcoming, modern, and fit-for-purpose squash facilities available for all members of the local communities.

Link – [Squash Auckland Strategic Plan 2016-2019](#)

Section 4 - Current Situation

4.1 Review of Regional Facilities (Supply)

The squash facility audit undertaken for this strategy identified a total of 45 squash facilities in the Auckland District, incorporating 155 individual courts – including at least 48 with glass-backs. The newest squash facility (SquashXL in Avondale) opened in June 2017 and includes one all-glass court alongside three traditional glass-back courts. The all-glass court is the first permanent court of its type to be erected in a club in the country.

This network consists of 27 affiliated squash clubs with 106 courts, 16 courts provided across 8 schools and a further 33 courts provided by unaffiliated squash clubs, tertiary institutes, council facilities, and private providers.

Squash Auckland are not financially involved in the ownership or operation of any squash facilities, however they contributed \$500,000 towards the construction of the National Squash Centre in 2001 along with Squash NZ who also made a financial contribution and Unitec who provided the land. The Centre is governed and managed by the National Squash Centre Charitable Trust, who employ a Centre Manager. The Centre is currently not an affiliated 'club' due to the commercial model it operates under.

a. Squash Facility Breakdown – Location Information

- 13 are located in stand-alone buildings and because they are specialised facilities they do not currently receive many other uses, although they are capable of being used for indoor training for other sports or activities
- 16 share facilities with other sports (mostly tennis), such as Belmont Park, Browns Bay, Eden Epsom, Henderson, Herne Bay, Howick, Kumeu, Maramarua, Onewhero, Papakura, Red Beach, Remuera, Royal Oak, Te Papapa, Waiuku, and Warkworth
- 9 are incorporated into larger sports, private, tertiary or community facilities
- 8 are associated with school grounds
- Only two facilities in the Auckland region have movable walls which allows for Doubles Squash to be played on the proper sized courts. One facility is affiliated to Squash Auckland (Howick Squash Club with 2 doubles courts) and the other is the non-affiliated National Squash Centre (3 doubles courts)

Name of Facility	District	# of Courts	Land Ownership
Allan Brewster Centre	Auckland- Otara-Papatoetoe	3	-
Auckland Council Squash Courts	Auckland- Waitemata	1	-
Auckland Grammar	Auckland- Albert-Eden	2	-
Auckland Squash Centre*	Auckland- Waitemata	8	Privately Owned
Auckland University	Auckland- Waitemata	1	-
Avondale College	Auckland- Whau	2	-
Baradene College	Auckland- Orakei	2	-
Belmont Park Rackets Club*	Auckland- Devonport-Takapuna	3	Local Council
Browns Bay Squash Club*	Auckland- Hibiscus and Bays	4	Local Council
Club Physical - Te Atatu	Auckland- Henderson-Massey	2	Privately Owned
Devonport Squash Club*	Auckland- Devonport-Takapuna	3	Local Council
Fitness Plus (Manurewa)	Auckland- Manurewa	1	Privately Owned
Franklin Squash Club*	Auckland- Franklin	4	Club Owned
Glenfield Recreation Centre	Auckland- Kaipatiki	4	-

Name of Facility	District	# of Courts	Land Ownership
Harcourts Eden Epsom Tennis & Squash Club*	Auckland- Albert-Eden	5	Club Owned
Henderson Squash Club*	Auckland- Henderson-Massey	6	Club Owned
Herne Bay / Ponsonby Squash Club*	Auckland- Waitemata	4	Local Council
Howick Squash Club*	Auckland- Howick	4	Local Council
Kings College	Auckland- Otara-Papatoetoe	2	-
Kumeu Squash Club*	Auckland- Rodney	3	Club Owned
Lynfield Recreation Centre	Auckland- Puketapapa	4	Council Run
Manurewa Squash Club*	Auckland- Manurewa	5	Club Owned
Maramarua Squash Club*	Waikato District	2	Club Owned
Mt Albert Grammar	Auckland- Albert-Eden	2	-
National Squash Centre*	Auckland- Albert-Eden	6	UNITEC
North Shore Squash Club*	Auckland- Devonport-Takapuna	7	Club Owned
Onewhero Squash Club*	Auckland- Franklin	2	Club Owned
Panmure Squash Club*	Auckland- Maungakiekie-Tamaki	5	Crown Owned
Papakura Tennis & Squash Club*	Auckland- Papakura	4	Crown Owned
Red Beach Squash Club*	Auckland- Hibiscus and Bays	2	Local Council
Remuera Rackets Club*	Auckland- Orakei	6	Club Owned
RNZAF Auckland Squash Club* ¹	Auckland- Upper Harbour	0	Club Owned
Royal Oak Racquets Club*	Auckland- Maungakiekie-Tamaki	5	Club Owned
Shepherds Park Squash Club*	Auckland- Kaipatiki	4	Local Council
Silverdale Squash Club*	Auckland- Hibiscus and Bays	3	Local Council
SquashXL*	Auckland – Whau	4	Privately Owned
St Cuthberts College	Auckland- Albert-Eden	2	-
St Peter's College	Auckland- Waitemata	2	-
Te Kauwhata Squash Club*	Waikato District	2	Local Council
Te Papapa Squash Club*	Auckland- Maungakiekie-Tamaki	3	Local Council
Titirangi Tennis & Squash Club*	Auckland- Whau	5	Club Owned
Waiuku Golf & Squash Club	Auckland- Franklin	3	Local Council
Warkworth Tennis & Squash Club*	Auckland- Rodney	3	Local Council
Wesley College	Auckland- Franklin	2	-
Weymouth Squash Club	Auckland- Manurewa	4	Club Owned
YMCA North Shore	Auckland- Kaipatiki	4	Council Run

* = facility affiliated to Squash Auckland

¹= Courts located at the Whenuapai Air Base are unsafe for use with current members playing out of the Kumeu club. New courts may be built but timeframe is 10+ years

Amenities

All squash facilities require additional amenities to be considered functional and fit-for-purpose. These priorities for squash facility development include spectator seating & viewing, facility heating & ventilation, player change amenities, kitchen & catering amenities, disabled access and clubrooms / lounge areas. Most clubs will also require an office space for the committee or manager to work out of, and space for a Pro Shop. Recently clubs having been converting empty space into gym rooms or warmup areas, as a way of being able to offer additional benefits for their members.

b. Provision of Non-Affiliated Squash Facilities

Private Provision – where the land, facilities and maintenance is provided by the private sector, code, club or trust

- Club Physical (Te Atatu)
- Fitness Plus (Manukau City)
- Squash XL (Avondale)

Education – courts located and provided by a school or tertiary educator

- University of Auckland
- Auckland Grammar
- Avondale College
- Baradene College (not in use)
- Kings College
- Mt Albert Grammar
- St Cuthbert's College
- St Peters College
- Wesley College

Partnerships – either through schools, trusts, codes, or philanthropy

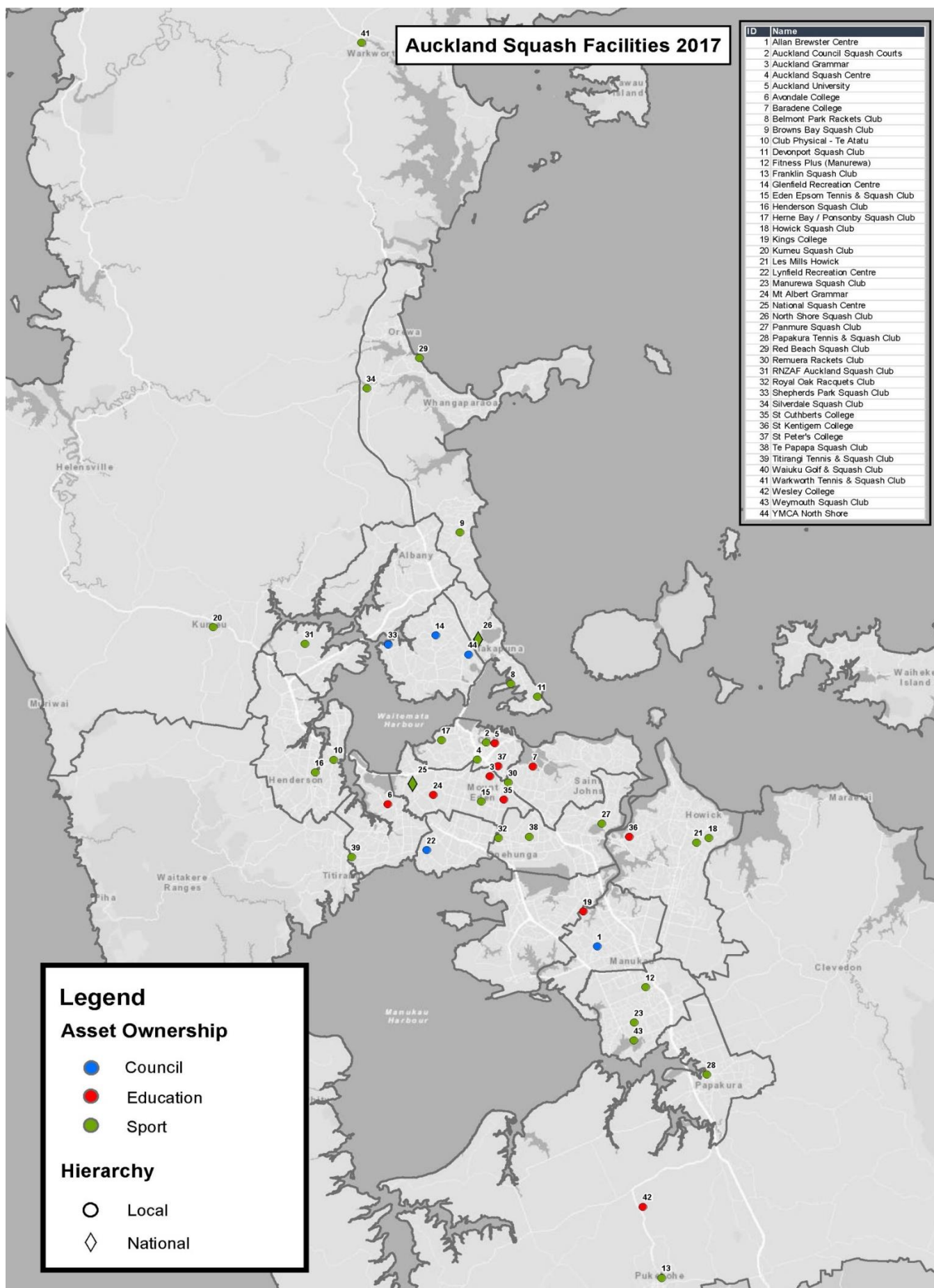
- National Squash Centre at UNITEC

Public Provision – Auckland Council funds, develops, owns, and maintain facilities and responsible for operation of facility

- Allan Brewster Leisure Centre
- Glenfield Recreation Centre
- Lynfield Recreation Centre
- YMCA North Shore

Other non-affiliated clubs

- Waiuku Golf & Squash Club
- Weymouth Cosmopolitan & Sports Club



c. Hierarchy of Facilities for Squash in New Zealand

Squash in New Zealand needs a range of facilities to meet the different levels of activity. The following hierarchy definitions and benchmark indicators have been used to provide a clear understanding of the different facility standards;

Hierarchy	Definition	Benchmark Indicators	Auckland Facilities
International	A facility with the ability to host international competitions / events (i.e. between nations)	<p>A minimum of 6 courts, ideally to international specification, with a show court</p> <p>Spectator capacity likely to exceed 250</p> <p>Changing rooms include adequate showering and toilet facilities to cater for expected competitors</p>	<p>Henderson Squash Club</p> <p>North Shore Squash Club</p> <p>National Squash Centre</p> <p>SquashXL</p>
National	A facility with the ability to host regional representative competitions (including professional and semi-professional competitions involving teams from outside New Zealand) and / or to serve as a national high performance training hub	<p>Between 3-5 courts, at least one being glass-back</p> <p>Main court spectator gallery seating for a minimum of 100 people</p> <p>Changing rooms include adequate showering and toilet facilities to cater for expected competitors</p>	<p>Harcourts Eden Epsom Squash & Tennis Club</p> <p>Herne Bay / Ponsonby Rackets Club</p> <p>Howick Squash Club</p> <p>Remuera Rackets Club</p> <p>Royal Oak Racquets Club</p>
Regional	A facility with the ability to host inter-regional and internal regional competitions and / or serves as a regional high performance training hub	A minimum of 3 courts, with access to another 3 court facility within 15km	<p>Auckland Squash Centre</p> <p>Browns Bay Squash Club</p> <p>Franklin Squash Club</p> <p>Manurewa Squash Club</p> <p>Panmure Squash Club</p> <p>Papakura Tennis & Squash Club</p> <p>Titirangi Tennis & Squash Club</p> <p>YMCA Lynfield Youth & Leisure Centre</p>
Local	A facility with the ability to serve a local catchment's basic sporting needs. This catchment will predominantly be drawn from within a single territorial authority		<p>Belmont Park Rackets Club</p> <p>Devonport Squash Club</p> <p>Kumeu Squash Club</p> <p>Maramarua Squash Club</p> <p>Onewhero Squash Club</p> <p>Red Beach Squash Club</p> <p>RNZAF Auckland Squash Club</p> <p>Shepherds Park Squash Club</p> <p>Silverdale Squash Club</p> <p>Te Kauwhata Squash Club</p> <p>Te Papapa Squash Club</p> <p>Warkworth Tennis & Squash Club</p>

From a regional perspective, it is crucial that Auckland has International and National level facilities available and maintained. During 2016 the Remuera Rackets Club held the country's flagship event, the Senior National Championships. In 2017 the Henderson Squash Club hosted the Oceania Junior Championships while the North Shore Squash Club hosted the squash event during the World Masters Games. In 2018 Henderson will host the Senior National Individual Championships while North Shore will host the Junior National Championships. SquashXL will host two professional PSA tournaments in 2018.

The National Squash Centre is also currently used by Squash Auckland and Squash NZ as a base for its High Performance training programmes.

d. Asset Management

The following table outlines the current state of the squash facility network in Auckland and whether clubs have a plan in place to manage their facility.

Name of Facility	Facility Built?	Facility Plan in Place?	Full Asset Maintenance & Replacement Strategy?
Auckland Squash Centre			
Belmont Park Rackets Club			
Browns Bay Squash Club			
Devonport Squash Club			
Franklin Squash Club			
Harcourts Eden Epsom Tennis & Squash Club			
Henderson Squash Club			
Herne Bay / Ponsonby Squash Club			
Howick Squash Club			
Kumeu Squash Club			
Manurewa Squash Club			
Maramarua Squash Club			
North Shore Squash Club			
Onewhero Squash Club			
Panmure Squash Club			
Papakura Tennis & Squash Club			
Red Beach Squash Club			
Remuera Rackets Club	1960's	No	No
RNZAF Auckland Squash Club			
Royal Oak Racquets Club			
Shepherds Park Squash Club	1974	No	No
Silverdale Squash Club			
SquashXL	2017		
Te Kauwhata Squash Club			
Te Papapa Squash Club			
Titirangi Tennis & Squash Club			
Warkworth Tennis & Squash Club	1970	No	Yes

4.2 Membership & Demand

Squash NZ collect membership data from all affiliated clubs once a year, when they are required to submit a snapshot of their club membership numbers. As of 31 July 2017, there were 4,405 squash players who were a member of an affiliated squash club in the Auckland region as per the submitted membership returns. This figure consists of;

- 71% male and 29% female

Broken down in age group, this is represented by;

- Ages 0-11 4.7%
- Ages 12-18 25.5%
- Ages 19-24 8.4%
- Ages 25-34 12.4%
- Ages 35-44 15.3%
- Ages 45-54 20.0%
- Ages 55+ 13.7%

Overall there are 17,500 squash members in New Zealand, with Auckland accounting for 25% of those players.

a. Auckland Membership Numbers

Year	2010	2011	2012	2013	2014	2015	2016	2017
Membership Totals	4,146	3,856	4,027	4,910	5,397	5,088	4,446	4,405

While membership numbers have declined the past two years, they are still up 14% from the low point in 2011. With the enormous population growth happening in Auckland, these membership numbers can be expected to continue rising at a low rate. The 2017 numbers are skewed by two clubs that dropped a combined 149 members (Remuera & Titirangi), while numbers at 14 of the 26 clubs actually showed membership increases over the year.

In regards to court utilisation, current best practice suggests a capacity benchmark of one court per every 100 club members. Current membership figures indicate that existing member court utilisation nationally is around 23 members per every squash court. Within the Auckland region that number almost doubles to 43 members. However, these figures indicate sufficient room for the majority of clubs to grow and add members without placing an undue stress on court availability in the short-term, particularly in off-peak times.

Also to be kept in mind is that with an increase in the number of people participating in squash that are not accounted for in the traditional 'membership' number due to increased casual participation opportunities, this benchmark figure may need to be adjusted lower depending on the programme schedule for each individual club and the ratio of member vs non-member participation opportunities they offer. Clubs will need to do individual analysis on court usage at each stage of the day to determine whether there is a need for additional courts.

b. Members per Court – By Club

The number of members per available court is an important measure in determining how well a particular club's facility is being utilised. Excluding the skewed figures of the top and bottom clubs, this number ranges between 80 for Royal Oak, to 9 for Onewhero.

Club	Number of Members	Number of Courts	Members per Court
Belmont Park Rackets Club ⁽²⁾	406	3	135
Royal Oak Racquets Club	402	5	80
Panmure Squash Club	290	5	58
North Shore Squash Club	383	7	55
Harcourts Eden Epsom Tennis & Squash Club	269	5	54
Howick Squash Club	185	4	46
Remuera Rackets Club	271	6	45
Franklin Squash Club	180	4	45
Red Beach Squash Club	89	2	45
Warkworth Tennis & Squash Club	129	3	43
Titirangi Tennis & Squash Club	181	5	36
Herne Bay/Ponsonby Squash Club	142	4	36
Papakura Tennis & Squash Club	141	4	35
Browns Bay Squash Club	133	4	33
Henderson Squash Club	183	6	31
Manurewa Squash Club	148	5	30
Silverdale Squash Club	88	3	29
Beach Haven (Shepherds Park)	95	4	24
Te Papapa Squash Club	57	3	19
Maramarua Squash Club	33	2	17
Devonport Squash Club	43	3	14
Kumeu Squash Club	33	3	11
Te Kauwhata Squash Club	21	2	11
Onewhero Squash Club	17	2	9
RNZAF Auckland Squash Club ⁽³⁾	6	2	3
Auckland Squash Centre ⁽¹⁾	12	8	2
SquashXL ⁽⁴⁾	2	4	1

⁽¹⁾ = Commercial centre with limited membership. Mostly casual players

⁽²⁾ = Number skewed due to large number of junior members that generally participate in tennis

⁽³⁾ = Courts are unsafe for use with current members playing out of the Kumeu club. New courts may be built but timeframe is 10+ years

⁽⁴⁾ = Commercial centre with limited membership. Mostly casual players

As explained previously, a figure of approximately 100 members per court represents a facility is operating at capacity (i.e. closed membership) and requires additional courts to meet current and future demand. Royal Oak reached 80 members per court in 2015 (401 total members), at which point the club began investigating opportunities into using other nearby club facilities in order to alleviate the high demand on court time during peak hours. There may be a case made that 100 members per court is too high and member satisfaction around court availability may decrease significantly before that number is reached. There is a number of factors that would determine this on a club-by-club basis, such as the membership makeup of the club and when its members are available to utilise the facilities. For example a club with a high junior membership may be able to have a higher figure as these members typically play outside the high-demand peak times. It is important to note casual players are not taken into account with these figures.

c. Number of Squash Courts (at affiliated clubs) & Club Members per Local Board

When we factor in the number of courts at non-affiliated facilities (excluding schools where access can be difficult to obtain) we can look at the range of accessibility across the different Local Boards. Based on the LB areas which have one or more squash courts, the population per court range from 1 for every 4,500 for Devonport-Takapuna, to 1 for every 33,750 in Howick.

The highest population area without any squash courts at all is Mangere-Otahuhu with a population of 75,300, followed by Upper Harbour with 56,800 and Waitakere Ranges with 50,700. However, all of these areas have squash facilities near their boundary with neighbouring LB areas which can assist to service these communities. There may be potential for squash to investigate becoming involved with any future multisport developments in areas where the population per court is 20,000 or over, or where they is currently no squash court provision.

Local Board	Current Population	Club Courts	All Courts	Club Members	Players per Club Court	Population per club court	Population per court
Albert-Eden	100,000	5	11	269	54	20,000	9,091
Devonport-Takapuna	58,500	13	13	832	64	4,500	4,500
Franklin	68,300	6	9	197	33	11,383	7,589
Great Barrier	950	0	0	0	0	0	0
Henderson-Massey	113,500	6	8	183	31	18,917	14,188
Hibiscus and Bays	94,000	9	9	310	34	10,444	10,444
Howick	135,000	4	4	185	46	33,750	33,750
Kaipatiki	87,000	4	12	95	24	21,750	7,250
Mangere-Otahuhu	75,300	0	0	0	0	0	0
Manurewa	87,000	5	10	148	30	17,400	8,700
Maungakiekie-Tamaki	73,700	13	13	749	58	5,669	5,669
Orakei	83,700	6	6	271	45	13,950	13,950
Otara-Papatoetoe	80,300	0	3	0	0	0	26,767
Papakura	48,200	4	4	141	35	12,050	12,050
Puketapapa	56,300	0	4	0	0	0	14,075
Rodney	57,300	6	6	162	27	9,550	9,550
Upper Harbour	56,800	0	0	6	0	0	0
Waiheke	8,630	0	0	0	0	0	0
Waitakere Ranges	50,700	0	0	0	0	0	0
Waitemata	81,300	12	12	154	13	6,775	6,775
Whau	76,700	9	9	183	20	8,522	8,522

The numbers above are inclusive of the following:

- ❖ **Number of Courts:** All affiliated clubs and non-affiliated public courts (excluding courts on school grounds which aren't accessible to the general public)
- ❖ **Number of Members:** Members of affiliated clubs within each Local Board area

It is important the clubs that are reliant on council funding understand what suburbs their members reside in and create relationships with all relevant Local Boards – not necessarily only the areas that the club is located within but those whose community members the club services.

4.3 Unaffiliated Numbers

One of the major issues with determining participation in squash is quantifying the number of unaffiliated, casual players. Sport New Zealand's 2013/14 Active New Zealand Survey showed 2.4% of all adults (aged 16 years and older) participated in squash at least once during the year. The Sport New Zealand Young People's Survey 2011 showed 1.6% of all young boys and 1.4% of all young girls (aged 5-18 years) participated in squash at least once during the year. The combined figures, adjusted for the age overlap, suggest that around 93,214 New Zealanders tried or played squash during the year.

Squash can appeal to a wide demographic profile but, based on Sport New Zealand's 2013/14 Active New Zealand Survey, has significantly higher participation rates nationally in the New Zealand European population (70%) than in the Maori (4%), Pacific People (1%) and Asian People (3%) populations, aged 16 years and older.

The challenge for the combined Squash New Zealand administration structure is to provide valuable squash offerings to convert more of these casual players into people who play squash regularly as part of the affiliated network; and to provide ways to play the game that appeal to New Zealand's changing communities.

When membership and participation data is considered against the current population, it is possible to estimate the total number of squash participants by District, including the number of casual players. The active population has been defined as aged 5-54 years old and is the age group that represents the majority of participants based on existing membership information.

District	Population (2013)	Active Population (5-54 years old)	Total Potential Participants	Potential Casual Only Players
Auckland	1,493,200	1,058,670	31,333	26,423

However, the number of 'casual' players does not necessarily mean they participated in squash in a traditional squash court setting. Many districts have a 'Microcourt' programme, which involves a small scale squash court made of fiberglass being set up in a school hall or other location to carry out a Kiwi Sport programme for school students. The number of users that fall into this category is underdetermined, however this shows there is a significant latent demand within this environment and the challenge for Squash Auckland is to convert more of these participation opportunities and players into people who play squash as part of the affiliated network.

There are a number of commercial and council-run gyms and recreational centres that operate on a purely pay to play basis. They have indicated the following use of their facilities;

Pay-to-play Centres	# of casual players per month
Allan Brewster Centre	60
Auckland Squash Centre	500
Club Physical – Te Atatu	100
Fitness Plus - Manurewa	-
Glenfield Rec Centre	150
Lynfield Rec Centre	200
National Squash Centre	812
SquashXL	20
YMCA North Shore	220

There is also a University Squash Club, which is student-run and bases itself at the Auckland Squash Centre, holding a weekly club night there on Tuesdays. Membership numbers for the club total around 180. The University Squash Club are not affiliated to Squash Auckland, however a number of its players are also members at other affiliated clubs to allow them to compete in regional competitions such as interclub and tournaments.

Based on the casual play figures above, we can make assumptions about the size of the casual play market as a proportion of the total squash participation market. Using the average court hire fee of \$20 per booking plus actual figures obtained from a couple of the centres, the total income from casual bookings at commercial and rec centres would be around \$230,000 per year.

Additionally by utilizing a summary of income from affiliated clubs to Squash NZ in 2017 plus figures obtained from other facilities, membership income for Auckland clubs is approximately \$1,050,000 while other non-subscription income (casual play) is \$278,000. Based as a percentage, we can estimate that casual play accounts for approximately 21% of the squash participation market when calculated by income generation.

4.4 Court Usage

The average peak time at squash clubs is around 4pm-7pm on weeknights. It is estimated around 80% of court bookings (excluding tournaments and interclub) are made during this time. Within a number of clubs this places pressure on bookings at peak times, and can pressure clubs to stop driving new memberships even when the courts are very lightly used outside of these times.

During the Winter Interclub season (Senior & Masters) during 2016, the following percentage of total courts in our affiliated club network were being used for interclub matches;

Monday nights: 31.5%

Tuesday nights: 43.5%

Wednesday nights: 39.1%

(*excludes courts at Auckland Squash Centre and Onewhero, who as Associate Members don't participate in the interclub competition)

29.8% of all eligible affiliated members (excludes Auckland Secondary Schools players) competed in either the Senior or Masters Winter Interclub competitions in 2016.

For the purposes of this Regional Facilities Plan, individual club court usage data has not been collated. More data on each particular club's court usage will be obtained on a case-by-case basis as required.

4.5 Current State of Facilities

While in most of the local board areas the current distribution of squash facilities is deemed adequate, there may be a reduction or shortage in the number of courts available in the community over time as some facilities near the end of their economic lives, making these facilities financially unviable and leaving some areas somewhat vulnerable.

Stakeholder consultation shows the key barriers to increasing participation levels in squash include the low profile of the sport, challenges around club capability, changing demographics, inadequate facility condition and a lack of resources and funding. If these barriers are to be overcome, a collaborative approach is required to improve not only existing facility conditions and accessibility, but to rebuild and reinvigorate the sport at a community level.

The majority of clubs are currently financially viable, albeit on a shoestring budget and providing only the minimum standard of facilities and maintenance. All squash clubs rely heavily on income from their bar to subsidise the ongoing costs of keeping their clubs open and operating. Out of the 26 affiliated clubs;

- 6 have a full-time Administrator or Club Manager on site (35+ hours per week)
- 7 have a part-time Administrator on site (less than 35 hours per week)
- 13 are fully volunteer-run

Of the six clubs that have a full-time Administrator, all except one (North Shore Squash Club) are combined squash and tennis 'racquets' clubs. It is no coincidence that the top 10 clubs based on number of players per court all have either full-time or part-time paid administrators, while the bottom 10 are all completely run by volunteers. Having the ability to pay an administrator to drive the club is a critical success factor in this age where consumers want a professional experience and don't mind paying for that convenience.

The point at where a club should be considering hiring an employee will vary depending on the skills and time availability of the committee, as well as the club's financial position. However, factoring in the need for a club to be offering its members a professional experience and the increasing number of time-poor club volunteers, all clubs should be investigating and researching funding opportunities to employ even a part-time administrator to ease the burden of the club committee who can then focus on strategically growing the club and improving the club member experience for all.

4.6 Current Competitions & Events

Squash Auckland and its network of affiliated squash clubs have a wide competition base that caters for all ages and abilities.

Squash Auckland Competition Quick Facts for 2016-17 season;

62 Club-based tournaments
12 Junior 1-Day tournaments
10,785 Interclub matches played
45,700+ Interclub games played
590 Interclub teams participated
89 Interclub nights of play
91 Interclub divisions

Interclub

Senior Interclub – contested over three different competitions through the year;

- ❖ **Senior Autumn** –played during March/April
- ❖ **Senior Winter** – played from May to September
- ❖ **Senior Spring** – played during October/November

Our most popular competition format where clubs enter teams spread through divisions of either six or eight teams, depending on the competition. Played on Monday (lower divisions) and Tuesday (higher divisions) nights, each team consists of three playing members for Women's teams and four per team for the Men's teams. Play starts at 7pm and finishes anywhere between 8.30pm and 10.30pm depending on the closeness of the matches. Teams stay afterwards for a meal and to socialize with the opponents. Open to players of any grade

Masters Interclub – contested over three different competitions through the year;

- ❖ **Masters Autumn** –played during March/April
- ❖ **Masters Winter** – played from May to August
- ❖ **Masters Spring** – played during October & November

This competition is for Masters players aged 40 and over. Clubs enter teams which are spread through divisions of six or eight teams, depending on the competitions. Masters Interclub is played on Wednesday nights from 7pm and generally finishes around 10pm. All teams from within a division play at the same venue each night, and teams stay afterwards for a meal and to socialize.

Junior Interclub – two different junior interclub competitions are currently run in the Auckland region, both by volunteers;

- ❖ **JETS Junior Interclub** is a team-based competition where clubs enter teams consisting of their junior members
- ❖ **Auckland Squash Junior Interclub** – players enter as individuals and are placed in a draw with 12 or 16 other players around the same level. A Swiss Draw is played out over the course of three Sunday mornings. Recent rounds have seen approximately 80 juniors participate over a number of draws

Doubles Interclub – a new format introduced in Spring 2016 that has seen 32 teams from 10 different clubs competing over four divisions of eight teams. Matches are played on a Monday night with all teams from within a division playing at the same club each night. Due to a lack of doubles courts in Auckland, most matches are played on traditional singles courts. The recently completed Summer Doubles competition saw an increase of teams participating to 35 from 12 different clubs.

Club Tournaments – each affiliated club will run their own tournaments throughout the season. These tournaments are listed on the Squash NZ National Tournament calendar each year, and supplement the National and Regional tournaments also held around the country. There are different levels of club tournaments, depending on the ability of each club to attract certain players. Most tournaments will run from a Thursday night through until the Sunday afternoon, although smaller clubs may finish tournaments on a Saturday evening. The most common types of club tournaments are;

- ❖ **Open** – typically the club's largest tournament for the season, with the aim of attracting top players from around the country to participate. Open to any squash player registered on the Squash NZ grading list
- ❖ **A2 or B Grade & Below** – the most common club tournament, open to all players graded below the specified grades. Generally held if a host club doesn't have many club members of their own in A Grade and less likely to attract out-of-town players
- ❖ **Masters** – open to graded players aged 35 & over. Typically a more social tournament with fewer matches. Due to the physical nature of squash these type of tournaments are favoured by a large number of Masters players who can compete against players of a similar age
- ❖ **Junior 1-Day Tournaments** – generally held by clubs that have a number of junior players, these are played on Sundays and participants will play three matches throughout the course of a day. These tournaments are an introductory step for young players into larger tournaments

Many clubs also hold an array of other organised events, such as Senior & Junior Club Nights, Club Leagues, Business House competitions, In-House tournaments such as Club Champs, Club Challenges with neighbouring clubs, plus more.

College Sport – the College Sport squash competition is played during Terms 2 & 3 on Monday, Wednesday, and Friday afternoons. During 2016 there were 131 teams that took part in the competition, from 33 different colleges. Due to the difficulty in obtaining court time and the current inability to find a suitable solution to this issue with College Sport, team numbers have dropped to 94 in 2017 and 93 in 2018.

4.7 Casual Play & Latent Demand

Having casual play and court bookings available for non-members is a huge factor in attracting more players to squash, particularly in off-peak times, however many clubs do not have the capability to allow for this and therefore this is the potential for a latent demand to exist in market. The major barriers to implementing casual bookings is either the set-up cost to have an online booking and access system installed, or the cost of having a paid employee available on site.

4.8 Current Risks & Challenges

Loss of Existing Facilities – a number of squash courts have recently been lost from the network of courts in Auckland due to factors out of the control of the sport's governing bodies. The Stanmore Bay Leisure Centre recently closed its three squash courts in February 2016 to convert them into a fitness space (weights, etc.), as did the Les Mills in Howick, while St Kentigern College recently converted its two squash courts into a dance studio. Club Physical Te Atatu originally had eight squash courts for casual use but are now down to only two. The loss of squash courts, particularly in leisure centres, will mostly likely result in the loss of players from the sport completely unless they are willing to travel further distances to the next closest squash facility to them.

As commercial and council-owned rec centres which have squash courts as part of their fitness offering seek to increase their return on investment, we foresee the number of squash courts in these centres decrease as they are converted into higher yield rooms for gym classes. It will take a collaborative approach between council, the centre managers, and Squash Auckland, to drive increased use of these squash courts through a structured squash programme to avoid them being removed.

Squash Auckland is currently taking a proactive approach where possible to assist these centres to increase usage of their squash courts. These include helping the Lynfield Rec Centre to set up a junior programme during Term 1 2018, and currently discussing with the Allan Brewster Centre to activate the courts by providing a coach and setting up junior and adult introductory coaching programmes. By using Squash Auckland coaches we hope it will assist to make the programmes sustainable even following potential staff changes at the centres. The courts are also used for the College Sport competition during Term 2.

There is also a need to balance the potential time spent on assisting non-affiliated facilities which don't provide or pay an affiliation fee, to assisting those affiliated clubs who fund Squash Auckland. Priority is given to helping those rec centres that don't have an affiliated club within the near vicinity to ensure as many people in the Auckland community have access to nearby squash courts as possible.

Panmure Squash Club – the club is currently in discussions with their Local Board regarding opportunities to relocate their club to a new facility, as the lease on their current premises is up for renewal and the building requires major repairs to get it back to a fit-for-purpose level. The Eastern suburbs in Auckland already have a lack of squash courts, with only Panmure and Howick currently servicing the area from Mt Wellington to the east.

Hibiscus Coast area – the Red Beach and Silverdale Squash Clubs both currently leased their facilities and courts from the Red Beach Surf Lifesaving Club and the Silverdale Rugby Club respectively. Both clubs have recently been put under pressure to relocate by their landlords, and a loss of either club would leave a dire gap in the provision of squash courts in the Hibiscus Coast region. Both clubs are currently investigating opportunities to merge and become part of the Metro Park sports development at Millwater.

Relocation of Club-Owned Facilities – a number of older, established clubs are located on their private land and may sell and move to a different location where they may service a different catchment, leaving a gap in the market. The Remuera Rackets Club is currently engaging with its members around options for the future of their club, which include selling off part of their land and remaining on the current site, or moving to the Remuera Bowling Club. All of these discussions are in the very early stages.

Aging Facilities & Declining Club Income – a large percentage of the existing squash facilities are nearing 50-60 years of age and requiring regular funding to keep them maintained and fit-for-purpose. Most clubs are able to meet the day to day costs of operation, however struggle to find enough resources for repairs, maintenance, and development. With the traditional bar sales also in decline in recent years due to changes in the drink-driving laws, the pressure is on clubs look for alternative income streams to supplement their subscription income and be able to reinvent in their club. This additional burden and risk of losing income means some clubs are operating with sub-standard, unattractive, ageing facilities which consequently continues to hinder club and player growth.

Maximising Court Use in Off-Peak Times – the major issue facing squash clubs is the inability to drive court usage during the day before 4pm. Group programmes and classes are difficult to sustain as they require a critical mass which can be hard to obtain from the core groups of players that can play during the day such as shift workers or mothers with young children. Typical squash courts also don't lend themselves too many alternative uses other than workout spaces.

Section 5 - Future Demand

5.1 Population Growth in Auckland Local Board areas

Based on projections done by Statistics New Zealand, the Auckland region as a whole is expected to see population growth of around 42% by 2038. Some areas will experience far greater growth at up over 60%, such as Franklin, Rodney, Upper Harbour, and Waitemata. Others will see more modest growth such as Kaipatiki, Manurewa, and Waitakere Ranges which are projected to come in at under 25% growth.

2013 Census and Projected population by Local Board

Local Board	2013	2018	2023	2028	2033	2038	Growth
Albert-Eden	100,000	108,700	114,700	121,000	127,000	132,500	32.5%
Devonport-Takapuna	58,500	63,200	66,100	69,000	71,800	74,300	27.0%
Franklin	68,300	78,200	87,600	97,200	106,800	116,200	70.1%
Great Barrier	950	970	980	980	990	1,000	5.3%
Henderson-Massey	113,500	124,800	135,300	146,000	156,600	166,900	47.0%
Hibiscus and Bays	94,000	104,900	113,300	122,000	130,600	138,800	47.7%
Howick	135,000	147,500	157,400	167,200	176,400	184,800	36.9%
Kaipatiki	87,000	91,900	95,200	98,300	101,000	103,700	19.2%
Mangere-Otahuhu	75,300	81,700	86,700	92,100	97,300	102,000	35.5%
Manurewa	87,000	91,800	93,900	95,800	97,100	97,600	12.2%
Maungakiekie-Tamaki	73,700	81,700	89,300	97,100	104,700	112,100	52.1%
Orakei	83,700	92,600	98,000	103,600	109,100	114,100	36.3%
Otara-Papatoetoe	80,300	86,500	91,200	96,100	100,700	105,000	30.8%
Papakura	48,200	54,100	59,300	64,700	70,200	75,700	57.1%
Puketapapa	56,300	61,900	66,100	70,200	74,100	77,600	37.8%
Rodney	57,300	64,800	71,700	78,900	85,900	92,800	62.0%
Upper Harbour	56,800	67,400	76,000	84,800	93,400	101,600	78.9%
Waiheke	8,630	9,160	9,740	10,350	10,900	11,350	31.5%
Waitakere Ranges	50,700	54,300	56,300	58,400	60,300	61,700	21.7%
Waitemata	81,300	95,400	106,900	118,700	130,200	141,200	73.7%
Whau	76,700	84,900	91,600	98,500	105,400	112,000	46.0%
AUCKLAND TOTAL	1,493,180	1,646,430	1,767,320	1,890,930	2,010,490	2,122,950	42.2%

Using these projected population growth figures from the different local board areas, we can apply these to our current club membership numbers based on the location of each club and get an idea of what these membership numbers may look like in 2038.

Projected Membership Numbers in 2038 – based on Local Board population growth estimates

Club	Number of Courts	Number of Members 2017	Members per Court 2017	Number of Members 2038	Members per Court 2038
Belmont Park Rackets Club**	3	406	135	532	177
Royal Oak Racquets Club	5	402	80	555	111
Remuera Rackets Club	6	271	45	489	82
Panmure Squash Club	5	290	58	388	78
Franklin Squash Club	4	180	45	304	76
Herne Bay/Ponsonby Squash Club	4	142	36	299	75
North Shore Squash Club	7	383	55	522	75
Harcourts Eden Epsom Tennis & Squash Club	5	269	54	354	71
Titirangi Tennis & Squash Club	5	181	36	353	71
Warkworth Tennis & Squash Club	3	129	43	207	69
Howick Squash Club	4	185	46	244	61

Club	Number of Courts	Number of Members 2017	Members per Court 2017	Number of Members 2038	Members per Court 2038
Papakura Tennis & Squash Club	4	141	35	240	60
Red Beach Squash Club	2	89	45	114	57
Browns Bay Squash Club	4	133	33	223	56
Henderson Squash Club	6	183	31	287	48
Silverdale Squash Club	3	88	29	93	31
Manurewa Squash Club	5	148	30	134	27
Kumeu Squash Club	3	33	11	66	22
Te Papapa Squash Club	3	57	19	61	20
Beach Haven (Shepherds Park)	4	95	24	81	20
Devonport Squash Club	3	43	14	57	19
Onewhero Squash Club	2	17	9	19	9
RNZAF Auckland Squash Club***	0	6	0	18	9
Auckland Squash Centre*	8	12	2	14	2
Maramarua Squash Club (Waikato)	2	33	17		
Te Kauwhata Squash Club (Waikato)	2	21	11		

Breaking this down on a per-club basis to see if we can identify any clubs which will be limited by growth in the future if membership growth matches population growth, only Royal Oak will cross over the '100 members per court' threshold. Belmont Park may require investigation into their court usage hours to determine whether additional courts would be needed in the near future, while Maramarua and Te Kauwhata have been excluded due to being outside any of the Auckland Local Board areas.

It is important to recognise that population growth does not directly equal membership or participation growth but provides clubs with a far greater opportunity to grow as the number of potential members in their local community rises significantly. Often times this can be driven by one motivated and dedicated club member, however a more sustainable and realistic situation is for a well-organised committee of club volunteers to evaluate, develop, and implement a strategic plan for the club.

This includes but is not limited to clubs improving their membership and programme offering, marketing and promotion, upgrading/maintaining facilities, and casual participation options. Squash NZ has a great collection of resources and case studies available for clubs around growth and development - <http://nzsquash.co.nz/for-clubs/index-of-resources.cfm>. (also see Appendix 7.5 for case study examples).

5.2 Identified Areas of Demand

Facilities with moveable walls for doubles courts

The popularity of doubles squash is on the rise due to a number of factors;

1. It is an alternative way to play squash that is more social but also less stressful on the body, meaning older players whose bodies can no longer withstand the vigor's of singles squash can still play the game they love. Traditionally these players would migrate to the tennis court however doubles squash allows a pathway to continue playing squash.
2. New Zealand's success on the world stage in doubles, having won two Gold medals and one bronze for the second consecutive year at the recent World Doubles Championships held in England
3. Improvements in squash court technology means new squash facilities built will be installed with moveable walls which allow for doubles courts to be created

Most squash clubs currently hold in-house doubles matches or competitions, however these are typically played on traditional sized courts. While still proving to be an enjoyable experience, due to the limited space and the speed of the game, it is usually restricted to higher-graded players who have the ability and skill to play the game safely. Playing doubles on a proper sized court removes a large amount of that risk.

The number of doubles competitions around the country are increasing. In 2011 Squash NZ held the first National Doubles Championships, while Auckland held its first Doubles Interclub competition in spring 2016, with 32 teams entered from across 10 different clubs.

Currently in Auckland, there are only two facilities that have squash courts with the moveable walls required to create doubles courts. These are the Howick Squash Club (2 x doubles courts) and the National Squash Centre (3 x doubles courts). Three singles courts are required to convert into two doubles courts.

There is currently no strategy to add to the stock of doubles courts around the country however with the growing popularity of the format and the additional multipurpose use that comes from having a large single space made possible by moveable walls, Squash Auckland will begin to develop a regional strategy which will include building a business case to have them installed for both new and existing facilities.

High School & College Sport court access

During 2016, the College Sport squash competition had 131 teams competing from 36 different schools. In 2017, that number dropped to 94 teams from 26 schools. The drop in player numbers can almost certainly be attributed to the lack of available courts, as council and commercial centres which were regularly used are converted into gym spaces. As courts are required after schools from 4pm on Monday, Wednesdays, and Friday from 4pm, availability and court access is a major challenge. Most clubs will have their peak time starting at 5pm making it difficult to be able to complete College Sport matches in time, with matches being unable to start earlier due to the travel time required.

Having a strong College Sport competition is vital for the future of squash, as it provides an introductory access to the sport and starts them on the pathway to becoming a squash club member either immediately or later in life.

Some schools, such as Orewa College, regularly have to turn students away from their squash programme as their local club at Red Beach doesn't have the facilities to accommodate the large number of students wanting to participate in squash.

Squash Auckland is currently working with College Sport to better inform clubs of the advantages to making club courts available for the competition. Alternative formats to the competition are also being assessed to potentially play matches at other times during the day to avoid the busy early-evening period at clubs.

Areas with a lack of squash facilities

Research shows that people want to play close to where they live and not have to travel far. In a Competitions Survey carried out in September 2016, Auckland players were asked to rate the level of importance they placed on a number of listed factors on their decision-making process when deciding whether to enter a squash tournament. Out of the ten factors listed, 'Travel Distance to the Host Club' was ranked second overall in importance, behind 'Supporting Home/Local Clubs'. It rated at 4.03 on a scale of one to five, with one rating as Not Important and five rating as Very Important. It is fair to assume that casual players rate travel distance to a squash facility as an important factor in whether they participate in squash regularly or not.

With this in mind, we need to ensure that all potential growth areas and catered for and squash courts are easily accessible to members of those communities. We have identified the following local council areas as having a lack of squash facilities due to the rising population growth predicted and distance to the nearest clubs;

- Hibiscus Coast
- Howick & Eastern Suburbs
- Orakei

The table below shows the number of Local Board residents per Club Member. The area with the highest concentration of club members is Devonport-Takapuna, who also have the most amount of club courts of any of the Local Board areas. The figures from the table show a good representation that areas which have a high number of squash courts also have a higher percentage of population as club members. This indicates that most clubs pull players from within their local community and therefore new facilities located within areas currently without or with a low number of squash courts has a high potential to increase participation.

Local Board residents per Squash Club Member

Local Board	Current Population	Club Courts	Club Members (2016)	Club Member per Resident
Devonport-Takapuna	58,500	13	437	134
Rodney	57,300	6	282	203
Franklin	68,300	6	321	213
Orakei	83,700	6	375	223
Albert-Eden	100,000	5	447	224
Hibiscus and Bays	94,000	9	398	236
Waitakere Ranges	50,700	0	184	276
Papakura	48,200	4	172	280
Maungakiekie-Tamaki	73,700	13	224	329
Henderson-Massey	113,500	6	337	337
Waitemata	81,300	12	236	344
Manurewa	87,000	5	244	357
Howick	135,000	4	364	371
Upper Harbour	56,800	0	153	371
Kaipatiki	87,000	4	222	392
Puketapapa	56,300	0	106	531
Whau	76,700	9*	93	825
Mangere-Otahuhu	75,300	0	39	1,931
Otara-Papatoetoe	80,300	0	41	1,959
Waiheke	8,630	0	4	2,158
Great Barrier	950	0	0	-

Planned / Active Developments for Auckland Clubs:

- Belmont Park Rackets Club plan to replace the roof, upgrade the upstairs viewing lounge, put in glass-back courts and create a new downstairs viewing area.
- Eden Epsom Tennis & Squash Club plan to invest in LED lighting, insulation and soundproofing for the courts.
- Franklin Squash Club are exploring the addition of 1-2 courts and upgrading existing courts and amenities.
- Kumeu Squash Club are considering relocating before spending on facility developments, such as repairing the roof.
- Maramarua Squash Club are investigating putting in a new kitchen.
- Papakura Tennis & Squash Club are considering repairing and painting the squash courts and are about to install a pay to play system for squash.
- Shepherds Park (Beach Haven) Squash Club are looking at upgrading the changing rooms and developing the club lounge further.
- Te Kauwhata Squash Club are planning to upgrade the changing rooms.
- Warkworth Tennis & Squash Club are planning to redesign the downstairs area to possibly cater for a warm-up room.
- Howick Squash Club are planning to upgrade their existing changing facilities and possibly adding another court.
- Henderson Squash Club are looking to re-plaster and re-paint the courts.
- Titirangi Tennis & Squash Club are planning to re-plaster the courts.

5.3 **Key Principles for Better Facility Provision**

- Collaborating and engaging with TAs and RSTs who have developed, or are developing regional sport facility plans
- Maximising the use of existing facilities with quality programme offerings and scheduling
- Improving the accessibility and utilisation of facilities, including during off-peak times, by installing the iSquash Pay2Play system
- Identifying spare capacity to adapt and redevelop existing facilities, including adding moveable walls in squash facilities for other activities and creating doubles courts
- Exploring opportunities to use other facilities for community use that are currently not part of the affiliated network
- Modifying and increasing access to outdoor courts and recreation spaces (such as car parks)
- Employing suitable facility management practices, including having paid administrators and community hubs and satellites
- Cooperating with other sports to advocate to TAs for rationalisation and development of new community facilities or refurbishment of existing sports centres

5.4 **Indicative Costs**

New Build

The majority of the cost in erecting new squash courts is in the building itself. For the cost of the courts themselves, there are a number of different options available but standard system courts can cost anywhere between \$60k-\$100k per court excluding lighting. The build time is approximately one week per court.

There are two main companies that offer squash court supply and building services in New Zealand.

ASB Squash Courts – www.asbsquash.com

Court Tech – www.courttech.biz

Maintenance and Upgrades

In relation to existing squash courts, there are typically three main areas of the playing surfaces that clubs will look to upgrade;

- **Court Lighting** – many squash clubs are in the process of retrofitting their squash court lighting to LED's. Electricity is a major component of a squash club's overheads and with LED technology becoming cheaper the decision to switch to LED's is now an easy one for club committees to agree on. Recent upgrades at Auckland clubs have cost around \$5,000 per court
- **Painting** – the traditional plaster squash court walls can make a court seem dark and uninviting, with many clubs opting to paint them in a specially designed white paint. Over time with the repetitive impact of being hit by a squash ball, the paint tends to flake off meaning these courts need repainting. The expected lifespan of the paint varies depending on a number of factors including the quality of the wall surface prior to painting, humidity, water leakage from external walls, and more. When repainting the process normally involves removing the old paint, patching up any places in the plaster where cracks have opened up, and then repainting. Recent jobs at Auckland clubs have cost approximately \$4,000 per court.
- **Floor Sanding** – maintaining the court floor is an extremely important task due to the potential for serious injury caused by a player slipping. While most court floors can be swept regularly along with a semi-regular hot mop to pick up loose dust and dirt that gets between the floor boards, occasionally the floor will need a full sand. This will help lighten the tone of the wood which can get dark over time, as well as allow for improved grip of squash court shoes. Indicative costs of floor sanding are around \$1,300 per court.

Club Maintenance Requirements

Item	Indicative Cost	Expected Lifespan
Court Lighting (LED)	\$5,000 per court	10 years
Court Plaster Maintenance & Painting	\$4,000 per court	10 years
Floor Sanding	\$1,300 per court	10 years
Club & Changing Room refurbishment	Unknown	25 years

* Indicative budget figures only for the purposes of estimating the amount of investment required to maintain the existing network.

Maintenance Notes

- LED lights have an expected lifespan of approximately 50,000 hours. Many clubs have already upgraded from traditional fluorescent fixtures to LED's, however it would be expected all clubs will move to LED's within the next ten years as the cost decreases
- Many squash clubs do not have painted courts however the courts still require regular plaster maintenance which can also be costly
- Other maintenance items that may specifically affect the playing areas of the club include heating and ventilation

Section 6 – Future Priorities & Implementation

6.1 Strategy for Assessing Future Priorities

Taking into account all the data collated and analysed within this document as well as information gathered from clubs regarding current locked-in or aspirational facility projects, we can begin to develop a strategy for assessing our future facility priorities for squash in the Auckland region. Having identified that the overall number of squash courts required to meet the demand for current and future participants is sufficient, the focus turns to maintaining the current network, increasing accessibility and participation, and ensuring the network is not diminished through the loss of courts and/or facilities which would then leave major gaps in facility provision.

6.2 Future Priorities

Priority 1 - Securing a Future for the Panmure, Red Beach, and Silverdale Squash Clubs

The threat of the loss of current clubs in growth areas should be the major priority, as losing these facilities would leave a major gap in provision and a loss of players to the sport.

The Red Beach and Silverdale Squash Clubs both currently face an uncertain long-term future. Both clubs are essentially tenants within their respective multisport locations (the Silverdale Rugby Club and Red Beach Surf Lifesaving Club) and are under pressure to relocate with the leased space required by the parent clubs. The clubs, supported by Squash Auckland, are engaged in the initial planning phase of being included in a new indoor sports facility in Millwater at Metro Park. The Red Beach and Silverdale Squash Clubs are critical to the squash network in the Hibiscus & Bays area which is one of the fastest growing in Auckland.

The Panmure Squash Club is in a unique situation where the building is owned by Auckland Council, with the land being crown-owned. The facility is in a dire state of disrepair and the absence of a long-term lease agreement (stalled by building issues and historic rental payment disputes) has meant an uncertain long-term future for the club. They are currently in negotiations with their Local Board for a new 10 year lease and rental agreement to give the club some more certainty while they investigate options for relocating to a new facility elsewhere within the Local Board boundary.

Priority 2 - Investment Needed in Current Facilities to Drive Membership & Improving Accessibility

Overall, our network of current squash facilities should look at driving participation and membership to allow them to maintain and upgrade their current sites. There is no immediate overall need for new facilities based on demand outstripping supply, other than where existing facilities are under threat. Squash Auckland is currently undertaking research to estimate the entire cost of the facility network and the required initial investment to bring the full network up to standard. This investment is required into ensuring club facilities including squash courts, changing rooms, and access (including implementation of pay-to-play) are fit-for-purpose and attractive for encouraging new players to participate in squash.

Priority 3 – Club Maintenance & Revitalisation Programme

Squash Auckland to investigate developing a club programme to seek support from key partners and funders to proactively upgrade and maintain the network of the 106 club squash courts in the Auckland region. Based on the 106 courts based at affiliated club facilities, an estimated annual cost of approximately \$109,000 is required to service and maintain the network at that level. This figure only includes the squash courts and excludes any amenities required to make a facility fit-for-purpose such as changing rooms.

Priority 4 – Assisting Clubs to Have a Long-Term Facility Plan in Place

An example of clubs needing to have long-term plans in place is the Royal Oak Racquets Club. Royal Oak has an increasing membership and is projected to cross the 100 members per court threshold in the next 10-15 years – however any future growth will more than likely be stumped by a lack of court availability for members, and the current site the club is on has limited space available for expansion. The club is in a strong position by virtue of owning the land and buildings it is situated in, however as a racquets club with five tennis courts also, needs to come up with a long term plan to ensure it can continue to grow and provide the local community it services with the facilities it requires. Squash Auckland can assist to help them with this process, along with guidance from the Local Board (Maungakiekie-Tamaki) and Sport Auckland.

Priority 5 – Monitoring New Growth Areas and New Multi-Sport Facility Developments

With the large number of new housing developments being built due to Auckland's exploding population, keeping tabs on potential new multisport facilities will be crucial to ensuring all Aucklanders have access to a squash court near their residence. Through continual relationship-building with key facility providers and stakeholders such as Auckland Council, Active, and the RST's, Squash Auckland will be able to ensure it is considered for any potential developments that meet the needs of the sport.

6.3 Implementation

Distribution and Advocacy of Regional Squash Facilities Plan

The plan will be implemented by Squash Auckland and used as a resource and guide for planned squash facilities upgrades around the region. It can be distributed to local boards, council, funders, and other stakeholders as a unified approach to creating 'Welcoming Facilities' by Squash NZ, Squash Auckland, and the network of clubs.

Providing Club Support

Squash Auckland will support clubs to develop facility plans which include asset maintenance and replacement strategies, along with guidance and support around obtaining funding sources for facilities projects. Clubs in high population growth areas such as Franklin, Herne Bay/Ponsonby, and North Shore, should start engaging with their Local Board and have long term plans in place for future growth. This should be tracked regularly, and an activation plan put in place if anticipated growth reaches a certain level, as this would need to be demonstrated first.

Squash Auckland will also support clubs to drive facility usage through improved programmes, investigating alternative uses, and improved accessibility. A pilot 'Capable Clubs Programme' is already being run with the Henderson and Papakura Squash Clubs focusing in on these issues and building up case studies and resources for other Auckland clubs to utilise.

Establish a Squash Facilities Working Group

Due to the fluctuating number of squash participants and the increasing ability to measure more accurately the number of players at non-affiliated facilities, as well as the new opportunities that arise as new multi-sport complexes are conceptualised throughout Auckland, the plan will be reviewed annually by a Squash Facilities Working Group. This will include updated participation numbers, plus a stock-take of current facilities. This is particularly important for the commercial rec centres, where squash courts are increasingly being converted into additional gym spaces.

Section 7 - Appendix

7.1 Squash Facility Development Guidelines

In addition to meeting the identified minimum court specifications, there are a number of design considerations that should be considered when either upgrading an existing squash facility, or building a new squash facility.

Facility Purpose

Prior to the development of a new facility for squash, the purpose of the facility and how it will be used should be understood. Early consideration of these factors will maximise the investment made to ensure that the facility is in the right place.

Site Location

When looking at potential locations for building new squash facilities, it is important that they are not considered solely from the sporting point of view, but also as a basic element in wider urban and social planning.

This includes:

- Location of other squash facilities
- Proximity to potential participants
- High visibility of the facilities
- Ongoing public access
- Ease of access

Considering these aspects during the initial planning stage will not only maximise the use of the facilities, but ensure the potential social benefits are achieved as well.

Building Requirements

It is recommended to have a building with a clear height of at least 5.7m. If the courts are designated for leisure use only (no official tournament use), a lower height may be acceptable.

The other factors are the walls of the building. An empty building with favourably placed columns that allows for lots of free space is ideal for placing courts. This provides more flexibility in terms of court positioning, the number of courts and other amenities such as changing rooms, pro-shop, café, etc. The more flexibility there is, the better the optimisation of pathways inside.

Court Orientation

A north-facing orientation is preferred to maximise natural lighting.

Environmental Choices

Several initiatives can be used to promote better, more sustainable and healthier facilities:

- Utilise recycling stations to reuse rubbish, compost organic matter and dispose of light bulbs.
- Choose environmentally friendly cleaning products.
- Use energy-efficient products.
- Fit efficient air conditioning and heating systems, including double glazing.
- Install solar panels to heat water.
- Reduce paper through online marketing.
- Underlay flooring from recycled products.
- Place plants throughout the facility to give fresh air.
- Provide members with access to information on public transport options.

For more: <http://www.environmentalchoice.org.nz/>

Facility Design

There are 5 key areas of the facility that can be made to look aesthetically pleasing and provide a stimulating place to be. Squash New Zealand have developed a basic facility design guide that contains ideas for creating a welcoming facility.

For more: http://www.nzsquash.co.nz/news/index.cfm?content_id=2343



Courts Design

Court size and internal dimensions of the playing areas are derived from the World Squash Federation's court markings 2012 for both standard and doubles courts.

A standard squash court's internal dimensions are:

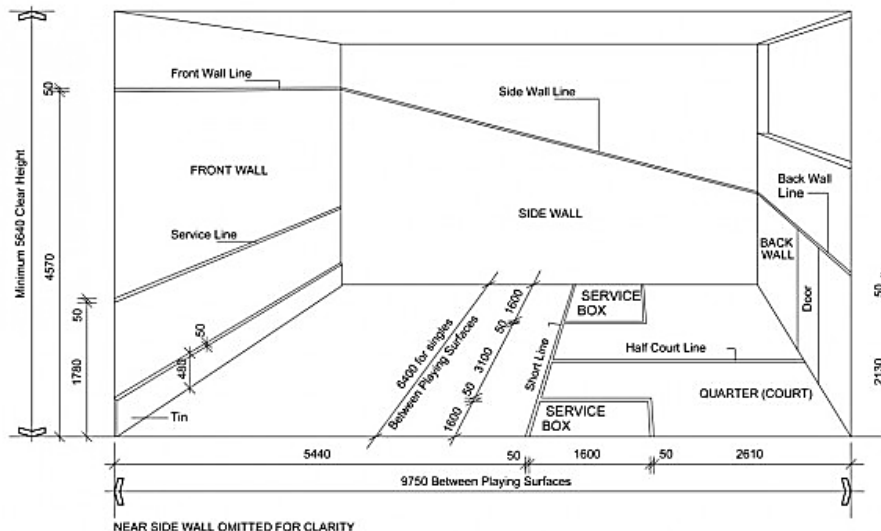
- Length: 9750mm +/- 10mm
- Width: 6400mm +/- 10mm
- Diagonals: 11665mm +/- 25mm

The total floor area is 62.4m².

WSF 2012 court markings

All court markings should be 50mm wide and contrast colour to adjoining surfaces (often red). All wall markings should be the same colour and all floor lines should be 50mm wide and should be done on clean and unsealed boards.

GENERAL CONFIGURATION OF THE INTERNATIONAL SINGLES COURT



DIAGONALS FOR SINGLES 11665

Dimensions of Singles Squash Court

Also applicable for Racketball

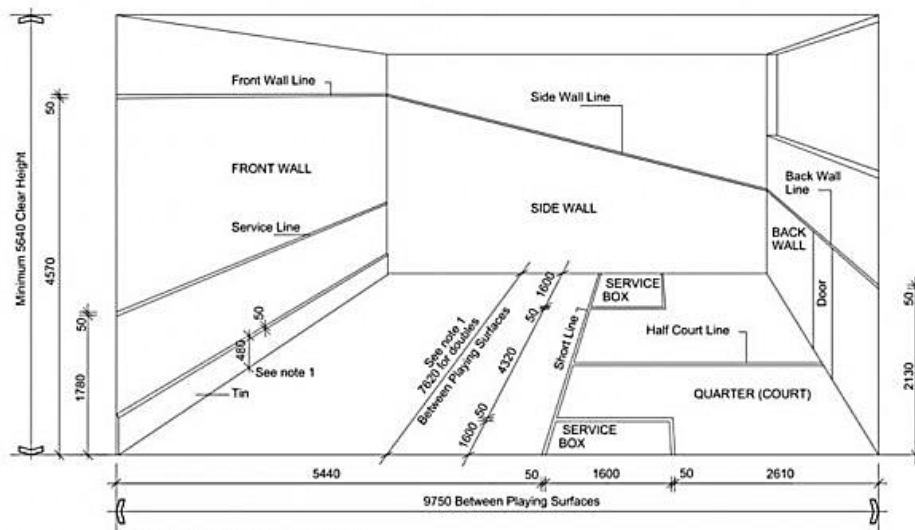
Diagram 1

December 2012

**WORLD
SQUASH**

WSF

GENERAL CONFIGURATION OF THE INTERNATIONAL DOUBLES COURT



Dimensions of Doubles Squash Court

NOTE 1

International Competition Width. For WSF recognised World and Regional events and Commonwealth Games, the width of the court between playing surfaces may be expanded from 7620mm to 8420mm and from July 2012 the height above the floor to the top of the tin shall be 330mm.

Diagram 2

September 2014

**WORLD
SQUASH**

WSF

The detailed specifications for squash courts can be found on the World Squash Federation website. For more: <http://www.worldsquash.org/>

7.2 Technical Information

With thanks to Squash England, the following provides some extra guidance on the construction and maintenance requirements for squash courts. Squash New Zealand recommends that a specialist consultant or contractor be used to determine the most appropriate solution for each facility.

The Floor

Both maple and beech are equally recommended. Strips should be of a consistently light colour, laid the length of the court and secret nailed to semi-sprung battens at 300mm centres for maple and 411mm for beech. The floor is sanded by running the machine along the length of the court. The floor surface should be left unsealed with a slight 'nap' to provide shoe traction for players. To comply with the World Squash Federation requirements for a singles court, a finished floor should be level within +/- 10mm in the length and width and on the diagonals.

Joints between boards should be flush to within 0.25mm and any open joint shall not be more than 2mm wide. Edge boards should not be nailed, but screwed to the battens using brass screws and cups and countersunk to 1mm below the floor surface. The nick should be 6-9mm wide and the edge strips should stop that distance from the side wall. The nick is an aid to airflow and should not be filled with any material.

If a glass-back is in place, the floor should be supported along the full width and up against the glass wall to ensure there is no nick to cause the ball to deflect.

A squash court should not be allowed to become damp for any length of time as the moisture content in the air will eventually enter the boards and produce buckled or cupped strips.

Wall Construction

The inner skin of the cavity wall should consist of equal clay bricks 21N/mm² or dense aggregate concrete blocks minimum 7N/mm². It is usual to use 210mm brickwork or 200mm concrete block work in cement lime mortar. Flint lime, sand lime and calcium silicate bricks and lightweight aggregate block work should be avoided. Joints to be left flush.

Walls should be constructed of the same materials throughout. Avoid constructional steel or concrete columns in the same finished plane as this will lead to cracking of the playing surface materials. Court walls should be vertical to within 5mm in a height of 2m and straight to within +/- 15mm in the length of any wall.

Wall Insulation

If the courts are to be heated, the addition of insulation clipped to the cavity face of the inner skin should be considered. Insulation inhibits the passage of energy either as heat loss in the winter, or heat gain in the summer. This produces a stabilising influence on the inner face, thereby slowing any sudden change in wall temperature, one of the conditions that most often leads to condensation.

Products suitable for introduction into an existing wall construction are generally blown, injected or, in some cases, poured into the cavity. The main problem likely to be encountered will be due to mortar droppings on the wall ties, and perhaps other materials bridging the cavity. Choice of materials includes:

- Urea-Formaldehyde (UF) Foam - The foam is injected into the cavity, usually through holes in the outer leaf, where it subsequently hardens and dries.
- Rock Fibre - Fibres coated with a water repellent are blown into the cavity where they form a water repellent mat.
- Polyurethane Granules - These are irregularly shaped granules usually between 5mm and 20mm in size.
- Expanded Polystyrene Beads - These are white spheres with a diameter between 2mm and 7mm. They are extremely free running and require few filling holes.

- Glass Fibre - An alternative to rock fibre that is installed by a similar method.
- Polyurethane (Foamed) in New Walls - Two liquid components are mixed and injected into the cavity where they foam and rinse to fill the space.
- Concrete Wall Panels – The external walls are insulated using rigid insulating slabs fixed to the outer face, then covered with a mesh fabric and waterproof rendering coats.

The introduction of a cavity fill material can provide a ready collection point for moisture which is unlikely to dry out, and therefore, damp will migrate to the inner cavity wall leaf. Should this happen, the only remedy is to cut out the defective areas from the outside, remove obstructions and complete the filling. In this instance, the use of non-setting materials such as fibres or beads can be an advantage since the completion of the filling does not rely upon the chemical bonding of new material to old.

Playing Wall Surfaces

Normal plasters are not suitable for squash courts. The most common wall surfaces are cement, plaster, wood or glass. There are also a number of pre-fabricated wall panel systems available that can be used to form a squash court.

Cement, plaster and panel courts have a lower purchase price, but their playing surfaces are quickly compromised due to plaster having to be consistently patched or panels with unfinished joints warping out of shape.

Pre-fabricated walls without visible joints and gaps are more sophisticated in their production and while they come at a higher initial price, their maintenance costs are lower over the lifespan of the courts. The same applies to glass.

The Door

For traditional brick built squash courts the standard wooden solid core door should be fitted to comply with building regulations.

Glass-backs

The introduction of glass-backs is one of the major reasons for the increasing popularity of the game as it provides the opportunity for many more spectators to view the play compared with the traditional upstairs viewing gallery. Where a glass-back door is to be installed, the supporting channels should be set into the side walls. Fins should be supported on metal angles bolted into the concrete floor slab which should be thickened to allow for the bolts. The door should be positioned on the centre line, or middle third, of the back wall. The door and frame should be set flush with the playing surface, with a solid core and hung on concealed hinges in a SOSS pattern.

The following ironmongery is normally used for the door:

- Concealed hinges (SOSS pattern)
- Flush fitting ring handle court side
- Mortice latch with lever handle on outer face
- Check action closer
- Spy glass viewer

Performance Requirements

- Glass must be toughened to at least 12mm and comply with the relevant New Zealand standards.
- Door hinges should be positioned so that there is no undue deflection under impact of a player.
- The latch must close easily and remain latched and not bounce open when under impact.
- The door should deflect slightly under impact from players but should not form a finger trap between the side of the door and the side panels.
- The gaps between the panels and door should be 2mm maximum.
- Glass doors should be cleaned using a spirit based cleaner suitable for glass.

Safety note: glass is not indestructible and does shatter occasionally, even following installation and after many years of usage. Squash New Zealand recommends that glass doors be inspected at least once a year by a qualified person, and all fixings checked and tightened up if required.

Ceiling

The ceiling of the court should preferably be flush with no projecting beams. The ceiling and / or underside of the roof, if exposed, should be painted a light colour. This should be not less than 5.64m above the finished floor level.

Lighting

Natural lighting is not acceptable for the playing area. The court should be lit by artificial light. The minimum standard is 300 lux / 1m above floor over full court area (1000mm above the floor). The recommended standard is 500 lux.

LED lamps have proven to be satisfactory and give an even spread of light over the complete floor area. The initial cost may be higher than conventional fittings but reduce running costs and have a longer life.

Light fittings should be able to withstand ball impact and free of stroboscopic effects. Fittings facing the front wall should be angled and have open ends to enable light to spread to the side walls. Fittings along the length of the court should be fixed parallel to the side walls. All types of fittings require regular cleaning to remove a build-up of dust and dirt. Checking and changing tubes should also be carried out on a regular basis.

Blinds or curtains should be used to prevent sunlight causing bright spots or areas on the court walls or floors.

Heating

The position of heating will depend on the site and location of the court. The recommended temperature range is 15°C +/- 5°C for all areas. The only part of the playing area of the court which may be used as a location for any heating or ventilation equipment shall be the tin on the front wall, provided there are no projections into the court.

Ventilation

Air bricks should be provided at low level on the front wall of the court. This allows air into the court through holes corresponding to the air bricks formed in the tin, the out of court area and at the base of the front wall. A mechanical extractor fan should be located at the rear of the court to provide at least four air changes per hour.

Viewing Gallery

Where a solid back wall is used, a viewing gallery over the access corridor should be provided for spectators and referees.

Building Consent and Compliance

When developing a new facility, or upgrading an existing one, consideration should be given to local plan requirements.

For more: <https://www.building.govt.nz/>

Under the Building Act, the only on-going obligations the owner of an existing building must meet are those of the compliance schedule and building warrant of fitness regime. The exception would be if Council elected to invoke its powers under section 124 deeming the building dangerous, earthquake-prone or insanitary and requiring action taken.

For more: <https://www.building.govt.nz/managing-buildings/managing-your-bwof/#jumpto-building-owner-obligations>

If an owner elects to alter an existing building or change the building's use, then the provisions of sections 112 and 115 respectively apply. Essentially all new building work undertaken in association with the alteration or change of use must comply with the Building Code and the existing building must be upgraded (to as nearly as is reasonably practicable) in respect of nominated Building Code issues and be no worse in respect of all others.

For more: <http://www.legislation.govt.nz/act/public/2004/0072/latest/DLM306036.html>

Cleaning and maintenance

From flooring to lighting and ventilation to insulation, the maintenance of squash facilities can be expensive if necessary repairs are not dealt with promptly. Squash New Zealand have created a basic guide on the cleaning of squash courts.

For more: http://www.nzsquash.co.nz/for-clubs/index-of-resources.cfm?content_id=2572

7.3 Condensation

Few things spoil a game of squash more than condensation. Sweating walls make it difficult to play the ball successfully and if the floor is affected, players can lose their footing and injuries are highly likely. Condensation issues often arise in certain weather conditions and heightened when crowds gather. There is a common principle underlying all condensation problems. Warm air can contain more water vapour than cool air, with the vapour content becoming so great that vapour turns to water droplets such as cloud, fog or dew when in contact with a cold surface. The limit at which this happens is known as the 'dew point'.

Basic Cures

To overcome condensation problems in a squash court it is essential to prevent condensation taking place when warm moisture bearing air comes into contact with walls or floors which are at or below the dew-point for that particular air mass. This can be achieved by the following:

Temperature

Ensure that the walls and floor of the court are kept at a temperature above the critical dew-point. Gas or electric radiant heaters provide the correct form of heating to ensure this happens. Courts within centrally heated and / or air conditioned buildings are never likely to suffer from condensation because the fabric of the walls serves as a storage heater and are never in danger of cooling off to dew-point level.

Insulation

Ensuring walls are insulated can reduce the rate at which internal playing walls cool down during a cold spell. Background heating may prevent the walls becoming excessively cold during severe weather. It is when moist warm air flow follows a cold spell that condensation risks increase.

Air changes

Ventilation of courts and spectator areas is essential. This rate of air change will be determined by the building size and type and often achieved by use of a fan placed at high level in the wall behind or in the roof above the viewing gallery or the back third of the court which will draw the air across the court from the ventilation inlet holes in the 'tin'. Grass or other vegetation near the external ventilation holes should be cut as if wet, moisture will be drawn into the court.

Vents

If high level vents have been installed on the playing wall, it may be necessary to seal these. This will ensure that the air is drawn across the court from low to high level. Additional ventilation for the viewing gallery area should be installed relative to the volume of the gallery. Extractor fans, when fitted with a speed controller, will enable the fans to be run at low speed when the courts are not in use and manual control to a higher speed when they are in use. Fans should be allowed to run on for 20 minutes after the court has been used.

Over-heating

Where courts become excessively hot it may be necessary to install a larger fan. A speed controller will be required to reduce the extract rate in colder weather.

Mould growth

If there are any signs of mould growth inside the court, this may be the result of a water leakage through the outside structure. If mould appears internally, and if a leak in the structure can be discounted, then these growths are usually the result of high humidity which may be caused by poor ventilation. Mould growth is best dealt with by brushing down to remove the loose mould growth and then treating with a proprietary mould inhibitor fungicide or a diluted solution of household bleach, containing chloride. The surface should then be washed down with clear water and left to dry thoroughly.

Moisture Diagnosis Chart

The following moisture diagnosis chart provides some of the most common causes and effects of moisture and squash courts and suggests possible cures.

Symptoms	Causes	Contributory Factors	Cures	Action Required
A film of water appears on the playing wall surfaces when the court is in use of cold days	Condensation (Sweating)	Moisture in the air from players Cold walls as a result of poor insulation	Heat the walls (particularly on cold days) Improve the insulation Remove the moisture from the air in the court	Install background heating Install cavity fill or external insulation Install extract ventilation to run continuously whilst courts are open for use.
A film of water appears on the playing wall surfaces when the court is in use of warm days following cold days	Condensation (Sweating)	Moisture in the air from players Cold walls as a result of poor insulation	Remove the moisture from the air in the court Heat the walls, particularly on warm days	Install extract ventilation to run continuously whilst courts are open for use Install background heating
A film of water appears on the playing wall surfaces whether used or not, particularly on cold days	Condensation (Sweating)	Moisture laden air coming from another part of the building Cold walls Additional moisture put into the air by players	Make sure that moisture laden air from elsewhere does not enter the court Remove the moisture from the air in the court Heat the walls, particularly on warm days	Provide separate ventilation systems for the court and other areas Arrange for a ventilated area between courts and other areas Install extract ventilation to run continuously whilst courts are open for use Install background heating
Drips of water appear on the floor at a limited number of points, and only on cold days whether or not the court is in use	Condensation	Moisture laden air coming into contact with cold surfaces Poorly insulated roof with cold spots (e.g. steel beams or pipes)	Remove moisture with an extractor fan Stop moisture laden air from coming into contact with cold surfaces Improve insulation locally or generally	Install extract ventilation Install a continuous vapour barrier on the warm side of insulation in the ceiling structure or underside of the roof Install cavity fill or external insulation
Bloom appears on the floor, and the floor becomes slippery when the court is in use	Condensation	Moisture in the air from players Cold floor	Remove moisture from the air in the court Provide heating Sand the floor	Install extract ventilation Install background heating Sand floor in direction of grain to leave a nap on the surface, do not seal

Symptoms	Causes	Contributory Factors	Cures	Action Required
Drips of moisture appear all over the floor when the court is in use	Perspiration (from players)	If court become slippery, floor is too heavily sealed	Sand floor	<p>Install extract ventilation</p> <p>Install background heating</p> <p>Sand floor in direction of grain to leave a nap on the surface, do not seal</p>
Drips of water appear at specific points on the floor during or after rain, whether or not the court is in use	Roof leak(s)	<p>Cracked glazing</p> <p>Inadequate sealing of joints between materials</p> <p>Broken tiles or slates</p> <p>Cracked roof finish</p>	Locate and repair leaks	Seek professional advice
<p>Water runs down the walls from the top during or after rain, whether or not the court is in use</p> <p>Isolated patches of damp appear on external walls after rain, particularly on walls facing the prevailing wind. Fungus or mould growth may appear, particularly in corners</p>	<p>Roof or wall head leak(s)</p> <p>Rain penetration</p>	<p>Broken or misplaced copings</p> <p>Choked gutters</p> <p>Porous brickwork or faulting pointing</p> <p>Cavity bridged or no cavity</p> <p>Broken or split external cladding</p>	<p>Inspect and locate leaks</p> <p>Check gutters and rainwater pipes</p> <p>Inspect</p>	<p>Seek professional advice</p> <p>Clean gutters and rainwater pipes</p>
The lower parts of walls feel damp persistently and a more or less horizontal tide mark appears. Floors may be damp and / or rotten. Fungus or mould growth may appear	Rising damp	<p>Breakdown of damp course</p> <p>No damp course</p> <p>Soil bridging the damp course on the external face</p>	<p>Install new damp course</p> <p>Inspect and lower the ground level externally</p>	Seek professional advice
<p>Cupped or delayed flooring</p> <p>Excessive movement in the floor</p> <p>Floor expands</p>	Rising damp	<p>Breakdown of the damp proof membrane in or on the over site concrete</p> <p>Leak from faulty plumbing or drainage</p> <p>Local external flooding</p> <p>Breakdown of floor suspension system</p>	<p>Install new damp proof membrane</p> <p>Locate and repair leaks</p> <p>Check watercourses and storm water drains</p> <p>Lift floor and replace suspension system</p>	Seek professional advice

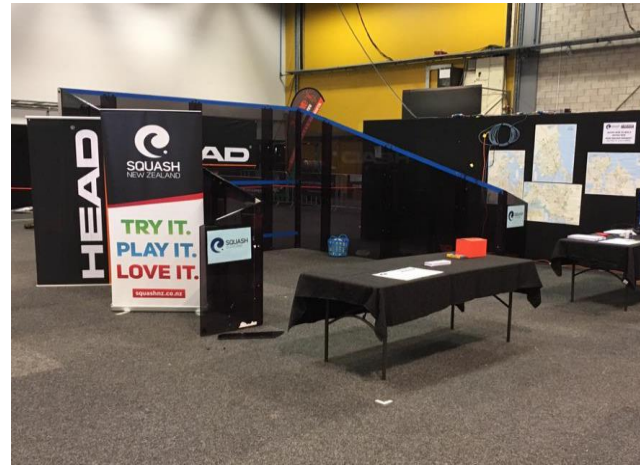
7.4 Squash Court Innovations

There have been a wide range of squash court innovations been used with varying degrees of success over the years. Some examples and the locations in which they have been used are shown below:

Inflatable Courts



Micro (Portable and Rigid) Courts



Portable Glass Courts



Outdoor Public (Glass) Courts



Moveable Side Walls



Interactive Courts



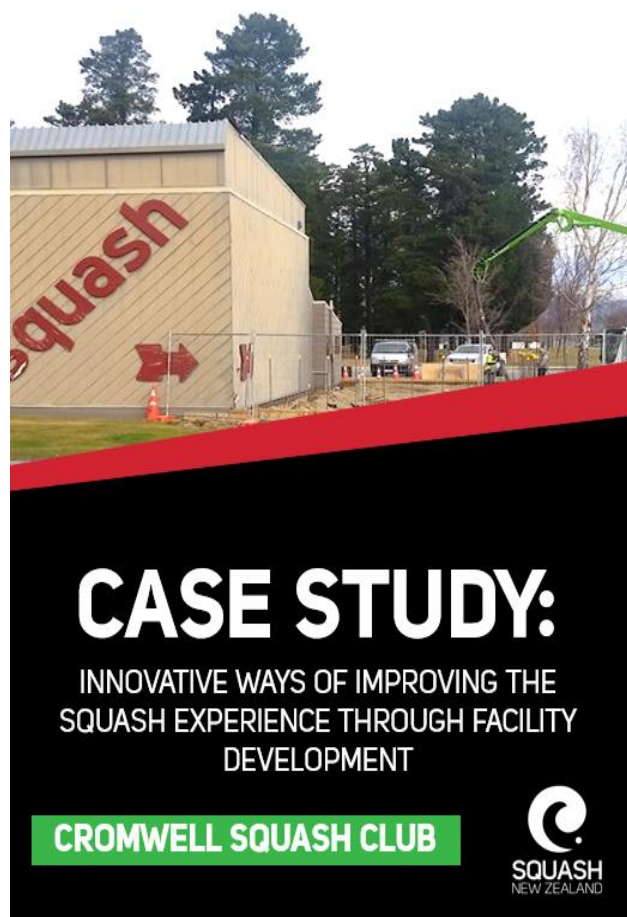
Visual content is projected onto cinema-sized screens (the front wall of the court) and the content synchronises with sound and squash activities.

For more: <http://interactivesquash.com/6-powerful-asb-squashcourt-innovations-revolutionised-sport/>

7.5 Case Studies

Cromwell Squash Club – Improved facilities (additional courts)

Established in the 1970's, the Cromwell Squash Club has recently seen growth in community participation and sporting profile. Back in 2009, a group of club volunteers initiated a \$400,000 project to build a third glass-back court and provide new changing areas and an upgraded kitchen. The project was completed in 2015 and the impact was immediate.



Club membership for the past 5 years is shown below.

Year	TOTAL	Senior Men	Senior Women	Junior Boys	Junior Girls
2016					
2015	84	54	26	3	1
2014	74	45	18	8	3
2013	77	44	23	6	4
2012	78	40	25	7	6
2011	70	33	25	6	6

To complete the upgrade the club worked closely with three local schools, the RST, TAs, community funders and local businesses. Work was completed in time to successfully host the 2015 D-Grade SuperChamps finals.

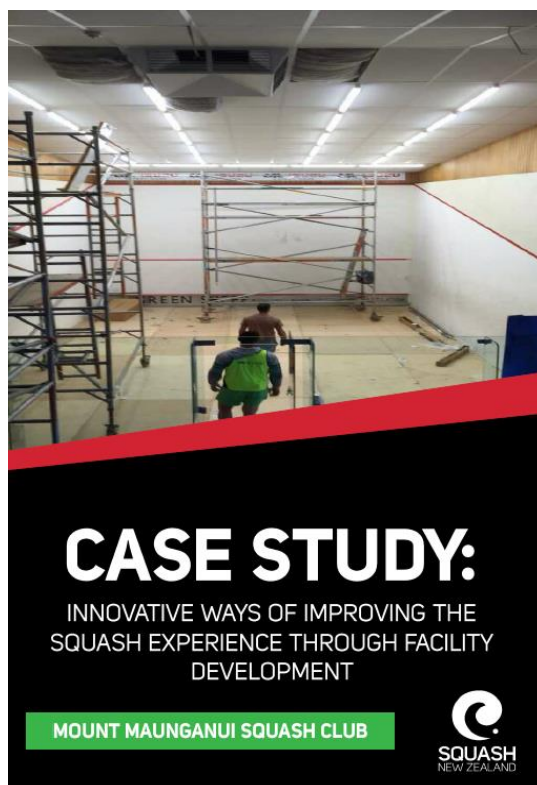
This case study highlights the benefit of working cooperatively and in collaboration with TAs, RSTs and local community organisations. It also shows the impact that welcoming facilities can have on participation.

For more:

http://www.nzsquash.co.nz/content/Club_Support/Case_Studies/Cromwell%20Squash%20Club%20-%20Facility.pdf

Mount Maunganui Squash Club – Improved facilities condition

Wanting to provide a facility that all of the club members could be proud of, the Mount Maunganui Squash Club decided to upgrade their existing facility. Using WSF specifications, coupled with energy-efficient products and materials, the club completed their upgrade project in 2015 after collaborating with a number of businesses, funders and organisations.



As a result of upgrading their existing facility, the Mount Maunganui Squash Club now provides a Regional-level facility to run larger events, plus support the Devoy Squash and Fitness Centre to run major events where court capacity is exceeded.

Upgrade overview

- LED lighting installed on all courts
- Sound attenuating ceiling tiles on all courts
- Roof insulation on all courts
- Air conditioning on all courts
- Extraction fans on court 1 and between courts 2 and 3
- PV system (solar panels)
- New glass-back doors on courts 2 and 3
- New mixers in both men's and women's showers
- Cladding on the exterior
- Paint and wallpapering of squash lounge
- New bench between courts 2 and 3
- New net between courts 2 and 3
- Haze stickers on the glass walls and doors

This case study highlights the impact that modern facilities has on improving facility condition in order to boost asset rationalisation.

For more:

http://www.nzsquash.co.nz/content/Club_Support/Case_Studies/Mount%20Maunganui%20Squash%20Club%20-%20Facility%20Upgrade.pdf

Christchurch Football Squash Club – Improved court utilisation and accessibility

Opened in the 1970's, the Christchurch Football Squash Club is a four court facility located in St Albans, Christchurch. The club is part of a co-operative sports area with a separate club rooms. The squash club pays the rugby club for the rental of the land and they own their own building.



With the shift towards a pay to play consumer model, the Christchurch Football Squash Club implemented the iSquash Pay2Play system to provide members and the public with access to a court booking and payment system.

This case study highlights the impact that modern facilities has on improving existing facility accessibility and court utilisation.

For more:

http://www.nzsquash.co.nz/content/Club_Support/Case_Studies/Christchurch%20Football%20Squash%20Club%20-%20Communications%20%26%20Technology.pdf

Tauranga Squash Club – New facility construction

Since commencing operation in 1967, the Tauranga Squash Club has become a squash success story. With a current total membership capped at 600, the club has significantly grown its participation levels and sporting profile after building a new facility, known as the Devoy Squash & Fitness Centre (opened in 2012).

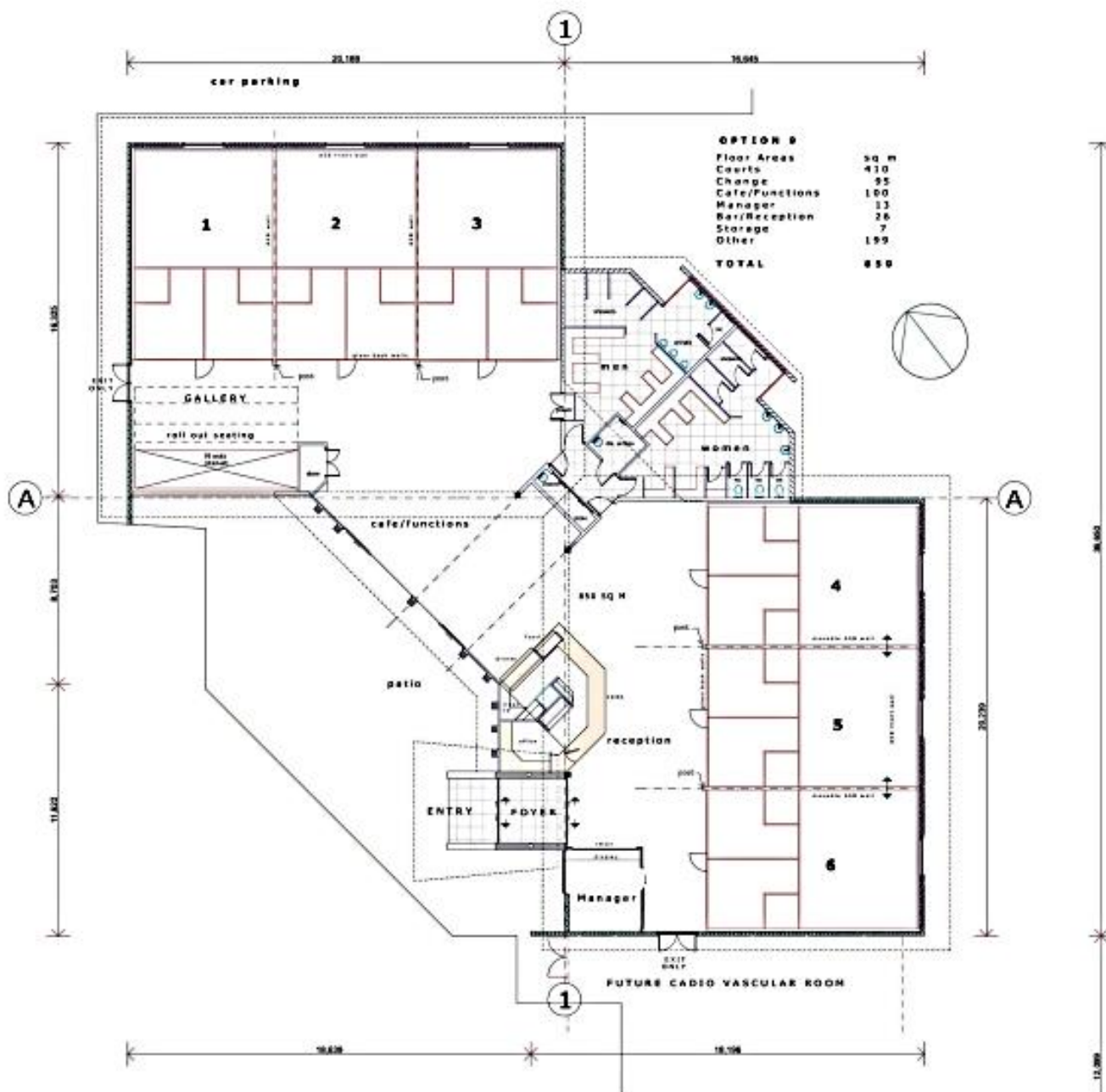


After many years of planning and fundraising, the \$1.8m project was funded by the sale of existing land and buildings along with community grant funding. The land was provided at no charge by partners Tauranga Boys College in return for court access. The relationship extends beyond real estate and squash is now an integral part of the college curriculum.

The building is architecturally designed on a single level allowing for a very interactive and dynamic atmosphere for both members and guests. Natural lighting is a strong feature along with contemporary furniture and fixings.

Facility overview

- Purpose-built squash complex incorporating a gym
- 6 x glass-back courts with ASB walls and fully sprung floors
- Ability to move the internal walls on 3 courts to create 2 full-sized doubles courts)
- Dedicated exhibition court and re-locatable gallery seating allowing up to 250 spectators
- Shared gym facilities (with Tauranga Boys College) adjacent to squash facilities
- On-site fully equipped pro-shop stocking squash equipment
- 150m² fully enclosed deck leading through large sliding doors into social area
- Central office, bar and café area can be managed by one person
- Members have electronic tag access to playing facilities
- Court access managed by online booking system through any device



Membership in the old facility was 220 and quickly grew once the new facility was opened. Currently the Tauranga Squash Club are operating at the benchmark of one court per 100 members and has had to introduce a waiting list policy.

This case study highlights the impact that modern facilities has on participation and sporting profile within the community.

For more: http://www.nzsquash.co.nz/content/Club_Support/Case_Studies/Tauranga%20Squash%20Club%20-%20Facility.pdf

SquashGym Palmerston North – becoming ‘green’

With 8 glass-back squash courts, a gym, pro-shop, office, bar and lounge, and changing rooms, SquashGym Palmerston North is one of the country’s biggest squash clubs that is committed to providing a healthy environment for members and guests of the facility.



With the increased worldwide emphasis on sustainability and ‘green’ practices, the SquashGym Palmerston North decided to install a number of potted plants to cleanse indoor air and create a more visually appealing environment.

This case study highlights the impact that the use of vegetation inside facilities has on improving the quality of facilities and leading to healthier and happier members.

For more:

http://www.squashnz.co.nz/content/Club_Support/Case_Studies/SquashGym%20Palmerston%20North%20-%20Pot%20Plants.pdf

7.6 **Further Information**

Below are some other guidelines to assist with planning for facilities development.

Sport New Zealand

Sport New Zealand have created a Sport and Recreation Facility Development Guide to provide a standardised, step-by-step process for the planning, design, procurement, construction and operation of community sport and recreation facilities.

For more: <http://www.sportnz.org.nz/assets/Uploads/attachments/managing-sport/facilities/201606-SportNZ-FacilitiesGuide-FullVersion.pdf>

Barrier Free New Zealand

There are several instances where both physical and social barriers exist preventing access. All courts should be designed to ensure inclusive access for all potential users. Barrier Free New Zealand have developed an accessibility design guide and checklist to help you make your facility more welcoming.

For more: <http://www.sportnz.org.nz/assets/Uploads/Accessibility-Design-Guide-and-Checklist.pdf>

SQUASH PRODUCTS AND PROVIDERS

Below are some links to some products and providers for squash facilities.

International companies and products

A list of internationally accredited companies and products can be found on the World Squash Federation website.

For more: <http://www.worldsquash.org/>

Court paint

Resene Squash court coating is a two pack waterborne epoxy especially developed for coating squash court walls to give a durable, tough coating with excellent resistance to abrasion.

For more: http://www.resene.co.nz/squash_court/court.html

Court tape

Squash New Zealand sells 33m rolls of court marking tape – Scotch 471 Red Vinyl Tape 50m.

For more: http://www.nzsquash.co.nz/content/SNZ_Court%20Tape.pdf

7.7 Sport New Zealand Advice for Engaging with Territorial Authorities

Councils are major providers of sports and recreation facilities – without them much of what happens in our sector wouldn't be possible. You can influence planning for community sport and recreation by submitting to your council's upcoming Long Term Plans (LTP). These plans are reviewed every three years and these offer important opportunities for sport and recreation organisations to make submissions on what your council plans to do for your community over the next 10 years. After considering submissions, final LTPs are adopted by the full councils at the start of the financial year (1 July). If you don't make your views known, then you are likely to miss out and councils will presume you support their plans.

Making effective submissions

- Ensure your submission is about an issue to the council is responsible for.
- State what your topic is and where it fits into the LTP.
- If your submission relates directly to a particular point in the draft LTP, state the page and quote the comment.
- Provide evidence that is quantified and verifiable.
- Outline the benefits to your city or district (e.g. participation and hosting events).
- Show that you have given consideration to alternative options (e.g. partnering, multi-use).
- Give evidence of your organisation's capability and financial sustainability.
- Make sure you emphasise how your idea will benefit the wider community.
- Say if you are in support of, or in opposition to, a particular issue and why. It is important to support the good things that the council does, or is planning to do, so that they keep on with it.
- Tell the council what decision you want them to make.
- Use headings and bullet points – it makes your points clearer.
- Be clear about how you think the service should be paid for – do you want rates or fees to go up? Or could funding be diverted from other council activities? Consider how other people may feel about these projects losing funding. Remember, the process is about choices.
- If you have a good idea about how your project can be funded through a different funding agency or achieved without funding, state it.
- Indicate if you want to speak at a LTP submission hearing – you will have much greater impact if you do.
- You may wish to let the council know if you would like your submission to be considered at the same time as others who you know will be making similar points.
- While numbers count in politics, it's persuasion that influences decisions. Is your submission just your own opinion or is it something that is valued by your whole club or community? Workshop your ideas with others, outline why they're important, and be positive and succinct
- Well-prepared and widely-supported public submissions do make a difference.



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