Queenstown Lakes District Council

Wanaka Sports Facility

Peer Review
Preliminary Design

May 2015

WATERSHED
Property, Project & Aquatics Consultancy

Introduction

Since 2005 Queenstown Lakes District Council has been consulting with the wider community and investigating the options and opportunities to develop a Sports Facility in Wanaka. This document reviews the Preliminary Design of the Aquatics component.

Comments are based on meetings attended with the design team, their feedback, Council officers information (primarily feedback from community consultation), and a review of drawings SK0001-4, Revision A dated 24/04/15. Guiding documents include NZS4441:2008, and NZS5826:2010.

Watershed have been involved in, and provided feedback to the design team, and Council officers throughout the process to date. We believe the documents reflect input from a wide variety of stakeholders, and balances the wishes of the community users with the financial and operational requirements of this type of facility.

Below we outline our position on the design to date, and provide feedback for further consideration.

The Pools

The design currently indicates:

1. An 8 lane, 25m Lap Pool with a ramp entry.
2. A 20m x10m Learn to Swim (LTS) Pool with step entry, at one end.
3. A Spa pool capable of seating 15 people.

1. Lap Pools are commonly constructed in 7 to 10 lane configurations, depending on the level of swimming events that a region is intending to host, and community lane swimming demand. Generally, an 8 lane facility will provide generous lane space for community and training swimming during normal hours of operation, and provide adequate lane space for regional swimming events. We consider the number of lanes proposed to be at the top end for a pool supporting a community/catchment of this size, and if additional space or activity is required within the building envelope, 7 lanes should be considered.

   It is understood that the current intention is for the pool to range in depth from 1.2m to 1.8m. This depth complies with NZS 4441 in terms of the guidelines for a lap and community pool. It should be noted that this depth does not provide for Water Polo, which requires 2.0m. An increase in depth to a consistent 2.0m will add significant capital and operational cost, and preclude a large number of swimmers from using the facility due to their ability to confidently swim in water of that depth. We are comfortable that the depth as currently designed is appropriate for a community pool that is required to meet the needs of a varied client base.

   Starting blocks are currently shown at the Eastern end of the Main Pool. This is the most appropriate location, away from the Learn to Swim Pool, near the wall and at the 1.8m deep end, and opposite the ramp entry.

We would expect that this pool will be heated to 27.5/28°C.

2. The LTS Pool is currently shown at 20m x 10m, with stair entry at the Northern shallow end. Whilst 20m provides a generous length for an LTS Pool, the stair entry at the end of the pool does have limitations:

   Swimmers progressing from Learn to Swim to club or mini squad swimming must move to the Main Pool as there is only one ñendò to turn or start from.

   The ability to divide the pool into a number of configurations by lane ropes is reduced, as access to the pool becomes compromised.

   The pool depth is not consistent down the length, potentially causing issues for less confident swimmers as they move ñdownò the pool.

   We are strong advocates for stair entry down the length of the pool, as we believe it improves the pool usage opportunities by:

   a) Stairs can be lane roped off in sections to become a usable teaching space.
   b) Multiple entry points are available whilst some sections of the stairs are in use.
   c) Depth is consistent down the length of the pool which means the deepest lane is the farthest from the stair entry, and length depth is consistent.
   d) A ramp can be considered at the deep side, if required, providing full access.
   e) Higher water temperatures mean the full 20m length can be used by a number of users concurrently, depending on demand and time of day. These users can include learn to swim (squad level at the top of the swim school), seniors swimming, rehab (not deep water), and children's play swimming.

   Whilst depth is yet to be confirmed we would expect the pool would range in depth from around .8m to 1.25m, and operate at a temperature of around 32°C.

   The current configuration will function as a Learn to Swim Pool, however it may preclude some multiple usage opportunities, and cause some congestion at peak times at the stairs. This becomes important when swimmers are being taught not to enter the pool ñover the sideò for lessons.

3. The spa is currently indicated at the southern end of the Learn to Swim Pool, most likely to allow for shared use of the hoist.

   Spa capacity is indicated at 15 persons, noting that NZS4441 notes that Spa Pools should be sized based on an allowance of 500mm of seat space per user, therefore providing 7.5m of seating space, plus an entry point. This measure then determines both pool capacity and filtration needs.

   We do not believe the spa is well located as currently drawn. Its proximity to the Learn to Swim Pool is not desirable in terms of keeping adults away from young children in the pool (CPTED), and young swimmers away from the spa, before and after lessons. Tweaks to the layout of the concourse (see below) will provide alternative Spa Pool locations that may be more suitable.

   Hoist access can be achieved, if required, through the use of a mobile unit, and a number of bases/connection points enabling usage in a number of places across the facility.

The Concourse

Numerous discussions and meetings have been held in order to present a sensible, cost effective and manageable layout of the pools and concourse areas. The current proposal requires further work in order to provide increased seating around the LTS Pool for spectator/ parent/ caregiver or sibling seating.

It should also be noted that lesson turnover times of around 30 minutes means that twice an hour, double the numbers will be at the pool- waiting for their lessons whilst others are finishing (and vice versa). This lesson changeover creates significant congestion at peak times- a point that should also be noted when considering car parking and drop off layouts.

Grandstand seating with a capacity of approximately 135 people as indicated, is adequate and well located, away from high pedestrian traffic zones.

At 3.5m, the concourse width at the LTS Pool is appropriate.

The positioning of the pools within the building could also be considered further, in a number of ways. NZS4441 states that indoor public pools should have a minimum of 2.0m of paved surrounds, with an overall average of not less than 3.0m. Understanding this, there is opportunity to consider how the pools- particularly LTS and Spa, can be moved within the existing envelope to provide generous concourse spaces where space is needed and is going to be used.

Generally, when locating pools the following points require design consideration:

Access Requirements into Pools:

Where possible include ramp access. Advantages to ramps over hoists include no staff assistance requirement, multiple user needs can be met, and no loss of dignity for users. The m^2 that a ramp requires should be balanced with the real needs of pool size, and the improved functionality of a pool once a ramp is in place. For example, were the LTS pool to have a ramp installed, this would mean the loss of a teaching lane, however, the benefits in terms of who the pool is available to, and its wider usage should not be underestimated. Likewise the width of lanes in a LTS pool is not as important as a lap pool, so the real loss of (teaching) space may be negligible. Remember too, that LTS pools are also divided across the width for effective teaching spaces- therefore making the lanes redundant at times.

LTS pools in smaller communities need to be flexible, and be able to provide useful opportunities to as many user groups as possible across the entire day- not just for lessons at peak lesson times.

Seating and Observation:

The LTS pool will require significant seating and viewing opportunities for before, during and after lessons, and in close proximity to the pool.

Lap pool seating is required where events are planned, and the pool is more than a training or recreational facility.

Location of Ancillary User Services:

This refers to additional services such and spas and saunas, and their relationship with other pool areas. These activities are passive rather than active and therefore their location needs to consider those using them, as much as those that don't. They should be located away from LTS spaces, away from change areas, be visible, understand peak user times, and have clear management policies in place in terms of age restrictions and additional pricing models.

Access to Store and Plant Rooms:

Store Rooms are required near LTS Pools, less so for Main/ Lap Pools. Plant Rooms require clear and accessible entry and exit at all times from the pool concourse, and ideally also have external access to simplify deliveries and maintenance needs.

Lifeguard/ Staff Line of Sight:

An ideal facility layout allows easy unencumbered visibility across all pool areas. This means that pools are ideally at floor level (not raised), there are no structural elements within the concourse, and doors, side rooms and other spaces are clustered together or at least easily seen.

Offices and Administration

The administration area has undergone a number of design iterations. The current proposal reflects a maturing of the design, and the need to provide Learn to Swim services near the pool (offices and LTS WC), that improve client interactions but also provide flexibility for staff and operations.

Spaces connect well with each other, providing efficient access for staff, and they reflect the needs of the facility in terms of size and type.

The ability to access the LTS/officials space from poolside is excellent, and will improve customer experience (ñI can pay for lessons whilst my child is having their lesson, not be rushed beforehandò), and the swim school can be administered whilst observing it, away from the main administration/reception hub.

The retail space appears large at present, however the area currently allocated to retail is capable of a number of duties due to its size and location so should be retained, and possibly reviewed through future design stages.

Change and Ablutions

The current configuration again reflects a maturing of the design. The increased number of showers, to now include poolside showers considers the age group that can't be in a change room by themselves, but also are too old to be in the opposite gender parents change room.

The family change rooms are well distributed and are currently shown only as change rooms, with no toilet or shower facilities. This is an ideal scenario as it discourages long and excessive use (ie they do not become private bathrooms) by either families or individuals. We suggest security cameras may be required in the corridor outside the family change rooms to discourage inappropriate use.

The numbers, distribution and configuration of the change room services is appropriate and is laid out as best as change rooms can be. Circulation areas have been kept to a minimum considering the need to channel facility users past change and bathroom facilities, on their way to the pool.

Plant and Store Rooms

Understanding previous advice we have provided around filtration plant and methodology, we are comfortable with the size and location of the main plant room.

Storage appears adequate, and is well distributed across the facility with a number of opportunities for multiple users to access, both internally and externally.

The next design stage will confirm the size and layout requirements in more detail, however we consider the current arrangement is sensible in both location and sizing.

Conclusion

The current design has been well considered and in general reflects best practice and current facility operational and management thinking. The following points should however be considered:

1. Reduce the lap pool by one lane. As noted on the attached drawing, this will increase concourse areas and open other opportunities throughout the facility. The loss of one lane should be considered as collateral damage in terms of improved LTS and spa facilities, without impacting greatly on the general opportunities a seven lane pool provides.

2. Reconsider entry opportunities into the LTS pool. Full length stairs, and/or ramp entry should be considered, understanding the need for a multiuse, and multiple user pool.

3. Relocate the LTS pool and lap pool closer to gridline H. The lap pool grandstand seating provides opportunity to narrow the concourse space here- when events are not being held this space will be lightly used. Relocating the spa pool provides the opportunity to relocate the LTS away from the entry, and create an area for tables and chairs, providing opportunity for marshalling ahead of swimming lessons and opening up the concourse entry. The lesson change over times will cause congestion at this area, so increasing space here will alleviate some of the issues.

4. Locate the spa pool as indicated. This location is visible, away from LTS, provides a pleasant aspect from within the spa (windows) and provides concourse seating and storage opportunities for spa users. During swimming events the location is ideal for competitors.

5. Alter door configurations for the plant and store as indicated. Entry to the plant room will be required during lesson times. Given this is the main seating area and thoroughfare in its current configuration, moving the door will improve plant accessibility, and remove the need to disrupt or walk through large numbers of spectators/caregivers. The space between the two pools will not encourage spectator seating and is a logical lifeguard and access zone.

6. Seating along gridline seven should be full length, to provide as much seating as possible.

7. Include LTS seating and baby change tables in front of the storage area. As a low traffic area this is ideal for the parking of baby buggies and change tables for that age group.

8. Consider moving the grandstand seating to the eastern wall and adding the 8.5m² storeroom to the existing storeroom.

Notwithstanding the comments above, we consider that the Preliminary Design drawings are appropriate in terms of scale, service provision and affordability. There is little to no design extravagance in terms of what is being provided- spaces are well connected, make efficient use of the m² available and are suitable for the community and catchment the facility is being designed for.

Please feel free to contact me directly should any aspect of this report require further explanation or clarification.

Thank you.

Yours sincerely
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Queenstown Lakes District Council

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Preliminary Design

Peer Review Follow Up

June 2015

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Introduction

Further to issuing our Peer Review document in May 2015, the architectural team has reviewed and updated the drawings in response to our comments, questions and feedback.

Below we outline our position on the amended design, and provide further feedback where relevant.

The design currently indicates:

1. An 8 lane, 25m Lap Pool with a ramp entry.
2. A 20m x10m Learn to Swim (LTS) Pool with step entry, at one end.
3. A Spa pool capable of seating 15 people.

The Main Pool

Understanding that an alternative location has been found for the spa pool we are comfortable that the 8 lane configuration can be achieved within the footprint, assuming budget can be maintained. Key points to note:

- The pool depth ranges from 1.2m to 1.8m.
- Starting blocks and the deep end are at the end furthest away from the LTS pool.
- The entry ramp enters to the pool at the shallow end.

The Learn To Swim Pool

The LTS Pool has undergone a number of changes in response to comments included in our initial Peer Review document.

- Both stairs and ramp entry to the pool have been included to enable maximum flexibility and to ensure people with disabilities can access the pool in a dignified manner.
- Two sets of stairs have been provided to the long side of the LTS pool to ensure that the primary access for the pool is the furthest away from the Lap Pool. This can enable multiple classes/lessons to occur in the pool if the pool is divided width ways.
- A ledge 300mm deep sits between the stairs to enable children to sit in the pool when being taught or to enable infants to swim with assistance from a parent or instructor.
- Ramp entry is opposite the stair entry which enables multiple access points if the pool is divided length ways which improves multiple and concurrent use opportunities.
- The position of the LTS pool has moved towards Gridline H to provide improved concourse and marshalling areas near the entrance.

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- The LTS pool has been narrowed slightly to include ramp access, we believe this a sensible compromise, and the narrower width will not overly compromise lesson delivery or other pool usability.
- These changes have meant the depth has been altered to provide a depth change down the length, improving multiple use opportunities, and the ability to use the pool for length swimming at junior squad levels.

The Spa Pool

The Spa Pool location has been revised to sit opposite the corridor in what was previously the courtyard area.

This new location is away from the LTS pool and avoids congesting the Main Pool floor space. It also enables views to the exterior from the spa pool whilst also ensuring that the pool is visible from a lifeguarding perspective.

- It is sized to ensure 7.5lm of seating space is provided to accommodate 15 persons.
- Plant rooms have been located nearby to service the spa.
- The spa can be segregated from the changing room corridor if required, through detailed design, although we donôt believe this is required.
- Hoist access can be provided though it is likely that a portable hoist will be utilised to serve all of the pools if required.
- Stair entry is yet to be drawn in- a detailed design stage task.

We are pleased to see the location was revisited by the design team, and an alternative location was identified that did not compromise the concourse space or the Main Pool. We believe the solution presented is a great outcome.

In particular we note this introduces a clear lifeguard zone that can cover the spa pool, ramp side of the main pool, and visibility of the corridor, without requiring an additional lifeguard. Perhaps most importantly it creates a specific zone near amenities, away from the LTS area and childrenôs area.

We are strong supporters of spa pools in public facilities as they introduce an additional revenue stream, and can be used by a wide range of user groups. It is important that spa use is not included in general entry fees in order to recoup costs and ensure water quality and access is managed. The solution presented nicely solves a number of problems.

The Concourse and Other Areas

Following our review a number of changes have been made to improve concourse areas:

- Door configurations to the storage and plant rooms have been optimised to enable access in locations suitable for their function, reflecting our suggestions.
- Increased seating along Gridline 7 has been provided to the concourse beside the LTS pool for parent/ spectator/ caregiver/ sibling seating.
- LTS seating benches have been placed in front of the storage area beside the LTS pool. Baby change tables have not been included here yet but may be included in the future.
- Grandstand seating remains and provides seating for 135 people at the main pool. This enables optimal viewing of the pool from its current location and provides an alternative storage area at the western end of the Main Pool.

The positioning of the pools within the building has slightly altered as a result of this re-work, however the distances are well within NZS4441 guidelines and are considered appropriate.

Offices and Administration

The administration area has not been altered since our first review, reflecting our comments on the suitability of the design.

Change and Ablutions

The changes to this area are only to the family change and accessible change rooms - most likely to reflect the need for spa plant room.

The family change rooms have been relocated across the corridor which we consider is a neutral change in terms of customer impacts. We do note however that they now include shower and WC facilities. This should be reviewed as design progresses as they have a tendency to become private change rooms once people are aware of the opportunity.

Conclusion

This document should be read in conjunction Revision C drawings dated 29 May 2015, our first Peer Review of May 2015, and the drawings referenced in that document.

It is pleasing to see our feedback, suggestions and comments have been acknowledged and the design adjusted accordingly. We believe the wider design team has collectively amended the design as best as possible without adding capital expense, or introducing excessive compromises, in order to design a cost effective and appropriate facility.

Please feel free to contact me directly should any aspect of this report require further explanation or clarification.

Thank you.

Yours sincerely
Watershed Limited

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