

OUTDOOR SQUASH



AN OVERVIEW OF A GROWING MOVEMENT

"Amazing to feel free, I felt like a kid again. The fresh air, the sunshine, it's an amazing experience."

Nick Matthew, former World Number 1 & 3x Commonwealth Games Gold Medalist

"Outdoor squash is a revelation; it gets the game out of private clubs and into the public eye and above all it provides a great environment to play squash."

Nathan Lake, World Number 33

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What Is Outdoor Squash?

Outdoor squash is innovating how we play the sport to take squash outdoors and improve the accessibility and opportunities to play.

Outdoor squash is fundamentally the same as playing squash indoors, but with some possible modifications to the dimensions of the court, and possible minor changes to the rules to adapt to the facility in use. These changes are so that we can embed squash in more communities, without insisting on a particular type of facility, equipment, space available, climate, or rules of play. Squash has followed a very specific and rigid type of infrastructure and method of play at a grass roots level worldwide. Outdoor squash challenges preconceptions of how you might play squash, to open the doors to more populations who can enjoy the benefits of playing the sport.

The intention is not to transform squash into an entirely outdoor sport, but to expand the offering of squash to the outdoors.



A Snapshot of the Health Benefits of Playing Squash

Regularly playing squash reduces the risk of death from any health-related cause by 47%

A paper published by the British Journal of Sports Medicine in 2016 found that playing squash was among the best activities for reducing the risk of death from any health related cause by 47%, higher than swimming (28%), aerobics (27%), football (18%) and cycling (15%).

Squash burns more calories than playing soccer, badminton, cricket, volleyball, basketball and many more.

Squash has one of the highest Metabolic Equivalent of Task (MET) values (estimate of how many calories are burned during a specific physical activity) across all the game-based sports. At a beginner level, this has a score of 7.3, or 12 for a frequent player. For comparison at a beginner level, soccer has a rating of 7, badminton is 5.5, cricket is 4.8, volleyball is 4 and basketball is 6.5.

Check out all the basics on how to play squash here: <https://www.psaworldtour.com/squash101/>

References:

<https://bjsm.bmj.com/content/51/10/812>

<https://pubmed.ncbi.nlm.nih.gov/21681120/>

Why Squash Outdoors?

What Does the Squash Community Say?

In January 2023, the PSA Foundation conducted a survey about the perceptions of Outdoor Squash, receiving over 1,000 responses from 65 different countries around the world. The survey was distributed across various squash related channels and completed by individuals involved in the sport. The results:

- 89% of respondents said they would personally enjoy being able to play squash outdoors as well as their indoor squash sessions.
- 83% of respondents said that having opportunities to play squash outdoors in public settings would help grow membership levels at squash clubs.
- 83% of respondents believed outdoor squash would grow general participation levels in squash.
- 94% of respondents believed that outdoor squash courts in public settings would improve the awareness and general knowledge of squash.

You can access the full report and raw data from the following article:

<https://psafoundation.com/2023/01/24/appetite-for-outdoor-squash-highlighted-in-recent-survey/>



The Outdoors Effect

Squash is the last remaining racket sport to have not yet adapted to play outdoors.

Studies suggest:

- Perceived levels of exertion while exercising is lower while in natural environments, increasing physical activity levels when outdoors.
- Sunshine naturally increases serotonin – a hormone which affects our mood – and physical activity produces endorphins, another hormone which boosts mood and reduces pain.
- Exercising outdoors in natural environments further reduces stress, mental fatigue and further improves mood, self-esteem, and perceived health.
- Exercising outdoors is effective for intra & interpersonal development and contributes to other social benefits such as active citizenship & crime reduction. Intrapersonal development refers to the cognitive, emotional, social, behavioral, and spiritual aspects of ourselves.
- Outdoor sports are associated with a wide range of physical health benefits including a reduced risk for several major diseases like heart attack, stroke, cancer, and type 2 diabetes and can support increased life expectancy.

They key takeaway: nature provides an added boost or multiplier to all the pre-existing health benefits we are aware of from being physically active.

References:

The great outdoors: how a green exercise environment can benefit all:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3710158/>

Benefits of Outdoor Sports for Society: <https://outdoorsportsbenefits.eu/resources/>

<https://www.sportengland.org/blogs/benefits-being-active-nature>

Examples of Outdoor Squash Today

What are outdoor masonry squash courts?

Masonry squash courts are built from local stone or concrete blocks with a plaster finish. These courts often have a concrete or solid floor externally. These external masonry courts often have solid concrete floors in countries that have rainfall. If a country is completely dry it may be possible to install a sprung timber floor construction. In climates that have rainfall, it is possible to use some types of wood or tiled systems that offer more 'give' when moving around the court.

Why would you choose a masonry court?

- Masonry courts are often the most cost-effective solution. This type of court construction utilises readily available materials in developing countries or in situations without a large budget being available.
- This solution can also be more suitable when the country is dry and has little or no precipitation.



Strengths

- Economic solution
- Utilises locally available materials
- Utilises local construction skill set
- Provides a robust solution

Possible Challenges

- Lack of transparency into the court from outside the court
- Must be constructed by suitable skilled persons who understand the structural stability of this form of construction. If this is not adhered to then there is a risk of collapse in strong winds and during seismic activity
- Wall thicknesses require a larger space to be available when compared to other forms of construction
- If suitable foundations are not incorporated into the design then cracking may occur in the masonry walls
- Lack of sprung floor may be harder on the legs for players

Costs & Rough Budgets

The budget will vary considerably depending on where the project is located. Excluding the foundation construction, you could expect a basic masonry court construction to be achieved for as little as \$40,000 - \$50,000 USD. This cost also does not include any lighting or canopy for rain or solar protection.

What are outdoor glass squash courts?

All-glass squash courts have long been seen as the industry's leading court when it comes to presentation and potential around hosting professional tournaments. However, developments around varied glass offerings have gradually led to more entry level glass courts that are also more affordable. These courts can also blend in a mix of materials that form different walls, HPL boards or masonry materials being used for the front wall, for example. Glass squash courts can combine with many varieties of floors, from tiled sprung flooring, outdoor boards, and even anti-slip glass floors.

The one-way vision glass used can consist of a series of black dots precisely printed, then over-printed in colour using ceramic paint that ensures depth perception of the walls and ball while in play.

Why would you choose a glass court?

- Visibility is your priority. With an all-glass squash court, visibility inside the court is maintained from 360 degrees around the structure.
- Glass squash courts can be temporary structures, which does influence the design and engineering of the court.
- You want the option to host professional squash tournaments, and having an all-glass court allows you to seat spectators all around the court.

Strengths

- Glass panels do not erode from the impact of the squash ball. Over time, plaster courts and panel-based courts can suffer from this in terms of erosion of the surface and staining from the ball.
- New and more affordable products now on the market for grassroots / public use.
- 360-degree vision into the court.
- Glass panels are very easy to clean.
- Seen as the leading option for spectator viewing.



Possible Challenges

- Glass courts are more prone to visibility challenges around depth perception and tracking the ball while playing. However, if you use the services of a squash court specialist, these complications will be avoided. Use lighter colored panels so that traditional black colored balls can be clearly seen while playing.
- Typically the most expensive squash court, though developments are changing this.
- While the glass is industrial and hard wearing, the court may be more of a target for vandalism than a masonry court for example.
- The build will typically require a squash court specialist.



Costs and rough budgets

The cost of a glass squash court can vary considerably depending on the cost of materials local to you, customs requirements for shipping, building regulations and more. For the basic structure of a glass court, excluding any groundwork or accessories such as lighting, the cost is currently around \$100,000 USD for an entry level court. This can go up considerably, to around \$250,000+ for the most advanced courts available on the market.

What are outdoor steel squash courts?

A squash court with walls that are steel panels is often referred to as a 'steel court'. The first and only steel squash court was built in 2020 and offers a new alternative to the squash world that meets the World Squash Federation specifications for a squash court. The floor for the original steel court was built with marine grade wood panels suspended on a steel framework for comfortable, durable, and relatively maintenance free performance, preferred by many professionals. The steel walls play true, are seamless, and feel more similar to glass courts than plaster wall courts.

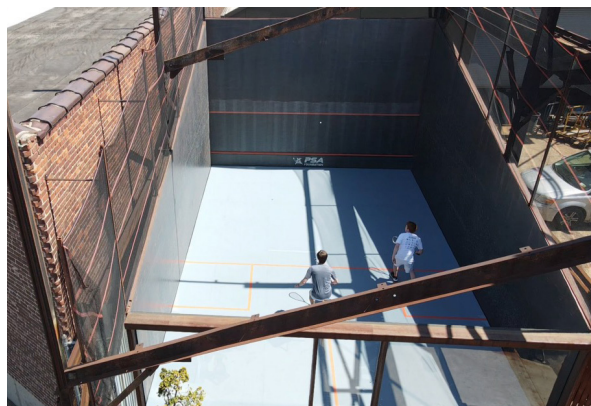
Why would you choose a steel court?

- Offers a new way to take a squash court into public spaces.
- The steel court is durable and has low maintenance requirements.
- The visual appearance and sound of the court offers a whole new experience to playing squash.



Strengths

- The steel walls do not degrade from repeated impact of the ball like a masonry court can.
- Low maintenance costs
- Steel is a very durable material for the outdoors, enduring all weather conditions.
- Thinner walls compared to masonry courts, taking up less space.
- Offers an alternative material that may be cheaper in your country.



Possible Challenges

- There currently is no "off-the-shelf product" as of yet.
- The cost and availability of steel panels may vary.
- Only one company has experience designing and building a steel court.

Costs and rough budgets

The original cost of the first and only steel court was \$100,000 in 2020. This court had a favourable site, with existing structural beams and foundation. A new court with a new foundation and structure could cost \$150-250k, depending on timing and location.

What are adapted spaces in squash?

Originating from a Squash for Development organization in El Salvador, adapted squash spaces revolve around the notion that as long as you have a racket, ball and some walls to play against, there is a lot of fun to be had. By relaxing the 'rules' around what you need to play squash, more people can have a go and enjoy the benefits of playing our sport. These squash 'courts' are typically adapted into inner-city or built-up neighbourhoods that struggle for space, making the most of what is available to improve the accessibility of the sport.



Why would you choose to adapt from the typical court dimensions?

- You are challenged for space available.
- You are targeting younger populations.
- You have a smaller budget.

Strengths

- Costs are significantly lower than traditional sized courts.
- Flexibility regarding the dimensions of the 'court' means that more communities are eligible for their inclusion.
- By fitting into more urban and populated settings, the potential reach and accessibility of the sport to different populations is greater.
- More 'courts' in populated areas also means more opportunities to signpost people to established squash clubs.
- Basic masonry structures could be built without any squash court specialists involved.

Possible Challenges

- Many younger populations do not currently recognize a traditional squash court. Adapted squash courts would be even less recognizable and will require programming around the space to facilitate their use.
- No 'off-the-shelf product'. Each court will require creative thinking around what space would work for a squash 'court'.
- There are little long-term usage opportunities. It is likely that after some time, individuals will want to progress to full sized squash courts.

Costs and rough budgets

This is highly variable, based on the cost of materials and labor local to you, the size and number of 'courts' you are building, and how creative you are with utilizing pre-existing surfaces. In some instances, it may be a case of just painting court markings onto pre-existing walls, or you may want to just create a single wall extension. Costs could be anywhere from \$500 - \$10,000+.

What portable equipment exists in squash?

Over the last 20+ years there have been pop-up nets, Perspex mini-squash courts and inflatable courts developed. Possibly the most widely used are the pop-up net walls, which can be lightweight, easy to assemble and affordable. They are commonly brought into schools for an introduction to squash, to general sports events and festivals, and in activation areas at squash events.

Perspex courts present an eye-catching option that younger ages are naturally drawn to and have yielded great results in generating new faces to the sport. The courts can be made in different fluorescent colors and the Perspex material works great for playability. The mini-squash courts replicate almost exactly the design of full-sized glass squash courts, but on a smaller scale, coming in at roughly a quarter the size. These courts tend to be the most expensive portable option, and while they are made of individual panels, overall, the court weighs roughly 230kg, the heaviest component being 23kg. Assembly requires more labor than the other options, greater time to assemble the court and at least 2 people to complete the build and disassembly.

Why would you use portable squash equipment?

- You want to take squash to different communities, creating exposure with otherwise unreachable or unaware populations.
- You want to gain further members at your club, using the portable equipment as a marketing tool.
- You want a way to involve squash at a temporary event that has a high footfall.



Strengths

- Equipment is generally affordable, and when used effectively, quickly pays itself off through the creation of new club members.
- You can take squash into almost any setting, any event, and any occasion, to show off the sport and reach more people.
- A variety of options that can cater to younger populations.
- As a temporary feature to any space, you could put squash in the most populated and highest footfall areas imaginable.



Possible Challenges

- Portable equipment tends to give a limited experience of squash. For younger age groups though, it has proven to be fun and lead to new players.
- Can be expensive depending on what type of equipment you would like to use.
- Requires hiring a coach to deliver sessions and possibly access to larger vehicles such as a van.
- Logistics around gaining access to high footfall areas can be time consuming.
- You may be charged to deliver sessions in some busier locations, depending on your background. E.g., a non-profit club may be allowed free access, whereas a private members club may be charged.

Costs and rough budgets

Pop-up Squash Nets: \$250+

Inflatable Courts: \$4,000+

Perspex Mini Squash Courts: \$12,000+

Where Do I Begin?

To get started with adding a new outdoor squash court, there are 4 key pre-requisites:

1. Community Collaborations/Partnerships
2. Land
3. Funding
4. Programming

Community Collaborations/Partnerships

Building a squash court is synonymous with building a squash community, so it is key to work with other like-minded organizations and groups in the community, such as parks and recreation, community centers, schools, boys and girls clubs, other sport organizations and clubs, health and wellness initiatives, etc. The African proverb, If you want to go fast, go alone, if you want to go far, go together, is appropriate for this type of initiative.

Land:

A key objective of outdoor squash is to improve the awareness and accessibility of the sport, signposting that interest to well established clubs and participation programs. This means areas of high footfall that are reachable by the public. It may be possible to add a squash court to a public space, working with a local public/state funded body, or park council, for example. These locations come with a lot more challenges around planning permission, approval from the relevant public entities, partner agreements and more.

Alternatively, you may be an individual or organization with access to privately owned land that is close by to communities that can be invited to your facility by reaching out and building new relationships. This option will likely cost less initially in building the court but may cost more resources in the long term to bring in the local community.

Funding:

There are a variety of income sources that can be explored, the right one for you and eligibility depending on the legal status of your organization, who you intend to use the court, proposed programming around that space, the types of funding available in your country and its government/state initiatives. These funds can include grants from government/state sources and registered foundations, CSR funds, individual donations, crowd-sourced fundraising, and more. With the significant costs associated with infrastructure, the funding sources will likely come from multiple places and may involve match-funding initiatives. If you are a registered non-profit, charity, community interest company, trust or otherwise appropriate for community benefit, this will give you access to an increased number of fundraising options.

Programming:

This refers to the planned sessions taking place on the courts.

Key Note: Building an outdoor squash court will not automatically result in new squash players and a queue of people to play. It is essential that some programming is built into the space to introduce new populations to squash and signpost them to how they can keep involved and engaged.

Equally as important is that these plans are sustainable and secure, one of the worst-case scenarios is achieving the build of a new outdoor squash court that then remains empty and disused. This may harm perceptions of that facility and create further challenges to re-launch engagement with that space.

In an ideal scenario, outdoor courts can be shared platforms that local clubs can use as both a sports development and sales opportunity platform. It is encouraged that clubs use the space to introduce new populations to squash, create an enjoyable experience, and then recruit those individuals to become members at their local clubs. Completing the process of creating new life-long squash players.

Additional Considerations

Location Affecting Costs

Costs for either ready-made courts or locally sourced materials will vary by country. It is difficult to suggest costs for different courts when the value for different materials will vary depending on the part of the world you are based in, and possible challenges around delivery overseas and custom fees. These conditions may be the basis for choosing the type of outdoor court for your project, opting for a court built out of materials that are more affordable in your locality.

Weather Conditions and Climate

The climate you are based in will also likely influence your choice of court and possible added features to that facility. Those in rainier climates for example may want to include a slightly sloped floor for drainage. Those in particularly hotter climates may require protection from the sun with a canopy. There are multiple environmental conditions based around climate and location that will influence the features and engineering around the court.

Working with a squash court provider experienced in outdoor courts will help overcome any unique circumstances you are presented with.

Building Codes & Restrictions

Each country, locality, city, or village may have its own completely unique building code or requirements regarding structures being built. It is important to explore what these might be before embarking on a project of your own, as they may be entirely prohibitive. Such restrictions you might need to enquire about include light pollution, noise pollution, types of materials used, size restrictions and more. Seek the appropriate expertise on your project as early as possible to avoid any barriers further into your project. While the number of restrictions may be reduced when the build is on private land, noise and light pollution may still affect the neighboring community and restrictions would still likely apply, especially in more inner-city or urban areas. Many authorities may also require almost complete visibility into any court, to negate the space being used for any anti-social behavior, thus requiring transparent materials like glass being used.

A Blend of Different Materials

While we have outlined the different types of outdoor squash courts that can be built and their typical materials used, it is important to note that a blend of different materials can be used per court. This may be required in some circumstances, for example, opting for a masonry front wall with glass side and back walls to maintain visibility into the court in public authority settings.

Collaborations Outside of Squash

Outdoor squash is about engaging with and creating new communities of people. The more collaboration and cohesion created, the stronger the appeal of these courts. It is important to think outside the box and about what is locally relevant towards achieving this. One project in Chicago is utilizing its outside walls to showcase the work of local artists, for example.

Court Providers Offering Outdoor Squash



ASB - <https://asbsquash.com/>



Melior Sports - <https://www.meliorsports.com/>



Squash Plus - <https://www.squashplus.us/>



Maspeth Squash - <https://maspethsquash.com/>

Mini Squash Courts:

Melior Sports - <https://www.meliorsports.com/mini-courts>

Pop-up Squash Nets:

<https://www.rally-ball.com/>

<https://www.offthewallsquash.co.uk/shop/>



If you would like any further information or signposting to the relevant professional,
please contact:

foundation@psaworldtour.com