Trends and advances in tennis courts

Tim Freeman BA Dip Arch RIBA SAPCA Director and Vice Chairman of Tennis, Projects Director at Trevor May



"Development plans"

- Knowing exactly what you have got as a starting point: court sizes, construction, how old everything is- when will it need maintenance, resurfacing, replacing?
- What will the members look like and want in 10 years time?
- How will it all be organised, financed and then kept in good shape?
- Is there anything new that will solve an existing problem, allow us to retain player numbers, or enhance players' experience and ensure we stay a step ahead?

And dealing with past mistakes

• Foundation problem

 Inexperienced pressure washer



Court surfaces- in the UK climate

- Natural grass- Wimbledon- Seasonal and expensive to maintain. Extremely popular with those that have it.
- Acrylic Australian and USA Open- great indoors, puddles outdoors
- Clay- Roland Garros- seasonal and expensive to maintain Some of the other options to consider: -
- Artificial grass and outdoor carpet
- Porous cushioned acrylic
- Artificial clay
- Others- e.g. carpet (indoor) / polymeric / tiles

Acrylic for play up to the highest level and for training

- Variable speed from slow to fast ITF 1 to ITF 5
- Commonly medium or medium fast
- Surface gets faster with age
- Options for cushioning- in situ and preformed
- Good in warm climates and indoors

• Puddles in wet climates- squeegees / rollers



Whilst acrylics are still one of the options for outdoors

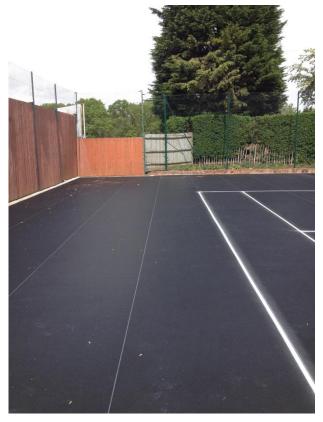
Porous alternatives- e.g. PKK and Poraflex[®] have been introduced over the last 10 to 15 years

PKK: Porous Kushion Kourt



Poraflex[®]

Prior to colour coating



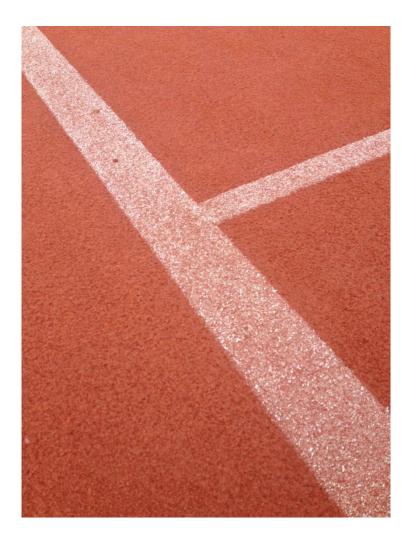


Traditional clay

- Graded aggregate base and crushed brick (clay) surface fixed by water from a hose or sprinkler system. Play lines are either white cement of inset plastic.
- Alternatives have been available for a long time using crushed aggregate and below surface irrigation trays, seeking to increase the playing season and reduce maintenance

Artificial clay - stability mat and unbound ceramic treated infill

and inset lines (or crushed brick but then requires water to fix)



Artificial clay is proving very popular in UK for near year round playability

One, now two blocks of three converted to artificial clay

Six changed from artificial grass to artificial clay





Colour sprayed porous macadam

Lowest initial cost of all the surface types available in UK

• In public park



But requires recolour (4-6 years) and resurfacing (8-12 years)

- Moss as an increasing problem (on a surface types)
- Annual pressure clean recommended (for all porous surface types)
- Can upgrade to artificial grass or clay with minimal preparation- provided base is sound and free draining

Artificial grass remains a popular choice at many clubs and for private courts



Stripes anyone?

- More comfortable than porous macadam, sometimes chosen for look as much as play characteristics
- Shorter, denser pile, particularly if texturised reduces maintenance-BUT does not eliminate it
- Polypropylene now almost totally superseded by polyethylene pile
- Monofilament pile is latest development- does not suit everyone
- Recycling is the current challenge

Fencing

- Chainlink remains a good choice, now mainly on tubular steelwork rather than AI
- In some locations a stronger solution is required





Duo meets chainlink



Special details can be done

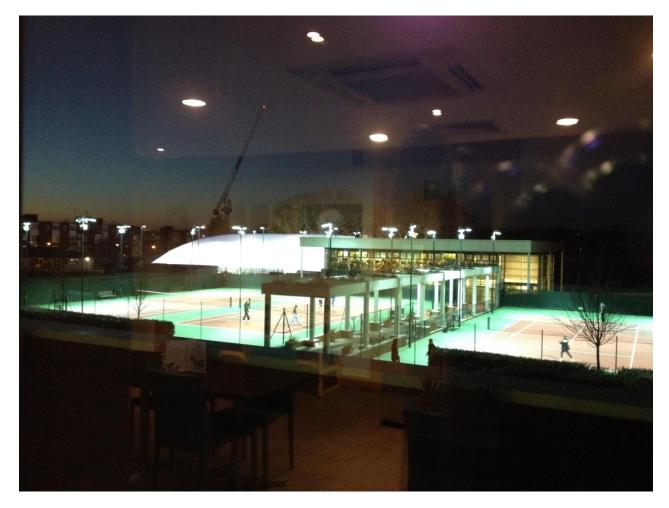
Laser cut trims where posts meet stone clad wall



Coordinated with basketball goal (water attenuation under court)



Extending the hours of use by floodlighting and covering courts



Floodlighting



Conventional – metal halide



Box fittings / box with baffle



Retractable- mainly domestic

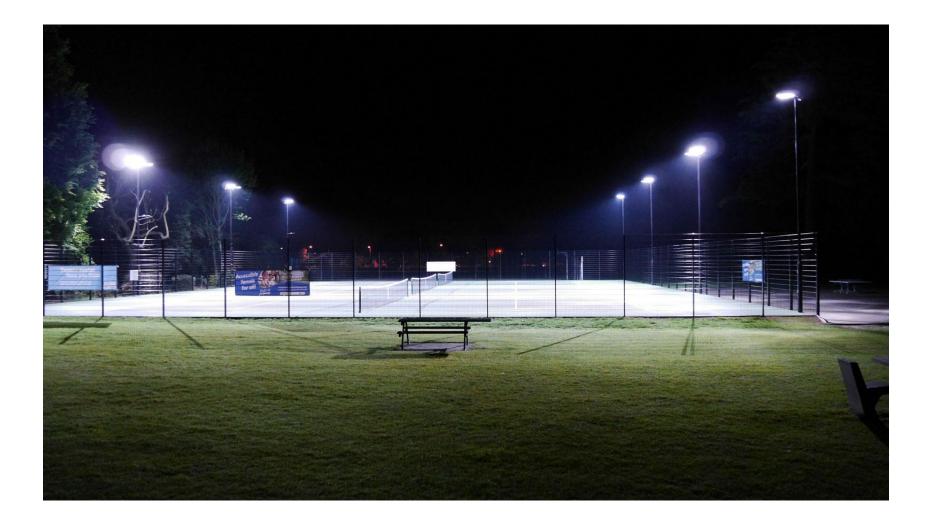




Other possibilities



LED outdoor scheme



Side lit LED scheme



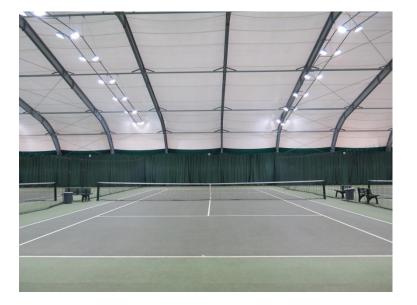
Lighting airhalls



Lighting in framed fabric structure

New LED scheme with LED downlighters using 5.6kw/ct

An older structure with metal halide downlighters 8kW/ct





Potential benefits of LED

- Instant ON-OFF light
- Whiter light (closer to day light)
- Lower energy costs
- Very low maintenance
- No loss of court usage for lamps being out
- No light degradation during re-lamping cycle
- Greener for the environment
- Tax benefits
- More funding partners
- Extra 100 lux on the tennis courts
- Return on capital cost investment time will vary for each project

More indoor opportunities

• Cable type airhall

• Inside view with LED downlighters



Single skin- the least costly option – permanent or seasonal



Catering for new and younger players



Extra play lines- its in the rules now

- Easily done on acrylic, colour sprayed macadam.
- Possible on artificial grass but not often seen
- Throw down lines is only practical option clay / artificial clay.
- Not seen it on natural grass yet- but clearly possible to do



Purpose built mini red with mini orange lines on the full sized courts



Diverse offering can help with utilisation of space and financial viability

- Use of clubhouse for, indoor sports, physical activities, or local functions
- Other forms of tennis: mini red, padel and pickle ball court(s) or a practice wall in a spare corner or on an under utilised court
- Other sports on court area e.g. netball,
- Other sports on adjacent land, particularly in parks e.g. small sided football
- One of the activities on a multi use area (MUGA)

Padel tennis



ServeAce practice wall- can replace section of court fencing



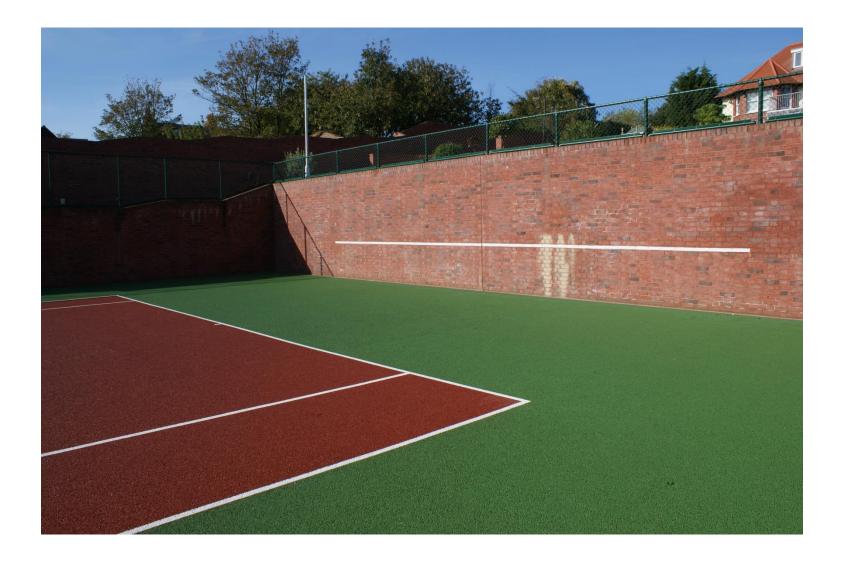


Other practice wall options

Rendered masonry (with a mini red court too)

A carpet covered timber type with inclined front face





Or just add a line

A good tennis experience does not stop at the court enclosure fence

- Good and safe access to the courts- paths, steps or preferable ramps, amenity lighting
- Matwells to keep the playing surface clean (or help to contain infill)
- Provision for spectators
- Attractive setting- that makes the whole site a pleasant place to be

Improving access for reduced mobility players and spectators



It could be better



Containing unbound infill / protecting the playing surface



• Or grp



Tackling site drainage issues



Not everything lasts forever

Before

• An old concrete wall is starting to fall apart



After

 The wall has been refaced and capped with engineering bricks



Good margins-look good/ protect the court

• Slate

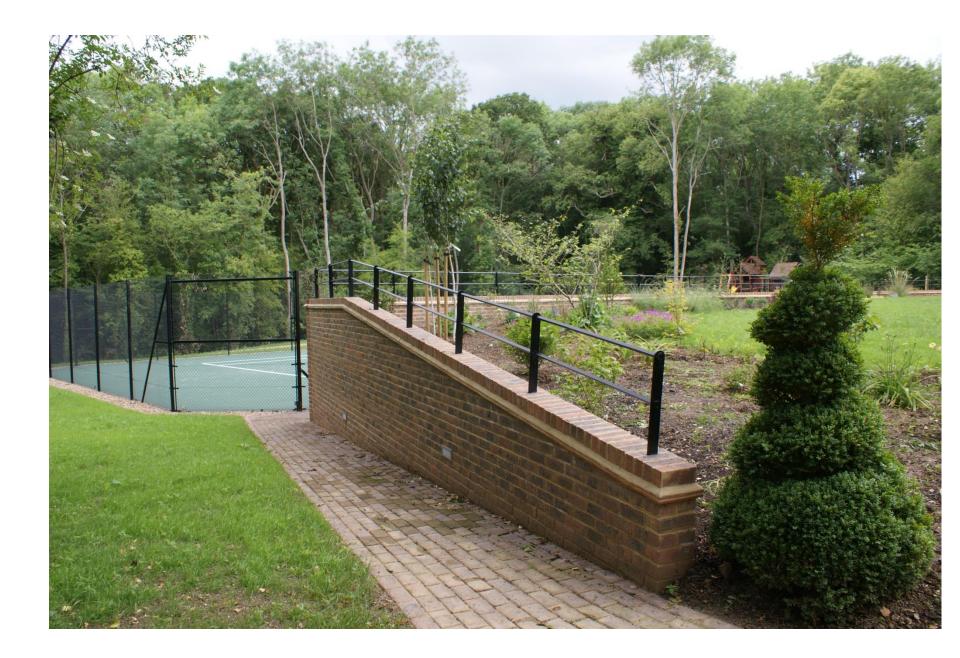
• Shingle



Courts can be enhanced by their surroundings

 Within and part of a walled "garden" Spaced to avoid shading and root problems





Social area alongside the court



Any questions?

