Maintenance: Cost Benefits

Dr Colin Young
Maintaining Performance
SportSURF
Loughborough University
Date: 04/03/09
The misinformation that synthetic turf surfaces are maintenance free has been very unhelpful and detrimental to the industry, client and long-term quality of these facilities.

The benefits of regular maintenance are well understood.

All too often little provision is devoted towards maintenance.

Unclear responsibility and lack of funding.

The presentation will illustrate the financial benefits on regular maintenance and highlight a novel approach to demonstrate how it can be correctly specified in the future.
Influences of Ageing/Wear

Maintenance will not prevent these mechanisms. However, it will drastically reduce their onset whilst at the same time improve life-expectancy and ongoing performance.

Infill Material
Sand, Rubber, Water, None

Maintenance: Cost Benefits  
SportSURF: Maintaining Performance  
Slide 3 of 13  
04/03/2009
Capital Investment:
Ground works £200,000
Synthetic turf system £195,000
Floodlighting £50,000
Fencing and other stadia works £25,000
Maintenance equipment £10,000
Consultants fees & site investigation £40,000
Total £520,000

Ongoing Costs
Replacement Synthetic Turf system £150,000
Maintenance* £2,000 - £6,000 (per annum)
Overheads £6,000 (per annum)
*variable but based on equipment servicing/fuel, specialist maintenance and staff time

Note: All figures based on estimates for 2009
Club operators will not think twice about spending large sums of money for the maintenance regime of natural turf pitches.

From a review of 5 semi-professional clubs the maintenance costs were in the region of £20,000 per annum, including:

staff time, materials, seeds, sand, fertilisers, line markings, water, and equipment maintenance.
**Full Cost Example**

**Capital Investment:**
- Ground works: £200,000
- Synthetic turf system: £195,000
- Floodlighting: £50,000
- Fencing and other stadia works: £25,000
- Maintenance equipment: £10,000
- Consultants fees & site investigation: £40,000
- **Total: £520,000**

**Annual Savings:**
- Maintenance (materials, etc...): £6,000
- Maintenance (staff costs): £2,500
- Water bill: £1,500
- Alternative venue rental: £15,000
- Match postponement fines: £0
- **Total: £25,000**

**Annual Costs:**
- Booking/hire staff: £6,000
- Electricity (floodlights): £6,000
- Certification (performance tests): £2,000
- **Total: £14,000**

**Annual Revenues:**
- Pitch rental/hire: £104,000
- Secondary spend (catering): £4,000
- Clubhouse rental/hire: £0
- **Total: £108,000**

**Annual Income:** £117,000

---

**Maintenance: Cost Benefits**

**SportSURF: Maintaining Performance**

**Slide 7 of 13**

**04/03/2009**
<table>
<thead>
<tr>
<th>M</th>
<th>T</th>
<th>W</th>
<th>T</th>
<th>F</th>
<th>S</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: weekly income £2,000 from 45 h/week use
Club Use 20 h/week; Commercial Use 25 h/week

- Club Use
- Commercial Use
- Joint Club/Commercial (split pitch, 5-a-side, etc...)
Working with the FA/FF and RFU, SAPCA are developing a new procurement framework to cover all aspects of pitch building from feasibility to aftercare.

Within this new framework manufacturers will specify for each synthetic turf system the full maintenance requirements.

This will include approved manufacturers of maintenance equipment, a full schedule, and training requirements.

The maintenance equipment costs for each synthetic turf system will be specified in the tender documentation.
## Approved Equipment Details:

### Decompauction Device*

<table>
<thead>
<tr>
<th>Supplier(s)</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Name(s)</td>
<td>1.</td>
<td>2.</td>
<td>3.</td>
</tr>
<tr>
<td>Full Description</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Tractor Unit

<table>
<thead>
<tr>
<th>Supplier(s)</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Name(s)</td>
<td>1.</td>
<td>2.</td>
<td>3.</td>
</tr>
<tr>
<td>Full Description</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Drag Brush and/or Drag Mat

<table>
<thead>
<tr>
<th>Supplier(s)</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Name(s)</td>
<td>1.</td>
<td>2.</td>
<td>3.</td>
</tr>
<tr>
<td>Full Description</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* This does not need to be supplied directly to the client but can be part of a maintenance contract; however, it must be specified in this document.

Please note: the synthetic turf system manufacturer at their discretion can accept alternative equipment if approved at the tender phase.
<table>
<thead>
<tr>
<th>Type of Maintenance</th>
<th>Full Description</th>
<th>Equipment Required</th>
<th>Required Frequency*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* this can be duration or usage based i.e. weekly, monthly; OR every 20 hours of use, every 60 hours use, etc...
The system will be used to:

Provide a performance backed warranty.

The client will be required to monitor and record ongoing maintenance. Failure to do so will result in a loss of the performance warranty.

The whole system will be backed up by a sophisticated monitoring system that will record usage, maintenance, and performance test data.

Auto altering if it is not filled in correctly.
SAPCA Educational Programme
We have a range of qualifications and training courses designed for the industry for a range of employees within SAPCA members companies.

National Vocational Qualifications (NVQs)

Certificate in Management and Leadership (PG Cert.)

Training Seminars
• NVQ Level 2 in Sport and Play Surfaces

• NVQ Level 3 in Sport and Play Surfaces (to start late 2009)

Core Units have been developed but further units added as required from different sectors of the industry.


• Individual training units on specific topics as required, by SAPCA members.

• All leading to a SAPCA certificate backed by the UK Governing Bodies of Sport.