Introduction
Stenhousemuir Football Club is a community based football club located in the central belt of Scotland, midway between Edinburgh and Glasgow. The club was formed in 1884 and played at two other grounds before moving to their current ground, Ochilview, in 1890. Demonstrating its progressive credentials, in 1951 the club created history by playing Hibernian in the first floodlit league match in Scotland. The club currently plays in the Bell’s Scottish League Division Three and has a ground capacity of 3,500.

A new FIFA RECOMMENDED 2 STAR Football Turf pitch was installed at the club during the closed season break in the summer of 2006, and ready for the commencement of the 2006/07 season. Set out in this case study is the background concerning the installation of the FIFA RECOMMENDED 2 STAR Football Turf, and the very strong financial benefits which have arisen as a result.

Background
Set in a comparatively low lying area with a high water table, maintaining a good quality grass pitch throughout the season has proved to be challenging for Stenhousemuir. The club had been considering the introduction of an artificial turf pitch for at least three years prior to the installation of the FIFA RECOMMENDED 2 STAR Football Turf pitch, but had not concluded on any specific course of action. The poor state of the pitch in the 2005/06 season proved to be one of several catalysts which led the club to install the FIFA RECOMMENDED 2 STAR Football Turf pitch.

In addition, the Local Authority was keen to develop a community sports facility. Rather than going to the expense of building a brand new facility with its inherent costs and long lead time, the Local Authority offered Stenhousemuir a grant of £250,000 towards the installation of the FIFA RECOMMENDED 2 STAR Football Turf pitch on the understanding that the facility would be available for the community to use throughout the year.

Project leadership
As with so many projects of this type, it is invaluable to have a strong project leader or “champion” for the scheme – someone who will be an advocate for the scheme and make sure it happens. In the case of Stenhousemuir, the Board led by David Reid, the Club Chairman, acted as the project “champion”. The Board had a shared vision for the club and knew how important a good quality, consistent playing surface would be for the club. The Board’s decision to install the FIFA RECOMMENDED 2 STAR Football Turf pitch was not originally driven by finance, but by the need to have a much more consistent playing surface. This was essential for three separate reasons as follows:

• To provide the club’s youth teams with a much better quality training facility;
• To give the first team players somewhere suitable to train, to give them their best opportunity to play well; and
• To avoid match postponements.

However, since the installation of the FIFA RECOMMENDED 2 STAR Football Turf pitch, the club has seen significant financial benefits arising.

The installation of the turf has allowed the club to make much greater use of the pitch, including first team training, youth development training and community usage. The ability for the first team to train on the same pitch that they will play their
matches on, helps them to develop a consistency that might not be possible if using alternative training facilities.

Costs

Preparation and Installation Costs
The club has been fortunate to have many skilled individuals on their board, including having an engineer as their chairman. As a result, the board members have been able to provide some technical support free of charge, including a site survey. Typically this might cost anywhere between £15,000 and £20,000 if the club had to pay a specialist. The majority of the preparation costs were covered by the Club’s contractor, who was responsible for installing the Football Turf. The club did not use any other consultants and did not go to the expense of conducting a feasibility study. Again this was due to the non financial drivers for the scheme. However, for other clubs undertaking this type of feasibility study, it might cost in the region of £8,000 – £10,000. During the installation process, it was necessary for the club to devote as much as 10 hours per week of senior management time to ensure that the pitch was properly installed. The installation period was approximately 6 weeks and although the club did not have a direct cost, they have identified a notional cost of approximately £3,000 attributed to this senior management time.

Set out below is a summary of the preparation costs prior to and during installation.

In order to install the FIFA RECOMMENDED 2 STAR Football Turf it was necessary to undertake some ground work which included the installation of a lateral drainage system. The ground work and preparation of the base cost approximately £210,000, with the playing surface costing approximately £150,000. The club estimate the playing surface should last approximately 8 years, with the base work lasting approximately 25 years.

Pitch Maintenance Costs
The new Football Turf pitch does need to be maintained regularly and this forms part of the FIFA Quality Concept certification process. Apart from the basic daily routine, maintenance includes checking for any seams that might be split, testing the performance of the pitch and carrying out any other remedial work. Maintenance is essential for the long term quality of the surface and the performance and safety of players.

Other Additional Costs
There have been very few additional costs that Stenhousemuir have incurred as a result of installing the FIFA RECOMMENDED 2 STAR Football Turf pitch. One cost is a result of the increased level of wear and tear to the public areas of the stadium, due to increased play and the need for new goal nets, although this cost is minimal. The other area where the club has made a further significant investment, is in the installation of new floodlighting which allows the club to maximise the use of the pitch in the evenings. The new floodlighting system is able to light three separate zones of the

![Diagram of pitch maintenance costs]

![Diagram of source of funds]

![Diagram of preparation costs]
pitch so that if only part of the pitch is in use, the floodlighting for the rest of the pitch can be turned off.

**Cost savings**

**Maintenance**

One of the biggest savings for the club has been the reduction in pitch maintenance time. This has fallen from approximately 20 hours per week to only 5 hours per week, when the pitch is brushed. Rather than make their groundsman redundant, the club has given him other duties including maintaining the buildings and other general on-site work. However, the notional saving in wages is approximately £4,000 per annum.

![Reduction in Pitch Maintenance Hours](image)

With the installation of the FIFA RECOMMENDED 2 STAR Football Turf, the club no longer has to re-seed or fertilise the pitch each year and has reduced the need for line marking. This saves in the region of £5,000 per annum. In addition to the saving in maintenance costs, there has also been a saving in water bills, as the pitch no longer needs to be watered as much as grass. This has saved approximately £1,000 per annum. However, for clubs where water costs are significantly higher, or the climate much warmer, this saving could be much more considerable.

The club has made no discernible savings in energy costs. One of the reasons for this is that the club traditionally did not have undersoil heating, a major energy user. However, the lack of under soil heating previously resulted in a number of matches being postponed. Now there is no requirement for under pitch heating, so although there have been no cost savings, there has been a significant reduction in matches postponed due to adverse weather conditions.

Finally, the club traditionally had to rent out other parks and facilities for youth team games and training. As this is no longer necessary, this as well has saved approximately £5,000 per annum.

**New revenue sources**

The club have generated a number of new revenue streams, both directly and indirectly, related to the installation of the FIFA RECOMMENDED 2 STAR Football Turf.

**Pitch rental**

In the first year of operation, renting out the FIFA RECOMMENDED 2 STAR Football Turf pitch has generated £52,000 of income, with more than 80,000 people using the facility. It is envisaged that pitch rentals will increase to at least £72,000 in year two, as greater use is made of the pitch during the period March to September. The club have sought out long term bookings which guarantee the revenue stream and reduce the administration involved in taking the
bookings. Due to the community focus for the club, and the wish to engage with youth teams, the club have let the pitch to community groups at concessionary rates significantly below the £120/hour they charge to commercial organisations. The pitch is also let to the Local Council and, due to their financial involvement in the scheme, they receive a preferential rental charge. Overall, this has reduced the maximum potential income that could be generated and, for other clubs in different circumstances, the rental levels could be significantly higher. However a limitation factor is the usage hours of the pitch. Getting the balance between usage, maintenance and player performance is essential for all stakeholders to be content. Clearly, Football Turf provides greater business potential by bringing new spectators to the football stadium with the ultimate aim of increasing the fan base both short and long term.

**Non football usage**
In the first year of operation, the club did not secure a non football event. However, in the first couple of weeks of year two, the pitch was let out at £3,000 for a “Funday” event. As the club becomes more familiar with the non football market they intend to attract a great deal more non football business, particularly during the closed season when the first team is not playing. Obviously with more usage, maintenance costs will rise and this should always be catered for.

**Indirect revenues**
In terms of Indirect revenues generated by the installation of the FIFA RECOMMENDED 2 STAR Football Turf pitch, the largest of these revenue streams is snacks and soft drinks sold to site visitors. In addition to the players buying drinks and snacks, parents who come to watch their children train also spend money on catering, and this has generated a profit of approximately £5,000 for the club in the last year. Although this is a modest profit, it has been generated from a very small catering facility and is forecast to increase in future years, as the club becomes more familiar with what customers want.

**Overall financial summary**
Whilst the capital cost of developing the new FIFA RECOMMENDED 2 STAR Football Turf pitch at Stenhousemuir has represented a major financial investment for the club, the returns being generated indicate that it is a sound investment and should be a sustainable business model. Although Stenhousemuir did not embark on the process of installing the FIFA RECOMMENDED 2 STAR Football Turf pitch for financial reasons, the club has already seen real benefits in having a consistent playing surface that minimises the number of postponed matches and has helped the club to further engage with the community. However, it is a real bonus that
the club is generating a positive return on investment and sufficient revenue to re-invest in the pitch, keeping it at its high standard.

**Illustrative 8 year budget**

Set out above is an illustrative budget for Stenhousemuir over the first eight years (inflation has been excluded for the calculations). Some of the notional costs have been included by way of illustration. However, for other clubs this may vary depending on their individual circumstances. This financial budget indicates that, due to the high level of pitch rental, the scheme is financially viable, generating a return on investment of approximately 15% in year one, and rising to 24% in year three.

### Best practice

Stenhousemuir were working hard to deliver best practice with their old grass pitch, and this required a great deal of effort from their groundsman. Installing the pitch has helped the club to deliver best practice more easily and at a lower cost. To retain the FIFA RECOMMENDED 2 STAR certification, specific maintenance methods have to be adopted. Although some clubs might not spend this money with a traditional grass pitch, it would be because of poor practice rather than because the work was not necessary. For example, relaying the grass pitch might need to be done every season, but often clubs do not undertake this work simply because they want to avoid spending money.

### Lessons for other clubs

The Stenhousemuir case study illustrates that, even with minimal cost savings and a conservative approach to rental pricing, it is still possible to make a strong business case for the installation of the FIFA RECOMMENDED 2 STAR Football Turf pitch. In the case of other clubs, the benefits can be even stronger if they are incurring higher levels of pitch maintenance costs, or the club is operating a dedicated training facility. In both these cases, the savings generated are likely to be much more considerable, giving an even better business case for the installation of a new FIFA RECOMMENDED 2 STAR Football Turf pitch. The installation of the Football Turf pitch can encourage best practice, avoid costs

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| Cost Savings |        |        |        |        |        |        |        |        |       |
| Pitch maintenance wages | £4,000 | £4,000 | £4,000 | £4,000 | £4,000 | £4,000 | £4,000 | £4,000 | £4,000 |
| Pitch re-seeding, fertiliser, line marking | £5,000 | £5,000 | £5,000 | £5,000 | £5,000 | £5,000 | £5,000 | £5,000 | £5,000 |
| Water | £1,000 | £1,000 | £1,000 | £1,000 | £1,000 | £1,000 | £1,000 | £1,000 | £1,000 |
| Pitch rental for youth teams | £5,000 | £5,000 | £5,000 | £5,000 | £5,000 | £5,000 | £5,000 | £5,000 | £5,000 |
| Pitch maintenance (for FIFA certification) | £-5,000 | £-5,000 | £-5,000 | £-5,000 | £-5,000 | £-5,000 | £-5,000 | £-5,000 | £-5,000 |
| Total Cost Savings | £10,000 | £10,000 | £10,000 | £10,000 | £10,000 | £10,000 | £10,000 | £10,000 | £10,000 |

| Revenues |        |        |        |        |        |        |        |        |       |
| Pitch rental | £52,000 | £72,000 | £80,000 | £80,000 | £80,000 | £80,000 | £80,000 | £80,000 | £80,000 |
| Catering income | £5,000 | £5,000 | £5,000 | £5,000 | £5,000 | £5,000 | £5,000 | £5,000 | £5,000 |
| Other income | £1,000 | £10,000 | £10,000 | £10,000 | £10,000 | £10,000 | £10,000 | £10,000 | £10,000 |
| Total Revenues | £57,000 | £80,000 | £95,000 | £95,000 | £95,000 | £95,000 | £95,000 | £95,000 | £95,000 |

| Total Revenues and Cost Savings | £67,000 | £90,000 | £105,000 | £105,000 | £105,000 | £105,000 | £105,000 | £105,000 | £105,000 |

| Return on Investment (ROI) % | 15% | 21% | 24% | 24% | 24% | 24% | 24% | 24% | 24% |

Net Income generated over the period £348,000
of match postponement, and provide a great community facility whilst, at the same time, demonstrating a sustainable business case.

Community usage
One of the partners in the Stenhousemuir scheme is the Local Council, who invested £250,000 to enable the FIFA RECOMMENDED 2 STAR Football Turf pitch to be installed. Rather than building a new facility which would have been considerably more expensive, they chose to invest in the club facility knowing that the combination of an excellent facility with the coaching skill and expertise of the club would make a much more compelling offer to the local community.

By having a FIFA RECOMMENDED 2 STAR Football Turf pitch, this enables the facility to be used for seven days per week. The first team use the pitch approximately two evenings per week, plus the match on a Saturday, and the youth team use the facility three evenings a week. However, as the pitch can be split into three separate training areas, there are frequently occasions when both the youth team and other groups are using the pitch simultaneously.

The rest of the time the pitch is available for hire. Currently the pitch is utilised approximately 90% of the evenings and is targeted to achieve 50% during the day. On Saturday morning, an average of 500 children use the Football Turf pitch, providing a wonderful opportunity for the club to reinforce its close links with the local community. In addition, the club also runs both a Twilight and Midnight League for teenage children. This programme was specifically aimed at providing football for teenagers who might otherwise engage in potentially anti-social activities and has proved to be a great success, benefiting both the youngsters and the community at large.

Recently, the club was able to play host to 30 local juvenile cup finals, something that was only possible due to the installation of the Football Turf pitch.

Stenhousemuir has always had close links with the community, especially through its youth policy. However, what the installation of the FIFA RECOMMENDED 2 STAR Football Turf pitch has brought, is the opportunity to offer a high quality facility to many more children who might otherwise have missed out on this chance.