Planning Floodlighting

Guidance Note

2006

KCC Planning Applications Group
Kent Culture & Sports Group
FLOODLIGHTING SPORTS PITCHES

This Kent County Council guidance document refers specifically to the floodlighting of sport pitches only. It does not address the other factors associated in determining a planning application when the floodlit scheme is part of a larger development.

Many factors determine whether a planning application becomes successful. Factors such as impacts in the form of noise, traffic, character of area and local environment, architecture and heritage, the loss of playing field, residential amenity, need, hours of use and drainage, etc.

When considering a new or improved sports facility or floodlighting for a sports pitch, contact Kent Culture & Sports Group (contact details can be found on the last page of this document).

A major reason for a sports pitch not obtaining planning consent is over the issue of floodlighting. This guidance document attempts to address this by reflecting the issues associated with floodlights and some of the mitigation measures that can be taken to improve the design, minimise or negate impact of the floodlighting and gain the best possible chance for a successful planning application.

It must be noted that whilst this document attempts to address the issue, not every project will be successful. The location of the pitch could result in it being impossible to floodlight without causing adverse detrimental impact regardless of the benefits and therefore being rejected. This should be taken into consideration prior to incurring large costs in designing and developing the project. The advice of County (if relevant to a Kent County Council owned site) and/or local District/Borough Planners should be sought at an early stage, in addition to the advice taken from the Kent Culture & Sports Group. (Contact details for these can be obtained by visiting www.kent.gov.uk/planning and contact details for Kent County Council Planning Applications Group can be found on the last page of this document.)

Why consider floodlights at all?

Advantages of floodlights:
- If located on a school site, the school can extend both its curriculum and after-school activities.
- A floodlit all-weather pitch permits outdoor sports to be played throughout the year, assisting in raising participation levels, improving opportunities for competition, reducing childhood obesity, improving health and social inclusion initiatives.
- Bringing schools and sports clubs into the 21st Century with modern up to date facilities, conducive to good quality physical education and sport.
- Floodlights enable outdoor facilities to be used on winter evenings, giving them substantially higher usage rates than equivalent non-floodlit facilities and increasing choice and flexibility of playing times for users.
• Additional income as a result of the increased usage, which is essential given the costs of sustaining and maintaining all-weather pitches.
• A floodlit all-weather pitch adjoining a sports hall can accommodate activities such as football, hockey and tennis, releasing more indoor space for other activities.
• Longer operating hours give schools/clubs/operators more freedom in programming and initiating sports development programmes.
• It allows sportsmen and women to train and play sport during winter evenings as well as at weekends.
• Schools are often at the centre of their communities and therefore ideally suited to meet needs of the community. With more localised and increased facilities and opportunity for community participation in sport it would aim to improve health, community cohesion and provide for youth diversionary activity.
• Permits spectator viewing of matches.

**Technical Details**
Where floodlighting is to be installed as part of a multi-use games area (MUGA), independent specialist technical advice should be taken regarding the choice and performance of the lighting system, with regard to illuminance, operational and maintenance requirements.

It should be noted that, conflicting guidance might sometimes be given by different organisations regarding the recommended standards of lighting for different sports. In such instances, preference should be given to the appropriate National Governing Body for the sport(s) concerned e.g. Football Association, Lawn Tennis Association, and England Hockey.

Floodlighting technology has moved on in the past ten years, and each year the technology seeks to provide higher qualities of lighting for the sporting activities concerned whilst reducing the amount of light spillage onto adjacent land and into the night sky. This is a key factor as most people’s negative opinions of floodlights are based on older poorly designed floodlight schemes that were responsible for large amount of intrusive light spill.

The issue of light pollution was examined by the House of Commons Science and Technology Committee Report on Light Pollution and Astronomy. The report notes that the UK is the second most light polluted country in Europe, after the Netherlands. It appears that much of the pollution comes from the 4,355,000 streetlights under Local Authority control and the 145,000 streetlights under the control of the Highways Agency. Other significant sources of lighting pollution include security lighting for commercial and domestic properties (many of which are too bright for their purpose), car parking lighting and floodlighting of buildings and monuments.

Floodlighting of sports facilities is covered in only one paragraph of the 70-page committee report. This notes the benefits of sports floodlighting but also identifies evidence that "many sports facilities had recently received lottery grants to install
floodlights, leading to a number of complaints from people living in the surrounding area whose properties were lit up by cheap, badly installed floodlights”.

In fact, floodlights that are properly and sympathetically planned and installed by recognised quality manufacturers and installers are likely to have negligible or no adverse impact. It is necessary to ensure the floodlighting installation is designed for its intended purpose and for its intended standard of competition. Excessive or poorly designed lighting can, however, cause a range of problems including sleep disturbance, damage to visual amenity, impaired astronomy and ecological effects. It can waste energy, which contributes to global warming and also has an operational impact, so it is in the interests of the end operator to take heed of this. A combination of proper design and the use of appropriate technology can generally overcome light pollution problems.

Development involving floodlighting, or other significant external lighting, might not be permitted unless the proposed lighting is the minimum necessary for its purpose and would give minimal, or no detrimental effect, on:
- Residential amenities, or the users of commercial or other neighbouring premises.
- Areas of nature conservation interest.
- The night-time environment of Landscape Character Areas, or areas of Strategic Open Space.
- Users of nearby highways or flight paths through dazzle, distraction or confusion.

Taking account of the national and local planning policy guidance, the following main issues are central in determining planning applications and appeals for intensive use sports pitches, including floodlights:
- Light pollution and spillage, particularly if it affects adjacent dwellings
- Potential noise and disturbance to adjacent residential and other occupiers – this can be from players and spectators during training and matches and from users arriving and leaving the site. Floodlights could exacerbate this by increasing hours of use into later evenings. However, facilities that are in existence but not floodlit will be able to have use during daylight hours up to 10pm during summer months in which case floodlights will have no greater impact than that already experienced, although the use would be prolonged throughout the year and potentially more intensive.

Balanced against these potentially negative aspects should be the sporting benefits to the community. Clearly, intensive use sports pitches allow much greater usage of a given area, not just in the evening but also during the daytime due to the ability of artificial surfaces to accommodate heavier usage than grass.

Higher levels of usage will also provide additional income for the owner, or operator, of a sports pitch, part of which can be used to maintain the site and as such is an important part of the sustainability of the project.

Careful attention should be paid to siting, shielding, and the direction of light, height of installations and brightness. Conditions will be used to control light intensity, spillage
and hours of use. Demand for most community leisure facilities is centred between 6pm and 10pm and all day at weekends.

It is stressed that it is imperative that the implementation and subsequent maintenance of the lighting scheme is undertaken in an exemplary manner, with full adherence to the approved drawings and planning conditions, so as to ensure the full benefits are delivered without prejudicing the interests of neighbouring residents.

In an ideal situation a floodlit facility would be best located in order to suit all concerned, but this might not be practically possible. Therefore it is important to manage the risk associated with the proposed development when planning from the start.

The following table attempts to assist in identifying any planning issues that may arise from a floodlight development.

<table>
<thead>
<tr>
<th>Action</th>
<th>Action</th>
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</thead>
<tbody>
<tr>
<td>On school or club site</td>
<td>If the project is wholly contained on a school site, it is an advantage. Infrastructure like changing facilities, car parking and access all exist. Management structure and dual use arrangements are easy to put in place.</td>
</tr>
<tr>
<td>Land available for development</td>
<td>You may need to investigate alternative locations but if these are not practical or can be discounted for similar reasons this favours the development at the site.</td>
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<tr>
<td>Loss of existing playing field</td>
<td>Any loss of existing playing field could be negatively perceived. However, floodlighting an existing pitch or floodlighting a new MUGA and STP can lead to increased use, mitigating against loss of playing field by generating greater opportunities for participation.</td>
</tr>
<tr>
<td>Screening</td>
<td>Your chances of planning approval will be enhanced if the floodlights can be screened by existing non-residential buildings, planting and land levels. Look to position the facility in the best location to achieve this with existing screening, this will also save on your project costs. Include additional earthworks and/or planting in the proposal that will screen the facility if it is sensitively located.</td>
</tr>
<tr>
<td>Minimum height of floodlight columns required</td>
<td>Only use floodlight columns of minimum height necessary for the level of activity. Please note that floodlight columns will, in most cases, restrict light spill the higher they are due to the angle of the floodlights required to illuminate the surface of the playing area. Floodlight columns appear better against the sky if left uncoated.</td>
</tr>
<tr>
<td>Maximum LUX required</td>
<td>Only use minimum lux required for the perceived level of sport being played. It is also worth having the ability to isolate floodlighting to the pitch into sides, thirds or halves. To be able to switch between higher and lower lux levels as required and to fit a timer switch to ensure planning restrictions on use are adhered to. These measures will also assist operation and save on utility costs and wasted energy.</td>
</tr>
<tr>
<td>Support</td>
<td>Ensure that your project is well supported, particularly by the community and adjacent residential properties. If there is a wider...</td>
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</tbody>
</table>
strategic need ensure that you make representation of this and provide evidence to support this claim. Support from local clubs, schools and organisations will help provide the basis of need in addition to that of your own.

Through the planning process a number of people and professional bodies will be consulted including, local residents, District, Town and Parish Council, your local Council Member, Highways, Jacobs Babtie (Lighting, Noise, Environment), Environment Agency and English Heritage.

Typically floodlight columns for a full size adult football/rugby or hockey pitch will be between 15 –22 metres (recommended by England Hockey and the English Football Association) and between 6m -15m for multi use games areas (including netball, tennis). The size of the area to be lit and the level of competition will dictate this.

As a general rule, the floodlights should be higher than the height of the ball in play. This is to ensure player safety in terms of glare, to avoid being hit by projectiles (balls), colliding with other players and for sporting purposes of ensuring good visibility, free of glare to see the ball.

Glare can be minimised by floodlights mounted at the correct height and correctly angled lighting units.

In considering the height and design of floodlight columns, it should be remembered that higher columns could lead to better light concentration and significantly less light spillage than lower column heights. Also, due to improved technology and designs, modern columns can be much less bulky and therefore will have a better daytime appearance.

Spillage (or light trespass) is the amount of ‘wasted light’ outside of the pitch boundaries, which could affect surrounding properties. This can be minimised or negated by good lighting design, distance, land levels and planting. Generally, the taller the column the easier it is to control light spillage. Where necessary, landscaping measures to screen lighting installations from view will be required.

Minimum lighting lux is important in planning applications. Each Governing Body of Sport has their own recommendations. These can be subject to change, so the relevant Governing Body of Sport should be consulted at the feasibility stage.

As an example the table below gives guidance as to the minimum specified floodlighting requirements of a selection of sports for which external floodlighting is typically required. The level of competition to be played on the pitch will determine the minimum Lux level. Where multiple sports are played on the surface the highest minimum lux should be adopted.
<table>
<thead>
<tr>
<th>Sport</th>
<th>Training Only minimum maintained LUX*</th>
<th>Competition Local Club Level minimum maintained LUX*</th>
<th>National Club/League Level minimum maintained LUX*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hockey</td>
<td>200</td>
<td>350</td>
<td>500</td>
</tr>
<tr>
<td>Football</td>
<td>120</td>
<td>200</td>
<td>500</td>
</tr>
<tr>
<td>Rugby</td>
<td>100</td>
<td>200</td>
<td>500</td>
</tr>
<tr>
<td>Tennis</td>
<td>300</td>
<td>400</td>
<td>500</td>
</tr>
<tr>
<td>Netball</td>
<td>200</td>
<td>400</td>
<td>N/A Indoor only</td>
</tr>
<tr>
<td>Basketball</td>
<td>300</td>
<td>300</td>
<td>N/A Indoor only</td>
</tr>
</tbody>
</table>

* The minimum LUX level requirements are subject to change, dependent on the level recommended by individual Governing Bodies of Sport. It is recommended that at the time of planning your project you consult the relevant Body.

**Planning Details**

Consider the following:

The Kent & Medway Structure Plan 2006, jointly produced by Kent County Council and Medway Council, sets out the current strategic planning framework for the protection of our environment, major transport priorities, and the scale, pattern and broad location of new development including provision for new housing, major economic development and community facilities across Kent and Medway.

The Structure Plan does not specify the use of individual sites – this is the job of the Local Plan or Local Development Framework (LDF) for each District Council area. The purpose of the Structure Plan is to guide the preparation of Local Plans and LDFs and provide a framework within which decisions can be made. It also guides and informs investment decisions made in both the private and public sectors. This can be downloaded online at www.kmsp.org.uk

The following areas/policies are common considerations in determining sports facilities and floodlighting applications. Key policies, which may support an application or offer points for consideration have been identified in this section, with guidance on how to address them and improve your proposal.

**The Adopted Kent and Medway Structure Plan 2006:**

- Policy SP1 - Seeks to protect and enhance the environment and achieve a sustainable pattern and form of development. (Your development should be designed to be sustainable. Dual use sites for school and community use are a good example of how facilities can be shared. Community use needs are traditionally low during the peak time use for school use. This also shares the economic cost of providing and maintaining adequate sports facilities.

Dual use sites also places community accessible sports facilities at the heart of the community and reduces the need for extensive travel to adequate sports facilities.
The additional income resource from extended community use should ensure sufficient capital to maintain the life of facility indefinitely and not place burden on education resources.)

- **Policy SS1** – Spatial Priorities for Development and Investment in Kent. Developments must provide a balance of leisure development and community facilities, particularly in growth areas of the County linked to new housing and regeneration.

- **Policy SS2** – Extent of the Metropolitan Green Belt in Kent. Although development is usually restricted in the Green Belt, it can play a positive role in providing for increased access for outdoor leisure and recreation. (There remains a need to support communities within the Green Belt with adequate provision for sport and recreation.)

- **Policy EN1** – Seeks protection of the countryside and requires development to be planned and designed so as to avoid or minimise pollution impacts. (If the development is proposed directly on a school site and the use of the land does not alter as a result of this proposal. The benefits and the demand are high from a school, community, town and county perspective. The lighting design demonstrates minimal impact. The design of the floodlights has been done in such a way as to minimise/eliminate pollution impacts. Flat lens floodlights are recommended. It is most likely that when the floodlights would be used, local residents would be indoors. When considering the potential noise emissions from such a sporting facility, the likely existing noise environment, the distances involved and the noise attenuating effects, it is unlikely that noise would have a significant adverse impact upon residential amenity. Equally this is a time of day when curtains are closed or if not, internal lighting restricts the external visibility. This is acceptable where it can be proved that no light spill falls onto a residential property, which will permeate through curtains to the detriment of residents. Modern floodlight schemes can restrict significant light spill to within a few metres outside of the playing surface.)

- **Policy EN3** – Seeks to conserve and enhance the quality of Kent’s environment. (Your project must demonstrate it has been well planned and designed to minimise the impact to the environment. It is an enhancement to an existing facility and therefore there is no land use change. It also negates the necessity to provide a like for like facility elsewhere, which potentially would take additional land and have a far greater impact to the environment. By including a facility on the school site, the community can take advantage of existing provision and facilities including changing accommodation and car parking out of school hours. Schools also have travel plans in place to account for transportation and in most cases are served by existing pavements and cycle paths.)
• Policy EN4 – Seeks long term protection for Areas of Outstanding Natural Beauty. There is a general presumption against inappropriate development within the Green Belt. (In such areas, the need for the facility must be strong and mitigation measures against high light spill. New development that is required to improve the social and economic life of local communities within AONBs and SLAs should be located within, or immediately adjacent to, existing settlements. Policy SS2 makes the point that the Green Belt can play a positive role in providing for increased access for outdoor recreation.)

Existing community services and recreation facilities will be protected as long as there is a demonstrable need for them. Provision will be made for the development of local services in existing residential areas and in town and district centres, particularly where services are deficient. Flexibility in the use of buildings for mixed community uses, and the concentration of sports facilities at schools, will be encouraged.

An alternative site assessment and independent lighting impact assessment may be required for floodlight facilities in these areas. It is unlikely that schemes will be approved unless on brown field sites or sites already providing education, sport and leisure provision. (Also refer to PPG 17 guidance below)

• Policy EN9 – Seeks to maintain tree cover and the hedgerow network and to enhance this where compatible with the character of the landscape. (A well-planned landscaping scheme could enhance tree cover and hedgerow as part of the mitigation works to the lighting. Although planting directly adjacent to a pitch is not recommended due to tree and leaf debris hampering the surface quality.)

• Policy ENV15 – New development should be well designed and respect its setting. (If the site is already used for sport then the use of the land remains the same. Sports facilities can provide natural diffusion from open countryside to urban areas.)

• Policy QL1 – Considers the needs of all sections of community, provide for a healthy, safe and secure environment, enhance public realm, and protect the amenity of residents. Sports facilities will contribute positively to the community as a whole.

• Policy QL2 – Considers priorities for the public realm, including encouragement as appropriate of leisure, sport and recreation to bring vitality to the central areas of towns.

• Policy QL5 – Considers mix of uses on sites. Opportunities should be taken to introduce an appropriate mix of uses into existing developed areas and on major sites currently planned for single use where this would lead to a better balance in the mix of development. Consideration of proposals for other sites should assess their potential contribution to mixed use, either within the development site itself or
by complementing surrounding uses. (By incorporating a sports facility on a school site this mixed use of facilities can be achieved.)

- **Policy QL11** – Seeks to protecting and enhance existing community services (including schools, youth and community services, recreation, amenity space and sport). Flexibility in the use of buildings for mixed community uses and the concentration of sports facilities at schools, will be encouraged.

- **Policy QL12** – Provision should be made to accommodate additional requirements for local communities in response to need or growth in demand. Sport is a vital part of education and can help develop community spirit, engender good health, enhance community safety and contribute to regeneration. New sports facilities must have regard to minimum standards but also based on assessment of local demand and quality of existing facilities. (Sports facilities that will be used by the community and school and will have a positive impact on education, community, school and community links, health, crime and sport. The proposed development of additional housing in Kent will increase demand for community sports facilities. It is important that the facility development can demonstrate need, this may come in the form of letters of support from key agencies, supported by strategic documents or by demonstration of community, education or sporting need.)

- **Policy QL14** – Seeks to ensure provision for major sporting venues in the county, which would have a county/national and international significance. (These will need to be supported by appropriate infrastructure and demonstrate capacity for spectators as well as participants.)

- **Policy QL15** – Seeks to provide formal and informal recreation and sports facilities particularly linked with major new residential and mixed use development. Where additional facilities are required in rural area priority should be given to clustered provision of facilities.

- **Policy TP19** - Development will normally be required to provide for vehicle parking on site in accordance with Kent County Council's Vehicle Parking Standards. (If your site already has sufficient car parking this will assist in obtaining planning consent. School sites are ideal as car parking already exists and is usually empty when the community require its use and as a result negates any need to create new car parking taking a greater land take.)

- **Policy EP10** – Sustainable Tourism Development. Investment in tourism and leisure will help to achieve the Structure plan priorities of regeneration. Major sports facilities will also actively contribute to the positive benefits of additional tourism.
Planning Policy Guidance (PPG) 17
The assessment of floodlighting issues is discussed in Planning Policy Guidance 17:

Planning for Open Space, Sport and Recreation, sets out the Government's national planning policy on sport. Floodlighting is recognised as a possible harmful development within the Green Belt in PPG17. In particular it states that; 'In considering applications for floodlighting, local authorities should ensure that local amenity is protected. The impact on the openness of the Green Belt, or on the character of the countryside, of floodlight towers or pylons should be a key factor in determining whether planning permission should be granted.'

It should be noted that the PPG17 does not say that floodlighting of a sports pitch is necessarily an inappropriate development within the Green Belt, but that the effects on the Green Belt should not be harmful to its openness.

PPG 17 therefore indicates that there are three considerations to be made in assessing the proposal:
• The effect that the floodlit facility would have on the openness of the green belt
• The effect that the floodlit facility would have on the character of the countryside
• The effect that the floodlit facility would have on local amenity.

An important effect on visual amenity is the visual impact of the proposal. The assessment of visual impact compares the quality of the scene which would exist without the project (allowing for any developments which have received planning permission, but which have not been built) with that which would result if the project were constructed, and then state the degree of change. A development can cause either deterioration in visual amenity, or an improvement.

Visual change is categorised according to the following scale:-
• Substantial adverse or beneficial impact - where the scheme would cause a significant deterioration (or improvement) in the existing view.
• Moderate adverse or beneficial impact - where the scheme would cause a noticeable deterioration (or improvement) in the existing view.
• Slight adverse or beneficial impact - where the scheme would cause a barely perceptible deterioration in the existing view.
• No change - no discernable deterioration or improvement in the view.

The sensitivity of the receptors is also considered, which is assessed according to the expectations of the viewer and the importance of the view. It is categorized according to the following scale:-
• Highly sensitive receptors such as the view from ground floor living spaces.
• Moderately sensitive receptors such as the view from upper storeys of a house.
• Slightly sensitive receptors such as the view from an industrial unit.
The significance of the visual change is assessed by considering the interaction of the sensitivity of the receptors with the degree of change to give an overall significance for each receptor. The following three point scale is used:

- Low significance.
- Medium significance.
- High significance.

An analysis of the effects of the development for each receptor is made, based on a worst case scenario (i.e. winter assessment in the first year of the development at night) and the optimum case (i.e. summer daytime 15 years after construction, when screen planting would be established)
Institute of Lighting Engineers

Obtrusive light, whether it keeps you awake through a bedroom window or impedes your view of the sky, is a form of pollution and can be substantially reduced without detriment to the lighting task.

How can I minimise the problem?
Do not "over" light. This is a major cause of obtrusive light and is a waste of energy. There are published standards for most lighting tasks, adherence to which will help minimise upward reflected light.

Dim or switch off lights when the task is finished. Generally a lower level of lighting will suffice to enhance the night time scene than that required for safety and security.

Use specifically designed lighting equipment that minimises the upward spread of light near to and above the horizontal. Care should be taken when selecting luminaries to ensure that appropriate units are chosen and that their location will reduce spill light and glare to a minimum. Remember that lamp light output in LUMENS is not the same as lamp wattage and that it is the former which is important in combating the problems of obtrusive light.

Ideally there should be no surface illuminance at the façade of any residential property. Illuminance levels of less than 5 are normally considered to be acceptable for residential properties and the acceptable illuminance level for roads varies depending on the existing levels of lighting of the road in question.

Consideration also has to be given to the issue of glare. The asymmetric distribution of the floodlights allows for a lower tilt angle from the horizontal, hiding the lamp and therefore reducing glare not only to players and spectators but also to any surrounding residents, motorists and wildlife. The maximum tilt angle for any floodlighting should ideally be no more than 6 degrees from the horizontal plane.
A good planning application for floodlights will include:

- Details of the location
Introduction to the development i.e. - The proposed development consists of the construction of a floodlit, multi-sport synthetic turf pitch (STP) at XXX. The development will complement the existing sports facilities at the site and enable the already strong links between e.g. school and the local community to be enhanced as well as improve links with local sports clubs, expedite curriculum development and embrace social inclusion initiatives.

- Details of partners involved.

- Main Aim - In broad terms, the proposed development aims to:

Provide a floodlit, multi-sport synthetic turf pitch to overcome the shortfall of such facilities in the District of XXX, thus fostering sports participation particularly in XXX, creating opportunities and accessibility for all. The facility will contribute to the health improvement and crime reduction agendas of the authority.

- Site Positioning - The area of the proposed pitch is located on XXX of the current grassed playing field, adjacent to XXX. The south of the proposed pitch is XXX. To the north is XXX etc.

By positioning the pitch in close proximity to the existing site buildings will make for ease of operation and supervision, as staff will be close at hand as well as ensuring that participants do not have far to walk from the car park to the changing facilities/reception area and/or the pitch.

'A Guide to Design, Specification and Construction of Multi-use Games Areas including Multi-synthetic Turf Pitches' produced by Sport England recommends that good locations for STPs are:

- Those close to car parks and support facilities (especially where these facilities are already supervised);
- Those where there is good access to the facility for people with disabilities.
- Under Sport England guidelines, Access for Disabled People (November 2002) regulations state that “disabled parking bays must be located as close as possible to the main entrance of the building. The distance to the entrance must be no more that 50 metres”.
- The location of the MUGA should be sympathetic to its surroundings and any adjacent infrastructure and early guidance should be sought on policy and any necessary permission that may be required from the Local Planning Authority. It is normally advisable to locate a MUGA (especially floodlit ones) at least 20m, and ideally at least 50m from other residences. On flat terrain sites, landscaping and mounding can be used to obviate noise breakout and floodlight spillage.
KCC Planning Requirements

In general, proposals for floodlit sports pitches should, amongst other details/information, include the following, and the reasons why the option has been chosen.

- The precise location of the pitch, which should take account of the light spill and its proximity to, for example, any highway and any nearby residential properties.
- The types of sport to be played on the pitch and the standard of play - both of which will have an influence on the amount of illumination required.
- Details of columns – number, height and finish.
- Details of luminaries – number, types, dimensions, finish and output of lamps fitted, to include manufacturer's technical information.
- Details of any cowls/hoods/shades/baffles that may be needed to control light spill and glare – number, dimensions and finish.
- Elevation of column and luminaries with cowls fitted as well as manufacturer’s literature.
- Plan showing pitch with the location/position of lighting columns and luminaries.
- Details of lighting set up – horizontal (rotation) and vertical (tilt) alignment of the luminaries, also to be shown on plan and elevation drawings.
- Details of lighting output including levels of surface luminance on the pitch and overspill, i.e. off the pitch. (Manufacturer’s/supplier’s calculations and diagrams should be provided separately and also to be overlaid on an OS base so that the impact on the surrounding area can be assessed.)
- Confirmation of the type, height and finish of any ball stop fencing.
- Proposals for landscaping to mitigate the impact of the proposed development on the area in general.
- Proposed hours of use, for weekdays, weekends, etc.
- Details of any proposed community use.
- A drawing showing the existing and future layout of sports pitches on the school’s playing fields to indicate the loss of any existing pitches.
- Existing and proposed site levels.
- Details of pitch/court surface.
- Drainage proposals.

The planning submission:

Floodlights
Light spillage contour drawing should be included. The plan should demonstrate the light spillage when used at the maximum and minimum lux levels. This should feature planting, roads and residential properties for comparison.

Superimposed photos can be included to highlight facility and give a perspective of how it might look from different locations.
Example Plan

Community use

Term time

Monday 4.00 to 10.00 p.m.
Tuesday 6.00 to 10.00 p.m.
Wednesday 6.00 to 10.00 p.m.
Thursday 6.00 to 10.00 p.m.
Friday 4.00 to 10.00 p.m.
Saturday* 10.00 a.m. to 10.00 p.m.
Sunday* 10.00 a.m. to 10.00 p.m.

School Holiday Time

Monday to Friday  8.45 a.m. to 10.30 p.m.
Saturday & Sunday*10.00 a.m. to 10.30 p.m.

*Note that Planning Authorities will normally expect to see some respite provided for adjacent local residents and therefore will wish to restrict the hours of use on Saturday evenings, Sundays and Bank Holidays.

The floodlights have been designed so they can operate independently and enable lighting to be provided for: -

• the whole pitch
• half of the pitch
• one third of the pitch
• one side of the pitch
• all at full lux levels or lower levels

Automatic timer switches will control the floodlights.

There is a general perception held that any floodlighting causes light pollution and an intrusion on people’s lives and property. The design is so efficient that no light spillage occurs above the horizontal and minimal outside the immediate boundary of the pitch and none outside the boundary of the site.

The main glare from floodlighting is not actually the floodlights themselves but from the perceived glare of the floodlights back from the playing surface. The creation of new planting together with earthworks will minimise the effect of this.

The business case for the facility and need demonstrated by the local community for the facility, indicate that the facility is needed up to the hours proposed.
Planting:
There are existing trees, shrubs and hedgerow around the site, playing field and pitch that are establishing well. It is proposed to increase the density of planting within the site with native trees and shrubs to give low to medium height screening. Gentle contouring is also proposed to enhance the landscape character on which the new planting areas will be situated. The planting will also serve two purposes, to improve the environment and landscape and also to mask any impact of the development to residential property. Additional planting is also proposed to replace and increase the existing tree and shrub planting, which might be lost.

Programme Of Use:
• Provide additional opportunities for young people and sports organisations in the local community to participate in outdoor sports and develop their skills, particularly among the participant groups.
• Increase and improve the quality of sporting opportunities for the students at XXX School and other local schools and to extend their curricular and extra-curricular sports activities.
• Complement the already existing sports as a focal point for the community.
• Establish the STP as a centre for community sports and raising standards of performance and play.
• The proposed opening hours has been outlined above and the majority of use of the pitch will take place through the winter when both the hockey and football seasons operate.
• The school's PE department will formulate a timetable of use during school term days.
• Evening use will consist of training sessions for hockey and football for both juniors and adults.
• During school holidays the pitch will be utilise as part of the school activity programme and activities will include:
  • specialist football coaching
  • hockey coaching
  • outdoor games as part of the holiday camps – Kwik cricket, rounders, unihoc, touch rugby and stool ball.
• The proposed scheme has received support from XXX, XXX, XXX
• It is anticipated that the total throughput will be approximately XXX visits in the first year.
• Strategic Need - The vast majority of hockey matches now take place on STP due to league requirements as well as player preference, improved standards of play and the reduction in cancellations.
Synthetic Turf Pitches with Modern Floodlight Schemes in Kent

The following sites are recommended for anyone wishing to view comparative modern floodlight schemes.

Technology for floodlights is improving on a very regular basis. The lights of the recommended sites, range from 1 to 5 years old, but are some of the newest in the County.

The floodlights at most other floodlit pitches in the county are of insufficient standard of floodlight scheme to be positively compared to. Please note that these schemes are comparative but not all are identical.

Borden Grammar School
Avenue of Remembrance
Sittingbourne
Kent ME10 4DB

Holcombe Hockey Club
Holcombe Park
Curtis Way
Off Marconi Way
Rochester
Kent ME1 2TQ

Canterbury Hockey Club
Polo Farm Sports Club
Littlebourne Road
Canterbury
Kent CT3 4AF

Minster College
Minster Road
Minster On Sea
Kent ME12 3JQ

Wildernesse School
Seal Hollow Road
Sevenoaks
Kent TN13 3SN

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