

APPLICATION NO: 15/01171/FUL	OFFICER: Mr Martin Chandler
DATE REGISTERED: 14th July 2015	DATE OF EXPIRY : 13th October 2015
WARD: Lansdown	PARISH:
APPLICANT:	Cheltenham Ladies' College
LOCATION:	Ladies College Swimming Pool, Malvern Road, Cheltenham
PROPOSAL:	Erection of new sports hall building to provide multi use sport hall, replacement squash courts and ancillary facilities. Erection of floodlighting of external hockey pitch. Demolition of existing squash court building and partial demolition of single storey structure attached to Glenlee House. Alterations to piers to side of access onto Malvern Road.

REPRESENTATIONS

Number of contributors	8
Number of objections	6
Number of representations	2
Number of supporting	0

11 Christ Church Road
Cheltenham
Gloucestershire
GL50 2NY

Comments: 4th August 2015

I am a supporter of the Ladies College and the significant investment that they make in the locality but I cannot support the current application for several reasons.

The proposed new sports hall design is approximately 2 metres higher than necessary (reference for example the Lawn Tennis Association guidance), and therefore unnecessarily spoils the vista of the Malvern Hills from various viewpoints on Christchurch Road. I could support this part of the application if the building height was reduced appropriately.

Regarding the proposed floodlighting scheme for the "old" astroturf pitch I urge you to reject this part entirely for the following reasons.

1. Light disturbance - these lights will be within a few metres of family orientated residential property and will affect sleep patterns of young children
2. Noise disturbance - sporting activity going on after darkness will have a similar detrimental effect for the families living within close proximity and significantly affect the amenities
3. Traffic disturbance and congestion - there is already a shortage of parking for sports facilities users and this will affect local residential parking further into the evening
4. Necessity (or lack of) - the College already have a perfectly good astroturf pitch with full lighting facilities and which is located much further away from residential property. Anecdotal evidence suggests that this facility is not used regularly and we therefore question the need for more floodlight pitches.

17 Christ Church Road
Cheltenham
Gloucestershire
GL50 2NY

Comments: 11th August 2015
Letter attached.

Comments: 1st October 2015
Letter attached.

Comments: 19th October 2015

You have been asked to adjudicate on a planning application by Cheltenham Ladies College to redevelop their sports facilities. As residents in this Conservation Area we would be grateful if you would consider the following in particular.

Our concern is not the sports halls, but the proposal to erect 15m floodlights within 25m of our living rooms and bedrooms. The enduring detrimental consequences to our well-being and privacy are incalculable. Indeed, independent lighting expertise clearly indicates that, on the evidence submitted by the applicant that it is impossible to ascertain a worst case scenario for light pollution (see below). Despite this the applicant's report claims that there will be marginal light intrusion to compromise the area's special character that is considered remarkable in the Conservation Report for Lansdown. The 15 metre lights are higher than the homes and the trees that accompany them and so will be alight during both the rush hour and at the end of the working day; a time when the residents should be permitted to find peace and privacy in their homes.

The NPPF (which is informed the Human Rights Act which is founded on the historical freedoms enshrined in English Common Law) has been adopted by Cheltenham Borough Council through a series of documents intended to encourage sustainable development . This application runs counter to these principles: it fails to utilise and improve the established development; it fails to minimise the impact on this Conservation Area; it fails to enhance this environment; it fails to consider more creative and sustainable usage options; and it curtails our right to enjoy the freedoms created by privacy and peace.

A previous CLC planning application (Well Place, 1999), materially no different to this one, was not permitted because the adverse effects on the Conservation Area and the disturbance to residents' lives were deemed to outweigh any benefit. A similar detrimental impact is acknowledged by the Inspector in this proposal, but the recommendation is swayed by the commercial needs of CLC. Although the Government has indicated that commercial considerations should be considered in a less negative light, the intention was not to produce a free-for-all, but to generate benefit for the common good through economic stimulus and much needed house building.

The established floodlit pitch is significantly further away from residential properties yet planning permission was only granted after an agreement to sink the pitch and erect a substantial screening bank of vegetation. There is no provision for such protection in this plan. Our survey of current CLC usage of both of the pitches reveals significant under use during natural and twilight hours. The suggestion to permanently compromise residents' privacy and well-being by floodlighting the old pitch totally disregards the creative and sustainability focus of the guidance given in the NPPF, which informs Gloucestershire's Joint Core Strategy Plan (2013) and the Cheltenham Plan (2006).

The international standing of the school is not based upon whether it has one or two flood-lit pitches, but on evidence of its foundational commitment to equity and academic excellence. Indeed in the school's Environmental Policy the commitment to act as a role model in contributing to the environmental and community is clearly stated as guiding principle to their business and

curriculum delivery. In proposing to erect another set of floodlights, rather than considering the upgrading of underutilised facilities and by not addressing the detrimental effect on our homes, the school's commitment to such sustainable development and responsibility to the well-being of the co-existent community must be called into question.

This application does not address any shared benefit, but is based on two individual benefits for CLC alone: the health and well-being of the school's pupils; and the school's commercial development. As we have stated in all our communications we wholeheartedly support these aspirations, but not by sacrificing our own and the greater community's well-being. We have suggested an alternative plan that meets all of CLCs needs whilst ameliorating the impact on our homes. This sustainable plan would allow the continuation of the established mutually beneficial relationships between school and community. With a more creative design of the sports-hall and the upgrading and extension of the already established screened floodlights, we believe this can be achieved. Although this alternative could satisfy all parties and has already been granted planning permission, it has been ignored with no explanation offered to suggest any real consideration or desire to accommodate the needs of the wider community. Yet, it is this very community , both in its residents and its physical fabric that creates the safe and secure ambience and attractive setting, which the school relies on to provide an environment that is conducive to the development of their pupils. We would, therefore, ask that you consider a deferral until this option has been properly considered.

Comments: 22nd October 2015

As promised in our previous conversation, please find attached a copy of the independent technical report in regard to the CLC floodlight proposal.

As you will there are significant concerns in regard to the use assigned to the pitch in the planning proposition and the proposed level floodlighting. They also believe that, from the data given in the proposal there is insufficient and incomplete data to make decisions in regard to the effects and monitoring of the lighting proposal.

Please note: *The independent flood light review is attached to the officer report, and also viewable on line.*

15 Christ Church Road
Cheltenham
Gloucestershire
GL50 2NY

Comments: 11th August 2015

We have just returned from our holiday to discover from our neighbours that The Cheltenham Ladies College have submitted the above proposal.

Based on our understanding of the plans from the previous public consultations we strongly object to the plans, in particular to the floodlighting proposed for the hockey pitch and the increased roof height of the new sports hall.

We have tried and failed over the weekend and again tonight to access the documents with the application to allow us to compose our formal response. I visited the planning office today to explain the problems and our concerns in view of the imminent closure date of 11th Aug but was reassured that the date was not critical.

We did try to access the documents online in the office but again had problems which I understand are being looked at but don't appear to have been resolved yet. I am aware the hard copy documents can be viewed but could not stay in the department today to scrutinise them.

We also received no letter about the application despite our garden adjoining the hockey pitch and am uncertain why this was the case.

I would be very grateful if you could acknowledge receipt of this email and confirm our formal response can be submitted without prejudice after 11th Aug once we have been able to view all the necessary documents.

Comments: 14th October 2015

I note the Environmental Health Officer has asked for further comments following submission of their latest document on 7th Oct 2015.

We still object to the proposed floodlighting even with the suggested conditions.

I note the Environmental Health Officer's visit was on the 8th July and accompanied by the applicant. At this stage their drawings were incorrect as regards the trees and layout. I would be grateful if the officer concerned would consider chatting to us as well and visiting our property to assess the huge impact of a floodlight at our rear boundary approximately 20m from our house. There is actually no screening here and the impact of the lights is greatest on our house, in our garden and results in a clear view of at least 3 floodlights from both sides of Christ Church Road between houses 11 & 15. It would seem only fair to allow us the same opportunity to express our views in person as the applicant was able to do in July.

Has the officer visited the site after sunset and when dark to appreciate how minimally lit the area is currently?

We hope the plans for floodlighting will be rejected but as conditions for their use are being proposed we feel several additional conditions should be attached.

1. The new proposed floodlights must only be used when the existing floodlit pitch is already in use*.

Reason:- the existing floodlit pitch is screened to some extent and is considerably more distant from adjacent properties and its use should be maximized

*use should be defined as a minimum of 10 girls actively involved in the sport being played

2. A minimum of 10 girls actively involved in the sport being played must be present to warrant floodlight use on the new proposed floodlit pitch

Reason:- floodlighting this pitch will have considerable negative impact on its immediate environment and is a nuisance to those people nearby in addition to its significant energy consumption. Floodlighting to allow a couple of pupils to jog round the pitch (or similar) should not be permitted. Turning lights on in case someone decides to play should also be forbidden.

3. As per the lighting levels submitted, floodlit pitch usage is for training only and not match play.

Reason:- to further lessen the nuisance of intrusive noise at times that currently are peaceful. The suggested back board dampers have no effect on shouting, cheering, screaming, whistles etc..

4. Floodlighting is not permitted during British Summer Time.

Reason: at these times we are most likely to be using our garden in the early evening and the nuisance of a lit floodlight looming 15m above our heads outlined by the sky cannot be considered acceptable.

5. Floodlights must be retracted at anytime when not lit.

Reason:- it cannot be appropriate to use the term "any day" as this allows them to be erect all day for only a short period of actual use.

I would be grateful if this information could be forwarded to the relevant Environmental Officer.

Please could you also confirm the procedure for next week, I have arranged time off work and at present I am expecting a visit by the planning committee after 1pm on Tues 20th October.

Many thanks for your help

Comments: 19th October 2015

Letter attached.

9 Christ Church Road
Cheltenham
Gloucestershire
GL50 2NY

Comments: 4th August 2015

Letter attached.

9 Christchurch Road
Cheltenham
Gloucestershire
GL50 2NY

Comments: 19th August 2015

My wife and I have already registered in our 03 August letter our strong objections to the whole idea of floodlighting the astroturf pitch behind our house, and have also objected to the bulk and height of the proposed sports hall, which completely unnecessarily blocks key vistas of the Malverns from the public highway in Christ Church Road. We would not object to a lower height hall which did not block the vistas.

In a letter of 13 August Ms Crews, Head of Planning drew our attention to additional information which had been received, and invited further comments. This I now do, and will comment on the four drawings of floodlights, the letter from Evans Jones in which possible floodlight curfew hours are discussed, and their heritage statement which appeared on 18 August.

The floodlight drawings show that the proposed 15m floodlights will be higher than our four story houses. To my mind this just reinforces the message that the floodlights will be overbearing, completely change the appearance of the local area and be visible over a wide area. I also suggest it would be useful to have the existing squash courts shown on the section through 15 Christ Church Road. The highest ridge on the courts, on the tower with the small metal chimney, is 5.08m higher than the hockey pitch (66.78-61.70m). The 15m masts will be three times higher than this, and I find this comparison very useful when viewing the scene from the Christ Church Road side and imagining just how high in the sky the masts will be.

I also find the drawings subtly deceptive. The architects seem to have sketched in more trees than the photographs or observation justify and, moreover, have coloured them solid green suggesting an enclosed space. However in winter, when it is proposed to use the floodlights, these deciduous trees will all be bare, very different and much less of an obstacle to light.

I also note that the architects show the 15m of the extended mast and the 4.5m of the retracted mast to be from the base to the bar supporting the luminaires. This is also the measure shown for this type of telescopic mast on the Abacus website at <http://www.abaculighting.com/pdf/telescopic-club-range.pdf> . In contrast the lighting consultant in the lighting impact study shows the 4.5m retracted and 15m extended as being to the top of the luminaires. Scaling from the Abacus website, and dimensions on rival websites, indicate the

luminaires add 0.45 to 0.50m to the height. I suggest we should be talking about 15.5m extended, 5.0m retracted.

15m/4.5m telescopic masts do not appear in the Abacus range as shown on their website, where the standard 15m mast retracts to 7.0m and these and the three other standard telescopic masts have extended/retracted ratios all in the range 2.0 to 2.3. In contrast the 15m/4.5m is a one-off special, unknown to the lighting consultant at the last public consultation, with a ratio of 3.3. This suggests to me that tops of these, possibly relatively unproven, masts may move more in the wind, and this should be considered in any calculations.

I only comment on possible curfew hours because the Environmental Health Officer has raised this with Evans Jones. We remain implacably opposed to any introduction of floodlights. I note that along with a "girls only" condition (in the planning statement) and switch off times as per the existing pitch the applicants are now also suggesting an earliest switch on time of 15.00 and a condition that the floodlights are always retracted outside curfew hours. I note that the earliest sunset in Cheltenham is at 15.57 on 12-13 December. Lighting up time for headlights is 30 minutes after sunset and we can work in our garden until then. Thus we will always be subject to at least about an hour and a half of unwanted light during gardening hours, in addition to all the unwanted aspects of turning night into day later on. I suggest a later switch on time would be appropriate at other times of the winter when sunset is later. In addition I suggest use of the floodlights is limited to those days of the year when sunset is 19.15 or earlier.

In terms of the heritage statement it is difficult to know where to begin since it is riddled with inaccuracies. This is highlighted in para 5 "Assessment of the Proposed Scheme" with the sub-heading "Indoor Tennis Courts and Demolition of Squash Courts", obviously a reference to the 2011 scheme. In para 5.7 it is stated that "The new hall has been sensitively designed with the Conservation Area in mind and would sit 1.9m below the highest point of the existing Sports Hall, which itself is set in the lowest part of a sloping site. The new building would, therefore, not dominate the skyline, but would be subservient to the existing sports facilities at the College." This again refers to (has been cut and pasted from?) the 2011 application where the tennis hall was initially to be 1.835m below the existing, but this became 2.835 in the permitted scheme. Is it any wonder that when the applicants do not know the height of their buildings or which scheme they are referring to, that objectors like us wonder how much thought has been invested in minimising the heights of these buildings? The current proposal has the new sports hall only 0.541m below the existing and all the good things the applicants' consultants are saying in the heritage statement about the previous scheme obviously do not apply to the present one.

With reference to the blocking of the key vista of the Malverns the applicants seem determined to imply that the best views are not from the public realm but from the private and that somehow our stated concern for the Conservation Department identified vista is really a front for protecting views from our upper windows at the rear. Nothing is further from the truth. Our house is on land about 6m higher than the floor of the current sports hall and when we are standing on our upper floors we are more than 6m above ground and can see the Malverns over the level of the existing 12.44m hall. We cannot see the Malverns at all from the two lower floors.

In para 2.6 and plate 5 the applicants also suggest that we have planted substantial hedges to provide privacy from the activities on the sports field, with the subliminal message that with all that greenery in place why are we complaining about floodlights or anything. The truth is that virtually none of the greenery pictured is in our garden, but in no.7 or Christ Church Vicarage garden, and if the greenery and the garages were all removed one would get a fine view of the main entrance to the current sports hall but not a glimpse of any of the hockey pitches or the Malverns. The greenery screens us from Glenlee, the swimming pool and existing sports hall but not the hockey pitches or squash courts.

From the high point of the pavement in Christ Church Road, in the public realm, one sees more of the Malverns than one sees as one walks down the private car park towards the astroturf pitch. Moreover the arrangement of squash courts, tree line and Malverns, as viewed from Christ

Church Road, is everywhere much as seen in plate 6 i.e. squash courts seen just below a line of trees with the Malverns seen above the tree line. Removing the squash courts does not allow one to see any more of the Malverns, it removes a blot on the foreground below the tree line. In that sense removing the squash courts improves the vista, but only as long as an overhigh building is not put there to block the whole view.

The applicants' consultants' report includes "There is no question that the access road from Christ Church provides an important view of the distant Malverns from the pavement..." and "However, even if it is accepted that the Christ Church access road view towards the Malvern hills is not the most significant across the site, it is still incumbent on the applicant to mitigate any impact on that view by a sensitive siting of the proposed new buildings". If only the applicants would follow this part of their consultants' advice when considering the present application.

The consultants base their conclusion that floodlighting the astroturf pitch would have little impact on the character or appearance of the conservation area on the grounds that the sports centre complex is already very well lit at night and in a well-used town centre location. I cannot believe that the consultants have visited the area behind our houses at night, hardly typical of a town centre, or seen the measurements made by the applicants' lighting consultant, who concluded our outlook was one of low brightness. I suggest the consultants' conclusion about the floodlights should be ignored.

The additional information provided since our original objection reinforces our opposition to the whole idea of floodlighting and at the same time does nothing to convince us that the applicants have really applied their minds to preserving a key vista by minimising the height of the proposed sports hall, since they still seem to be discussing the 2011 application. As before we urge you to reject the current application for a 12m hall and invite an application for a significantly lower hall which does not unnecessarily block the public's views of the Malverns.

Comments: 19th October 2015

This application will be considered at your meeting next Thursday, with the recommendation to permit. It covers floodlighting of an existing astroturf hockey pitch right behind our houses and a new sports hall adjacent to an existing one. We strongly object to the floodlighting proposals and urge you to vote against them. In the spirit of the National Planning Policy Framework, which makes clear that planning should not be just about scrutiny but also be a creative exercise, we offer an alternative proposal which delivers much of what the applicants want without floodlighting the astroturf pitch.

We have no objection in principle to a new sports hall but object to its unnecessary 12 m height.

We have participated fully in the consultation process and submitted our objections which can be found on the planning website. However there is an awful lot to go through and wish to draw your attention to some key points.

Lighting levels falling on our houses

It is agreed that the rear of our houses fall into the Institution of Lighting Professionals zone E2 where light intrusion into windows should not exceed 5 lux, and indeed the planning officers propose to include a condition to that effect. The applicants have produced computer generated plots which show 2 lux produced by their floodlights close to our houses, making about 2.5 lux when added to existing background illumination. However it is vital to recognise that these computer plots only represent light coming directly in a straight line from the luminaires to the pitch or our houses on a clear day. It should be noted that light can also get from the luminaires to our houses via reflection from the pitch or via scattering by mist or rain. These effects are often ignored but should not be when floodlights are very close to houses, as is the case here.

One resident from Hatherley Road has reported on the planning website that in wet or misty weather there is a lot more light spilled from the Dean Close floodlights lights onto nearby properties. We can confirm this, having both seen the effect and made measurements. At the

same spot the floodlights produced 1.3lux on a clear day, 1.8lux on a day with light rain and 5.4lux on a misty but hockey playable day. If 1.3lux can become 5.4lux then 2.5lux in Christ Church Road can clearly become a lot more than the 5lux light intrusion limit. Indeed because the houses are only 27 metres from the floodlights in Christ Church Road, as opposed to the 70 metres in the Hatherley Road measurements, we believe, for good scientific reasons, that the effects of mist and rain will be very much higher in Christ Church Road, probably about 5 times higher, giving >5lux in rain and even 20lux on misty days.

In contrast the applicant's lighting consultant has stated that "light can be scattered by mist and rain but there is not a significant increase in spill light". The evidence from Hatherley Road is that this is simply not true. Given that light levels on our houses will exceed 5lux some of the time we urge you to vote against the floodlights. At the very least CBC should get independent advice before deciding this application and not just accept the applicant's consultant's assertions.

It is also noteworthy that in the Dean Close application for floodlights, 2lux falling in the garden of 133 Hatherley Road was considered by the independent lighting consultant to be a possible source of complaint and merited special mention in the decision notice. In Christ Church Road one neighbour has up to 50lux in the garden.

An alternative to floodlighting the "old" astroturf pitch

While the application concentrates on hockey, the Principal has now made clear in her justification statement that the drive to floodlight the old astro comes from the rejection of an earlier application to floodlight three tennis courts at the Well Place tennis and netball centre. She has tennis and netball at the top of her list for floodlit activities, which would free up indoor space for badminton, trampolining, volleyball and basketball.

It would be possible to fit in three floodlit tennis courts, as per Well Place appeal, between the proposed multi-sports hall and the existing "new" floodlit astro in more or less the same location as the floodlit courts permitted under a now lapsed earlier planning application. During consultation it was made clear there are problems with the lighting of the existing and underused "new" astro. These should be fixed, rather than insist on floodlighting the old astro for hockey.

Taken together these steps would deliver a large fraction of the Principal's objectives in a more sustainable way, since the tennis/netball courts could be lit to LTA and match netball standards, not to the much lower standards proposed for the "old" astro.

Multi-sports/tennis hall

We sympathize with the Principal's desire to promote health and fitness by introducing a wider range of activities in a second sports hall. The only question is how high does this hall need to be and hence does it need to block a key vista of the Malverns identified in the Lansdown character area appraisal.

All of the new activities could be fitted in a hall with 7.5 m internal clearance. The only exception is tennis, where the architects had a target of 10.67m at the centreline, but the real requirement is 9.0m. Only one "optional" tennis court is required in one of the two halls, but the applicants have chosen to put it in the new hall. However the existing hall has been used for tennis for 24 years and could accommodate the one tennis court.

With tennis in the existing hall the internal height requirement for the new hall would be 7.5m. Currently the proposed height of the new hall is 12m. It must be possible to reduce this significantly and deliver a good looking hall which meets all the applicant's requirements without blocking the view of the Malverns. We urge you to support that approach, which is also advocated by the CBC landscape architect.

Thank you for your attention,

Comments: 27th September 2015

My wife and I object to the whole idea of floodlighting the astro pitch immediately behind our house, not least because of the excessive light levels which will fall on our and our neighbours' houses and gardens. We also believe that the proposed multi-sports hall is significantly higher than its intended use requires, and thus quite unnecessarily blocks a key public view of the Malverns from the pavement in Christ Church Road. We would have no objection to a lower height hall which did not obstruct the view.

We initially objected via a letter dated 03 August and added further comments on 19 August, following a letter to us from Ms Crews, Head of Planning. We have now received another letter from Ms Crews dated 17 September inviting comments on the 22 additional documents added since 19 August. These include responses to our earlier objections, further justification of the entire project and numerous new drawings. In commenting on these we should like to emphasize that we have engaged in the consultation process from the beginning but it is only now that all details are publicly available.

FLOODLIGHTS

We note the response to our earlier objections in "Response to reps " (RTR) posted on the website on 14 September and the Principal's justification of the need for floodlights in the Additional info justification statement (AIJS) posted on 17 September. The lighting impact study presented by the applicants concentrated on training and match standard hockey. However the Principal, in the section "Rationale: floodlighting old astro pitch" in AIJS lists tennis and netball, and their knock-on effects on indoor badminton, trampolining, volleyball and basketball, before hockey as the key drivers of the need for floodlights. She relates this to the refusal of planning permission for floodlights for tennis and netball at Well Place in 2009.

We will first discuss the responses to our earlier objections and then the Principal's AIJS.

Our contention is that the applicants have underlit the pitch in order to shoehorn in a floodlighting scheme within 27m of the nearest kitchen window.. The applicants now state in RTR item 5 that the target maintained level will be 300 lux since this meets minimum requirements set out in a 2007 British standard and in the 2011 international hockey federation guidance. However we would point out that the Sport England guidance is dated November 2012 and this includes the statement (p7) "The level of illumination that is appropriate for a particular sport should be checked with the requirements of the National Governing Body (NGB)The CIBSE Lighting Guide 4 2006 and BS EN 12193:2007 give general recommendations for the range of lighting standards. However, it should be noted that in some cases, these differ from the requirements of the NGBs requirements (sic) as noted in Appendices 3 and 4." This clearly indicates that it is English NGB requirements that should be followed. These are higher than 300lux for both hockey and tennis, as noted in our original objection. For hockey the Sport England guidance also notes on p56 "England Hockey recommendations refer to the previous version of the FIH guidelines and are unchanged", thus confirming that England Hockey is sticking with the 2007 FIH recommendations, which the consultant describes as "obsolete".

We also note that the applicants have not responded to our point that the lighting fails to meet the uniformity standard of min/max >0.5. In addition it is still the case that no estimates of the horizontal illumination in our gardens have been provided.

The lighting consultant dismisses my suggestion, made as an ex-hockey player with some experience of playing under floodlights, that the asymmetric lighting of the pitch could add to problems. He notes (RTR item 5) major televised events are often asymmetrically lit. However the lighting and uniformity levels for these TV events are much higher, e.g. for hockey 800-3000lux and min/max>0.65. My suggestion would still be that when one is playing on a dimmed down unevenly lit pitch the asymmetric nature of the illumination is an additional factor which will make play more hazardous, since the asymmetric nature of the shadowing will make for even more uneven illumination. I note the consultant gives no examples of match hockey on 300 or 330lux asymmetrically lit pitches.

Given that the lighting consultant cannot predict how much light is scattered by rain and mist he is naturally keen to throw doubt on my results (RTR item 5). I can simply confirm that I have honestly and conscientiously tried my best to record the effects of rain and mist on the amount of light from the Dean Close floodlights reaching Hatherley Road. I do not regard a light meter as a particularly difficult instrument to use and values did not change when measurements were repeated. The effect of mist is very obvious to the naked eye and one can see that the increased light is coming from the floodlights and has nothing to do with the differently coloured street lights. These were above and behind me for all measurements, including the 0.2lux recorded pointing towards the floodlights on a clear night after the floodlights went off. With respect to my attempts to estimate reflected light I have at least spelled out very clearly at the start of my appendix 2 the assumptions I have made, including the properties of the reflective surface. In contrast the consultant tells us what software he has used but says nothing about the assumptions built into it.

The drawing Revised floodlights 15m (RF15) posted on 10 September shows clearly how the extended floodlights tower over 15 Christ Church Road and confirms that the masts are only 27m from that house. While I accept that the trees and foliage mentioned by the consultant (last point under spill light, RTR item 5) may affect light reflected from the pitch onto the lower parts of 15 Christ Church Road the geometry of the situation is such that direct light beaming down from the luminaires and light diverted by scattering will be affected by foliage to only a very minor extent. I continue to believe that light levels falling onto our houses and gardens will be unacceptable, and that given how very close the luminaires are to our houses it would be most unwise to ignore the effects of scattering by rain and mist. What will the applicants do when light levels on adjacent houses exceed 5lux?

Turning to the curfew hours the agent states in RTR item 11 that "Your authority determined the last application for this site on the basis of the aforementioned curfew times. Not as per the much more restrictive curfew times now proposed" I disagree with this, stand by the points in my original objection and assert that the last application had similar curfew hours to the current application

The "aforementioned curfew times" are quoted as 20.30 Mon-Fri 20.00 Sat and 19.00 Sundays. The agent seems to base his comments entirely on the appeal inspector's decision letter. However it is important to note that the appeal, dated 21 Dec 95 and determined 24 Jun 96, concerned application CB/12205/14, which Cheltenham BC ("Your authority") had refused on 22 Jun 95. While the appeal was underway the College put in another application CB/12205/16 on 21 Feb 96 which was refused on 21 Mar 96. So CB/12205/16 is the last application for floodlights on the old astro and the question is, what curfew hours were involved?

The inspector was concerned with CB/12205/14 and there is no mention anywhere in his letter of CB/12205/16. The agent may have misconstrued para 8 of the inspector's letter which states that CB/12205/14 sought 22.00 Mon-Fri, 20.00 Sat and 19.00 Sun but "I note that your clients subsequently reduced the period on Mondays to Fridays to 20.30 hours". This reduction refers to something which was offered before CB/12205/14 was refused by Cheltenham, not to CB/12205/16. This is made crystal clear in the statement of appeal submitted to the inspector in Dec 95 which was made available to the public at the time, and which the Ladies College presumably also has. Para 4.1 includes "The College stated on 21st June 1995 that they would...limit its use to girls only and...accept time limits on its usage. The application suggested 10pm Mon-Fri, 8pm Sat and 7pm Sun. These times were subsequently reduced to 8.30pm weekdays. We will however be submitting a new planning application in parallel with this appeal with a suggested "cut off" time of 6.45"

The new application could only be CB/12205/16. The inspector was thus aware of the College's intention but did not mention it in any letter. I therefore stand by the point made in para 2.1 of my original objection that CB/12205/16, and reason 3 in the decision notice relating to noise, had similar curfew hours to the current application and the same "girls only" users.

Turning to the Principal's interesting additional statement (AIJS) we note the swing away from team sports to other less traditional activities and hence the need for the multi-sports hall. She mentions tennis, netball, hockey and lacrosse as potentially benefiting from floodlighting the old astro pitch and notes the health and safety risks associated with playing lacrosse and hockey in poor light. In that context it remains very surprising to us that the college is specifying light levels which are dimmer than England hockey and Dean Close require for the game, are less than LTA minimum recommendations for tennis and do not meet the requirements for match netball. We cannot find the requirements for lacrosse either via Sport England or English Lacrosse but would be very surprised if those for hockey were adequate, not least because hockey only specifies pitch illumination and does not specify illumination of balls in the air. There is no mention of lacrosse in the application anywhere.

What does emerge from the Principal's statement (AIJS) is that top of the list of her priorities are tennis and netball. Her mention of Well Place is consistent with the message we received at the first consultation that the College had canvassed new residents backing onto Well Place courts as to whether a new application for floodlights might be acceptable, but when rebuffed the College turned its attention to the old astro and hence the current application.

The National Planning Policy Framework (NPPF) is much quoted by the agent. One of its themes is that planning is not just about scrutiny but should also be creative exercise. With that in mind I would point out that the Superseded proposed site plan (SPSP) posted on 10 July showed the green area between the netball court and the "new" astro as "area reserved for future tennis courts or extended parking". I suggest that, if combined with the outside space now allotted to one netball court, this area could accommodate three tennis courts, and at least two netball courts. Given that this location is more or less the same as that where the 1998 CB/12205/18 permitted three floodlit tennis courts I would assume that, subject to screening and curfew, permission for floodlighting would be forthcoming, thus matching the three tennis courts which were the subject of the Well Place appeal. I suggest this would be a more future proof and thus more sustainable solution to the tennis/netball concerns of the Principal than playing on a dimmed down "old " astro", since lighting to LTA standards and match netball would be possible. At the same time this would also allow more badminton/trampolining/volleyball/basketball indoors.

We therefore continue to urge Cheltenham planning authorities to reject the current application for floodlights on the "old astro" while at the same time suggesting an alternative approach which would deliver the Principal's top priorities.

MULTI-SPORTS HALL

With respect to the proposed multi-sports hall which is to be added to the existing 1991 sports hall, the stated internal height requirements are 7.5m overall with a higher clearance over the centreline for tennis. The architects had 10.67m as the target for this clearance. In his response to reps (RTR) posted on the website on 14 September the agent points out (item 3) this is the international requirement but goes on to accept that the real requirement is the British Lawn Tennis i.e. LTA 9.00m clearance, which the building meets. The whole scheme only calls for one indoor tennis court, which is described by the architects as optional and does not even get a mention in the long list of activities which the Principal describes when justifying the new hall in the section "CURRENT PROBLEMS/CHALLENGES WHICH WILL BE ADDRESSED:" in the Additional info justification statement (AIJS) posted on 17 September.

Our contention is that this one tennis court could be accommodated in the existing 1991 hall, so allowing the height requirement in the new hall to be 7.5m overall, including at the centreline. This should then allow a revised design for the new hall with a lower overall height which would not block the view of the Malverns. We accept that the view is a minor feature of the conservation area brought to our attention by the Lansdown area character appraisal but do not see why it should be blocked unnecessarily.

In his RTR item 8 the agent states the existing hall does not have 9.0m clearance and thus could not house an LTA compliant court. We challenge this assertion. The existing hall was the subject

of planning application CB/12205/07. Unfortunately the microfiched drawings now available for public inspection include floor plans but not sections, so I cannot confirm the exact internal height of the hall. However the original floor plans show the 1991 hall marked out for tennis, as indeed it still is today, with the lines in yellow. So this hall was designed for tennis and has been marked up and available for tennis for 24 years, presumably to the satisfaction of the College. It is very difficult to believe that it has suddenly become unsuitable.

In our original objection it was noted that there are no structural members below eaves height i.e. 8.95m above the floor. The members appear to be slightly higher than that and as I suggest at 9.00m or more. They run parallel to the centreline. The 9.00m requirement only relates to the height at the centreline which does not have to be immediately under a structural member. If, despite the 24 years of use, the College wishes to argue that this hall is now unsuitable for tennis, please will the Planning Officer ask the agent to produce the original drawings of the hall, showing heights, for public inspection.

In RTR item 4 the agent rows back from his clear message in para 4.21 of the original planning statement that "the highest clearance overall is that required for tennis, this determines the maximum height of the building", and suggests that somehow any roof lower than the current one has to be uninspiring. However if one replaces the centreline target height of 10.67m with a target of 7.5m it must be possible for an architect and structural engineer to come up with a lower roofed building that is attractive.

Our aim in advocating a lower roofed building is to retain as much as possible of the current view of the Malverns from the pavement in Christ Church Road. The images in the new Key view 1 etc (KV123) posted on 10 September again do not do justice to the views from the pavement. However comparison of the existing vs proposed views brings home the height of the new building and the way it blocks the view.

It is a pity that once again the submissions are subtly deceptive. KV123 shows floodlights present in the "extant" scheme when in fact they were no part of that scheme. Indeed one of the mysteries around the current proposals is what has really changed between 2011 and now which makes floodlights desirable?

In the revised heritage statement (RHS) posted on 14 September the applicants again present pictures which suggest that somehow the Malverns are readily visible between nos. 23 and 25 Christ Church Road (plate 6) but they are lost in the mist when viewed via the car park (plates 3 and 4). I would simply point out that the view in plate 6 appears as figure 13 in the Lansdown character appraisal where nevertheless the key vista on the townscape analysis map is that via the car park. In para 2.8 of the RHS the applicants again confirm that it is "incumbent on the applicant to mitigate any impact on that view" i.e. via the car park.

The applicants refer to the National Planning Policy Framework (NPPF) in RTR items 16 and 42-45 and extensively in RHS para 4.1. Looking at the NPPF I do notice one clause not cited by the applicants, namely 132, which contains the sentence "As heritage assets are irreplaceable, any harm or loss should require clear and convincing justification."

Our case is that the view of the Malverns is a small but real heritage asset and that the applicants have neither followed their own consultants advice to mitigate the impact, by minimising the height, nor have they clearly or convincingly demonstrated why a building with a potential internal height requirement of 7.5m needs an external height of 12m. Nothing in the applicants latest additions to the website alters our view that the current application for a 12m hall should be rejected and a new application invited for a Sport England compliant multi-purpose hall which offers 7.5m clearance but does not block the view of the Malverns.

15 Christ Church Road
Cheltenham
Gloucestershire
GL50 2NY

Comments: 17th August 2015

My wife and I reside at the above address, with our 3 children, and wish to strongly object to the planning application for alterations to the CLC sports centre and the proposed floodlighting to the hockey pitch. We have lived at this property for 14 years and provide the following comments on the application and explanation for our objection.

It is understood that the CLC are seeking further planning permission for the extension of the sports centre which differs from the planning permission for the changes proposed in 2011 Ref No 11/01125/FUL & 11/01126/CAC. In addition, there is an application to install 15 metre floodlights to the Astroturf hockey pitch, which is located within metres of the bottom of our garden (see Photograph appendix 1).

Having been given permission to build the extension to the sports centre in 2011, a facility that required a designated height to fulfil the strict regulations for an elite, tennis facility, we now understand that the height of the roof is to be raised further. We note that the original planning application in 2011 had to be resubmitted with a lower height but still managed to fulfil the internal height specification. This new proposal is actually for a roof height even greater than initial rejected plan of 2011. The previous hall whilst still significantly impeding the view from Christ Church Road was thought to still allow the top of the Malvern range to be seen. The new plans for a significantly taller building would result in complete loss of this vista which is deemed a view of local significance. Whilst, in principle we support the upgrading of the centre, we strongly object to the increased height of the structure and do not feel the argument has been made as to why the height need to be greater now.

Despite the expense and work involved (for supporters and objectors) in achieving planning consent 4years ago nothing has happened to the site in the interim. It appears our original concerns (2011) with regard to "the thin end of the wedge " are coming to fruition. Perhaps emboldened by their previous success this further more challenging proposal is being made (Statement from Evans Jones Architects current website - "Case Study: Cheltenham Ladies College Sports Centre "Evans Jones Planning have led the project up to this point achieving Planning Consent in October 2011. As the site is set in a prominent position within a Conservation Area we consider the achievement of a consent first time, without resort to appeal to be a significant achievement.") If planning is granted this time what plans will be proposed in 2019? There are certainly already some additional ideas with regard to the boarding house sitting adjacent to the sports centre.

The school appears to have managed since 2011 without the stated urgent need to increase its provision of indoor space. The independent schools inspectorate gave a glowing report of the school congratulating them on their sporting achievements and availability of extra- curricular activities (Oct 2014).

Despite the stated problems of lack of space for the pupils the commercial gym continues to encourage additional members, classes for members and non-members continue within school hours and access hours to the gym areas for members have not been altered to increase use for the girls.

We understand the need to update facilities, we are very aware of the long term health and wellbeing benefits of sport, the governments aims in increasing involvement in sport and are strong advocates of good sporting provision for all but these must be considered in context. The CLC is not the focus of this government goal, their current provision and pupil involvement are far in excess of what many schools could only hope to attain. The new internal design does appear

to provide a more practical, multipurpose space but with the large internal space allowed for in the original plans the same should be achievable without alteration of external dimensions.

The commercial use of the sports centre after school hours has increased in recent years to the detriment of the previously peaceful local environment. For example a Roller Disco every Friday evening over which the sports centre staff appear to have minimal jurisdiction to control noise levels, circuit training (for members and non-members) particularly in warm weather when doors are opened or the class is moved outside and summer holiday use by visiting foreign schools often with large numbers of unsupervised teenagers hanging around the centre. It is therefore of great concern that with a new expensive sports facility any opportunity to maximise income beyond the usual school curfew will be taken resulting in further disruption.

Demolition of the old squash court and its inclusion in the new building and the aesthetic improvements in the external façade are not opposed.

The proposed installation of floodlights to the Astroturf hockey pitch involves erecting six 15 metre floodlight structures to illuminate the pitch. The proposals outlined are thought to be justified by the need to provide hockey training facilities for the pupils between 15.00hrs and 19.00hrs weekdays (15.00hrs and 20.00hrs Saturday) through winter month term times.

We would suggest that maximising daylight hour pitch usage would be the first most appropriate thing to do. Personal observation notes this is not currently the case. Not only is daylight in wintertime of significant health benefit (seasonal affective disorder, vitamin D production) with the reduced impact of harmful UVA & B effects that occur in summer, it is a far more sustainable approach without the detrimental environmental problems of increased energy consumption and light pollution. Nowhere in the plans does it document a minimum number of people to be using the pitch to allow floodlight use. The adverse environmental impact of the flood lights means switching them on to allow 1 or 2 players to do some training would be negligent.

Whilst trying to extend pitch use it should also be remembered that poor light is only one reason and wind, snow, low temperatures and rain are also factors. The floodlights, therefore, that will be present throughout the year are likely to add significantly fewer playing hours than initial calculations may suggest. With the already accepted sports hall plan (2011) indoor training is suggested as a more predictable and practical solution.

The CLC actually already have a floodlight pitch. Its introduction was also contentious. It is considerably further from any residential property than the new proposed site but still required screening with a large embankment and trees. It appears to have been built to a high specification with spectator seating but remains underused with or without lighting (timetabled use and "lights on" do not constitute actual usage). We have been led to believe that its 12metre tall floodlights are insufficient and illumination of the central pitch is inadequate. Rather than correct this, new plans are to floodlight another pitch with even taller floodlights but one so close (2metres) to residential properties that no screening to limit light spill or noise reduction will be possible. The floodlights when extended will be near the childrens' bedroom windows. Although the lighting engineers calculations imply light falling directly on the windows will be within permitted limits this completely understates the impact of a very brightly lit large area less than 20m from their windows. Very different to the subtle street lamps at the front of the property.

The lighting expert's calculations determine the area to be in an E2 (low distinct brightness) zone with lux readings of 0.26 - 0.55. This is with the existing floodlights on. Should the new floodlighting be allowed the new predicted light levels in our gardens are up to 50 lux, over 100 times the current light level. Does this mean future calculation of this locality's environmental zone would be with the new floodlights on placing it well in excess of the E4 environmental zone?

We are aware of the CLC's previous attempt to install floodlights at the Well Place tennis courts. This was rejected but one point in support of the site was its containment. This is not the case on this hockey pitch. From the drawings submitted by the architects on the 13th August 2015

(proposed floodlight 15 metre height, retracted to 4.5 height and view of proposed floodlights) it is clear that the floodlight whether extended or retracted will be visible from the road at 15 Christ Church Road as it is taller than the intervening garage and in fact all floodlights when extended and in use will be taller than the adjacent 4 storey houses and the sports centre. You will also note that from the sketches a tree has been drawn in suggesting limited impact on the view from the road at 15, Christ Church Road particularly when retracted. However, from the actual site photographs below the drawings clearly no such tree exists. Should this uncontained floodlighting be allowed the character of this area will be changed forever. The warm glow of the subtle lighting of Christ Church's facade and the soft street lighting will be lost and completely at odds with the overwhelming bright white rectangle immediately behind the houses. This light will be visible from a considerable distance and accentuated by the surrounding low level of lighting. The lights when on will be easily visible from Christ Church Rd, Douro Rd, Lansdown Crescent, Malvern Rd, Wendover Gardens and Eldorado Crescent. They will also be taller than the proposed new sports hall and possibly will be visible from Gloucester Road. Their presence will dominate the evening winter landscape and severely and adversely affect the whole feel of this conservation area.

There are also road safety concerns - a motorist approaching Christ Church Road from Douro Road will be faced with bright floodlights interspersed by much darker house frontages making appreciation of other road users, particularly cyclists and pedestrians at night or in twilight far more difficult to appreciate when in the shadow of a building. The eye adapts preferentially and quickly to a bright light making shadow more intense. Also, as mentioned in our 2011 objections despite a fire engine managing to park in the car park by the current tennis courts adjacent to the sports centre visiting team coaches never do but use Christ Church Road. Pedestrian access to this car park from the hockey pitch would also be limited by the new sports hall making Christ Church Road coach parking inevitable. The coaches are often parked illegally close to junctions or blocking driveways, leave their engines running and several are often parked at a time. This poses significant danger at any time of day but on a dark evening would be an even more significant threat.

It should also be noted that once floodlights are in place they could be used on any occasion between the allowed hours. Whilst hockey is documented as the main reason for extended pitch usage tennis has also been discussed at pre-planning meetings. It is therefore quite likely that it is not just winter months when the floodlights may be used but on many dull summer and spring days. It is therefore likely there will be many occasions when they are switched on at a time when curtains in our houses are open or we are using our gardens.

The effect of the new proposed sports hall will also provide at further surface to reflect light towards the opposite boundary. Should the estimated light levels be an under estimation will local residents have any recourse to have the floodlights removed? In addition, the next planning proposal would no doubt be to extend the floodlight hours to allow commercial use for non-school teams and provide a further revenue stream as already happens with the sports centre.

Any use of a hockey pitch brings with it a considerable amount of noise. It is proposed that matches will be played which will create a significant increase in the noise levels of the usual hockey practise from players and supporters. This will be at a time when our family will be trying to eat, converse and relax after a busy day. Combine this with the glare of the floodlights because the kitchen blind is usually open until after sunset, and our pleasant evening is going to be shattered.

We are privileged to live in such a location. The CLC are a valued local school and business which has done much to ensure the continued success of the town and have contributed to improving the local environment with refurbishment and improvement of several notable local buildings. However, it is a symbiotic relationship and the school is advantaged by its location in a pleasant residential area and this should be preserved. We cannot support the current proposals of floodlighting and a much taller sports hall and conclude the above proposal will lead to a significant loss of local amenity (defined as "the pleasant or normally satisfactory aspects of the

location"). We find it especially difficult to understand how it could be considered acceptable to floodlight a site with no containment, in a conservation area, within metres of residential properties and in clear view of many road at multiple points when a more sensible and economic approach would be to upgrade the lights for the existing floodlit pitch, which exists, and affords some protection from the light.

Appendix 1

View from kitchen/dining room indicating how close the pitch and hence floodlight area will be. The floodlights when up and lit will be taller than the roof of the house!

Comments: 1st October 2015

We have been asked to submit further comments on the additional drawings and documents submitted for the above application. We wish to make it known that all our original objections, comments and submissions still stand. We fully understand and support the objections raised by our neighbours and will try to raise further points whilst avoiding excessive repetition.

There have been a significant number of new or updated documents uploaded which we have considered and will address individually.

1. Additional info Justification Statement

Maintaining the special character of the area should be as important to the school as it is for local residents. It is therefore disappointing that this statement makes no reference to demonstrate an understanding or empathy towards the views of the local community on whom this project will impact greatly. We are sorry the school were unable to consider some concessions or generate more constructive, amiable dialogue with local residents.

The future aspirations of the school are clear but the document does not provide specific detail with regard to use of the sporting facilities only generalisations. We have no issue with the improvement of indoor facilities but only ask these are restricted to the previously approved external dimensions. With regard to floodlighting, over the last month, despite good light in the afternoons and evenings use of the pitches has been very limited which does not support the justification for provision of 2 floodlit pitches.

We can appreciate that 'sport in blocks' is more time efficient but mornings should also be considered as potential blocks for obvious daylight reasons. We assume involvement in the sporting sessions timetabled up to around 4.30pm is mandatory but after this participation may be encouraged but is optional. At this time sports of the girls own choosing are more likely to be pursued and as documented by the Principal, the CLC survey shows a move away from team sports, in keeping with similar findings by Sport England to those that would be provided by the sports hall further reducing demand on the pitches in the late afternoons and early evenings.

Whilst we have been led to believe hockey has been the main rational for floodlighting the older pitch but this statement lists multiple sports - tennis, netball, lacrosse, football, hockey, cross country training further demonstrating the lack a clear plan or need for its intended use. As we have learned during this planning process, floodlighting requirements vary widely between sports and cannot believe a second inappropriately lit pitch should be approved. There is still no mention of improving and optimising use of the current floodlit pitch.

The occurrence of wet or frozen pitches is correctly used to support the argument for increased provision of indoor facilities but at the same time reduces the justification for floodlighting.

The Principal expressed concern that her pupils may be considered or feel like "second class citizens" due to the lack of facilities. We consider this comment inappropriate and doubt any residents in Cheltenham would regard the CLC pupils as such.

2. Response to reps

We will respond to the specific responses to our initial stated concerns (now labelled as points 47 - 59)

47 - The decision is between complete loss or restriction of an agreed locally significant view. Economic gains if any for the school of a higher roof versus a lower roof cannot be calculated now and are unlikely ever to be. Its social role can only be for the members of the school not the community at large and again how does roof height influence this? Any perceived difference in this between the new and the original plan is unquantifiable. We also question the "environmental role" of such a building compared to the originally agreed plans.

48 - No statements of restricted further development on the site are given in the justification document.

49 - 50 - We still maintain, through personal observation, that the hockey pitches remain chronically under-utilised despite all the timetabling and match practice issues the school report to have and that floodlighting an additional pitch cannot be justified.

51 - Noise reduction will be a relief but we beg to differ with the statement "outside commercial interests are not a concern to this project". There is no reassurance that future commercial activities in the hall or on the pitches will not be offered.

52 - We still await suggestions on a minimum number of people required to be using the pitch in order to warrant floodlight use. When insufficient people or no-one is present lights should be off and retracted.

53 - the quoted document and the lighting consultants comments do not address the concerns of having a 15 metre floodlight adjacent to our garden boundary and the sense of loss of privacy. The Clean Neighbourhoods and Environment Act 2005 clearly defines light intrusion as a nuisance to be protected against, it does not require specific lux or luminance to be reached merely that if normal living patterns or activities are altered or affected by light spillage it should be considered a nuisance. We would also ask that if the floodlights at anytime exceed the stated legal maximum for light spill on domestic residences that they would have to be switched off immediately.

54 & 55 - Diagrams have been updated and demonstrate the absence of any screening trees at the bottom of our garden. We also submit that a wall of less than 2m is dwarfed by an adjacent 15m floodlight and provides no useful restriction of light spill. No comment or consideration of the impact of 3 floodlights that have no screening of any sort and will be very visible from Christ Church Road between houses 11 & 15 has been made. This will result in considerable loss of amenity and cannot be considered to be of low or no impact.

56 - We have major concerns about the road safety. The fact that the Evans Jones are not aware of road traffic accidents caused by floodlights is of no reassurance. We live opposite the junction of Douro and Christ Church Roads and regularly hear screeches of breaks and horns going as cars try to pull out of the junction. Cyclists have been knocked over, whom we have assisted, and thankfully no one has been severely injured yet. The eye's adaption to areas of brightness accentuates shadow making cyclists and pedestrians in these areas even less visible. The floodlights will be on during rush hour, at twilight and in damp/misty weather and will make this junction even more treacherous. That fact that nobody has been seriously injured in recent times does not make it acceptable to ignore the potential risk.

57 - We strongly disagree with the statement that the use of the floodlights in the summer, if dull weather, would not have any impact on local residents. We are most likely to be outside at this time of year. We would request restriction of use also to based around British Summer Time in addition to the curfew hours proposed.

59 - Use will certainly be varied according to the Justification document, which describes multiple sports that could be using the pitch. Noise will remain an issue, shouting, screaming, whistles and horns are not reduced by backboard padding.

3. Revised Heritage Plan

We disagree with a number of points in this report.

5.3 The statement "the feeling of spaciousness would be little altered by the proposal" - in a north south direction this may be the case but it cannot be said of the impact from the east west direction when the scale of the building will have a huge impact restricting the vista in an abrupt and very dominating fashion. Whilst the current squash courts are not pleasing to look they have a minimal impact compared to that of the proposed new building.

5.6 - Whilst there is some concealment, with the trees in leaf, the planned use of the floodlights will be in winter when the deciduous trees are without leaves meaning there will be a considerable impact from the floodlights. This also does not address the view of at least 3 floodlights which would be visible from Christ Church Road with no tree of any sort to act as a screen between house numbers 11 & 15.

5.7 - The new building will not be subservient to the old building particularly when viewed from the east as clearly demonstrated in the proposed site drawings 7554/SK0101 and SK029. The roof will be virtually as high as the existing roof and the claim that the view is already blocked by the current trees again is not relevant as they are deciduous and therefore do not block the view in winter.

5.19 - We disagree that the proposed floodlights would have a low impact. The current floodlights are shielded by a large planted bank and are considerably further from neighbouring houses. The other existing lighting is restricted to a few very low level lamps and wall lights. We also refer the light consultant's grading of the area as E2, low distinct brightness and as several of the consultees have stated the true impact of the floodlights cannot be usefully assessed with the current provision of information.

This revised report is clearly at odds with the landscape architects comments from the 14/08/2015. Consideration should also be given to the fact that hedges can be pruned to reinstate views, however, buildings cannot.

We would also draw attention to the statements in the Lansdown Character Area Appraisal and Management Plan July 2008 which asks for the control of new development and particularly mentions the "negative impacts of the presence of equipment or installations on or around buildings, such as large aerials or satellite dishes" and in action LD3 advise the use any planning powers to ensure that equipment or installations are installed away from public spaces and views, so as not to detract from views.

4. Revised drawings

There remain several inaccuracies in the drawings.

In diagrams 7554/SK065 and SK066 the cross sectional view through No. 15 is incorrect - what appears to be a wall is drawn significantly taller in relation to the house than is the case and the ground level and direction of slope are incorrect across the whole house and garden.

The ground contours at the floodlight footing is also incorrect and it is therefore still unclear exactly where the floodlight would be placed in relation to our rear boundary and the subsequent course of the path between the hedge and hockey pitch.

The floodlight posts are always drawn as thin poles in every diagram but are telescopic masts of increasing girth towards their base and their actual width is difficult to appreciate from these drawings.

There is still no photograph, diagram or drawing of the view from Christ Church Road between houses 11 & 15. Here at least 3 floodlights will be visible without any screening. The impact on the local amenity has not been adequately documented or even considered, a considerable amount of light will be visible between numbers 11 and 15 Christ Church Road in addition to the 3 flood light masts.

Conclusion

The Cheltenham Ladies College obviously have many paid professionals helping them with these proposals. We hope the elected council members involved with this application consider they act as our representatives. We request our comments are regarded with equal importance despite our lack of formal training in these matters. The proposals will have considerable negative impact on our privacy, immediate environment and local amenity, not that of the architects, heritage or lighting consultants who do not live in the vicinity of the planned development. If any of our arguments or statements are unclear or if we can provide any more information that would help inform your decision, please do not hesitate to contact us.

130 Hatherley Road
Cheltenham
Gloucestershire
GL51 3PN

Comments: 24th September 2015

I have seen that there is a planning application to re-construct sports facilities at Cheltenham Ladies College, and in particular, there is a proposal for a flood-lighting the hockey-field.

I do not live near the proposed facility and have no particular axe to grind. But there is a debate between objectors to the plan and the lighting consultants supporting it, about the effect of mist and rain on light spillage on to adjoining properties. This makes reference to the experience of Hatherley Road residents who are affected by the floodlights of the similar installation at Dean Close School. I am one of these residents, and have comments to make.

There is no doubt that the presence of mist or fog increases light spillage on to our properties very considerably, and would presumably also do so also at the CLC installation, where the proposed lights seem to be closer to the houses than we suffer in Hatherley Rd. One of the objectors has taken measurements that quantify this. In response, the lighting consultant has raised a number of technical queries, but it is obvious that the general conclusion is true. In misty weather, when the floodlights go on, there is a wall of light on the hockey pitch opposite our house.

One of the queries raised by the lighting consultant was to what extent the increased light comes from scattering of the street lighting by the mist, as opposed to the floodlights. I can't put a figure on this, and don't think anyone has taken measurements, but the reply is obvious to us - a lot of the extra light is coming from the floodlights. Actually living here, we see the effect of the floodlights coming on, and we see the reduction in spillage on to our property when the lights go off. It is very noticeable.

The consultant says that in his experience light can be scattered by mist and rain, but there is not a significant increase in spill light, 'though there might be an increase in perceived spill light'. I'm afraid I don't understand the difference between scattered, spilled, and perceived spilled light. All I can say is that we get a lot more light on to our frontage from the floodlights opposite when the weather is misty than when it is dry.

A curious comment made by the lighting consultant is that the increase in perceived spill light is caused by illumination of the water droplets around the lights, "however, light is dissipated in all directions." Of course it is dissipated in all directions, that is exactly the problem. On a dry day,

the floodlight design contains most of the light and directs it down on to the pitch; but in the mist, light is scattered in all directions, with an increased proportion of it landing on the surrounding house frontages.

In summary, although the lighting consultant claims that in his experience, wet or misty weather does not greatly affect the amount of light that spills on to nearby buildings, the experience of those who actually live near such an installation is that it does indeed affect it, a lot.

17, Christ Church Road
Cheltenham
GL50 2NY

9th August 2015

Mr E Baker
Senior Planning Officer
Built Environment Division
Municipal Offices
The Promenade
Cheltenham GL50 1PP

Dear Mr Baker

Re: Planning proposal 15/01171/ful

We are grateful to the Planning Committee for considering our grave concerns regarding the proposed redevelopment of the Cheltenham Ladies' College (CLC) sports facilities.

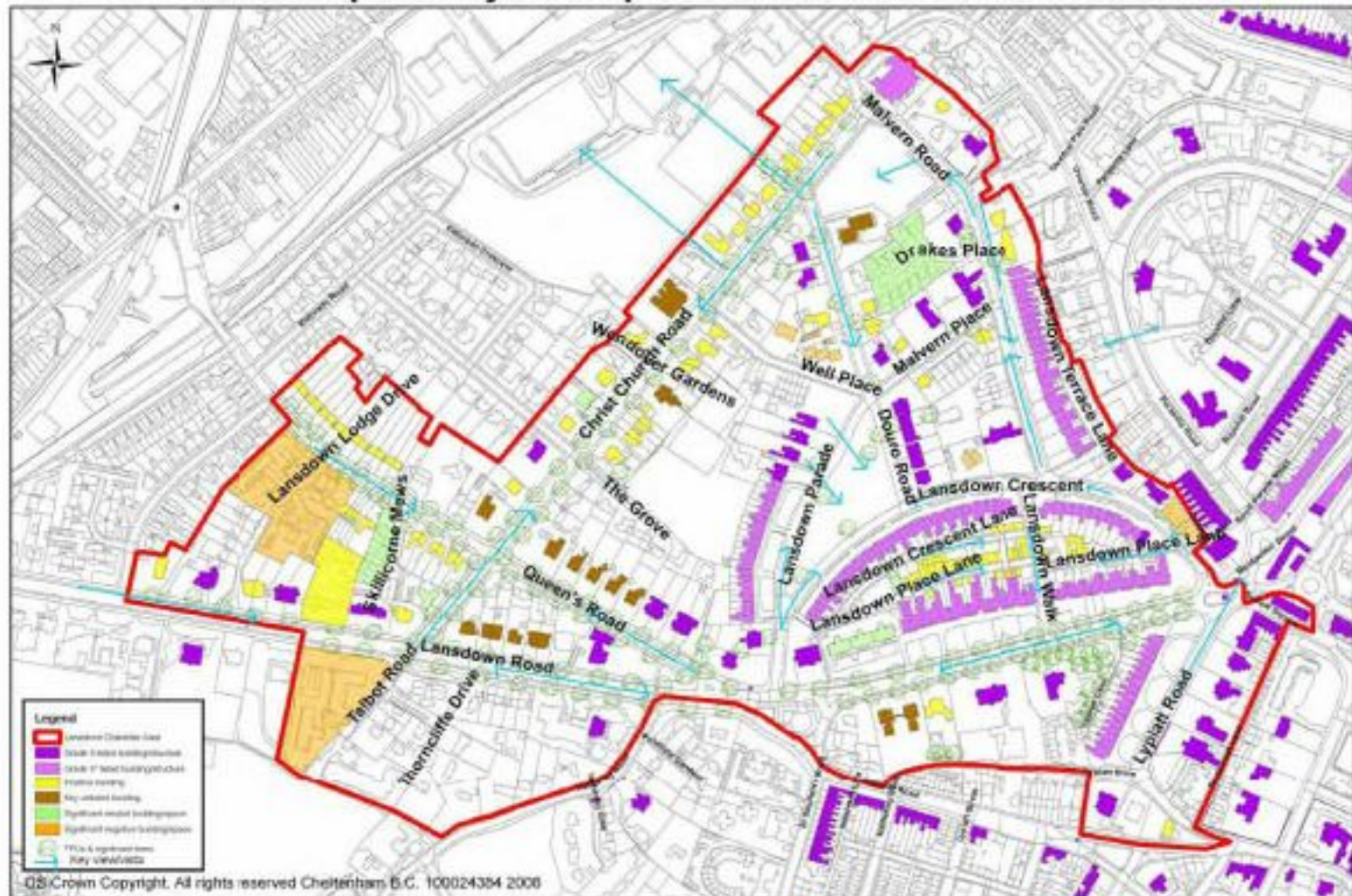
Our observations on the proposal are:

The adverse impact on the Conservation Area

1. Lansdown is a Conservation Area as described within the Planning (Listed Buildings and Conservation Areas) Act (1990) as well as current Government policy that is set out in Planning Policy Guidance 15 (PPG15). This legal protection encourages that the best features of the Conservation Area are preserved and that new buildings and street works are designed to maintain or enhance the area's amenities. Development should not cause any decline in the amenity value of the area.
2. The views from Christchurch Road that are marked in pale blue on the map below, are definitely identified as *key view vistas* (Local Development Plan Character Area Appraisal 2008: 1). If the sports hall is extended in length and height, one of these views from the

public highway that runs through the CLC school carpark, on through the sports field and onto the Malvern Hills in the distance, will be entirely obscured. An irrevocable harm for all those who work and live within the area.

Townscape Analysis Map of Lansdown Character Area



As noted in the Lansdown character appraisal and management plan report (2008:15) “Glimpses of the Malvern Hills are displayed in spaces between buildings and trees along Christ Church Road, particularly visible across the low-lying Ladies’ College playing field. These views are important in establishing a rural connection and providing enclosure” (2008:15). The unnecessary (see below) enlargement of the sports hall and erection of floodlight pylons will obliterate the cohesion and balance that currently exists between the urban environment and an ancient landscape by imposing an industrial atmosphere.

3. The exceptionally close proximity of the floodlights to the houses and homes of this residential area will materially affect the nature of the community. The residential part of the community will be subsumed by the modernist school building.
4. The views identified on the Townscape Analysis Map are specifically emphasised as important to the character of the Conservation Area; the plan (2008: 16; 23) clearly states that vistas such as these “are important in offering an attractive setting for surrounding

buildings, enhancing the character and appearance of Lansdown and providing important open spaces within a built-up area”...and the... “...occurrence of public and privately owned trees and green spaces in the area greatly enhances its setting, character and appearance. Such spaces need to be well maintained and protected”.

5. Further, the Plan emphasises that best practice for Council is to ensure that all developments respect important views and preserve or enhance Lansdown area’s character: installations (such as floodlights) must be positioned away from public view or prominent positions. Clearly, flood lights will not enhance Lansdown’s conservation identity and run directly counter to the spirit of the Plan.

Sports Hall Development and floodlighting the pitch adjacent to our home

1. We understand the wish for CLC to improve its facilities so as to maintain its commercial viability that attracts considerable economic benefit to the town. We also recognise that the school has a duty to nurture the health and well-being of its students. However, it would seem fair that these duties should be exercised with due regard to the health and well-being of its immediate neighbours and the local community. So, although we find the prospect and design of the new sports hall to be unattractive and incompatible with the vision and objectives of the Cheltenham Plan (2013) and the Conservation Area Local development framework for Lansdown Area (2008), we acknowledge – with great regret – a potential need for CLC to redevelop the sports hall. We would simply ask that the planning committee considers the overall height of the facility so that it is no higher, for its proposed activities, than is recommended by Sport England.
2. The additional proposal to floodlight the hockey pitch immediately adjacent to our home is very distressing. It is impossible to understand the need for the extension of use of this pitch when there is an already a functioning floodlit pitch that is not used for significant periods of time, even during daylight hours, throughout the year.
3. We note that the new proposed floodlighting of the pitch is in an asymmetric layout, presumably, due to the manipulation needed to theoretically achieve the lighting levels that would barely comply with pollution regulations. By necessity this will provide an

uneven illumination of the playing surface. This is inherently dangerous for those playing high-speed games such as hockey, and will increase the risk of serious injury.

4. The proposal makes no reference to the traffic that will result from the extension of the sports hall and floodlighting of the pitches. The car park on Christchurch Road is already heavily used by CLC Sports Centre members and Airthrie school parents. Furthermore, the road itself is regularly used by visiting teams to park their coaches. Often, the coaches' engines are left running and we have to ask that they are switched off to reduce noise and exhaust pollution. Similarly, coaches frequently obscure or even block our drive way so that access is impeded. With more than one coach the scenes can often be chaotic and dangerous for pedestrians and other road users at this busy junction. With an increase in traffic, as a consequence of this development, the situation and dangers will be exacerbated.

It should be noted, that the established floodlit pitch at the other end of the sports ground already has a facility to park coaches and minibuses, however, this area is rarely used because access to this secluded area is a little more difficult than the street outside our homes.

Without adequate car parking facilities the Christchurch Road car park will become even more dangerous and the amenity that Christchurch Road affords to Cheltenham - the beauty of a wide tree-lined residential vista - will be replaced by a coach and minibus pound. Allowing this to happen would be in direct conflict with the third theme of the Cheltenham Plan (2013), which aspires to allow Cheltenham to be 'a place where the quality and sustainability of our cultural assets and natural and built environments are valued and recognised locally, nationally and internationally'.

5. It would seem more sensible for CLC to upgrade its established floodlit pitch, which was built with specific light and noise reducing features that include significant screening, sinking of the pitch and a steep perimeter bank covered in indigenous vegetation that has matured over the last 15 years. If CLC genuinely wishes to increase participation, we question why the modernisation of the floodlighting of this pitch with its established nuisance-reduction features has not been considered. Upgrading this pitch with the latest floodlight technology would actually reduce the impact on the residential amenity of Lansdown. It is difficult to understand why this option has not been submitted to the planning committee.

6. The pitch to be floodlit under the current proposal will require significant renovation. The pitch is prone to flooding and freezing and so is not playable for significant periods through the winter months. Pictures 1 and 2 (below) were taken from the rear of our property in November 2014.



7. To illustrate the close proximity of the pitch to our property, we frequently are asked to return balls that have landed in our garden after normal sporting activities. This is not a problem and we have always been courteous and accommodated the retrieving and reuniting of balls to their owners. However, if the pitch is used more frequently the prospect of this becoming a regular activity of home life is not acceptable and will compromise the privacy and quality of relaxation afforded by our home.
8. This pitch dominates the foreground and middle ground from the ground floor to the third floor vistas from our house, which includes our living room, study and bedrooms. It is

difficult to understand how, because of the proximity to our home that any light reducing feature will have any impact on the light pollution on our lives.

9. Adapting the existing floodlit pitch would be less disruptive for residents and would demonstrate a better commitment to two of the three main themes that inform the vision of the Local Cheltenham Plan (2013). Specifically, to establish and sustain Cheltenham as a “ A place where people live in strong, safe, healthy, well-served and well-connected communities and a place where the quality and sustainability of our cultural assets and natural and built environment are valued and recognised locally, nationally and internationally”.

Personal and Community mental health and well-being

(With particular reference to the Clean Neighbourhoods and Environmental Act, 2005)

1. Recognising the necessity of a balanced symbiotic relationship between CLC and the community, we have tolerated the noise of hockey matches during the daytime with equanimity. The prospect of this increasingly unpleasant noise, from players and spectators, continuing into the evening would be very disruptive and significantly compromise the rights, as laid out in **Human Rights Act 1989: Protocol 1, articles 1 and 8**, to peacefully enjoy our home and garden.

Although we have seen the calculations of the lux light spillage we do not believe that these calculations reflect the typical conditions that reflect the seasons in Cheltenham. We are aware that light diffusion is exacerbated by wet and drizzly weather that is common throughout the year. Even on fair days light would trespass into our sanctuary, the sharp glare would dominate our lives, and a looming glow would invade our privacy and obscure the night sky and so prevent the recuperation we deserve at the end of our working days. Pictures 3 and 4 below are taken from our property in November 2014 and show the visibility of the established pitch with floodlights, even with its high screening vegetation bank. We tolerate this as we recognise the need for compromise to sustain community living. However, the proposal to floodlight the pitch in the foreground will cause significant and intrusive light pollution to our property and this will compromise our quality of life and is not acceptable or fair.



2. Light pollution is detrimental to the health and well-being of people and wildlife; meta-analysis has identified a real concern for the disruption to holistic physiological and psychological functioning of those who have reduced access to natural environments and have to endure exposure to artificial light (Falchi et al., 2011; Navara and Nelson, 2007). Berto (2014:394) notes the universal advantages of maintaining nature in urban environments: ‘natural environments elicit greater calming responses than urban environments and, in relation to their vision, there is a general reduction of physiological symptoms of stress. Exposure to natural scenes mitigates the negative effects of stress and reduces the negative mood state and above all enhances positive emotions’.
3. The holistic health benefits to the CLC students of utilising natural light, over artificial light, have not been considered in this proposal. There is clear evidence of the accumulative personal, community and environmental benefits for children engaging in natural environments (De Vreede et al., 2014). It is now accepted that a well-designed urban landscapes can create a less stressful day and provide an opportunity for physical, cognitive

and emotional restoration. Maintaining natural elements and structural features in built environments helps to create urban community environments that are collectively “cognitive sustainable” and restorative from mental fatigue and the stresses of urban life (Joye, 2007; Grahn & Stigsdotter, 2003; Van de Berg et al., 2007). Our grandmothers encouraged us out into the fresh air and sunlight for our health. Has CLC considered the use of more imaginative timetables to encourage a healthy lifestyle for their students? We would certainly witness that the pitches are often empty during the daylight hours.

4. The health and well-being of the community including its wild-life – peregrine falcons and six species of small birds (bird count over one hour period in the morning, August 2015)- would be significantly compromised by both the destruction of natural habitats through the construction of and regular use of floodlights. The Royal Commission on environmental pollution considers that there is already sufficient research evidence for governing bodies to take action to reduce light pollution and light needs to be recognised that, just like noise and chemicals, in the ‘wrong quantity, in the wrong place and at the wrong time can cause problems and must be addressed explicitly’ (2009:30). The proposal to floodlight the pitch would lead to light nuisance so contradict one of the fundamental aims of the Local Cheltenham Plan (2013) which states that the natural and built environment are to be valued and recognised locally, nationally and internationally, therefore, we believe this proposal should be declined.

Social capital, Community spirit and sustainable futures

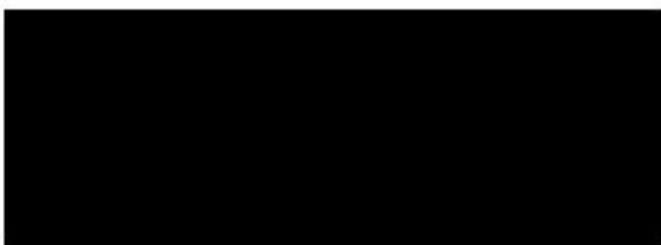
As residents living next to a potentially invasive development, we clearly will have concerns regarding our right to enjoy our home and privacy. At the ‘consultation’ meetings we found the applicant’s agents to be insensitive to our legitimate concerns through the belittling, dismissing and even ridiculing of our worries about the detrimental effects of the proposal. We have had to persevere in an attempt to fully understand the proposals and to construct an argument that gives a voice to our views. The experience has been most unpleasant and sadly has called into question our continuing desire to keep our family home, and to continue our contribution to maintaining diverse communities that share values of equity to access health and well-being without cost to others. Such an inclusive approach, if adopted by CLC and its agents, would have a less detrimental environmental impact and be more consistent and respectful of Lansdown’s

conservation status. It will also support actions that reflect a commitment to Cheltenham's Community Strategy Plan (2008) which states that the town should 'deliver a sustainable quality of life, where people, families, their communities and businesses thrive; and in a way which cherishes our cultural and natural heritage, reduces our impact on climate change and does not compromise the quality of life of present and future generations".

1. We would therefore on the grounds of the detrimental impact on the quality of life of the community, including CLC's students, and that on the natural urban environment ask that CLC explores the improvement of its currently floodlit pitch and maintains the unlit pitch in its current status.
2. All these concerns will be hugely exacerbated if this facility is built and subsequently, in order to address commercial and charity status requirements, CLC seek to extend its use further into the evening and night. We, therefore, request that in order to resist this inevitable consequence, that this professionally organised and financed campaign, which has dismissed and openly belittled the concerns of residents sympathetic to CLCs needs, should be suspended.

Thank you, for your attention,

Yours sincerely,



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17 Christ Church Road

Cheltenham, GL50 2NY

30th September 2015

Ms T Crews and Mr E Baker

Planning, Cheltenham Borough Council

Dear Ms Crews and Mr Baker

Re: 15/01171/FUL

We have read the responses by CLC, and their Agent, to our observations on their application to develop the sports facilities at the Ladies' College. These have not directly addressed our concerns nor even referred to our proposal for a compromise that could satisfy CLC's commercial needs within this residential environment.

To reiterate, we accept the need for CLC to develop its sporting facilities in order to meet commercial pressures as well as its requirement to provide for the sporting and recreational needs of its pupils. As neighbours, we reluctantly concede the need to accommodate any reasonable improvements in the facilities needed to meet these demands. Our objection rests on the apparent failure of the College and its Agent to frame their proposal according to established sustainable development guidelines.

The **National Planning Policy Framework 2012** (NPPF) introduced a 'presumption in favour of sustainable development' and makes clear that it is the purpose of planning to help achieve sustainable development, not development at any cost. To this end it contains strong safeguards to conserve and enhance our valuable natural and historic environment.

The NPPF informed the **Gloucestershire Joint Core Strategy 2013** (GJCS) that carried forward the promotion of sustainable natural and built environments. Strategic Objective 5 & 6 include:

1. Development [that is] well integrated with existing communities with regard to transport, infrastructure and service links and their visual appearance.
2. Development [has] created their own distinct sense of place, which was informed by high quality and inclusive design reflecting typical local settlement patterns, landscape character, house types and materials from the JCS area thereby producing a high quality built environment that respects and enhances local distinctiveness.
3. Making the best use of land by maximising the use of previously developed land.
4. Promoting the efficient use of natural resources, the re-use and recycling of resources,

And in Strategic Objective 9:

5. Providing...open spaces through the retention and development of a comprehensive green infrastructure network.
6. Ensuring that environmental quality and air quality is protected

The Cheltenham Plan 2013, which is part of the GJCS (2013), has three principal themes, the third of which...

...the quality and sustainability of our cultural assets and natural and built environment are valued and recognised locally, nationally and internationally...

...seeks to conserve and enhance Cheltenham's architectural, townscape and landscape heritage, particularly within the town's Conservation Areas. In addition, development should have high design and sustainability standards and is built to be adaptable over the long term. It should also minimise any impact on formal and informal green spaces and private gardens that contribute to local amenity and wildlife biodiversity.

In order to better meet these obligations, we would propose an alternative plan for the sustainable development of these facilities.

1. The existing sports hall is suitable for indoor tennis (LTA Document B2); there is sufficient clearance and floor space and, as the hall is already marked out for tennis, there is no need to consider a higher hall.
2. A new indoor multiple games area (MUGA) could be built adjacent to this existing facility on the proposed footprint, but would only need 7.5m clearance (<https://www.sportengland.org/facilities-planning/tools-guidance/design-and-cost-guidance/>) to accommodate recreational activities and outdoor sports when the external facilities were not playable.
3. Finally, a safe external floodlit pitch (<https://www.sportengland.org/facilities-planning/tools-guidance/design-and-cost-guidance/>) with a safe level of illumination for competitive hockey could be provided either by:
 - a. Modifying the existing illuminated and shielded hockey pitch.
 - b. Alternatively, a new area adjacent to the MUGA, which would allow three tennis courts to be built.

The advantages of this proposal would be:

1. CLC would be able to provide all weather year round facilities for most activities with adequate and safe lighting for their pupils.
 - a. The currently proposed lighting level (350 lux) is insufficient for safe competitive hockey that uses a heavy and hard ball. England Hockey stipulates a minimum safe lighting of 500 lux (<http://www.englandhockey.co.uk/page.asp?section=102>), and suggests the

safer 'Rush Hockey' that uses a larger and lighter ball for pitches with insufficient (350 - 500 lux) illumination.

- b. Even recreational tennis requires a recommended 500 lux (minimum 400 lux) on the principle playing area
(<https://www.sportengland.org/media/30506/Artificial-sports-lighting-design-guide-2012-051112.pdf>)

2. The impact on the Conservation Area and the residential environment would be minimised by refurbishing or replacing the surface and floodlights alongside a builders' merchant yard. This pitch is at a substantially greater distance (approx. 100m) away from residential properties and is screened by a bank covered in mature vegetation including trees. The proposed floodlighting is only some 5m from our garden and 25m from the windows of bedrooms with no space for the provision of any screening at all.

We cannot identify any cogent argument against this suggestion in either the CLC Principal's letter or its Agents' responses. Indeed, this proposal would seem to align with the aspirations to preserve the character of the Lansdown area as described in **Lansdown Character Area Appraisal and Management Plan 2008**. Lansdown is noted as a historically planned and distinctive residential estate and, as a Conservation Area, this special character is worthy of protection. Views of the Tower of Christ Church were noted to be highly important in enhancing the area and prevalent from a number of areas both within and outside the character area. Long distance views of the countryside were seen to be prevalent over roofs of some buildings. Such views can be seen from Douro Road of the Cotswold escarpment. Glimpses of the Malvern Hills are displayed in spaces between buildings and trees along Christ Church Road, particularly visible across the low-lying Ladies' College playing field. Views of Cleeve Hill are presented from the end of Lypiatt Road looking down Montpellier Street. These views are important in establishing a rural connection and providing enclosure.

Many of these would be at risk of being obscured by the necessary glare from the proposed floodlights.

Modern intrusions in the form of satellite dishes and large aerials were deemed harmful to the overall appearance of buildings and detract from their special historic and architectural qualities. These additions can often be seen clearly from public space which harms the character and appearance of not just the individual buildings, but the area generally. The same must apply to floodlighting.

In reference to the latter we believe that CLC's Agent has been inconsistent and incomplete:

1. In the use of accepted standards. They choose lower 'international' standards than those that have been deemed as safe by Sport England and England Hockey. The proposal is for a club standard competition hockey pitch.
(<https://www.sportengland.org/media/30506/Artificial-sports-lighting-design-guide-2012-051112.pdf>)

i England Hockey Recommendations

Masts

Lighting masts must not be erected within the run-off areas (minimum of 2m on each side-line and minimum of 3m on each back-line). For non-competitive activities, the recommended mounting height is 15m, however for club competitions and ball training the mounting height needs to be at least 18m so as to avoid glare.

Shadows

To avoid disturbing shadows for the goalkeeper, it is recommended that 8 or at least 6 masts are used.

Minimum Lux Levels (Maintained)

Class	Maintained lux	Activity
I	750	High-grade national club and international competition
II	500	Junior and low-grade club competition
III	300	Non-competitive training

2. We remain concerned because insufficient detail has been provided to allow an assessment of the full impact of the proposal. The Principal's letter, with which we agree in principle, has not clarified the nature of the activities that CLC wishes to develop for its pupils. Whilst a degree of flexibility is required to future-proof this development, a sustainable plan of CLC's sporting ambitions should have been provided in order to avoid unnecessary costs in unanticipated future re-development.

We are especially distressed with the prospect of invasive floodlighting of the 'old' hockey pitch. This will contravene our right to privacy and to enjoy our home environment.

The professional advice we have obtained indicates that the specifications included in the application are insufficient to allow a full assessment of the potential impact of light pollution on our homes, and by inference the safety of the pitch for even just practice hockey.

Specifically:

1. The angulation and wattage/lumens of each lamp has not been specified in any part of the application. Verification of the submitted data, which have not included standard deviation calculations, is impossible. It is unclear whether we are being presented with the worst case scenario for light pollution that Sport England recommends should be used in any consultation process. Are we being presented with the best case scenario?
2. Although light amplification due to weather conditions can only be calculated after installation, a professional opinion of the likely degree of this phenomenon can and should be provided.

Despite this, we would suggest that we have demonstrated a willingness to engage with CLC to allow mutually acceptable development within this very special area of Cheltenham. However, in the light

of the plan we describe, we would grateful if CLC's application is declined as it runs contrary to the sustainable development required by NPPF and its derivative documents.

Yours sincerely,



PS. All documents that have been referenced were accessed today 30th October 2015



Sent: 19 October 2015 10:38

To: Councillor Garth Barnes; Councillor Jacky Fletcher; Councillor Paul Baker; andrew4leckhampton@gmail.com; Councillor Diggory Seacome; Councillor Bernard Fisher; Councillor Colin Hay; Councillor Adam Lillywhite; Councillor Helena McCloskey; Councillor Andrew McKinlay; Councillor Klara Sudbury; Councillor Pat Thornton; Councillor Louis Savage; Councillor Malcolm Stennett; Councillor Simon Wheeler

Cc: Ed Baker

Subject: Planning Application 15/01171/FUL

To the Members of the Planning Committee,

cc Mr E Baker, Senior Planning Officer

Planning application 15/01171/FUL: The Cheltenham Ladies' College Health and Fitness Centre

My wife and I are residents of Christ Church Road and strongly object to the above planning application for the extension of the sports hall at Cheltenham Ladies College (CLC) and the erection of floodlights on a second Astroturf pitch, which is situated next to our home.

We have written extensive comments which have been placed on the planning website and are sure you will have seen them. Nevertheless, we wished to specifically mention our concerns on the following points in respect of the implications of the proposed floodlights.

Road safety

Little comment would appear to have been made by the applicants on the junction of Douro Road and Christ Church Road. The GCC Highways Planning Liaison Officer states no reported collisions at this junction. We would not like this statistic changed, a single serious incident would be one too many.

Pulling out of Douro Road onto Christ Church Road is difficult due to the limited view and would be made more hazardous when faced with areas of bright light and deep shadow as the houses opposite are silhouetted by large floodlights. Pedestrians and cyclists would be particularly vulnerable. Proposed floodlight illumination times also coincide with rush hour accentuating the danger. We hope that during your site visit to the area you will be able to appreciate this risk.

We also have concerns that when dark, road traffic will be increased with visiting school coaches. These always park on Christ Church Road further compromising visibility and safety and their passengers increasing the number of vulnerable pedestrians.

Rejection of Well Place Application

We would like to draw attention to the documented reasons for rejection of the previous planning application for the erection of floodlights on the Well Place tennis courts by the same applicants. This was a smaller scheme with floodlights only 8m in height, on an enclosed site not visible from the surrounding public roads but only 300m away from the site of the current proposal. (APP/B1605/A/08/2082812)

The stated reasons include:-

“ I consider also that the appearance of a brightly lit space in close proximity to the private rear sides of the surrounding houses, where darkness would normally be expected, would in itself have a negative effect on the living conditions of local residents. I conclude that the proposal would harm the living conditions of nearby occupiers, contrary to local Plan CP4.”

“There is a need for local amenity to be protected when considering applications for floodlighting. In this case it is necessary to balance the benefits of improving facilities against both the legal duty to preserve or enhance the character or appearance of the Central Conservation Area and the need to protect the living conditions of local residents.....and I conclude the appeal should fail.”

Light spillage levels are greater in the current proposal making these reasons even more applicable and justifying rejection of this proposal.

Noise

Whilst the suggested installation of backboard dampers on the hockey pitch is welcome, this reduces only one element of the noise created during hockey. The more constant high pitched shouting, screaming and whistling are intrusive and combined with bright lighting will result in a significant nuisance to adjacent residential properties. Furthermore, the justification document provided by the applicants suggests the use of the pitch will be for a number of different sporting activities for which the damper buffers will be irrelevant but other noises will still prevail.

Loss of amenity

The negative impact of floodlights on the local character of Christ Church Road would be immeasurable and once lost will never be retrieved. On a personal level the loss of privacy from a 15m tall mast with floodlights on top at our rear boundary and only 20m from our bedroom and kitchen windows cannot be imagined. This combined with the bright white block of light created by the 6 masts would be so detrimental to our current amenity as to make it unjustifiable. The College's desires must be balanced with the needs and rights of the local community.

Justification

The justification document produced by the CLC principal as the basis for the proposal describes aspirations. In this competitive, commercial sector one always asks for more so there is room for negotiation. It is difficult to believe there is justification for 2 floodlit pitches when their use with good natural light during the majority of the proposed floodlight operating hours has been minimal so far this term (see table below). Would it be environmentally sound to turn the lights on for 1 or 2 girls to briefly use the facilities? Surely for an environmentally friendly and sustainable proposal optimisation of existing facilities and daylight is paramount. The

existing floodlit pitch should be up-graded and its use maximised. Not only are the environmental benefits evident but this pitch is also further away and afforded some screening from adjacent houses.

The CLC state this proposal stems from the previous rejection of floodlighting for 3 tennis courts used also for netball at Well Place, yet this proposal is for a hockey pitch. The obvious solution, to accommodate these 3 tennis courts between the existing floodlit area and the new sports complex, does not appear to have been considered.

Conclusion

We fully appreciate the CLC need to upgrade their facilities and are keen to support them as a successful local business, however, the enormous negative impact of this proposal on local amenity, the loss of privacy and safety issues go far beyond what should be considered an acceptable balance. This application should be rejected for all the stated reasons in this and the previously published letters.

Yours sincerely,



15, Christ Church Road

Astroturf pitch use 4.30pm onwards Mon to Fri, all day Sat Sept/Oct 2015

x = no use o = no data

	Old Astroturf - site of current proposal	Existing Floodlit pitch

Mon 7 th Sept	x	x
Tues 8 th	x	x
Wed 9 th	x	x
Thurs 10 th	2 girls briefly on pitch	
Fri 11 th	Football	½ pitch in use
Sat 12 th	Hockey match 3-4pm	Hockey match 3-4pm
Mon 14 th	x	x
Tues 15 th	x	x
Wed 16 th	x	x
Thurs 17 th	x	x
Fri 18 th	x	x
Sat 19 th	x	x
Mon 21 st	x	x
Tues 22 nd	x	x
Wed 23 rd	x	In use
Thurs 24 th	o	o
Fri 25 th	Football	x
Sat 26 th		
Mon 28 th	3 joggers at 5.30pm	In use
Tues 29 th	1 jogger 15mins	x
Wed 30 th	3 girls for 30mins	In use
Thurs 1 st October	x	x
Fri 2 nd	Football	x
Sat 3 rd	Match 2-3.30pm	Match 2-4pm

9, Christ Church Road, Cheltenham, GL50 2NY



03 August, 2015

Mr Mike Redman
Built Environment,
Cheltenham Borough Council
Municipal Offices, Promenade,
Cheltenham,
GL50 1PP

Planning application 15/01171/FUL: The Cheltenham Ladies' College Health and Fitness Centre

Dear Mr Redman,

On behalf of my wife and myself I wish to comment on and strongly object to various aspects of this application, which I note has been submitted while many are away on holiday. Our house, which overlooks the site, was first occupied in 1894, a few years before Christ Church Farm became the "The Ladies' College Playground".

In my mind the current application comprises two parts: a revision to the granted 2011 application (11/01125/FUL) in which a proposed tennis hall adjacent to the existing sports hall becomes a multi-use sports hall; and an application to floodlight the "old" astroturf pitch, which was not part of the 2011 application. I comment and object to these separately in detail below. We do not object to the sports hall in principle, just its unnecessary bulk and height which needlessly blocks a key vista. On the other hand we urge you to reject the application for floodlights completely.

The sports hall proposal this time involves a 12.0m high multi-use hall as opposed to a much lower 9.6m high tennis hall in the 2011 application. This new hall will be alongside the existing 12.4m high sports hall, all with the same floor level. All but one of the fitness, health and sports activities which the applicants wish to take place in these halls, as listed in their Design and Access statement, can be accommodated in halls with a clear height of 7.5m everywhere, the Sport England standard. The single exception is tennis which requires a greater height at the net. Quite amazingly, given this was a key argument in the 2011 application, the applicants again overstate the height requirement for tennis, stating it to be 10.67m at the net, not the 9.0m clearly stated by Sport England and the Lawn Tennis Association. This will have coloured the whole approach of the architects, since as the agent makes clear in the Planning Statement (para4.21), tennis has determined the height of the building. Moreover, while Sport England state that tennis is not usually played in multi-use sports halls because of the difficulties in getting the ball bounce right, it is also the case that the Design and Access statement clearly calls for only one "optional" tennis court in one of

the two halls. Perhaps again because of their mistaken belief in a 10.67m height requirement, the applicants have chosen to place tennis in the new hall and ignored the fact that the one tennis court could be fitted in the existing hall. This has, I estimate, an 8.95m clearance everywhere. With tennis in the existing hall, the new hall could be of Sport England standard where 7.5m clearance is achieved in halls with maximum roof heights of about 9.5m, as in the 2011 permitted scheme. This would reduce significantly both the bulk of the building and the extent to which a key vista of the Malverns, identified by the conservation department of the Council in the Lansdown character area appraisal, is blocked. Given that the applicants are blocking this key vista from the public highway, and thereby harming the conservation area when they very clearly do not need to, we ask you to reject this application and invite another with a 9.5m roofline. Our reasons are set out in more detail in paras 1.1 to 1.3

Our reasons for objecting to the 15m high floodlights on the Christ Church Road pitch, which is very close to our houses and gardens, are set out in considerable detail in paras 2.1 to 2.6 below and summarised in para 2.7 at the end. We are very disappointed that the applicants now wish to vary the 1997 approach in which a floodlit hockey pitch and floodlit tennis courts were permitted well away from our houses, not near them, and all access for hockey matches and other sports was via Malvern Road. We cannot be certain but the suggestion was, during consultation, that the existing floodlit pitch, which is used far from 100% of the time, has lighting problems. We believe the answer is to fix those problems, not inflict floodlights on us.

In terms of the application and its merits or otherwise we note that in trying to shoehorn in this scheme for match hockey, netball and tennis, the applicants have underlit it in comparison with levels described as "necessary" by the Council's own consultant for the Dean Close application for match hockey, and also underlit by Sport England and Lawn Tennis Association standards. Moreover it does not meet national or international hockey lighting uniformity standards. We believe that the application if permitted would have significant adverse effects, by way of light pollution, noise, traffic and parking problems, on the residential amenities we currently enjoy. We agree that the rear of our properties fall into zone 2 of the Institution of Lighting Professionals guidance but whereas the applicants claim that light levels falling on our houses would be within zone 2 we argue that that is far from the whole story because their data only include the effects of light travelling directly from the luminaires to our house and ignore reflection from the pitch and scattering in the atmosphere, effects described by Sport England as unavoidable and Thorn Lighting as quite significant but often ignored. Measurements on Hatherley Road when Dean Close flood lights were on, showed, that at a given position, 1.3lux on a clear dry day increased on a rainy day and became 5.4lux on a misty but hockey playable day. On the basis of this, and simple analysis to predict the levels of light reflected from the pitch, we conclude that when translated to our houses, where lights are much closer than in Hatherley Road, light levels will approach the zone 2 limits on clear days, will exceed them on rainy days and may even reach 20lux on misty days. Levels in our gardens, as predicted by the applicants for clear days are up to 50lux, which is 25 times higher than the 2lux which the Council's consultant advised might cause complaints in Hatherley Road and merited special mention in the decision notice.

We also argue there will be noise problems and are amazed there is no mention of the floodlighting in the transport statement. While we accept that some may argue that floodlights on 15m masts may not alter the character of the conservation area we suggest it is impossible to deny that lights behind and perhaps above our houses will have an adverse

effect on the appearance of the conservation area as perceived by pedestrians and others, and thus harm it.

We do not believe that refusing the floodlights part of the application will have an adverse effect on the competitive position of the school: given the facilities it will have with the second multi-sports hall etc and its academic and other excellence we simply cannot believe any prospective parents will be put off when they learn that one of the two astros is not floodlit.

For all the reasons above we believe the floodlighting part of this application should be rejected, and we call upon you to do so.

Detailed arguments now follow.

1. Proposal for multi-use sports hall etc

I have no objection in principle to the idea of an additional sports hall in the proposed location. What I do object to is an over-high multi-sports hall which unnecessarily blocks a key vista of the Malvern Hills from the Christ Church Road pavement i.e. from the public highway. I also have comments on noise emanating from the halls, and traffic arrangements.

1.1 Height, bulk, obstruction of views and a better alternative

In 1998 permission was granted for an 11.4 metre high tennis hall in a similar position, but somewhat closer to the existing sports hall, as part of The Ladies' College declaring their longer term aspirations for the site when permission was also granted for the "new" astroturf, well away from our houses. The new astroturf was constructed, with floodlights, but the tennis hall and associated floodlit tennis courts were not, and the permission lapsed (CB 12205/18).

In 2008 Cheltenham Borough Council produced, as part of the Local Development Framework, a character area appraisal for the Lansdown part of the Central Conservation area. Amongst other things it was noted that "views of the Cotswold escarpment, Leckhampton Hill and the Malvern Hills presented from open spaces and gaps between buildings create a rural connection between the countryside and urban area..." and "Views are highly important in enhancing the character and appearance of Lansdown character area." "Glimpses of the Malvern Hills are displayed in spaces between buildings and trees along Christ Church Road, particularly visible across the low-lying Ladies' College playing field." Key views and vistas are summarised in a "Townscape Analysis Map" and include one looking from the public highway in Christ Church Road down the Ladies' College Christ Church Road car park.

Consequently when in 2011 the applicants presented a plan for a tennis hall which blocked much of this view, and thus in my opinion harmed the conservation area, I objected. The original plan called for a building 10.6 metres high, but this was reduced to 9.6 metres after I pointed out that tennis halls require 9.0 m clear height above the floor at the net, not the 10.1 metres the applicants had assumed (all these halls have the same floor level so building heights do indicate true heights of roofs above sea level). In recommending granting the application (11/01125/FUL) the Officer commented (1st update para 6.3) that "it must be of significance that the highest part of the curved roof will be lower than that of the previously

approved building". In the Architectural History and Conservation document (bottom p4) the applicants' consultants noted that "The new Indoor Tennis Court facility would undoubtedly have an impact on the site, but it would sit 1.9 meters (sic) below the highest point of the existing Sports Hall... The new building would, therefore, not dominate the skyline, but would be subservient to the existing sports facilities at the College." In other words, the lower level of the new building was a good thing. The 1.9 metres below became just over 2.8 metres below when the height of the building was reduced to 9.6 metres. It will be appreciated that, just as is the case when moving one's hand up and down before one's eyes, a small change in building height can have a big effect on the visibility of a distant view.

The multi-use hall now proposed in 15/01171/FUL is 12.0m high, with the highest point on the roofline (not counting the wind-catchers) at 69.69m above sea level, compared with 67.39m for the 2011 approved tennis hall and 70.23m for the existing sports hall. Thus it is higher than anything previously proposed and not at all subservient to the existing facilities. It will block much, if not all, of the key view from the pavement (not my kitchen window!) and therefore, once again, I object. I should emphasise that I do not object as a way to defeat the whole idea of a new hall, but because I believe necessity is often the mother of invention and that a much better compromise could be reached if the current proposals for the roofline were rejected, and an alternative approach, presented below, were adopted.

The applicants claim the key view of the Malverns is often obscured by haze and is not the best in Christ Church Road. However no number of photographs taken by them on misty days can hide the fact that on a sunny day, winter or summer, there are lovely views of the Malverns from the pavement at the entrance to the Christ Church Road car park. It is true that the present squash courts are an unappealing foreground to the view but they do not obstruct it. The applicants suggest that removing the existing squash courts, which I welcome, is a reasonable exchange for blocking the view with an over-high bulky building, and thus the conservation area would on balance be preserved, if not enhanced. I dispute that, but what cannot be disputed is that removing the squash courts while retaining the view would certainly enhance the conservation area and is surely a target worth having.

In the 2011 application everyone, including the conservation officer, accepted that the height of the building was of concern, and not increasing it was the justification for accepting a less than ideal roofline (Officer report 1st update, para 6.7h). The shallow barrel vaulted roof had its highline more or less perpendicular to Christ Church Road, as in the 1998 application, thus minimising obstruction of the view, and was approved by the conservation officer as providing design continuity with the form of the swimming pool (Officer report 1st update, para 6.7g). All this seems to have been thrown away in the current application, with the highline of the roof now parallel to Christ Church Road, maximising obstruction of the view, and the applicants congratulating themselves on reducing the height of the building from 13.2 m at the first consultation to 12.0m in the current application. I note that in the Planning Statement the agent now states (para4.19) that the 2011 permission was for a building 10.76m high. This is not true. Reference to the revised drawing 422530sections clearly shows it was for a building 9.6m high (67.395-57.790m) compared with the existing 12.44m sports hall (70.230-57.790m).

Details of the wide range of sports which it is proposed will be played in the new and existing multi-sports halls are given on pages 30 and 33 of the Design and Access statement (D&A). Details of the court sizes required for these activities can be found on Sport England's website at

<http://www.sportengland.org/media/30561/Comparative-Sizes-Checklist-April-2011.pdf>

The applicants state, and Sport England's website confirms, that all of the activities can be accommodated in halls with a clear height of 7.5m everywhere, with the single exception of tennis, which requires a higher height at the net. However I am completely flabbergasted to read (D&A p30) that applicants believe the height requirements for tennis are 10.67m at the net and 6.10m at the baseline. This is not true. Both Sport England and the Lawn Tennis Association at

<http://www.lta.org.uk/globalassets/venue/support-your-venue/documents/indoor-tennis-structure-guidance.pdf> p9 state that the requirements are 9.0m floor to ceiling at the net and 5.75m at the baseline, as was made absolutely clear during the 2011 application. I also note that on page 25 of the D&A that the one tennis court is described as "optional", hardly the description of a key requirement. Moreover in the Sport England guidance for floors in multi-sports halls at <http://www.sportengland.org/media/31288/Floors-for-indoor-sports.pdf> the section for tennis on p24 states "Tennis is not usually played in multi-sports halls due to the difficulty in creating the suitable ball bounce characteristics". I also note that of all the possible activities to be undertaken within the multi-sports hall, tennis, with one court, must offer the poorest return in terms of pupils involved at any one time. The lists on pp30 and 33 and the floor plans on pp31 and 32 of the D&A confirm that tennis is to be played in the new hall but not the existing. However internal inspection shows that in the existing hall there are no structural obstacles below eaves height, which the topographical survey submitted with the 2011 application shows to be at 66.74m i.e. 8.95m above the floor at 57.79m. Moreover p32 of the D&A shows that a club standard netball pitch will be accommodated in the existing hall along with the climbing wall. The Sports England size checklist shows the basic court sizes and overall sizes including run-offs to be smaller for a tennis court than a netball court, so it follows that a tennis court could also be fitted in.

Not surprisingly Sport England's advice on multi-sports halls consistently shows designs with a clear height everywhere of 7.5m, as can be seen in

<https://www.sportengland.org/media/31363/Sports-Halls-Design-and-Layouts-2012.pdf> and

<https://www.sportengland.org/media/31442/Affordable-Sports-Halls-2012.pdf>

In both the former, at page 16, and the latter, at page 14, sections of halls are shown with overall floor to maximum roof heights of about 9.5m (based on simple scaling from the drawings), with the roof arch spanning the shorter dimension of the hall and producing a barrel shaped roof oriented as in the 2011 application.

On the basis of the above I conclude that in the applicants' scheme the "optional" tennis is not a major priority and any play in the new or existing multi-sports hall is unlikely to be 100% satisfactory. Nevertheless if the applicants really do wish to retain the one tennis court mentioned in the D&A then this could be accommodated in the existing hall. I assume the applicants have overlooked this possibility because of their misguided belief that tennis requires 10.67m clearance at the net. Once tennis is moved to the existing hall, all of the other requirements for the new hall can be met with a Sport England compliant hall for which maximum roofline need be no more than 9.6m high, i.e. much as in the 2011 granted application.

The proposed site plan shows one outside netball court adjacent to the new sports hall, and in the same position as the CB/12205/14 floodlit tennis courts. Tennis could also be played there.

Given all of the above, I urge the planning officers to reject the current plans for a new 12.0m high multi-sports hall and request the applicants to submit a new proposal with a maximum roofline at about 9.6m high (i.e. at ca. 67.4m above sea level). Why block a key vista in the Central Conservation area with an over-high building when you do not have to?

1.2 Noise and acoustics

The section on p41 of D&A misses at least one key issue, the excessive noise, especially base tones, emitted from the roller disco sessions and suchlike held in the existing sports hall. The repetitive booming can be heard in Christ Church Road. I would urge the applicants to ensure that the proposed noise containment measures do work over the whole range of audible frequencies and power levels likely to be encountered in both the existing and the new hall.

1.3 Traffic

It must be significant that on the Application Form it is stated that there is no existing or proposed provision for the parking of public carrier vehicles or buses, and there is no mention of these in the transport statements. It is the parking of coaches and minibuses in Christ Church Road, which accompanies school matches and sporting "jamborees" that often causes problems. This is compounded by the tendency of coach drivers to leave their engines running for prolonged periods. If one has a coach parked right outside one's house it is impossible to see approaching traffic and get out of one's drive safely. Jamborees also often bring in a lot of spectators by car.

These problems were recognised, but not completely solved, when the planning permission was granted which, as I understand it, currently governs parking on the site, namely the 1998 CB/12205/17. I draw your attention to condition 7 of the decision notice, which provides, contrary to the statement in the current Application Form, for on-site parking of 2 x 12 seat minibuses, and to condition 4, which provides that there will be no more than 60 spectators at any one time (at hockey matches on the "new" astro), because (reason 4) the site's car parking provision is unsuitable for more. In this context I note on p30 of the current D&A that the new hall will provide for up to 50 spectators at county netball events, something else not mentioned in the transport statement. Could that mean 110 spectators at one time, plus of course participants?

In the light of the above I suggest that the conclusions presented in the transport statement are far too complacent. In particular I urge you to see that there is some provision for on-site parking of mini-buses and to identify safe locations for coaches to unload and park, both now and after the proposed introduction of a parking scheme here.

2. Proposal to floodlight the existing "old" astro turf pitch

My wife and I object to this proposal and urge the planning authorities completely to reject the idea of floodlighting this pitch. We believe that the applicants are trying to shoehorn in a floodlighting scheme which is extremely close to our houses and gardens and argue that despite any improvements on earlier schemes this current one should not be accepted because:

- overall the adverse effect on the amenities currently enjoyed by immediate neighbours such as ourselves will more than outweigh any marginal advantage to the competitive position the College in the independent schools sector, especially when one considers

the superlative facilities the College will have once the multi-sports hall etc is added to their existing facilities

- the character and certainly the appearance of this part of the Central Conservation area will be harmed.

In the paragraphs below I first comment on the history of the pitch and the various planning applications. I then set out our arguments in respect of the light pollution, increased noise and parking and traffic problems that the new scheme would bring, and the impact on the conservation area. Finally I address the economic issue, bearing in mind the College is one of Cheltenham's major employers.

Lighting is a complicated subject. I am not a professional lighting engineer but am a professional physicist with 35 years' experience applying classical physics to a wide range of problems in manufacturing industry. I have tried to explain my reasoning as clearly as possible but when it comes to original analysis, as in appendix 2, I understand many will not follow the physics, which nevertheless is available for inspection. I would simply comment that equally very few would follow the analysis that goes into the computer generated light spillage diagrams in the application.

2.1 History of the pitch

The applicants have listed and commented on the planning history of the site in the planning statement. In 1998, when the all-weather pitch was based on redgra, an application for floodlights was rejected. Despite this in 1992 the College spent £350k (ca. £650k in 2015 money) converting the redgra to astroturf without any further application for floodlights. This demonstrated the value of the pitch to the college whether or not it had floodlights, but also located the astroturf in one of the places in their sports field where the annoyance to neighbours by any subsequent use of floodlights would be maximised. The pitch is probably now coming to the end of its life. In 1995 an application involving telescopic masts (CB/12205/14) was rejected both by the council and on appeal. These masts were only 12m high extended, not 15m as in the current application. In the 1995 statement of appeal (para4.1) the College stated they accepted use by girls only and that in parallel with the appeal they would submit a new planning application (CB/12205/16) "with a suggested "cut off" time of 6.45". Other documentation obtained from the Planning Department in 1996 in the course of objecting has handwritten on it (not by me!) "Proposed times Mon-Sat 18.45; no floodlighting on Sundays". I am therefore very surprised to see in the current Planning Statement (para 4.11) the agent claim that the /16 curfew hours were the same as in the appeal to /14 viz 20.30 Mon-Fri 20.00 Sats and 19.00 Sundays. With a curfew time of 18.45, and girls only, reason 3 in the decision notice for CB/12205/16, rejecting the application, relates to noise and disturbance at the same times as in the present application, and with the same users.

Noise was a continuing issue with the unlit pitch. In October 1996 our then neighbour at 15 Christ Church Road informed us that after a series of measurements Miss Evans from Environmental Health at Cheltenham Council had concluded that the noise constituted a nuisance but that the College had volunteered to restrict its activities, while asking that one last hockey tournament might proceed.

All of this, plus the advent of Mrs Tuck as new Principal, lead to a new approach in 1997 and the building of the new astro with floodlights shielded behind a bund and well away from our

houses. In addition to the curfew and restrictions on users the decision letter for CB/12205/17 called for all access to be from Malvern Road. The advantages of this for parking and general control can be seen by reading the Bursar's letter (appendix D of the Planning Statement). The College has, as far as I am aware, complied with all the conditions and not tried to change them. Equally the new pitch has been acceptable to us. It is now a great disappointment to learn that with yet a new Principal the message from Mrs Tuck that "there are no plans to place floodlights on our existing pitch" no longer applies. However each application has to be treated on its merits and that I will now do.

2.2 Lighting and light pollution

2.2.1 Lighting requirements

The lighting consultant's report concludes (p5) that the lighting system has been designed to allow participants to play hockey and other ball sports in safety. Match i.e. competitive hockey is mentioned together with netball and tennis. The question is, what level of illumination does this require? (In this context it is worth noting that the total light output, or light energy/second, coming from a lamp is measured in lumens. The level of illumination of a surface is measured in lumens per square metre or lux). In any situation one wants to minimise light levels to minimise cost and spillage of light on neighbours, but not so far as to prejudice safety.

The consultant quotes (p3) a number of standards for hockey pitches with levels from 250 to 300 lux. Surprisingly however there is no mention of Sport England or the national governing body England Hockey. Sport England has on its website a design guidance note "Artificial Sports Lighting Updated guidance for 2012" (November revision 002) <https://www.sportengland.org/media/30506/Artificial-sports-lighting-design-guide-2012-051112.pdf>. In appendix 4 (p52) there is a list of requirements for outdoor sports lighting with Sport England updates. Under Hockey it is stated "England Hockey recommends a minimum of 350 lux for competition and the following levels for particular pitches Class 1 = 750 lux Class 2 = 500 lux Class 3 = 300 lux See 'Guide to the Artificial Lighting of Hockey Pitches' download at www.englishockey.co.uk". If you follow the link you come to <http://www.englishockey.co.uk/page.asp?section=102§ionTitle=Facilities+Guidance> where, down the page, one can download both the Guide and a shorter pdf by clicking "Floodlighting". The Guide is the June 2007 International Hockey Federation (FIH) Guide, not the 2011 version quoted by the consultant, and it appears England Hockey have stuck with the 2007 guidance, since they have had plenty of time to change their website if they wanted to. The pdf is based on the Guide. Both state the minimum illumination for competitive hockey is Class 2 i.e. 500 lux.

I note that in what I believe is the latest approved school hockey floodlighting scheme in Cheltenham 10/00144/FUL at Dean Close School the Council's consultant Malcolm Mackness (Lighting Engineer pdf) states "The target horizontal illuminance for the pitch is 500 lux. This equates to the requirements of a Class 2 installation, as defined by England Hockey, for Junior and Low-grade Club competition. 500 lux is a relatively high figure, but is necessary because the small, hard ball travels at high speed. It seems an appropriate lighting level target for this installation...."

The Sport England Guide states competitive netball requires 400lux, but 200lux for training while tennis requires a minimum of 400lux on the court itself with 300lux on the side and

back runs. (Recommended levels for tennis are 500 and 400 lux. The same unambiguous figures are quoted on the Lawn Tennis Association website.) The figures quoted are all long term maintained levels, not the higher starting levels when lamps are new.

The present consultant's report notes (p5) that illumination levels have been reduced since the last public consultation to be in line with an un-named sport's governing body. My notes show that consultation started with 350lux maintained and 465lux initial illumination. During consultation I got the impression that since the rejection of floodlights on the Ladies' College Well Place tennis courts (07/01005/FUL) that tennis playing might feature prominently on the new hockey pitch. I believe the tennis illumination levels are therefore also very relevant.

I would find it very odd if the council were now to allow any application for competitive school hockey with light levels below the 500lux which their consultant described as "necessary". However given the Sport England comment re 350lux for hockey and the tennis requirement for 400lux I could understand an application for 400lux. I would be very surprised if the Ladies College, or their legal advisors, would wish to have a match pitch which does not meet published Sport England or England hockey minimum requirements.

I therefore urge you to reject this application and invite another with a higher level of illumination viz 400lux. Obviously I do not want more spillage of light on our houses: I suspect a proper level of illumination is incompatible with the shoehorning in of this floodlit pitch.

2.2.2 Pitch lighting and spillage as described by the applicants

As noted above, lighting is a complicated subject. While the applicants may have submitted what they think experts in this area need, I suggest more explanation would help householders and other non-experts.

My understanding is that the applicants have noted the Institution of Lighting Professionals (ILP) *Guidance Notes for the Reduction of Obtrusive Light GN01:2011* and because their presented calculations show that the illumination of vertical surfaces, e.g. windows, on our houses and the glare from individual luminaires as observed from our houses falls within the ILP guidance they believe the application should be approved. My contention is that this is far from the whole story.

My own measurements fully support the consultant's conclusion that the rear of our houses should be considered to be in Zone 2 of the ILP guidance. For example at night at our top window, which is above the level of the existing floodlights, I record 0.2lux when they are on on a clear day, 0.4lux on a misty day, and 0.0lux when they are off. The Council effectively confirmed our zone 2 status via condition 8 of CB/12205/17 "Vertical illuminance..shall not exceed 5 lux..at residential property".

I note the lighting diagrams and calculations in the consultant's report. As I understand it, although this is not stated and I would welcome confirmation, the data presented represent the initial conditions when the average illumination is 430lux. The numbers on the pitch represent horizontal illumination (i.e. illumination of the horizontal pitch surface) and the contours "vertical illumination". The contours are at "3m high" which I assume is above the pitch. As our buildings are about 2m above the pitch these contours are at about 1m up our very much taller buildings. Given that the values are compared with the ILP

recommendations, I assume the tabulated data for source intensities in candelas refers to individual luminaires.

The asymmetric nature of the vertical contours, with for example the 2lux contour much closer to the residential side side-line than the sports centre side side-line, confirms the non-standard asymmetric lighting system deployed as part of the shoehorning. I note there is a consistent gradient in lighting levels as one moves parallel to the goal-line and crosses an imaginary centreline from goalmouth to goalmouth. Hockey England "Floodlighting" (as per 2.2.1 above) mentions avoiding disturbing shadows for the goalkeeper and using 8 or at least 6 masts. I suggest this asymmetric lighting will just add to that problem and lends weight to the argument that the pitch is inadequately lit. I also suggest that it is unwise to take standards which inevitably have been developed via trial and error on normal symmetrically lit pitches and apply them without further consideration to asymmetrically lit pitches.

The FIH/England Hockey 2007 and FIH 2011 guides to pitch lighting both call for uniformity of lighting across the whole pitch, which is both a playability and safety issue, since eyes take time to adjust to varying levels of illumination. In both guides two measures of uniformity are specified for all levels of play, $E_{min}/E_{ave} > 0.7$ and $E_{min}/E_{max} > 0.5$. The consultant notes the scheme just meets the first criterion. However there is no mention of the second. Inspection of the pitch reveals a 304lux and a 717lux giving $E_{min}/E_{max} = 0.42$. The scheme thus fails the second criterion, which FIH 2011 stresses as important (p5). I suggest that that failure in itself is sufficient basis to reject this application.

As noted by the consultant the vertical illuminance limits quoted by ILP are cumulative, so background illumination (from the floodlights on the new astro) needs to be added to additional illumination from the scheme. Thus at most 0.55lux should be added to all other quoted values when comparison is made with ILP limits or values mentioned by inspectors before the new astro was installed. As I read the consultant's data, a contour of 2 lux comes close to our houses at 1m height, which is about 2.5lux when background illumination is added. Moreover in the tabulated data I see a maximum value of 3.1 lux or perhaps 3.6 lux when 0.55lux is added. Below I shall argue that when effects not mentioned by the applicants are included (reflection from the pitch and scattering in the atmosphere by rain or mist) this 3.6 lux will at times exceed the ILP limit of 5 lux by a wide margin. However at this stage I would simply point out that the ILP approach does not distinguish, for someone in zone 2 with a limit of 5 lux, between someone who already has 4.5 lux background and can object to a marginal increase of 0.5lux, and someone with an 0.5lux background who has a 4.5lux increase. This is particularly odd given that most human perception registers as equal steps equal ratios of stimuli. For example each 10decibel increase in sound level as one goes 50 to 60 to 70 is perceived as an equal increase in sound level even though the sound power involved increases 10 fold at each step. Thus in our case I would argue that one should take into account both the change in light level involved and the ratio involved. 0.55 to 3.6 lux is a nearly sevenfold increase in light level and a very noticeable change.

I object to the fact that no horizontal illumination data are supplied for our gardens which I could compare with the current night time level of 0.0 lux, and only 7lux immediately under the lamppost outside our house, 1 lux between lamp posts on our side of Christ Church Road and 0.3 lux on the footpath on the opposite side of the road adjacent to the Ladies' College lacrosse pitch. However I note vertical illuminances up to 50lux in our neighbours' gardens with a significant area of ours subjected to 10lux or more. I draw your attention to the corresponding spillage diagram for the approved Dean Close application 10/00144/FUL,

attached as appendix A. In his report the Council's consultant noted there might be some cause for complaint from 133 Hatherley Road, where there was spillage of 2lux maximum. Condition 3 of the decision notice called for additional shielding to mitigate this. If 2lux was a problem in Hatherley Road, then these levels of up to 50lux in Christ Church Road must be a mega-problem. I strongly object to this level of light intrusion into our gardens and ask you to reject this application for that reason. At consultation the applicants suggested that when the lights were on all neighbours would retreat to their houses and draw their curtains. This is rubbish. The existing lights are frequently switched on more than an hour before sunset and my wife and I can easily dig in our garden until 30 minutes after sunset (Lighting up time for headlights).

I note the data indicating luminaire intensities as those for individual luminaires when viewed from our houses and will comment further on glare below.

2.2.3 Other causes of light pollution and annoyance not discussed by the applicants

I remember from discussions years ago, before lux values were discussed, or perhaps understood, that some local councillors rejected earlier floodlighting proposals simply because the lights were "just too close to our houses". This is a simple observation but still both true and relevant. It is of course obvious to all that the further one gets from a light source the poorer the illumination it provides. This is encapsulated and quantified in one of the fundamental laws of the science of light measurement, or photometry, namely the inverse-square law. It recognises that the lumens of light energy given off from a source radiating in all directions will effectively be spread out ever more thinly over the surface of an imaginary sphere of progressively bigger radius as the light moves away from the source. Since the surface area of a sphere is proportional to the square of its radius it follows that the illumination, measured in lux, falls off as the square of the distance. Thus if one doubles the distance the illumination reduces to a quarter of its previous level. Equally if one halves the distance the illumination increases four-fold. It also means that when one puts pitches very close to houses, effects that might otherwise be ignored should, at the very least, be considered.

As I understand it the data presented by the lighting consultant is based on "direct illumination" alone. That is to say light which travels in a straight line from the luminaires to the surface of the pitch or our houses on a clear day. However this is not the only route by which light can get from the luminaires to our houses. As Sport England in their floodlighting guide (p30) note: "...the glow which appears above a lit pitch when it is viewed from a distance at night, results from a combination of the reflectance of the pitch surface and light scattering by dust or moisture in the air above the pitch. As such, it is.. largely unavoidable." Equally Thorn Lighting, a floodlight manufacturer, notes at http://www.thornlighting.com/PDB/Ressource/teaser/COM/TLG_Champion.pdf (p11) "Indirect contributions come from the upward light reflected from the ground. In sports, for example, grass can reflect up to 10% of light while some artificial surfaces can reflect as much as 25%. The indirect contribution from an installation can therefore be quite significant but is often ignored as a contributor to obtrusive light."

These indirect contributions not only allow us to see distant floodlit pitches by diverting light in our direction but, when pitches are close, may also cause significant quantities of light to fall onto neighbouring properties. It will be appreciated that while a lighting engineer can point direct illumination with some precision, indirect light, from reflection from a matt

surface or scattering in the atmosphere, is radiated in all directions and is not under the engineer's control, although reducing the overall pitch illumination level will reduce indirect effects as well.

In appendix 2 I offer analysis which allows some estimate of the likely levels of reflected light on our houses. It assumes: the pitch is lit to 500 lux and is a matt surface that may be modelled as a uniform diffuser which reflects 25% of incident illumination. The answers are directly proportional to the lux level (and the reflection%) so a starting level of around 450lux would give answers 10% less while any maintained level greater than 385 lux would have a starting level >500lux, assuming a maintenance factor of 0.77, as per this application. Hedges etc are ignored. The analysis is for light reflected from a 1 metre wide strip on the pitch parallel to the goal line, directly in front of the nearest buildings. I conclude that such a strip would deliver 0.067 lux at 3m height on the nearest buildings, 0.126lux at 8m and 0.170 lux at 13m. Of course the other 90 metre strips which comprise the rest of the pitch will deliver progressively fewer lux, not least because of the inverse square law. Analysis beyond one strip is beyond my relatively simple first principles approach, but if one assumes that the 91 metre strips altogether deliver 10 to 20 times the single one considered, then at 8m up the building one gets about 1.25 to 2.5lux. At the very least these numbers indicate that neglecting reflection from the pitch is a mistake.

Calculating light scattered by the atmosphere onto our houses is quite beyond me. However luckily Cheltenham has some experimental facilities, namely the Dean Close pitch. Residents in Hatherley Road will confirm that on misty days floodlight levels on their houses are very noticeably higher than those on clear days. I have taken some measurements from the pavement opposite 130 Hatherley Road, the point marked A in appendix 1. On different days last winter I held my meter above the hedge in a vertical plane pointing towards the illuminated pitch, while the lights were on and hockey being played. My brief survey was far from comprehensive but, I believe, most instructive. Results were as follows:

Weather + light conditions	Light level recorded (lux)
Perfectly clear lights off	0.2
Perfectly clear	1.3
Hint of rain in atmosphere	1.6
Light to moderate rain, using intermittent wipers on car	1.8
Pretty misty but no need for rear fog lights. From steps of Christ Church, Airthrie traffic lights very visible but Queens Road not.	5.4

These results not only confirmed the very strong effect of misty conditions but also quantified the less noticeable but still significant effect of rain. Clearly the values predicted by software for clear days will underestimate what happens on rainy and misty days.

Of course the question is how does one translate these experimental results in Hatherley Road to Christ Church Road? One simple approach is just to say that if 1.3 lux on a clear day can become 5.4 lux on a misty day in one location, then 2 or 3.1 lux in another will obviously become something well over 5lux. However I suggest a better approach is also possible. The scattered light is coming from a shoebox shaped volume more or less the area of the pitch, but bounded by the rows of masts on either sides of the pitch, and extending up to the height

of the lamps, 15m in both cases. The distances in each location can be estimated reasonably well by scaling from drawings and bearing in mind that hockey pitches are 55m wide. On that basis I estimate the lines of the rows of lights are 71m and 133m away from location A at Dean Close but only 27m and 89m from the nearest buildings at Christ Church Road (nos. 15 and 17). If we apply the inverse square law to these dimensions, to get a feel for the factors involved, then the nearer edge of the shoebox of scattered light would produce $(71/27)^2$ or 7 times more illumination on the nearest houses in Christ Church than on position A, while the distant edge of the shoebox would produce $(133/89)^2$ or 2.2 more. Again because of the inverse square law the overall average multiplier will be weighted towards the nearer and higher value, but let us assume a value of 5 i.e. just a little more than the arithmetic mean (average) of 4.6. I suggest we apply this factor to the increment in illumination due to rain or mist i.e. to the (1.8-1.3) or 0.5 lux for light rain and the 4.1lux for the misty conditions. This gives, for vertical illumination on the nearest buildings, a 2.5lux increase due to light rain in Christ Church Road and 20.5lux increase for mist.

So for clear days we need to add perhaps 1.25 to 2.5lux of light reflected from the pitch to the 2.5 or 3.6 lux predicted by the applicants and another 2.5lux when there is light rain. Misty conditions will also certainly take levels well over the 5lux zone 2 limit and may well reach 20lux. These conclusions would not be altered significantly if the Christ Church Road pitch illumination were initially only 450lux, not 500lux, since the 2.5 and 20.5lux increases would only be reduced by 10%. Again, on these grounds I ask you to reject this application.

In terms of glare and general annoyance caused by the proposed lights I note there will be 9 luminaires which will be 15m high. Section 6 of proposed sections in the application suggests they will be higher than any house around here or Glenlee, but I suspect our houses have been undersized in rough sketches. However the lights will be at about the same height of our houses and will be an overbearing presence visible against a dark sky, not just from our houses, but everywhere in our gardens as well, and indeed far and wide (see para 2.5 below). I do not know the real relevance of the glare data for single luminaires since it will be more or less impossible to look at them individually. As it is we do get glare from the existing "new" astro floodlights, which was not present at original installation, and has arisen as shields or luminaire orientation have changed with wind and time. Even this, viewed from our kitchen window, while not damaging or unbearable, is annoying. I believe that it is impossible to capture in a few numbers the full overall impact of the floodlighting so close to our houses. However the scheme will involve turning night into day when it would otherwise be peaceful and dark and subject us to the glare from a whole bank of luminaires, an aura of scattered light from the all the illuminated volume and significant reflection from the pitch. Taken together with the significant increases in illumination of our buildings, as discussed above, and the very high levels of illumination in our gardens I believe this represents a significant adverse impact on the amenities we currently enjoy and call upon you to reject this application on that basis.

2.3 Noise and disturbance

If granted this application would allow the noise associated with hockey matches, netball and tennis to be extended in winter to times after dark when, at the rear of our family houses, we could normally expect peace and quiet. This noise comes not only from players but spectators cheering them on and vehicles coming and going. Matches are currently played on the pitch in daylight hours and a recent one on a Sunday afternoon attracted about forty spectators. The fact that hockey can be noisy is well established: the inspector in the Well Place Appeal

(APP/B1605/A/08/2082821) also noted the considerable levels of noise and disturbance generated by netball (para 13). It is also the case, as noted above in para 2.1, that rejected application CB/12205/16 in 1996 was for floodlights on this pitch with girls only and an 18.45 curfew. Reason 3 in the decision notice cites noise, disturbance and loss of amenities by neighbours. It would be illogical to apply different reasoning now, and I urge you to accept that this is yet another reason to reject this application.

2.4 Traffic

As far as I can see there is not one word in the application transport statement about additional traffic associated with the floodlit hockey pitch. When this pitch is used for matches e.g. on Sundays, the Christ Church car park is used. When there were 40 spectators plus competitors recently, on a Sunday, the car park was completely full and the whole of Christ Church Road between Malvern Road and Duoro Road, which is visible from our house, completely parked up. No doubt more cars were parked in Duoro Road and further down Christ Church Road. While the infrastructure may be able to cope on a quiet Sunday afternoon in the daylight, dark winter's evenings in the week during school term are a completely different issue and I suggest any use for matches would cause serious problems.

The Christ Church Road car park has no provision for mini-buses and no turning circle. Turning is difficult once it is, say, more than 50% full. It is often used by Airthrie parents collecting children. In the dark people routinely back out of the car park across the pavement and into Christ Church Road at the tricky junction with Duoro Road. The safety of pedestrians on the pavement is not helped by the hedge adjacent to the gate, which limits the ability of drivers to spot approaching pedestrians (although it may have the advantage in the College's eyes of obstructing the view of the Malverns and the site generally). The double yellow lines on the corner of Christ Church Road and Duoro Road, put in to improve drivers' sightlines, are often parked on.

The transport statement included some desk-based research noting a very low level of accidents in the area. I suggest that anyone interested in preventing accidents before they happen would, after a few evenings on the corner of Duoro Road, conclude there already is a serious problem. Adding match players and spectators would make the situation impossible. This is a very serious issue completely ignored by the applicants. It is another reason to reject this application. As noted above one of the big advantages of the "new" astro was the planning condition that all users would use the Malvern Road entrance (CB/12205/17, condition 5) because "the other accesses to the site are not suitable.."

2.5 The impact on the conservation area

I believe that if this application for floodlights is granted the conservation area will be harmed. As with the obstruction of a key vista by the sports hall I recognise that any harm done will not destroy Cheltenham overnight, but I would point out that change can easily occur by a series of small steps which can alter the nature of an area, and therefore believe that any changes, small or large, which harm an area should be resisted.

I note that the Lansdown and Eldorado character areas are residential in character, and strongly agree with the sentiment in the 2006 Local Plan that it is highly desirable where possible to keep residences as individual houses. The row of houses 9 to 17 Christ Church Road are family houses and I suggest that anything which adversely affect the amenities of

these houses i.e. the qualities which make living there pleasurable and agreeable will, in the long run, harm the conservation area, since their sustainability as individual houses will be impaired.

My understanding is that conservation legislation stresses the importance of both the character *and* appearance of conservation areas and that both of these should be at least preserved, preferably enhanced, but definitely not harmed. While appearance covers how things look, character is more weighted to the uses to which buildings etc are put and what goes on in an area.

It might be argued that since the Ladies' College playing field is clearly a sports field and already has some floodlights then adding some more will not change the character of that part of the conservation area. I would counter that by noting that the whole purpose of the 1997 "new" astro was to hide the floodlights behind a bund. Moreover the 10 x10m masts are on land at 57.5m whereas the proposed 15m masts will be on land 61.7m high. Thus, when extended, the proposed masts will be 9.2m higher than the existing, and when retracted to 4.5m only 1.3m lower. The new masts, unlike the existing, will be clearly visible from the public highway between the houses in Christ Church Road, even when retracted. I believe it is impossible to deny that the appearance of the conservation area at night when the proposed lights are on will be very different from how it looks now or when the lights are off. In winter, with no leaves on the trees, anyone now walking along Malvern Road towards the church, or up Duoro Road, and looking towards our houses will see a pleasant residential area and no sign of the sports field or its floodlights. If this proposal goes ahead they will see lights shining between the houses and a huge volume of light behind the houses, suggesting the pedestrians are approaching an industrial estate.

There is a splendid view of the floodlit Grade II listed Christ Church tower, a key vista in the Eldorado character area, from the pavement outside 30 Eldorado Crescent, and the lights will completely obscure this whenever they are on.

Thus while some may argue that the new floodlights will not alter the character of the conservation area I suggest it is impossible to deny that they will harm the appearance of the conservation area, and I believe this is another reason to reject this application.

I note that when the inspector determined the appeal to CB/12205/17, which involved 12m not 15m masts, he stated that he believed the 12m telescopic masts and floodlights were acceptable in terms of the character of the conservation area, but offered no comment whatsoever as to their impact on the appearance of the conservation area.

2.6 The economic argument: does the College really need more floodlights?

The College is at the top of the Premier league of British independent schools and attracts pupils from all over the world. The school is a major employer in Cheltenham and I recognise that the Council wishes to help it remain competitive by allowing, where possible, development of its Health and Fitness Centre. However this also tempts the school to describe as essential for competitiveness items which are not essential but "nice to have". I believe this application for floodlights falls into that latter category. My reasons are:

(a) when one considers the whole of the school day both existing astros are significantly under-used during daylight hours. On a dull November day 1800lux are available free of

charge and free of CO₂ production with over 6000lux on a bright day. I have been assured that timetable revisions to take advantage of this have been ruled out as impossible, because (more) sport during the day would leave teachers paid but idle in the main school. However, on reflection, I do wonder how past principals coped with that problem before floodlights were available. I doubt if they tolerated much thumb twiddling by idle staff.

(b) even during the hours when the floodlights could be lit the “new” astro is under-used. My guess is that it was used no more than 75% of the time last winter, probably less. During consultation I gained the impression there is a problem with the lighting on this pitch with a “dark stripe” down the middle. However if there is a problem the answer should be to fix the lighting on the new astro, since it is in the best place to minimise problems for neighbours

(c) the reason given in the statement of appeal for floodlights on the “old” astro in 1995, when there were similar numbers of pupils as now, was that floodlights would allow two matches to be played in an afternoon not just one. However now, with two pitches, one floodlit, it is now possible to play at least three matches.

(d) as stated in the Design and Access statement when the new multi-sports hall is complete (and I assume permission will at some stage be granted; I just urge it will be for a lower height hall than currently proposed) the College will have the capacity to accommodate all girls indoors when the weather is bad.

(e) when I look at the superlative range of health, fitness and sporting facilities that the College will have when it has two multi-sports halls, swimming pool and outdoor facilities and also look at the Independent Schools Inspectorate October 2014 report on the school’s academic and other strengths I simply cannot believe that any prospective parent would be put off the school on learning that it has two astroturf pitches but only one is floodlit.

I therefore assert that any advantage to the competitive position of the school by floodlighting the “old” astro would at best be marginal. I therefore ask to you to ignore the economic factor when considering this application.

2.7 Floodlighting: summary and conclusion

We very much regret that the college once more wishes to floodlight the pitch which is very close to our houses, despite three previous applications having been turned down and the college having an existing floodlit pitch which is well away from our and other houses.

It would appear that the applicants are trying to shoehorn in this pitch and we point out that it is underlit when compared with Sport England/ Hockey England/Lawn Tennis Association standards, as currently listed on their websites. The same Hockey England standards were described as “necessary” when the Council’s own consultant considered the Dean Close application for floodlights. The uniformity of the lighting of the pitch does not meet Hockey England or current international standards, and this in itself would seem to us to be reason to reject this application.

We argue that if the application were allowed there would be an adverse effect on the amenities which we currently enjoy in this residential street within the central conservation area. The adverse effects would be light pollution in our gardens and on the rear of our houses, noise and increased traffic/parking problems.

We agree our area falls within zone 2 as defined by the Institution of Lighting Professionals (ILP) and note that all sources of light need to be considered when comparing predicted light levels with ILP suggested maxima. The applicants' case is that their calculations show that light intrusion into the nearest windows and glare from individual luminaires will be below ILP maxima and so the application should be granted. Our counter-argument is that this is far from the whole story, not least because the applicants' light intrusion data only include light which travels in a straight line directly from luminaire to window and neglects reflection from the pitch and scattering in the atmosphere, which, for a given pitch illumination level, is totally outwith the control of the lighting engineer. These effects, which Sport England describe as "unavoidable" and Thorn Lighting as "quite significant but often ignored" may indeed often be ignored but should not be in our case when one recognises that the pitch is very close to our houses and illumination theory shows halving the distance from a light source does not double the illumination in lux, it increases it four-fold. In the absence of published information we offer a first principles estimate of light reflected from the pitch and experimental data for scattering from the floodlights at Dean Close. The latter show that in a given location a "window" illumination of 1.3lux on a clear day increases with rain and becomes 5.4lux on a misty day. This clearly demonstrates that clear day data as presented by the applicants are only part of the whole truth. We suggest light levels on the nearest windows will approach or exceed the ILP 5lux maximum on clear days, this level will increase in light rain (and no doubt in other conditions not covered by data collected near Dean Close) and may well reach 20 lux on some misty days when hockey is still possible.

Light levels of up to 50 lux in our gardens are way higher than the 2lux in one garden near Dean Close which the Council's consultant advised might cause complaints and merited special mention in the decision notice. The scheme will also involve turning night into day behind our houses where it would otherwise be peaceful and dark, and subjecting us to the glare from a whole bank of luminaires viewed against a dark sky, an aura of scattered light from the whole illuminated volume below the 15m high lights and significant reflection from the pitch.

It is well established that both hockey and netball can be very noisy especially when 40 spectators are present, as with current daylight matches. Allowing the application would cause this noise to be extended in winter to times after dark when, at the rear of our family houses, we could normally expect peace and quiet. We note that this application involves "girls only" and the same curfew as an earlier application where noise was cited as a reason for rejection in the decision notice.

We believe there will be significant traffic and parking and road safety problems with matches after dark in the winter and are amazed that the transport statement in this application does not even mention the effect of the floodlit pitch on parking etc in Christ Church Road. We believe this is a major omission.

While some might argue that the sports field already has well-hidden floodlights, so adding some very visible ones will not alter the character of the area, we argue that it is impossible to deny that the appearance of this part of the conservation area will be harmed when the lights are on.

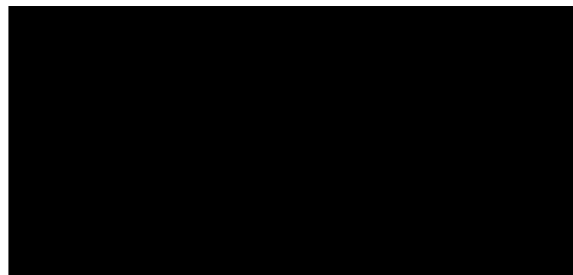
Our assertion is that floodlighting this pitch is not essential for the Ladies College to maintain its competitive position as a school and major local employer; it is at best a "nice to have".

Given the superlative facilities the school will have with a new sports hall etc, and its outstanding academic record we just cannot believe any prospective parent will be put off by learning only one of the astros is floodlit.

We are concerned that problems with the existing "new" astro are behind this application. The "new" astro, which is underused, has the advantage that the floodlights are well away from our houses and all traffic is via Malvern Road. If there is a problem the answer is to improve the lighting on the existing pitch, not floodlight the one so close to our houses.

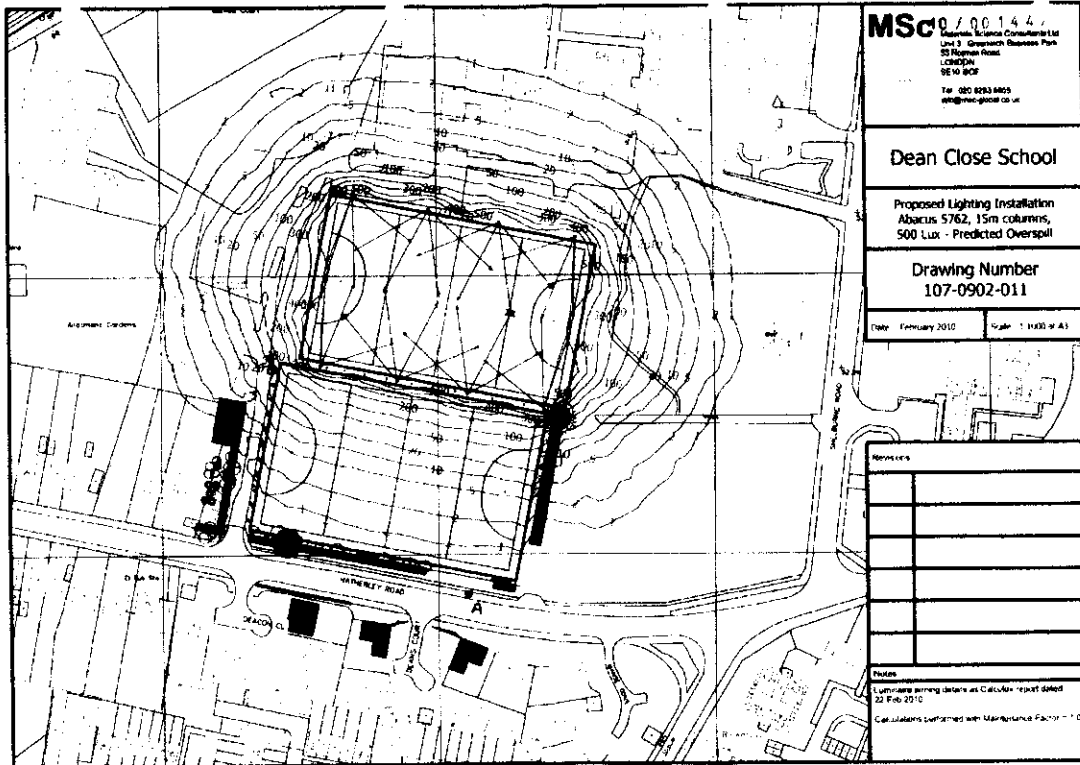
On the basis of all the above we conclude the application for floodlights is deeply flawed and urge you not to permit it.

Yours sincerely,



Appendices 1 and 2 are on pp19-22

Appendix 1



Appendix 2

Estimation of illumination of adjacent buildings by light reflected from pitch.

It is assumed that the pitch:

- will be lit to 500 lux, the minimum level for competitive hockey
- that the pitch is a matt surface that may be modelled as a uniform diffuser i.e. it's luminance and observed brightness is independent of its angle of orientation to the direction of observation (no matt surfaces completely satisfy this condition but many approach it – Philips make this assumption in their Calculux software see para 3.15.6 in Area guide v6.6)
- the pitch reflects 25% of incident illumination (Thorn Lighting state that grass reflects 10% but artificial surfaces up to 25%)

www.thornlighting.co.uk/PDB/Ressource/teaser/E2/TLG_Champion.pdf page 11

The pitch is illuminated to 500 lux or 500 lumens/ m² and reflects 25% or a flux of 125 lumens/ m² .

Now an element area ds of a uniformly diffusing surface luminance L will emit a total flux F where

$$F = \pi.L.ds \dots\dots\dots (i)$$

Thus the flux/unit area is $\pi.L$ and the luminance of a surface emitting 125 lumens/ m² will be $125/\pi$ candelas/m².

When one surface element ds_2 is illuminated by light radiated from a second surface element ds_1 , a distance r away , the illumination dE of ds_2 is given by

$$dE = Lds_1. \cos\theta_1.\cos\theta_2/r^2 \dots\dots\dots (ii)$$

where θ_1 and θ_2 are the angles between the straight line length r joining the surfaces and the normals to the surface elements ds_1 and ds_2 respectively.

We may start to assess the illumination of adjacent buildings by the pitch by applying equation (ii) to the light emitted from a strip of pitch 1 metre wide parallel to the goal line and lying directly in front of the nearest adjacent buildings. These are at 35m from the nearer sideline and 90m from the far sideline. A vertical cross-section through the centreline of such a strip is shown in figure 1 below. The aim here is to calculate the illumination of the building at a height A above the pitch. An element dx of the strip is shown at a distance x from the building. Since the strip is 1m wide this element dx has an area dx m² and by applying equation (ii) the illumination dE of the building at height A and in the cross-section shown will be given by

$$dE = 125. dx.\cos\theta_1.\cos\theta_2/\pi.r^2 \dots\dots\dots (iii)$$

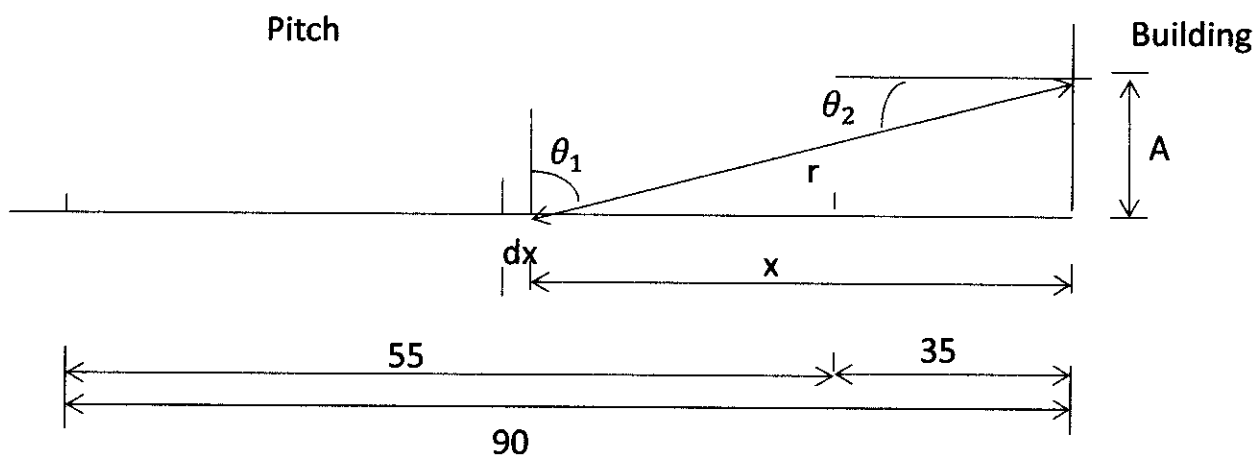


FIGURE 1. Idealised vertical cross-section parallel to goal line through the pitch and an adjacent building at 35m from near side line and 35+55 or 90m from far side line. A pitch surface element dx at a horizontal distance x from the building lies at a distance r from an element of the surface of the building a distance A above the level of the pitch. Light leaving the pitch and travelling the distance r to the building makes an angle θ_1 with the normal to the pitch and θ_2 with the normal to the building

In order to calculate the illumination provided by all 55m of the 1m wide strip it is necessary to integrate the contributions of all the dx's from $x=35$ to $x=90$. To this end it is noted that

$$\cos\theta_1 = A/r \quad \text{and} \quad \cos\theta_2 = x/r \quad \text{so} \quad \cos\theta_1 \cdot \cos\theta_2 = A \cdot x / r^2 \quad .$$

Thus equation (iii) may be re-written as

$$dE = 125 \cdot A \cdot x \cdot dx / \pi \cdot r^4 \quad \dots\dots\dots \text{(iv)}$$

Since $r^2 = A^2 + x^2$ (iv) in turn may be re-written as

$$dE = \frac{125A}{\pi} \cdot \frac{x \cdot dx}{(A^2 + x^2)^2}$$

whence E for the whole strip will be given by

$$E = \frac{125A}{\pi} \int_{35}^{90} \frac{x \cdot dx}{(A^2 + x^2)^2} \quad \dots\dots\dots \text{(v)}$$

Now
$$\int \frac{x \cdot dx}{(A^2+x^2)^2} = - \frac{1}{2(A^2+x^2)}$$

And so equation (v) gives

$$E = - \frac{125A}{2\pi} \left[\frac{1}{A^2+90^2} - \frac{1}{A^2+35^2} \right] \dots\dots\dots (vi)$$

where E is in lux and will be positive since the second term in the brackets is larger than the first.

The ground on which adjacent buildings stand is about 2m above the pitch. Hence values for A of 5,10 and 15m correspond to heights on the buildings of 3,8 and 13m.

Thus the illumination of the adjacent buildings by the 1m wide strip parallel to the goal line and directly in front of the buildings is: when A = 5m E = 0.067 lux; when A=10m E= 0.126 lux and when A=15m E = 0.170 lux . The value increases as A increases. This is not unexpected since looking back to equation (iii) $\cos\theta_1 \cdot \cos\theta_2 = \sin\theta_2 \cdot \cos\theta_2 = \frac{1}{2} \sin 2\theta_2$ which increases with θ_2 until θ_2 reaches 45deg.

The pitch as a whole comprises 91 1m strips parallel to the goal line. Obviously none will contribute as much as the strip directly in front of the buildings and as one moves away from this strip illumination contributed per strip will fall off. Extending the calculation to all 91 strips is beyond this simple analysis. At A=10m i.e. 8m up the adjacent buildings the illumination will clearly fall a very long way short of 91 times 0.126 or 11.5 lux but I suggest it is not unreasonable to assume a value of 10-20 times 0.126 or 1.25 to 2.5 lux. These values will be lower at A=5m and higher at A=15m.

MPW Wilson 2015

Reference: Geometrical and Physical Optics, R S Longhurst, Longmans 1960 (pp 370-381)