# Design & Access Statement for Warrender Primary School

November 2016

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A DESIGN CONSULTANCY OF ARCADIS

HILLINGDON
LONDON

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This report has been prepared for

**The London Borough of Hillingdon &**
**The Governors of Warrender Primary School**

By

CallisonRTKL-UK
Nexus
25 Farringdon Street
10th Floor
London
EC4A 4AB

e: andy.ratcliffe@callisonRTKL.com

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## Contents

## Introduction:

This design and access statement is produced to accompany the full planning application for the remodelling works and new Key Stage 2 (KS2) teaching building, resulting from the proposed expansion of Warrender Primary School from a single to a two form entry School. The planning application includes the following elements which, when combined, make up the single form of entry expansion.

- Remodelling of existing teaching spaces to form a new Reception teaching area.
- The construction of a new stand-alone two storey building accommodating 8 new classrooms, ICT suite/library, DT room, group spaces, staff and administration space; and associated storage, toilets and cloak areas.
- Remodelling to existing staff room and hall; to enlarge the hall space and provide a new kitchen and servery.
- The reorganisation and rationalisation of the existing staff car park in order to increase capacity.
- External works which includes minor remodelling of pathways leading to the main entrance, patching areas where demolition has occurred, and provision of a new multi-use games area (MUGA).
- New hard and soft landscaping in localised areas of the existing School site.

Subsequent works to the existing retained building will permit reorganisation of the Infants School and improve direct access for Reception class pupils. These changes are largely internal, but some glazed panels may require replacing with translucent glazed panels where new internal partitions will meet external walls. No structural alterations or amendments to the elevations, access and egress points are envisaged.

## Engagement Process:

A steering group from the School and relevant London Borough of Hillingdon departments were consulted throughout the design process. Meetings were held to discuss the pragmatics of expansion including the approach to the phasing of the project and to ensure the final design met the requirements of the various stakeholders.

All consultation has been with the Senior Management Team of the school (for a shared perspective) and with the Chair of the Board of Governors.

## Assessment

### Background to the Scheme:

The London Borough of Hillingdon has reviewed the forecast growth and need for pupil places across the Borough and a programme of extensions, refurbishment and new build projects has been scheduled. Many schools have already benefited from works to their sites. Warrender Primary School is another of these schools in the Borough, where a significant investment is proposed to bring the school into more appropriate facilities and able to cope with the proposed increase in numbers.

### Definition of Needs

In recent years the London Borough of Hillingdon has experienced a significant rise in birth rates. This growth in birth rate, combined with net in-migration and new large scale housing developments has meant that there is now a need for additional school places across the borough. The latest forecast for school places indicates a sustained residual need for additional forms of entry in primary schools in the north of the Borough. Warrender Primary School is well-situated to serve this established need in pupil place planning.

The scheme proposes the school be increased from a 1FE with a surge class, to a 2FE – with a total pupil number rising from the existing 250 pupils to 460 pupils. Under the proposal the infants will increase to 180 pupils. The juniors will increase to 240 pupils. The nursery will continue to provide 40 places (20 in the morning session and 20 in the afternoon session).

The proposal is also to ensure that the appropriate external spaces are readily accessible from the relevant teaching spaces.

### Key Planning Issues considered in the Brief are:

1. Impact on the playing field provision
2. Loss of Category B & C trees within the site
3. Site wide traffic and parking issues
4. Compliance with the London Plan (March 2015)
5. General issues related to a constrained site.
6. Hillingdon Local Plan Compliance
7. Site flooding
8. Ground contamination

The following sections will seek to demonstrate how the proposals have addressed these concerns during the development of the scheme.

## Description of the Site:

Warrender Primary School occupies an approximately 1.22-hectare plot located off Old Hatch Manor in Ruislip. The single-storey school building and associated playgrounds occupy the southern portion of the site whilst the playing fields are located to the north. A small car park is located to the south of the main school building. There is one level change on the site, with the buildings currently located on a higher 'plateau' to the playing fields. Sole pedestrian and vehicular access for staff and visitors is located off Old Hatch Manor to the south, with a maintenance and emergency vehicle access gate to the north, off Eastcote Road.

The site falls within a predominantly residential area, characterised by two-storey detached and semi-detached properties.

The main building is a single storey steel-framed structure with a blend of façade systems including masonry, timber and full height glazed panel units (some with obscured infull at low level). A double height hall is located in the centre of the building, with high level glazing providing light into the space.

All external windows and doors at ground level are double glazed with white uPVC frames.

Over the years a number of smaller structures have been built around the main building in order to cater for its growing needs, including a modular nursery, a temporary modular reception class, plus two smaller brick buildings. These have been quick fix solutions.



*Left: pedestrian access to the current schools*

*Above: the existing site layout showing pitch arrangements*

## Design

### Proposal:

The proposed accommodation is entirely educational, as such no change of use is proposed on the site. The proposal is to seek planning permission for the permanent erection of a new School building comprising 8no. classrooms, a replacement ICT suite, an activity studio, Design & Food Technology suite, admin facilities together with associated external works as shown in drawing number A-10000 – Site Master Plan.

The proposed building is 1230 $m^2$ of gross internal area, set over two storeys.

### External Works:

In order to cater for the increased number of staff required in the proposed expansion, extensive remodelling of the existing car park and footpaths around the entrance to the main school is planned. The proposal will result in 8no. new car parking spaces, including 2no. disabled bays giving a total of 20 spaces. Improved refuse vehicle access for waste collection is also provided. Works will involve the cutting back and levelling of an existing grassed mound.

The site masterplan shows the proposed arrangement of play areas and pitches. The existing pitch is only usable through part of the year due to the boggy nature of the subsoil, water retention and the lack of land drainage. When completing the proposals, reconfiguring of the pitch and relocating of the running track, land drainage will be installed, feeding to an attenuation tank under the new MUGA – in accordance with the civil engineers design and based on detailed ground soil investigation results.

The existing grass sports facilities measure 3,440$m^2$ which has limited availability for the school due to the poor nature of the subsoil making it inaccessible for much of the year. The irregular shape also limits the extent of the games sizes that can be accommodated: limited to two 'short' football pitches or one larger pitch capable of holding an Under 9/10's pitch – but not an arrangement compliant with Sport England requirements. There is also a 60m running strip. The hard (tarmac) area has various markings for games including basketball. These markings do not meet current standards for recommended pitch arrangements.

The proposed landscape design includes an Under 9/10 sports pitch (football) measuring 55m x 37m with run off, a 6-lane 60m running track and a new multi-use games areas measuring 37m x 22m including run-off. The scheme will result in a grassed area of 2,440$m^2$ and a tarmac area of 1094$m^2$ – giving a total area of 3,534$m^2$. The increase in overall available area is derived from the installation of the MUGA – where formerly banked parts of the site, on the boundary, are brought into effective use. The playable sports provision remain unchanged while the quality (usability) of the available space is increased significantly. The new arrangement allows for two correctly formatted five-a-side pitches and one standard Under 9/10's pitch (to Sport England standards) as well as the running track. With the improvements in ground conditions through land drainage, the grassed area will have far greater usage during the autumn/winter months.

The proposed layout retains the existing site use allocation with the buildings towards the front of the site – addressing Old Hatch Manor, and the recreational spaces to the rear.

The scheme will seek to address and resolve the issues of limited use through provision of surface water attenuation and land drainage to the sports field and drainage to the MUGA to ensure far greater potential for usage.

*Left: 3d image of the proposal.*

*Below: a proposed MUGA with ball*

## Sports Facilities

### Existing facilities:

The site currently accommodates one playing field with soccer equipment set up to cater for 2no. 34m x 20m 5-a-side pitches, although no formal line marking was evident during a spring/summer site visit. There is also a 60m running track. The school has one hall approximately 178m² in size, used as a multi-purpose space for assembly, PE and dining.

Weather dependent, the total usable playing field space (excluding banks and areas planted with trees) equates to approximately 3,440m².

### Existing constraints:

The existing playing field is located on a lower plain to the school buildings and current playgrounds, with embankments on all sides.

The maximum recognised pitch size it could accommodate (as set out in Sport England's document 'Comparative Sizes of Sports Pitches & Courts (Outdoor), September 2015 Update') is a 55m x 37m U9/10 pitch plus a 37m x 22m 5-a-side pitch. This is pitch area only as no run off is possible due to site constraints.

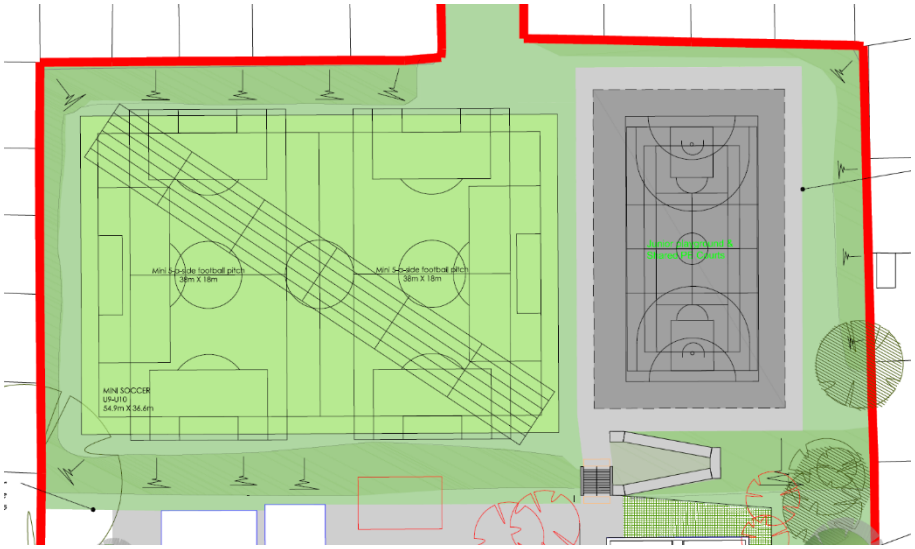
The pitch is only usable for part of the year due to the boggy nature of the subsoil, water retention and the lack of land drainage.

The existing hall is ill-suited for formal ball games due to extensive glazing, a limited roof height, and its small size.

### Proposed sports facilities:

### Playing field

The proposed development reconfigures the playing field to maximise the use of available space while improving upon all-weather capabilities with the inclusion of a multi-use games area. Drawing nos. A-10000 (see extract) demonstrates sufficient space will be retained to provide equal summer and winter sports provision to that which can currently be accommodated.




Additionally, significant land drainage improvements will address current issues of waterlogging, ensuring the playing fields can be used for a greater period of time during the winter months.

### MUGA

As noted in the external works section previously, the proposal includes for provision of a multi-use games area. The area provided measures 37m x 22m and can be laid out to accommodate a variety of sports to Sport England standards (Sport England's document 'Comparative Sizes of Sports Pitches & Courts (Outdoor), September 2015 Update'). The existing playground measures 36m x 19m and as such is too small to comply with standards requirements. The practicality of its use for formal sport is also limited due to its shape and proximity to buildings.

The MUGA will be enclosed by provision of a 2.4m high wire weld mesh ball stop fence and will serve as a sports facility, playground and school muster point in the event of an emergency. The MUGA will be capable of accommodating impromptu (short forms) of most games such as football, as well as regulation sizes for tennis, netball & basketball. Reduced sized (age appropriate for the school) alternatives such as five-a-side are possible.

## Policy requirements:

### NPPF

Paragraph 74 states:

"Existing open space, sports and recreational buildings and land, including playing fields, should not be built on unless:

- an assessment has been undertaken which has clearly shown the open space, buildings or land to be surplus to requirements; or
- the loss resulting from the proposed development would be replaced by equivalent or better provision in terms of quantity and quality in a suitable location; or
- the development is for alternative sports and recreational provision, the needs for which clearly outweigh the loss."

### London Plan

Policy 3.19, part B, states:

"Development proposals that increase or enhance the provision of sports and recreation facilities will be supported. Proposals that result in a net loss of sports and recreation facilities, including playing fields should be resisted....wherever possible, multi-use public facilities for sport and recreational activity should be encouraged."

### Local Plan: Part One - Strategic Policies

Policy EM5 generally seeks to resist the loss of existing indoor and outdoor sports facilities and to promote opportunities for participation in sport and leisure.

### Local Plan: Part Two Saved UDP Policies

Policies R4 and R5 seek to resist the loss of playing fields "unless adequate, accessible, alternative facilities are available."

### Sport England's Planning Policy Statement 'A Sporting Future for the Playing Fields of England'

This seeks to resist development which could lead to the loss of, or would prejudice the use of, all or part of a playing field, unless one of five exceptions applies, as follows:

E1 A carefully quantified and documented assessment of current and future needs has demonstrated to the satisfaction of Sport England that there is an excess of playing field provision in the catchment, and the site has no special significance to the interests of sport.

E2 The proposed development is ancillary to the principal use of the site as a playing field or playing fields, and does not affect the quantity or quality of pitches or adversely affect their use.

E3 The proposed development affects only land incapable of forming, or forming part of, a playing pitch, and does not result in the loss of or inability to make use of any playing pitch (including the maintenance of adequate safety margins), a reduction in the size of the playing areas of any playing pitch or the loss of any other sporting/ancillary facilities on the site.

E4 The playing field or playing fields, which would be lost as a result of the proposed development, would be replaced by a playing field or playing fields of an equivalent or better quality and of equivalent or greater quantity, in a suitable location and subject to equivalent or better management arrangements, prior to the commencement of development.

E5 The proposed development is for an indoor or outdoor sports facility, the provision of which would be of sufficient benefit to the development of sport as to outweigh the detriment caused by the loss of the playing field or playing fields.

## Sports Provision: Conclusion

As noted in earlier text, the proposed development does not result in any loss of usable playing pitch provision. The existing school can accommodate two five-a-side pitches and one larger Under 9/10 pitch as well as a 60m running track. All of these sports can be accommodated on the new arrangement. The 'spare' off pitch grassed area is that which is reduced under this proposal –maintains sufficiency and scope to provide habitat and climbing equipment. Existing climbing equipment is retained on the site providing further fitness opportunities.

To enhance sports provision at the site a MUGA would be provided on the remaining area which is of insufficient size to accommodate an additional grass pitch. This facility will enable year round compliant sports provision. The proposal will address issues relating to the ground conditions of the grassed area through provision of land drainage which will also improve the accessibility of the grassed area during the autumn and winter months.

This is in full compliance with the requirements of paragraph 74 of the NPPF and ensures equivalent or better sports provision will be provided.


## Site Landscape approach:

The landscape scheme has been developed to provide a range of outdoor activities to meet the needs of the school for play, formal sports and informal social areas on a confined site where use of outdoor space will be intensified through the provision of new buildings to accommodate additional pupil places.

Around the periphery of the site are pockets of soft landscaping benefitting from existing tree planting which is being retained. The south west corner and the eastern boundary both benefit from existing climbing frames. These are to be retained to provide relief from the open play areas – although they will be reviewed for compliance and adapted to address the new footpath arrangements locally. The various external hard informal spaces are laid out to suit the age groups they serve. Demarcation is provided through an arrangement of low level fences with access gates to allow free flow of pupils at different times.

The new KS2 building will occupy much of the current KS2 playground, hence the need to provide additional hard play in the form of a new MUGA. The MUGA area will be accessed via a new set of steps in in-situ concrete and a Part M-compliant ramp.

New tree planting between the KS2 building and the boundary will replace trees lost to construction, and ensure a healthy planting buffer between the school and neighbouring residents.

Car parking is maintained in the current location – directly of Old Manor Hatch. The area is rearranged to provide increased numbers of parking as well as disabled parking and improved facilities for delivery vehicles. The scheme also provides for increased cycle and scooter storage.

## Building:

### Scale & Siting

The plateau levels across the site aligned in an east/west arrangement (with the level difference between the southern [upper] part of the site and the northern [lower] part) are such that construction location is limited if external space of significance is to be retained.

The proposed building is carefully designed to have minimal impact on the adjacent surroundings and neighbours, while permitting maximum use of the available site. The closest facade will be over 43m from the nearest properties in The Ridgeway – with a mature tree belt on the boundary between sites which will be reinforced by additional planting. Alternative locations on the site were considered for the proposal. These included replacement of the 'individual' buildings to the west of the site and an option to directly attach an extension to the existing buildings. These options were deemed unsuitable to the overall impact which resulted, either in land used to accommodate the space required or due to the resulting mass. Locating the building other than the proposed site presented a greater impact on the adjacent neighbours and was deemed detrimental to the overall surrounding context. These locations would also have resulted in a significant loss of playing field provision.

The overall scale is controlled by the pallet of materials, with masonry on the lower level retaining the domestic scale and upper elevations consisting of a simple blend of render and large widows – highlighted with accent colours based on the schools branding. Windows will be powder coated (colour to be approved) interspersed with coloured panels providing visual relief.

As part of this development, improvements to vehicular access are proposed increasing parking and providing delivery vehicle turning space – as set out in the transport plan documents. Landscape works will see the retention of the sports facilities (although these will be reorganised) and the provision of a new multi-use games area providing a netball court. The landscape scheme will see works designed carefully to ensure retention of the majority of boundary planting and the existing play/climbing frames. Habitat and nature areas will also retained and supplemented to promote ecological habitat.

Provision is also made for cycle and scooter parking adjacent to the main entrance for the school. A series of fences are proposed to enable secure drop off and pick up arrangements. These fences will be kept low internally and will be softened visually by provision of localised planting/hedging. Tall fences will be 1800mm with access controlled gates as necessary.

The entrance approach will be finished in concrete pavings to assist in way finding to the school and nursery entrances, as well as for the breakfast club which will be located in the new KS2 building. Between buildings hard paved areas and paths will be finished in tarmac, while reinforced grass will be used between the building and the eastern boundary and on the north end of the new building.

*Below: site section;*


*Above: West Elevation*

## Access

### Vehicular Access:

Revisions to the existing parking arrangements will also seek to contribute to addressing any concerns regarding the increased number of staff which will access and egress the site at the start and end of the school day. The scheme has introduced a remodelled car park to increase capacity and provide a suitable space for large vehicles such as refuse lorries, to conduct 3-point turns and egress safely. The existing balustrading which separates the pedestrian and vehicular access will be retained and extended around the new layout to avoid pupils or adults from inadvertently wandering into the or across the car park.

The existing car park has 12 parking bays. The proposed car park has 20 bays including 2no. disabled bays.

### Pedestrian Access:

Pedestrian access will remain unchanged for the primary access off Old Hatch Manor.

### Service Access/Refuse Collection:

Deliveries and service access vehicles will enter the site using the existing vehicle access point and turn within the remodelled and expanded car park. At this point the delivery/service vehicles (refuse lorry etc) will reverse towards the new bin store facility and may park in the short term. All deliveries and service vehicles will only be permitted on site by arrangement, avoiding peak times.


*Above: main school approach from Old Hatch Manor with existing pedestrian access (to be retained) shown.*

*Below: existing car parking arrangement, seen from main school entrance.*

## Inclusive Access:

The new School building is designed to be fully accessible in accordance with London Borough of Hillingdon's requirements, requirements of Building Bulletin 99 and current building regulations.

A detailed access audit will be completed by the LBH Access Officer at the following stage of detailed design to ensure compliance with provision requirements. This will address the details of hygiene space; lift use in an emergency; accessible changing; medical room design; as well as referencing the relevant Building Bulletins for specific need provision.

Level access will be achieved into all new classrooms from the external landscape. No ramps to any of the new classrooms are required as part of the expansion.

Drop kerbs will be positioned in the reorganised car park associated with the disable parking bays.

All new corridors adjacent to 2 or more classrooms will be at least 1800mm wide within the new building.

There will be a lift located in the new building which will provide disabled access to all areas of the new building over three storeys. Two staircases are positioned at each end of the building providing access and sufficient means of escape from the first floor.

All new ambulant and disabled toilets will be specified to meet part M of the building regulations.

A disabled refuge telephone system will be provided at the upper level of both internal stair cases within the new building at the designated disabled refuge area to conform to BS 5839:part 9 and BS8300:2009+A1:2010

## Fire Emergency Strategy:

The new building will result in the school revising the existing fire strategy documents – to reflect a linked system such that one alarm will trigger the other building.

Under these proposals, two standalone approaches to fire safety will be developed, for each building. However, the plans will be coordinated in detail and approach to ensure that in the event of either alarm being activated, an orderly approach is adopted and safety maintained.

It is noted that both parts of the school will be served by separate interlinked fire detection and alarm systems to current standards.

In the event that the alarm is activated, when the second alarm is triggered and all pupils evacuated – they will must in the new MUGA area – allowing safe access for the fire brigade.

This coordinated approach will then ensure that the maximum possible area is available for the safety of the pupils and the arrival of any appliances.

The detailed plan will be developed by the schools assisted by the appointed Fire Engineer and in consultation with the LFB.

## Structural Report:

### Design Concepts & Methodology

The building is ideal for a steel frame structure. This will provide the large open plan spaces an education facility requires and the future flexibility for any amendments to the building layout.

### Lateral Stability

Lateral stability will be achieved through diagonally cross braced bays positioned to suit architectural requirements.

### Ground Floor

The ground floor slab will be a suspended slab with a ventilated void below. The suspended floor slab will be constructed from a composite precast hollow core floor slab. Typically the design could be 200mm thick precast units with a 50mm thick toping. The units will span between ground beams, which span between the pile caps.

### Upper Floors and Roof

The internal upper floors and roof will be constructed from a composite precast hollow core floor slab. Internally precast concrete will be utilised for stairs. Typically the units may be 200mm thick with a 50mm thick structural toping. These units will span between support beams positioned on the primary grid lines of the building.

### External Facades

The architect proposes to construct the façade from a variety of different materials including composite timber to match the existing school, and rendered board; fixed these back to a lightweight Metsec SFS system (or similar) which spans vertically between the main steel frame members.

## Security:

The principles of Secured by Design, as they apply to schools, have informed the design process. The proposed site and building layouts create a secure and welcoming environment for pupils, whilst limiting opportunities for trespassing and vandalism.

During the school day, visitors will access the entrance to the main buildings after being granted permission to access the site via the existing secure electronic gate and intercom system at the perimeter of the site. They will then require to be granted access into the main school secure lobby where they will be greeted by staff and are able to sign in.

Facilities within the main building designed with the possibility for out of hours use by the community (such as the hall) will also be accessed through this front entrance.

The design avoids isolated alcoves around the building perimeter, where unsupervised groups could potentially gather. Windows are distributed across all facades, allowing passive supervision across the site generally. The school reception and office as well as SMT office spaces are located to ensure passive supervision of access routes and play areas.

New building is compliant with the principles of SBD.

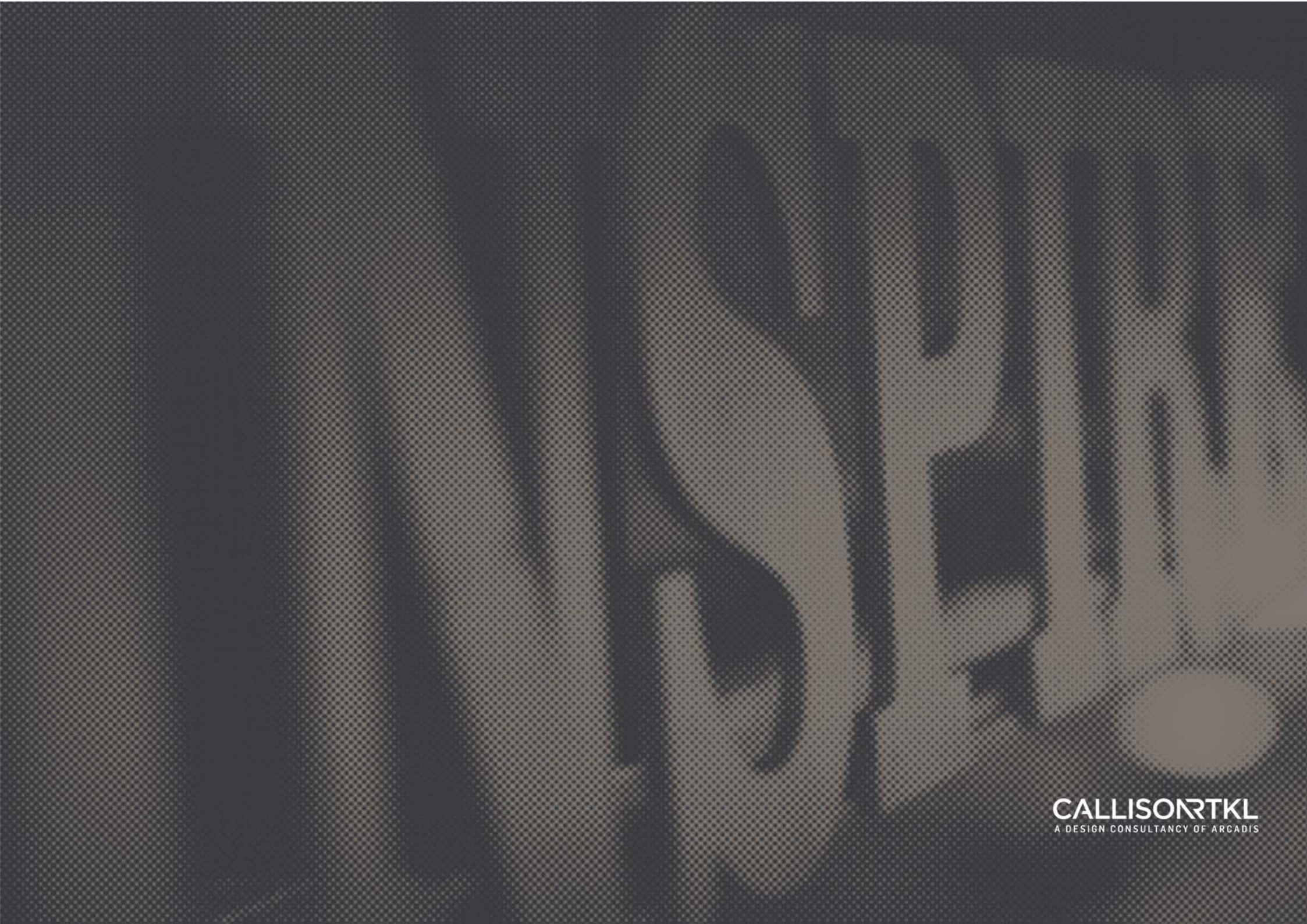
- The existing boundary fence will be retained. Where damaged or ineffective due to adjacent property/trees, this will be reviewed and amendments made accordingly to reinstate it;
- Lockable gates will be provided where appropriate;
- CCTV to cover new pedestrian and vehicular access points to both principal boundaries. Further CCTV will be provided in the ground floor common areas linked to the main alarm system;
- Appropriate zoning for site / building lock-down for out-of-hours community use where relevant;
- Windows and doors are to be designed in accordance with SBD principles;
- New intruder alarm system to be provided and will be linked to the existing School alarm system.

## Lighting Strategy

See ARCADIS Lighting Strategy report – submitted separately – by Sean Lawal.

## Energy Statement

See ARCADIS Energy Statement report – submitted separately – by Vipul Dudhaiya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