

Middle School External



Middle School Approach



East Elevation



South Elevation



Middle School and Sports Block



Middle School



Sports Block

Replacement School Buildings for Hadrian Learning Trust Schools





High School External



High School Approach



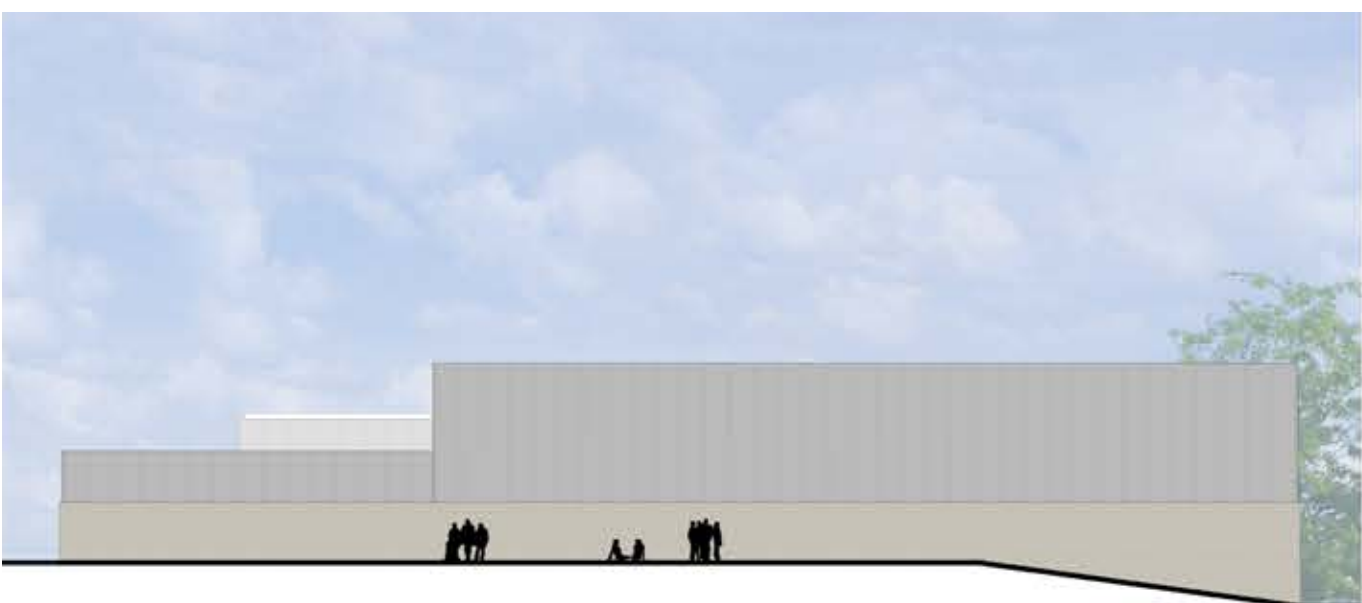
North Elevation



West Elevation



Sports Block North Elevation



Sports Block West Elevation



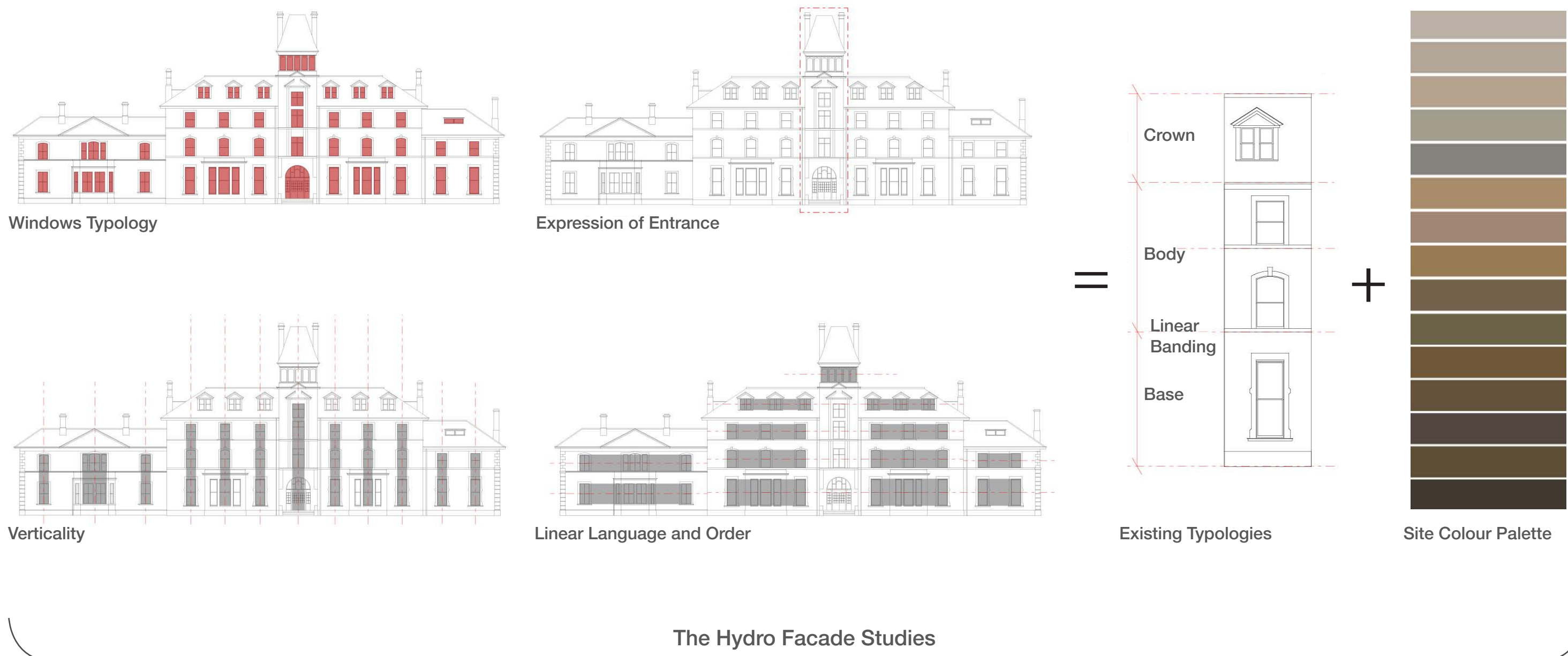
Sports Block South Elevation

Replacement School Buildings for Hadrian Learning Trust Schools





## Exterior Design Concepts



## Transition

## Creating safe environments that spur development



## Support

Providing strength, stability and longevity



## Community

Strengthening relationships and connecting people together



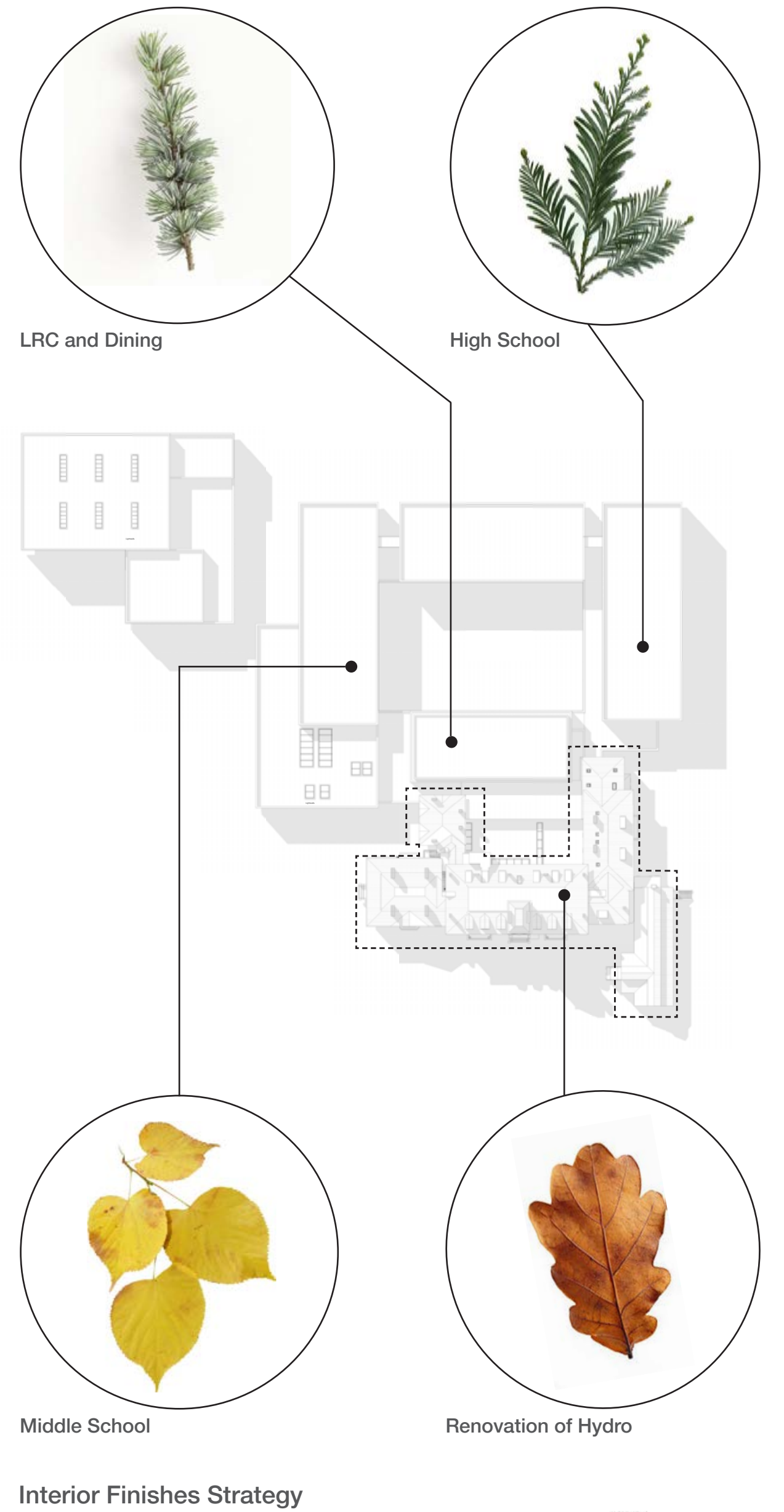
## Growth

Creating a positive environment to encourage growth



## Foundation

Solid foundations to build experience  
and create confidence



Outstanding Heritage and Nature

## Replacement School Buildings for Hadrian Learning Trust Schools

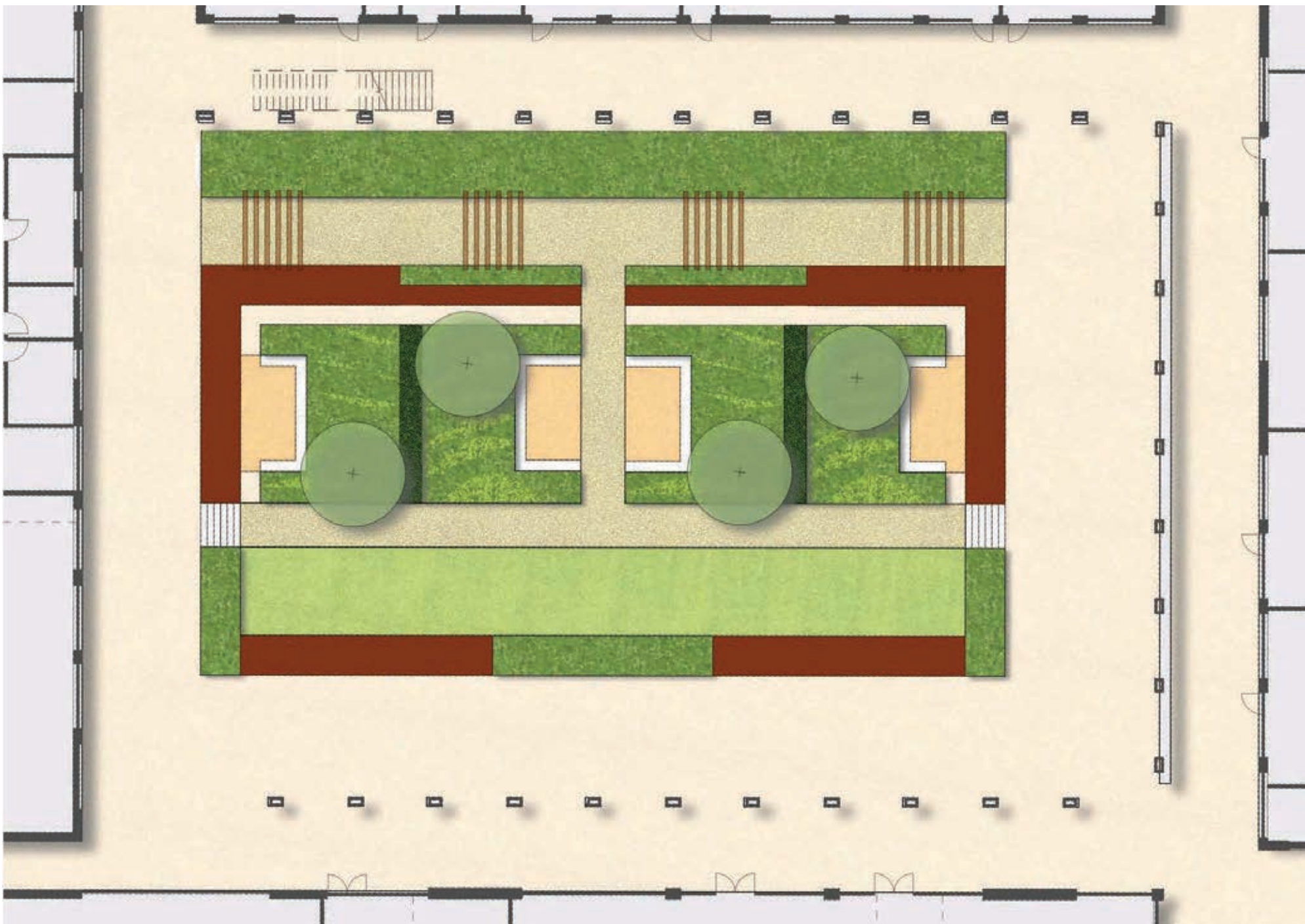




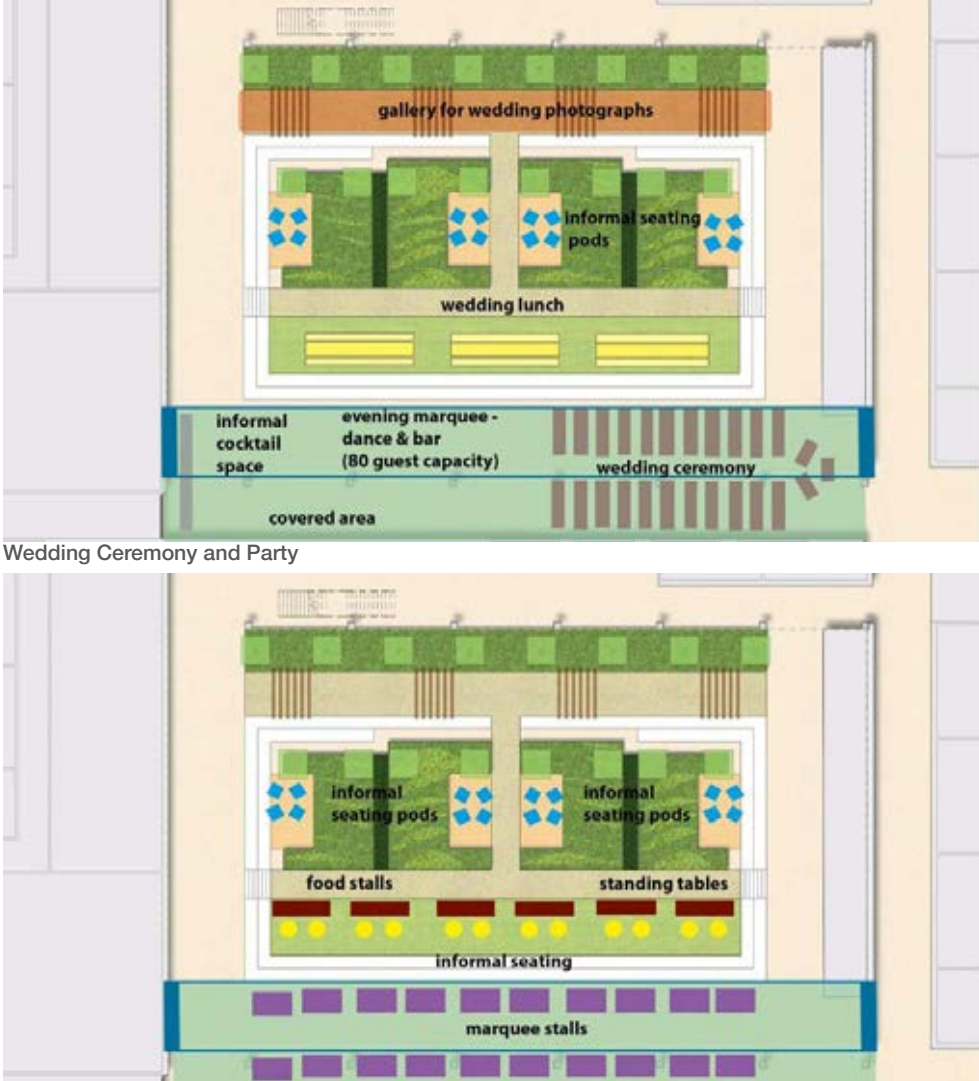
Reimagining the Walled Garden at the Heart of the Schools



Walled Garden



Proposed Layout



Walled Garden Uses



Landscaping



Walled Garden



View From Cloister Looking North East



View From Cloister Looking South West



View Looking North



Courtyard East Elevation



Courtyard South Elevation



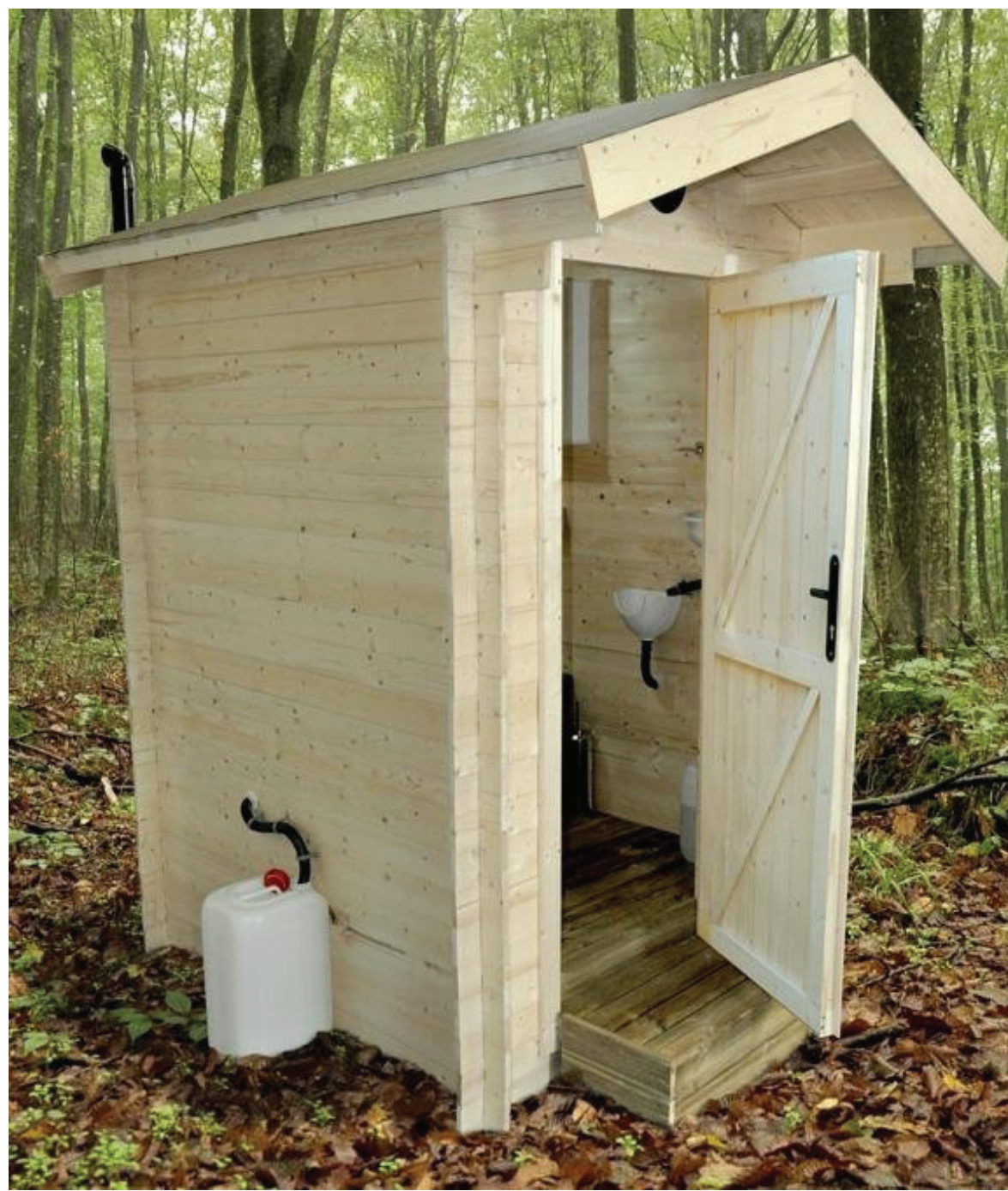
Courtyard West Elevation



Courtyard North Elevation



Creating a New Garden as a Tranquil Haven





1. Lindens (Tilia)  
 2. Grey carpet  
 3. Accent carpet  
 4. Accent walls  
 5. Fabrics and patterns  
 6. Veneer finishes

A 3D architectural rendering of the interior of a modern auditorium. The space features tiered seating with red seats in the upper sections and grey seats in the lower sections. A stage area is visible at the front, equipped with a large screen and various lighting fixtures. Large windows on the right side of the stage provide natural light and a view of the exterior. The overall design is clean and contemporary.





High School Interior



High School LRC Space



- 1. Blue Atlas Cedar (Cedrus atlantica var)
- 2. Accent carpets
- 3. Grey vinyl
- 4. Accent walls
- 5. Fabrics and patterns
- 6. Veneer finishes

Material Palette High School Learning Resource Centre



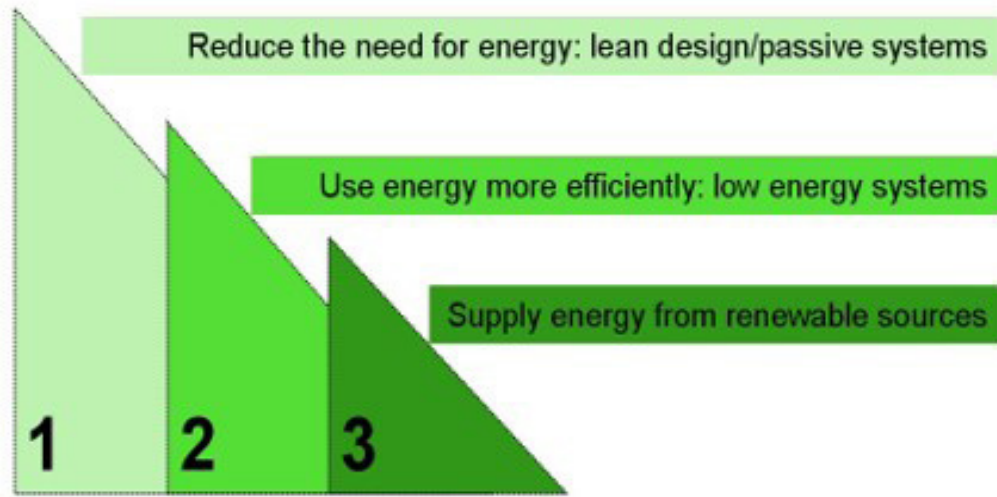
High School Interiors - LRC and Dining



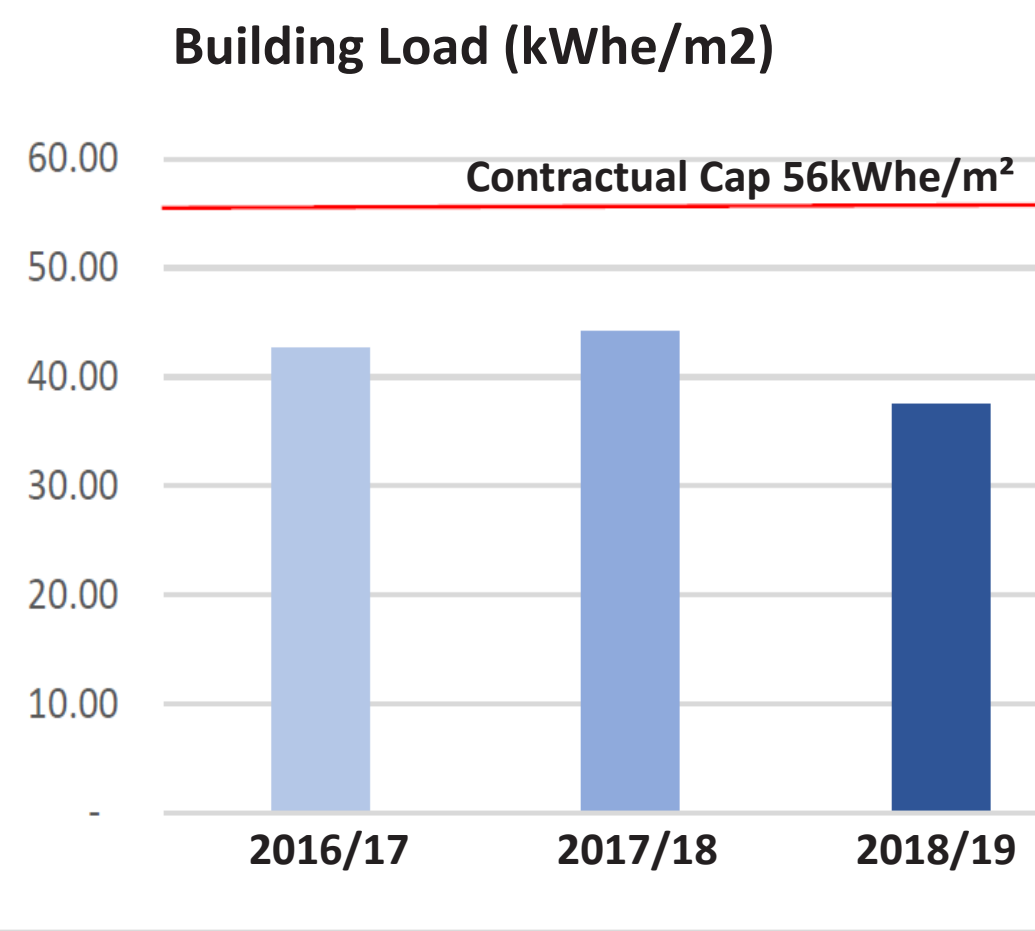
Environmental Strategy

Our approach to optimising energy use of the building is to adopt a fabric first approach. This approach can be described in 3 steps;

- 1. Be Lean
- 2. Be Clean
- 3. Be Green



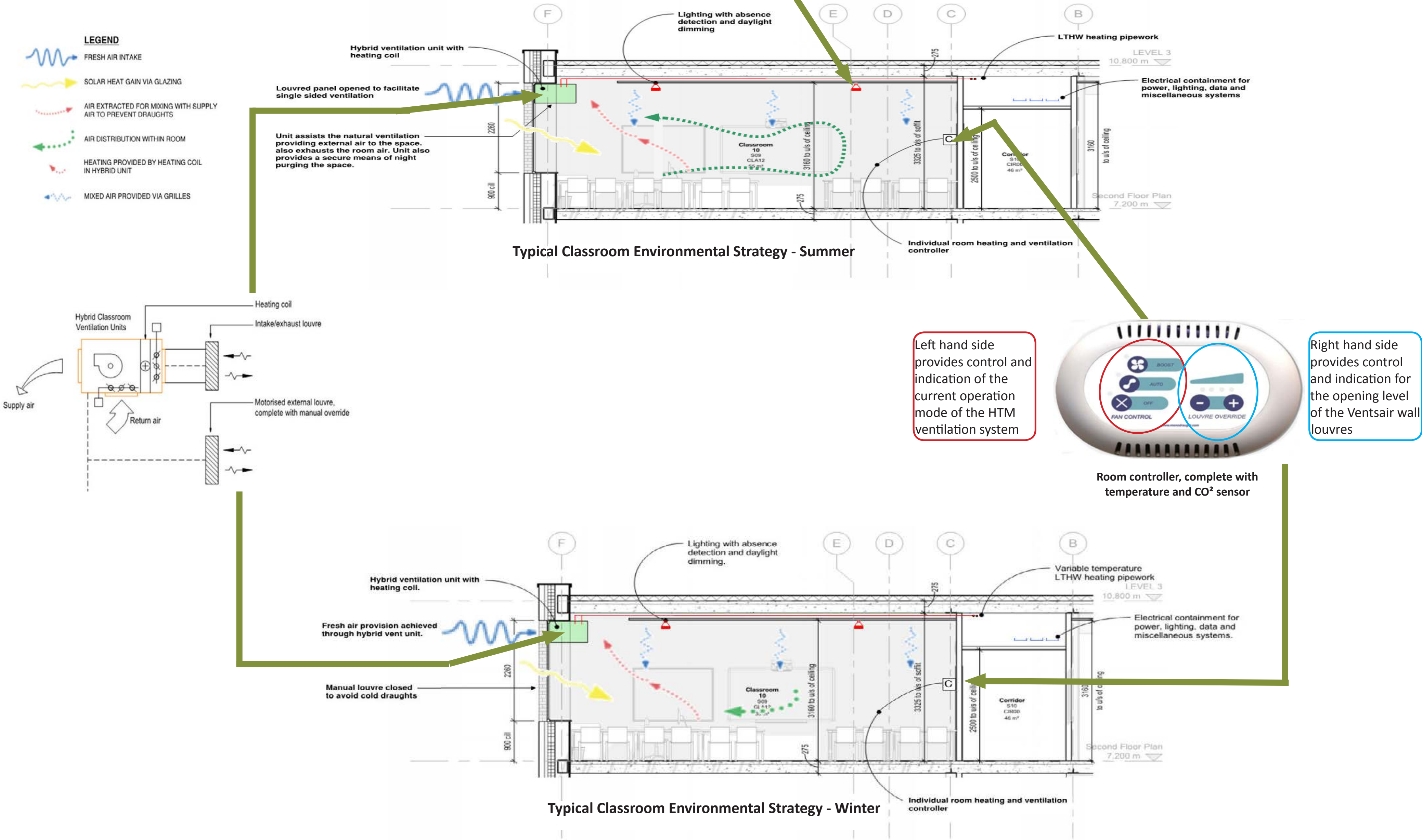
Optimising Energy Use and Carbon Emission Reduction



Potential to save up to 30% in energy consumption

| Year      | kWhe/m² |
|-----------|---------|
| 2016 - 17 | 42.65   |
| 2017 - 18 | 44.21   |
| 2018 - 19 | 37.53   |

Operational Energy Management within Schools



| BRUKL Output Document  |  |
|--|--|
| Compliance with England Building Regulations Part L 2013   |  |
| Project name   |  |
| 1890 Hexham School As designed   |  |
| Date: Thu Jun 06 11:43:31 2019   |  |
| Administrative Information   |  |
| Building Details   | Owner Details  |
| Address: 1890 Hexham School, ,   | Name:  |
|  | Telephone number:  |
|  | Address: , ,   |
| Certification tool   | Certifier details  |
| Calculation engine: Apache   | Name:  |
| Calculation engine version: 7.0.9  | Telephone number:  |
| Interface to calculation engine: IES Virtual Environment   | Address: , ,   |
| Interface to calculation engine version: 7.0.9   |  |
| BRUKL compliance check version: v5.4.a.1   |  |
| Criterion 1: The calculated CO <sub>2</sub> emission rate for the building must not exceed the target  |  |
| CO <sub>2</sub> emission rate from the notional building, kgCO <sub>2</sub> /m <sup>2</sup> .annum   | 24.3   |
| Target CO <sub>2</sub> emission rate (TER), kgCO <sub>2</sub> /m <sup>2</sup> .annum   | 24.3   |
| Building CO <sub>2</sub> emission rate (BER), kgCO <sub>2</sub> /m <sup>2</sup> .annum   | 21.7   |
| Are emissions from the building less than or equal to the target?  | BER <= TER   |
| Are as built details the same as used in the BER calculations?   | Separate submission  |
| Criterion 2: The performance of the building fabric and fixed building services should achieve reasonable overall standards of energy efficiency |  |
| Values which do not achieve the standards in the Non-Domestic Building Services Compliance Guide and Part L are displayed in red.                |  |
| Building fabric  |  |
| Element  | U <sub>Limit</sub> U <sub>Calc</sub> U <sub>Calc</sub> Surface where the maximum value occurs* |
| Wall**   | 0.35 0.18 0.18 00000035:Surf[1]  |
| Floor  | 0.25 0.18 0.18 00000035A:Surf[0]   |
| Roof   | 0.25 0.18 0.18 00000035D:Surf[4]   |
| Windows***, roof windows, and rooflights   | 2.2 1.2 1.36 00000035:Surf[2]  |
| Personnel doors  | 2.2 - - No Personnel doors in building   |
| Vehicle access & similar large doors   | 1.5 - - No Vehicle access doors in building  |
| High usage entrance doors  | 3.5 - - No High usage entrance doors in building   |
| U <sub>Limit</sub> = Limiting area-weighted average U-values [W/(m²K)] U <sub>Calc</sub> = Calculated area-weighted average U-values [W/(m²K)]   |  |
| * There might be more than one surface where the maximum U-value occurs.   |  |
| ** Automatic U-value check by the tool does not apply to certain walls whose limiting standard is similar to that for windows.                   |  |
| *** Display windows and similar glazing are excluded from the U-value check.   |  |
| N.B. Neither roof ventilators (inc. smoke vents) nor swimming pool basins are modelled or checked against the limiting standards by the tool.    |  |
| Air Permeability   | Worst acceptable standard This building  |
| m³/(h.m²) at 50 Pa   | 10 5   |

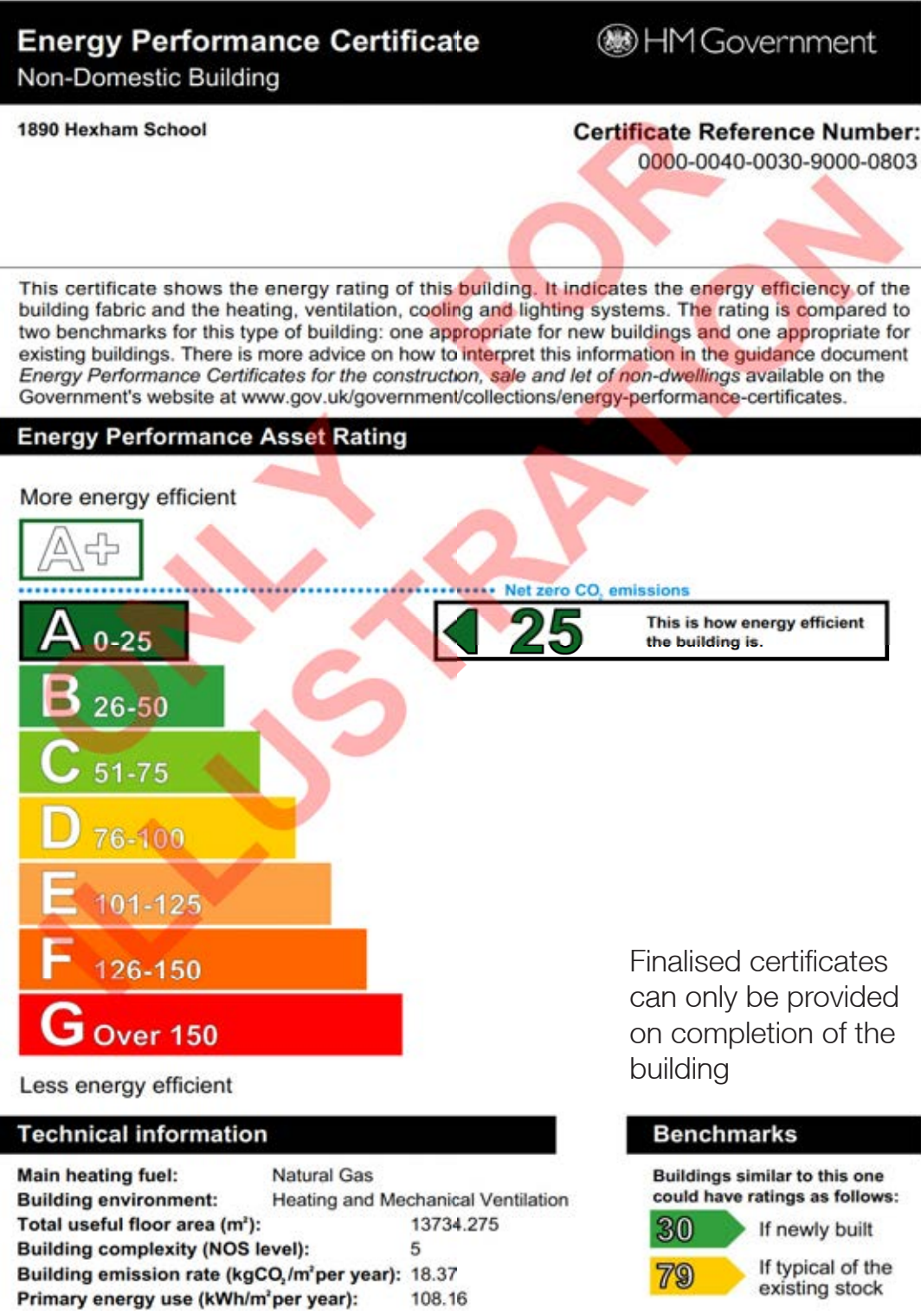
Over 10% Reduction in CO<sub>2</sub> Emission Environmental Credentials



Existing building EPC certificates

| DEC Ratings of Existing Buildings |                |
|-----------------------------------|----------------|
| HMS:                              |                |
| Orchard Building                  | 122 - E Rating |
| Fullside Building                 | 119 - E Rating |
| Beaumont Building                 | 106 - E Rating |
| QEMS:                             |                |
| Lower School                      | 78 - D Rating  |
| Hydro Building                    | 97 - D Rating  |

Note: EPC below is for new build



EPC A Rating for New Build

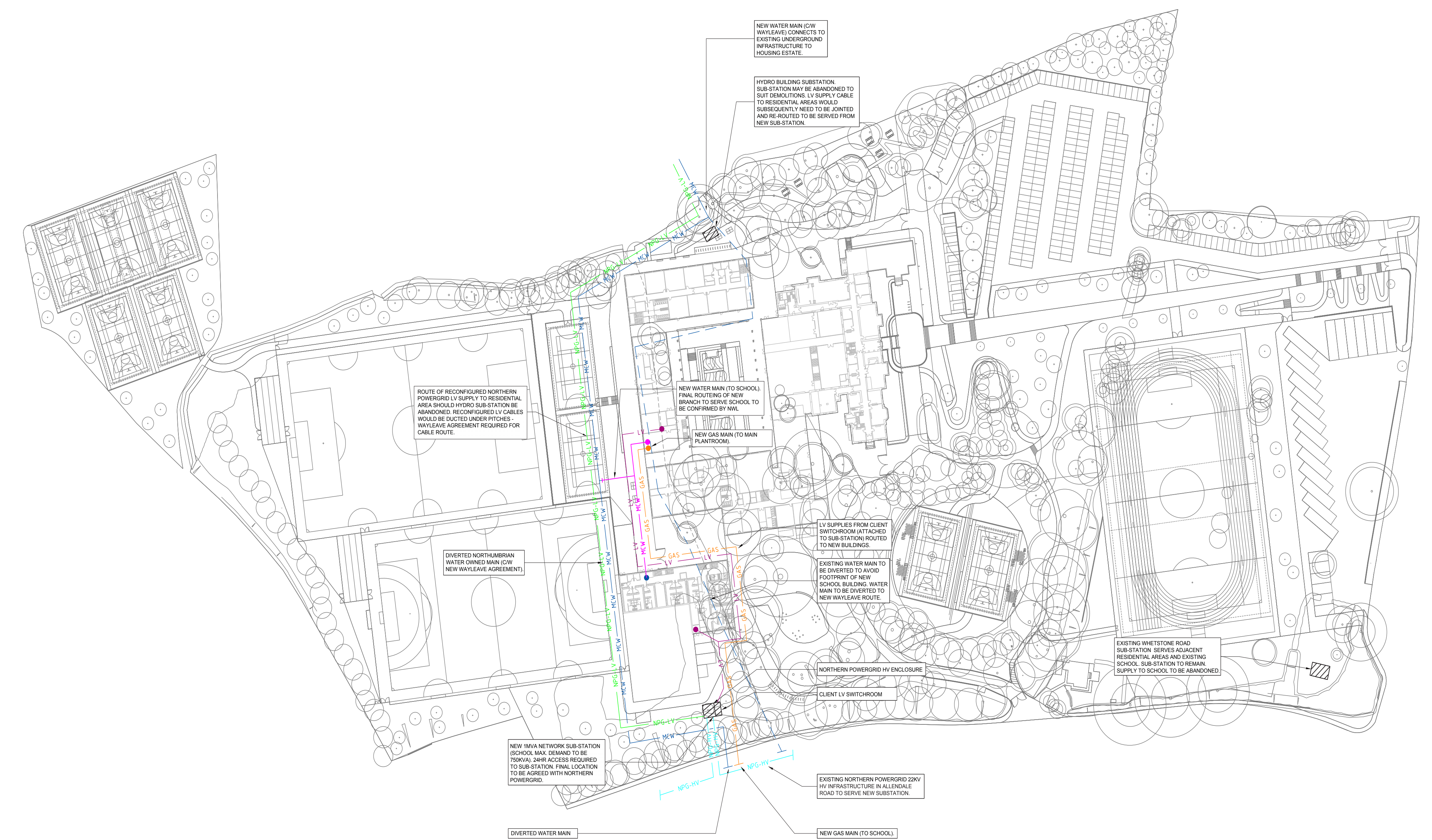
Additional funding of £400k is being made available by Northumberland County Council to improve further the building's EPC rating.



External Lighting and Utilities



External lighting



Utilities strategy

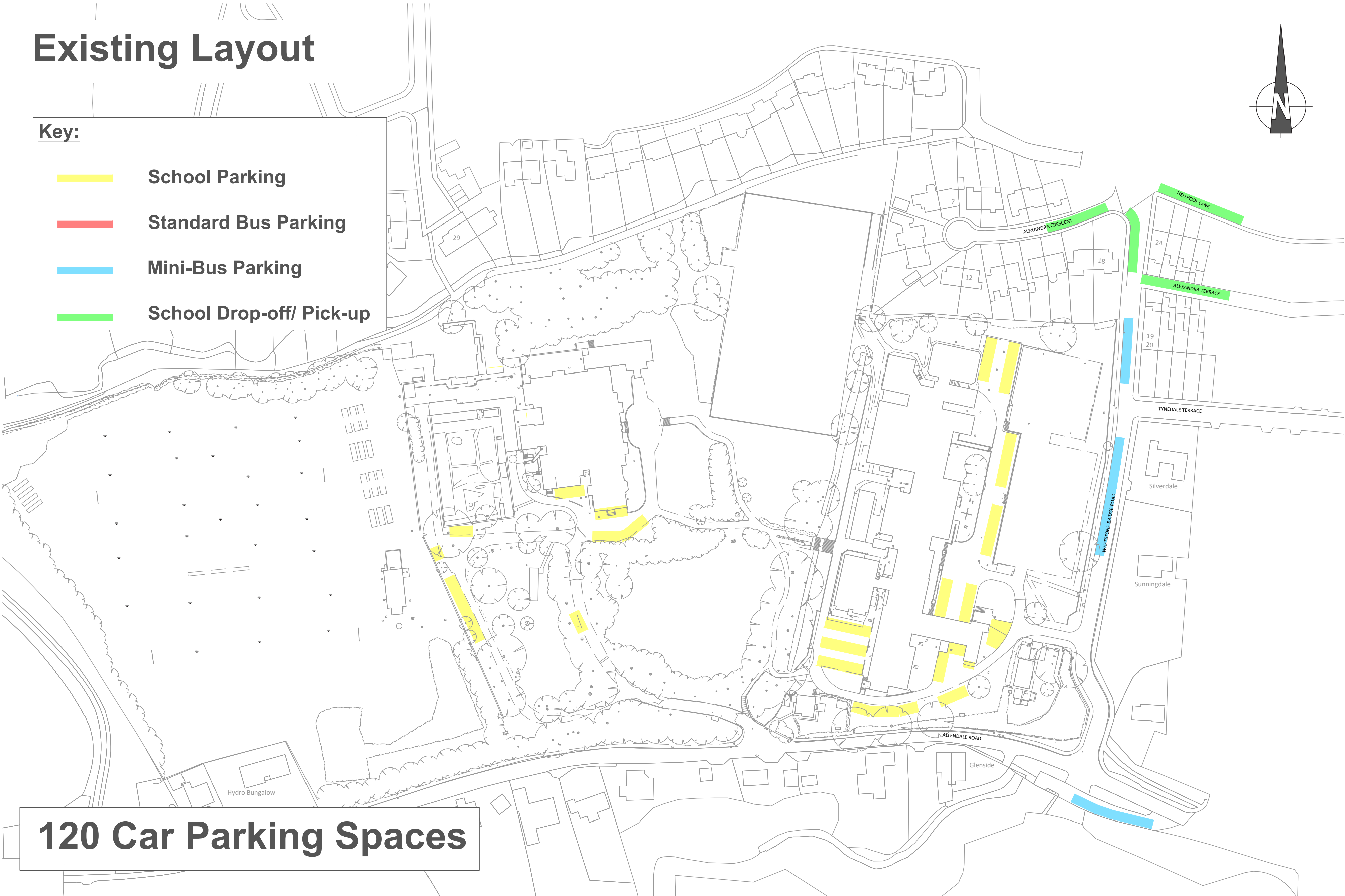


Parking for Staff, Sixth Form, Visitors and Bus will all be on site

## Existing Layout

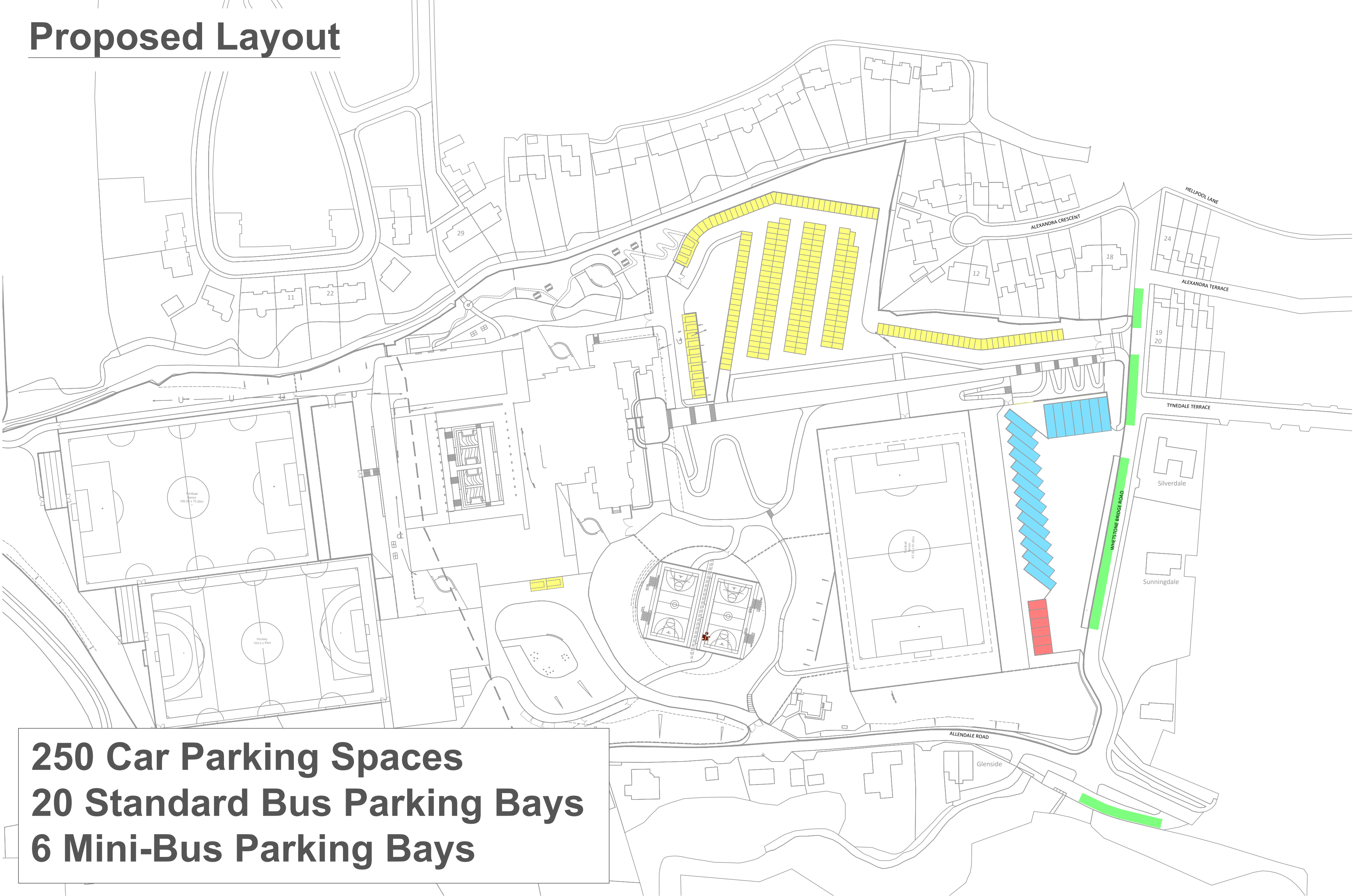
Key:

- School Parking
- Standard Bus Parking
- Mini-Bus Parking
- School Drop-off/ Pick-up



120 Car Parking Spaces

## Proposed Layout



250 Car Parking Spaces  
20 Standard Bus Parking Bays  
6 Mini-Bus Parking Bays



Pupil Travel to School Survey

Over 80% of pupils currently travel by sustainable modes (walk/cycle/bus):

|                        | Hexham Middle School<br>(September 2019) | Queen Elizabeth High School<br>(November 2018) |
|------------------------|--|--|
| Walk                   | 50%                                      | 41%  |
| Bus Drop-Off at School | 28%                                      | 42%  |
| Lift in Car            | 16%                                      | 13%  |
| Own Car                | 0%                                       | 2%   |
| Cycle                  | 5%                                       | 0%   |
| Taxi                   | 2%                                       | 1%   |
| Total                  | 100%                                     | 100%   |

Subject to rounding

School Pupil Admission Number (PAN)

No increase in PAN.

Existing Schools

HMS PAN: 600  
QEHS PAN: 1,308

Proposed Schools

HMS PAN: 600  
QEHS PAN: 1,308

