

2.11 ACCOMMODATION ADJACENCY - GROUND FLOOR

GROUND FLOOR DEVELOPMENT OF BRIEF

The ground floor adjacency and spatial relationships have undergone significant development with Harlington School and the DfE whilst utilising an extensive range of knowledge and ‘lessons learnt’ from LSI and technical advisors Mace.

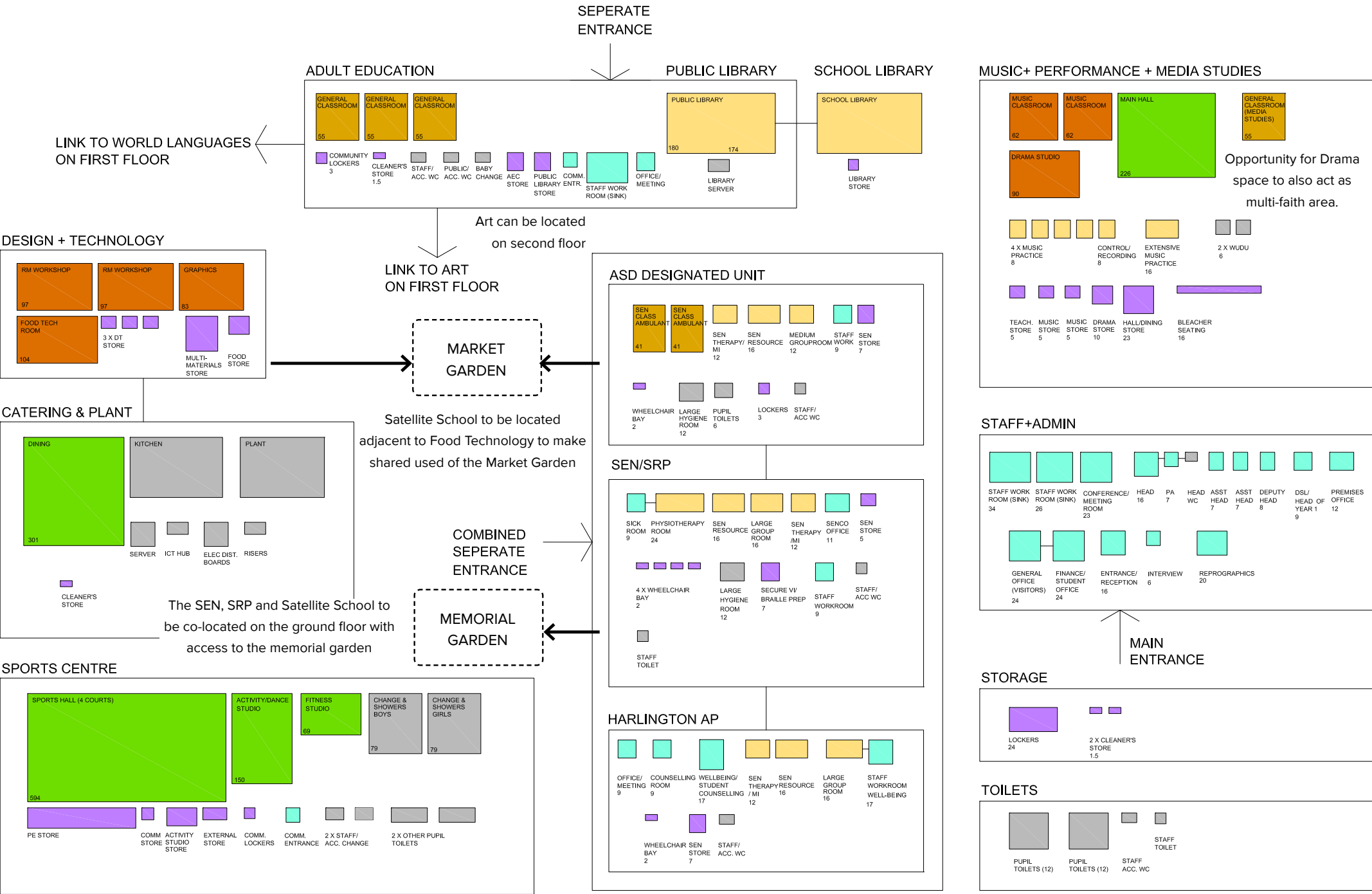
A key challenge on the ground floor was accommodating a public library and adult education facility to the frontage of the site with a clear sight line to Pinkwell Lane.

This task was accompanied by a requirement for also ensuring that entrances to both the main school and SEN provisions were welcoming, efficient and fit for purpose whilst not seen as secondary to the community facilities.

Another set of key adjacencies were the links to external space surrounding the building. By placing the busy, louder playground to the south west of the main teaching block in its own quadrangle, it benefits from easy access to the dining hall, entrance and sports block. It also benefits from being sheltered to the local residents therefore helping with its acoustic challenges.

Similarly the SEN provision requires an external space which allows an external element to its curriculum, but in a quieter more protected zone, thus its key positioning found to the north east of the site also accommodating acoustic constraints of sitting near residential neighbours.

This protected space also accommodates a supervised market garden and quiet memorial garden away from the bustle of the main play areas.



2.12 ACCOMMODATION ADJACENCY - FIRST FLOOR

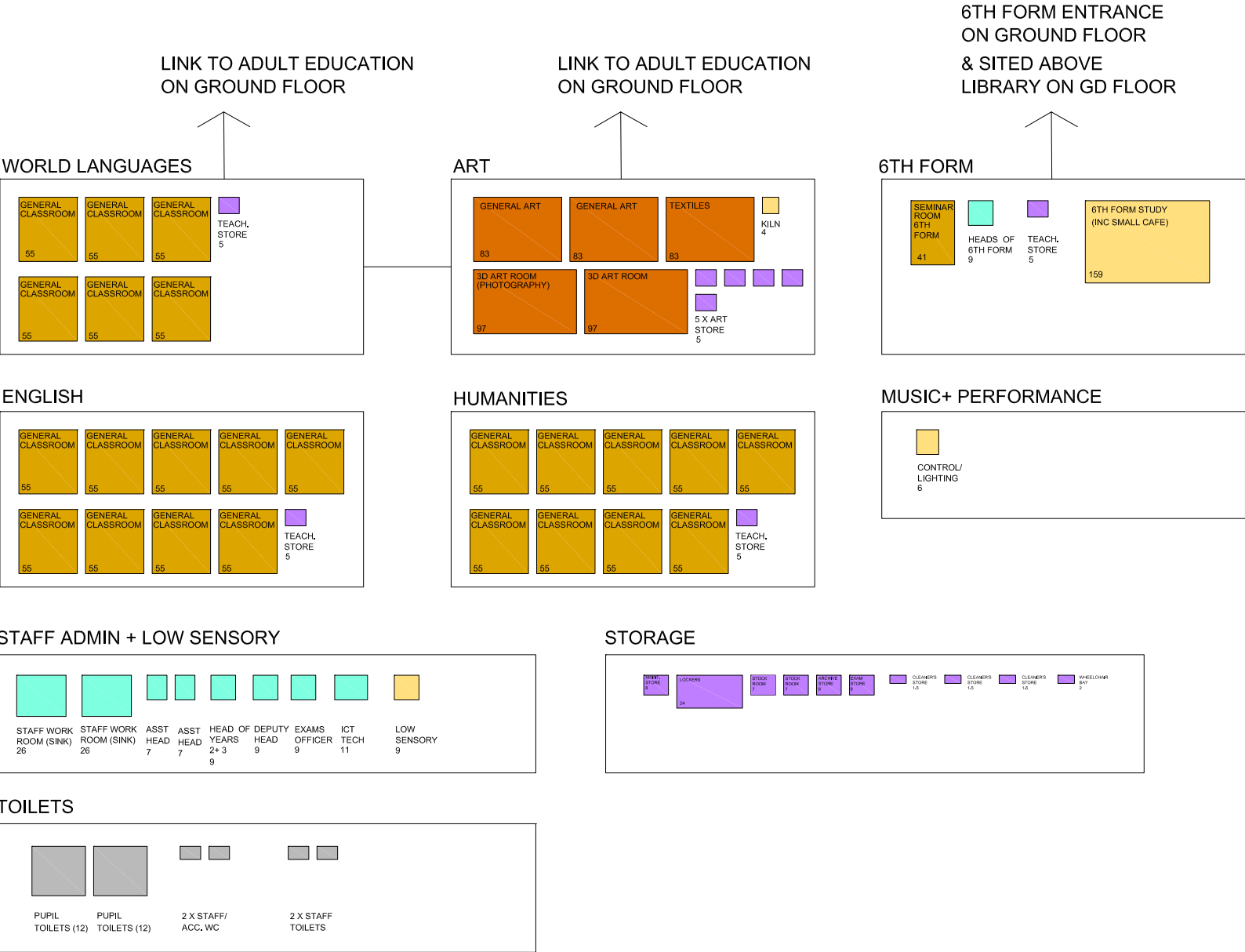
FIRST FLOOR DEVELOPMENT OF BRIEF

The first floor adjacency and spatial relationships have similarly undergone ongoing development with Harlington School and the DfE, whilst utilising an extensive range of knowledge and ‘lessons learnt’ from LSI and technical advisors Mace.

An even spread of staff supervision and work rooms has been placed on each floor of the building, thus allowing for support and nurturing of the students between timetabled curriculum.

Typically the first floor accommodates more traditional subjects from the curriculum, those which require less technical requirements in respect of ventilation and extraction, more suited to the upper floors.

Harlington School’s sixth form will find a home on the first floor to allow for secure access via its own stair and circulation, this location will also allow for a building frontage and presence to the school approach from the west and north elevations.



2.13 ACCOMMODATION ADJACENCY - SECOND FLOOR

SECOND FLOOR DEVELOPMENT OF BRIEF

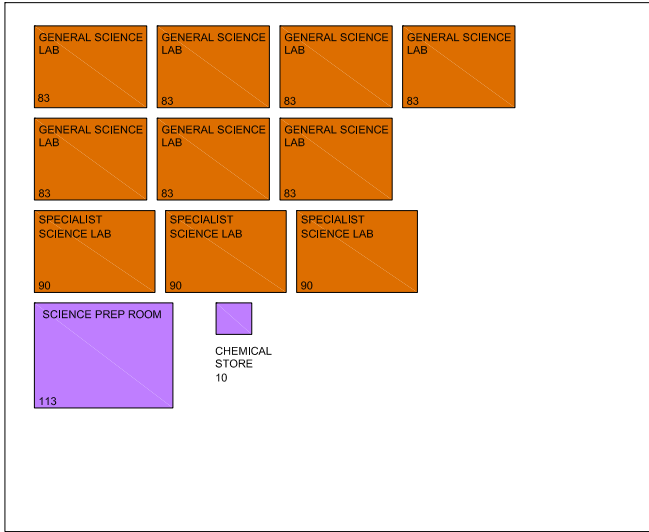
The second floor adjacency and spatial relationships have similarly undergone ongoing development with Harlington School and the DfE, whilst utilising an extensive range of knowledge and ‘lessons learnt’ from LSI and technical advisors Mace.

An even spread of staff supervision and work rooms has been placed on each floor of the building, thus allowing for support and nurturing of the students between timetabled curriculum.

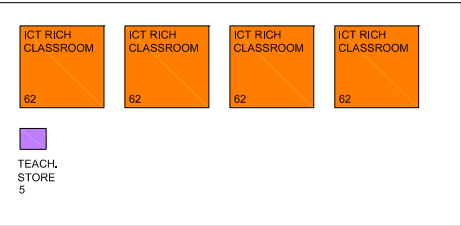
The second floor accommodates science teaching which has unique technical requirements in respect of ventilation and extraction, more suited to the upper floors.

Similarly the ICT rich facilities were desired on the second floor so as to provide a group set of facilities with an efficient solution to technical challenges such as cooling and ventilation.

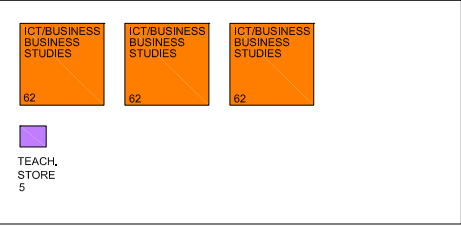
SCIENCE



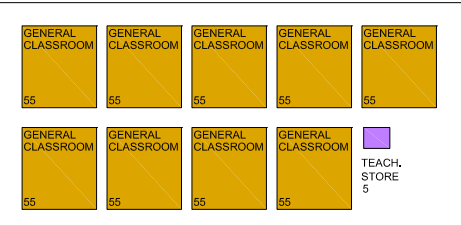
COMPUTING FACULTY



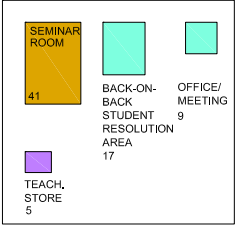
BUSINESS & ECONOMICS



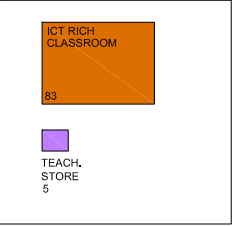
MATHMATICS



BACK-ON-TRACK



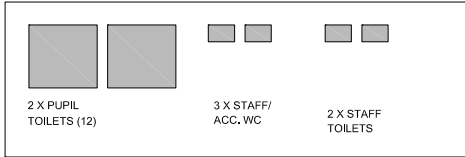
ON-LINE LEARNING



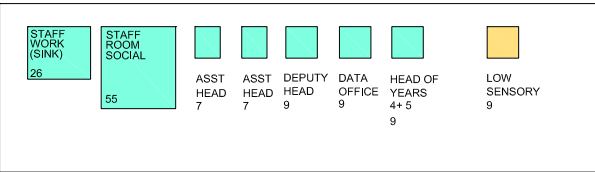
STORAGE



TOILETS



STAFF + ADMIN + LOW SENSORY



3.0 LAYOUT

- 3.1 EXTERNAL LAYOUT - OVERALL SITE STRATEGY
- 3.2 INTERNAL LAYOUT - GROUND FLOOR PLAN
- 3.3 INTERNAL LAYOUT - FIRST FLOOR PLAN
- 3.4 INTERNAL LAYOUT - SECOND FLOOR PLAN
- 3.5 EXTERNAL LAYOUT - ROOF PLAN



3.1 EXTERNAL LAYOUT - OVERALL SITE STRATEGY

KEY FEATURES OF EXTERNAL DESIGN

Existing main staff car parking to north east of site retained along with overspill to south boundary.

Existing overspill car parking allocation from 'Goals Heathrow' has been retained to south boundary of site.

New drop-off loop for SEN provision constructed to north of main teaching block.

External area has been re-focussed to centre around a proposed 'quadrangle' centrally along the south face of the main teaching block.

Quieter, individual external play to be utilised by the SEN provision has been separated into an enclosed area to the north east of the main teaching block.

Cycle shelters have been provided centrally, located west of the main teaching block, providing a provision of 140 cycle spaces.

A feature tree boulevard has been utilised to direct pedestrian flow from Pinkwell lane into the main entrance areas for both library / community facilities and the main teaching block.



3.2 INTERNAL LAYOUT - GROUND FLOOR

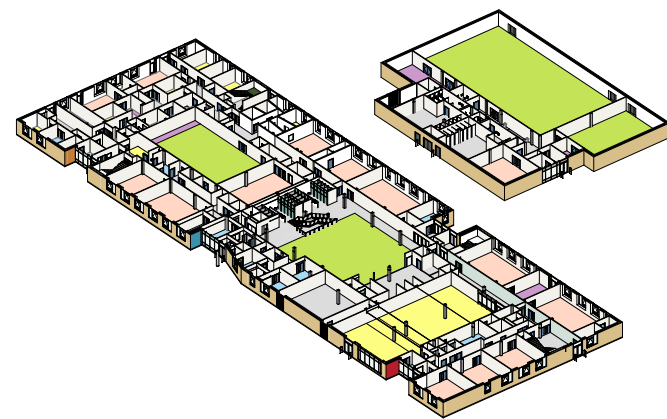
GROUND FLOOR LAYOUT

The first entrance (1) on approach to the main block provides a supervised route into what will be a hub for the local community, immediately inside the door both adult education spaces and a large shared public library will be available during flexible opening hours.

The second and central entrance (2) provided is for Harlington School's visitors and forms an inviting and clear circulation route for the building users, presenting them to the large central dining space which is seen as the 'heart' of the school, similarly the main hall and drama studio can be found centrally within the plan.

Technology and Music have been strategically placed on the south elevation with a direct link to the noisier of the external play spaces, provided so crucially by the quadrangle, central to the site strategy.

Found centrally to the rear of the building is Harlington School's main pupil entrance, this will see the main thoroughfare of pupil movement and has been optimally sized to welcome said students into the heart of the school from the main quadrangle.



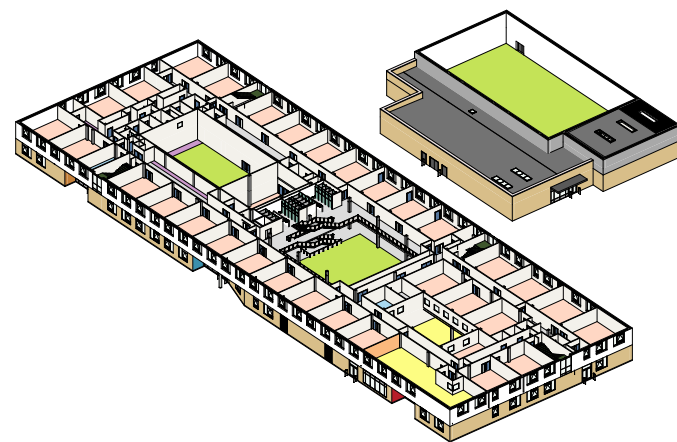
3.3 INTERNAL LAYOUT - FIRST FLOOR

FIRST FLOOR LAYOUT

Harlington School's sixth form provision will enjoy a north west corner of the plan, by grouping their key activities, a sense of ownership will be coupled with a building frontage and enhanced visual relationship with the approach to the school building from Pinkwell Lane.

Staff work rooms are spread between corners of the plan and also placed centrally for passive supervision.

World Languages, Humanities, English and Business classrooms have been placed on the perimeter of the building, gaining natural daylighting, ventilation and views across the site whilst also allowing for central voids creating taller zones centrally such as the main hall, drama, the library and dining.



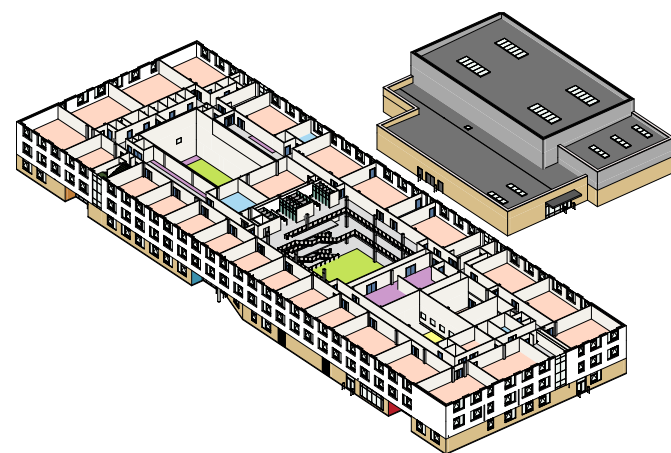
3.4 INTERNAL LAYOUT - SECOND FLOOR

SECOND FLOOR LAYOUT

Similarly to the first floor, staff work rooms are spread between corners of the plan and also placed centrally for passive supervision.

Science, Specialist Science, Maths, Art and Textiles have been placed on the perimeter of the second floor, gaining natural daylighting, ventilation and views across the site whilst also allowing for central voids creating taller zones centrally such as the main hall, drama, the library and dining.

The large science preparation room has been positioned centrally to the plan allowing servicing to all science classrooms whilst also freeing up valuable perimeter space for key teaching spaces.



3.5 EXTERNAL LAYOUT - ROOF PLAN

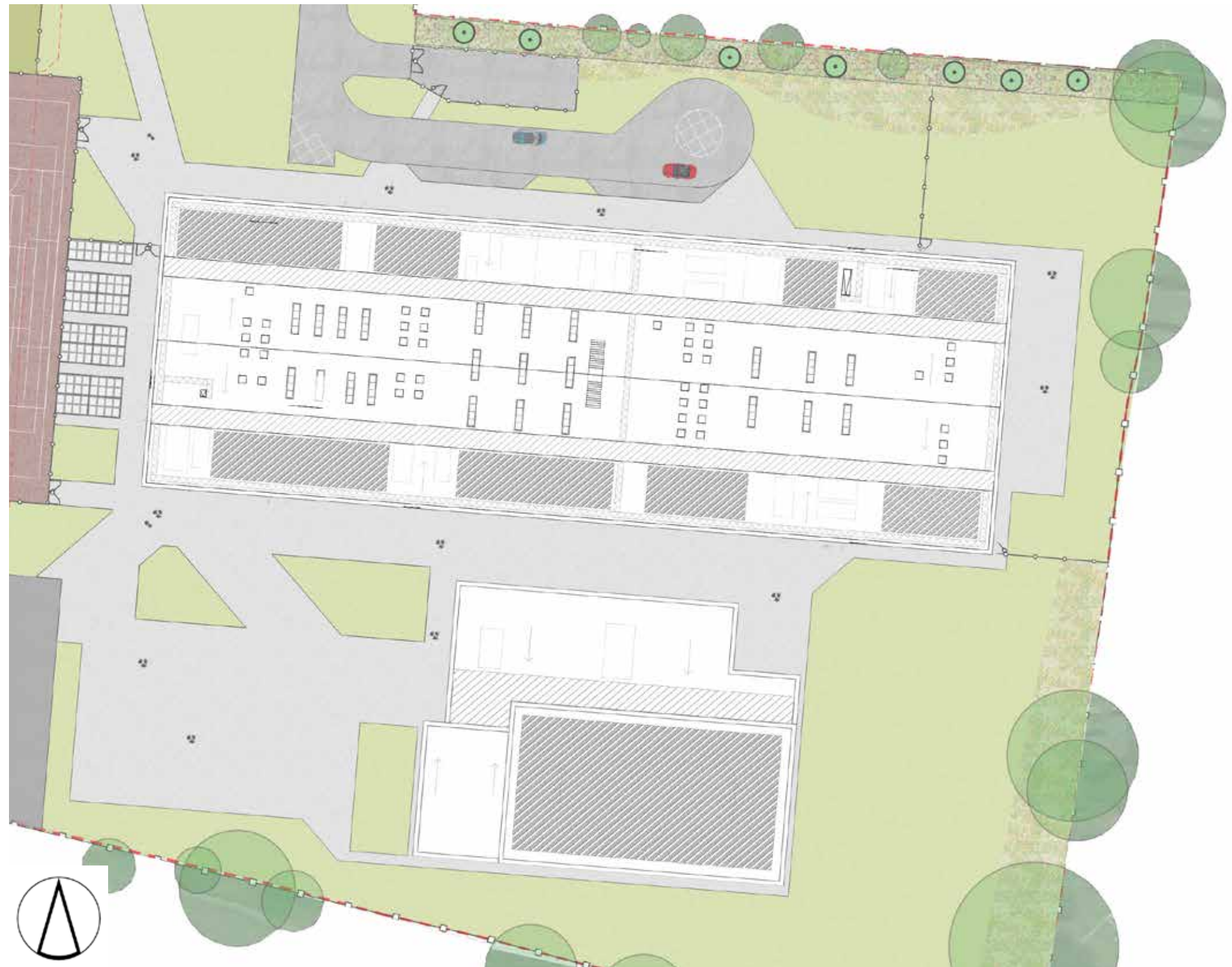
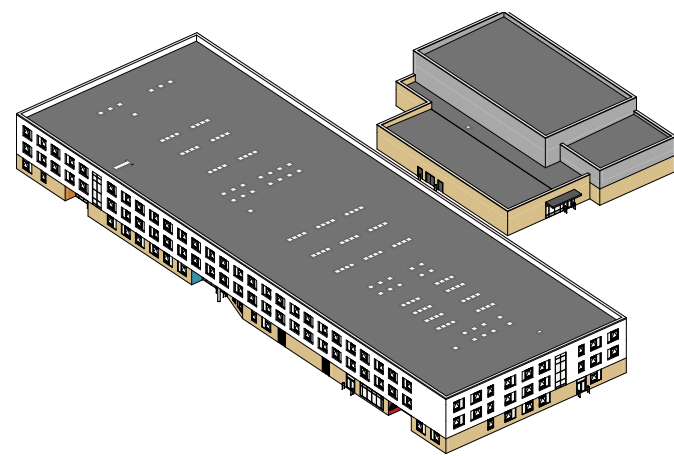
ROOF PLAN LAYOUT

A number of mechanical and electrical systems will be located on the roof including:

- Ventilation equipment: Air handling units (AHUs), extract fans and fume cupboard fans
- Photovoltaic array to generate renewable electricity
- Condensers for cooling systems (primarily for IT intensive spaces)
- Gas boiler flue termination

Where possible the plant will be located on the roof of the main building however some plant will also be installed on the roof of the sports hall building. Equipment will be carefully selected and positioned to minimise its height and visibility from the nearby areas.

Safe access will be provided to all plant to ensure that it can be regularly maintained. All plant will be selected and assessed by the acoustician to ensure noise requirements are met.



4.0 APPEARANCE

- 4.1 MATERIAL PRECEDENT
- 4.2 MATERIAL CONCEPT
- 4.3 BUILDING ELEVATIONS
- 4.4 EXTERNAL APPROACH
- 4.5 COLOUR ANALYSIS
- 4.6 EXTERNAL VIEWS
- 4.7 INTERNAL VIEWS



4.1 MATERIAL PRECEDENT



Samuel Ward Academy - Sports Block



Samuel Ward Academy - Main Teaching Block



Langley Grammar School - Main Entrance



Eastbrook School - Main Teaching Block

4.2 MATERIAL CONCEPT

EXTERNAL MATERIAL CONCEPT

Whilst utilising a mixture of brickwork, render and metal cladding, the materiality of the proposed buildings has been carefully considered to provide a solution which creates the desired aesthetic and robustness whilst being feasible within the project budget.

The external facade of the building uses robust and durable materials, with a view to looking fresh for years to come. Durability will be helped by the distance of the building away from a busy roadside location.

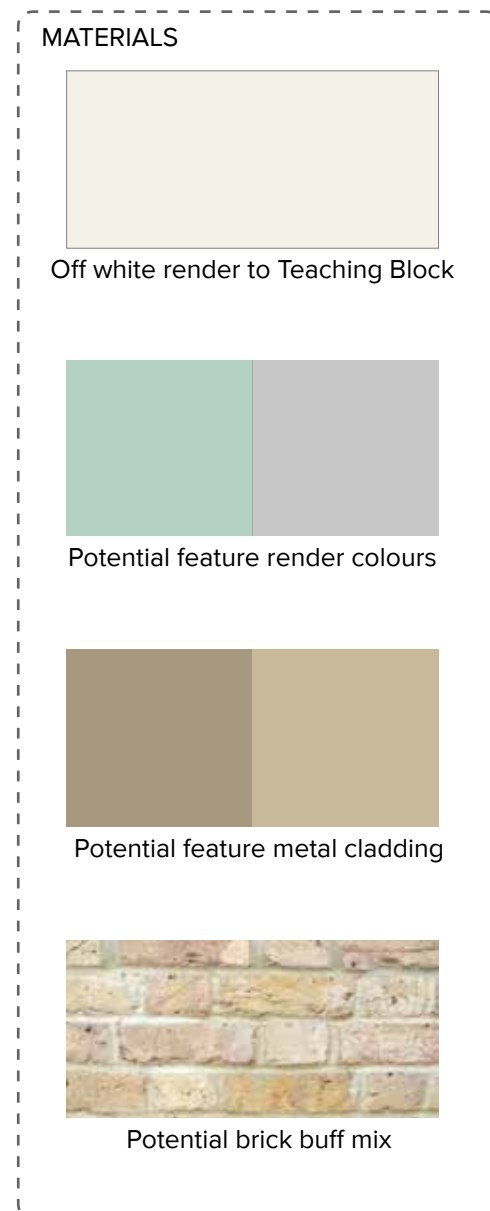
At ground floor level, buff brick wraps around the entirety of the building providing the vision for a robust base absorbing the activity of a busy school and community environment.

The volume of the block is broken up with feature coloured render separating the different curriculum and highlighting the SEN provision on the East of the building, this colour also offered the opportunity to soften the facade, presenting a reflection of the green boundary enjoyed adjacent.

Use of high quality silicone render system has enabled careful detailing of openings and copings with the provision of a consistent and simple building form, reducing junctions and opportunities for staining, which in turn has maximised the opportunity for reducing future maintenance.

The sports hall is distinguished with feature coloured metal cladding. Similarly to the main teaching block the tonal colours reflect and help blend into the existing tree lined boundaries found along both the east and south extents toward the greenbelt.

The front elevation will benefit from recessed colour to highlight key entrances to the building, this will aid with wayfinding upon the approach, whilst remaining subtle and non obtrusive to the neighbouring properties to the north boundary extents.



4.3 KEY BUILDING ELEVATIONS



NORTH ELEVATION



EAST ELEVATION



SOUTH ELEVATION



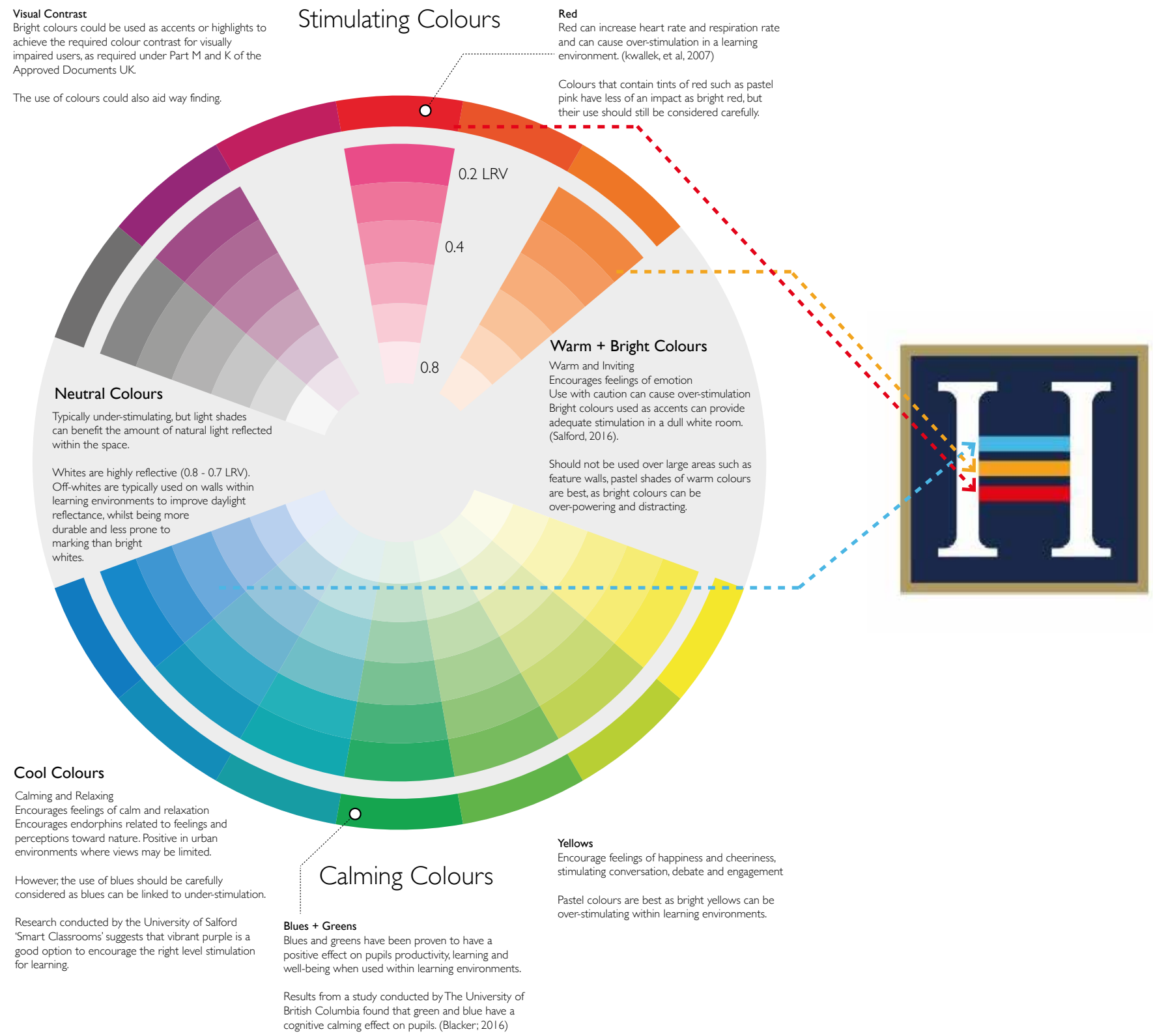
WEST ELEVATION

4.4 KEY BUILDING EXTERNAL APPROACH



External Appearance - Main Building Approach from Pinkwell Lane

4.5 COLOUR ANALYSIS - HARLINGTON SCHOOL BRANDING



HARLINGTON SCHOOL COLOURS



Crest Colours



Website Colours



Prospectus Colours

According to the colour chart, using red and yellow in a learning environment may be over-stimulating for the pupils.

SUGGESTED COLOUR PALETTE



Using a blue and orange colour palette will have a calming and positive affect on pupil's learning and well-being when used in a learning environment.

4.6 KEY BUILDING EXTERNAL VIEWS



External Appearance - Main Entrance Approach

4.6 KEY BUILDING EXTERNAL VIEWS



External Appearance - Main Entrance Approach (North Elevation)



External Appearance - Sports Block Quadrangle Elevation (West Elevation)



External Appearance - SEN Outdoor Provision (North East Corner)



External Appearance - Main Student Entrance Approach (South Elevation)

4.7 KEY BUILDING INTERNAL VIEWS



Internal Appearance - Central Dining Space



Internal Appearance - Central Library Space



Internal Appearance - Main Teaching Hall



Internal Appearance - Typical Technology Classroom

4.7 KEY BUILDING INTERNAL VIEWS



Internal Appearance - Typical Teaching Space



Internal Appearance - Typical Science Classroom

5.0 LANDSCAPE

- 5.1 LANDSCAPE MASTER PLAN
- 5.2 SITE BOUNDARY AND ENCLOSURE
- 5.3 FENCING AND GATES



5.2 SITE BOUNDARY AND ENCLOSURE

SITE ENCLOSURE APPROACH

Non secure area of main access footpath and key car park ensures access throughout the day for visitors to the main entrance of both the school and community facilities.

Due to the complex needs of pupils within this area, the quieter more individual SEN external play provision has been separated from the rest of the school, found to the north east corner of the main teaching block.

Whilst the multi use games area is located centrally on the site to allow unrestricted access for both school use and community usage as required, the MUGA is fenced to the perimeter to allow for access to be safe and controlled.



5.3 FENCING AND GATES

SITE ENCLOSURE APPROACH

The scheme retains much of the existing boundary fencing while proposing a 2.4m high section of weld mesh fencing along Pinkwell Lane to secure the boundary.

We have proposed new vehicular gates to the north east car park and retained the existing access points along the western boundary.

The new MUGA has been fenced with 3.0m high weld mesh with 3.0m wide pedestrian gates to allow for controlled access for community use.

The SEN area has been separated from the rest of the school with 2.4m high weld mesh fencing and 1.5m wide pedestrian gates.

The service compound has been fenced with 1.8m high close boarded fencing and has both a 1.5m wide pedestrian gate and a vehicular gate for the bin collection

-  Single leaf pedestrian gate - 1.5m wide
-  Double leaf pedestrian gate - 3.0m wide
-  Double leaf vehicular gate - width to engineer's details
-  Existing gates to be retained
-  Secure fence line - 2.4m high weldmesh
-  MUGA rebound fence - 3.0m high weldmesh
-  Boundary Fencing - 2.4m high Palisade fencing -
-  Bin Store fence - 1.8m close boarded timber fencing
-  Existing Boundary Fencing



6.0 ACCESS

- 6.1 SITE ACCESS AND CIRCULATION
- 6.2 FIRE TENDER / EMERGENCY / REFUSE ACCESS
- 6.3 ACCESSIBLE DESIGN
- 6.4 BUILDING STRATEGY - MAINTENANCE



6.1 SITE ACCESS AND CIRCULATION

KEY CIRCULATION ROUTES

Existing staff vehicular entrance to main car parking entering site from the north east corner along Pinkwell Lane, via Dudley Place will be retained in full.

An additional drop-off loop for SEN provision and regular deliveries to the main school teaching block will be constructed to north of main teaching block.

‘Goals Heathrow’ will retain existing access to car parking along the rear south boundary from Shepiston Lane.

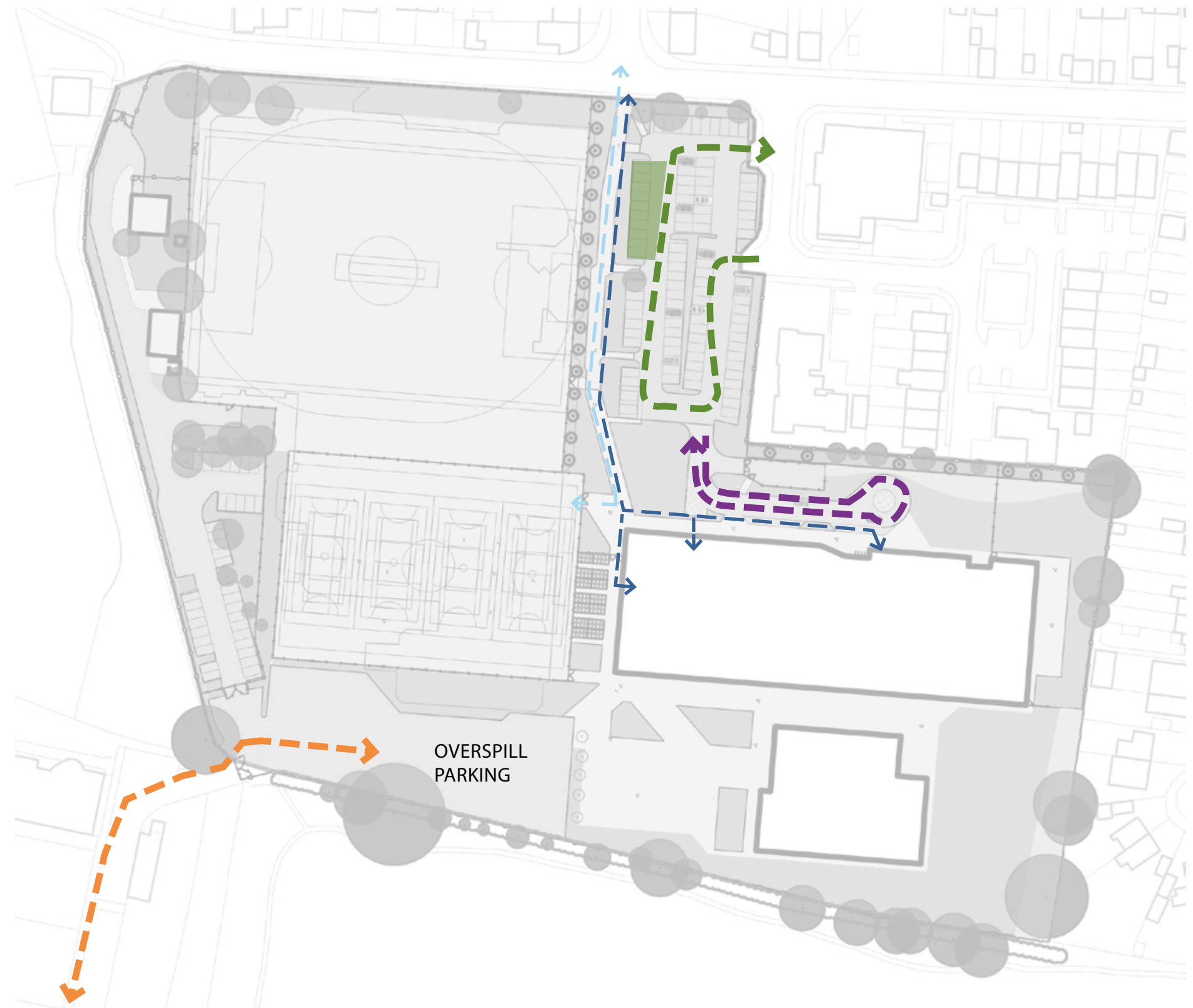
Pedestrian access is a simple, level access feature boulevard lined with trees providing direct and clear flow from Pinkwell lane into the main entrance areas for both library / community facilities and the main teaching block.

VEHICLE CIRCULATION

-  • Staff parking
-  • Existing drop-off retained
-  • SEN drop off
• Deliveries
-  • Goals car park access

PEDESTRIAN CIRCULATION

-  • Primary pedestrian access
-  • Out of hours community access.



6.1 SITE ACCESS AND CIRCULATION

STATEMENT FROM SARAH PHILLIPS -
SCHOOL PLACE PLANNING PROJECT MANAGER
HILLINGDON COUNCIL

Hillingdon Council supports all schools in the borough to deliver high standards of education in good facilities and is also currently managing a large increase in secondary pupil numbers.

The replacement of Harlington School is crucial to meeting these aims, and the council is funding an expansion of 45 pupils a year - 225 places and a new 15 place unit for pupils with autistic spectrum conditions and also enhanced circulation space with an uplift from a ratio of 25% to 30%, seen in wider corridors and stairs.

All these facilities have been carefully designed in discussion with Harlington school and the authority and are well located in the new building.

The design optimises co-location and the use of light within the constraints of keeping the existing school operational throughout the building work before its demolition and final landscaping.

The new replacement dual use public and school library benefits from being co-located together with the school Learning Resource Centre which provides access by pupils and staff from the school in school time.

There is also access for the public in daytime, evenings and Saturdays by the separate direct entrance which is visible from the road, down the avenue of trees and leads to a new community access corridor with a public accessible WC and baby change area.

This area is not open to the school pupils and likewise the door from the library Learning Resource Centre to the school will not be open to the public.

The three adult education classrooms provide flexible light, spaces and, like the library, will connect to the council broadband and provide public wi-fi.

The existing unit for pupils with Physical disabilities is being replaced and has been well designed with input from the school and the local authority and will be co-located with the new provision for pupils on the autistic spectrum and the school SEND hub area, with their own quiet, calm external teaching area, and classrooms for the internal nurture classes - all close to the medical rooms and with specialist facilities and direct external access for pupils to and from minibuses.

6.1 SITE ACCESS AND CIRCULATION

CAR PARKING

- Northern main car park: 103 Staff + 4 disabled spaces
- Western car park access road: 16 spaces
- Playground overspill: up to 50 spaces

DROP OFF

The school operates a one-way system in the main car park. The barrier is lifted for a time in the morning and the afternoon, and there is a 'drop off' section and a 'no waiting' area for traffic flow located in the north-west corner of the car park.

The barrier, outside of these times, is operated by fob access or push button to alert the receptionist of arrival. The drop off area is managed by staff, who ensure parents/guardians do not dwell and maintain the flow of traffic.

Harlington operates a continental school day from 8:00 – 14:40, whereas the adjacent Pinkwell Primary school is open from 08:30 to 15:20. This arrangement between the two schools ensures the impact on the public highway is kept to a minimum during drop off/pick up.

The school operates an after-school club between 16:00 and 17:00 and has recently launched a breakfast club between 07:30 and 08:00.

A new dedicated minibus area for the SEN building is provided to the south of the car park.

CYCLE PARKING

- Existing: The school has confirmed 15 covered and 53 uncovered Sheffield stands are currently located on-site. This equates to 136 spaces (2 spaces per stand).
- Proposed: cycle parking will be provided in line with the Draft London Plan standards which are as follows:
 - Long stay: 1 space per 8 FTE staff + 1 space per 8 students
 - Short stay: 1 space per 100 student

SEN vehicular drop-off	---
SEN pedestrian access	---
Adult ed/library access	---
Pupil access	---

Refuse collection	---
Deliveries and pick-up	---
SEN pedestrian access	---
Adult ed/library access	---
Late pupil/school visitor access	---



Typical access to main teaching block and community facilities at start / end of Harlington school day



Access to main teaching block and community facilities during teaching periods and after hours

6.2 FIRE TENDER / EMERGENCY

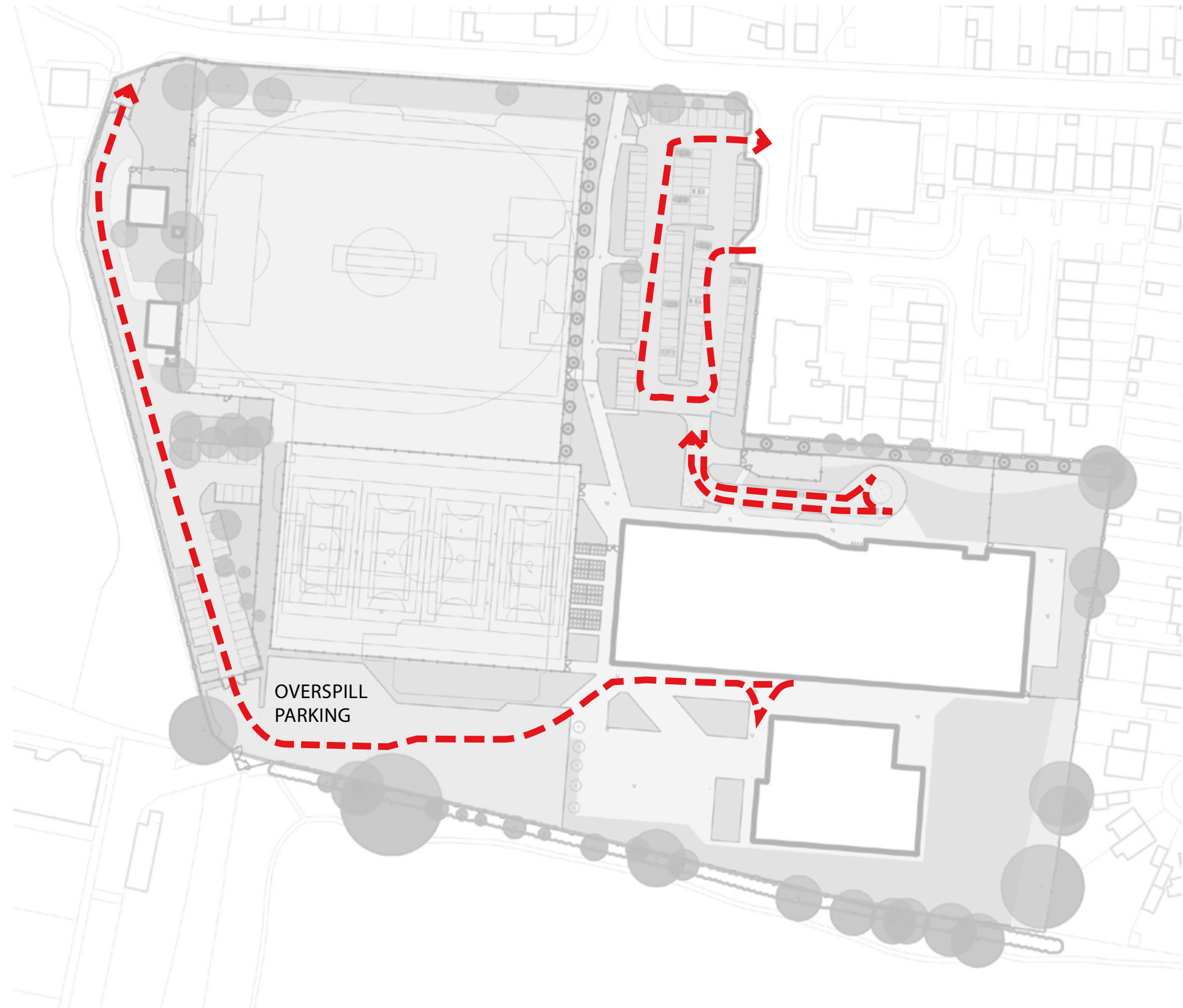
OVERALL VEHICLE ACCESS STRATEGY

The existing emergency access for fire tenders and general emergency vehicles is to be retained / extended.

For access to the rear of the building and to the sports block, the existing access road to the West boundary of the site will be utilised, continuing along the overspill car parking to the south and surfacing to the new quadrangle play area designed in accordance with requirements for the vehicles accordingly.

Access to the front of the building will utilise the existing north eastern car park route followed by the new SEN / deliveries specific drop-off loop which similarly has been designed to accommodate such vehicles.

The north eastern access will also be utilised for access to refuse vehicles, with a secure compound for refuse being located within the northern drop-off location.



• Fire Tender Access



6.2 REFUSE ACCESS

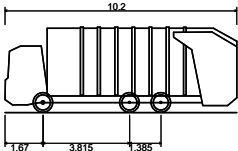
REFUSE ACCESS STRATEGY

KEY

FORWARD GEAR

REVERSE GEAR

VEHICLE PROFILE



Phoenix 2 Duo (P2-12W with Elite 6x4 chassis)

Overall Length10.200m

Overall Width2.530m

Overall Body Height3.751m

Min Body Ground Clearance0.304m

Track Width2.500m

Lock to lock time4.00s

Kerb to Kerb Turning Radius7.800m



6.2 FIRE TENDER / DROP-OFF

FIRE / DROP-OFF ACCESS STRATEGY

KEY	
	FORWARD GEAR
	REVERSE GEAR
VEHICLE PROFILE	
6.33 Mini Bus Overall Length 6.330m Overall Width 2.192m Overall Body Height 2.601m Min Body Ground Clearance 0.374m Track Width 2.192m Lock to lock time 4.00s Kerb to Kerb Turning Radius 6.450m	
7.7 Dennis Sabre Fire Tender (LWB) Overall Length 7.700m Overall Width 2.430m Overall Body Height 3.512m Min Body Ground Clearance 0.397m Track Width 2.380m Lock to lock time 5.00s Kerb to Kerb Turning Radius 7.400m	



6.3 ACCESSIBLE DESIGN

All entrance and exit points in the new school building will have level thresholds. In addition, all internal thresholds will be level throughout.

The proposed layout is designed in a linear arrangement allowing for efficient, easy to read internal circulation, which will be supplemented with clear directional signage.

Main circulation corridors are 2.0m wide and all doors to teaching spaces and external doors will have minimum 800mm clear width for adequate clear space for wheelchair users.

A centrally located lift is proposed (as indicated on plan), to minimise travel distances and to insure inclusive access to all floors of the building.

Stairwells will all have disabled refuges with call points for fire safety.

At least two accessible wc's are provided on all the floors of the building. The ground floor provides 6, including two situated ideally for the community facilities and one directly for staff use, which is positioned in the South East corner of the plan..



Second Floor Plan



First Floor Plan



Ground Floor Plan

Key

-  Lift
-  Acc. WC
-  Acc. Changing Room
-  Emergency Refuge
-  Level threshold

6.4 BUILDING STRATEGY - MAINTENANCE

Roof Access:

- Stepped access via secure hatch over stair landing with increased landing in main teaching block.
- Sports block access via secure hatch over enclosed sports equipment store.
- 1100mm high parapet provides safe access to plant, PVs and other equipment at roof level.
- All syphonic rainwater outlets and downpipes are internal so access from the building perimeter is not required.

Façades:

- The masonry construction of the walls requires very little maintenance. For all other areas, of through-colour render, cladding and glazing, cleaning is proposed using a pole and deionised water system (reach and wash) from the exterior. The deionised water system requires no cleaning chemicals or detergents and as such is environmentally friendly. This system will limit the danger of falls from height in the cleaning of the façades.

High level services/soffits internally:

- The majority of spaces within the new buildings are single height.
- Multi height spaces include the main hall, activity studio, library, dining and drama
- Lights/fittings and equipment in high spaces/ceilings can be accessed from inside the building using mobile platform, scissor lift or tower scaffold.
- Stairwells to have wall mounted lights for ease of access.

Windows, controls, switches:

- Controls and switches located at standard user level for everyday use. Windows can be opened manually using a teleflex winding mechanism for the upper light.
- Windows can be cleaned from the outside using the same reach and wash system.



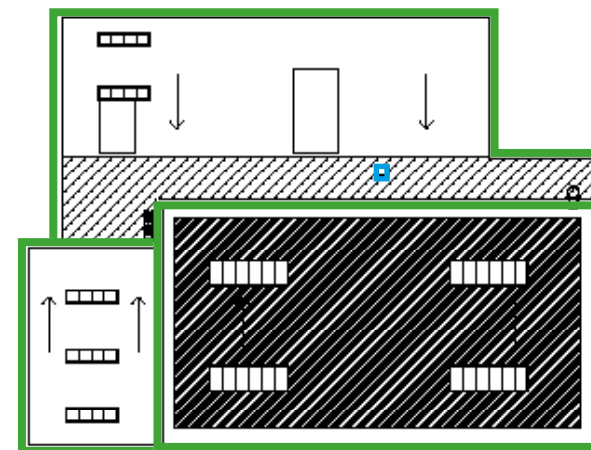
6.4 BUILDING STRATEGY - MAINTENANCE



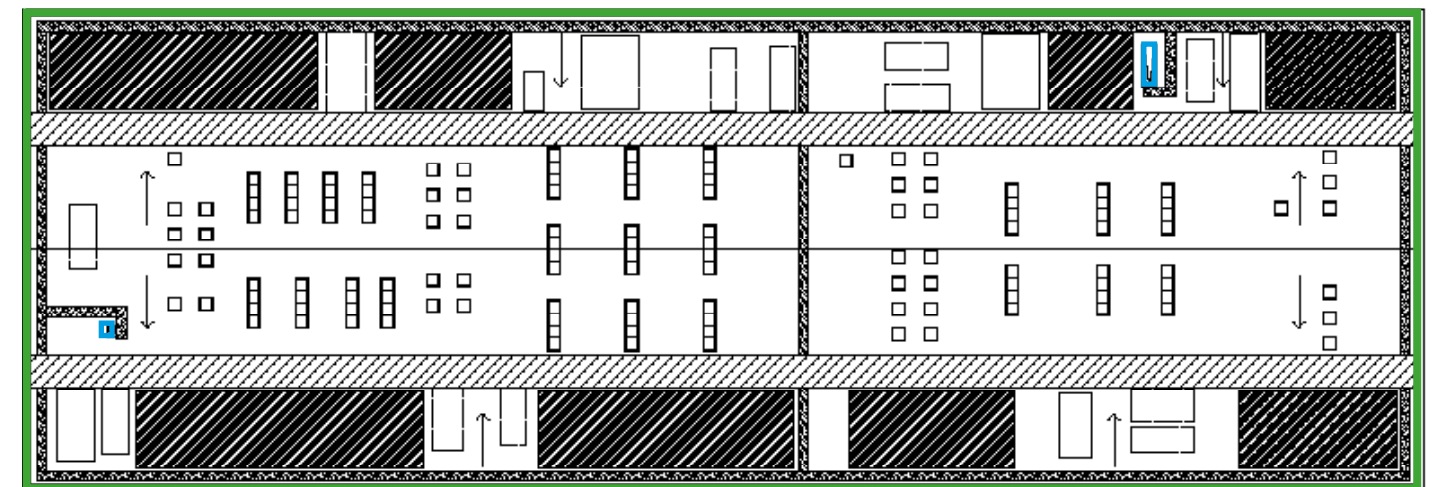
Stepped Roof Access



Ground Floor Plan



Sports Block Roof Plan



Teaching Block Roof Plan

- Roof Access Hatch
- Tower access to internal services
- Wash pole reach
- 1100mm parapet

7.0 SUSTAINABILITY

7.1 SUSTAINABILITY OVERVIEW



7.1 SUSTAINABILITY OVERVIEW

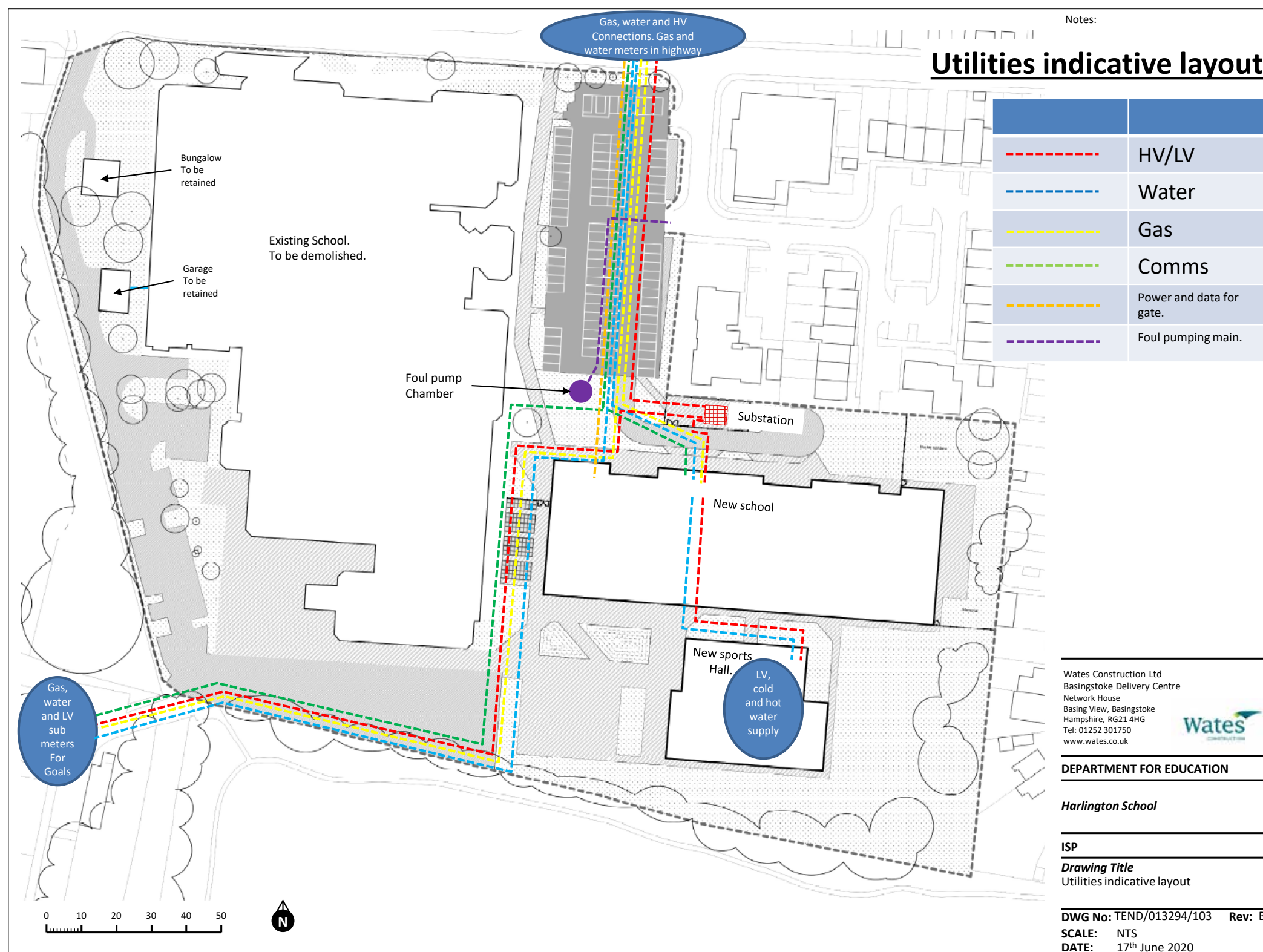
In order to comply with the local authorities 35% carbon emission reduction requirements, we have developed a lean building with a well-insulated envelope and energy efficiency measures to minimise the energy demand which is then supplemented with a photovoltaic (PV) array. We have completed an energy strategy document which has been submitted separately – refer to 1422EHA-MET-ZZ-XX-RP-V-9712_Energy Strategy for further details.

8.0 CONSTRUCTION

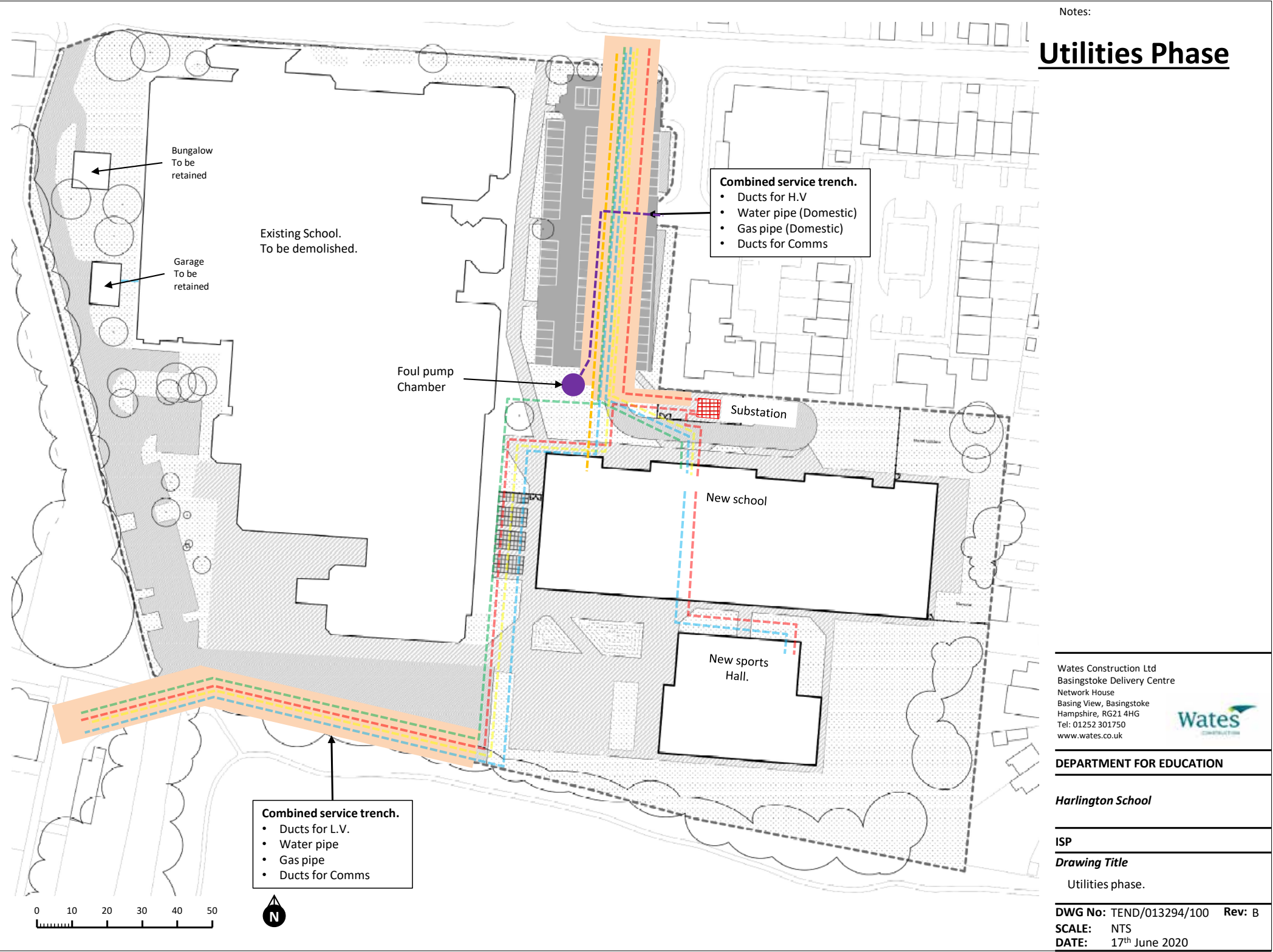
- 8.1 PROJECT LOGISTICS
- 8.2 CONSTRUCTION PHASING



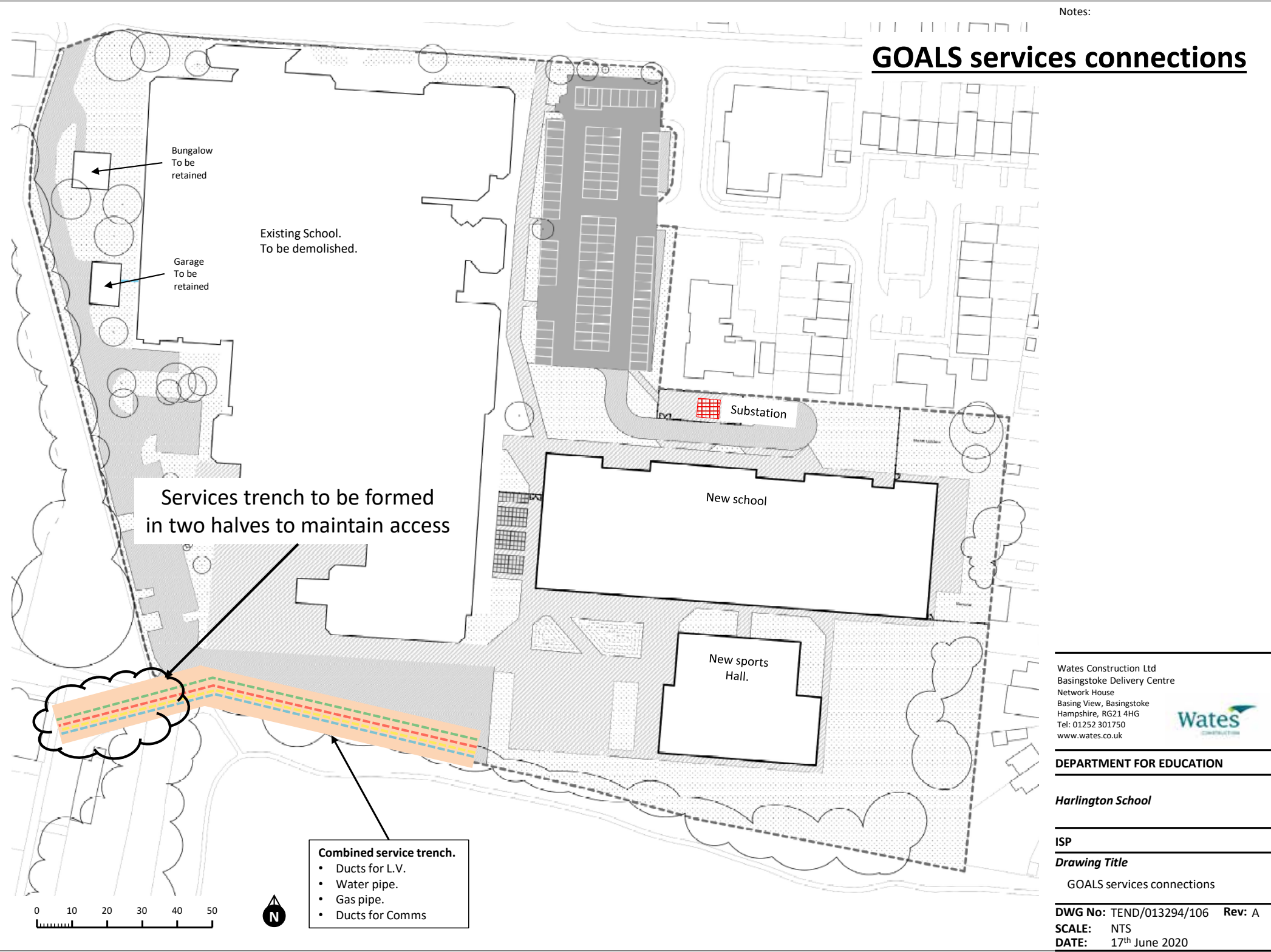
8.1 PROJECT LOGISTICS



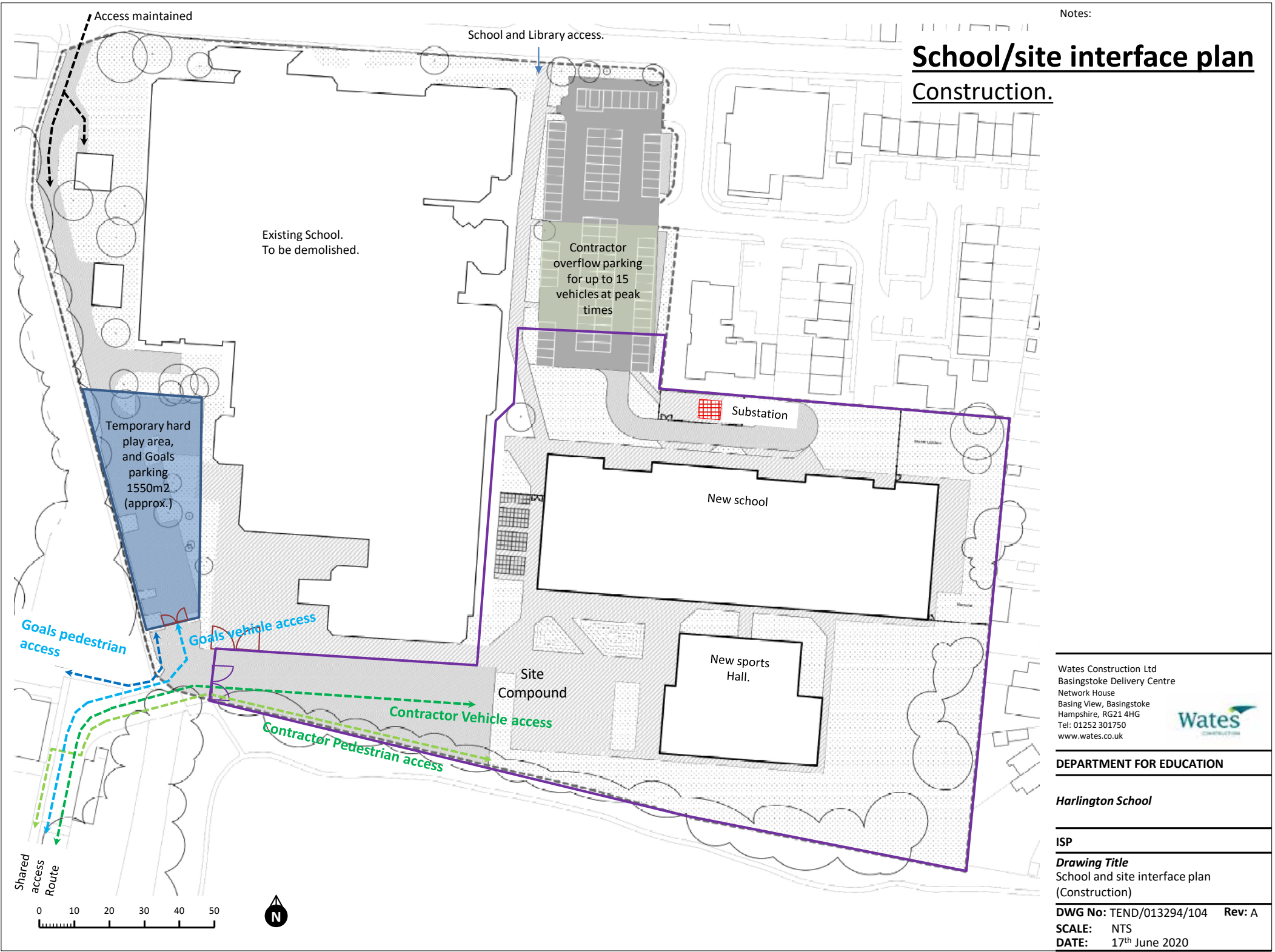
8.1 PROJECT LOGISTICS



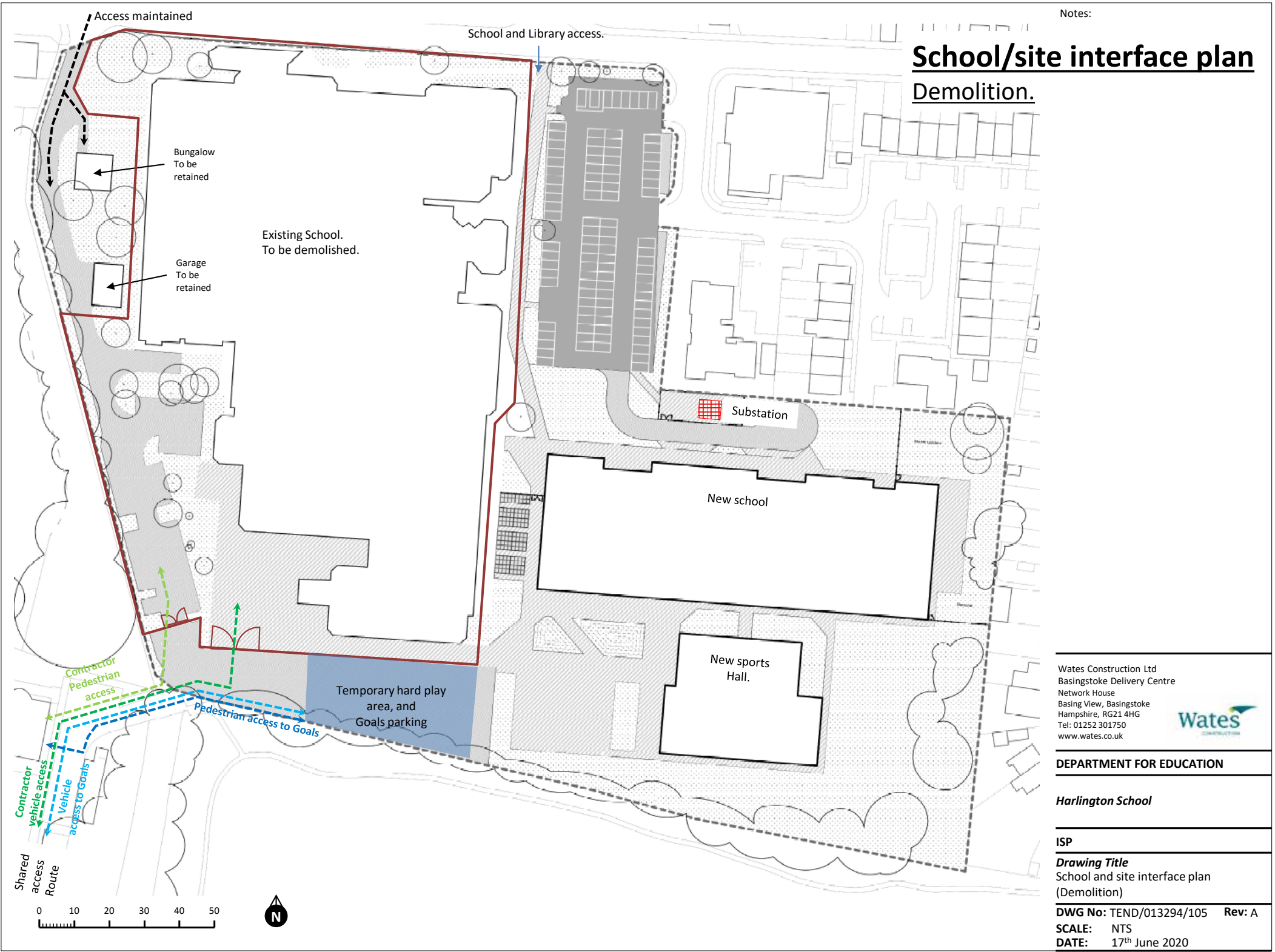
8.1 PROJECT LOGISTICS



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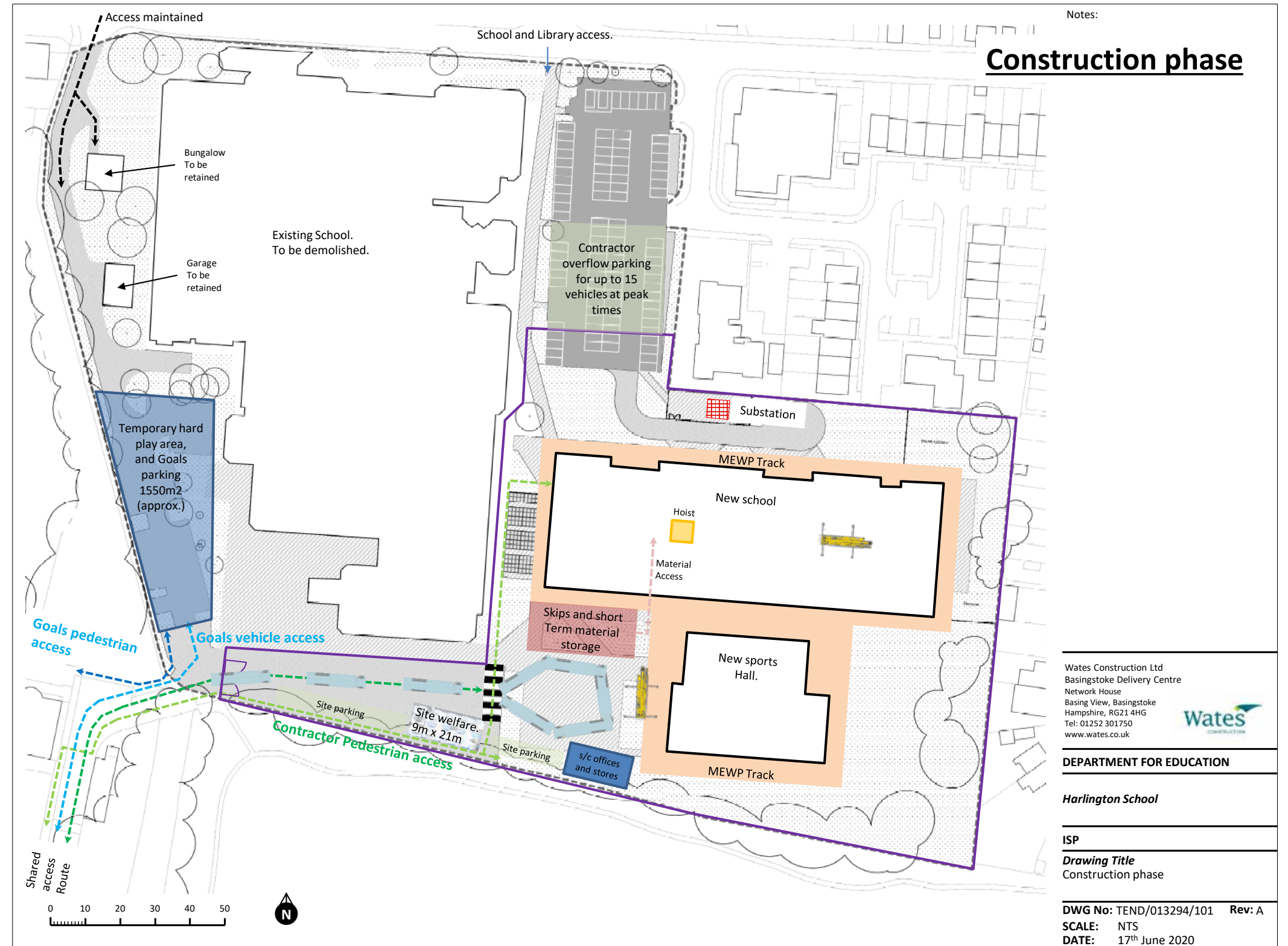
8.1 PROJECT LOGISTICS



8.2 CONSTRUCTION PHASING

Construction Phase:

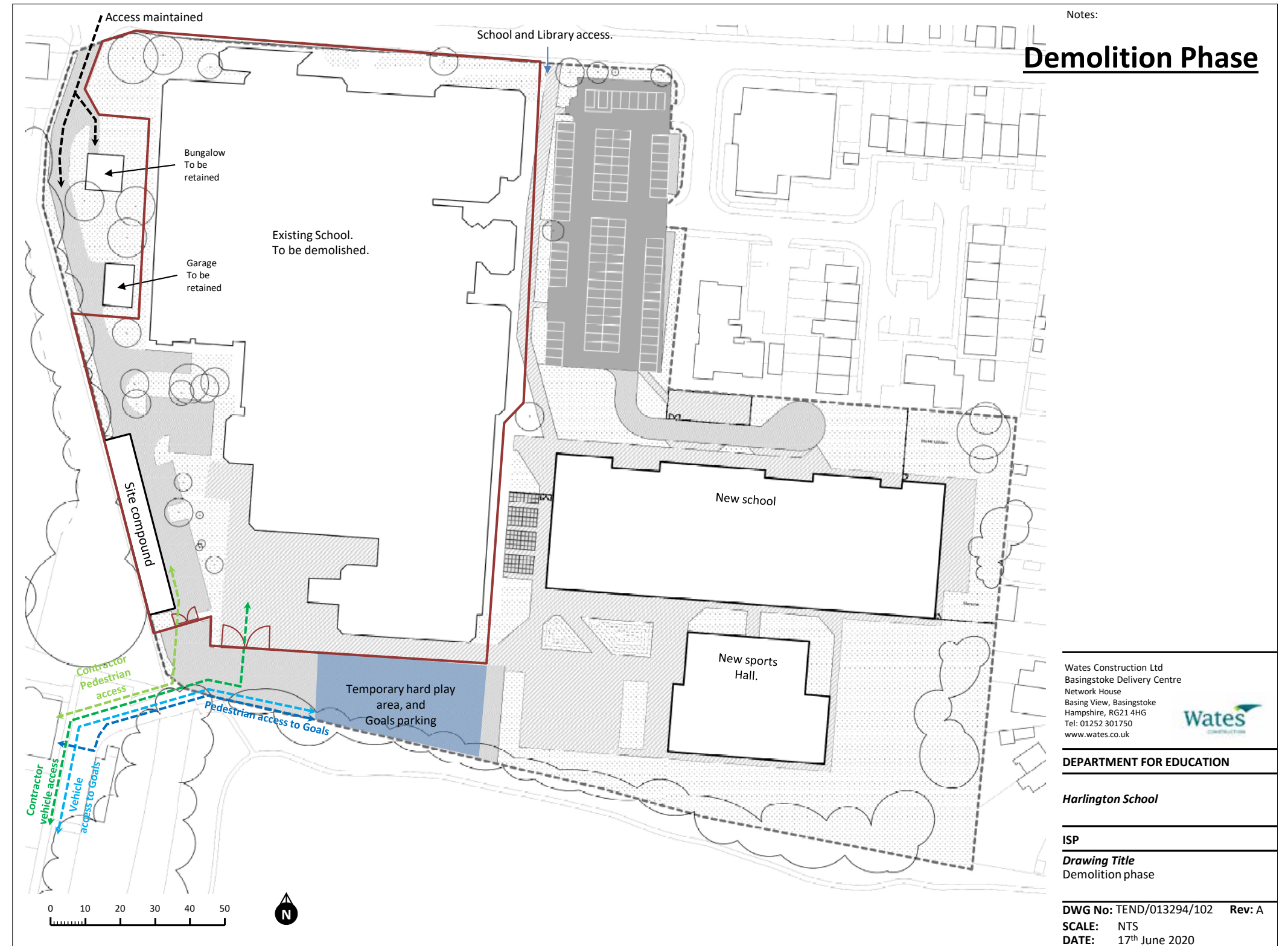
- All construction traffic from Shepiston Lane
- All contractor parking contained on site
- Construction area fully segregated from school activity
- Works completed in a single phase
- Working hours to be confirmed by planning permission
- Wates' gateman will manage all traffic movements in and out of the site
- Delivery booking system to avoid vehicles waiting on local roads



8.2 CONSTRUCTION PHASING

Demolition Phase:

- All vehicle access from Shepiston Lane
- Demolition area fully segregated from school activity
- Routine noise and dust monitoring during demolition
- Working hours confirmed by planning permission
- Landscaping to follow demolition of existing school building



NORWICH

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