



Graythwaite, 20 Edward Street North Sydney New Building Design and Location on the Graythwaite Site







A summary of the building design considerations

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For Sydney Church of England Grammar School (Shore)

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QUALITY MANAGEMENT

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2 DESIGN DISCUSSION

North Building

The North Building, which is in close proximity to the Graythwaite House (the House), is a modest and small footprint building which presents itself as being effectively one and a half storeys above ground but includes another half storey underground. Its proposed use in the future will relate to archival storage of information in relation to the Graythwaite site and the School.

Originally the School investigated a larger building as a possible extension to the nearby Preparatory School but eventually rejected this due to possible adverse impacts on the House and significant trees with heritage importance.

East Building

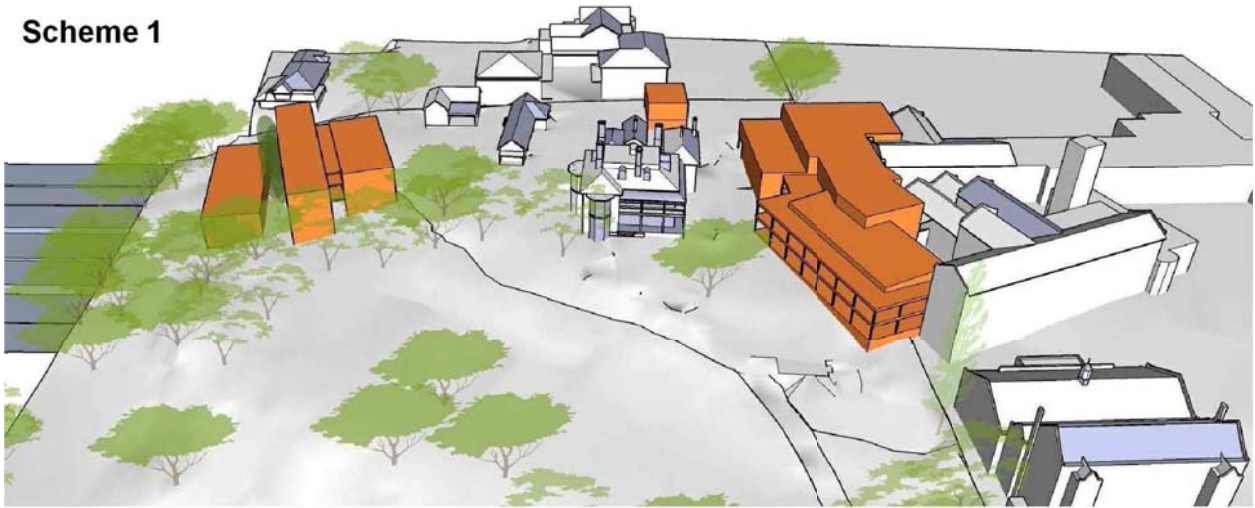
The East Building sits approximately in the location of the existing Ward Building which is to be demolished. In examining this area, the architects identified the possibility and value of joining the new building with the adjacent existing School buildings which accords with the School's Vision to bring the two sites together to form a single School campus. The new building design has height limitations on its western face to match the height of the House and steps up to the east to respond to the greater height of the West Wing and School House on the Shore School site. The endorsed CMP supports this potential building envelope.

West Building

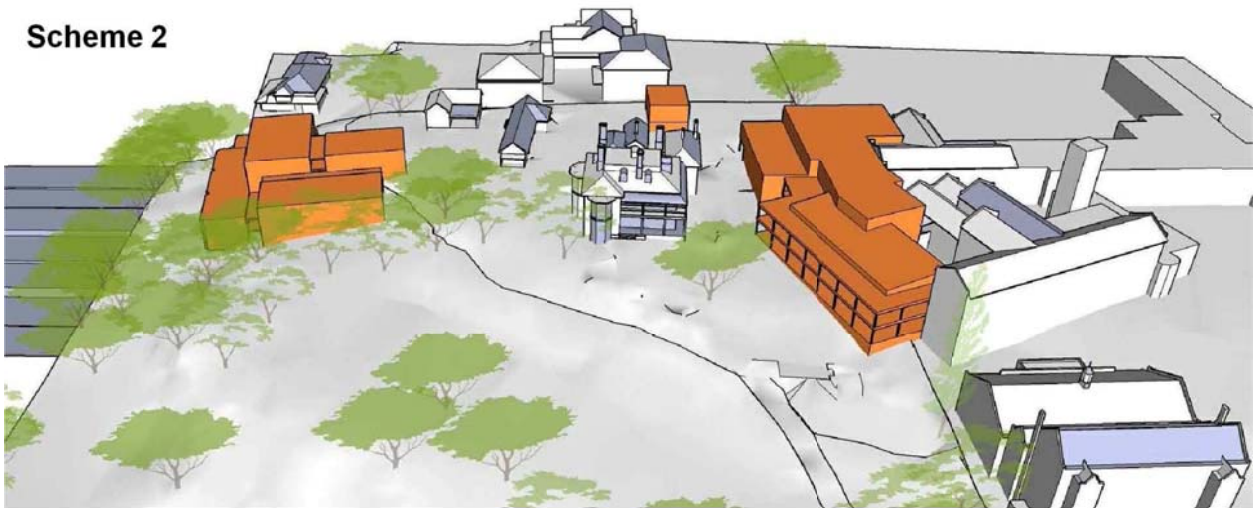
The area for the West Building identified in the CMP is limited and also is subject to a number of constraints. The West Building design process involved consideration of the need to retain the large heritage trees, the proximity to the western boundary of the site where there are adjoining residential dwellings, the strong slopes of the terrain from the western boundary fence through the middle terrace up to the upper terrace where the main heritage buildings are located, the proximity to the eastern heritage buildings, the height requirements of the local planning instruments, the pedestrian and other access paths between the available area and the other existing and proposed buildings; modern educational design standards, and the desire of the School to have the potential for educational spaces to cater for the developing needs of modern education and the School's anticipated population.

Having established the desired floor area, the size of the education spaces and circulation areas, and the required functionality of the building, several concept layouts were developed which were sufficiently flexible enough to encompass future more specific designs. These concepts are shown in the attached Figure 4 from the SOHI (presented here as Figure 2). The concepts effectively show either a north-south alignment of the building with windows looking east-west or an east-west alignment of the building with windows looking north-south.

Scheme 1



Scheme 2



Scheme 3

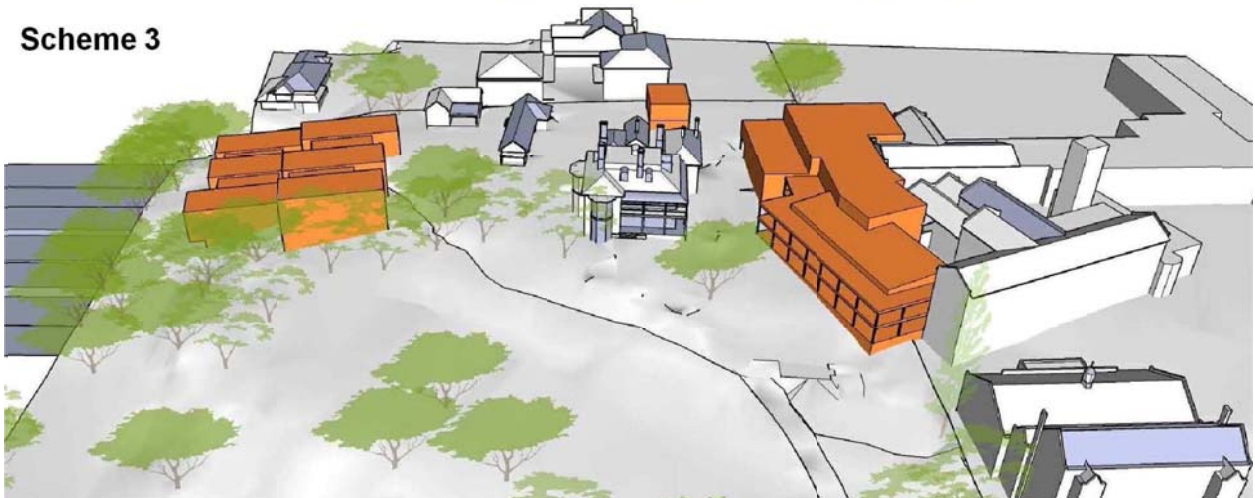


Figure 2: Preliminary West Building Comments (drawing from SOHI)

The School and its designers being very aware of the potential amenity impacts on the western boundary neighbours (Bank Street residents) decided that the most appropriate alignment was the east-west alignment with the western façade of the proposed building designed to prevent overlooking of the Bank Street properties (i.e. Scheme 3).

The initial proposal for the building as shown in the EA exhibited in February 2011 raised a number of concerns notably from the Bank Street residents, the Heritage Council/Heritage Branch and North Sydney Council culminating in a written request from DoPI to consider (inter alia) submitting a revised design which considered the following factors:

- Proximity to the western boundary
- Reduction in bulk and scale, height and footprint
- Visual impacts including the production of montages of views as seen from the backyards of Bank Street properties
- Noise impacts
- Consultation with the Bank Street residents immediately adjacent to the Graythwaite site

The School and its designers determined to retain the same east-west layout as it still was a superior outcome for the Bank Street residents, but developed a draft re-designed building that achieved the following outcomes:

- An increased setback from the western boundary
- An increased setback from the western edge of the Coach House
- A height for the most part conforming to the CMP policy 84 – *“new development is predominantly two storeys in height, reflects the sloping topography and does not present a dominant visual impression of a multi-storey building when viewed from significant vantage points”*,
- A building with a reduced gross floor area
- A splay between the north and south blocks of the building with the central circulation area set back further from the western boundary to reduce the bulk
- More sensitive finishes and a greater articulation on the western façade to diminish the visual impact
- Incorporation of additional acoustic finishes and details to further reduce any potential noise impacts to acceptable levels
- Retention of design features to prevent any overlooking to Bank Street properties
- Additional re-planting of vegetation along the western boundary in Stage 1
- Additional planting of trees between the western boundary and the new building alignment (now more easily achieved with the increased setbacks) in Stage 1 including a large tree species in the central area between the north and south building blocks
- Production of a series of scientifically generated montages based on actual photos and surveyed levels obtained from the backyards of the Bank Street properties (in agreement with the owners)

This design was discussed with DoPI and Heritage Branch as a precursor to the Heritage Council endorsement of the CMP.

On 22 June 2011, the residents of 25-41 Bank Street (plus DoPI, NSC, Precinct Committees) were invited for a site visit and consultation evening where the draft versions of the revised building design were presented and discussed. Site poles were erected indicating the height and location of the western edge of the west building. Minutes of the meeting were taken and these are included in the Consultation section of the Revised EA but one outcome was that there was a request by one of the North Sydney Councillors to move the southern block of the West Building as far east as possible within the heritage constraints. The School undertook to investigate this possibility.

Subsequently a meeting was arranged at the request of the Bank Street residents with DoPI, HB, the residents and Shore where the residents presented their suggested layout for the West Building. This meeting took place on 18 July

2011 and the drawings supplied by the residents are shown in Attachment A. The following figure shows an outline of the residents' layout with the School's proposed layout superimposed.



Figure 3: Residents West Building proposal with School's design outline

The residents' drawings had created a building with a 30m setback and a much reduced footprint with a 4-storey building with the lower levels excavated into the ground. The residents did not provide a calculation of the available floor area in their design but the Shore design team estimated the area at about 60% of the Shore proposed area. This is assessed as largely being achieved by a reduction in the circulation and ancillary areas as well as by smaller classrooms. The module of floor area for the educational spaces is considered by Shore to be significantly less than required for modern teaching requirements and offers no flexibility for future teaching adaptation. The lowest floor is effectively underground with the only possibility of windows being on the western façade facing the residents' yards. There were minor incursions into the heritage area and tree lines although these were not considered overly significant as they could be resolved with minor re-design. It is noted that the residents produced their layout without a brief from the School on requirements. On this note, it was not apparent why a 30m setback was considered necessary or how they determined the requirements for what was proposed.

The residents' design is not considered suitable for the School's needs as it represents a significant decrease in educational space and achievable gross floor area and less than desirable functional areas. There has been no logic provided as to the need for a 30m setback as a 20m setback is already well in excess of normal standards and other amenity criteria can be achieved in the present location – e.g. the proposed landscaping which is scheduled in Stage 1 will provide suitable visual screening; the west façade design will prevent overlooking and the acoustic design will avoid adverse noise impacts.

Subsequent to the residents meeting, the School designers were able to achieve further setbacks on the southern block of the West Building and also in the central circulation area while still not affecting the important trees or affecting heritage concerns. The draft design of the West Building is shown below. The summary of the West Building Re-design Responses is as follows:

- Floor area reduction 400m² (bulk)
- Western interface reduced to 2 storeys (height)
- Western setbacks adjusted east (twice)
- East boundary (nr. Coach House moved)
- Re-designed acoustically to meet standards
- Window design avoids overlooking to west
- East only entry/exit
- Relocated building reduces shadows
- Location Poles erected by survey for meeting
- Poles to be re-erected for Revised EA
- Scientifically generated montages show mitigated views with additional Stage 1 plantings



Figure 4: Revised West Building Design for the Revised EA

This design was exhibited at the Shore Open Day Community Consultation held at the School on 30 July 2011. During the Open Day, the possibility of reversing the building layout such that the splay between the two blocks faced the east rather than the west was suggested by some community members as a potential way of reducing the

potential visual impact on the Bank Street residents. The School's architect generated a sketch which is shown below demonstrating how this could be achieved while maintaining the same gross floor area and an equal accessibility for the School. However, this layout results in the southern building being closer to the western boundary than in the version shown above. In visual outcomes, there would be no effective change for residents directly west and the more southern views would probably appear slightly taller as well as longer due to the angle of the building in relation to the national contours of the site. As there does not appear to be any significant advantage for the School or the residents, the earlier design is still preferred.

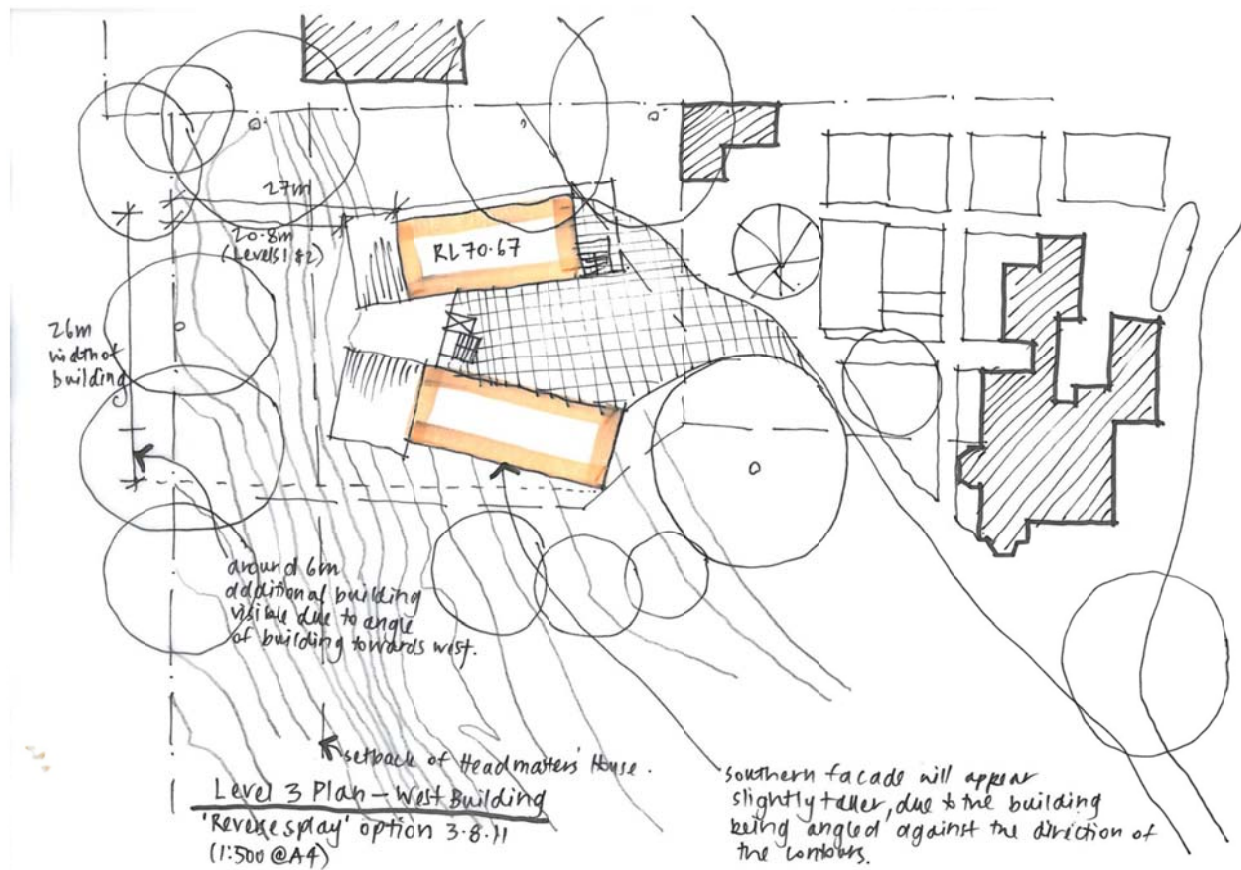


Figure 5: Sketch of reverse splay West Building

The School also considered a similar design to the original EA design but with the reduced gross floor area (the Level 1 of this concept is shown below). This design also has the southern block slightly closer to the western boundary of the site but has the advantage of reducing the width of the western façade from 32m to 28m. While this design is also functional, it is very similar in appearance to the original EA design which the School was asked to re-design, so this option is also not preferred.

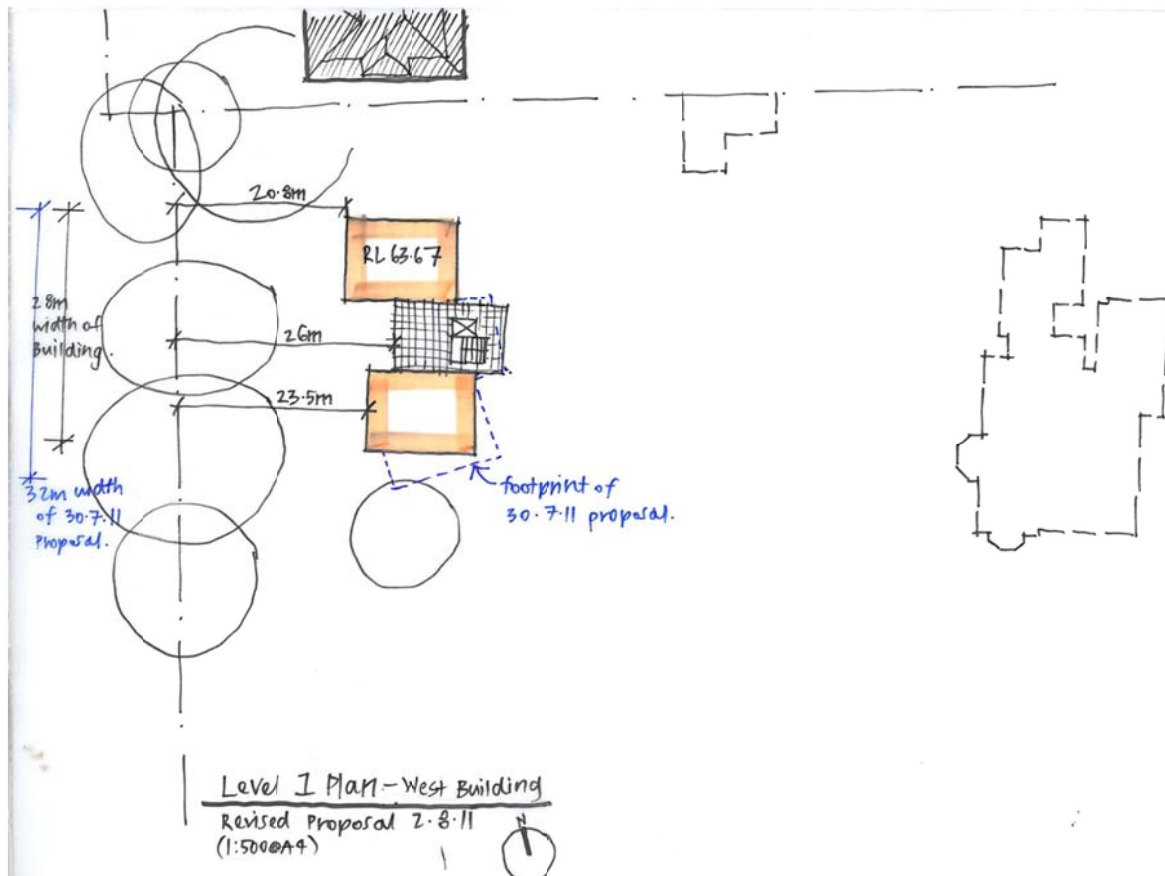
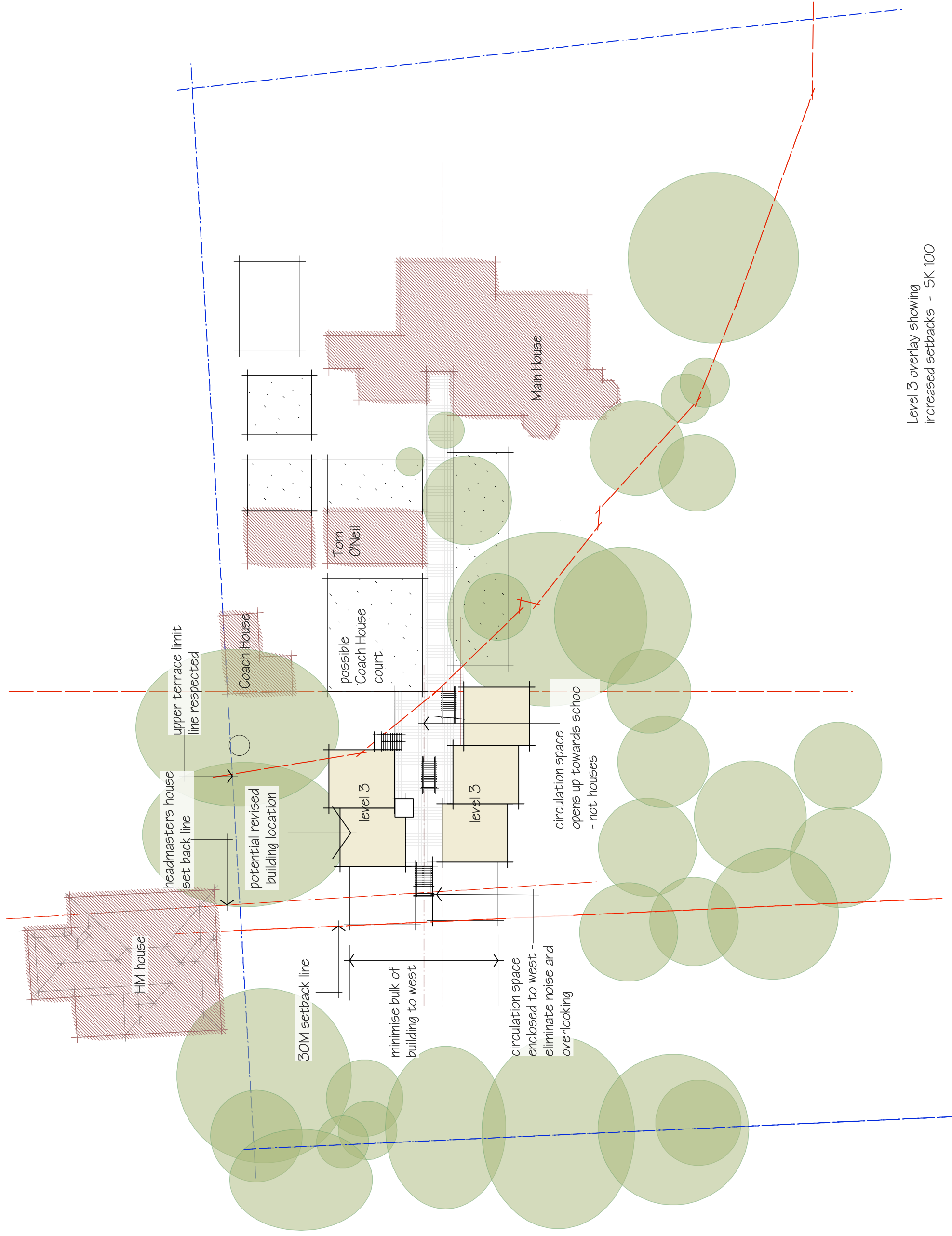


Figure 6: Sketch of Level 1 of reduced splay West Building

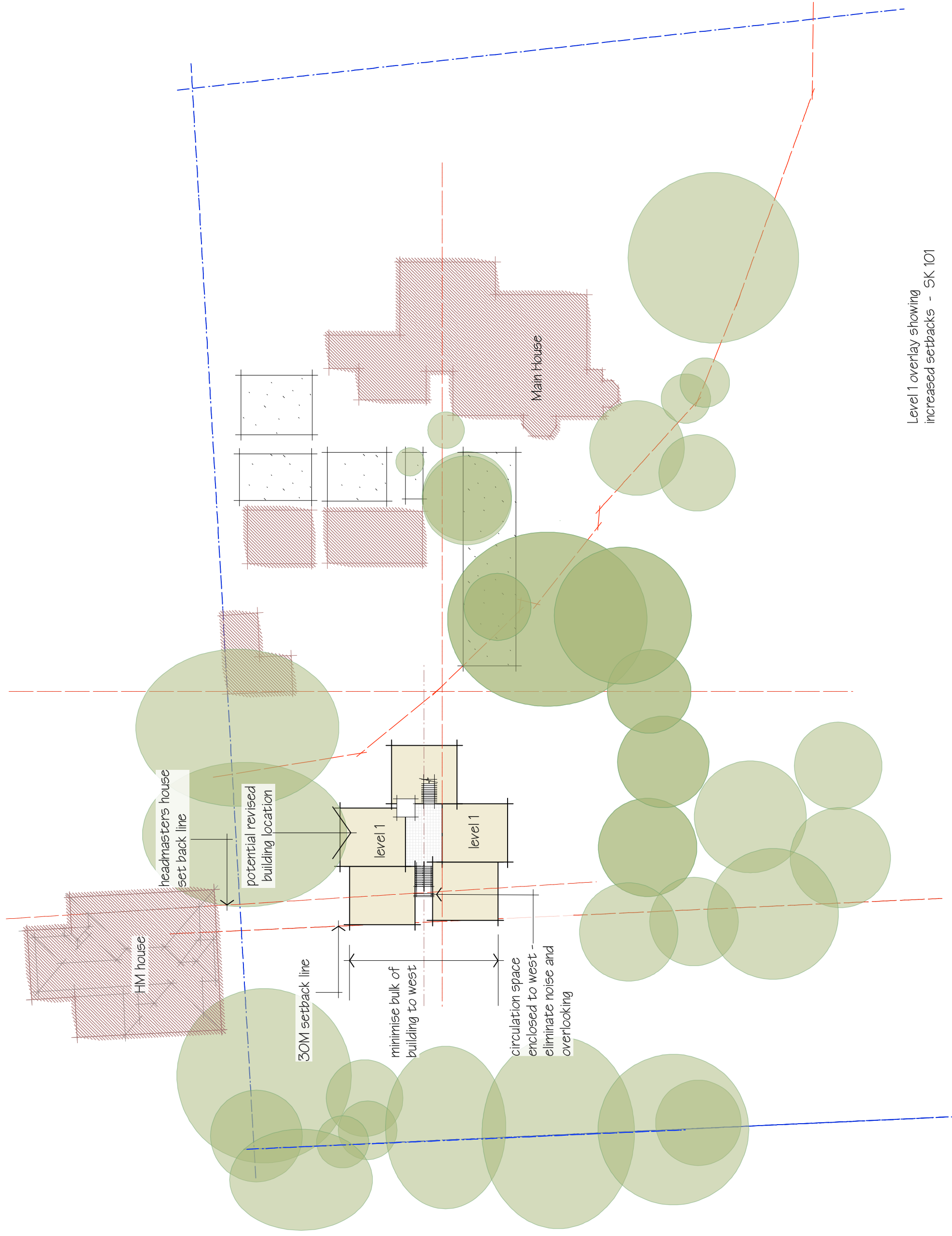
As a result, the building design that is presented in the Revised EA is based on that design presented at the Open Day of 30 July 2011 which is considered to be the best outcome and one which properly responds to the educational needs of the School, planning requirements of the authorities and the amenity for the community.

3 ATTACHMENT A

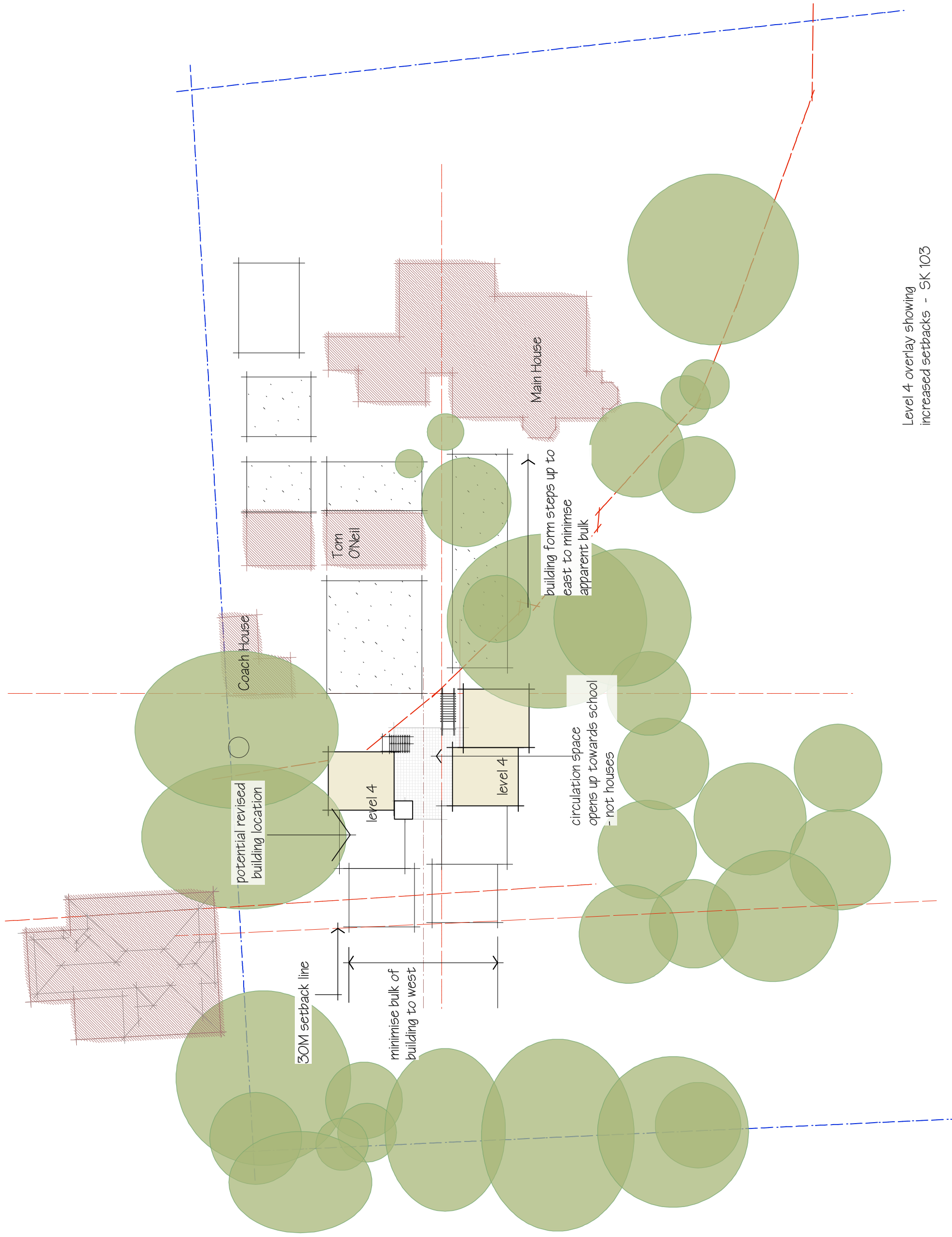
Residents Drawings



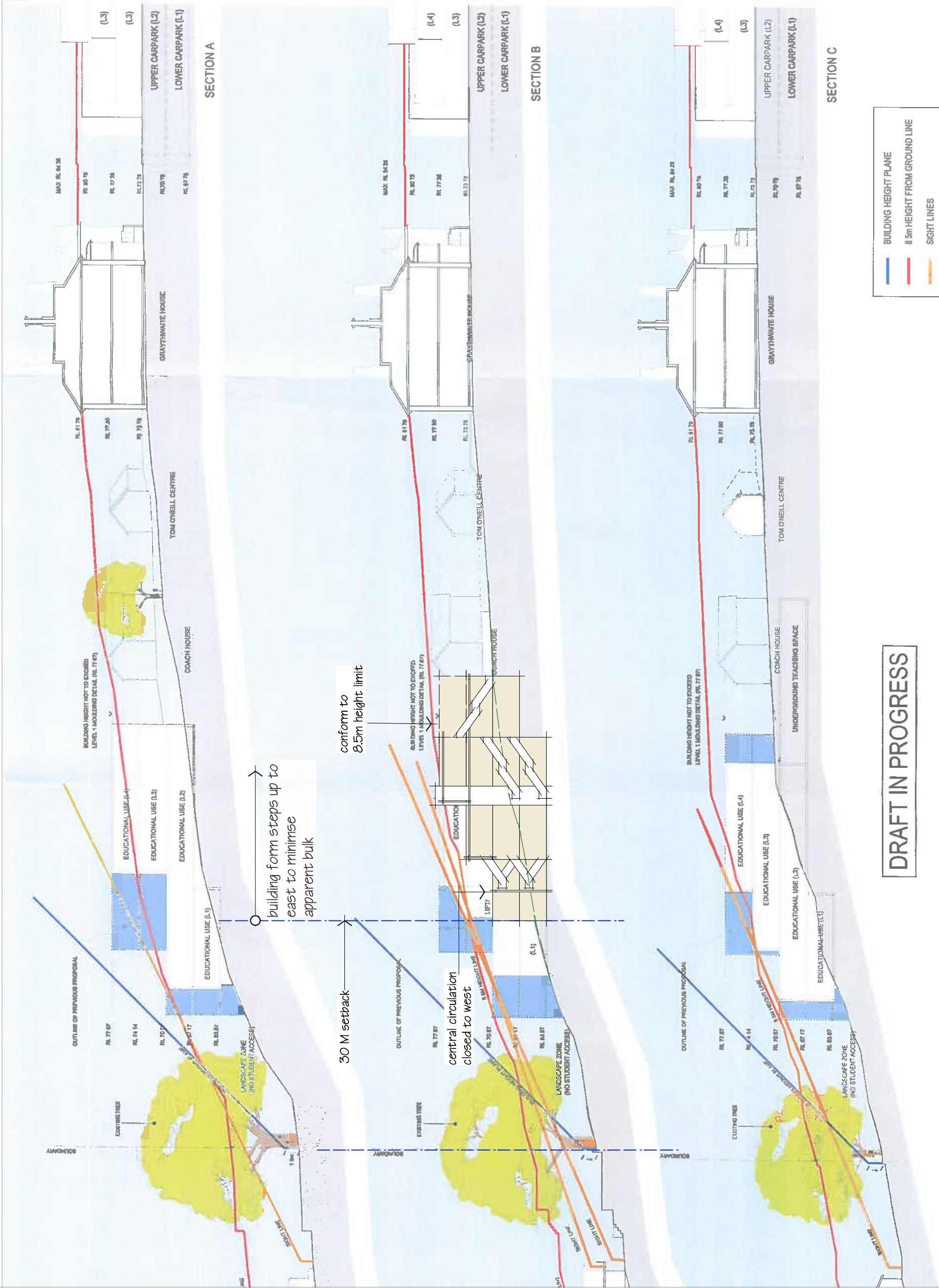
Level 3 overlay showing increased setbacks - SK 100



Level 1 overlay showing increased setbacks - SK 101



Level 4 overlay showing
increased setbacks - SK 103



DRAFT IN PROGRESS

Section overlay showing increased setbacks - SK 104

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A 01.03.11 REVISIONS

Checked Auth
JM PM

Proj Dir Proj Arch
PJN JS

Job No Date
0010 June 2011

Scale
1:250 @ A1

Proj No
0010

Proj Name
Graythwaite House

Proj Address
Graythwaite House
Sydney NSW 2000

Proj Client
Graythwaite House

Proj Status
Concept Application

Proj Notes
For detail of proposed landscape refer to
Landscape Architects' drawings

Project
GRAYTHWAITE - CONCEPT APPLICATION
SYDNEY CHURCH OF ENGLAND
GRAMMAR SCHOOL (SHORE)
Drawing Title
SECTIONS A, B & C - COMPARISON BETWEEN
PREVIOUS SCHEME AND CURRENT PROPOSAL
Drawing No
A.161-C
Revision
A

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