



Madonna House Site Social Housing

Station Road, Ballincollig, Cork

Architectural Design Report

Revision B | May 2021

O'LEARY ARCHITECTURE+DESIGN

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1 Introduction

This report is prepared by O’Leary Architecture + Design to provide the architectural design rationale and context for the development of 6 social housing dwellings at the Madonna House site, Station Road, Ballincollig, Cork.

The report describes the site and its context, design evolution and the key aspects of the proposed design. It explains how the proposals have been developed in response to a range of different issues and confirms the proposal’s compliance with relevant Development Standards as set out in the Cork County Development Plan.

1.1 Summary of Proposed Development

This application seeks approval for the regeneration of the site of the now unused Madonna House for social housing. The development will consist of:

- Demolition of the existing Madonna House building and alterations and repair to the Tudor Grove apartments building where the Madonna House link corridor was located
- Construction of a terrace of 6 two-storey three-bedroom houses
- Adjusted entrance to the Car Park
- Provision of a Bin Store in the Car Park and the associated adjusted parking layout
- Boundary treatments, landscaping, site development works and ancillary services

1.2 Pre-Planning Consultations

The proposed development has been discussed and developed at a number of meetings with Cork County Council Housing Services, who in turn received feedback from both the Planning and Architects Departments and then subsequently with Cork City Council. These comments were addressed in the design process and are reflected in the final proposals.

2 Site Context

2.1 Site Location and Description

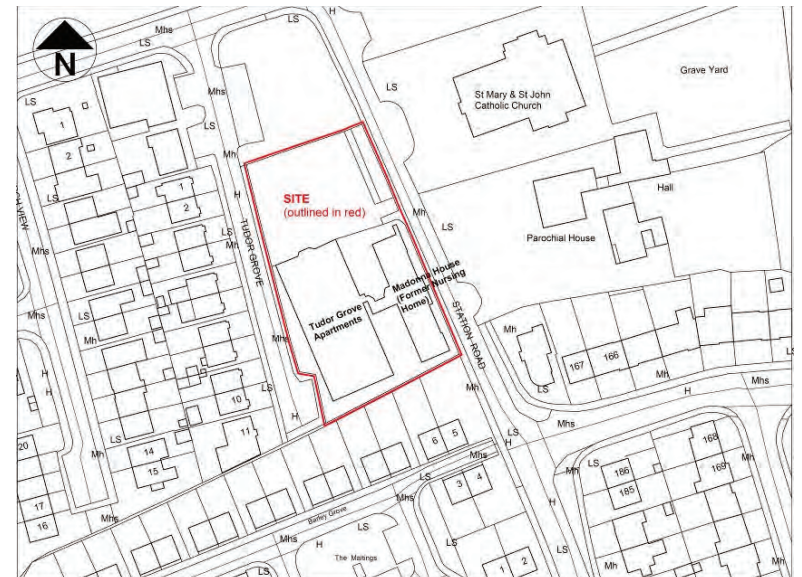
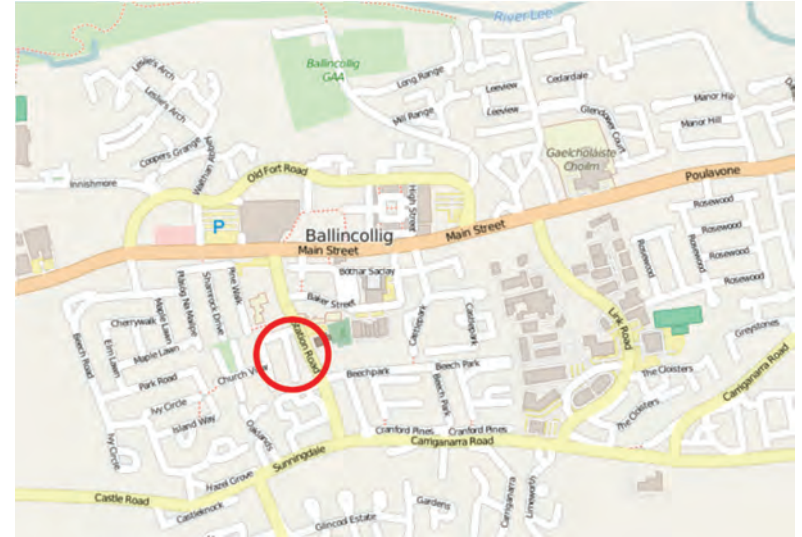
The subject site, which is now in the ownership of Cork City Council, has an overall area of 0.335 hectares (0.827 acres). It is located on Station Road in Ballincollig, approximately 300m south of Main Street. The site is bounded on the east by Station Road, to the north by public open space, to the west by the Tudor Grove and Church View residential estates and to the south by the Barley Grove residential estate.

The overall site contains the Madonna House building, the Tudor Grove multi-unit residential complex, a car park, green areas around the building and a lay-by on Station Road with on street parking related to the Madonna House building.

The Tudor Grove complex, located in the southwest corner of the site, is a single storey residential development with a central courtyard. There are 16 units in the complex, 15 one bed and 1 two bed with each unit being accessed via the central courtyard. These units are currently awaiting some energy and services upgrading works to commence.

The site for the 6 dwellings is located in the southeast corner of the site and currently contains the Madonna House building. Madonna House, which was a nursing home and has been vacant since 2011, is a detached dormer building which can be accessed from either Station road or the car park.

The site is reasonably level, with a fall of 540mm from the north east to the south west corner.



Architecturally the area has no particular defining characteristic. The St Mary and St John Church across Station Road from the northeast corner of the site dates from 1866 and is build in grey limestone, largely in the neo-Gothic style but also containing features from other periods. It is set back from the road with the road boundary being formed by a limestone wall with painted decorative cast iron railings. The adjoining housing estates are of typical residential housing estate design.



St Mary and St John Church – View from Station Road



Madonna House – Station Road façade from the southeast



Madonna House – Station Road façade from the northeast



View towards the site from the northwest



View of Madonna House & Tudor Grove apartments from the car park



View up Station Road from the southeast showing adjoining Barley Grove residential estate housing



View of Tudor Grove residential estate housing to the west of the site

2.2 Site & Planning History

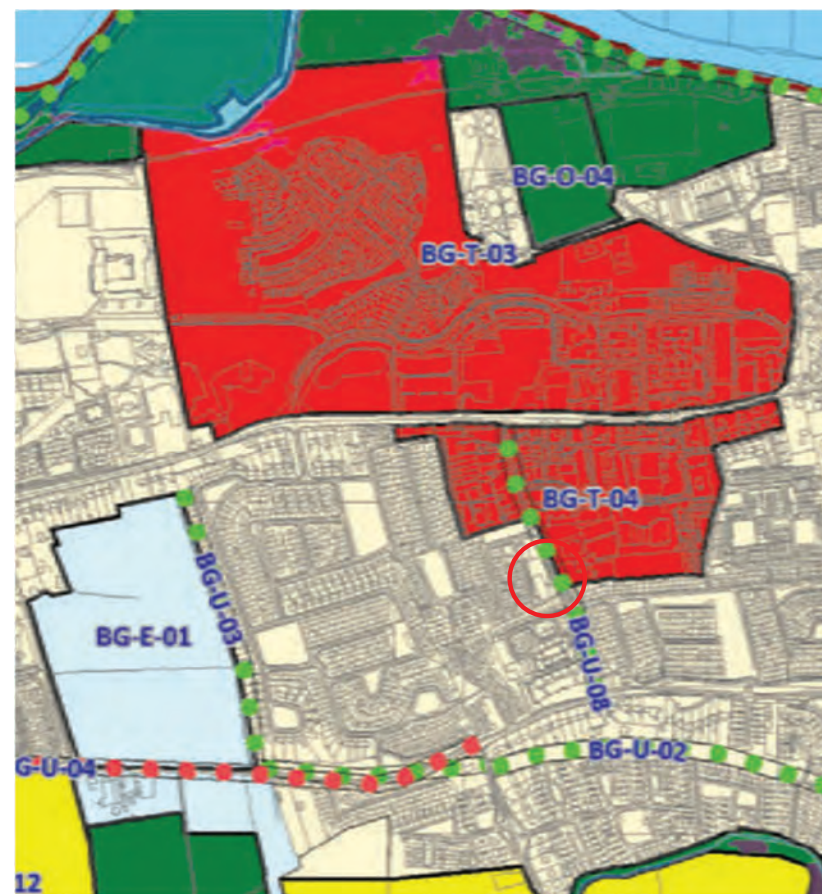
During the lifetime of the Madonna House Nursing home there have been various planning applications for alterations, extensions, changes of use to residential and at the time the site went for sale it was in the process of being converted into 4 apartments under the granted permissions ref. 114992 and 165850 (extension of duration of 111992).

2.3 Site Zoning & Development Plan Objectives

The subject site is located within the administrative area of Cork City Council but was until recently part of the Cork County Council area.

The scheme has been designed having regard to all relevant national, regional and local planning policy documents including the policies of the Cork County Development Plan 2014 and the Ballincollig Carrigaline Municipal District Local Area Plan 2017. The site is identified as 'Existing Built-up Area' in the LAP and there are no specific development objectives noted for the site.

There is a 'Pedestrian / Cycle Green Route' Specific Objective, ref. BG-U-08, in the LAP for Station Road, which runs along the eastern boundary of the site.



Extract from Ballincollig Town Zoning & Objectives Map
(from Ballincollig Carrigaline Municipal District Local Area Plan 2017)

3 Architectural Design Statement

3.1 Brief and Design Drivers

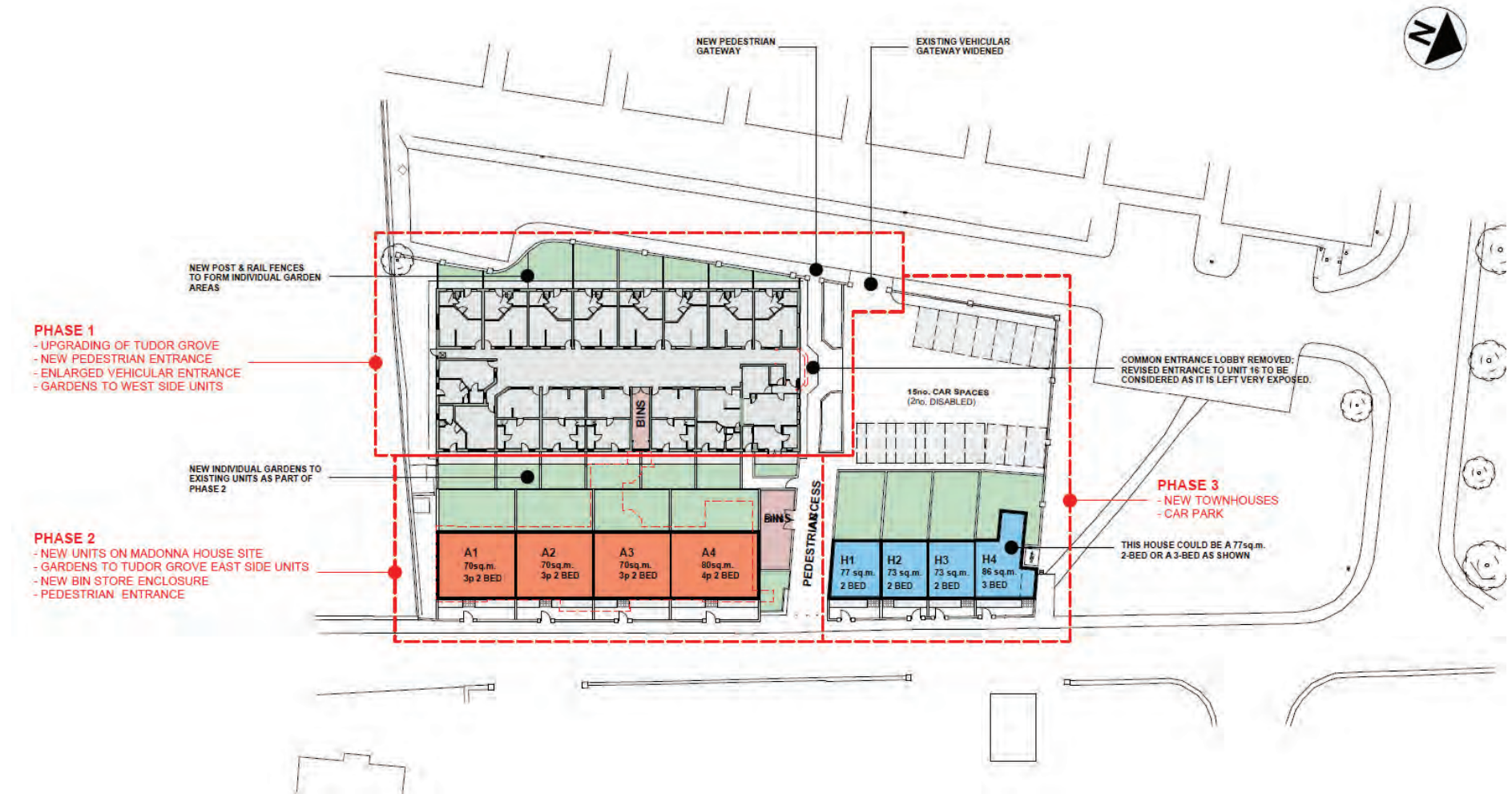
- Provision of / need for social housing.
- Twenty-first Century Sustainable Living within walking distance of shops, schools and medical facilities etc.
- Department of the Environment, Community and Local Government Recommendations as set out in Quality Housing for Sustainable Communities
- Providing a more positive street frontage and building line on Station Road
- Building Regulations Part L 2019
- Accessibility & Building Regulations Part M 2010
- Creation of more personal open space for the Tudor Grove maisonettes

3.2 Design Development

3.2.1 Site Masterplan

The proposed dwelling units were developed as part of an overall plan for the Madonna House / Tudor Grove site. The works to the site were developed in phases to include the proposed dwellings and the partial refurbishment and energy upgrading of the Tudor Grove maisonette units.

A series of overall options for the site were considered before the final layout was derived as shown on the sketches below.

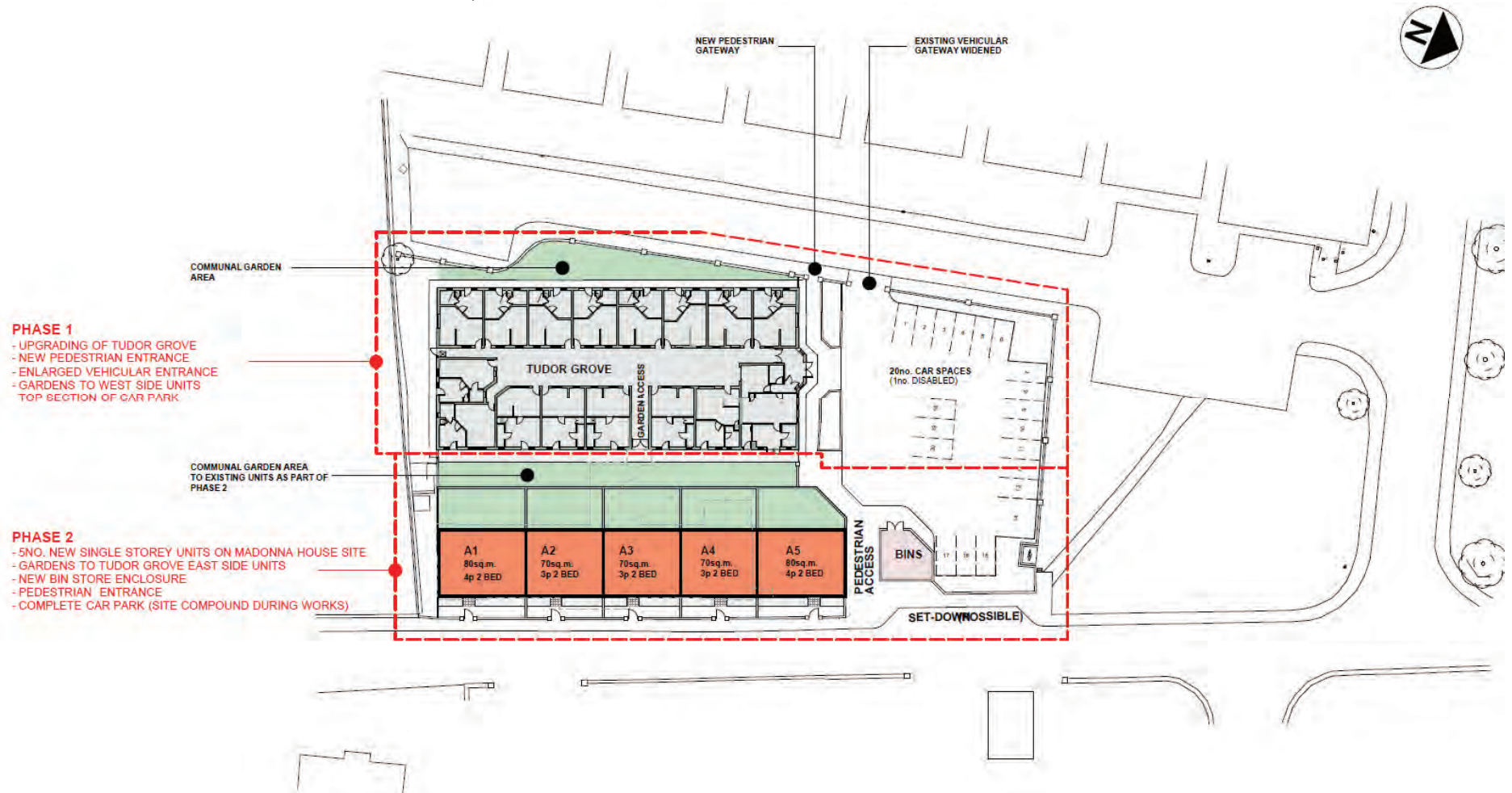


Initial Overall Site Proposal

Local Authority Issues Raised:

- No of dwellings on the overall site is too high vs the no of parking spaces provided – 1no. space per dwelling required
- Not in favour of Bin Store being close to dwellings - Bin Store to be re-located
- Division of Tudor Grove shared garden spaces to be removed

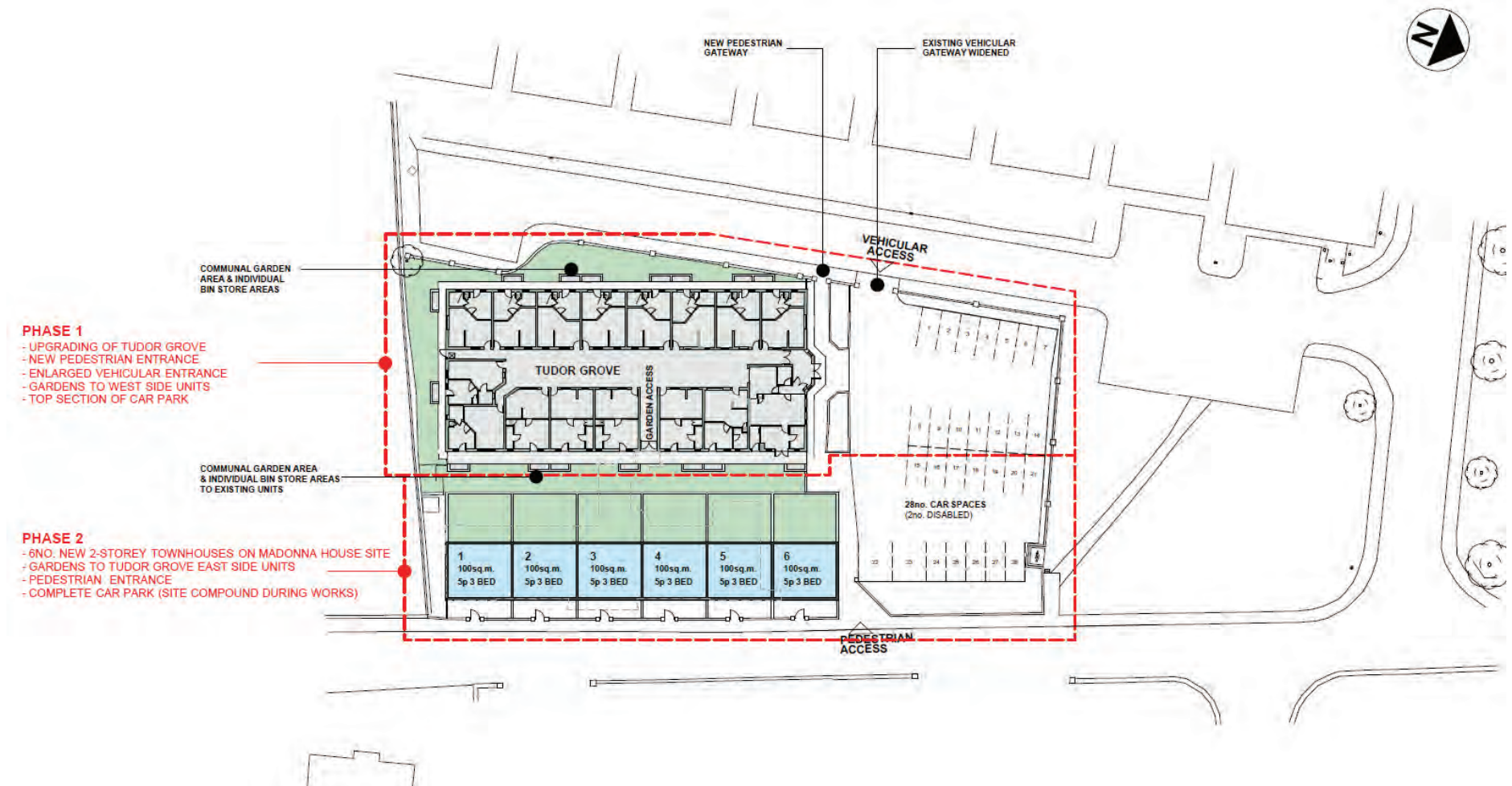
- Tudor Grove front porch to be retained



Revised (Reduced) Option

Local Authority Issues Raised:

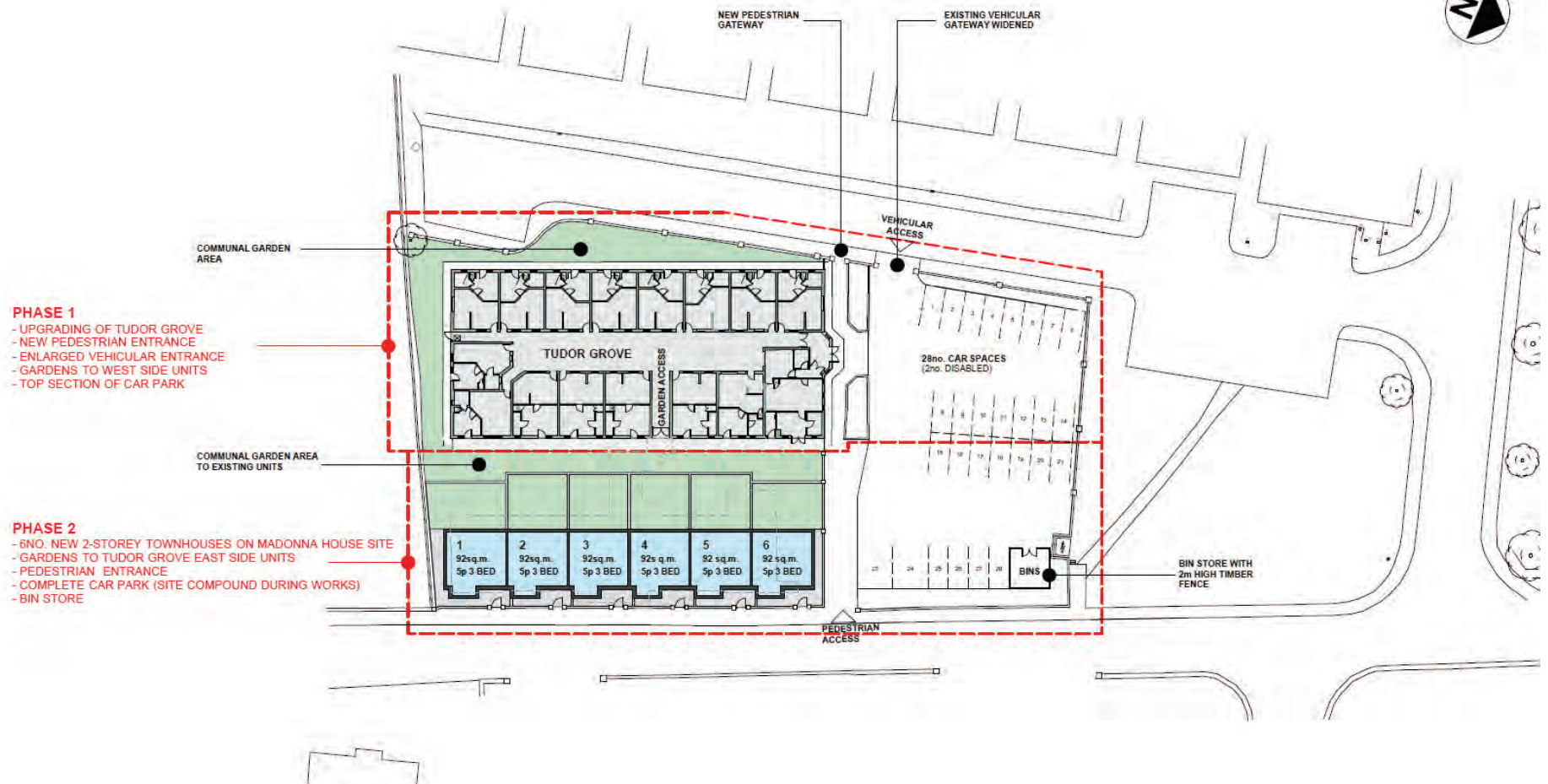
- Not in favour of Bin Store being close to dwellings - Bin Store to be re-located
- Increase to 6no. new dwellings



Revised 6 House Option

Local Authority Issues Raised:

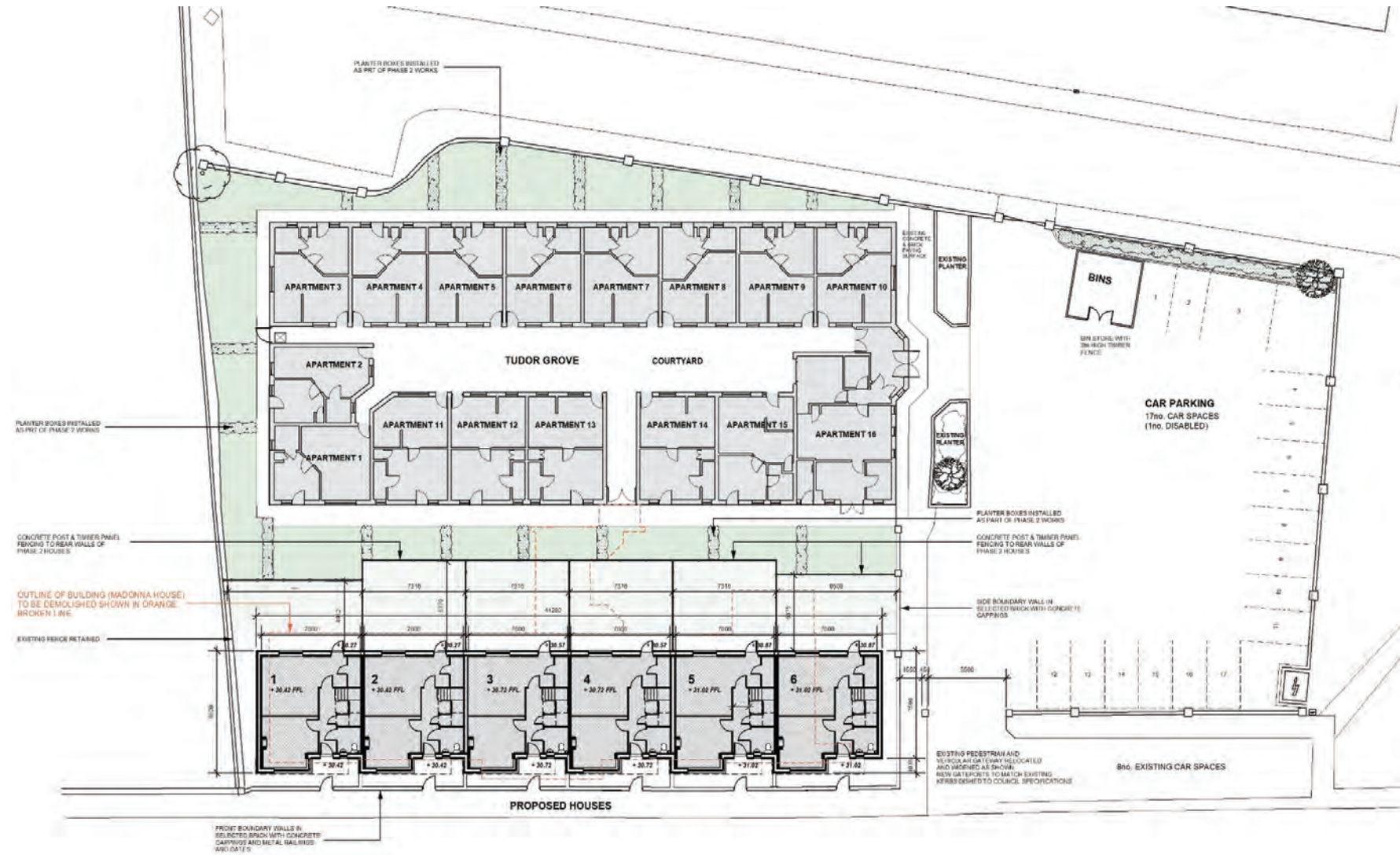
- Create communal Bin Store in lieu of 2 no car spaces
- Reduce size of new dwellings to 92sq.m. in line with Department guidelines



Developed 6 House Option

Issues Raised:

- Add planter boxes in to Tudor Grove garden areas to provide an element of private open space separation as part of Phase 2 works
- Rear garden walls (between new houses and Tudor Grove open space) to be post and panel fence



Final Option

3.3 Detail Design – Site

3.3.1 Building Layout & Siting

It is proposed to demolish the Madonna House building as it is unsuitable for the type of social housing dwelling required and the proposed terrace of 6 dwellings is located largely on the Madonna House footprint, facing Station Road. The terrace is set back from the footpath line with enclosed front areas formed with low walls and gates and provides an active street frontage to Station Road.

The proposed terrace forms a more defined building line on to Station Road than the Madonna House building due to its form, and the garden wall to House No.6 at the north end of the terrace picks up the line of the north face of the Tudor Grove building. The low front walls will continue the line of the Station Road boundary wall to the Barley Grove Estate to the South.

A shadow study was carried out to assess the impact of the proposed houses on the Tudor Grove building to the west and it concluded that there is no perceptible impact on the neighbouring Tudor Grove single storey apartments from the development. The study is attached at Appendix A.

3.3.2 Scale, Massing & Height

The proposed terrace is a domestic scaled, two-storeys high block of houses. The overall massing of the terrace is reduced by the stepping of the houses in groups of two to follow the slope in the site. Relief and further reduction in the visual massing of the Station Road elevation is provided by the ground floor bay windows and zinc roof canopy in each house.

3.3.3 Site Access and Car Parking

The existing car park is retained within the proposals and the layout of the parking spaces is revised to facilitate the provision of a Bin Store and access for a refuse disposal vehicle. The pedestrian and vehicular gateways from Station Road will be moved north as required by the positioning of the new houses and the vehicular gateway is widened. These entrances to the site, and the proposed houses, from Station Road, link to the proposed Pedestrian / Cycle Green Route identified in the LAP.

17no. car parking spaces will be provided, including 1 no. disabled spaces.

3.3.4 Waste Management and Servicing

The new houses will have ample space for normal domestic bin storage within their sites. A new Bin Storage enclosure will be provided for the Tudor Grove units.

3.4 Houses – Detail Design

3.4.1 Layout & Design

The detail design of the proposed dwellings was developed in tandem with the later iterations of the site layout and with reference to the DOEHLG Quality Housing for Sustainable Communities and the requirements of the Building Regulations.

The final layout of the houses is influenced by the site-specific conditions as well as the requirements of the regulations noted above and the layout of all bedrooms, living rooms and kitchen/dining rooms meet the size and width

requirements as defined in Table 5.1 of the Quality Housing for Sustainable Communities document.

Entrance to the houses is from Station Road, through a private front terrace area. The ground floor contains the Living Room to the front (Station Road), the toilet, and the Kitchen/Dining area to the rear (west) overlooking the garden. There is also a Store/Utility cupboard off the Kitchen/Dining area. The Living Room has a feature bay window, the roof of which continues over the front door as a canopy. Three bedrooms, a bathroom and a Hot Press are located on first floor.

The gross internal floor area of each of the houses is 98.55m² and the areas of the individual rooms are shown on the Schedule of Accommodation below. The gross internal floor area is 9.3% above the guideline area of 92m² and this is due to the site restriction in overall depth of the dwellings and gardens, in order to maintain a separation to Tudor Grove and garden space outside the north facing Tudor Grove maisonettes.

Schedule of Accommodation		
Room Name	Area (m ²)	Area (m ²)
Ground Floor	NET	GROSS
Living Room	13.2	50.77
Kitchen / Dining	21.75	
Toilet	2.95	
Utility / Stores	3.68	
First Floor	NET	GROSS
Bedroom 1	13.0	47.78
Bedroom 2	12.9	
Bedroom 3	7.11	
Bathroom	5.26	
Hot Press	1.37	
Total Gross Internal Floor Area		98.55

Each of the 6 houses has a private garden and the sizes are shown on the Schedule of House & Garden Areas below.

Schedule of House & Garden Areas		
House No.	Gross Internal Area (m ²)	Garden Area (m ²)
1	98.55	47.30
2	98.55	45.96
3	98.55	45.96
4	98.55	45.96
5	98.55	45.96
6	98.55	45.96

3.4.2 Materials

The overall character of the development is intended to be modest but distinctive - a terrace made with simple, robust materials that compliments the buildings already on site and close-by. The external walls will be mostly finished in a roughcast render with a painted finish and there will be a clay brick finish to the front elevations at ground floor. Roofing will be a slate and windows will be triple glazed aluminium / timber with precast concrete sills. The front doors will be a composite aluminium / timber door and the rear door to the gardens will be glazed aluminium / timber.

Materials will be detailed to ensure robustness and low maintenance requirements. All areas are readily accessed for maintenance.

3.4.3 Building Regulations Part L

The new dwellings shall comply fully with Part L: 2019, both in the building fabric and construction and in the building services design as follows:

- All external envelope fabric shall comply with or exceed the maximum U-Values given in Table 1 of Part L: 2019.
- Air tightness values in the dwellings shall not exceed the new performance value of $5\text{m}^3/\text{m}^2/\text{h}$.
- All dwellings shall meet the criteria of NZEB, with MPEPC not greater than 3.0 and MPCPC not greater than 0.35. The renewable contribution of 20% or greater shall be met with modern high efficiency heat pump systems (Monobloc), which shall meet the dwelling space heating and hot water loads.

3.4.4 Building Services

Heating will be distributed through the house via underfloor heating on the ground floor and by modern high-efficiency radiators or convectors on the first floors.

Hot water shall be stored in a factory insulated 200L storage cylinder, located in the ground floor storage room.

Ventilation shall be provided with a Mechanical Ventilation Heat Recovery System (MVHRT), located in the ground floor storage room or attic. The MVHRT shall supply tempered air to living and bedroom spaces and draw from WC spaces and the kitchen extract fan.

3.4.5 Site Services

Watermains

Existing watermains are located on Station Road and Tudor Grove Road, A new 100mm diameter looped watermain is to be located in the carpark with Fire Hydrants and a new 12mm supply to supply each house individually is to be located in the new footpath on Station Road.

Irish Water have indicated adequate capacity is available.

Foul sewer

New foul sewers from the proposed housing units will discharge into the existing foul sewer serving Tudor Grove Apartments and out into Tudor Grove Road. No significant additional flows are expected, and Irish Water have confirmed that adequate capacity is available in the system.

Stormwater

New storm drains from the proposed housing units will discharge into the existing storm drain serving Tudor Grove Apartments and out into Tudor Grove

3.5 Design References

Road. There is no increase in hard surface area, as the Madonna House nursing home is to be demolished to facilitate the proposed development, thus there will be no increase in surface water flows

Drainage systems to be in accordance with ISEN 12056, 752, 1610, 1295.





4 Conclusion

The proposal is for the redevelopment of a portion of an existing site by demolishing a vacant, unused former nursing home and replacing it with a terrace of 6 social housing dwellings. The dwellings have been designed to positively reinforce their context and reinvigorate this largely inactive site. On the basis of the foregoing, it is considered that the proposed development is an appropriate response for the site which complies with the planning policy for the area and accords with the vision of the Cork County Council Development Plan 2014 and the Ballincollig Carrigaline Municipal District Local Area Plan 2017.

Derek O'Leary MRIAI



Appendix A Shadow Study

Date: 17/11/2020
Shadow Study Report
Development at Madonna House Site, Ballincollig, Cork



To whom it May Concern:

In response to a request from our client O'Leary Architecture + Design we have produced a comparative shadow study analysis based on the architectural plans and information we were supplied. To accurately generate this shadow analysis study we built a 3d model of existing building and a model of proposed 2 storey terraced houses (highlighted in blue). We then used geographical information such as Latitude, Longitude, Site Location and Sea Level heights: this information was imported into our software program which can accurately calculate the shadow casting on three selected dates throughout the year. The images were then rendered in greyscale format.

Shadow study was calculated for March 21st (Spring/Autumn Equinox), June 21st (Summer Solstice) and December 21st (Winter Solstice) showing the shadow impact of the new development on the adjacent buildings.

Summary:

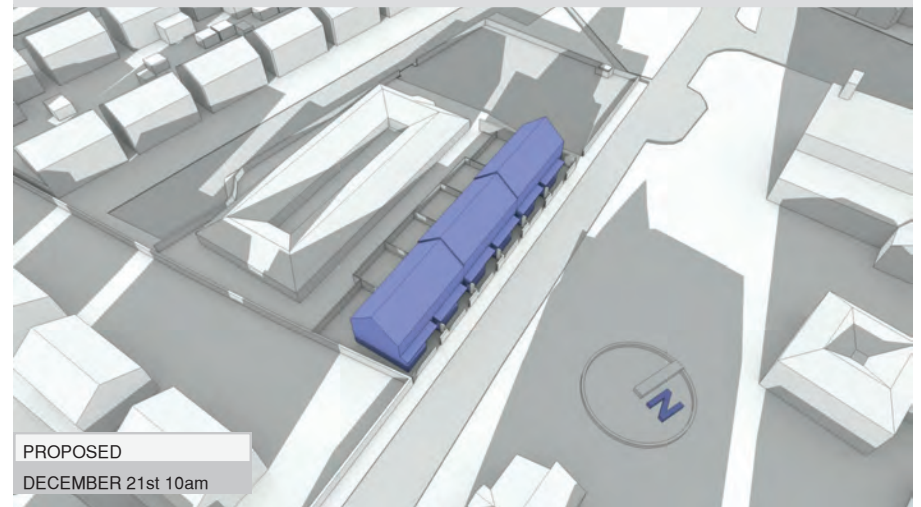
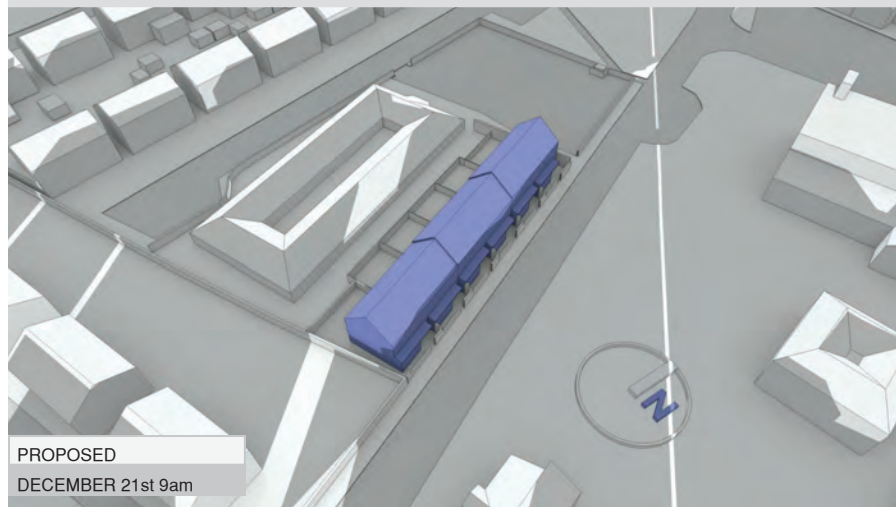
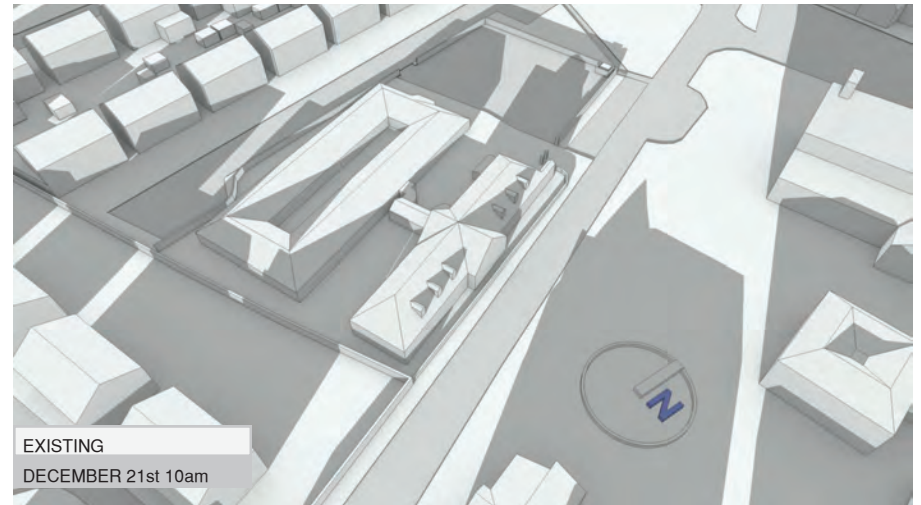
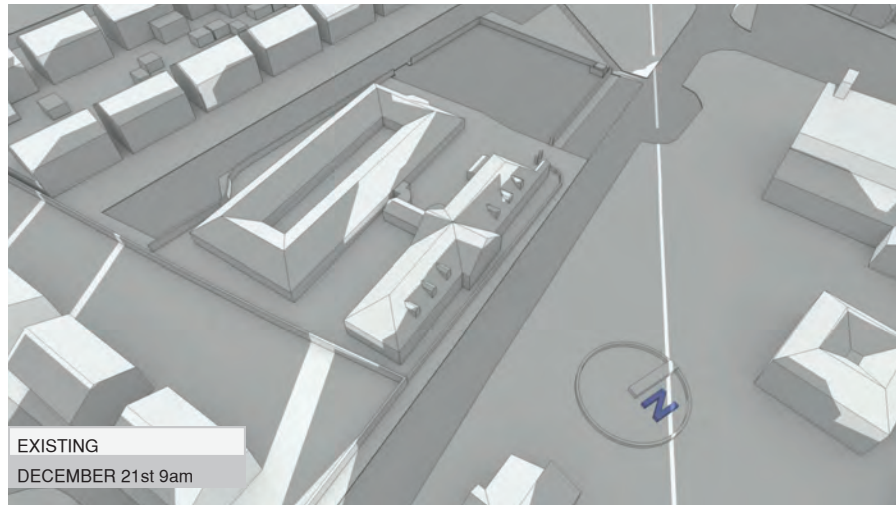
The overshadowing of the proposed houses will have no perceptible impact on the neighbouring Tudor Grove single storey apartments to the west of the site.

Please find attached images which are clearly marked with the dates and times.

Regards,
Alan O'Neill
Director

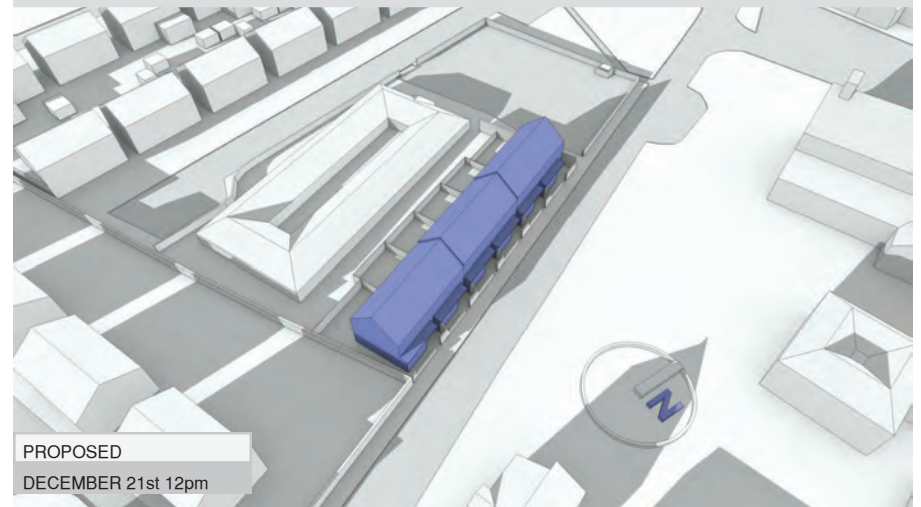
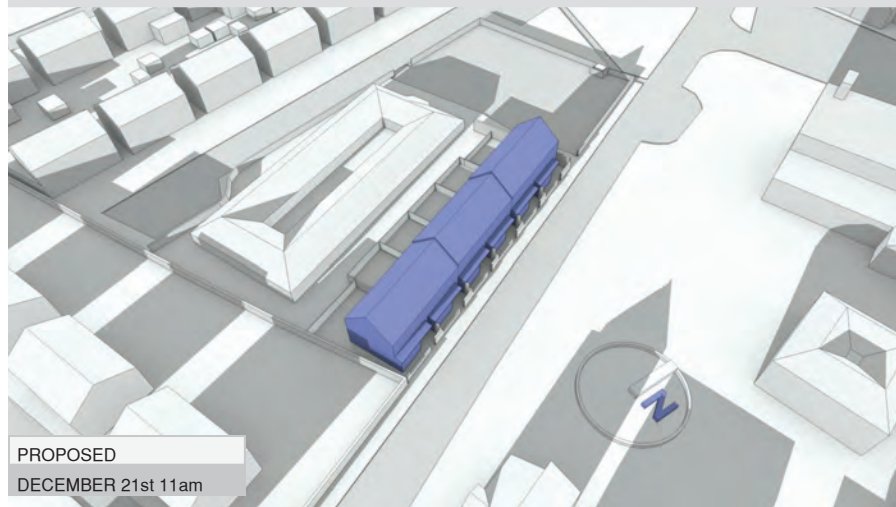
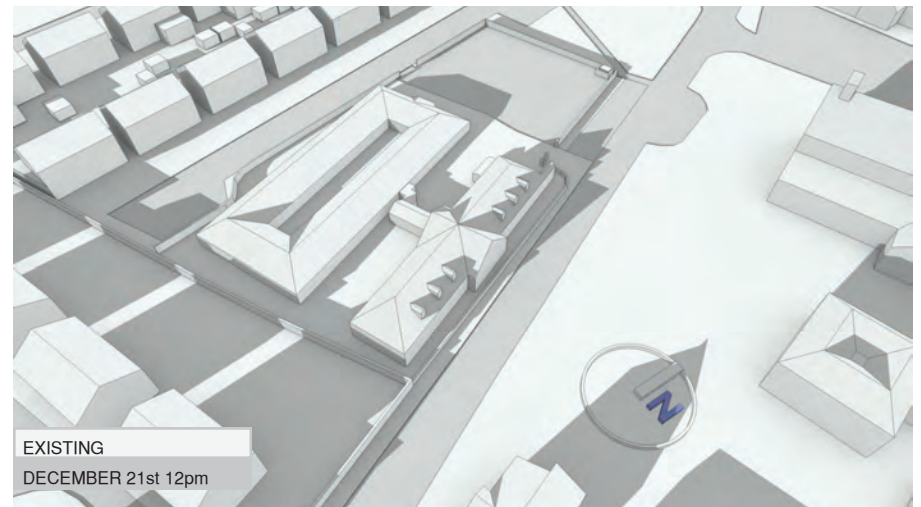
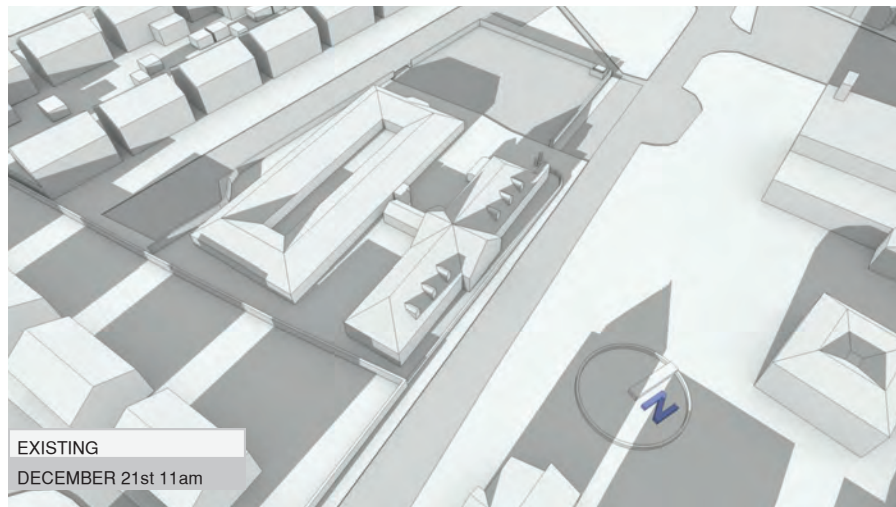
Madonna House Site Development Shadow Study

Winter Solstice GMT +/- 0.00



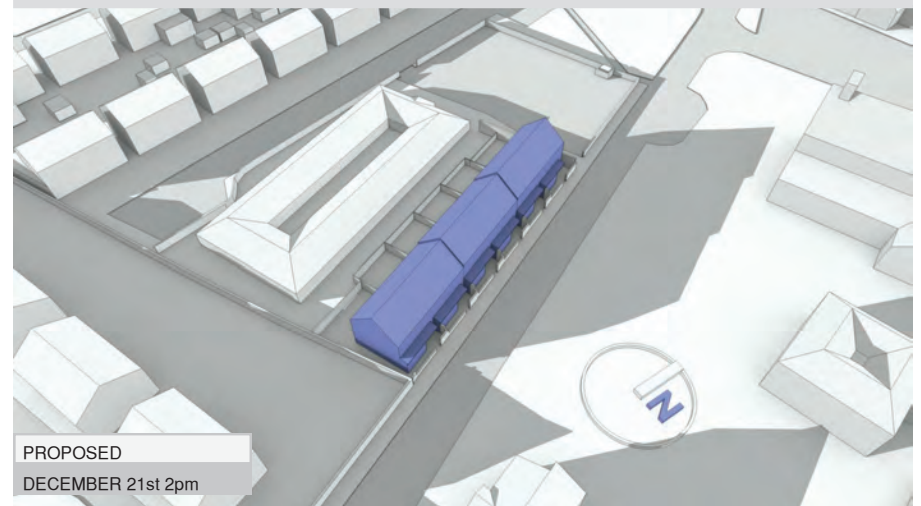
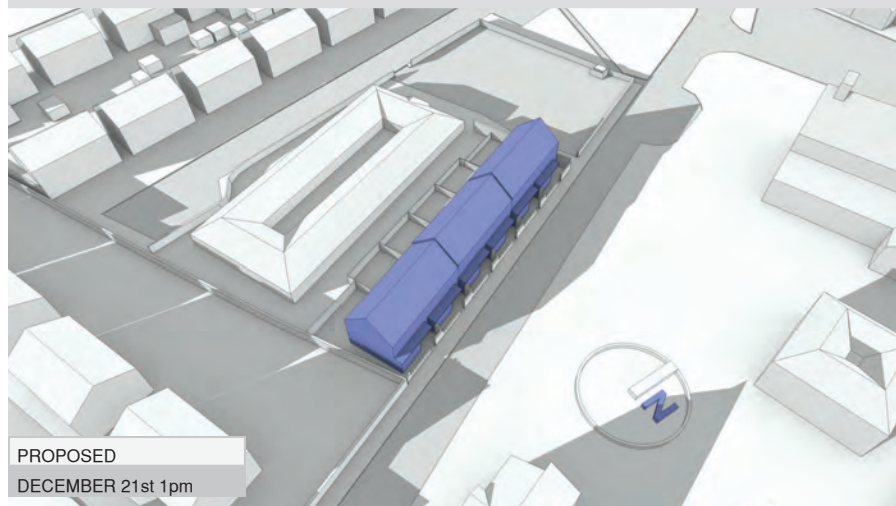
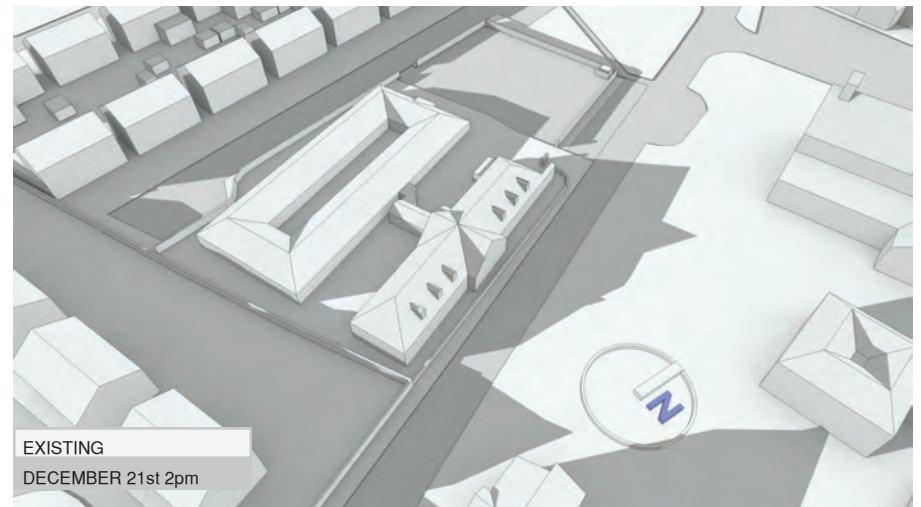
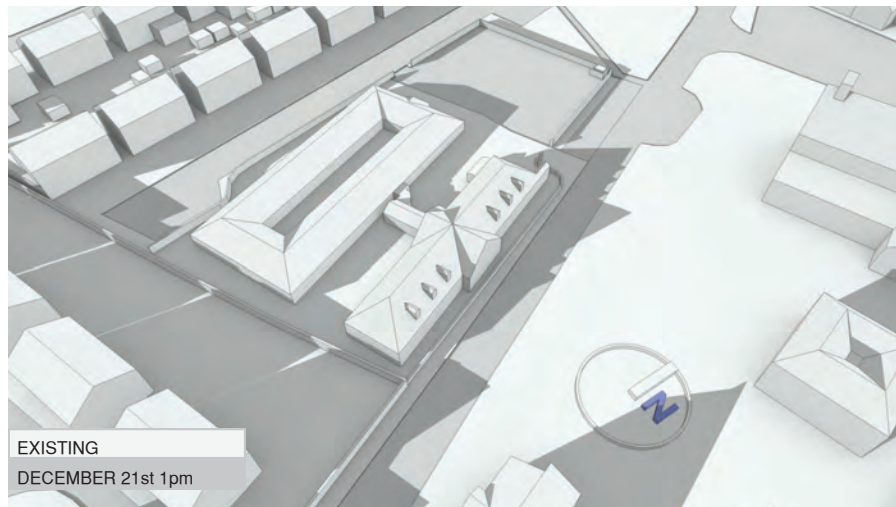
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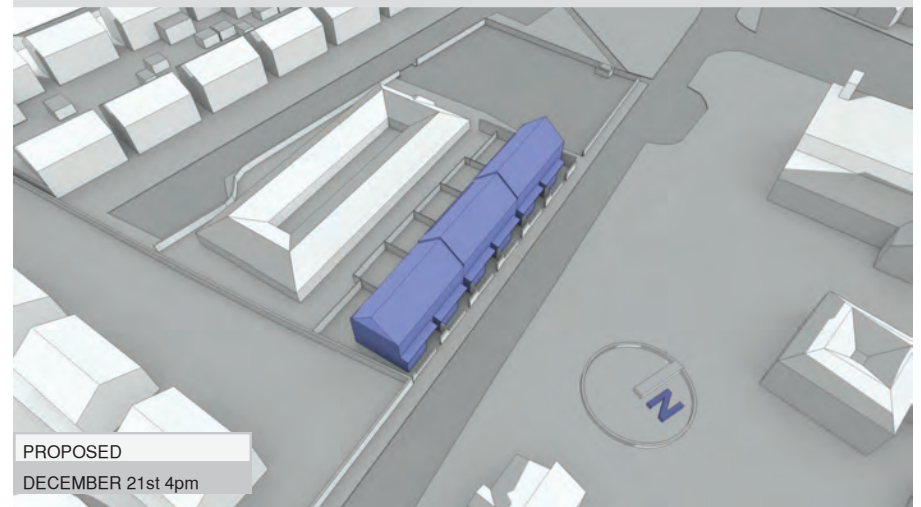
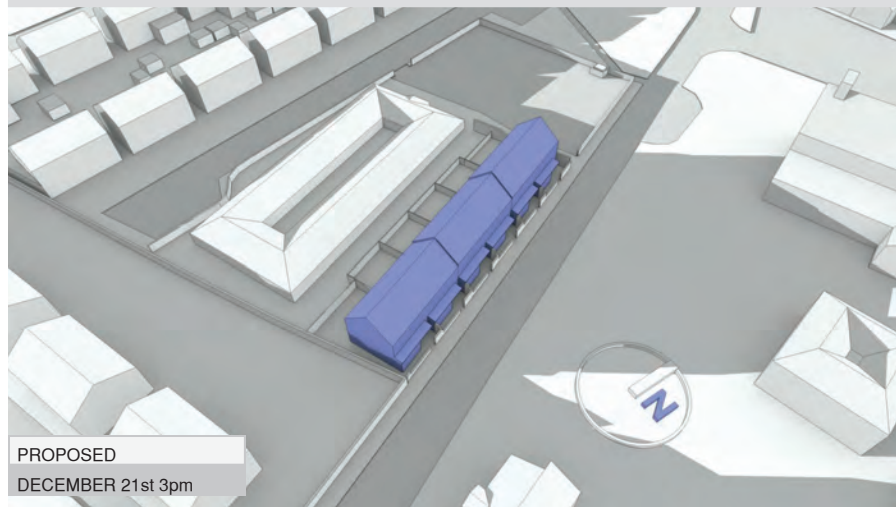
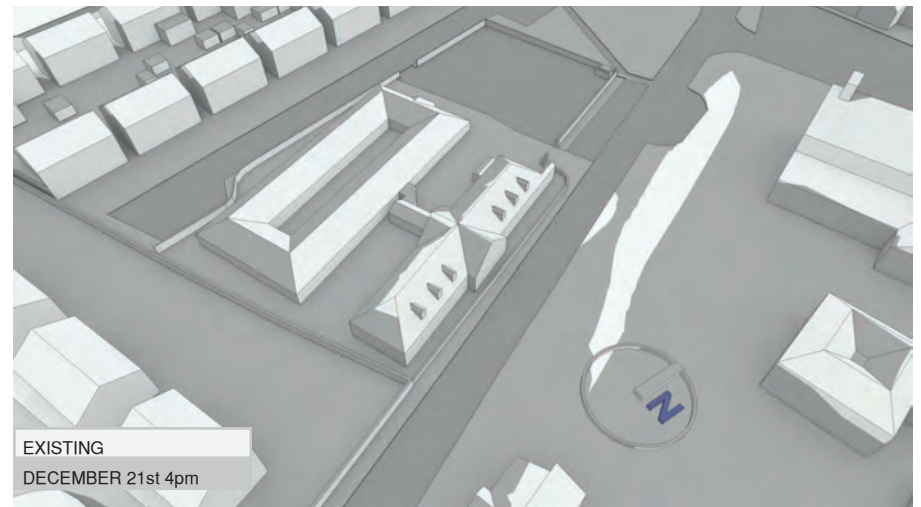
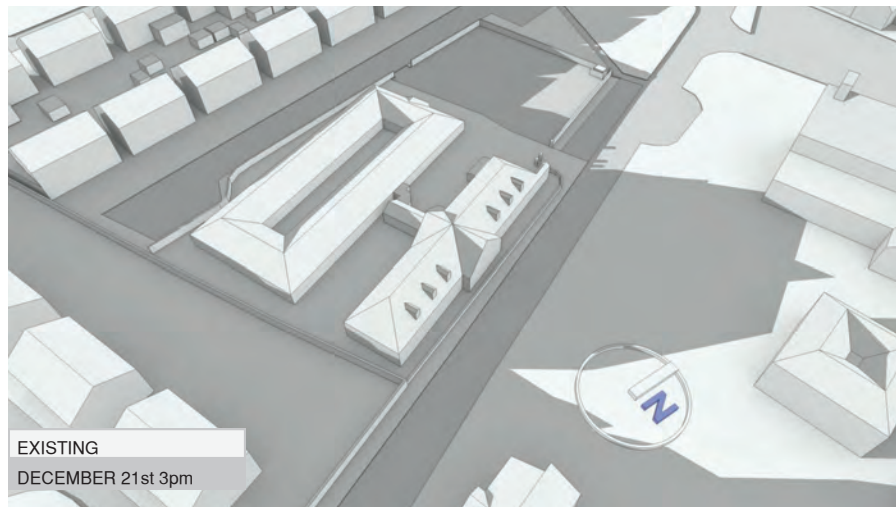
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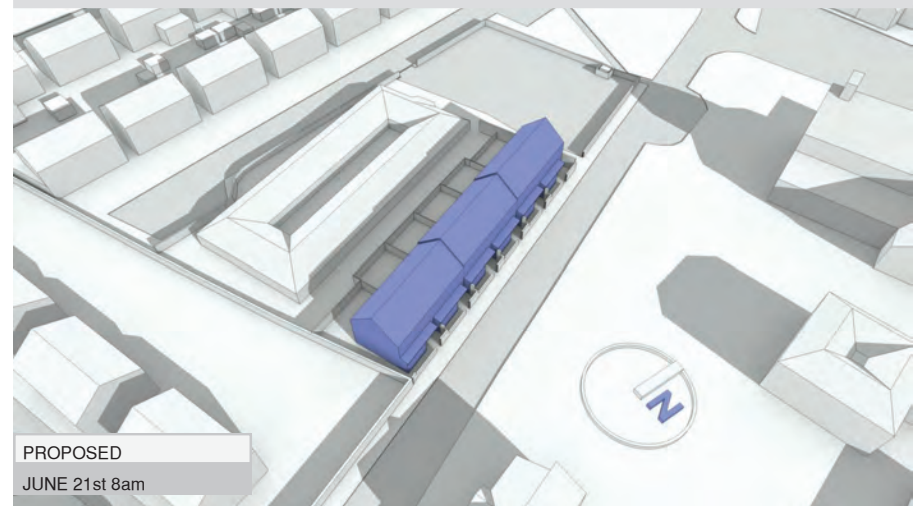
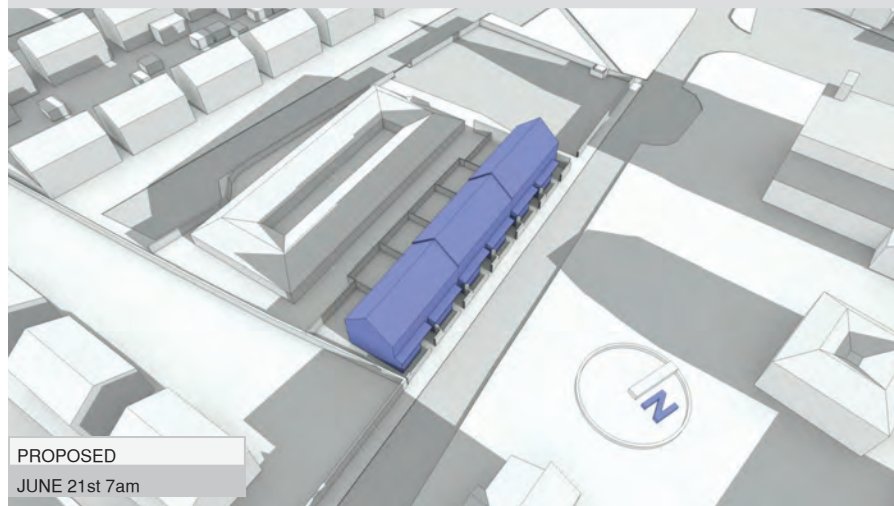
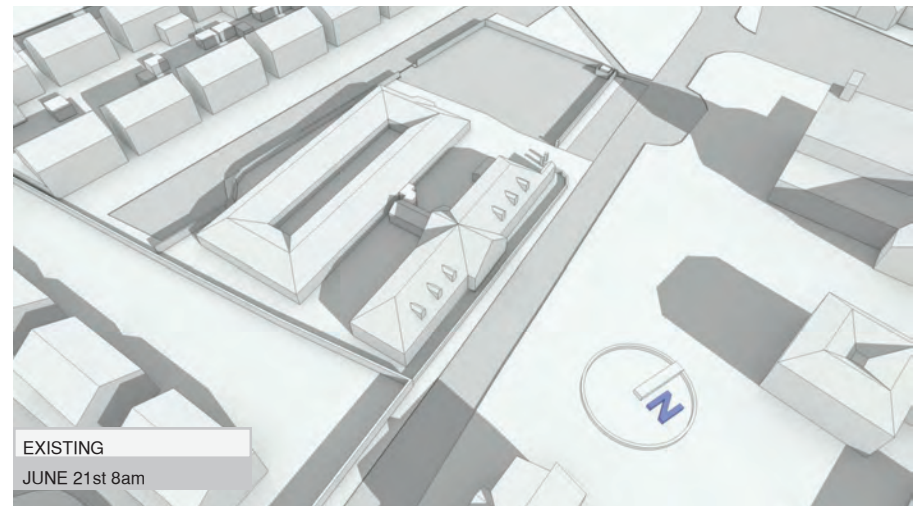
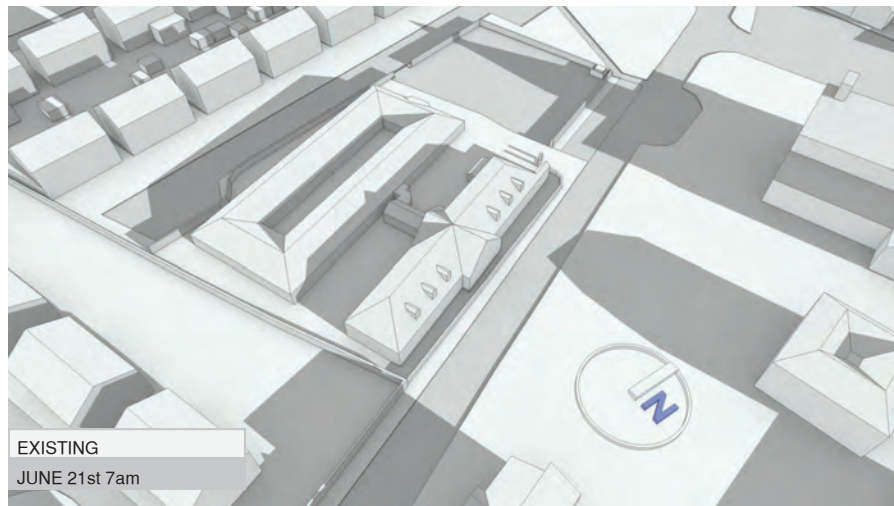
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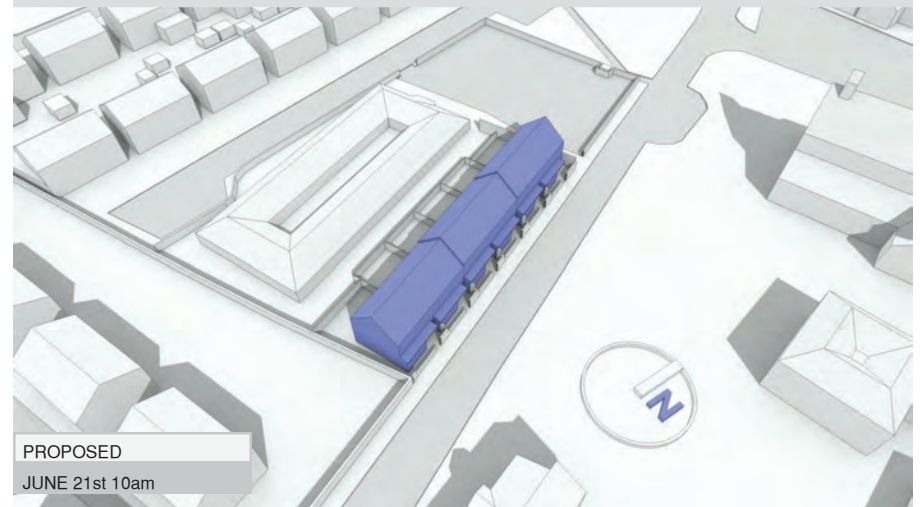
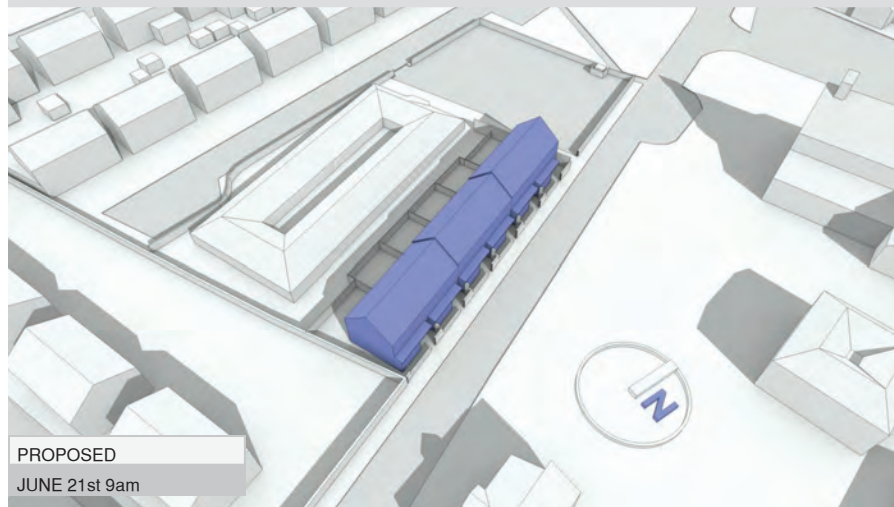
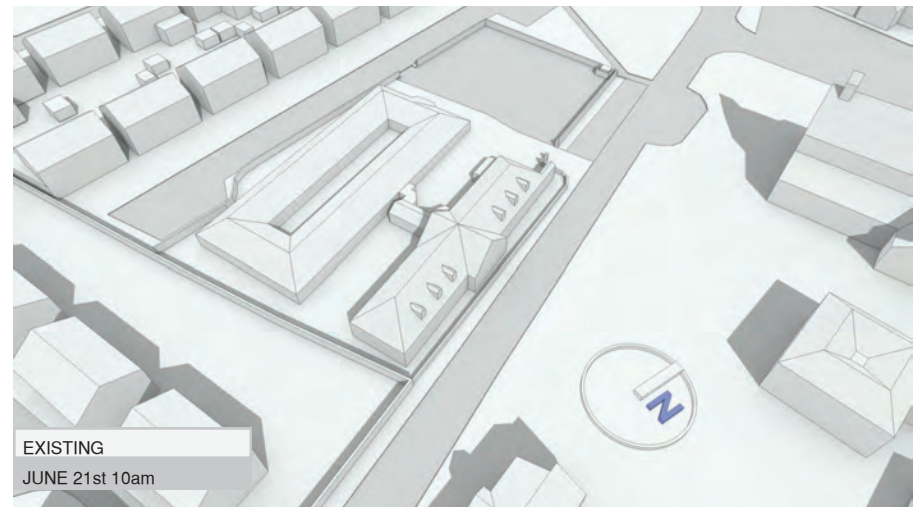
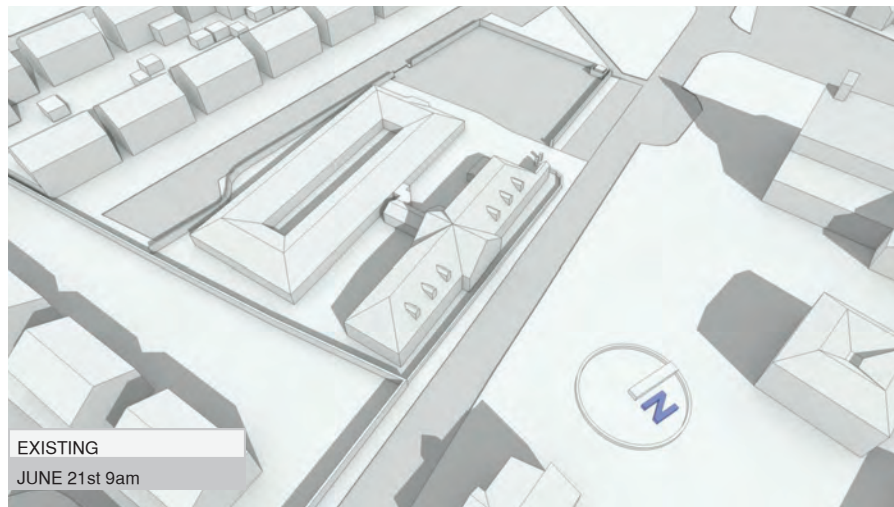
Madonna House Site Development Shadow Study

Summer Solstice GMT +1



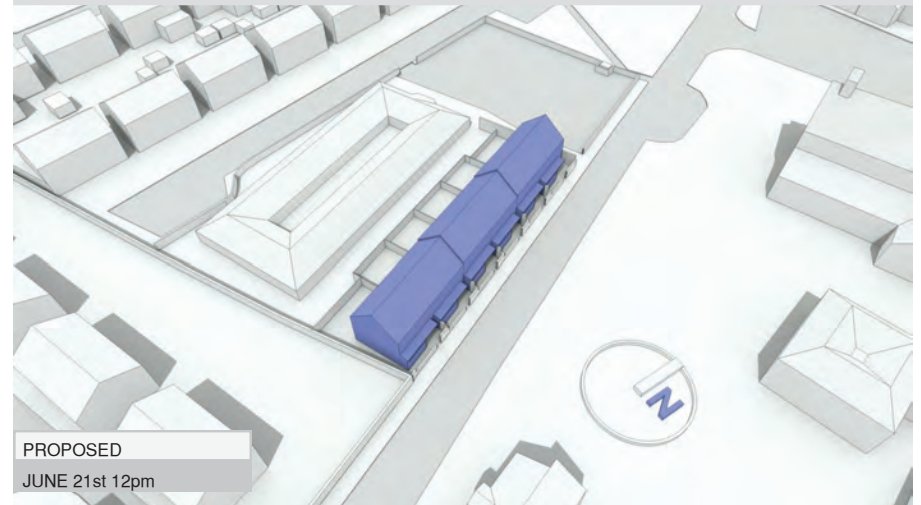
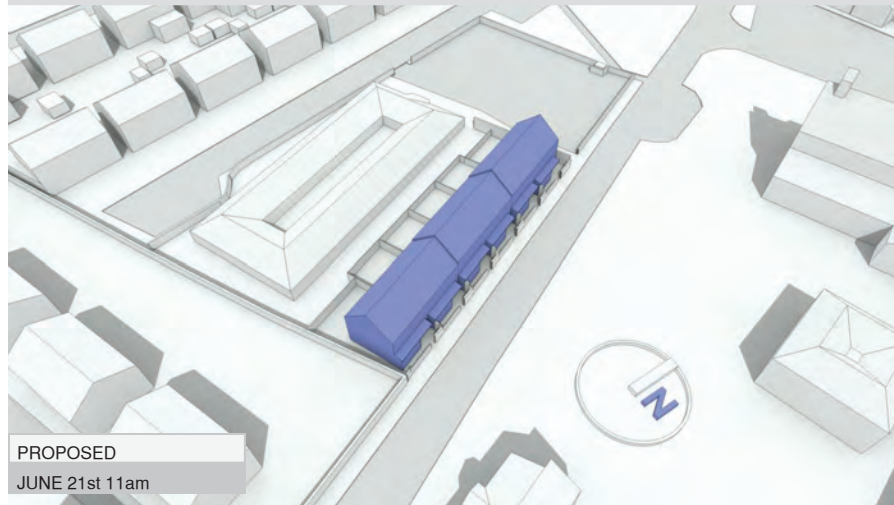
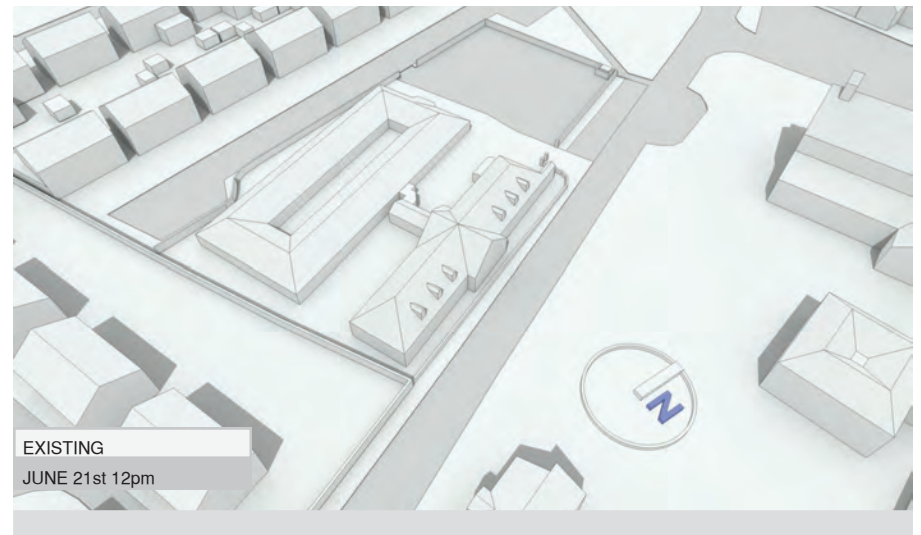
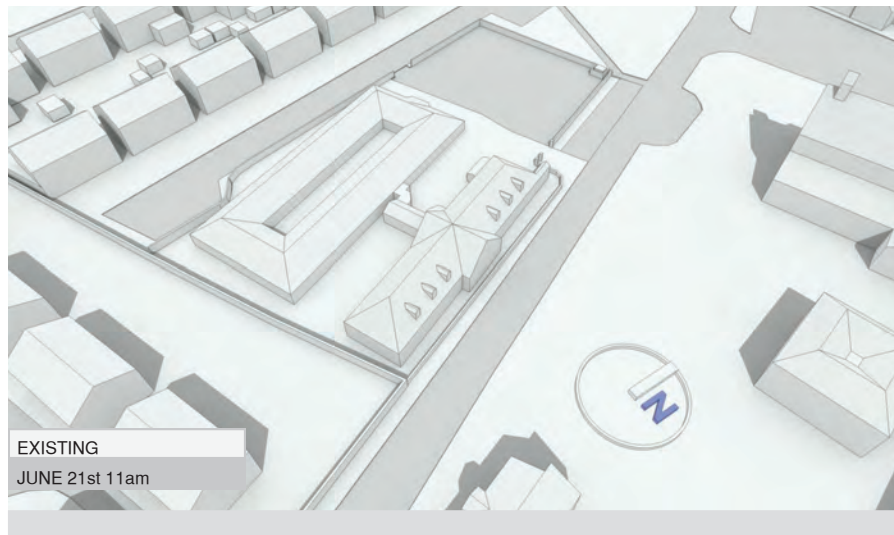
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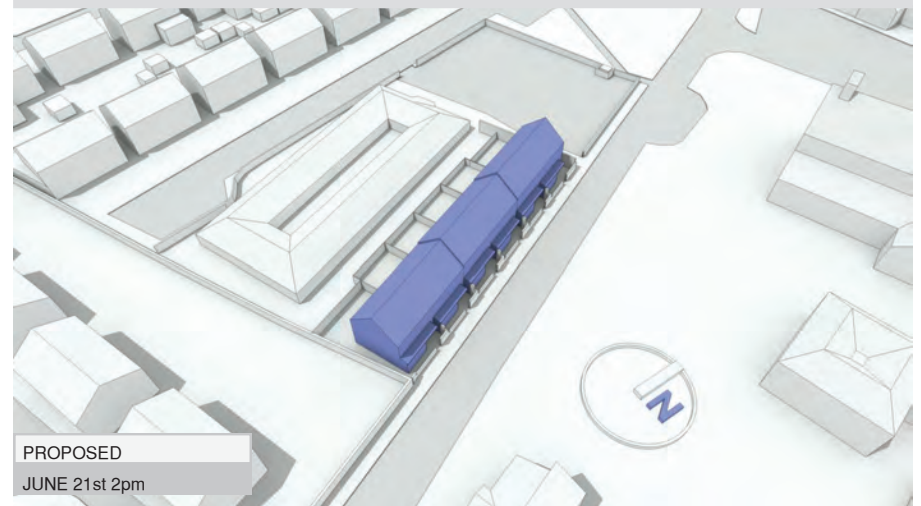
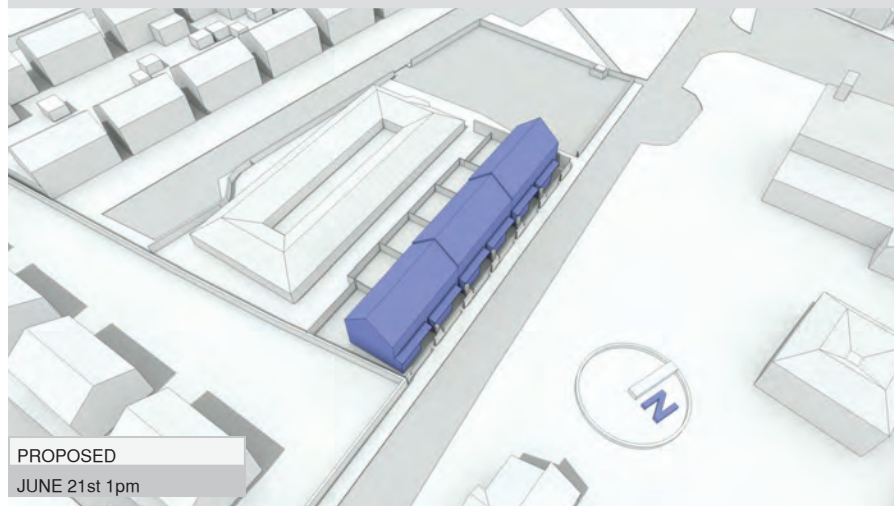
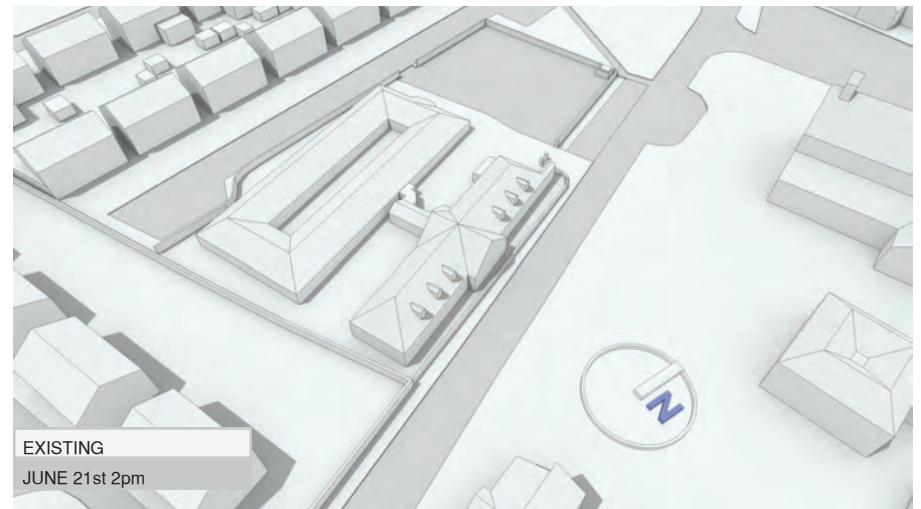
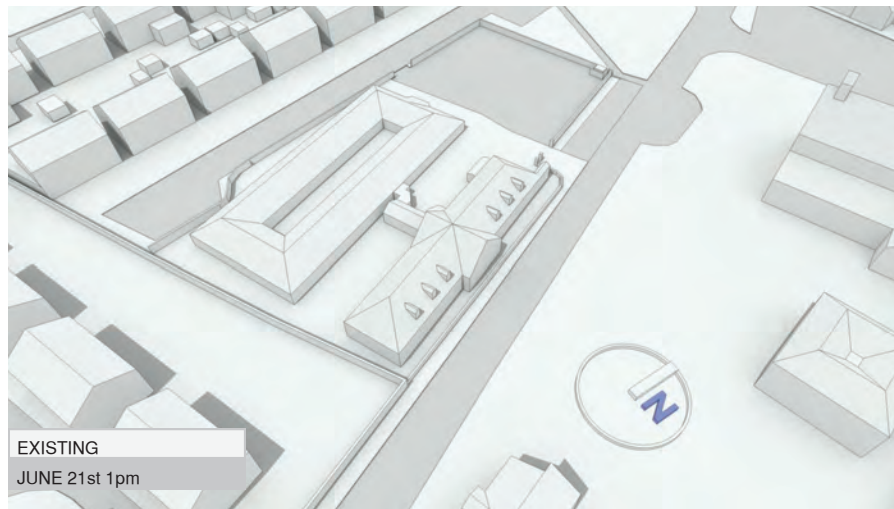
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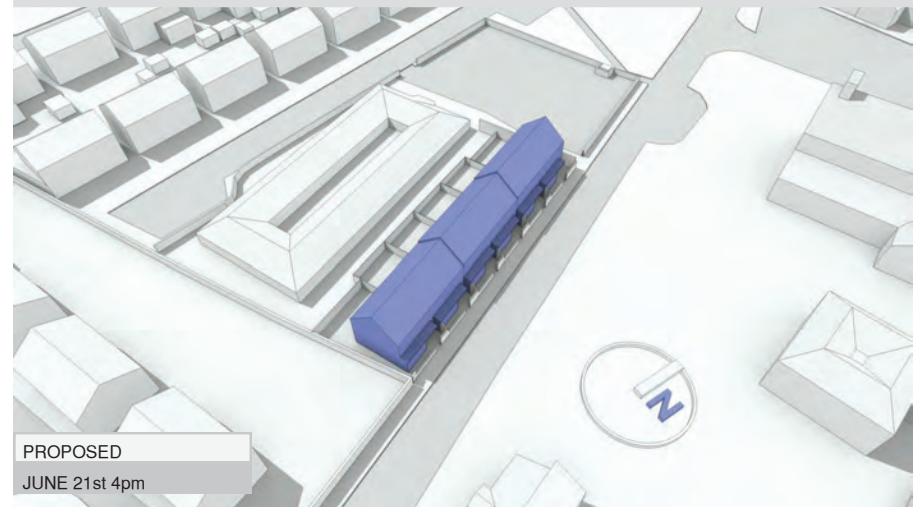
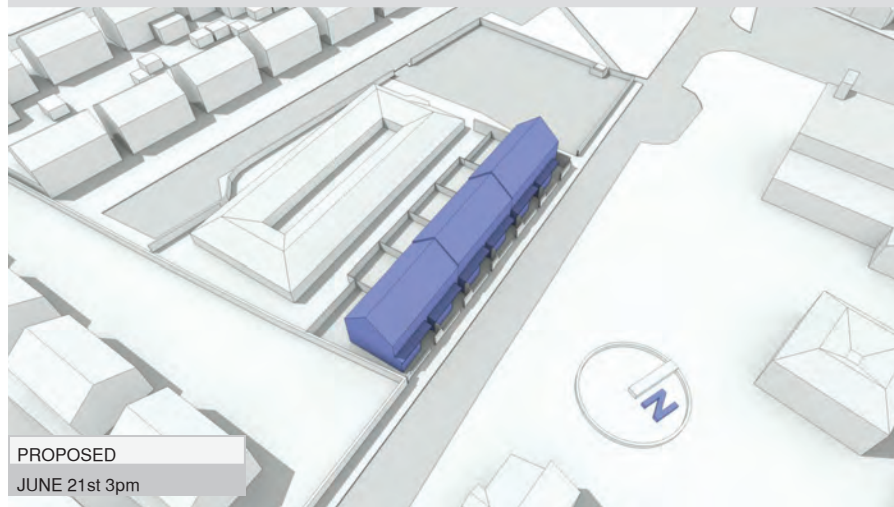
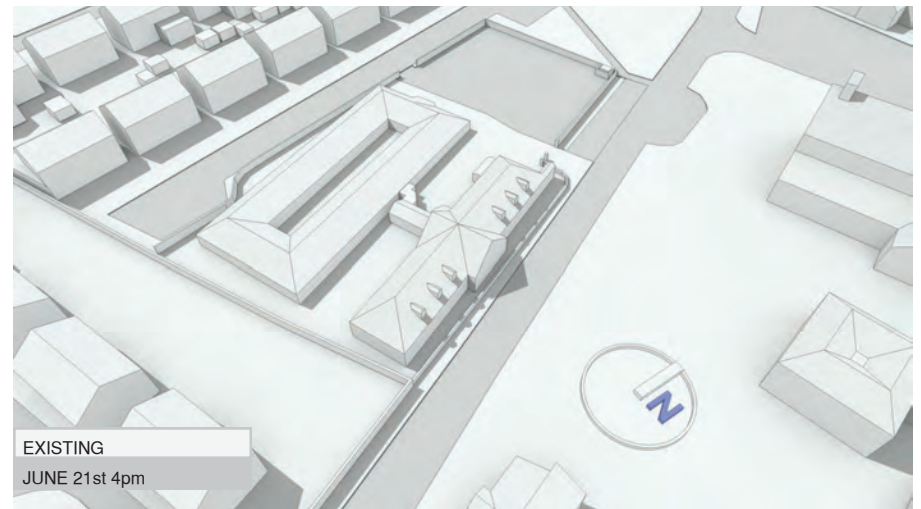
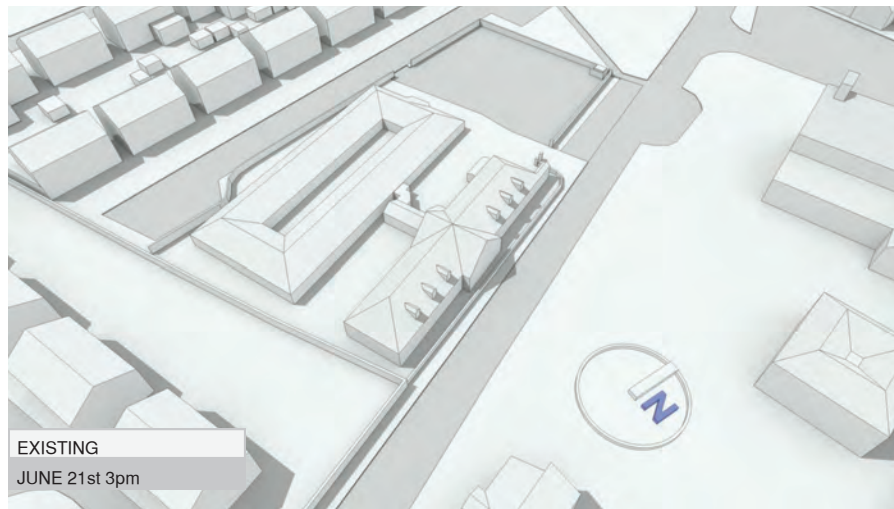
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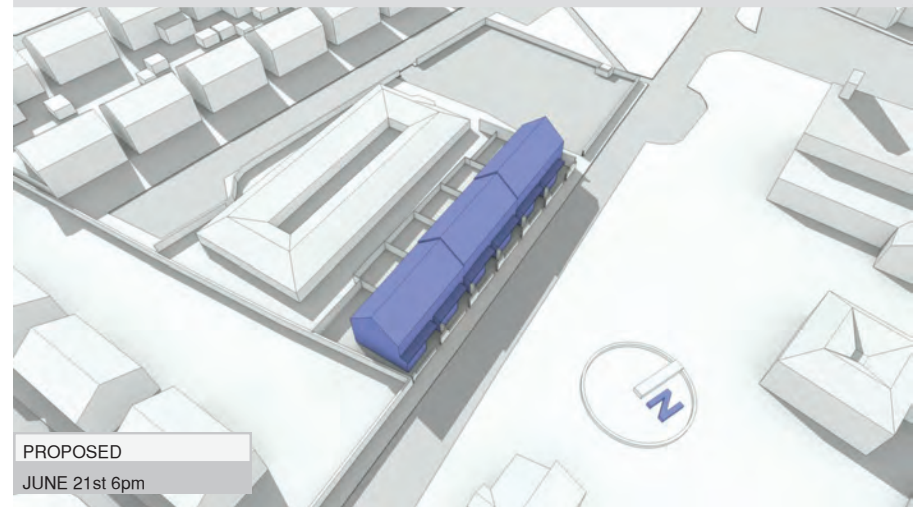
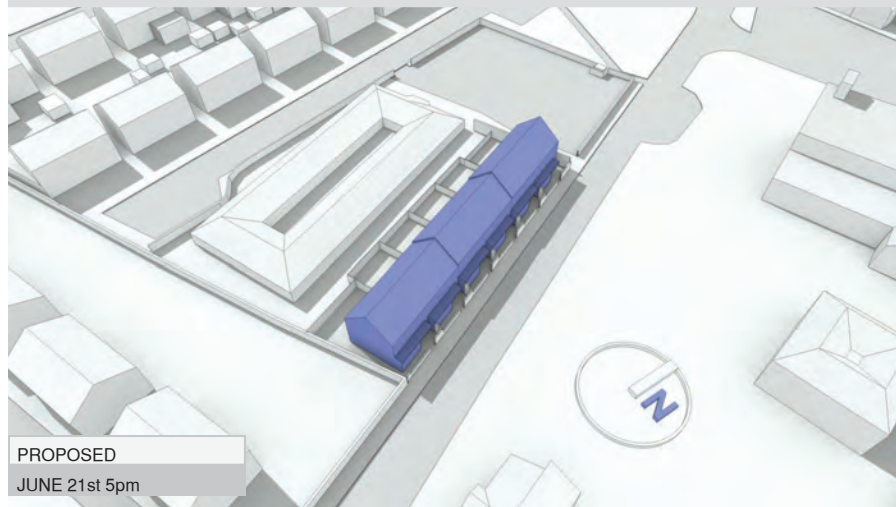
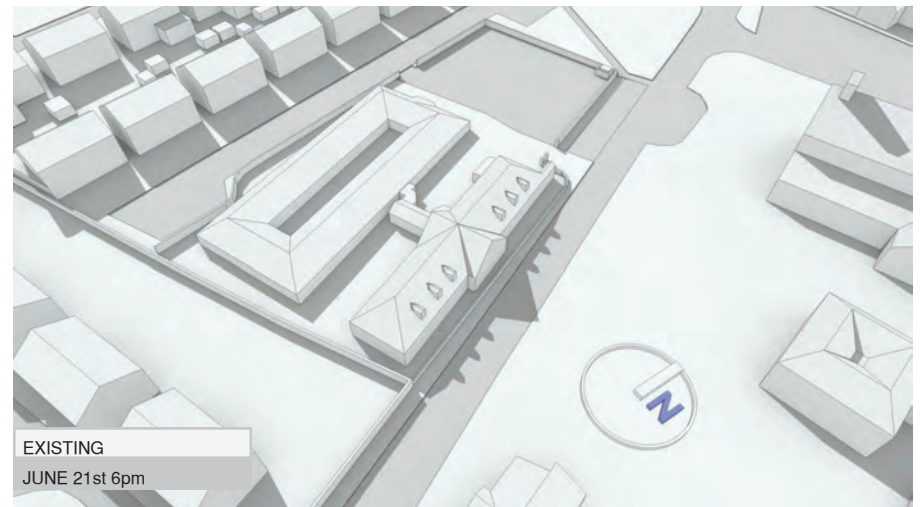
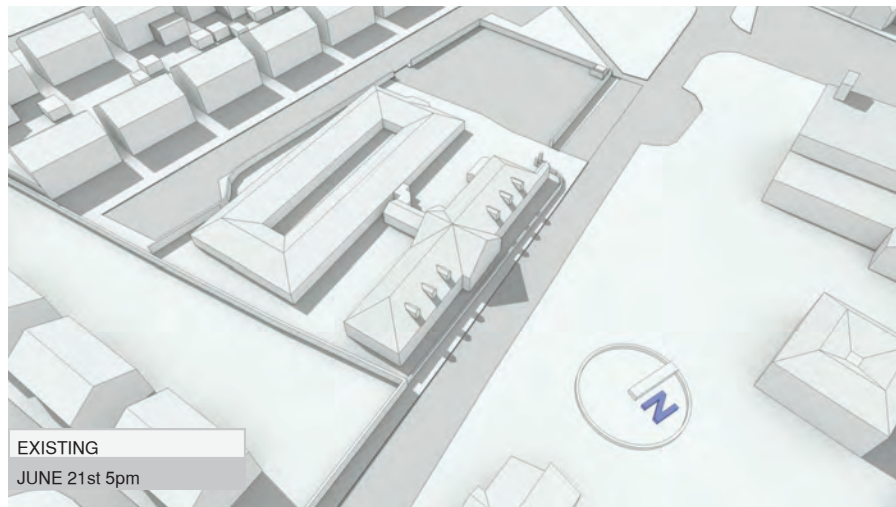
Madonna House Site Development Shadow Study

Summer Solstice GMT +1



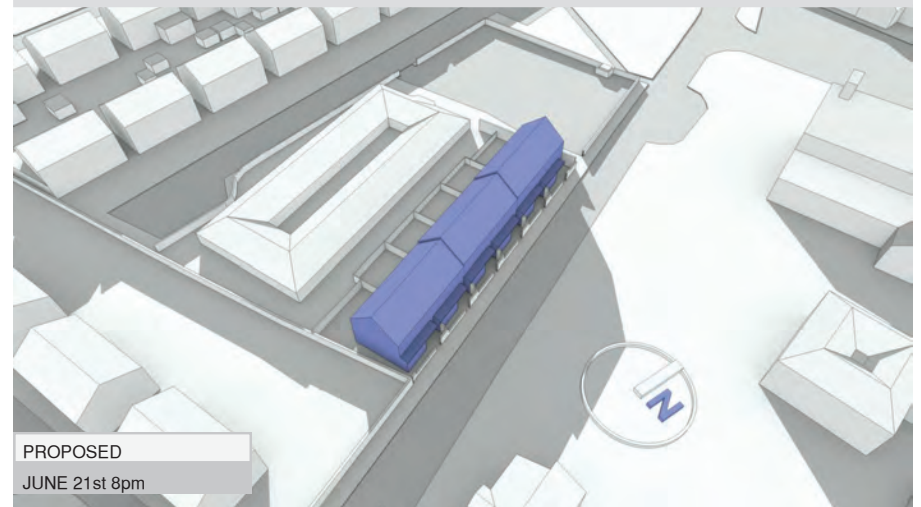
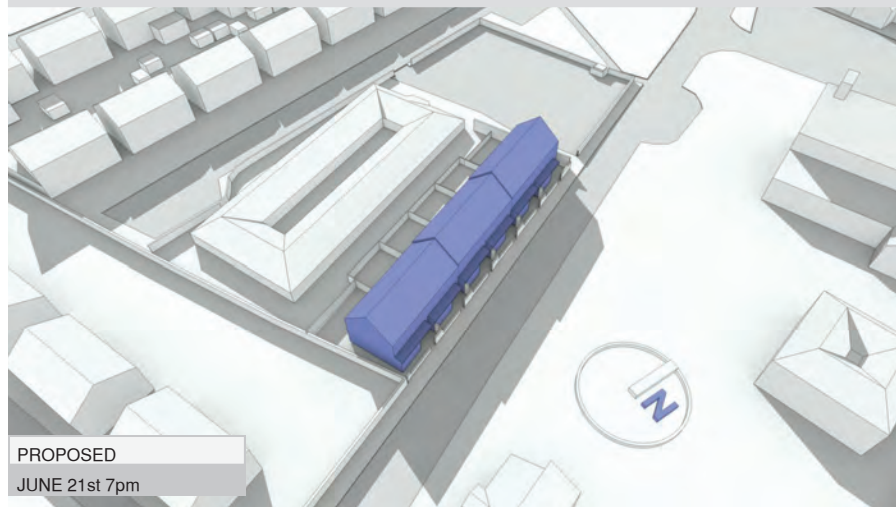
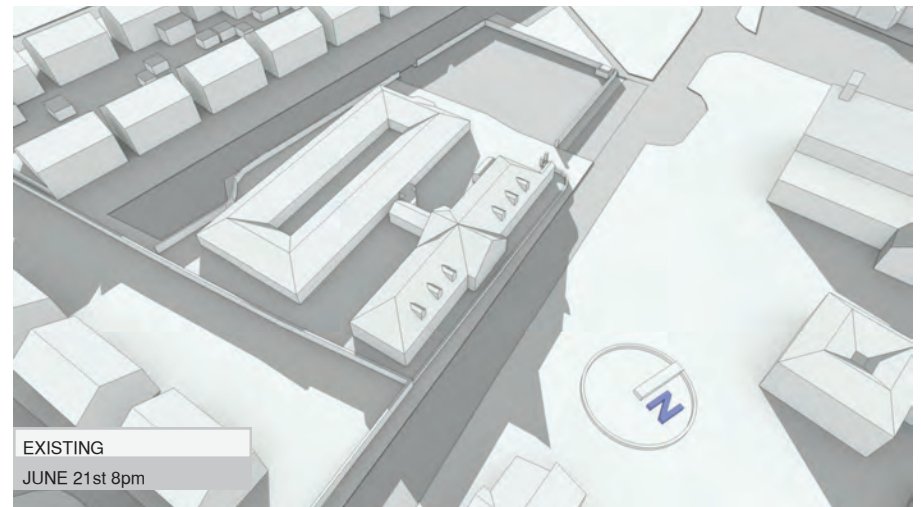
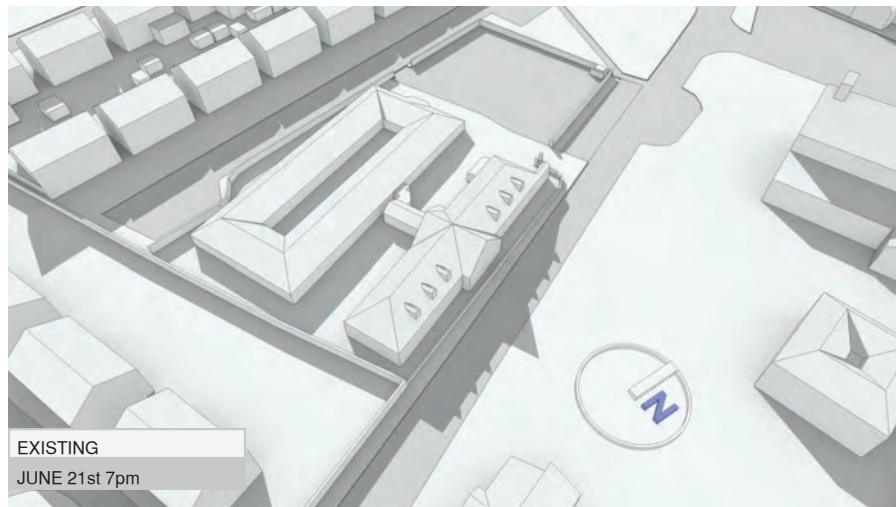
Madonna House Site Development Shadow Study

Summer Solstice GMT +1



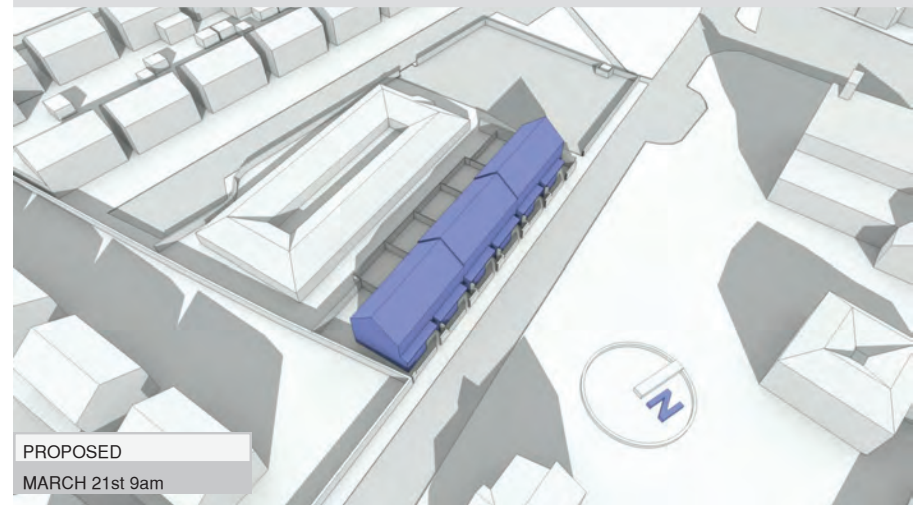
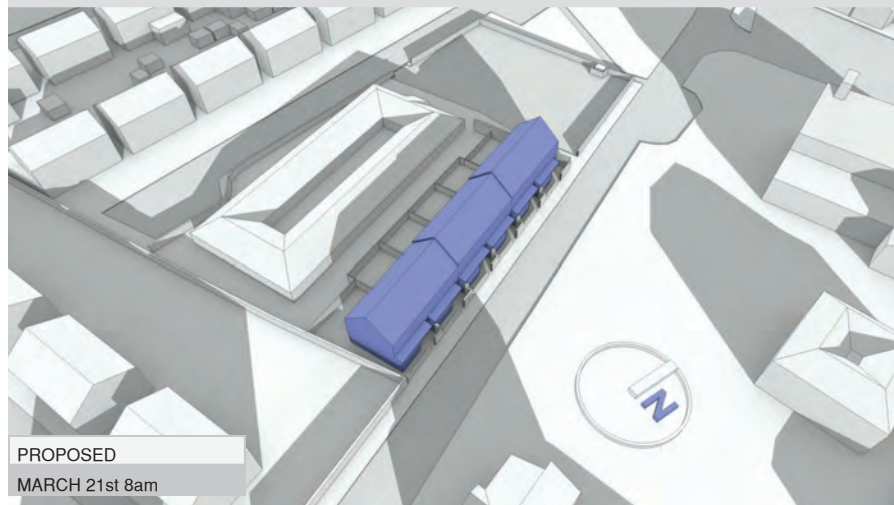
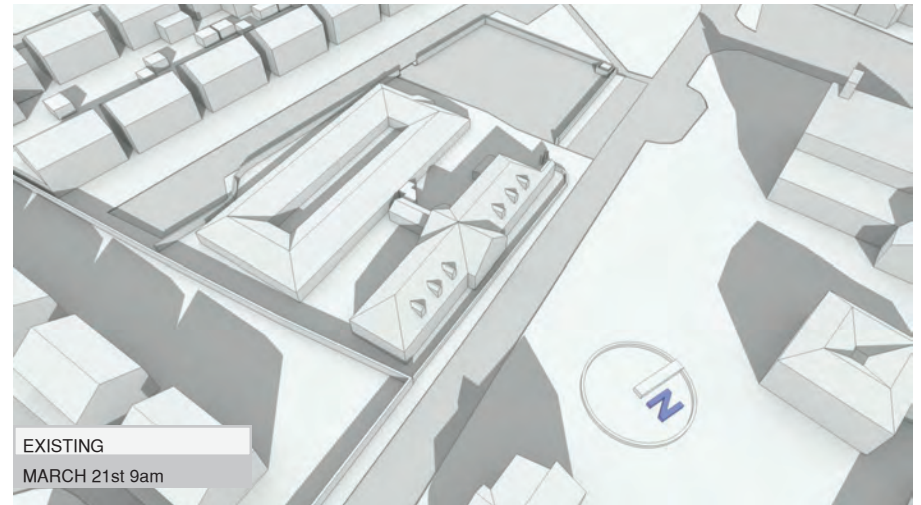
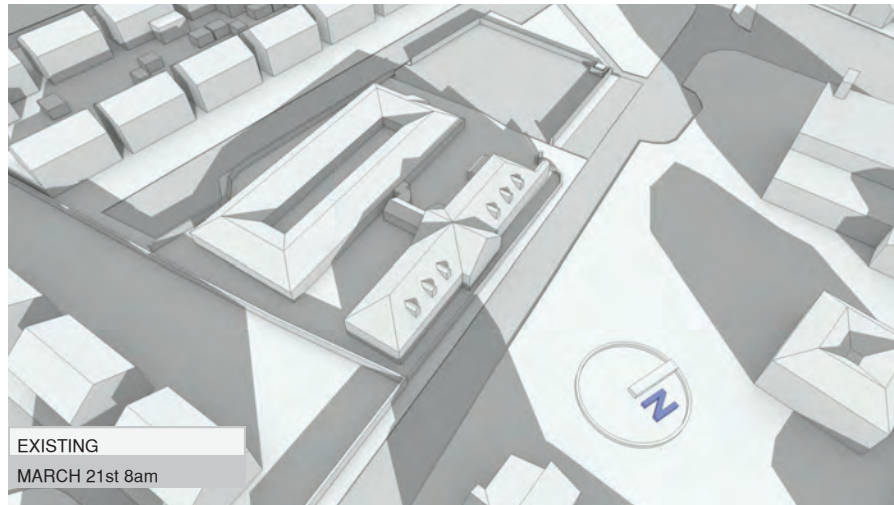
Madonna House Site Development Shadow Study

Summer Solstice GMT +1



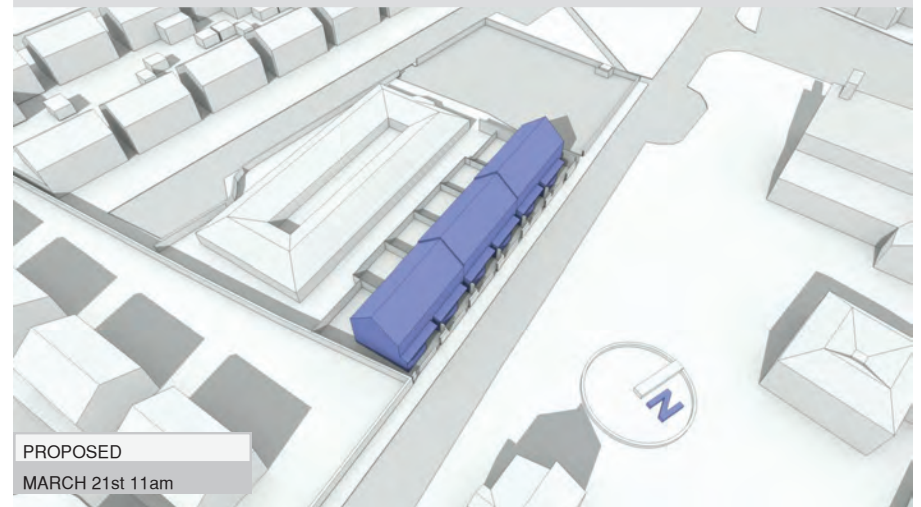
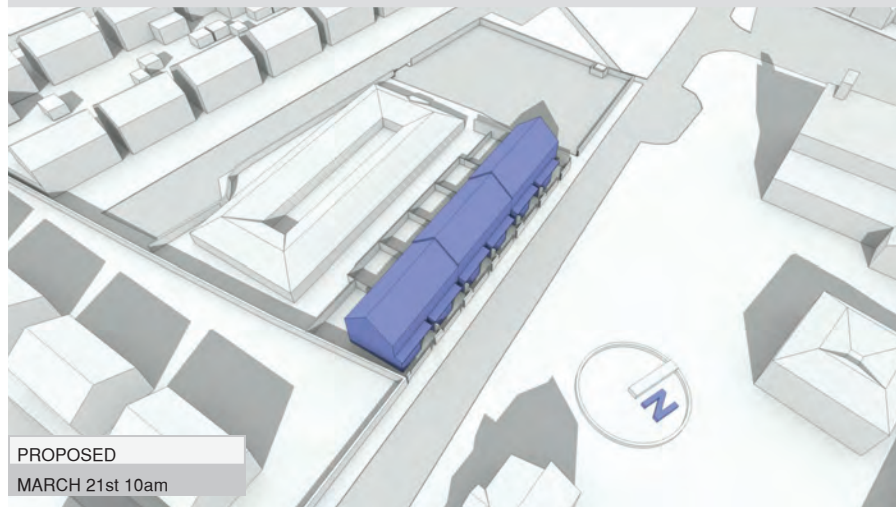
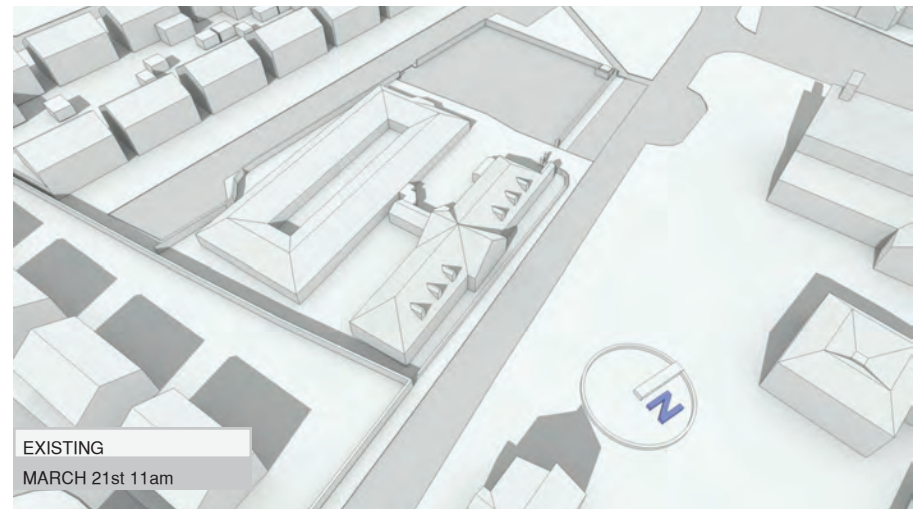
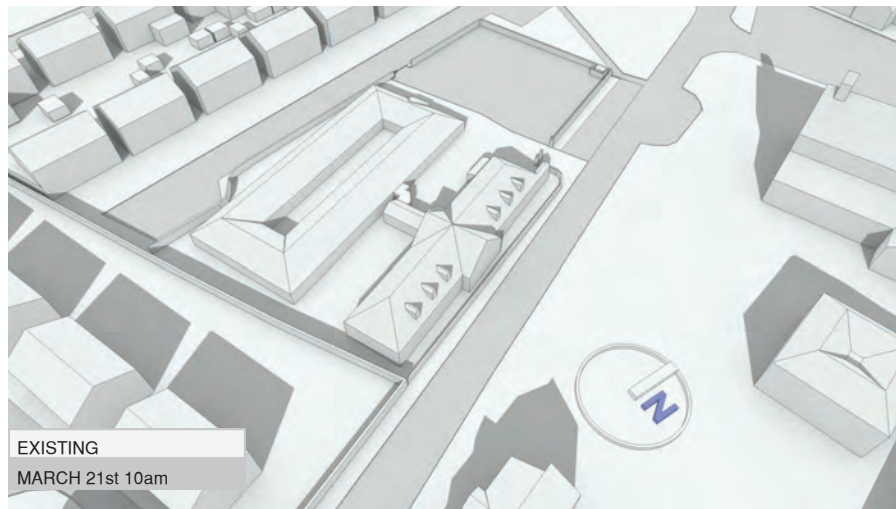
Madonna House Site Development Shadow Study

Spring/Autumn Equinox GMT +/- 0.00



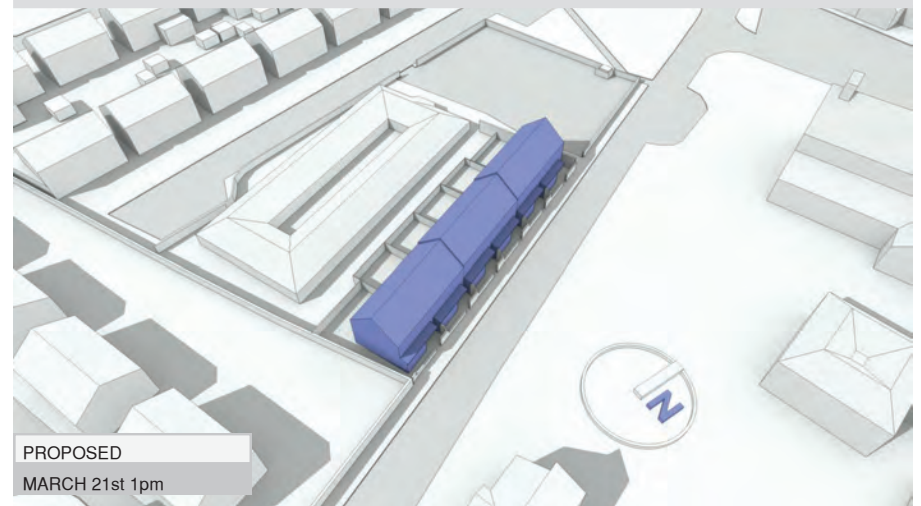
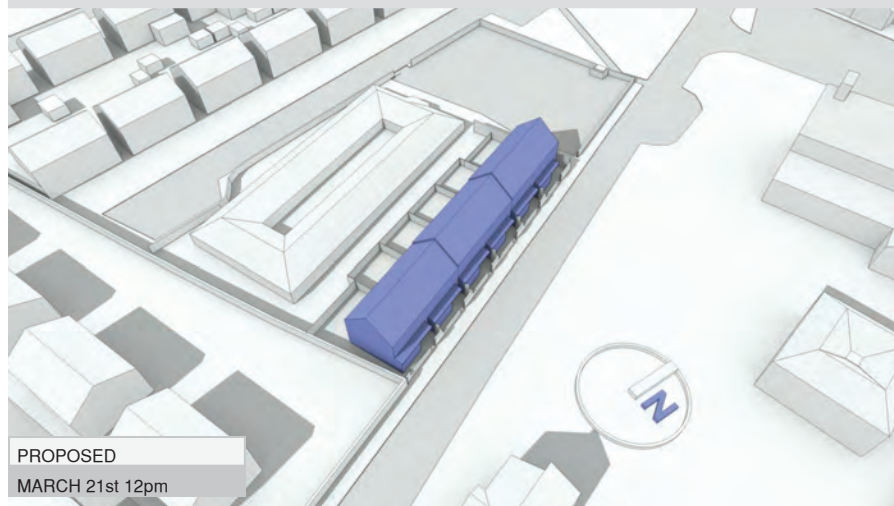
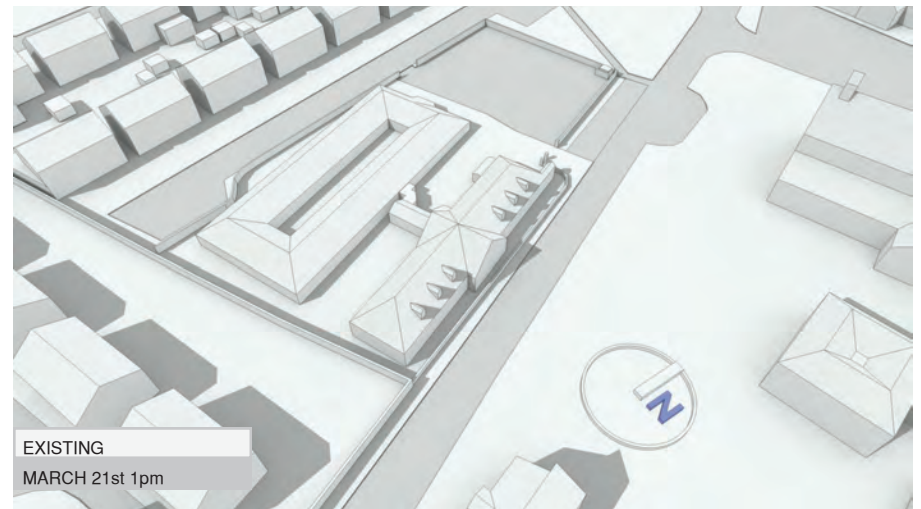
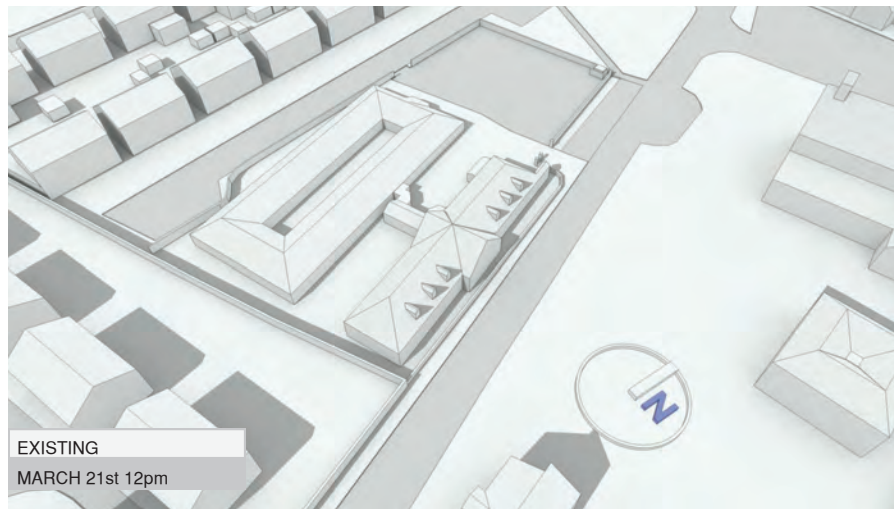
Madonna House Site Development Shadow Study

Spring/Autumn Equinox GMT +/- 0.00



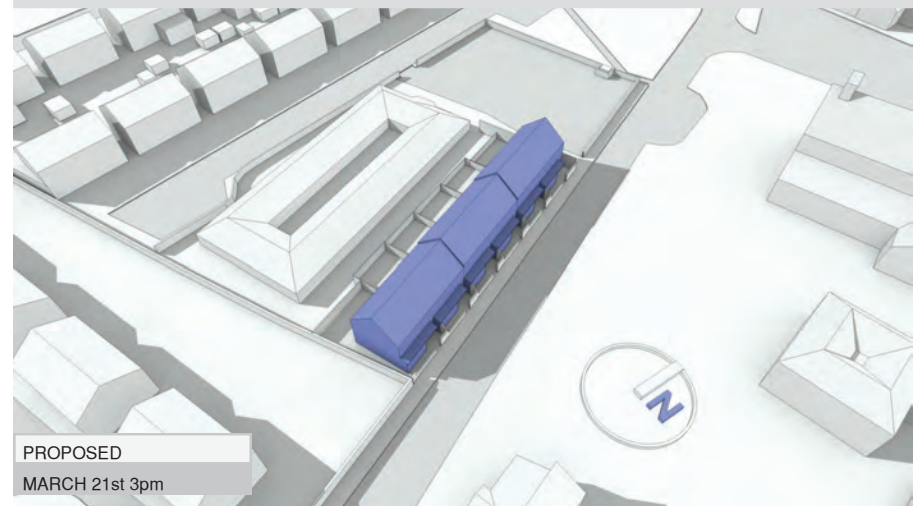
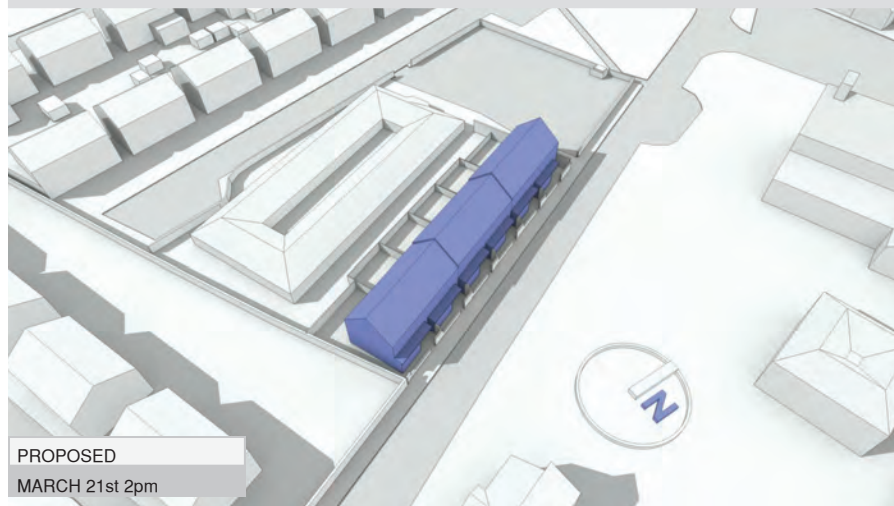
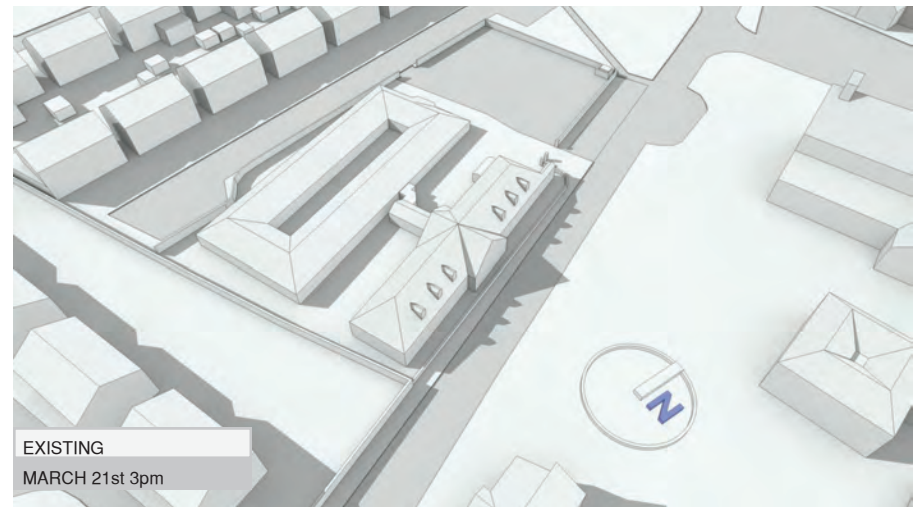
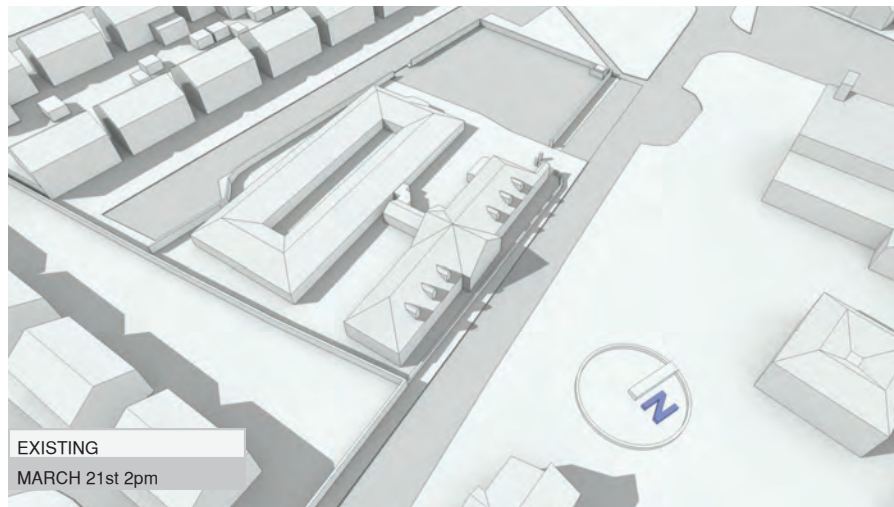
Madonna House Site Development Shadow Study

Spring/Autumn Equinox GMT +/- 0.00



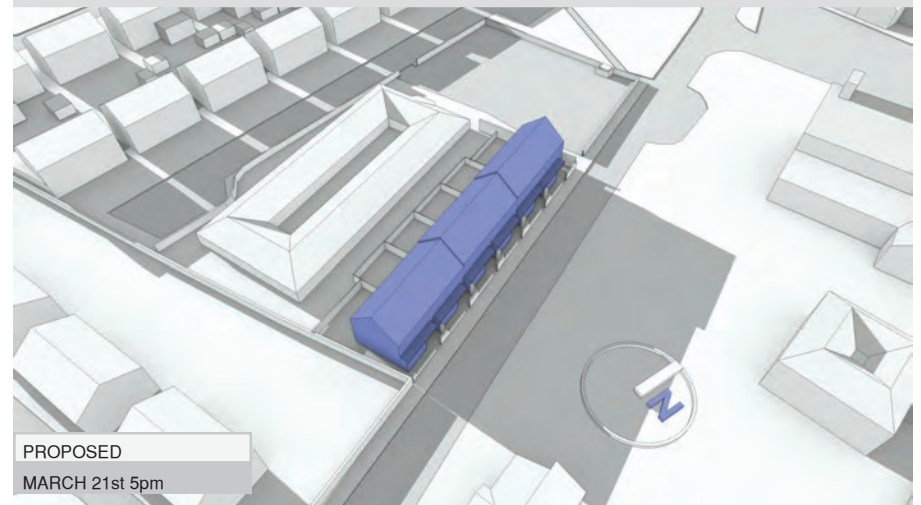
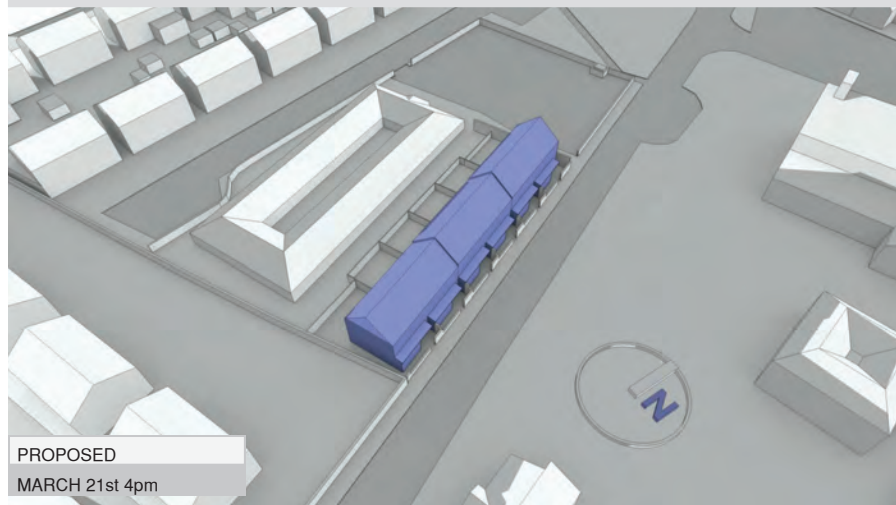
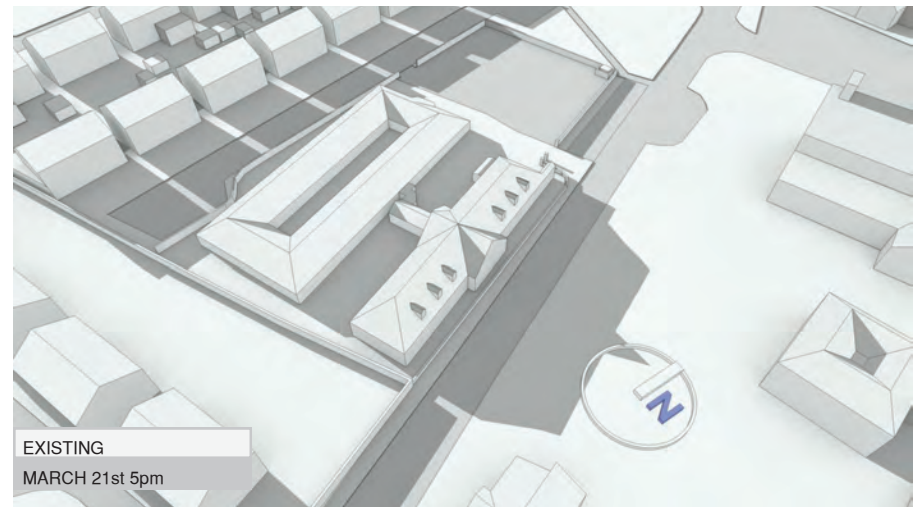
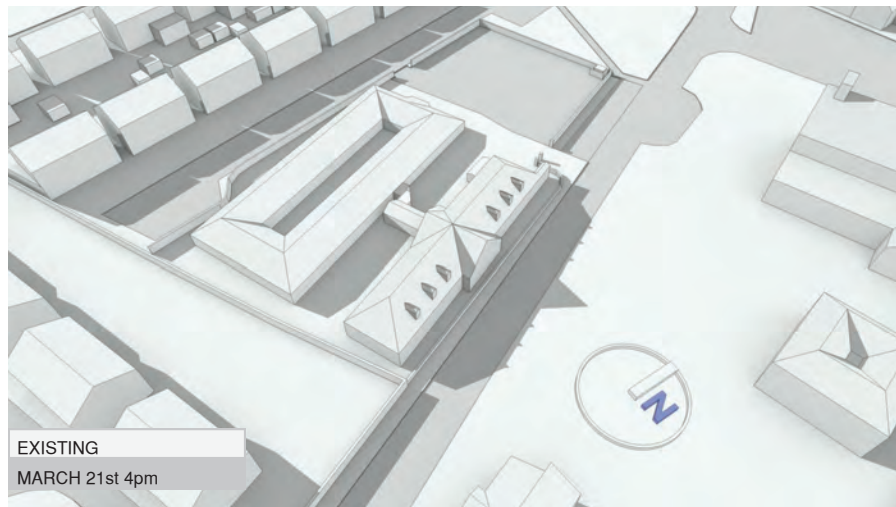
Madonna House Site Development Shadow Study

Spring/Autumn Equinox GMT +/- 0.00



Madonna House Site Development Shadow Study

Spring/Autumn Equinox GMT +/- 0.00



Appendix B Accompanying Drawings

1814 PL 002	Site Location Map
1814 PL 050-F	Proposed Site Plan
1814 PL 055-B	Site Sections
1814 PL 100-D	Proposed Floor Plans
1814 PL 101-C	Typical House - Floor Plans
1814 PL 120-C	Proposed Roof Plan
1814 PL 300-E	Proposed Front & Rear Elevations
1814 PL 301-B	Proposed Cross Section & Side Elevations
1814 PL 302-D	Typical House - Front & Rear Elevations
1814 PL 303-B	Proposed Station Road Elevation