



**Alexandria Park
Community School**
7-11 Park Road, Alexandria

**Architectural
and
Urban Design**
Response to Submissions

Prepared for
NSW Department of Education

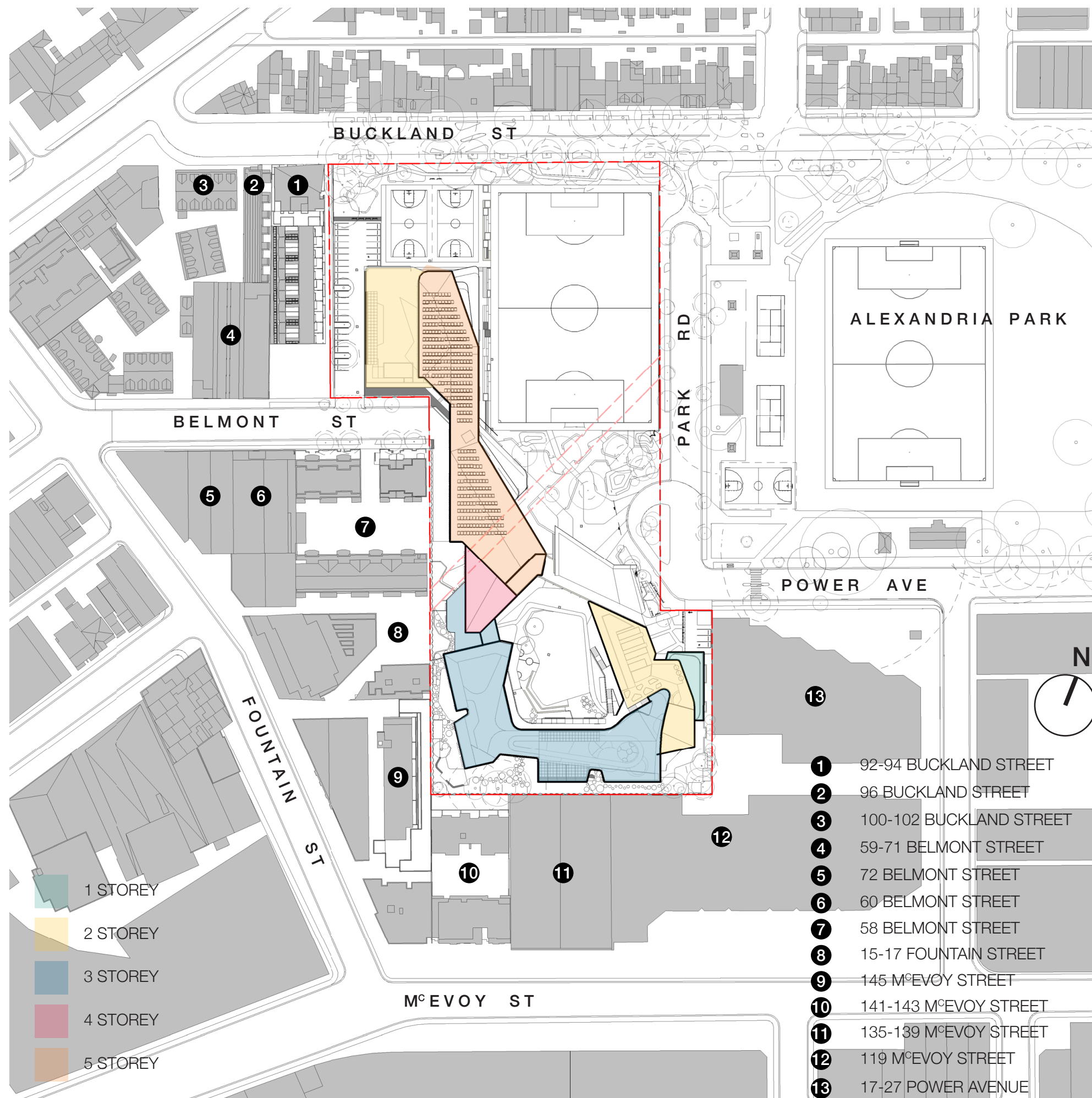
April 2018 | Issue C

Project number 16 1044

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Document / Status Register				
Issue	Date	Purpose	Written	Approved
A	16/04/18	Review	AK	AK
B	18/04/18	Review	AK	AK
C	24/04/18	Response to Submission	AK	AK



SUMMARY OF KEY ISSUES

Shadows

Further analysis of the shadow impact has focused on the residential developments to the west and south of the school. This analysis has reviewed the amount of solar access available to key living spaces of developments during the midwinter solstice and has compared existing (pre-redevelopment), as submitted, a notional 'complying height' development and amended development profiles should this be necessary. The two key residential developments are 58-60 Belmont Street and 141-143 McEvoy Street. The more detailed analysis has shown that these residential developments were affected to such a degree that the submitted design required modification to ensure that adequate solar access would continue to be provided each development. Other developments were not affected.

The key changes to the design as submitted include:

58-60 Belmont Street

The proposed amendments involves shifting the gymnasium block and associated learning spaces 3m to the north and reducing the height of the gymnasium block along the edge facing Belmont Street. These two changes have greatly improved the solar access to apartments in this development as shown in the diagrams and views in the report.

141 – 143 McEvoy Street

The proposed amendments involve the shifting of the primary school blocks C2, D1 and D2 to create a wider gap between C2 and D1, improving the solar access to units in this development, particularly in the hours through to 2pm.

Height

Further analysis has been done to indicate the complying height plane of 15m in both sections and 3D views and these are now shown for each adjacent residential development along the western boundary of the school. These sections also shown the relationship of the existing condition, whether it is the existing 1982 school building or the temporary demountable school buildings from 2017/18.

Views

Additional diagrams have been prepared to show key views from adjacent residential developments across the existing school site compared to the views that will be available once the new development is completed. These view diagrams also show the complying height plane. Key observations for each development affected include:

92-94 Buckland Street

Views from northern terraces are retained, however there are flanking views of the new school building

Views from the southern terraces are affected, however diagonal views to the Buckland Street trees are retained

58 – 60 Belmont Street

Views to the north are now affected by the new school building, however there remains views of the top of the Buckland Street trees and the sky.

15-17 Fountain Street

Views from upper level balconies are affected by the new building, however the major impact is the result of part of the new building that is within the complying height plane. There remain distant views of the tops of trees in Alexandria Park. The new building is approximately 40 - 60m distant from the residential building

145 McEvoy Street

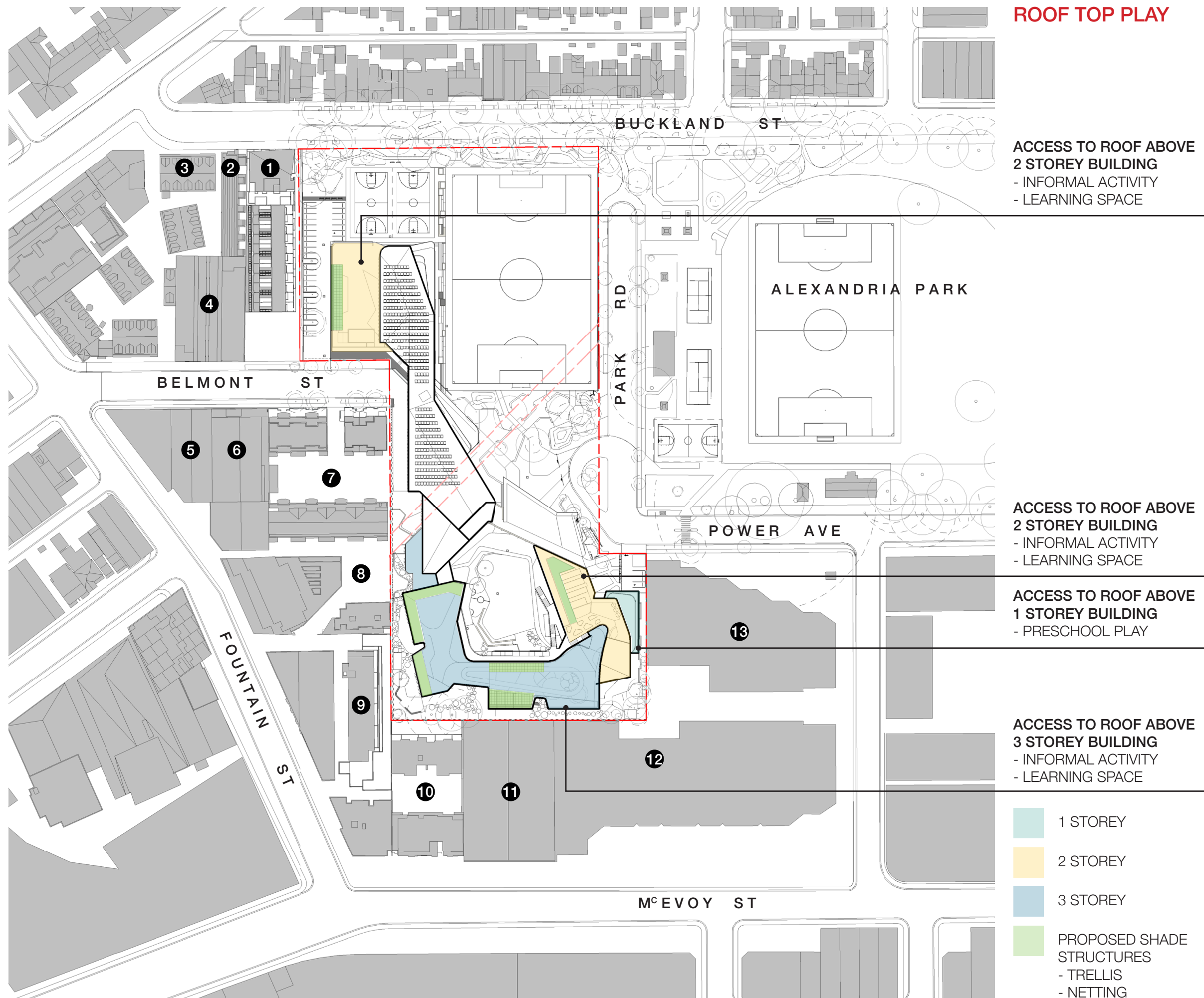
Views from upper level balconies are affected by the new building, however the new building is within the complying height plane. There remain views of the existing trees along the edge the site. The new building is approximately 17 - 20m distant from the residential building.

141 – 143 McEvoy Street

Views from upper level balconies are affected by the new building, however the new building is within the complying height plane. There remain views of the existing trees along the edge the site. The new building is approximately 16 - 21m distant from the residential building.

SUMMARY OF KEY ISSUES

Matter	Agency	Comments	Response
Sports Field	City of Sydney	<p>The synthetic turf used for the proposed sports field should be to International Rugby Board standard.</p> <p>1.2m high fence should be constructed around the sports field.</p>	<p>It is not possible to provide a field to International Rugby Board standards. The field that is provided in this design meets the requirements for the NSW Department of Education. Further discussions between the NSW Department of Education and City of Sydney will explore the potential for the future expansion of the sports field. This may be considered in the context of the proposed closure of Park Road and the potential to improve the recreational space of the School and Alexandria Park for both school and community use.</p> <p>The fence surrounding the sports field will vary in height from 3.0 - 4.5m high to prevent balls being lost on Buckland St and Park Rd. It will step up and around the trees on Buckland Street.</p>
Materials and Finishes	City of Sydney	<p>Detailed information relating to the perforated metal screen's level of transparency and solar amenity impact on habitable spaces should be provided.</p> <p>A comprehensive material and finishes sample board should be provided.</p> <p>The material identified as BAL/CON is missing from the finishes legend.</p> <p>The exterior cladding panel identified as MLF on the western elevation is identified as a fixed metal louvre, but illustrated as a flat cladding panel. Clarity is required.</p> <p>Flammable cladding should not be used.</p>	<p>The screen is currently being resolved in detail taking into account environmental performance, structural supports and maintenance access. This will be presented to the Design Review panel in mid May for endorsement.</p> <p>The sample board was presented at DRP 4 and it was endorsed by the Panel. It is not proposed to resubmit it. However, the sample board is available if DoPE, CoS or GA NSW would like to sight it.</p> <p>BAL/CON refers to an off-form concrete balustrade</p> <p>The cladding on the western elevation noted as MLF is a metal louvre frame used to shield a roof top plant zone.</p> <p>It is not proposed to use flammable cladding.</p>
Library	City of Sydney	<p>The proposed library entry should be enlarged to provide a more accessible entranceway.</p>	<p>The library has been designed to respond to a variety of functional requirements and the Library can be entered on both the ground floor and the first floor – it is viewed as a flexible learning space.</p>
Access to Canopy Classrooms	City of Sydney	<p>The provision of barriers to restrict unsupervised access to the proposed external 'canopy classrooms' along the western and southern site boundaries should be provided.</p>	<p>The 'Canopy' classrooms are secured through the use of fences along the line of the COLA and between the building and the existing 'cor-ten' perimeter fence.</p>
Bike Parking	City of Sydney	<p>Due to safety concerns, student bicycle parking shouldn't be provided within the staff car parking area</p>	<p>Student Bicycle parking is provided to the north of the library block and within the main primary play area. Bicycle parking is also provided adjacent to the carpark next to the gymnasium. There is no student bike parking in the staff carpark.</p>
Design Recommendations	Government Architect NSW (GANSW)	<p>Resolve high school entry pinch point at the corner of the proposed playing field.</p> <p>Determine whether a fourth set of stairs are required to support the proposal (three currently proposed).</p> <p>Undertake further development of the proposed façade screen element.</p> <p>Further details required to ensure integration of structure with planning layouts.</p> <p>Undertake further design opportunities to support increased non-car usage</p>	<p>The pinch point at the entry to the high school and the corner of the sports field has been resolved as far as possible given the site constraints. The foyer space has been expanded as a result of adjusting the location of the gymnasium.</p> <p>The 'pinch point' will be further considered in consultation with the City of Sydney in the context of the closure of Park Road and the potential to improve the recreational space of the School and Alexandria Park for both school and community use.</p> <p>The fourth stair is now included in the design for the project.</p> <p>The screen will be developed for endorsement by the Design Review Panel in mid May.</p> <p>The structural coordination is currently underway and was presented to the DRP 5 presentation</p> <p>The proposal now includes 150 Bike rack distributed throughout the school. A <i>Green Travel Plan</i> will be developed.</p>
Required Documentation	Government Architect NSW (GANSW)	<p>The following additional documentation is to be provided:</p> <p>A3 physical material sample board.</p> <p>Detailed Sections at 1:20 of the façade which describe all proposed building and material components.</p> <p>Landscape Design Plan, which proposes to replace all existing trees to be removed.</p>	<p>The sample board was presented at DRP 4 and it was endorsed by the Panel. It is not proposed to resubmit it. However, the sample board is available if DoPE, CoS or GA NSW would like to sight it.</p> <p>Detailed 1:20 sections will be tabled for consideration by the DRP in mid May.</p> <p>The landscape plans have been modified to indicate all new trees that replace those removed. 67 new trees (super advanced 75-100L pot size) will be planted to replace the 67 trees removed.</p>

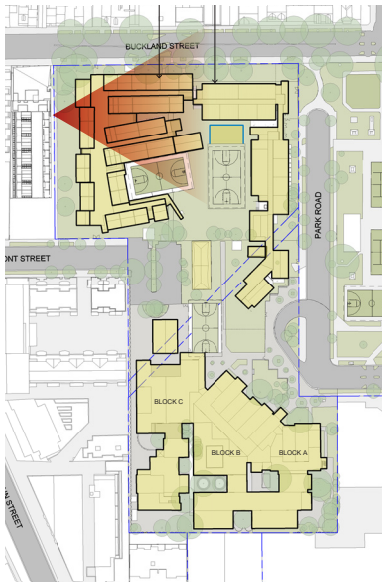
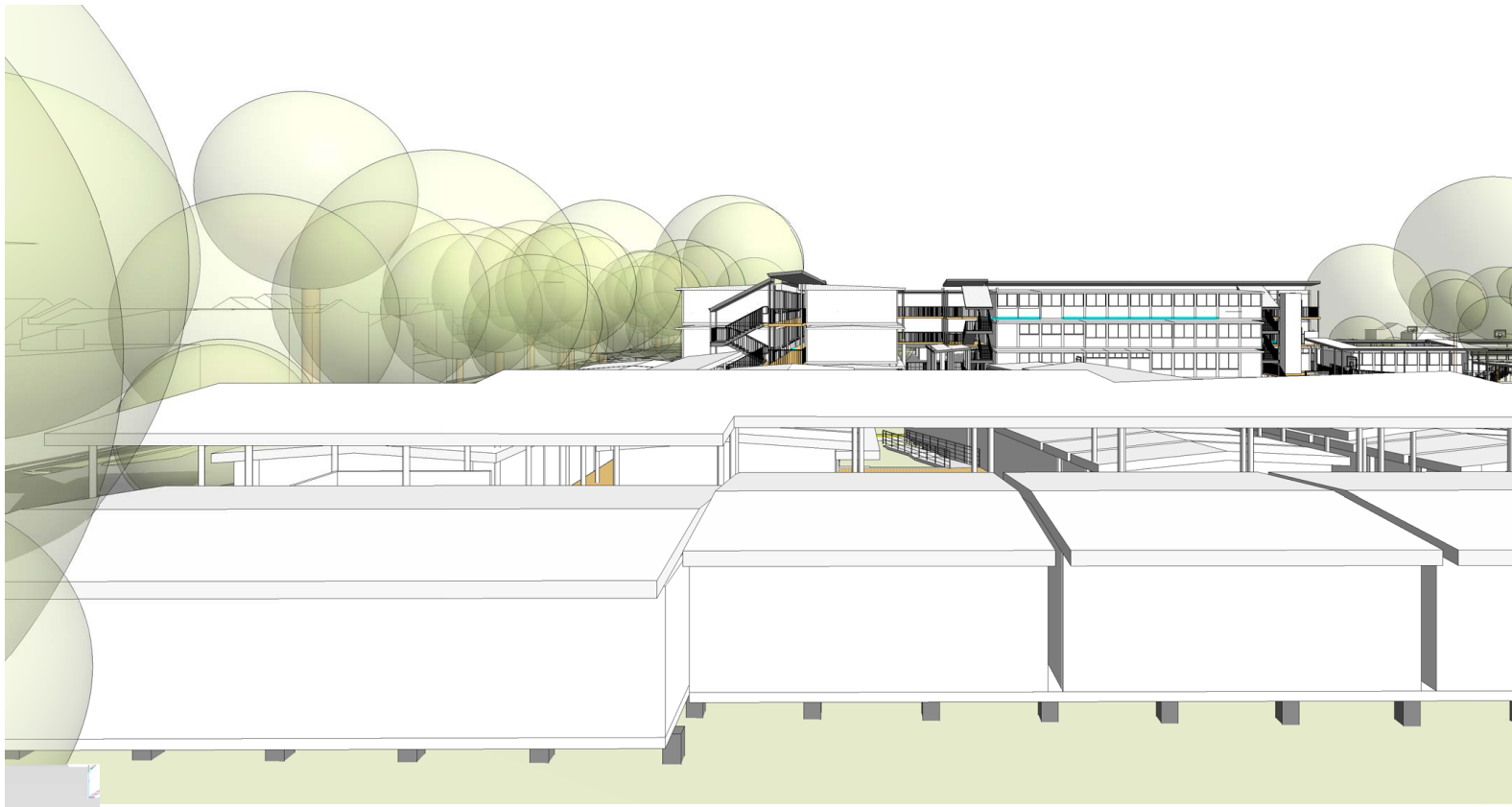


**92-94 BUCKLAND
STREET**

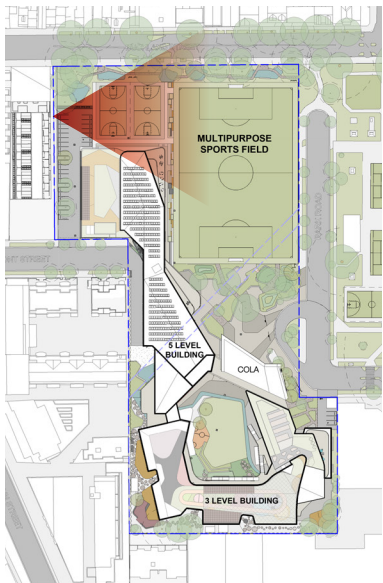
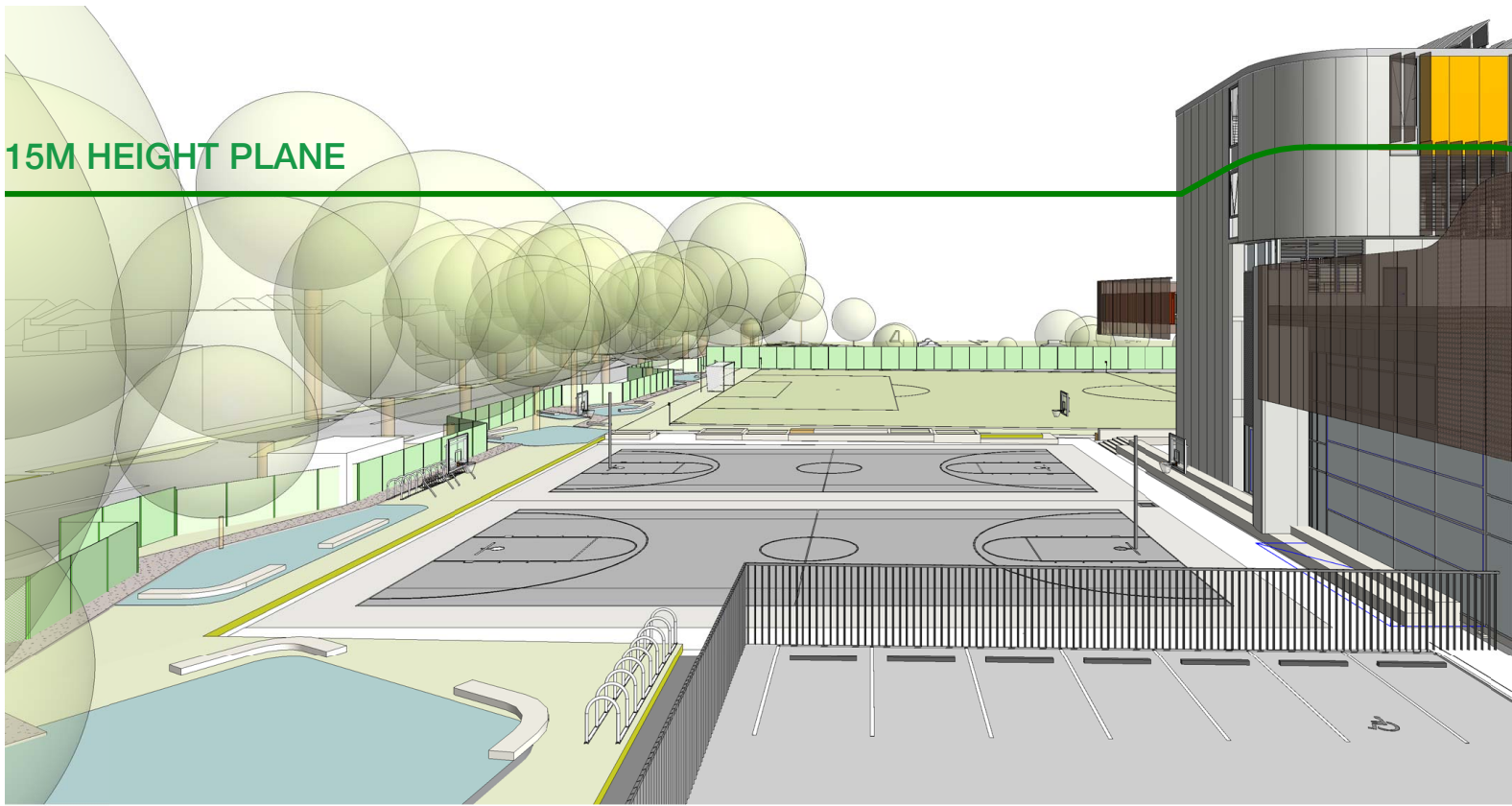
VIEW ANALYSIS

92-94 BUCKLAND STREET - FIRST TERRACE UNIT

Views to the east from northern terraces - with flanking views of the new building.



INDICATIVE TYPICAL EXISTING VIEW FROM 92-94 BUCKLAND STREET - FIRST TERRACE APARTMENT
VIEW TAKEN AT 7.7M ABOVE BUCKLAND STREET GROUND LEVEL

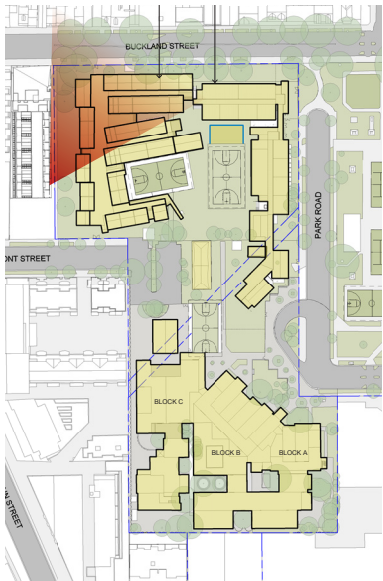
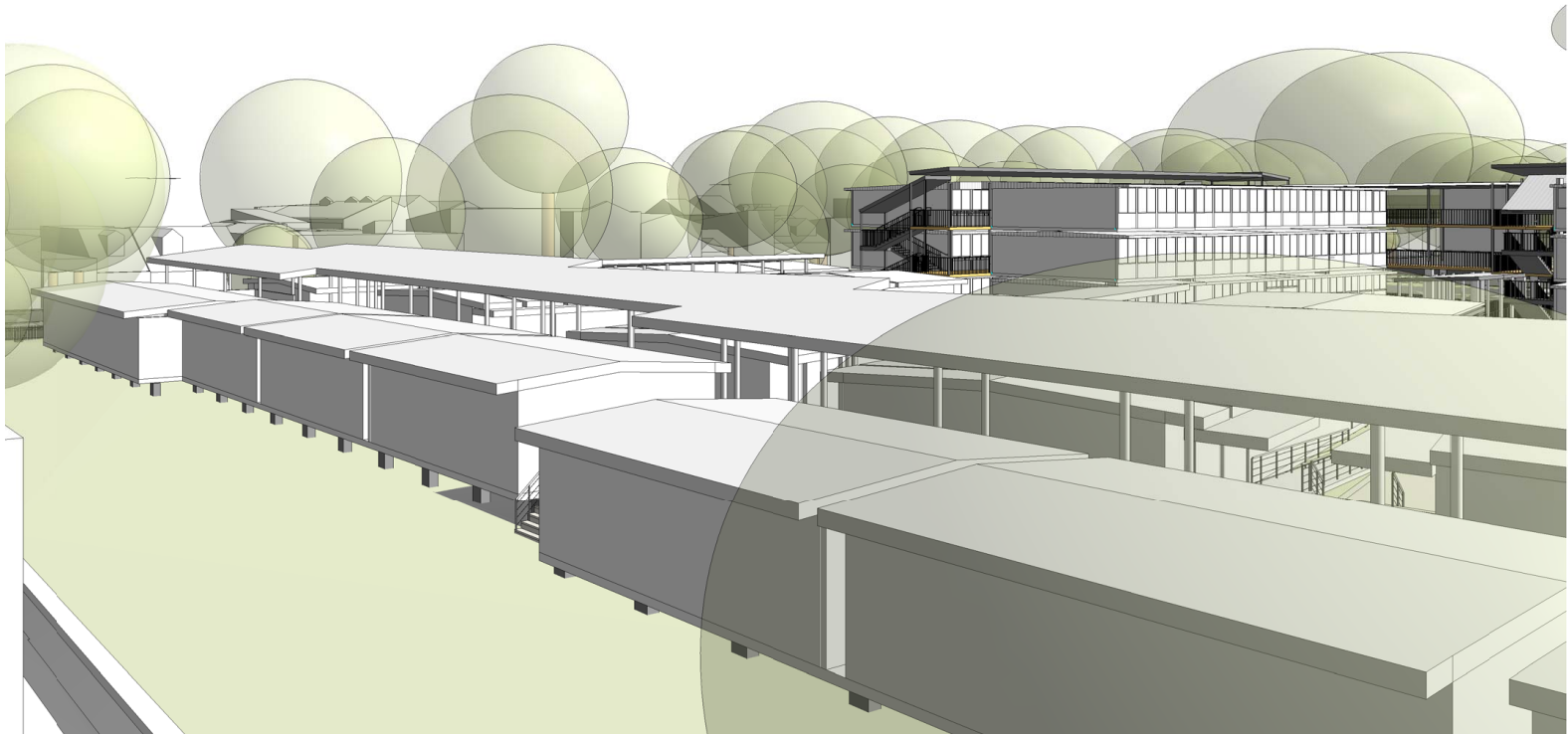


INDICATIVE TYPICAL PROPOSED VIEW FROM 92-94 BUCKLAND STREET - FIRST TERRACE APARTMENT
VIEW TAKEN AT 7.7M ABOVE BUCKLAND STREET GROUND LEVEL

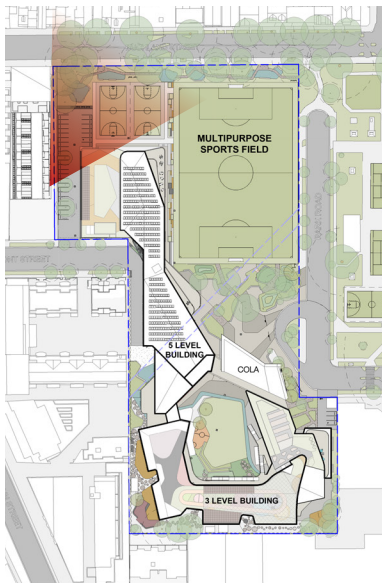
VIEW ANALYSIS

92-94 BUCKLAND STREET - LAST TERRACE UNIT

Views to the north east from southern terraces - with flanking views of the new building.

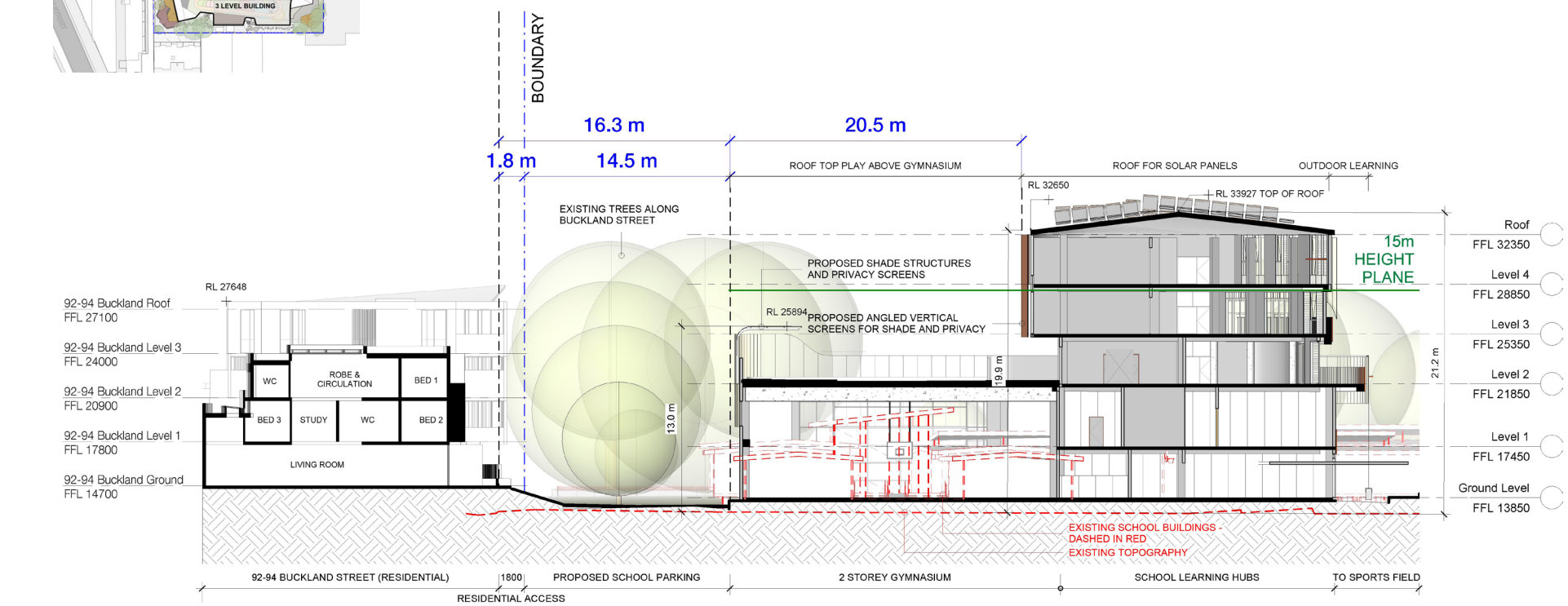
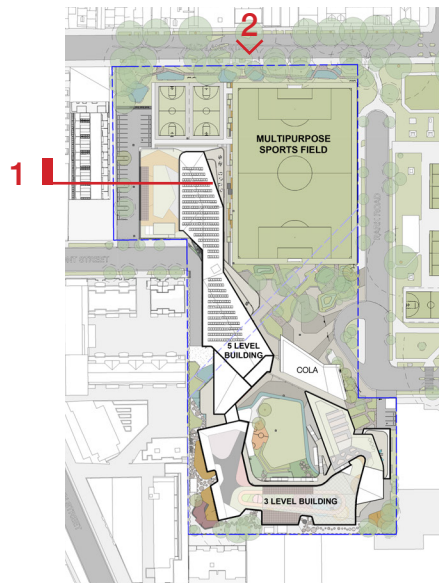


INDICATIVE TYPICAL EXISTING VIEW FROM 92-94 BUCKLAND STREET - FIRST TERRACE APARTMENT
VIEW TAKEN AT 7.7M ABOVE BUCKLAND STREET GROUND LEVEL

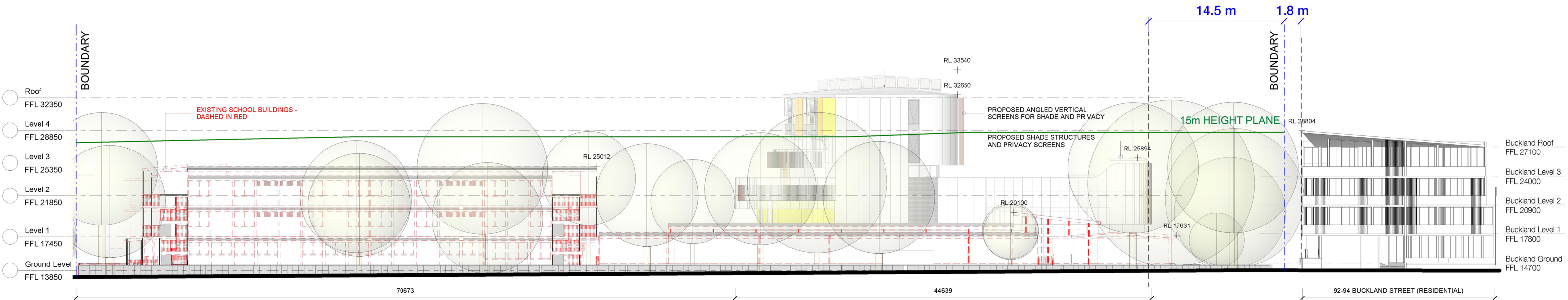


INDICATIVE TYPICAL PROPOSED VIEW FROM 92-94 BUCKLAND STREET - FIRST TERRACE APARTMENT
VIEW TAKEN AT 7.7M ABOVE BUCKLAND STREET GROUND LEVEL

HEIGHT ANALYSIS
92-94 BUCKLAND STREET

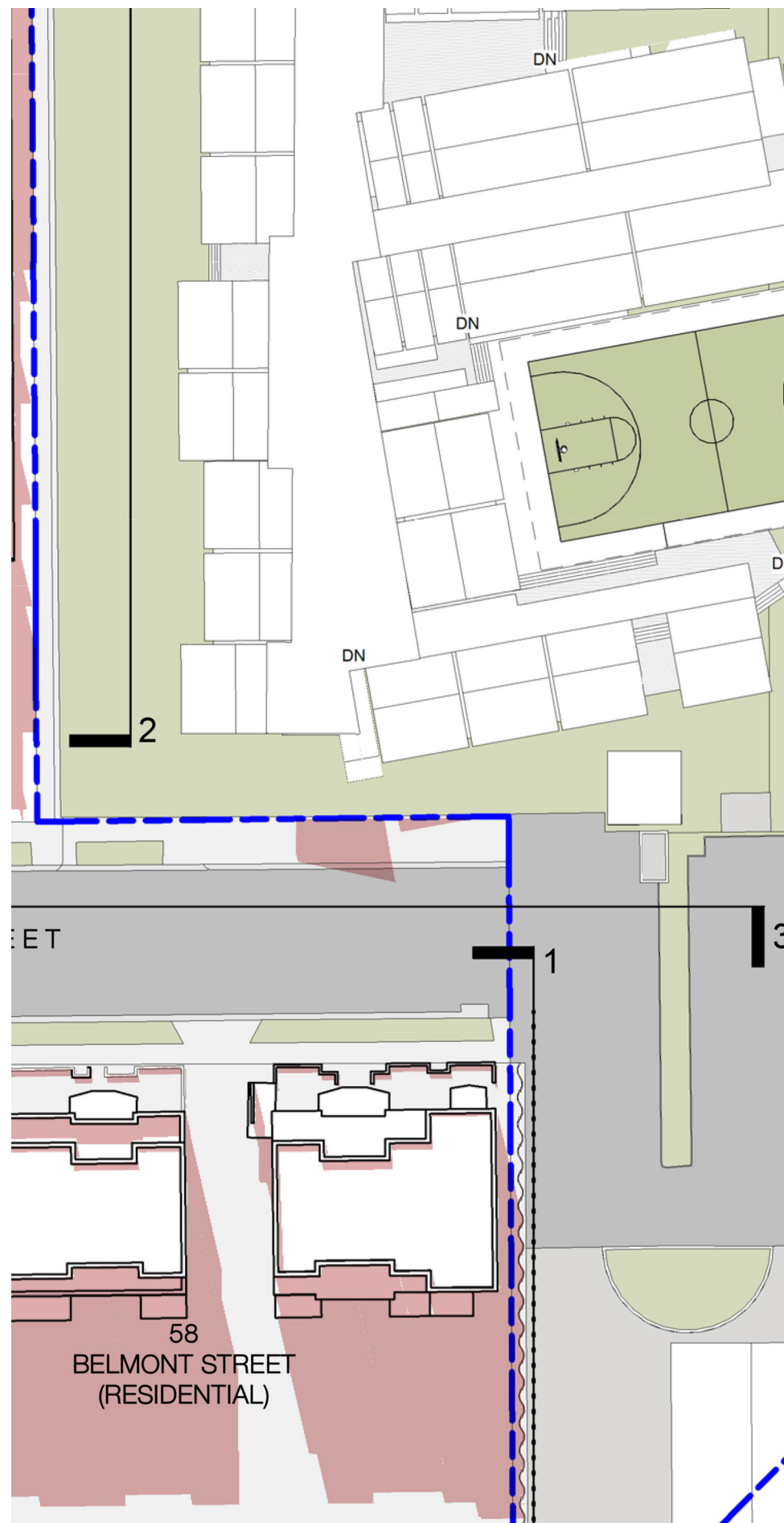


SECTION 1 | THROUGH 92-94 BUCKLAND STREET, GYMNASIUM AND HIGH SCHOOL HUBS

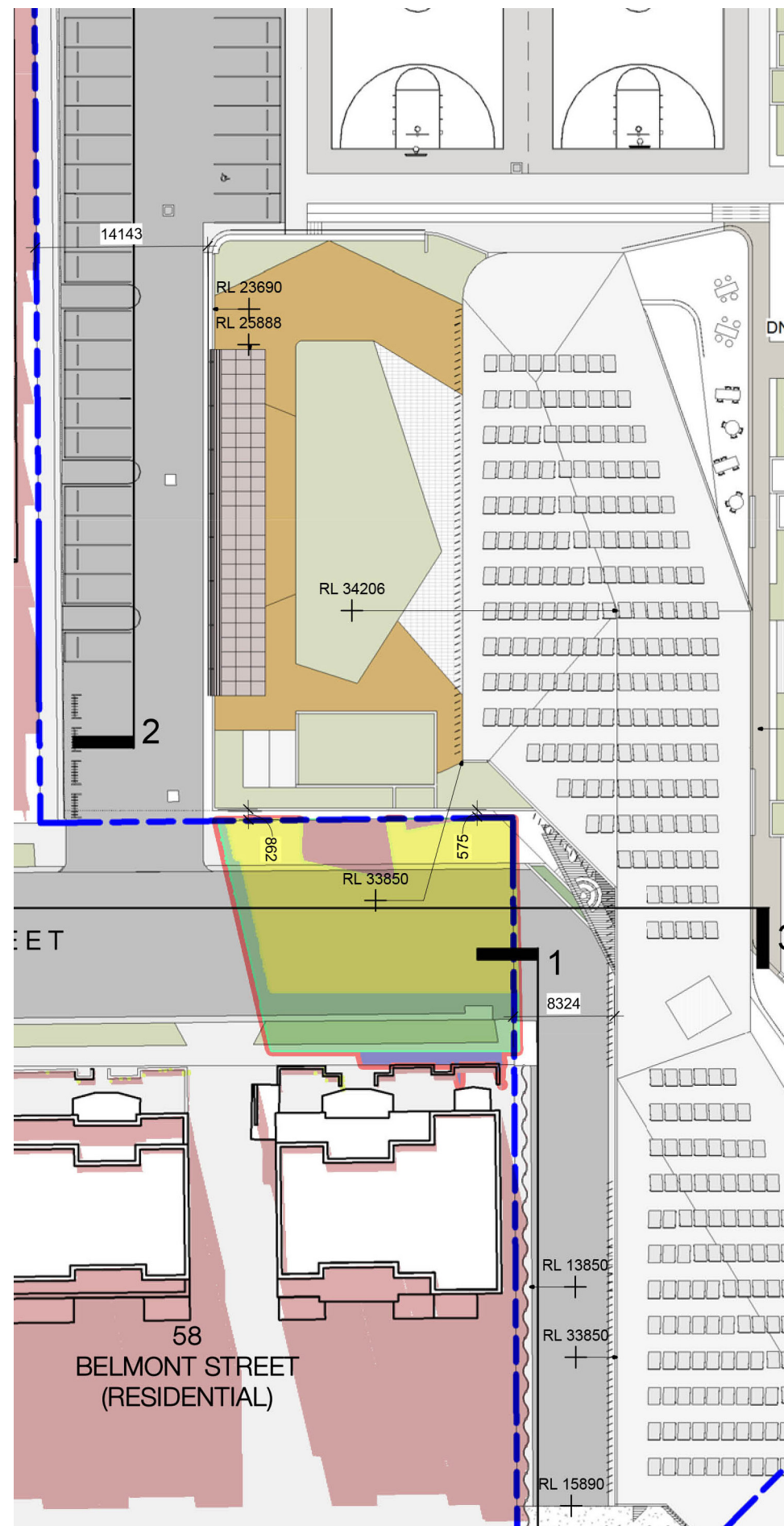


ELEVATION 2 | FROM BUCKLAND STREET, VIEWING 92-94 BUCKLAND ST AND PROPOSE DEVELOPMENT

**58-60 BELMONT
STREET**



EXISTING SHADOWS
- WINTER SOLSTICE 2PM

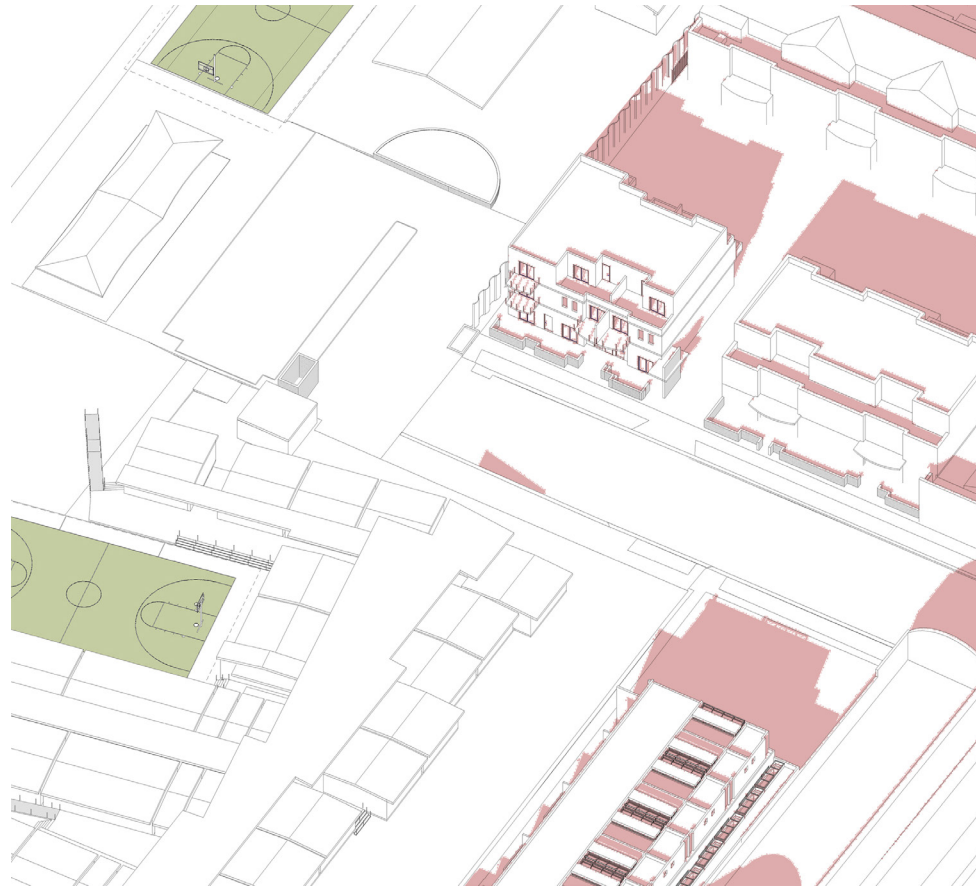


PROPOSED, COMPLYING AND AMENDED SHADOWS
- WINTER SOLSTICE 2PM

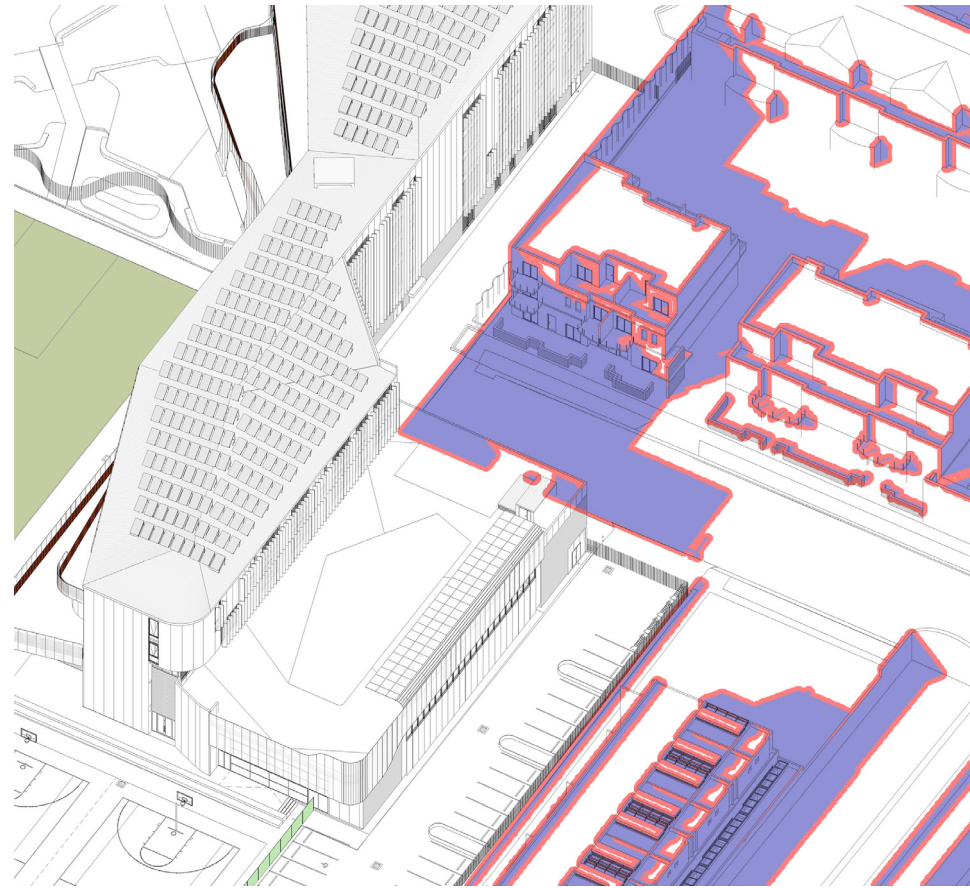
SHADOW ANALYSIS 58 - 60 BELMONT STREET

These diagrams indicate the extent of shadow impact from the current school, the scheme as submitted and complying development. The resultant shadows following the amendment to the gymnasium block is indicated in yellow.

- EXISTING SHADOWS
- AS LODGED DEVELOPMENT - ADDITIONAL SHADOWS
- 15M HEIGHT COMPLYING - ADDITIONAL SHADOWS
- AMENDED DEVELOPMENT - ADDITIONAL SHADOWS



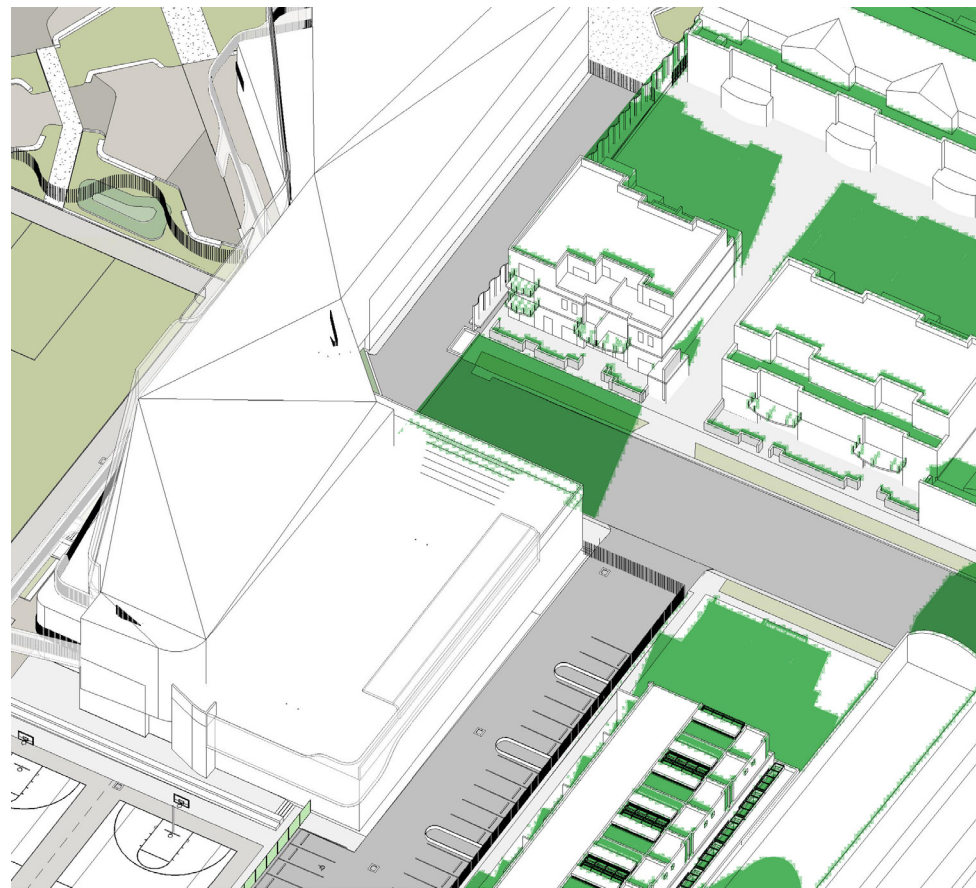
EXISTING SCHOOL
SHADOWS - WINTER SOLSTICE 2PM



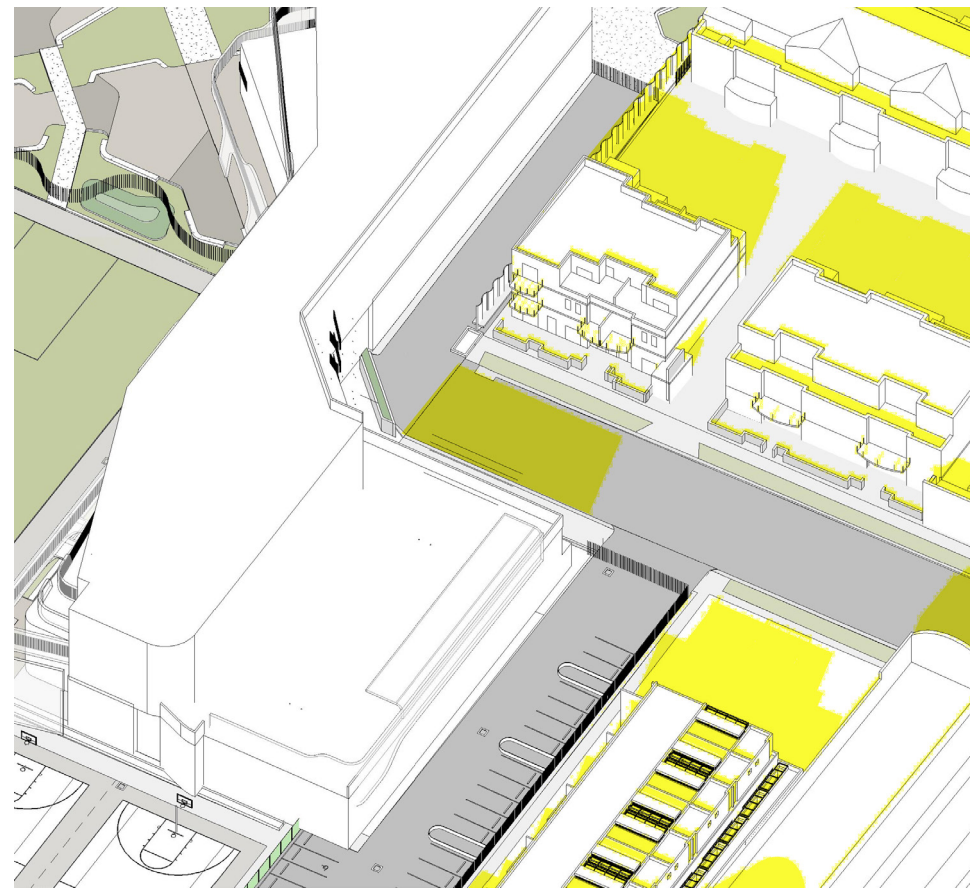
AS LODGED SSSA PROPOSAL
SHADOWS - WINTER SOLSTICE 2PM

SHADOW ANALYSIS 58 - 60 BELMONT STREET

These diagrams indicate the extent of shadow impact from the current school, the scheme as submitted and complying development. The resultant shadows following the amendment to the gymnasium block is indicated in yellow.

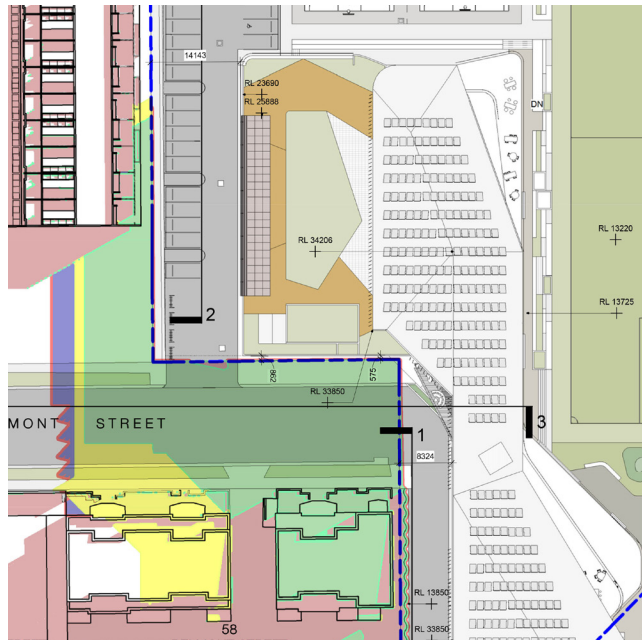


15M HEIGHT COMPLIANT
SHADOWS - WINTER SOLSTICE 2PM

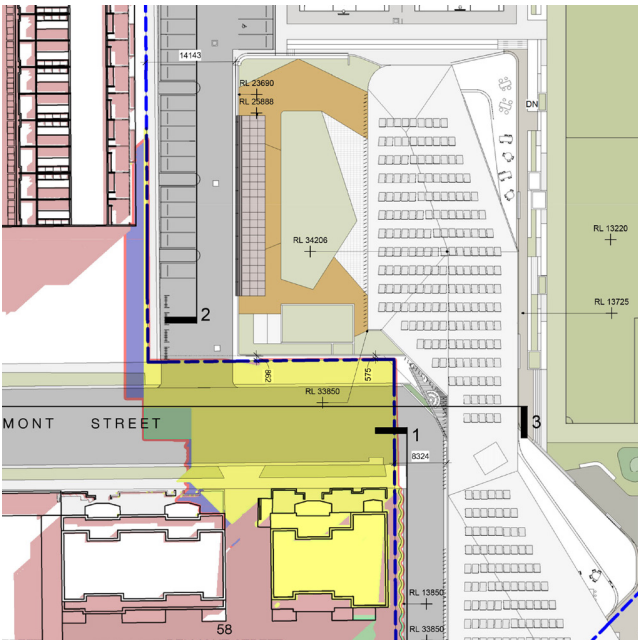


AMENDED PROPOSAL
SHADOWS - WINTER SOLSTICE 2PM

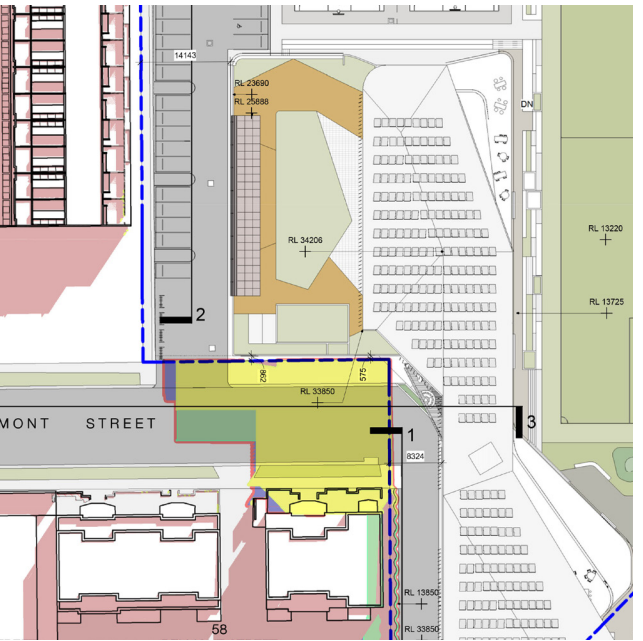
- AS LODGED DEVELOPMENT - ADDITIONAL SHADOWS
- 15M HEIGHT COMPLYING - ADDITIONAL SHADOWS
- AMENDED DEVELOPMENT - ADDITIONAL SHADOWS



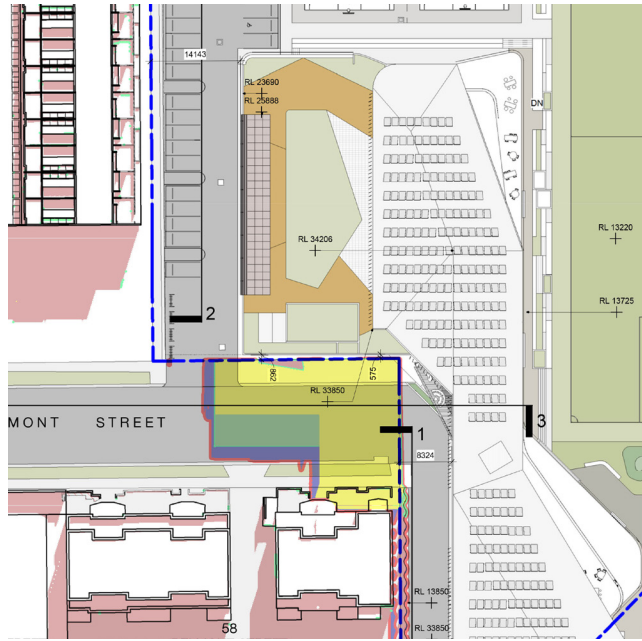
9AM WINTER SOLSTICE



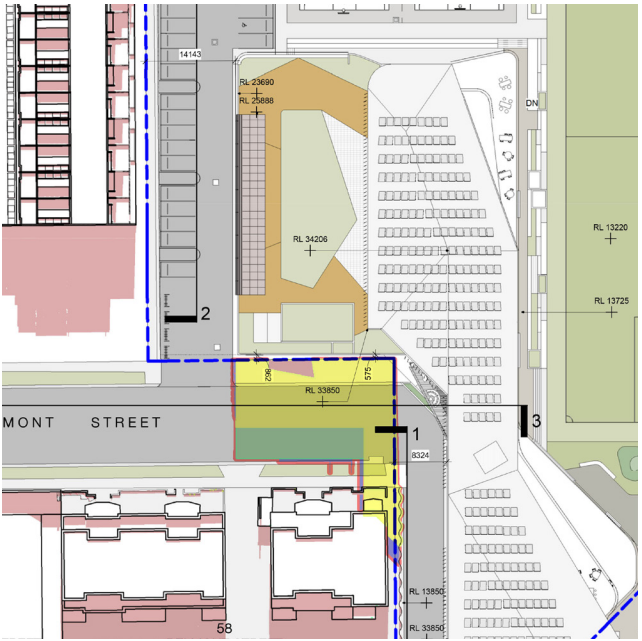
10AM WINTER SOLSTICE



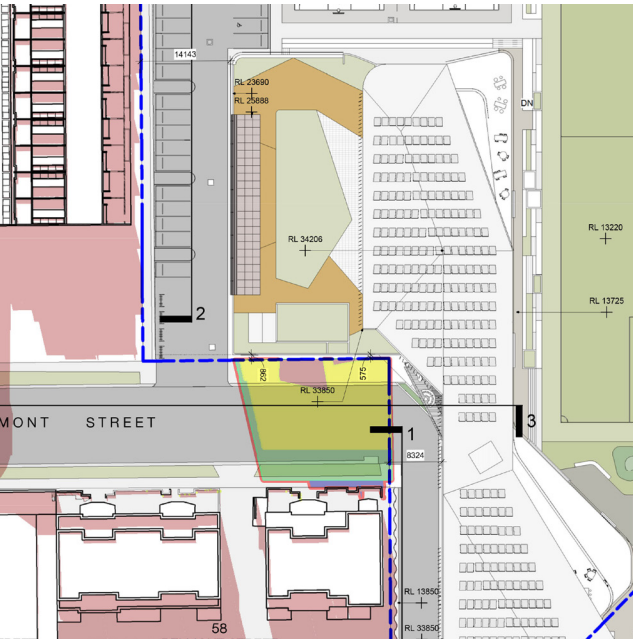
11AM WINTER SOLSTICE



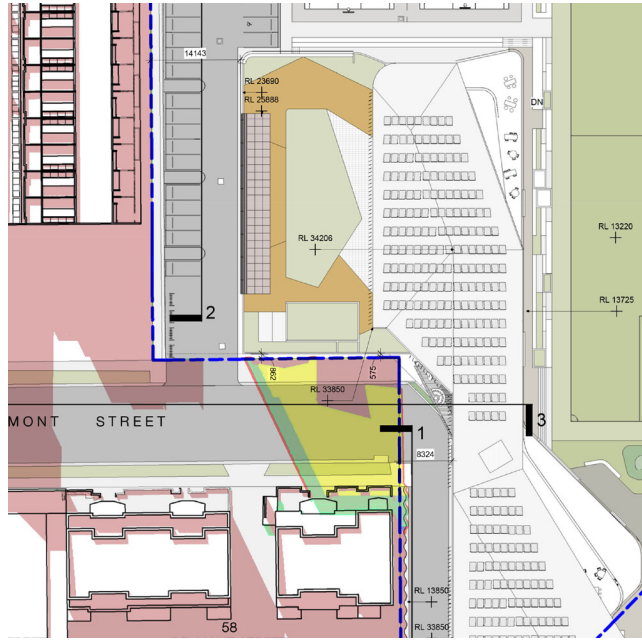
12PM WINTER SOLSTICE



1PM WINTER SOLSTICE



2PM WINTER SOLSTICE



3PM WINTER SOLSTICE

- EXISTING SHADOWS
- AS LODGED DEVELOPMENT - ADDITIONAL SHADOWS
- 15M HEIGHT COMPLYING - ADDITIONAL SHADOWS
- AMENDED DEVELOPMENT - ADDITIONAL SHADOWS
- HOURS OF SUN

9AM - 3PM HOURLY SHADOW MATRIX

58 - 60 BELMONT STREET

AS LODGED DEVELOPMENT

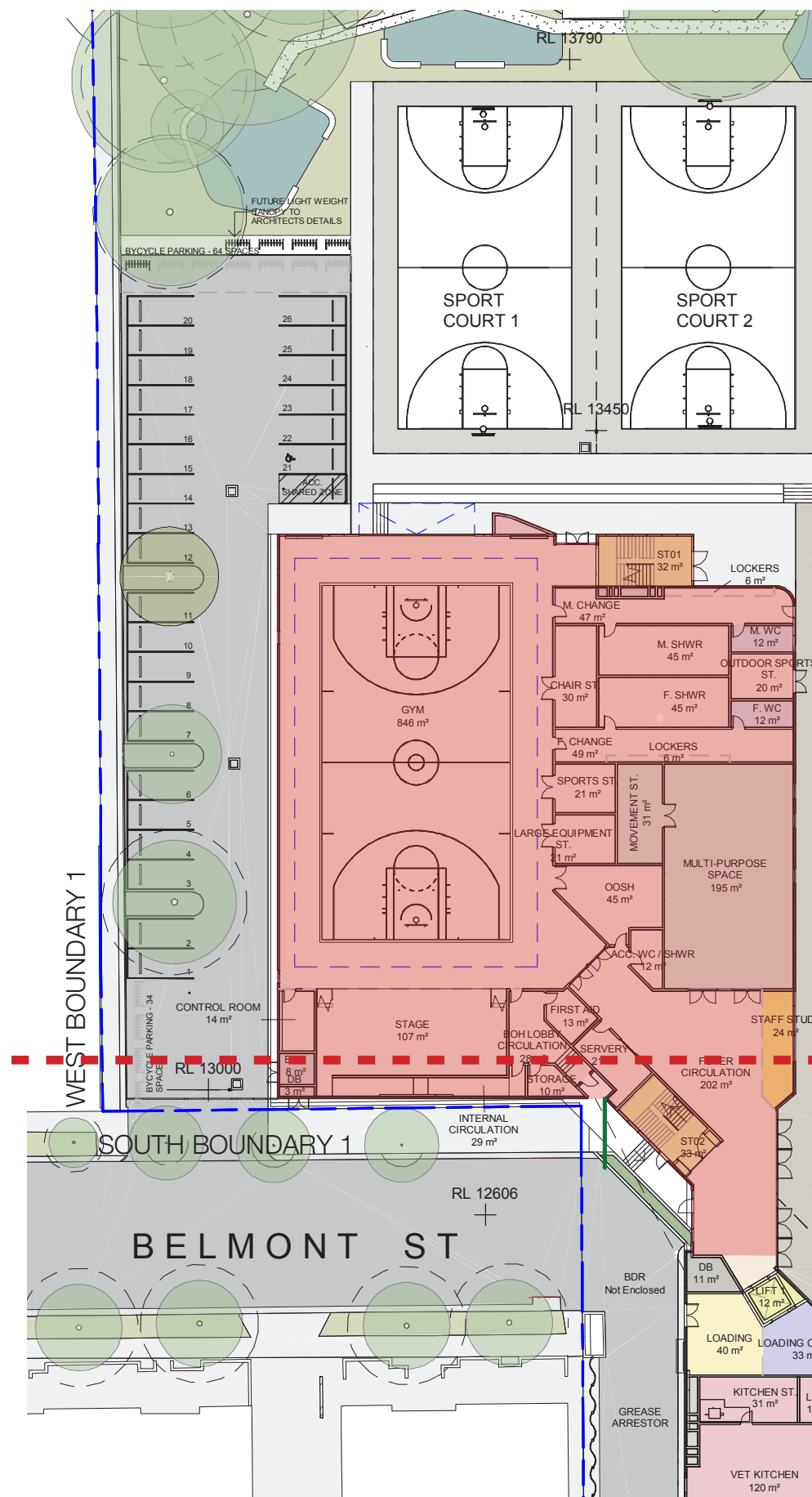
UNITS / HR	1	2	3	17	18	19	33	34	35
9AM									
10AM									
11AM									
12PM									
1PM									
2PM									
3PM									
TOTAL HRS OF SUN	1	2	4	2	4	5	4	5	6

15M HEIGHT COMPLYING DEVELOPMENT

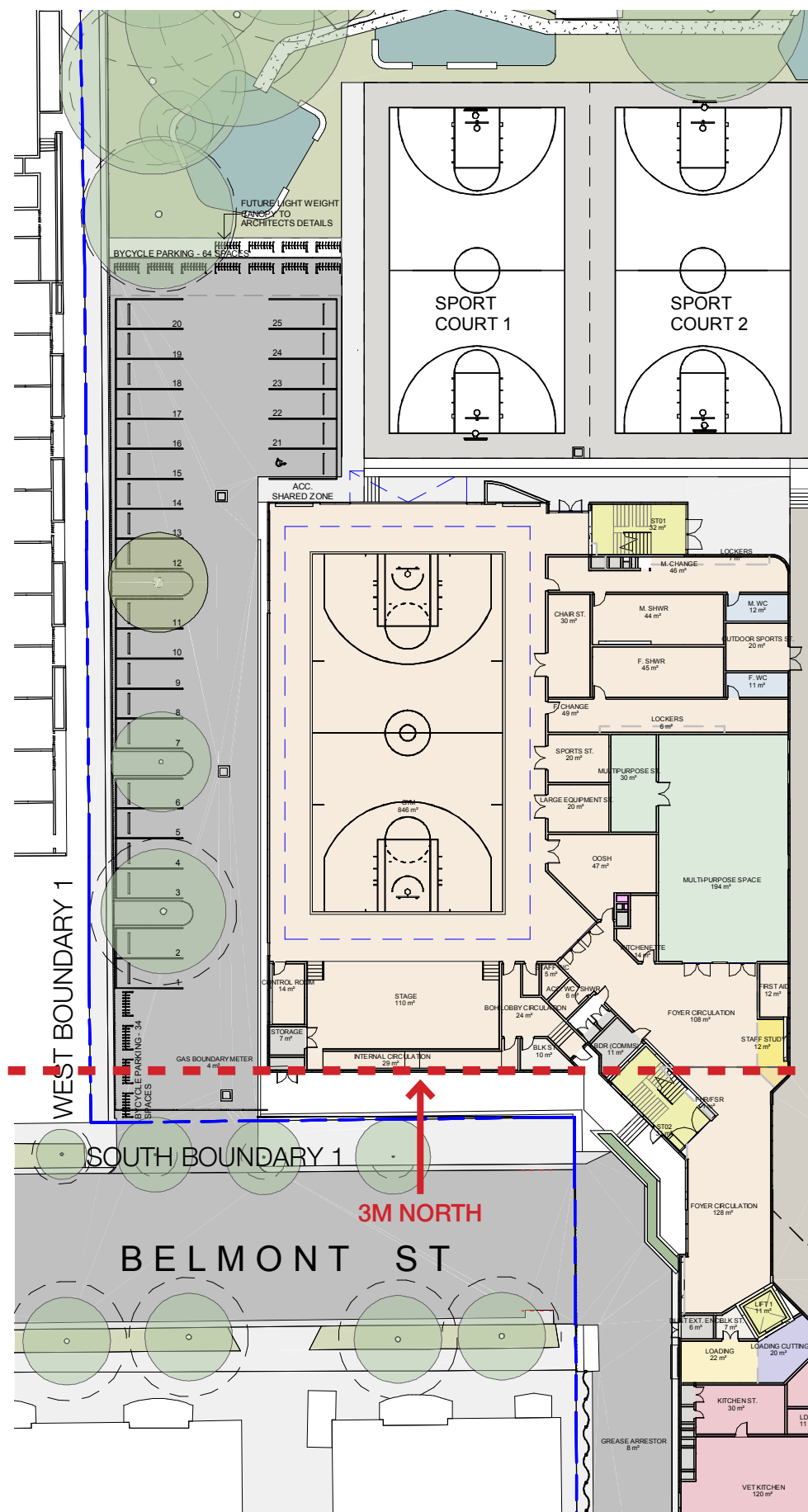
UNITS / HR	1	2	3	17	18	19	33	34	35
9AM									
10AM									
11AM									
12PM									
1PM									
2PM									
3PM									
TOTAL HRS OF SUN	3	4	6	5	6	6	6	6	7

AMENDED DEVELOPMENT

UNITS / HR	1	2	3	17	18	19	33	34	35
9AM									
10AM									
11AM									
12PM									
1PM									
2PM									
3PM									
TOTAL HRS OF SUN	2	3	5	4	5	5	4	5	6



BLOCK A - GROUND FLOOR
AS LODGED PROPOSAL
SHADOWS - WINTER SOLSTICE 2PM

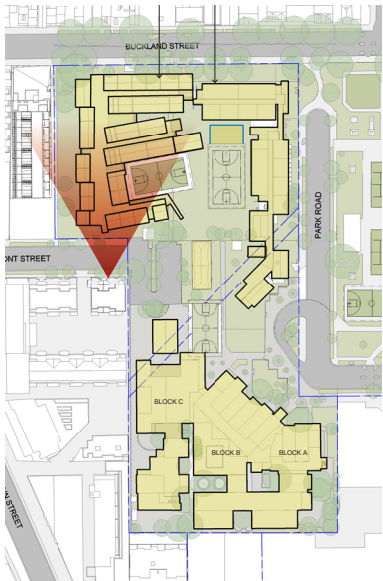
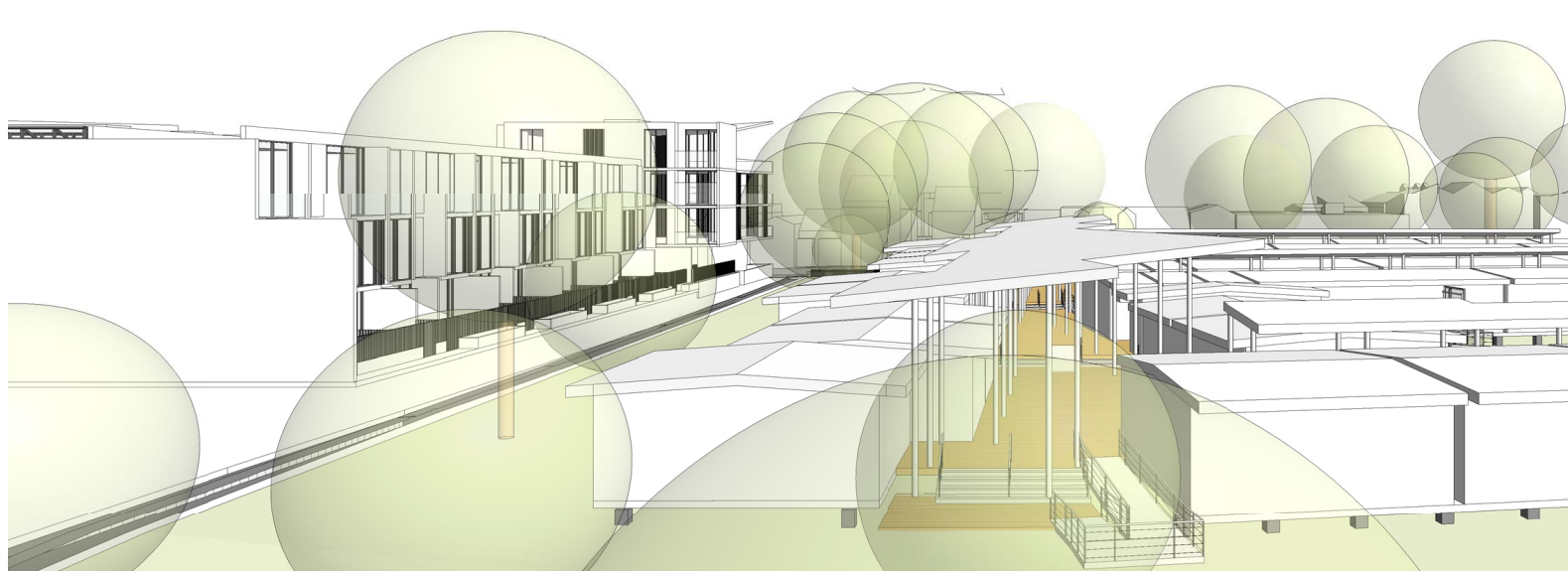


BLOCK A - GROUND FLOOR
AMENDED PROPOSAL
SHADOWS - WINTER SOLSTICE 2PM

PROPOSED MODIFICATION TO GYMNASIUM BLOCK

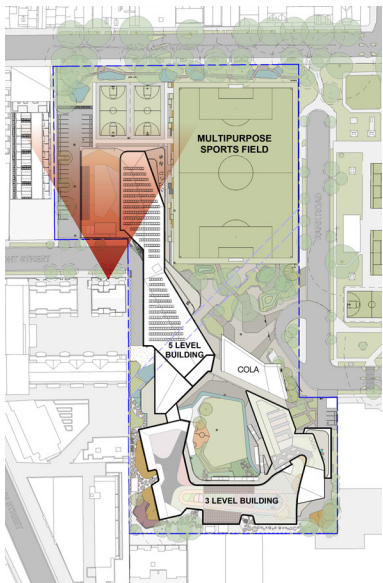
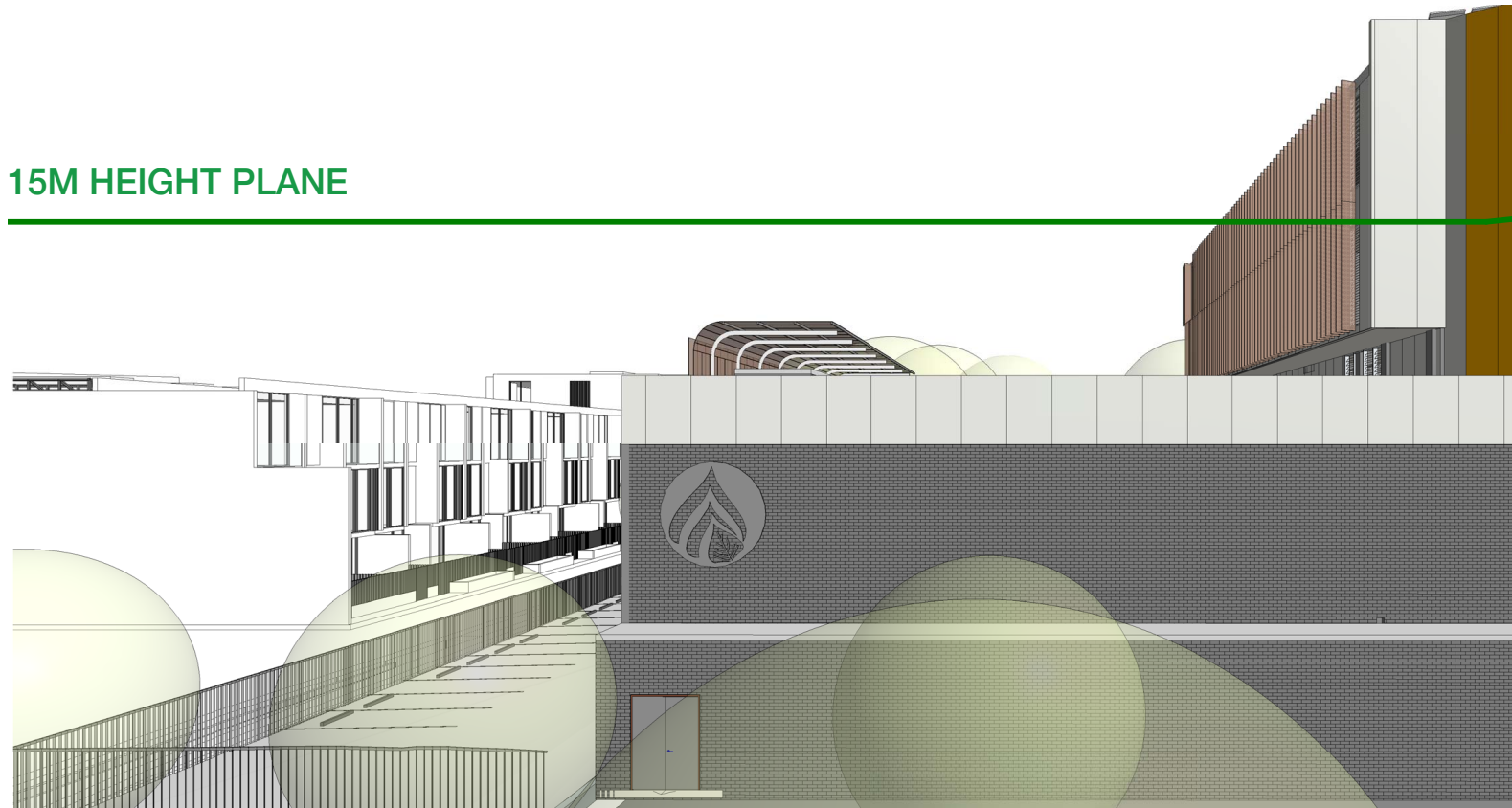
These plans indicate the proposed change to the design through shifting the gymnasium block 3m to the north.

VIEW ANALYSIS
58-60 BELMONT STREET

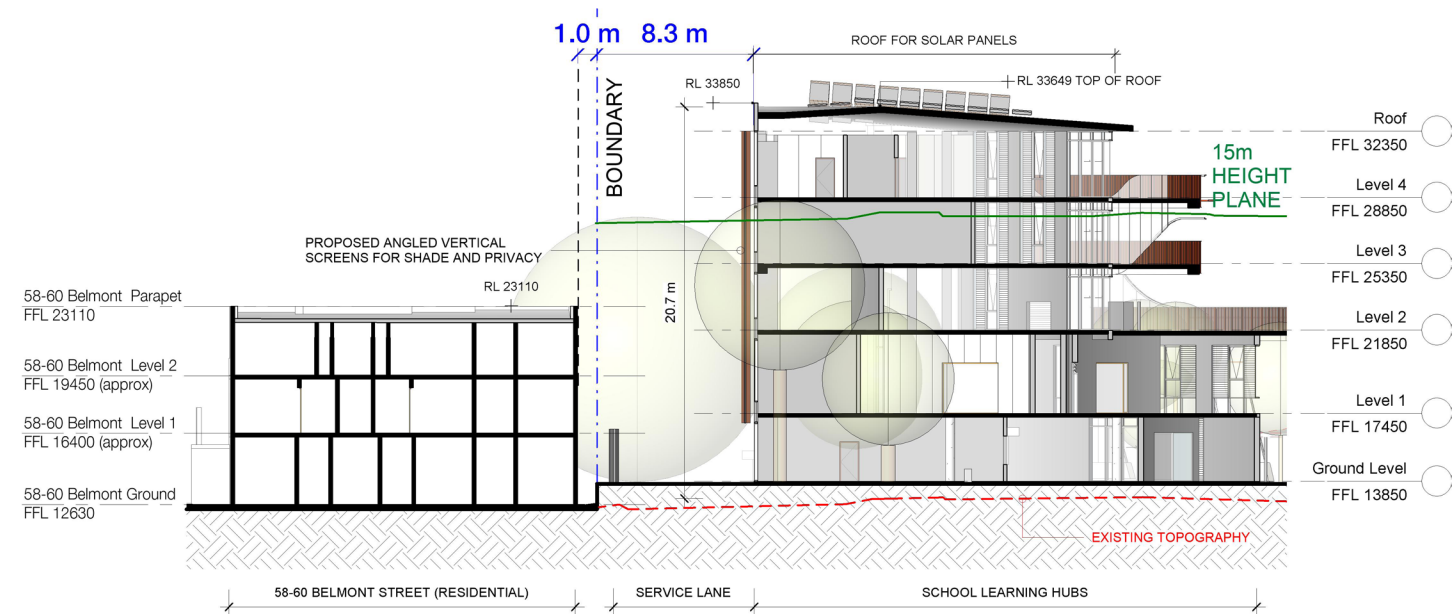


INDICATIVE TYPICAL EXISTING VIEW FROM 58-60 BELMONT STREET
VIEW TAKEN AT 8.4M ABOVE BELMONT STREET GROUND LEVEL

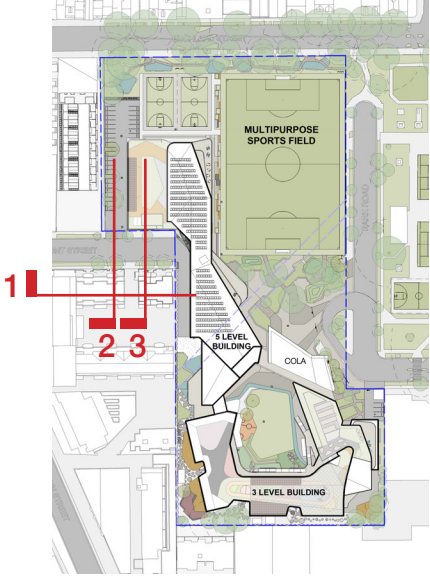
15M HEIGHT PLANE



INDICATIVE TYPICAL PROPOSED VIEW FROM 92-94 BUCKLAND STREET - FIRST TERRACE APARTMENT
VIEW TAKEN AT 8.4M ABOVE BELMONT STREET GROUND LEVEL

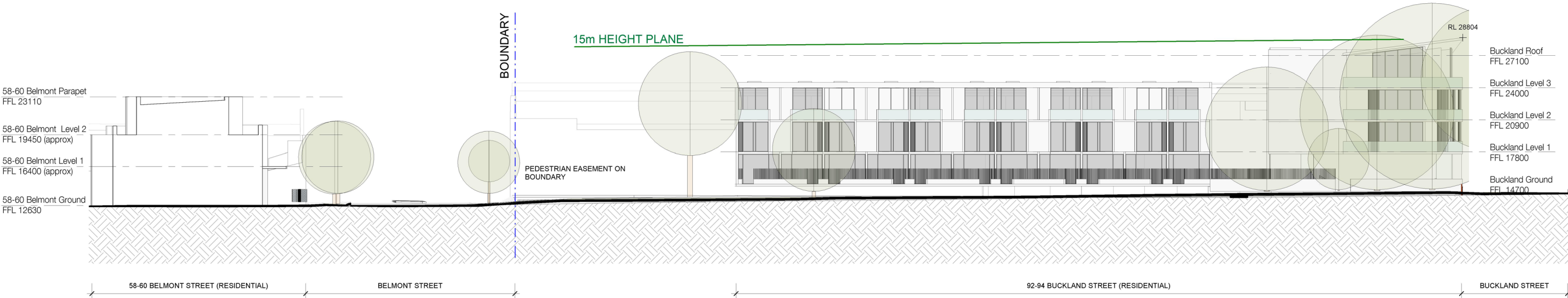


SECTION 1 | THROUGH 58-60 BELMONT STREET AND SCHOOL LEARNING HUBS

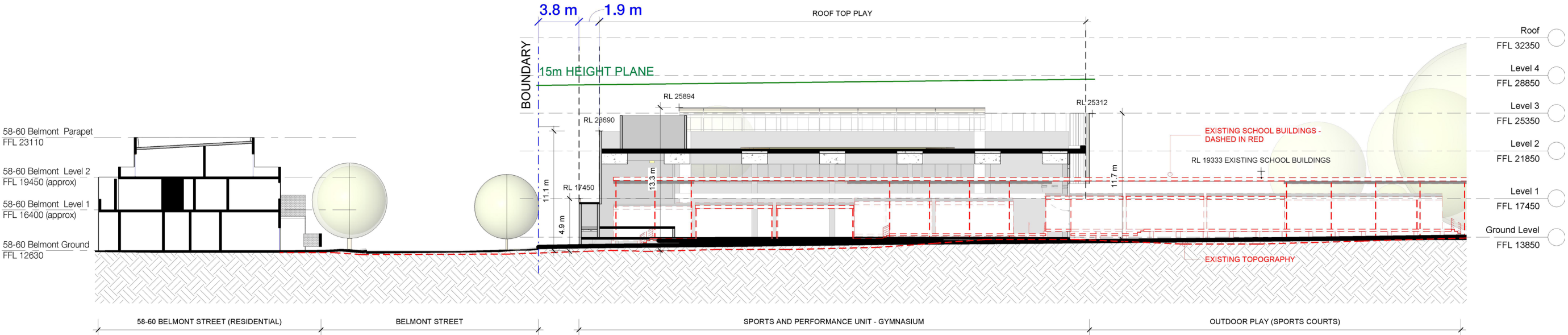


HEIGHT ANALYSIS

58 - 60 BELMONT STREET



SECTION 2 | THROUGH 58-60 BELMONT STREET - ELEVATION OF 92-94 BUCKLAND STREET



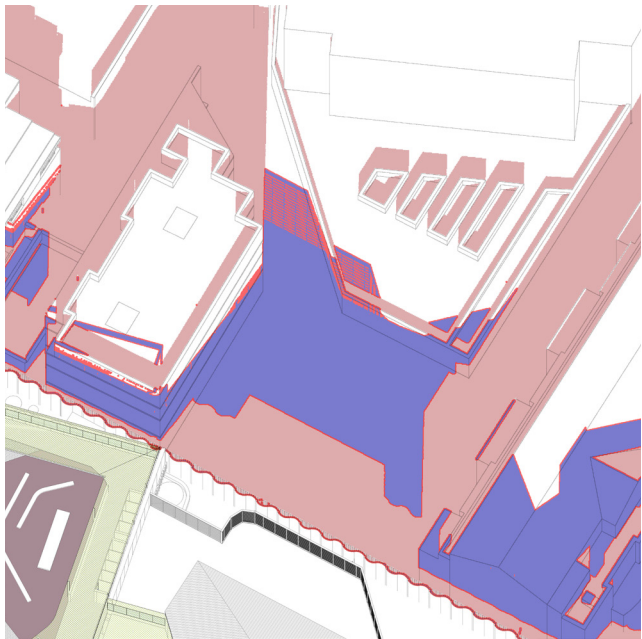
SECTION 3 | THROUGH 58-60 BELMONT STREET - PROPOSED GYMNASIUM

**15-17 FOUNTAIN
STREET**

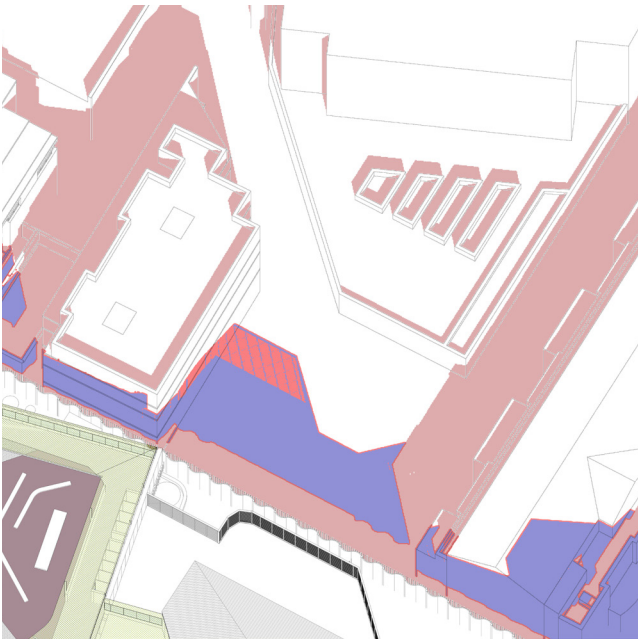
SHADOW ANALYSIS

15-17 FOUNTAIN STREET

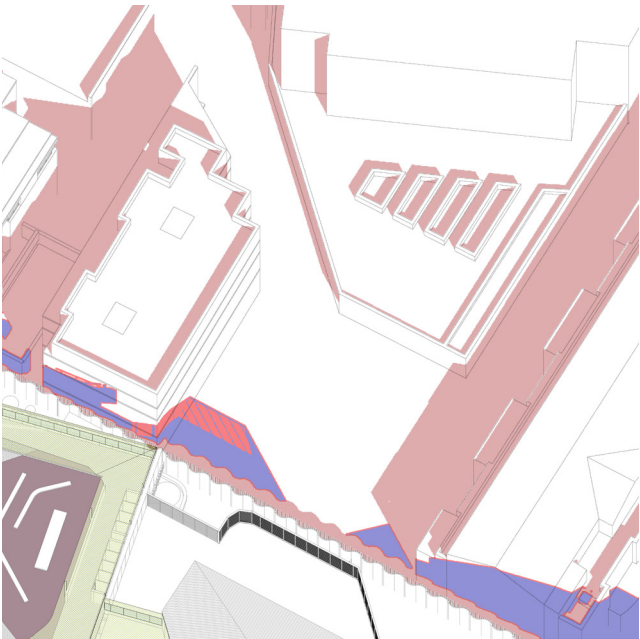
Additional Shadow impact on the residential development at 15-17 Fountain Street occurs between 9AM and 11AM. There is no additional shadow impact thereafter at 15-17 Fountain Street.



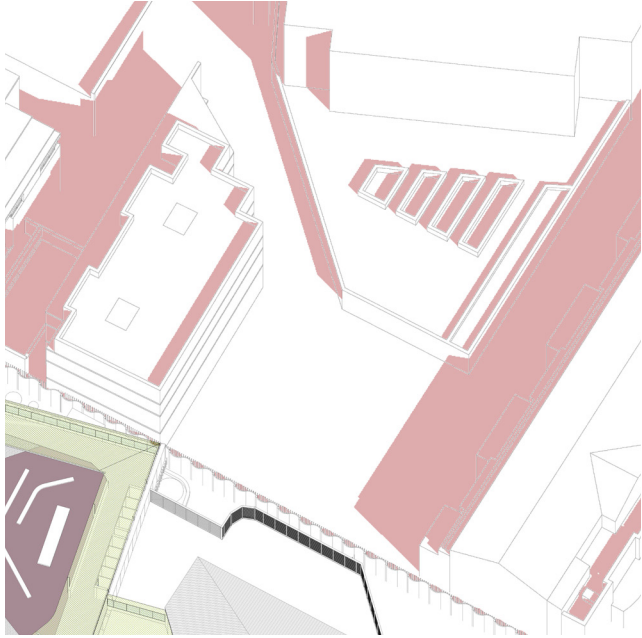
9AM WINTER SOLSTICE



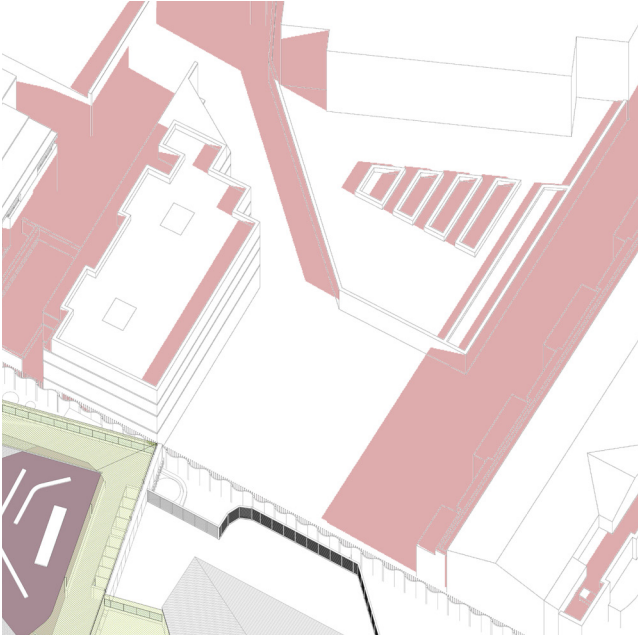
10AM WINTER SOLSTICE



11AM WINTER SOLSTICE



12PM WINTER SOLSTICE





1PM WINTER SOLSTICE



2PM WINTER SOLSTICE



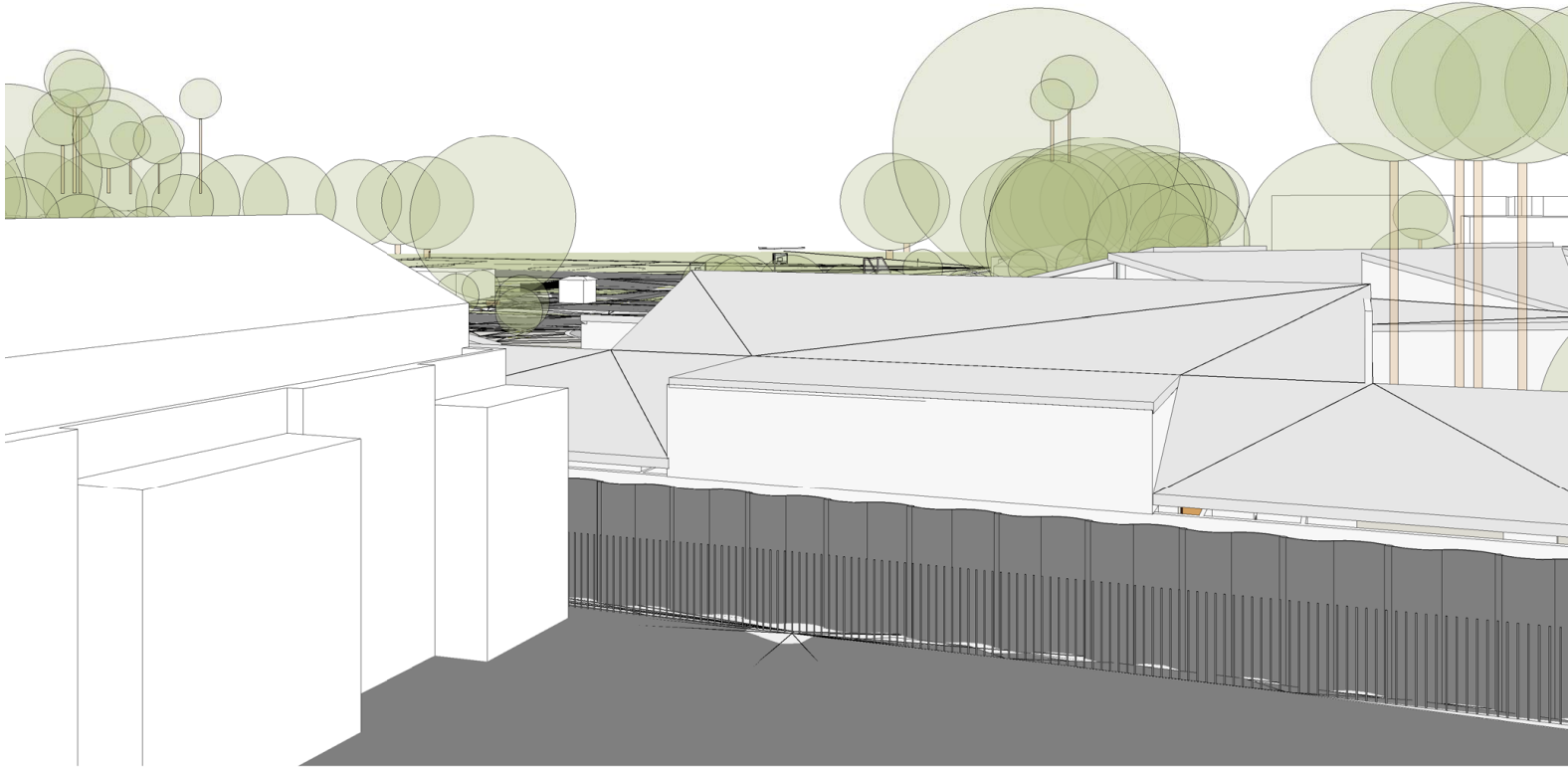
3PM WINTER SOLSTICE

9AM	Additional Shadow Impact on 15-17 Fountain Street observed
10AM	Additional Shadow Impact on 15-17 Fountain Street observed
11AM	Minor Additional Shadow Impact on 15-17 Fountain Street observed
12PM	No Additional Shadow Impact
1PM	No Additional Shadow Impact
2PM	No Additional Shadow Impact
3PM	No Additional Shadow Impact
	EXISTING SHADOWS
	AS LODGED DEVELOPMENT - ADDITIONAL SHADOWS

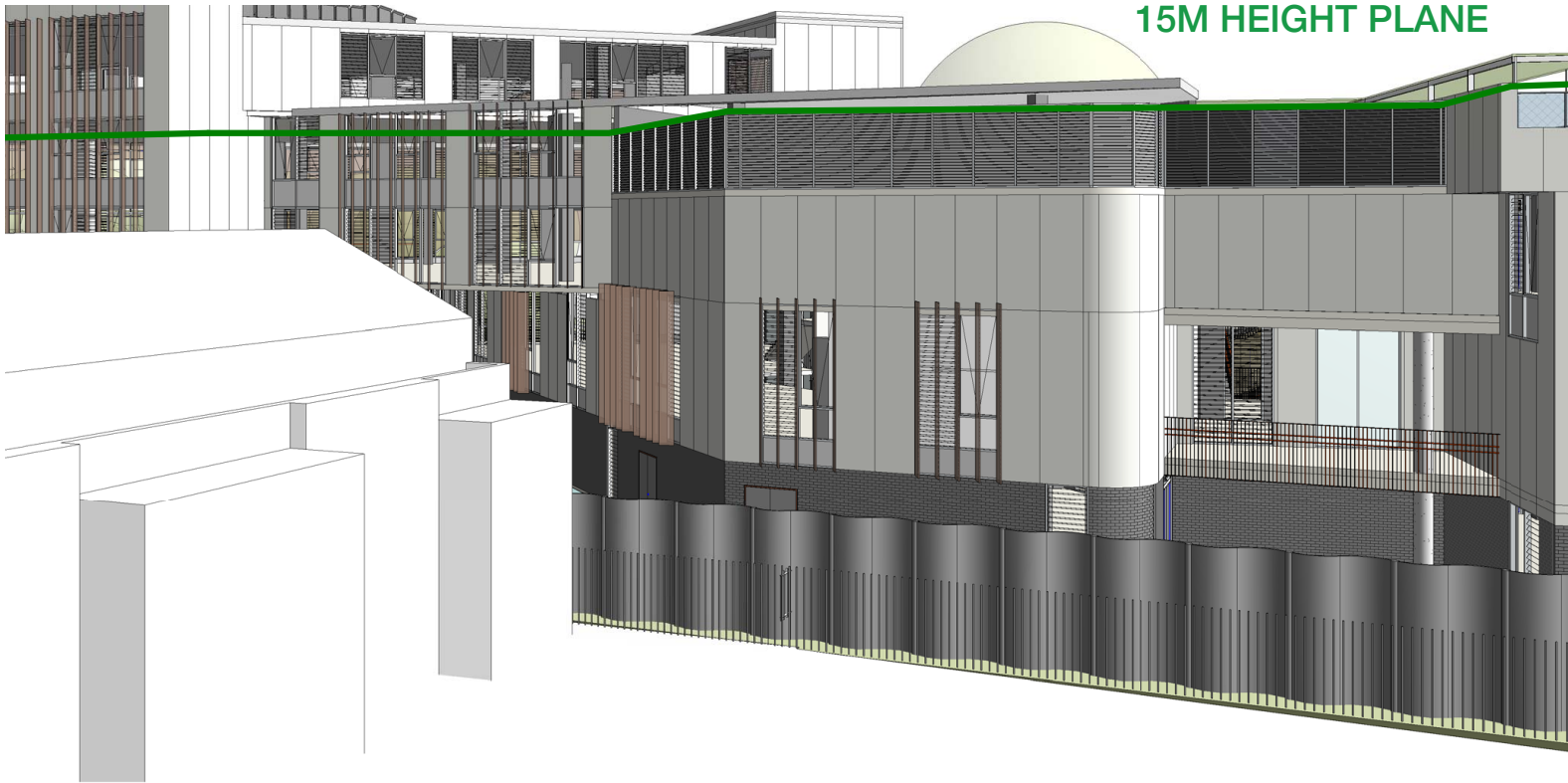
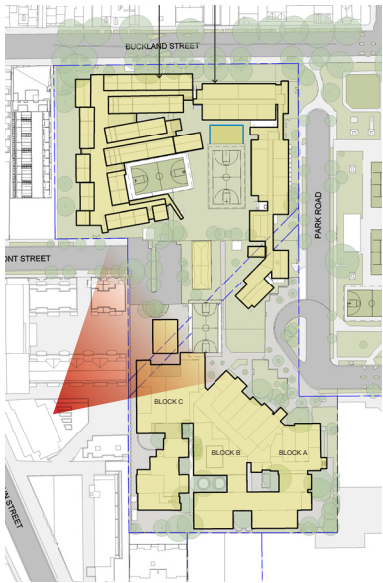
VIEW ANALYSIS

15-17 FOUNTAIN STREET

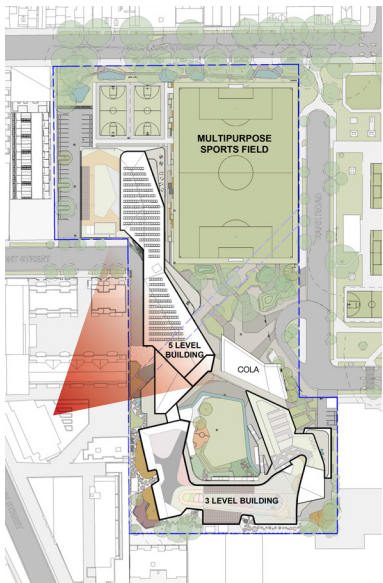
Views from upper level balconies are affected by the new building, however the major impact is the result of part of the new building that is within the complying height plane. There remain distant views of the tops of trees in Alexandria Park. The new building is approximately 40 - 60m distant from the residential building.



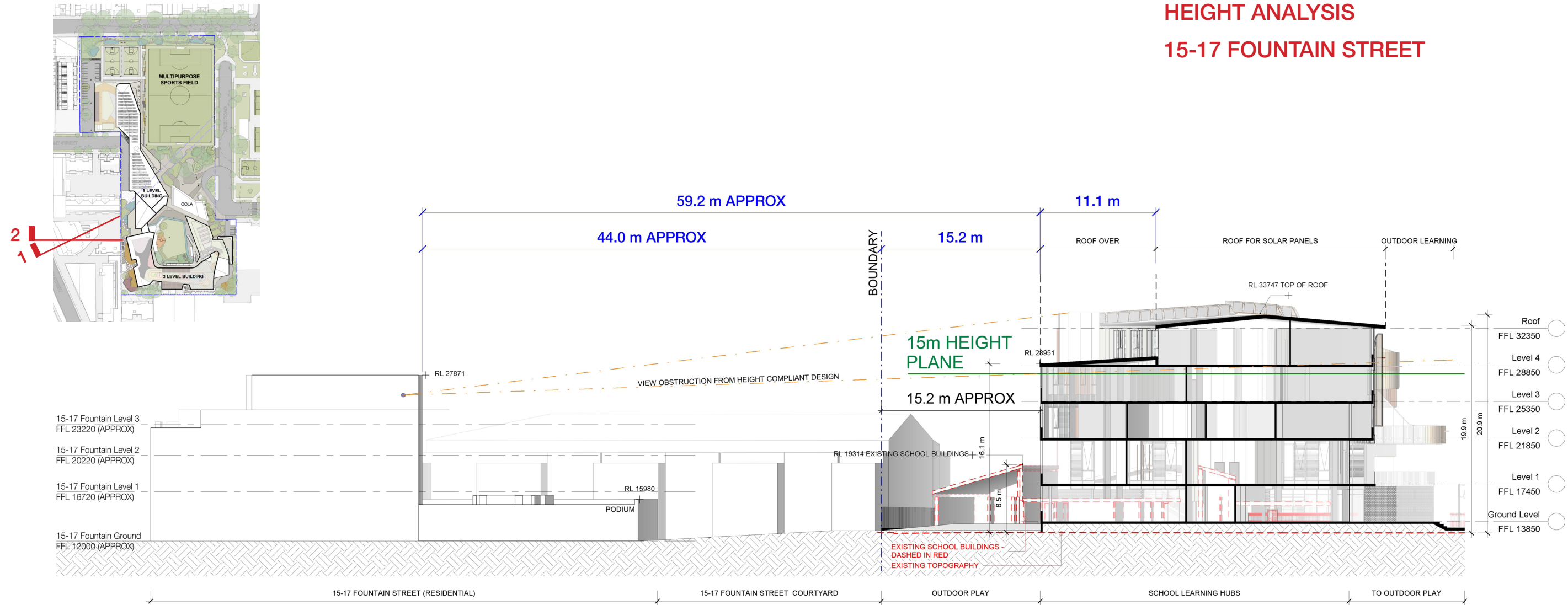
INDICATIVE TYPICAL EXISTING VIEW FROM 15-17 FOUNTAIN STREET - TOP FLOOR APARTMENT
VIEW TAKEN AT 13M ABOVE FOUNTAIN STREET GROUND LEVEL



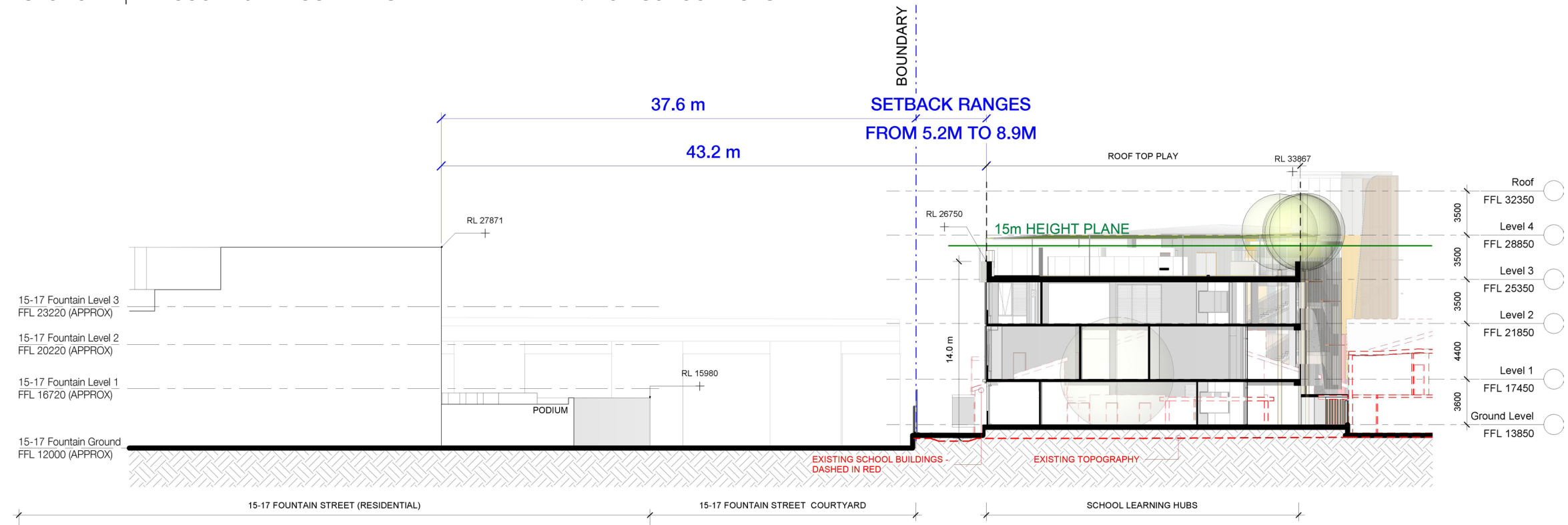
INDICATIVE TYPICAL PROPOSED VIEW FROM 15-17 FOUNTAIN STREET - TOP FLOOR APARTMENT
VIEW TAKEN AT 13M ABOVE FOUNTAIN STREET GROUND LEVEL



HEIGHT ANALYSIS
15-17 FOUNTAIN STREET



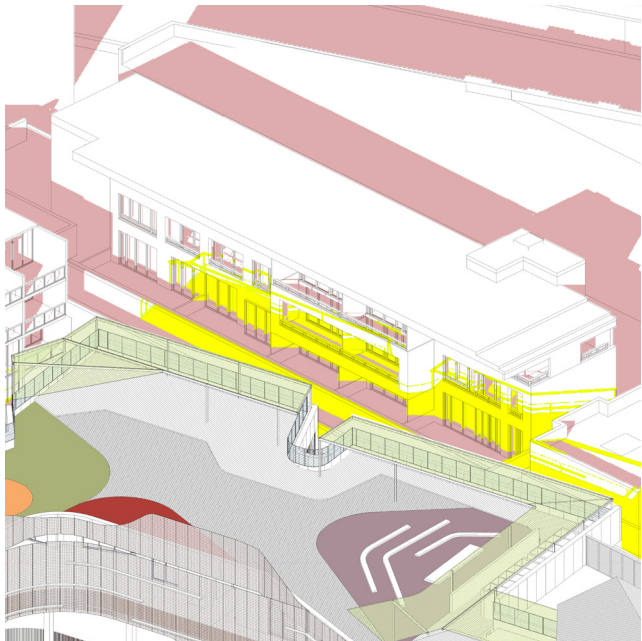
SECTION 1 | THROUGH 15-17 FOUNTAIN STREET AND LIBRARY/HIGH SCHOOL HUBS



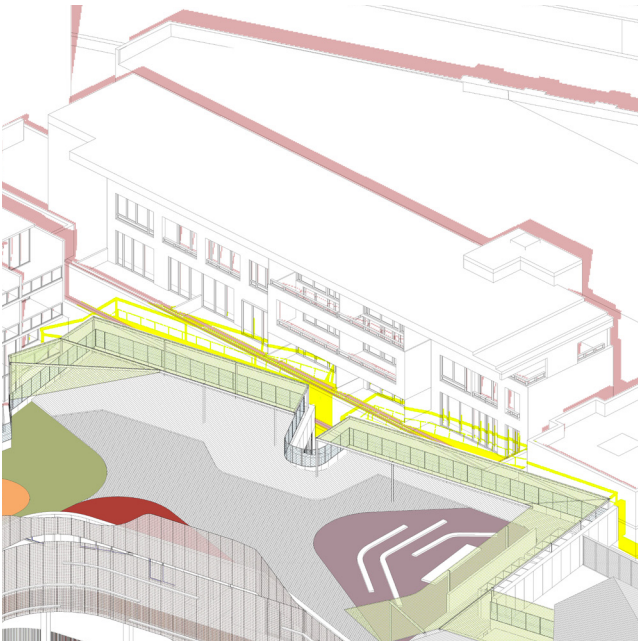
SECTION 2 | THROUGH 58-60 BELMONT STREET - PROPOSED GYMNASIUM

**145 M^cEVOY
STREET**

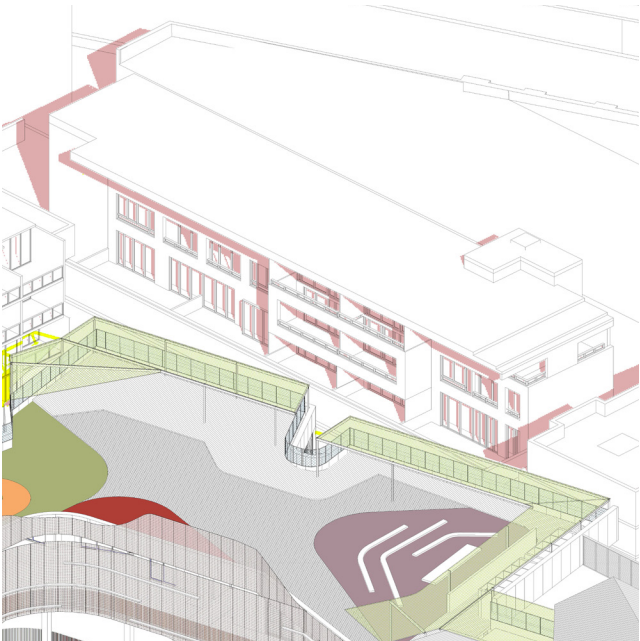
SHADOW ANALYSIS
145 M^cEVOY STREET



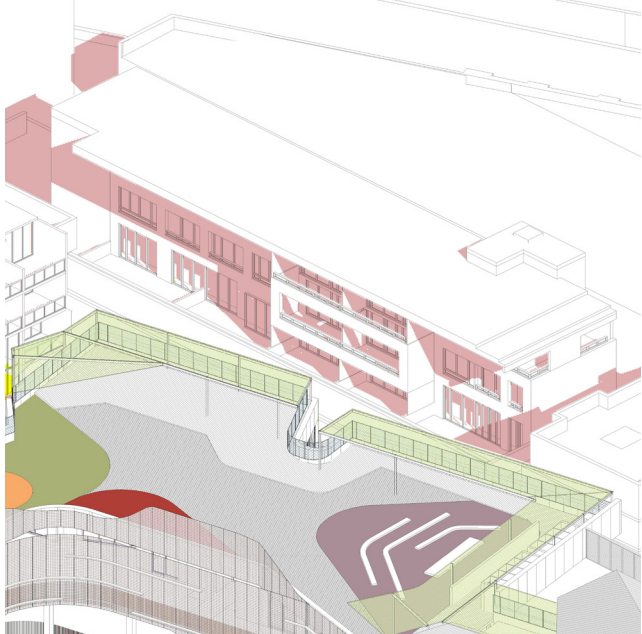
9AM WINTER SOLSTICE



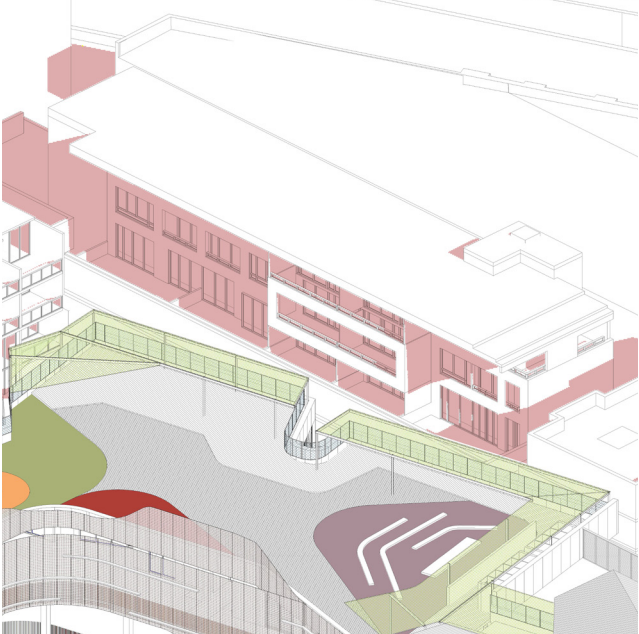
10AM WINTER SOLSTICE



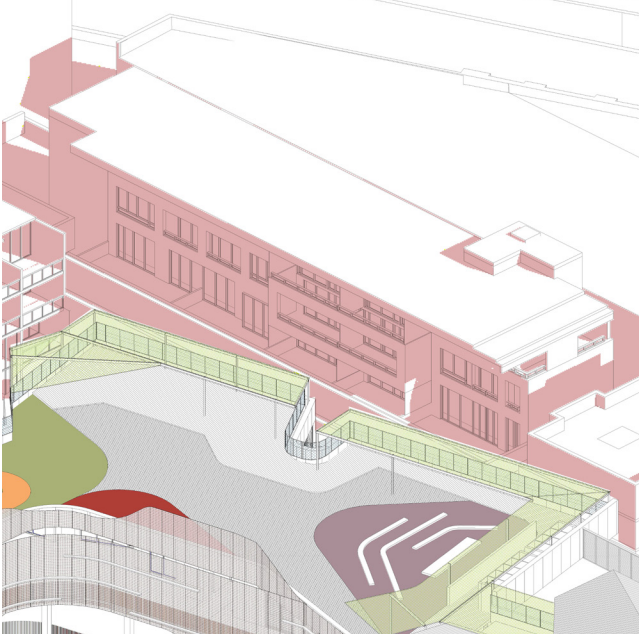
11AM WINTER SOLSTICE



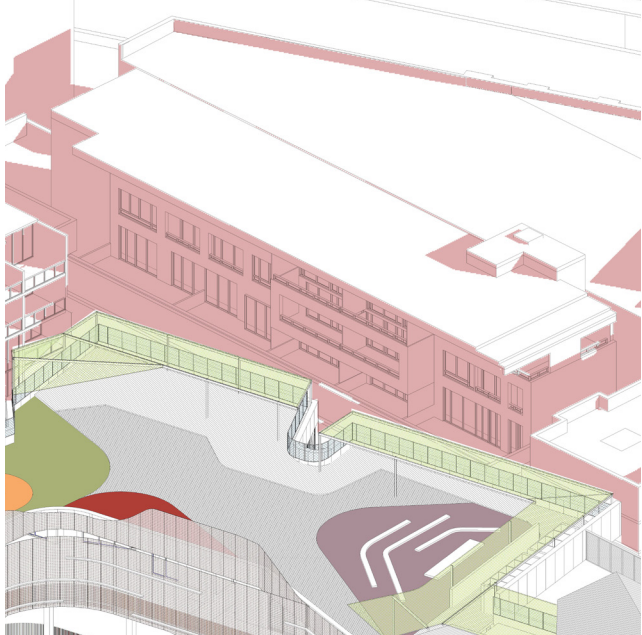
12PM WINTER SOLSTICE



1PM WINTER SOLSTICE



2PM WINTER SOLSTICE

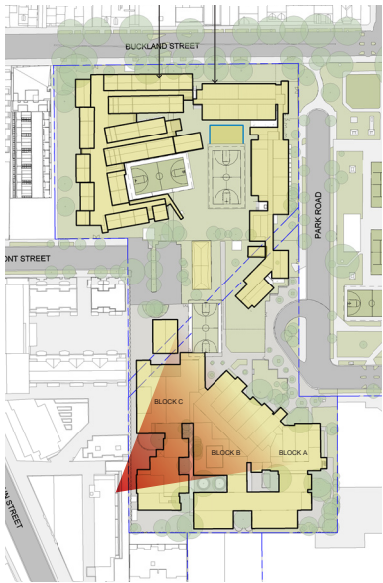
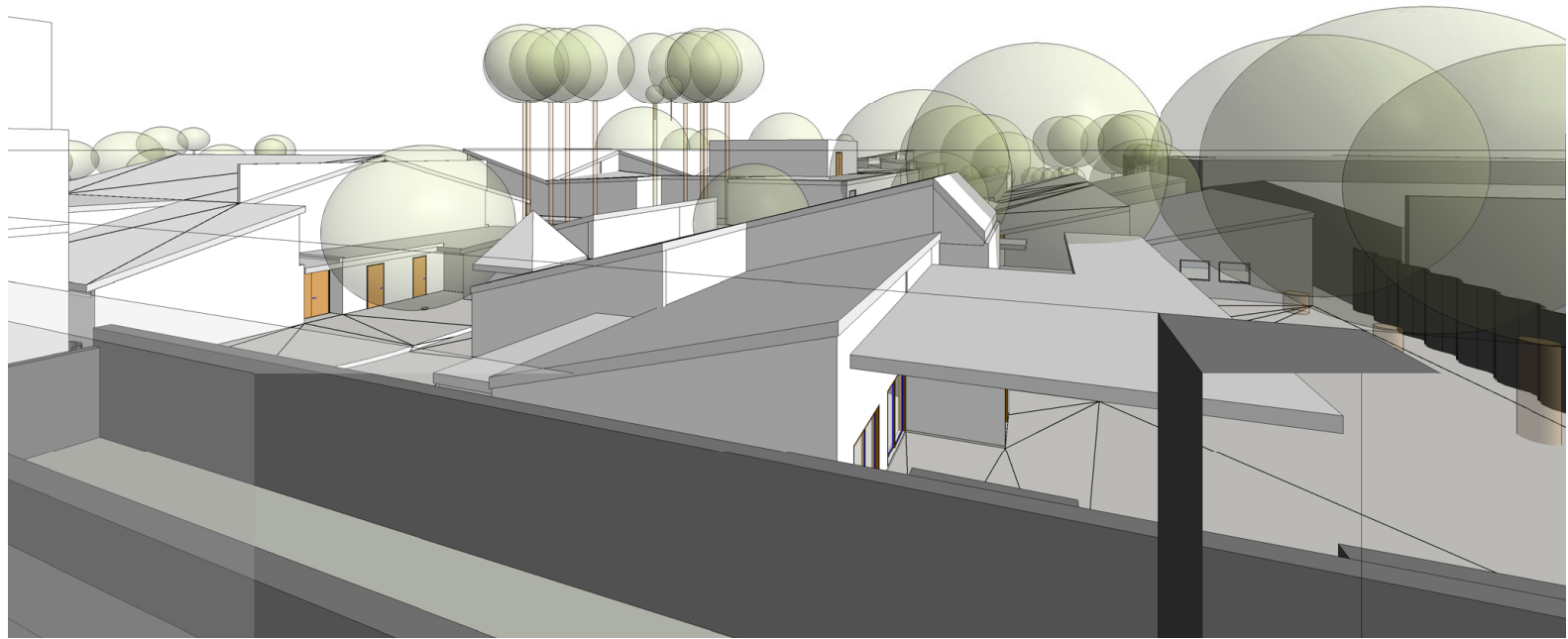


3PM WINTER SOLSTICE

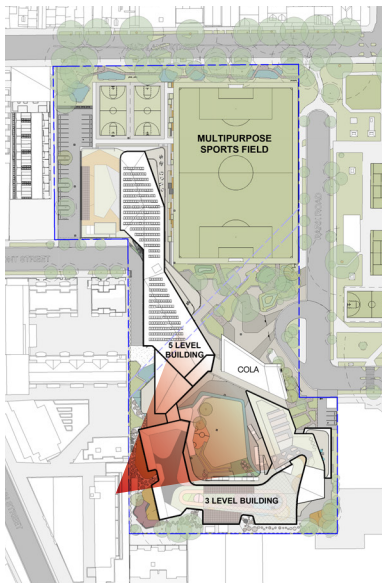
9AM	Additional Shadow Impact on 145 M ^c Evoy Street observed
10AM	Minimal Additional Shadow Impact on 145 M ^c Evoy Street observed
11AM	No Additional Shadow Impact
12PM	No Additional Shadow Impact
1PM	No Additional Shadow Impact
2PM	No Additional Shadow Impact
3PM	No Additional Shadow Impact

- EXISTING SHADOWS
- AMENDED DEVELOPMENT - ADDITIONAL SHADOWS

VIEW ANALYSIS
145 M^oEVOY STREET

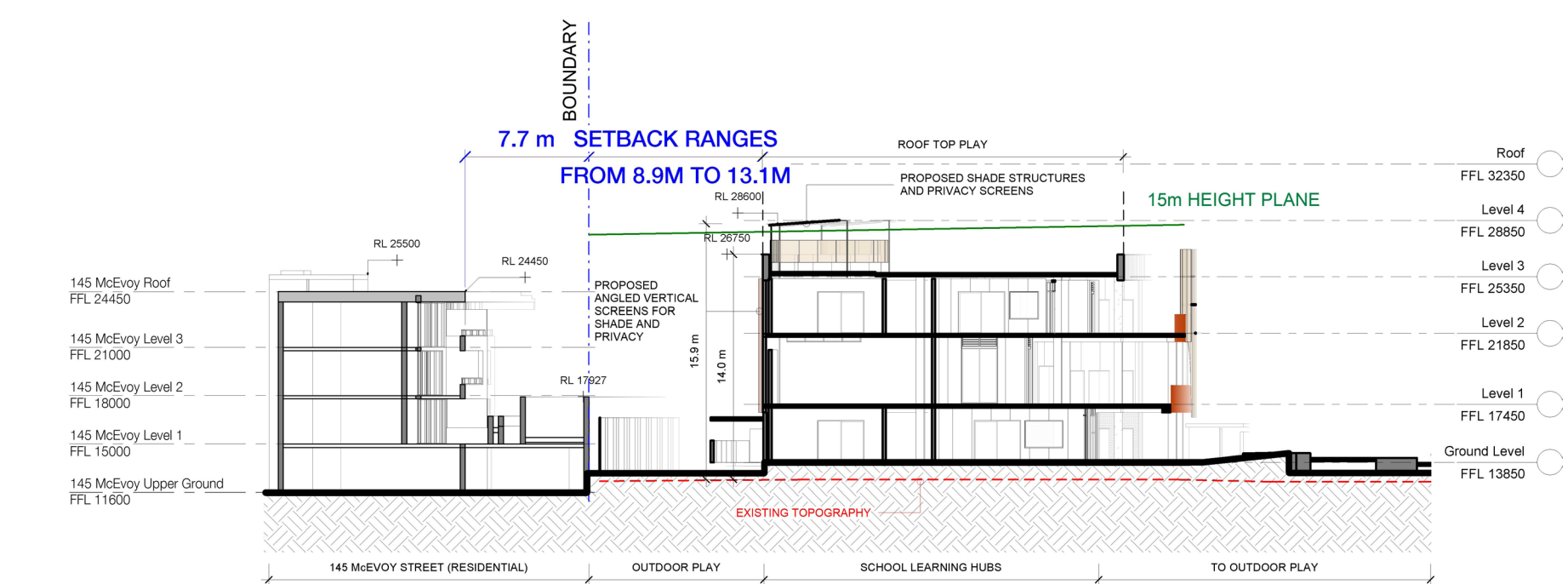
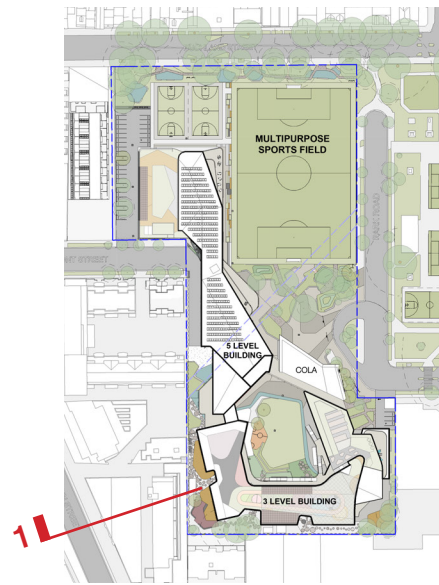


INDICATIVE TYPICAL EXISTING VIEW FROM 145 M^oEVOY ST - TOP FLOOR APARTMENT
VIEW TAKEN AT 7.5M ABOVE 145 MCEVOY STREET PODIUM LEVEL



INDICATIVE TYPICAL PROPOSED VIEW FROM 145 M^oEVOY ST - TOP FLOOR APARTMENT
VIEW TAKEN AT 7.5M ABOVE 145 MCEVOY STREET PODIUM LEVEL

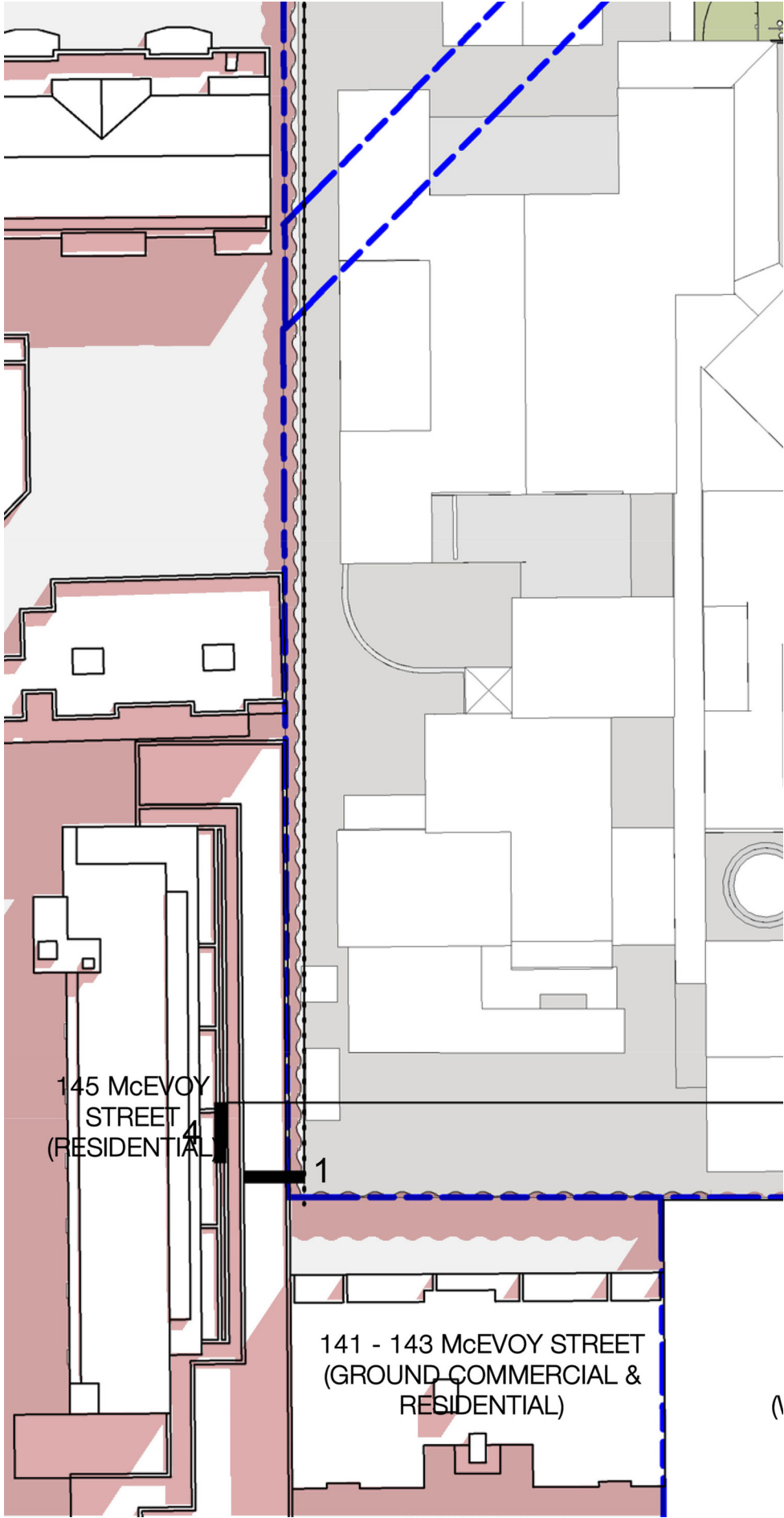
HEIGHT ANALYSIS
58 - 60 BELMONT STREET



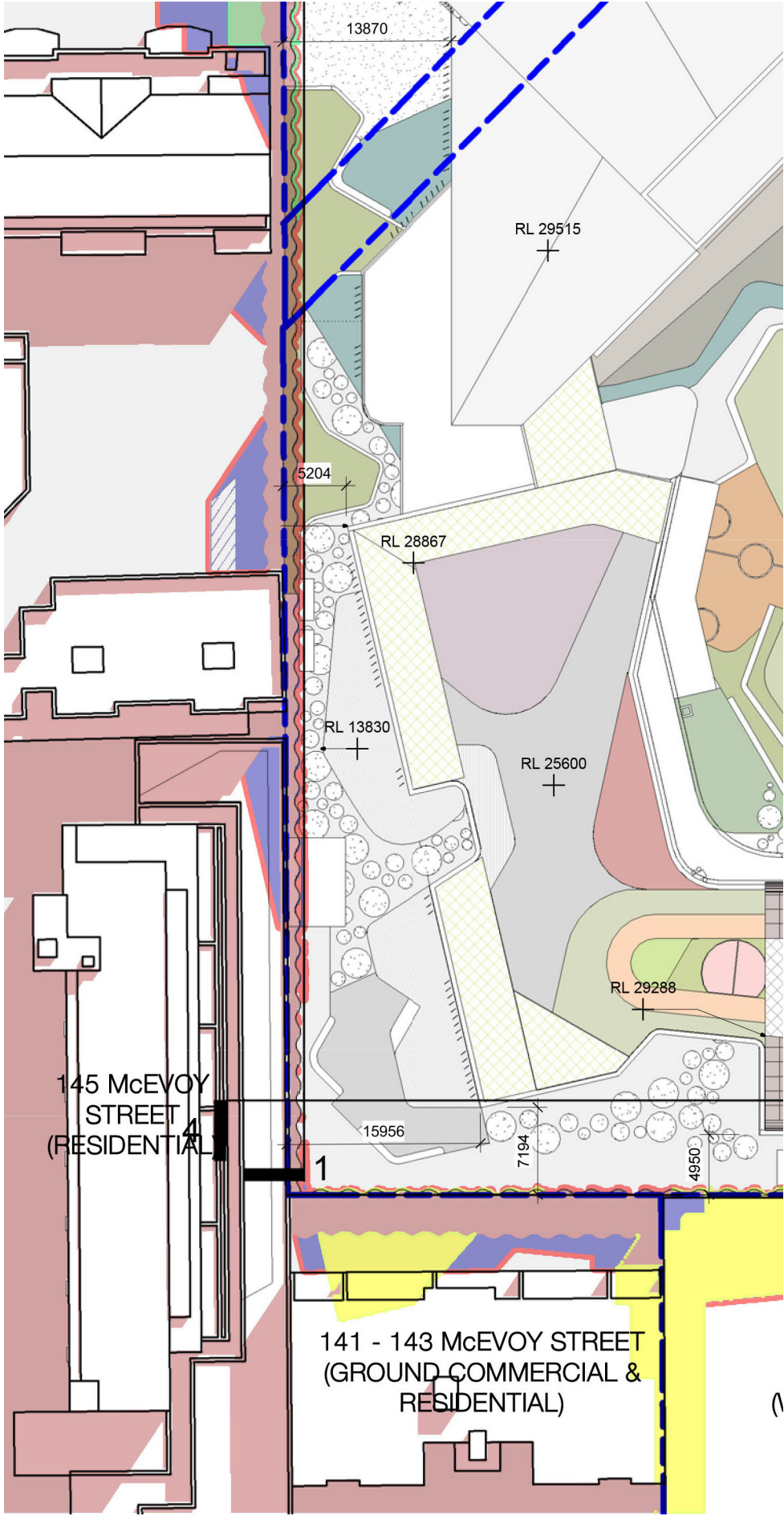
SECTION 1 | THROUGH 145 McEVOY STREET AND PRIMARY HOMEBASES



SHADOW ANALYSIS
141-143 McEVOY STREET



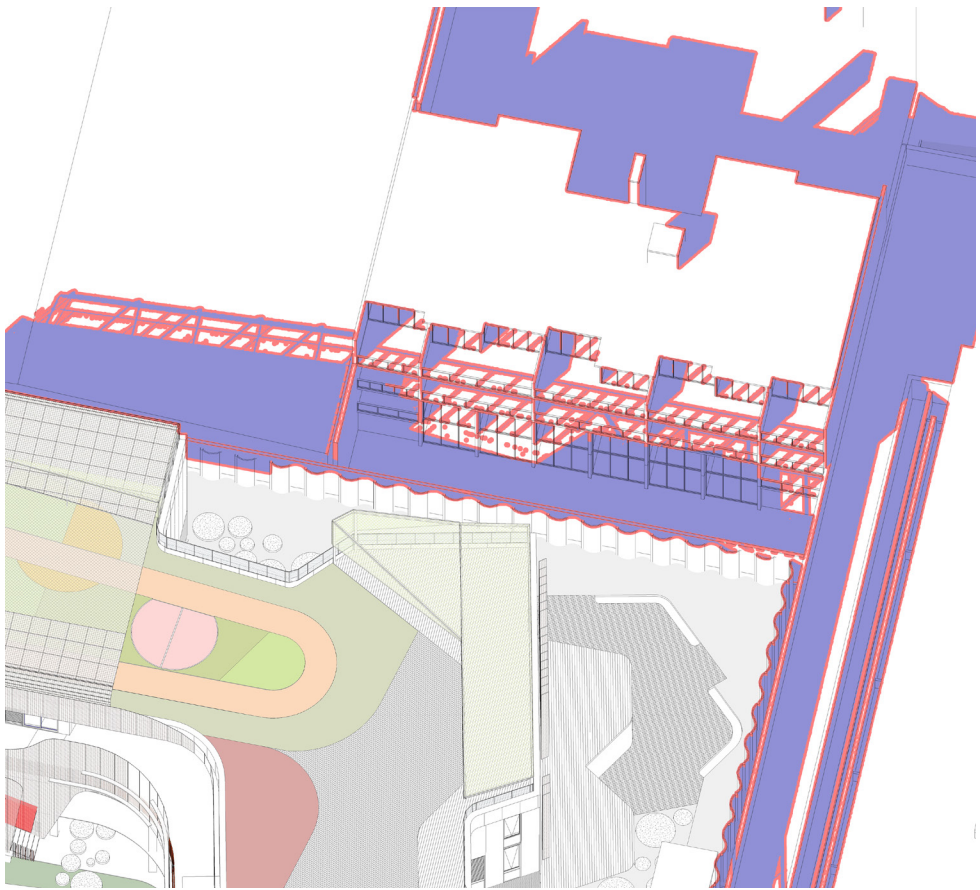
EXISTING SHADOWS
- WINTER SOLSTICE 11AM



PROPOSED AND AMENDED SHADOWS
- WINTER SOLSTICE 11AM

- EXISTING SHADOWS
- AS LODGED DEVELOPMENT - ADDITIONAL SHADOWS
- AMENDED DEVELOPMENT - ADDITIONAL SHADOWS

SHADOW ANALYSIS
141-143 M^cEVOY STREET



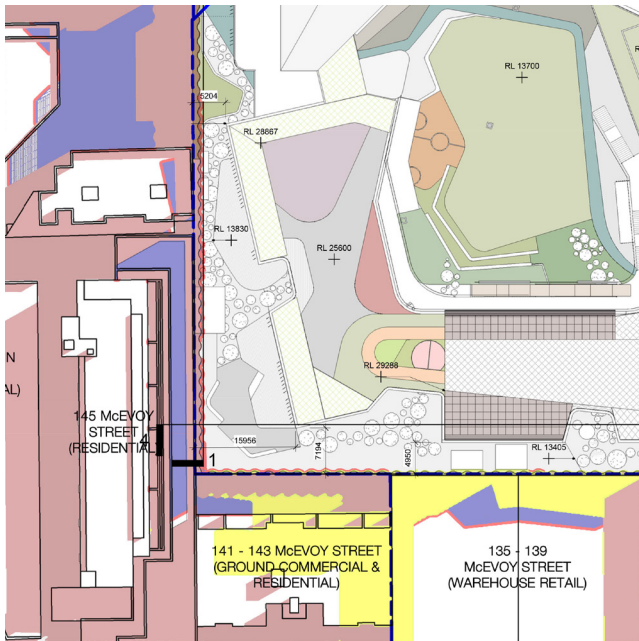
EXISTING SCHOOL
SHADOWS - WINTER SOLSTICE 11AM

AS LODGED SSDA PROPOSAL
SHADOWS - WINTER SOLSTICE 11AM

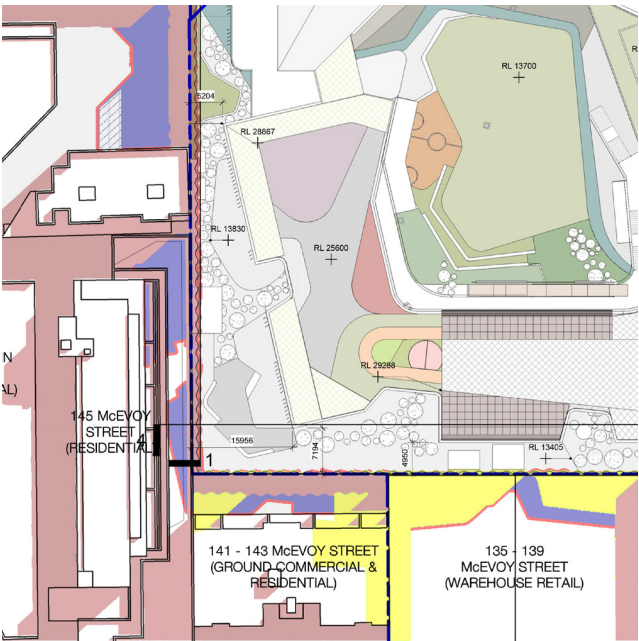


AMENDED PROPOSAL
SHADOWS - WINTER SOLSTICE 11AM

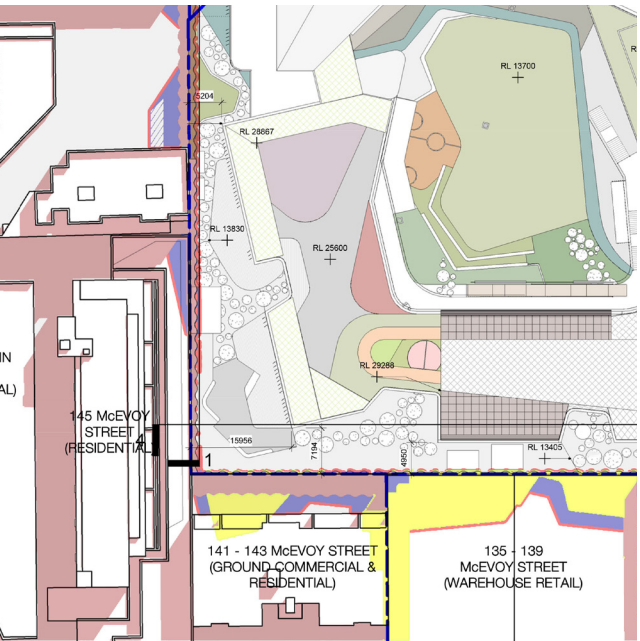
- EXISTING SHADOWS
- AS LODGED DEVELOPMENT - ADDITIONAL SHADOWS
- AMENDED DEVELOPMENT - ADDITIONAL SHADOWS



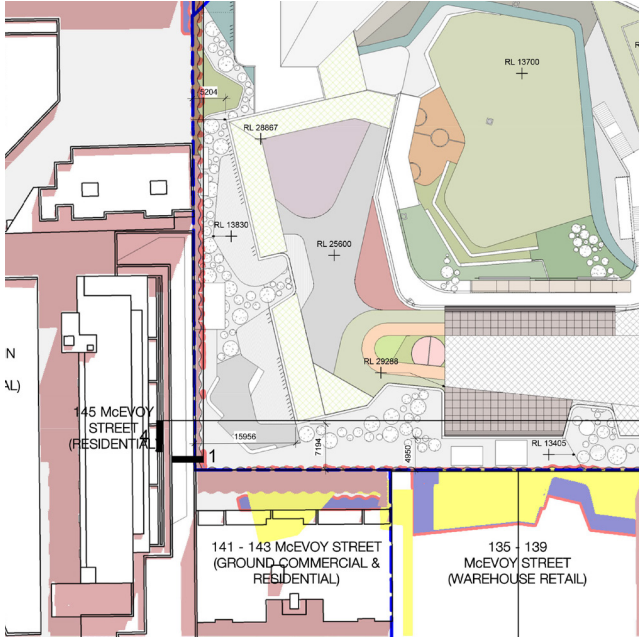
9AM WINTER SOLSTICE



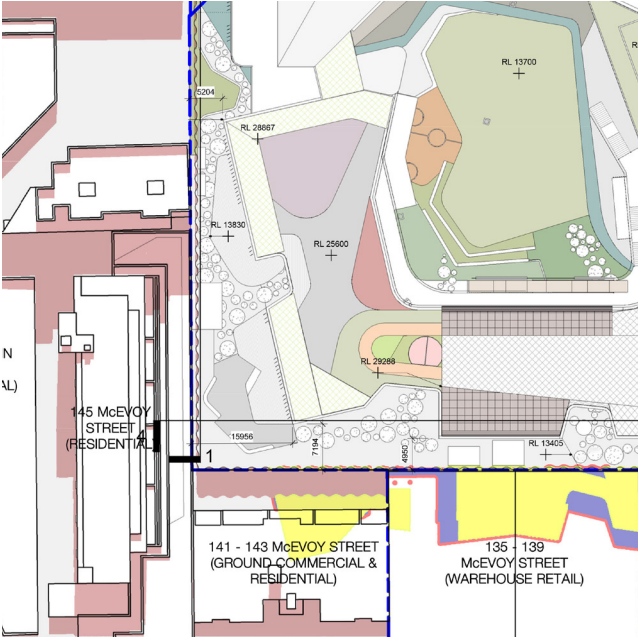
10AM WINTER SOLSTICE



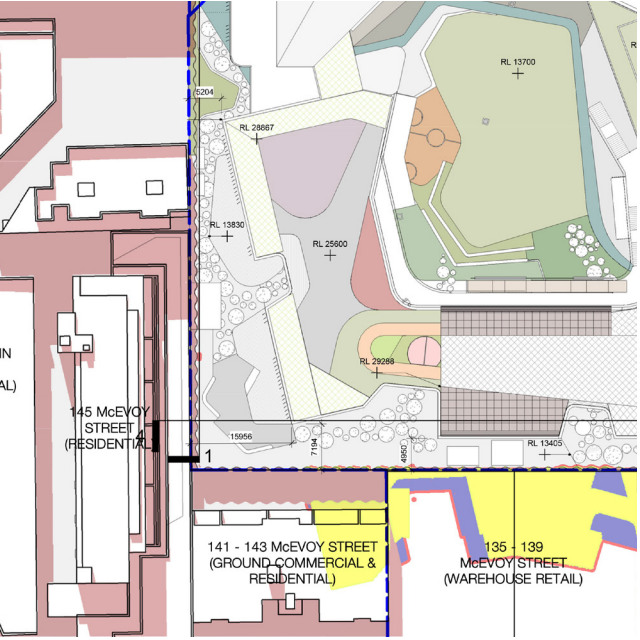
11AM WINTER SOLSTICE



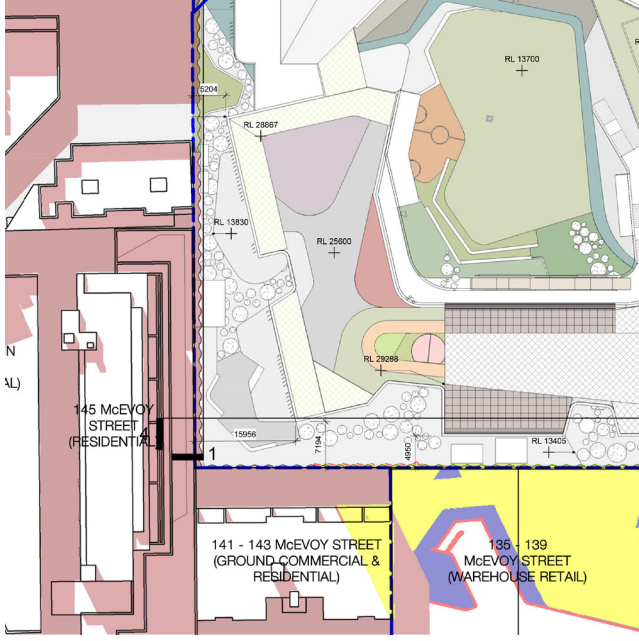
12PM WINTER SOLSTICE



1PM WINTER SOLSTICE



2PM WINTER SOLSTICE



3PM WINTER SOLSTICE

- EXISTING SHADOWS
- AS LODGED DEVELOPMENT - ADDITIONAL SHADOWS
- AMENDED DEVELOPMENT - ADDITIONAL SHADOWS
- HOURS OF SUN

9AM - 3PM HOURLY SHADOW MATRIX 141-143 McEVOY STREET

EXISTING DEVELOPMENT

UNITS / HR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
9AM																		
10AM																		
11AM																		
12PM																		
1PM																		
2PM																		
3PM																		
HRS	6	6	6	6	6	5	4	2.5	7	7	7	7	4	6	6	6	6	6

AS LODGED DEVELOPMENT

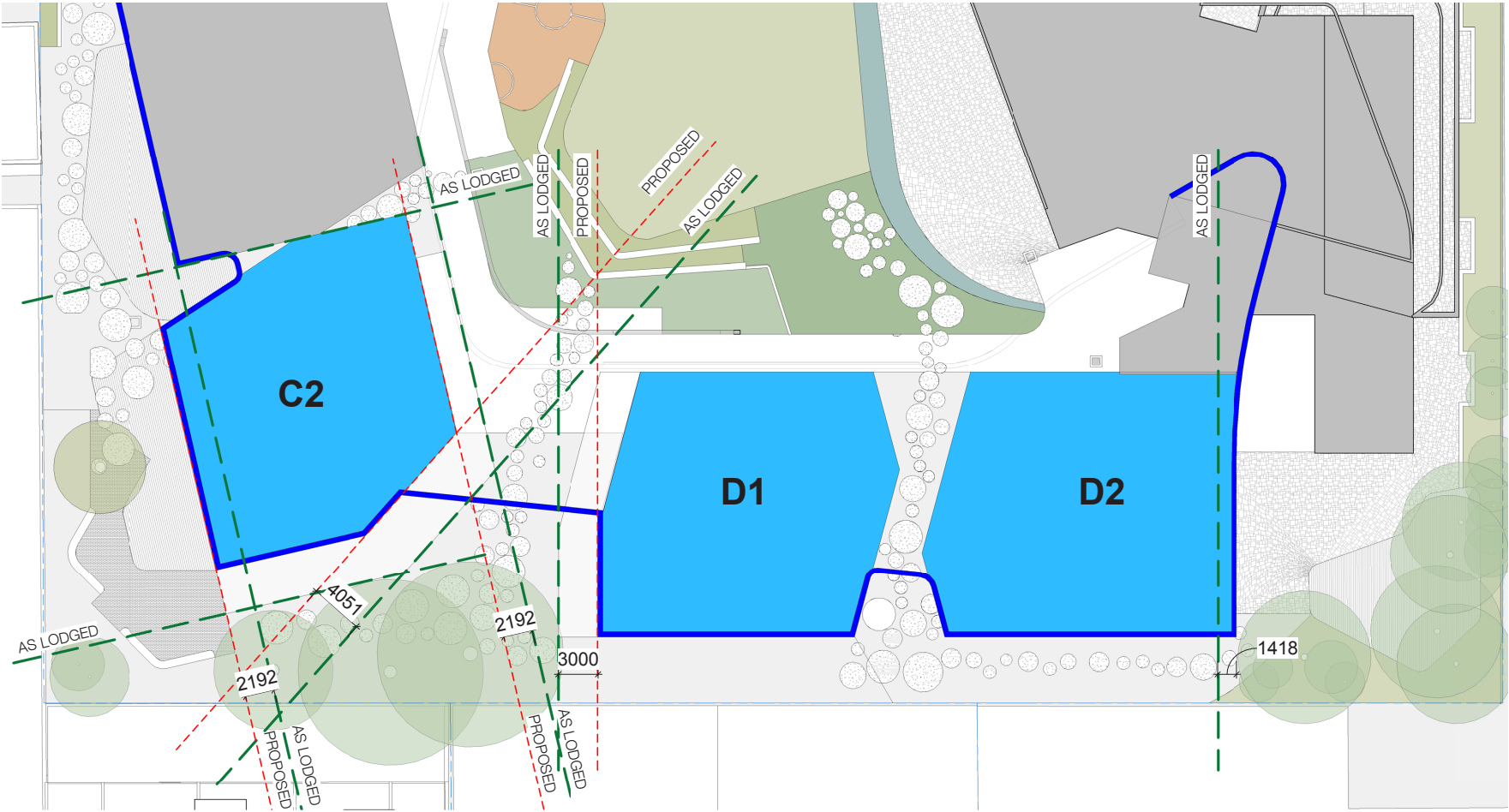
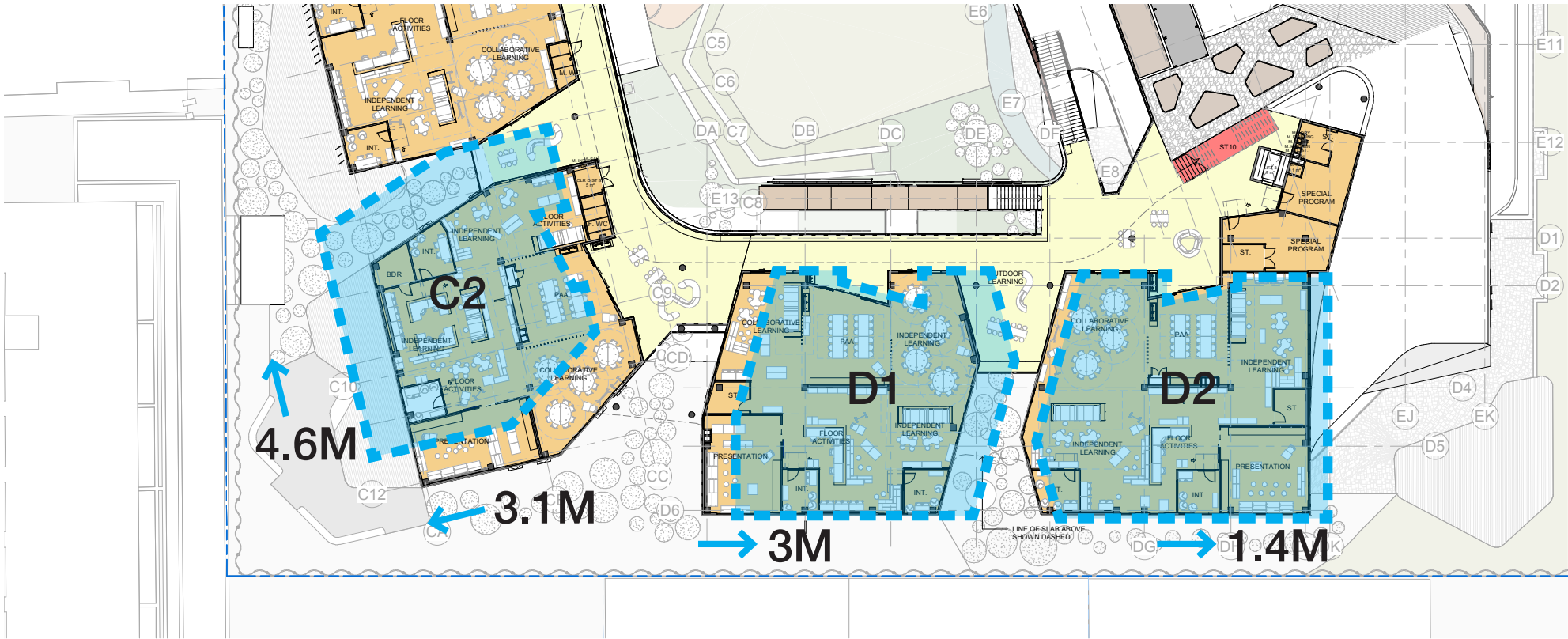
UNITS / HR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
9AM																		
10AM																		
11AM																		
12PM																		
1PM																		
2PM																		
3PM																		
HRS	4	3	2	2	2	1	1.5	0.5	7	7	5	4	2	6	6	6	6	5

AMENDED DEVELOPMENT

UNITS / HR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
9AM																		
10AM																		
11AM																		
12PM																		
1PM																		
2PM																		
3PM																		
HRS	5	4	4	3	2	3	2	1.5	7	7	7	4	2	6	6	6	6	5

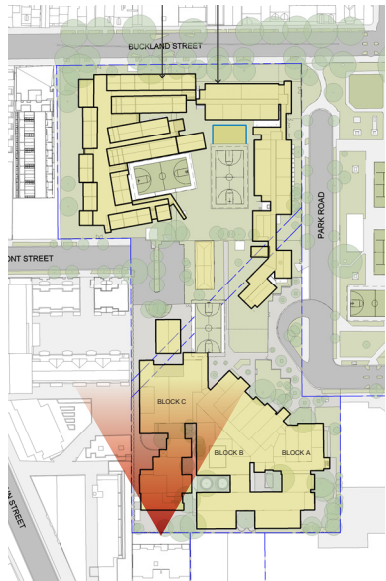
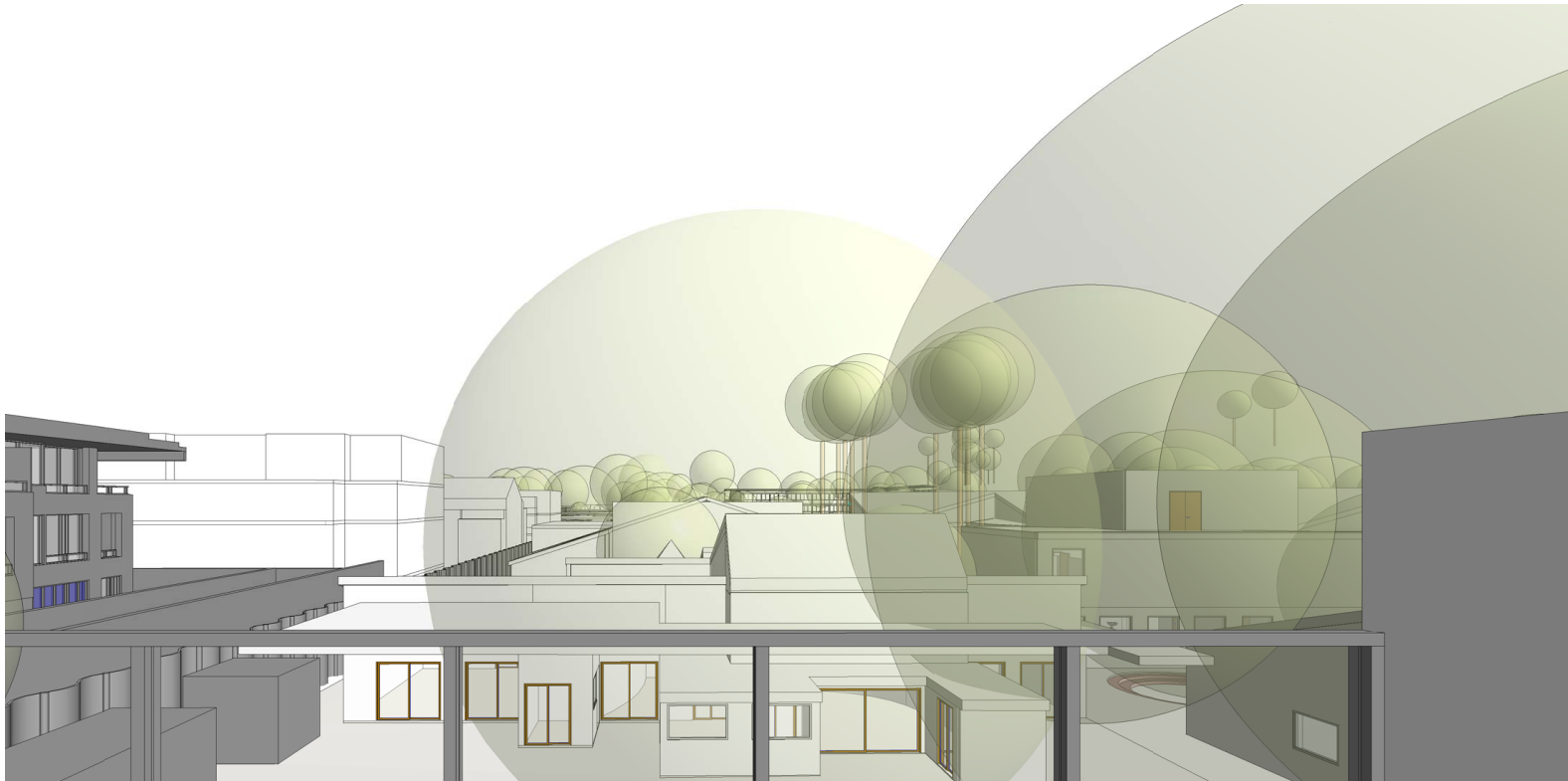
SHADOW ANALYSIS **141-143 M^cEVoy STREET**

The proposed amendments involve the shifting of the primary school blocks C2, D1 and D2 to create a wider gap between C2 and D12, improving the solar access to units in this development, particularly in the hours through to 2pm.



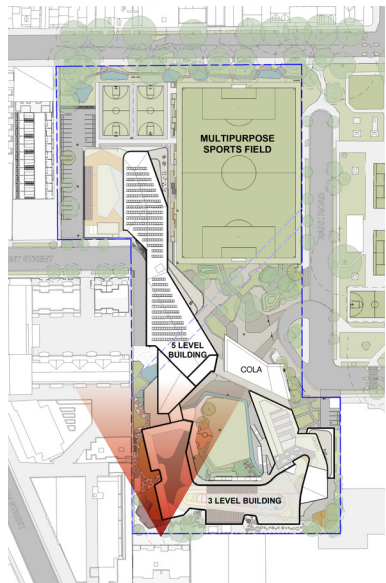
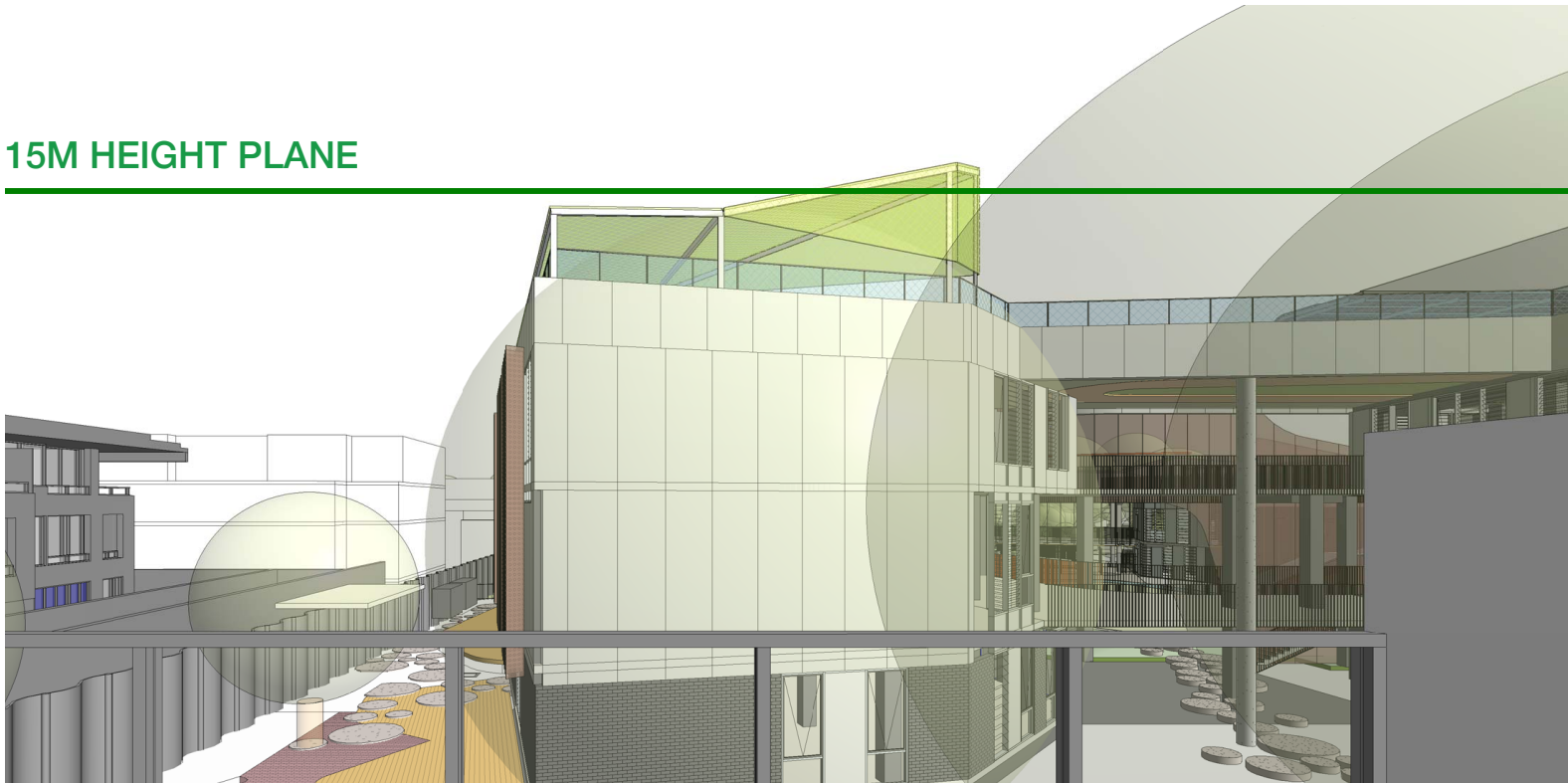
BLOCK C2, D1 AND D2
GROUND, LEVEL 1 AND LEVEL 2
PROPOSED AMENDMENTS

VIEW ANALYSIS
141-143 M^cEVOY STREET



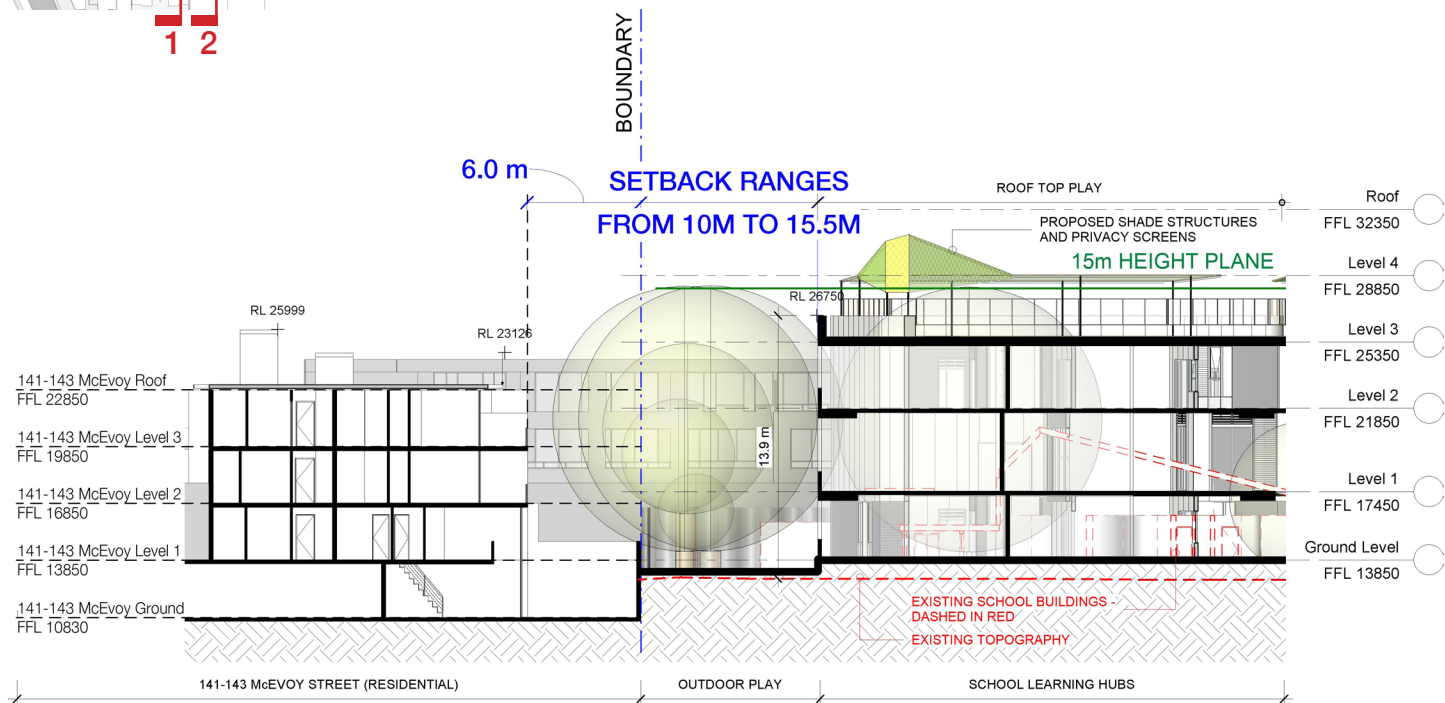
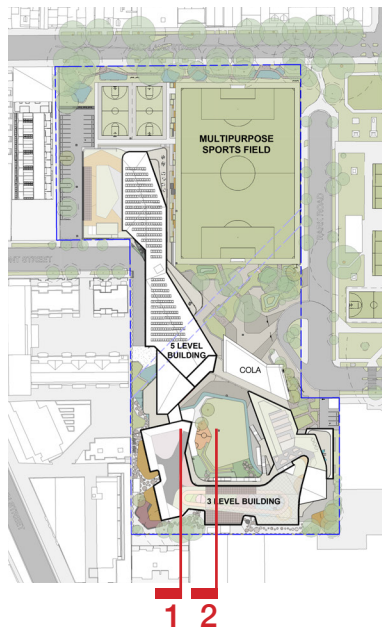
INDICATIVE TYPICAL EXISTING VIEW FROM 145 M^cEVOY ST - TOP FLOOR APARTMENT
VIEW TAKEN AT 10.5M ABOVE 141-143 MCEVOY STREET GROUND LEVEL

15M HEIGHT PLANE

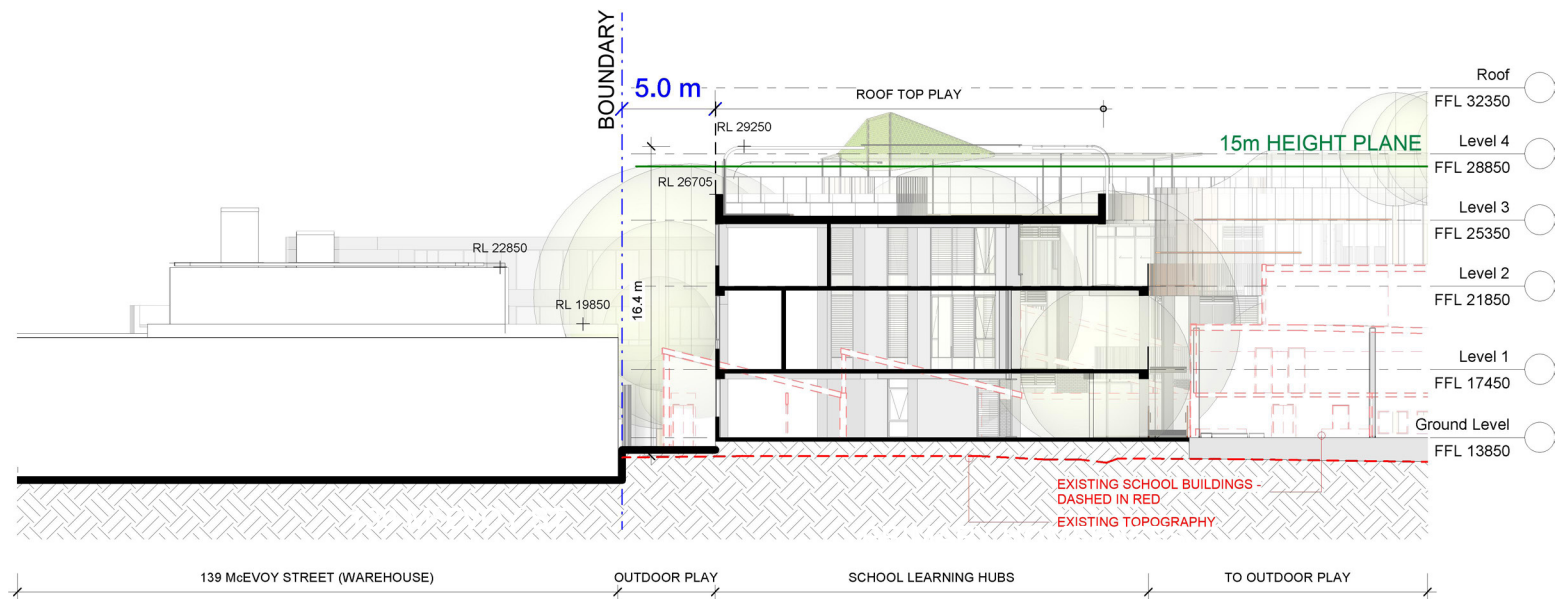


INDICATIVE TYPICAL PROPOSED VIEW FROM 145 M^cEVOY ST - TOP FLOOR APARTMENT
VIEW TAKEN AT 10.5M ABOVE 141-143 MCEVOY STREET GROUND LEVEL

HEIGHT ANALYSIS
141-143 M^cEVVOY STREET



SECTION 1 | THROUGH 141-143 M^cEVVOY STREET AND PRIMARY HOMEBASES



SECTION 2 | THROUGH 139 M^cEVVOY STREET AND PRIMARY HOMEBASES