



St Anthony of Padua Catholic School

Eleventh Avenue, Austral

Detailed Proposal

Urban Design + Architectural Report

on behalf of
Sydney Catholic Schools

Date October 2018
Revision r3



MUNNS SLY MOORE ARCHITECTS PTY LTD ABN 30 008 534 049
9 Hall Street | PO Box 5093 | Lyneham ACT 2602 Australia
P +61 2 6248 8922 F +61 2 6248 8300

Nominated Architect Robert Sly FAIA ACT #331 NSW #6712

www.munnsslymoore.com.au

TABLE OF CONTENTS

1.0 INTRODUCTION..... 1

1.1 DEVELOPMENT SUMMARY 2

2.0 BACKGROUND..... 7

3.0 VISION 7

4.0 BRIEF..... 7

5.0 PROJECT TEAM..... 8

6.0 STAKEHOLDERS + CONSULTATION 8

6.1 NSW GOVERNMENT ARCHITECT 8

6.2 COMMUNITY CONSULTATION 8

7.0 SITE 9

7.1 SITE DETAILS 9

7.2 LOCATION 9

7.3 SITE DESCRIPTION + STREETScape 10

7.5 SITE ANALYSIS – EXISTING TREES..... 11

7.6 SITE ANALYSIS – LANDSCAPE +CLIMATE 12

7.7 SITE ANALYSIS – LANDFORM 13

7.8 SITE ANALYSIS – TRANSPORT NETWORK 14

7.9 SITE ANALYSIS - OPPORTUNITIES + CONSTRAINTS 15

7.10 SITE DEVELOPMENT STUDIES 16

8.0 EDUCATIONAL PLANNING PRINCIPLES 19

9.0 DESIGN STATEMENT 20

9.1 URBAN DESIGN + BUILT FORM 20

9.2 HEIGHT LIMIT 21

9.3 HEIGHT STUDY Error! Bookmark not defined.

9.4 HEIGHT STUDY Error! Bookmark not defined.

9.5 ACCESSIBILITY + SECURITY 24

Pedestrian Movement..... 28

9.6 LANDSCAPE 29

9.7 TRAFFIC MANAGEMENT + PARKING 30

9.8 MATERIALITY 31

10.0 QUALITY DESIGN PRINCIPLES 32

10.1 PRINCIPLE 1 CONTEXT, BUILT FORM + LANDSCAPE 32

10.2 PRINCIPLE 2 – SUSTAINABLE, EFFICIENT + DURABLE... 32

10.3 PRINCIPLE 3 – ACCESSIBLE + INCLUSIVE 32

10.4 PRINCIPLE 4 – HEALTH + SAFETY 33

10.5 PRINCIPLE 5 – AMENITY..... 33

10.6 PRINCIPLE 6 – WHOLE OF LIFE, FLEXIBLE + ADAPTIVE. 33

10.7 PRINCIPLE 7 – AESTHETICS 34

DOCUMENT REGISTER

REVISION	DATE	DESCRIPTION
1	25.06.2018	DRAFT FOR COMMENT
2	15.08.2018	ISSUE FOR APPROVAL
3	01.11.2018	ISSUE FOR APPROVAL

1.0 INTRODUCTION

This report describes the architectural design response for the Detailed Proposal for the St Anthony of Padua Catholic School, Austral in support of the State Significant Development application.

The St Anthony of Padua Catholic Parish has been an integral part of the Austral community since 1946, when it was a part of the Penrith Parish, before the formal establishment of the Austral Parish in 1965.

In 2017, the St Anthony of Padua Catholic School commenced in temporary buildings in the north east of the site. This application has been prepared for the growth and development of the existing school to create a four (4) stream Primary School, eight (8) stream Secondary School and provide integrated Preschool and child care services.

The Masterplan has been developed with a community minded focus, with the school as a key amenity to support the development of the Austral community within the Austral and North Leppington Growth Centre.

1.1 DEVELOPMENT SUMMARY

The Detailed Proposal includes the provision of the following facilities:

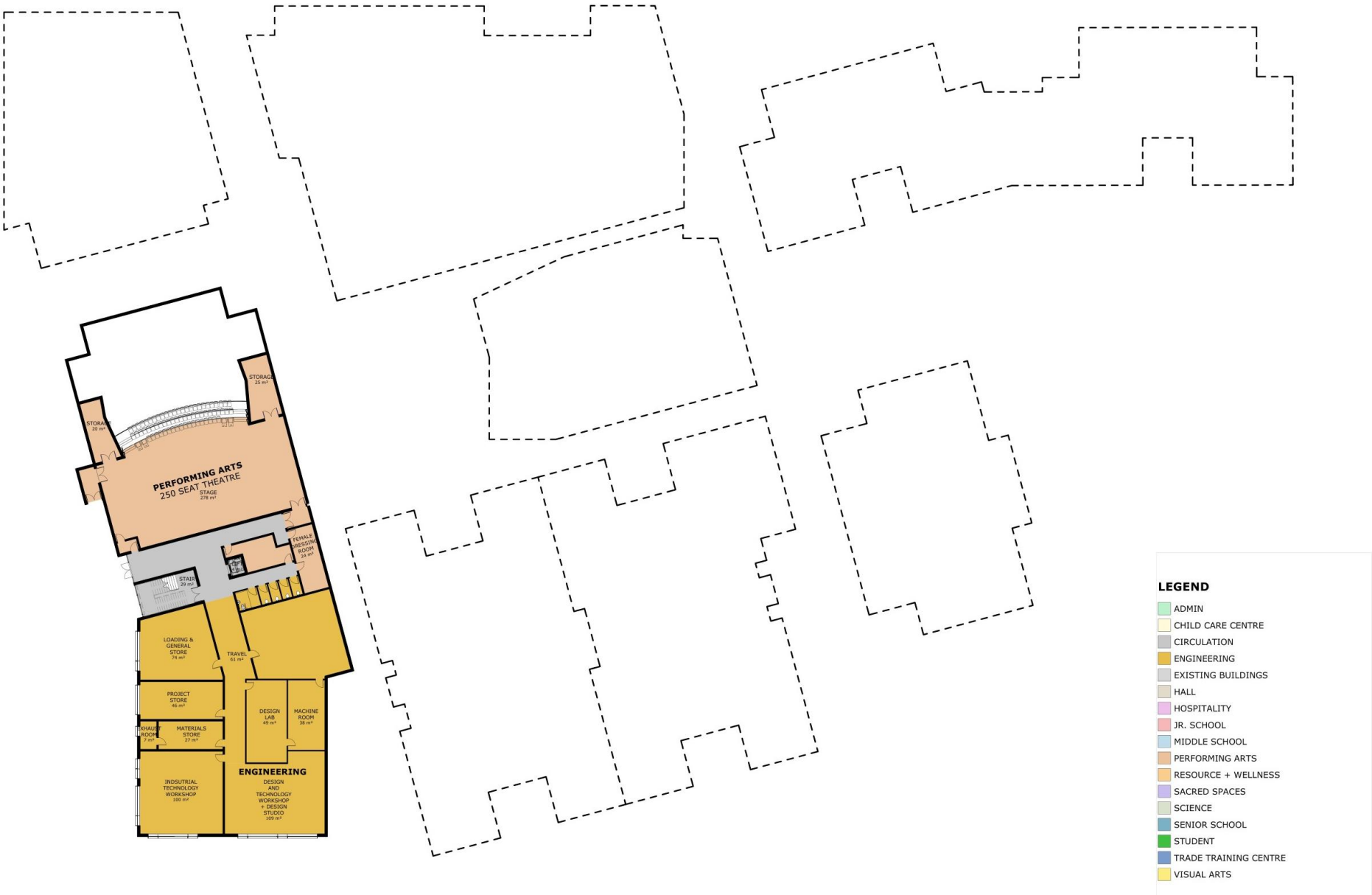
SITE

- The Piazza – a public space bounded by the School, Church and Hall/Gymnasium, including provision of , café seating, public plaza with open spaces, stage, loggia and landscape area including lawn, shrubs and trees;
- Car parking and drop off spaces (318 spaces plus 125 drop off/pick up spaces)
 - o Fourth Avenue Carpark – 98 spaces for Visitors + Staff, plus 23 Drop Off Spaces
 - o Eleventh Avenue Carpark – 33 spaces for Visitors + Staff
 - o Tenth Avenue Carpark – 116 spaces for Staff + Students, plus 37 Drop Off Spaces
 - o Trade Training Centre Carpark - 32 spaces for Visitors + Staff
 - o Drop Off/Pick Up driveway + Carpark - 39 Spaces for Visitors + Staff, plus 65 Drop Off Spaces
- Bicycle parking – 150 spaces distributed throughout the site to the: Piazza, Fourth Avenue carpark, covered secure student spaces adjacent to primary play areas; Tenth Avenue entrance and Trade Training Centre.
- Market Garden – approx.400m2 (2 Tennis Courts in scale)
- Playing Courts – 4no. Basketball Courts + 2no. Tennis Courts; and
- Playing Field – Football Field.



LOWER GROUND LEVEL

- Theatre – 250 seats and change rooms + amenities
- Engineering Hub - including Learning Spaces, Workshops and Stores;
- Loading Bay, Stores + BSO Office;
- Archives + Stores;
- Trade Training Centre - including Learning Spaces, Workshops and Stores; End of trip facilities/Change rooms + Amenities to service Playing Fields + Courts and enclosed secure bicycle parking.



GROUND LEVEL

- Reception + Administration
- Resource + Wellness Hub
- The Forum – privileged space to provide opportunities for informal learning and social spaces
- Café + Hospitality
- Theatre – 250 seats
- Performing Arts Hub – including Learning Spaces, Drama, Dance and Music
- Primary Years Neighbourhood – Kindergarten, Year 1, Year 2 and Year 6 Learning Spaces, Resource Node, Student Amenities, Staff Study + Staff Amenities;
- Middle Years Neighbourhood – Year 7 Learning Spaces, Resource Node + Student Amenities;
- Gymnasium + Hall – Reception and Office, Two Indoor Playing Courts, Stores, Stage, Change rooms + Amenities, Retractable seating. Hall to accommodate up to 3000 pax.
- Early Learning Centre / Long Day Childcare Centre, incorporating Preschool;



LEVEL 1

- Executive Offices and Administration
- Staff Hub – including Staff Commons, Staff Study, Meeting and Training Spaces, Resource Spaces + Staff Amenities
- The Forum – informal learning and social spaces
- Primary Year Neighbourhood Hall
- Primary Years Neighbourhood –Year 3, Year 4 and Year 5 Learning Spaces, Resource Node, Student Amenities, Staff Study + Staff Amenities;
- Middle Years Neighbourhood – Year 8 and 9 Learning Spaces, Resource Node + Student Amenities;
- Visual Arts Hub – including Learning Spaces, Arts Studios, Media and Stores
- Science Hub – including Learning Spaces, Laboratories, Preparation Room and Storage
- Food and Technology Hub - including Learning Spaces, Kitchen, Preparation Room and Storage
- Health + Fitness Hub - including Learning Spaces, Kitchen, Preparation Room and Storage



LEVEL 2

- Senior Years Neighbourhood –Year 10, Year 11 and Year 12 Learning Spaces, Resource Node, Student Amenities, Staff Study + Staff Amenities;
- Learning Commons – Study Centre and Training Spaces
- Special Learning Unit



2.0 BACKGROUND

In 2016 Sydney Catholic Schools announced their intention to establish a new school in Austral to be named St Anthony of Padua Catholic School (STAPCS).

Located within the Austral and Leppington North Growth Centre, the STAPCS will provide an important amenity for residents of the area - that is targeted to include the development of up 17,350 new dwellings - consistent with the planning frameworks prepared by NSW Planning and Environment.

Munns Sly Moore Architects were engaged in late 2015 to prepare a preliminary Masterplan for St Anthony of Padua Catholic School - developed in collaboration with Sydney Catholic Schools and their key stakeholders - for an integrated P-12 school to deliver learning around contemporary learning models. This Masterplan informed the preparation of a Development Application to Liverpool City Council in 2016 to support the establishment of the school.

Following the commencement of the school in 2017, the consultant team worked with Sydney Catholic Schools on the preparation of the Masterplan and Stage 1 project to allow for submission as a Sate Significant Development to be assessed by the NSW Department of Planning and Environment.

St Anthony of Padua Catholic School is to be developed to provide learning opportunities from early childhood education through to Year 12 and beyond, with the curriculum and learning environments created to provide opportunities for integration with the surrounding community.

3.0 VISION

The Vision for St Anthony of Padua Catholic School is:

*Inspired by the teachings of Jesus Christ and St Anthony’s principles of service and welcome, our vision for St Anthony of Padua Catholic School Austral, is to **provide our students with an outstanding Catholic education** that extends from preschool through to Year 12.*

*Guided by the teachings of the Gospel and our core values - **Aspire, Achieve, Act** – a St Anthony of Padua student is a ‘learner for life’. We value student voice in enabling our learners to think differently and connect both locally and globally. We are deeply committed to developing strong, long-lasting links with our families, our local parish community, as well as the wider community.*

At St Anthony of Padua Catholic School Austral, we are continually looking over the horizon for the next exciting possibility, raising the bar,
striving for excellence.



4.0 BRIEF

The St Anthony of Padua Catholic School Masterplan is for the design of an integrated school and community facility that includes:

- Preschool of 2 class groups with a maximum population of 44 places - which is to be integrated with the Early Childhood Centre;
- 4 stream Primary School - Primary School Neighbourhood - with a maximum population of 952 students (up to 34 students per class group); and
- 8 stream Secondary School - Middle School and Senior School Neighbourhoods - with a maximum population of 1440 students (up to 30 students per class group).

The school facilities and the proposed development also includes:

- 125 place Early Childhood Centre (long day care service) - including the 44 ‘Preschool’ places as noted above;
- Hall and Gymnasium – a multi-use facility with indoor playing courts and capacity up to 3000 seats for school and community events;
- Trade Training Centre;
- Market Garden – as a school and community resource;
- Recreational facilities, including playing courts and playing field;
- Indoor Recreation Centre - which may include playing courts or indoor pool; and
- Church – site retained to allow for the potential future relation of the St Anthony of Padua Church.

The development of the Masterplan explores the opportunity for the potential of St Anthony of Padua Catholic Church and school to be an integral element within the developing area and provide important facilities and services for the school and broader community.

5.0 PROJECT TEAM

The project team for the delivery of the project includes:

DISCIPLINE	CONSULTANT
Project Management	Pepper Property
Architecture	Munns Sly Moore Architects
Town Planning	Urbis
Quantity Surveyor	Wilde + Wolloard
Educational Consultant	New Learning Environments
Access	Funktion
Acoustic	JHA Consulting Engineers
Arborist	Eco Logical Australia
Biodiversity	Eco Logical Australia
Bushfire	Eco Logical Australia
Civil	Warren Smith + Partners
Consultation	Urbis
CPTED	Urbis
Environmental	Alliance Geotechnical
ESD	JHA Consulting Engineers
Flooding	GRC Hydro
Geotechnical	Alliance Geotechnical
Hazardous Materials	Alliance Geotechnical
Heritage	Kayandel
Hydraulics	Warren Smith + Partners
Landscape	Umbaco Landscape Architects
Building Services	JHA Consulting Engineers
Social Impact	Urbis
Structural	Birzulis Associates
Surveyor	LTS Lockley
Traffic	Colsten Budd Rogers Kafes
Waste	Foresight Environmental

6.0 STAKEHOLDERS + CONSULTATION

The primary stakeholders for the project are:

- Catholic Archdiocese of Sydney
- Parish of St Anthony of Padua
- Sydney Catholic Schools
- St Anthony of Padua Catholic School Austral.

The project has been developed in consultation with the above stakeholders who have been represented at the Project Steering Committee meetings, or through individual meetings as required.

6.1 GOVERNMENT ARCHITECT NSW

The Secretary's Environmental Assessment Requirements (SEARs) included a number of issues to be addressed in the development of the Masterplan and preparation of the design response in this submission. These included:

- Description of design process leading to the Concept Proposal;
- Detailed site and contextual analysis to justify site planning, building form, envelopes and design approach;
- Site and context plans to demonstrate a minimum of three alternate approaches to site planning which consider entrances, drop offs, building zones, open space and tree canopy;
- Site and context plans that demonstrate opportunities for active transport strategies and linkages with exiting, proposal and potential footpaths, bicycle paths and public transport links;
- Provide detailed site wide landscape strategy including opportunities to retain existing trees; and
- Develop design report that includes development parameters, illustrations and drawings to demonstrate how design quality will be achieved in accordance with Schedule 4 Schools – Design Quality Principles.

The following report includes plans and diagrams which demonstrate the design principles included how the concept proposal has been developed in response to these requirements.

The proposed design was presented to representatives from the Government Architect NSW on the 16 October 2018. The proposed design was generally supported with additional comments to be provided as a part of the SSD process.

6.2 COMMUNITY CONSULTATION

The project has included consultation with a number of other external stakeholders as identified in the SEARs and other internal and external groups to ensure the proposed development addresses a broad range of feedback.

These stakeholders and the process around consultation process is documented in the Consultation Report prepared by Urbis as attached in the Environmental Impact Statement (EIS).

7.0 SITE

7.1 SITE DETAILS

Address:	Eleventh Avenue Fourth Avenue Tenth Avenue
Lots + DP	Lot 809, DP2475 Lot 810, DP2475 Lot 811, DP2475 Lot 812, DP2475 Lot 839, DP2475 Lot 840, DP2475 Lot 841, DP2475 Lot 842, DP2475 Lot 842, DP2475
Suburb:	Austral
LGA	Liverpool City Council
Site Area	109,347.8m2 Approx. 10.9 ha
Dimensions/Frontages	Eleventh Avenue – 321m Fourth Avenue – 302m Tenth Avenue – 402

7.2 LOCATION

The site for the proposed development is located west of the Austral Neighbourhood Centre on Edmondson Avenue, approximately 2.5km north of the proposed Leppington Town Centre.

The area for the development is located within the South West Growth Centre, Austral and North Leppington Precinct and is designated in the Indicative Layout Plan as medium and low density residential development zones.

The 'Austral Neighbourhood Centre' is currently a mix of retail and service shops and professional suites in single and two storey buildings; however the ILP includes the potential redevelopment of the centre up to 4 storeys.

To the north of the site is Craik Park, which includes an AFL oval and running track, tennis courts and amenities and remnant woodland.

An existing aged care development is located to the south east on Tenth Avenue, with residential development proposed to replace existing market garden blocks on the Fourth Avenue and Tenth Avenue frontages.



7.3 SITE DESCRIPTION + STREETScape

The site is bounded to the north by Eleventh Avenue; to the west by Fourth Avenue and to the south by Tenth Avenue.

The site currently comprises nine large market garden blocks - typical of the Austral area which has been a centre of market gardens supporting the demands of Sydney since the early 1900's- with single dwellings set on the large open undeveloped sites. Within these sites are also areas of Cumberland woodland of varying quality health and quality.

The St Anthony of Padua Catholic School was established on the north eastern corner of the site on 2017. The school currently includes an Administration building in a refurbished dwelling and two single storey buildings that provide learning spaces.

The high point of the site runs from the north west to the south east through the site, with a gentle fall of 1m to the north east and steeper fall of 8m to the south west.

Large areas of the site have been cleared previously and comprise open grassland, while the remainder of the site includes groupings of trees of varying condition (refer to Section 7.6 below).

The lots that have not been affected by the establishment of the school retain their existing single storey dwellings and associated outbuildings.

At present the road network around the site and in the area generally, are rural in nature with no kerbs and storm water swales. Kerb and guttering has been constructed to the extent of the existing school.



ELEVENTH AVENUE - LOOKING EAST



ELEVENTH AVENUE - LOOKING WEST



FOURTH + ELEVENTH AVENUE



FOURTH + TENTH AVENUE



TENTH AVENUE - LOOKING EAST



TENTH AVENUE - LOOKING WEST

7.5 SITE ANALYSIS – EXISTING TREES

A site inspection with Umbaco and Ecological was conducted to review the existing vegetation on site and assess the quality of trees for potential retention and integration in the proposed development.

During the analysis, groupings of trees were assessed to determine locations where higher quality trees could be retained and integrated into the landscape design to reflect the original woodland nature of area. A significant number of trees on site were in poor condition and suffering from dieback.

This assessment resulted in the identification of a grove of trees adjacent to Fourth Avenue as being of higher quality and in good health. The landscape design includes the integration of these remnant trees, which are supplemented through the use of native plantings for the 'Avenue Trees' to the perimeter of the site (refer to 'Site Tree Framework' plan).

Another grouping of trees adjacent to Tenth Avenue was also identified as being of good quality and health. This grouping of trees has been identified for potential retention in the proposed development, but will be subject to negotiations on the development of the roadway design and detail.



TREE TO BE RETAINED - SINGLE TREE (TREE 457)



EXAMPLES OF TREES TO BE REMOVED



TREES TO BE RETAINED – GROVE ADJACENT TO FOURTH AVENUE



TREES TO BE RETAINED – TENTH AVENUE



EXAMPLES OF TREES TO BE REMOVED

7.6 SITE ANALYSIS – LANDSCAPE +CLIMATE

The landscaped spaces in and around the site are largely undeveloped. The site contains a mix of open market garden spaces that has been most recently used for small livestock and remnant Cumberland Woodland trees (as described in Section 7.5 above).

The climate for the Austral area (from www.bom.gov.au) shows the average daily temperatures from December through to March in the low to mid 30°C; to 15-20 °C in June and July.

The overnight temperatures range from 15-20 °C from December through to March, and have low's of 2-3 °C in June through to August.

The area has an average rainfall of ~ 780mm per year, with the highest average rainfalls from January to March, and lowest average rainfalls in July and August.



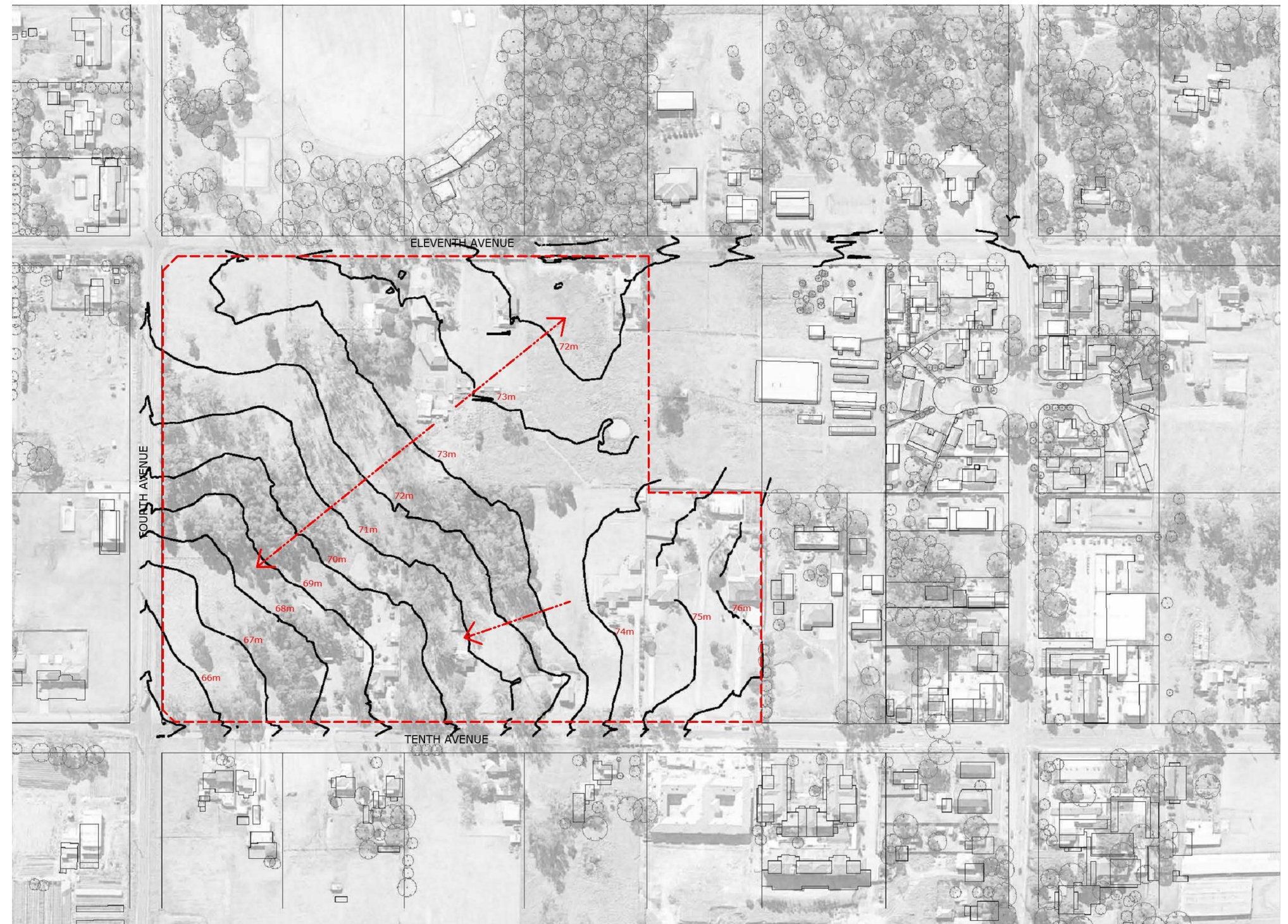
7.7 SITE ANALYSIS – LANDFORM

The site is gently sloping from the north east to the south west.

The high point of the site runs from the north west at the intersection of Fourth Avenue and Eleventh Avenue south east to Tenth Avenue. From the high point of 73m AHD, the site falls 2m from the north east, and 8m to the south west at the intersection of Fourth Avenue and Tenth Avenue.

The falls to each of the street frontage

- Eleventh Avenue - 320m frontage with approx. 3m fall from the west to the east;
- Fourth Avenue - 300m frontage with approx. 8m fall from the north to the south; and
- Tenth Avenue - 400m frontage with approx. 12m fall from the north to the south.



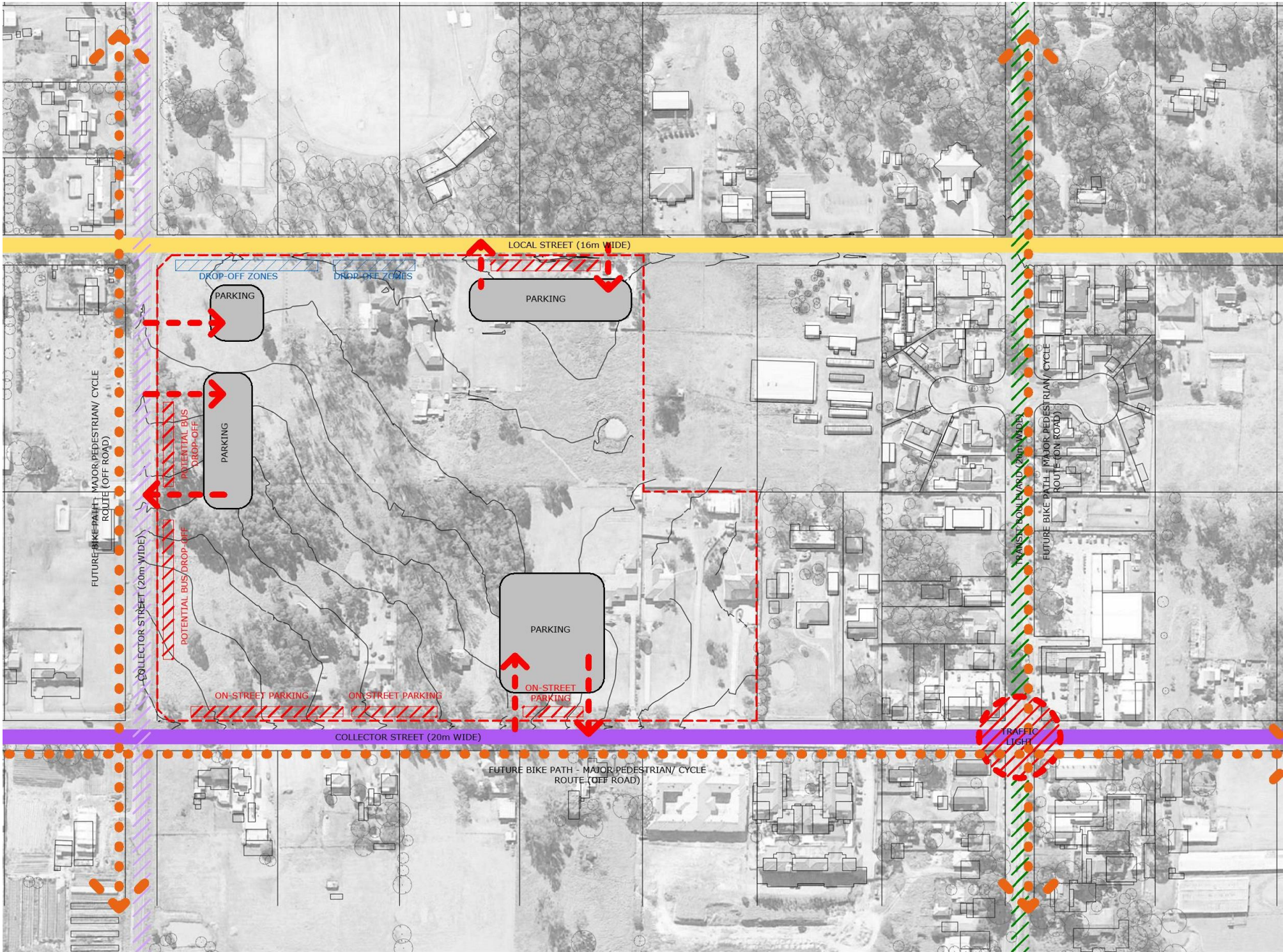
7.8 SITE ANALYSIS – TRANSPORT NETWORK

The Liverpool Growth Centre – Austral and Leppington North Precinct Schedule 1 includes the propose Road Hierarchy for the roads surround the proposed development.

Edmundson Avenue is nominated as a 'Transit Boulevard' with a signalised intersection proposed for the intersection of Edmundson Avenue and Tenth Avenue at the Austral Neighbourhood Centre.

Fourth Avenue and Tenth Avenue are nominated as 'collector Street', while Eleventh Avenue is nominated as a 'Local Street'.

A Major Off Road Pedestrian and Cycle Route is proposed to the southern side of Tenth Avenue to link the Western Sydney Parklands to the east through to the north south green corridor west of the site.



7.9 SITE ANALYSIS - OPPORTUNITIES + CONSTRAINTS

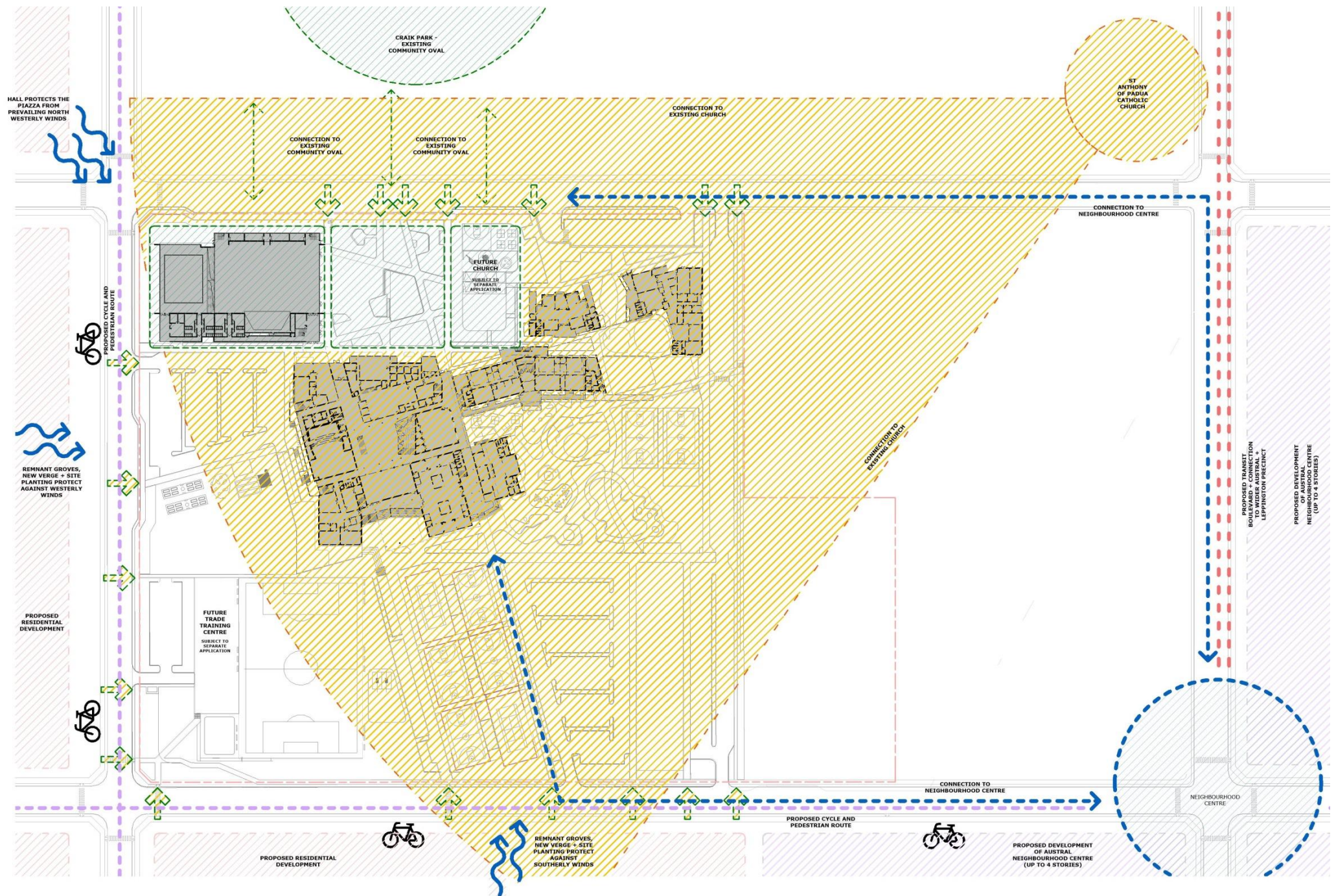
The site proposed for the development of St Anthony of Padua Catholic School is located in the Austral area that currently comprises existing market garden blocks and remnant woodland. To the east of the site is the Austral Neighbourhood Centre located on Edmondson Avenue - proposed as the major transit Boulevard for the greater Austral and Leppington North precinct. The presence of the existing St Anthony of Padua Catholic Church to the north further adds to the sites identity and forms the basis of a strong connection to the surrounding community. With this in mind, there are several opportunities and constraints that have been considered in the site planning of the new school:

Opportunities:

1. Building community connectivity through the use of the school as a focus within the Masterplan. Craik Park is situated directly north of the site and offers the opportunity to create fluidity between the school and the community. Along this northern frontage the Piazza, Gymnasium and hall, as well as the proposed church are all placed. This, in conjunction with the proximity to the Austral Neighbourhood centre and proposed transport route, also shape the Piazza as an urban interface, responding to the proposed future context, as well as the creation of a true community hub.
2. The existing St Anthony of Padua Catholic Church to the north east of the site forms a symbolic and physical link to the school.
3. Entrances placed along Fourth and Eleventh Avenue respond to the proposed suburban pedestrian and cycle routes and act as a way of activating the school edges from all sides.
4. Careful consideration was given to the retention and integration of existing site trees within the new development, establishing a connection with the existing woodlands. In addition, a market garden was incorporated within the design in reference to the existing market garden blocks that have been re-zoned as residential development.

Constraints:

1. Incorporating the community within the school poses some constraints when it comes to separating the private or privileged parts of the school from the public, or community interface of the school. This is addressed through the development of learning group communities that can be separated into Public, Privileged and private zoning. Building mass, along with clear entrance ways and wayfinding design elements, ensures clarity and legibility when moving throughout the school.
2. The massing of the school stretches out across the site from east to west, with the highest of the buildings to the west of the site. This ensures maximum desirable natural lighting within all of the buildings, protection from prevailing winds and ensures no overshadowing.



DEVELOPMENT OPTION 2

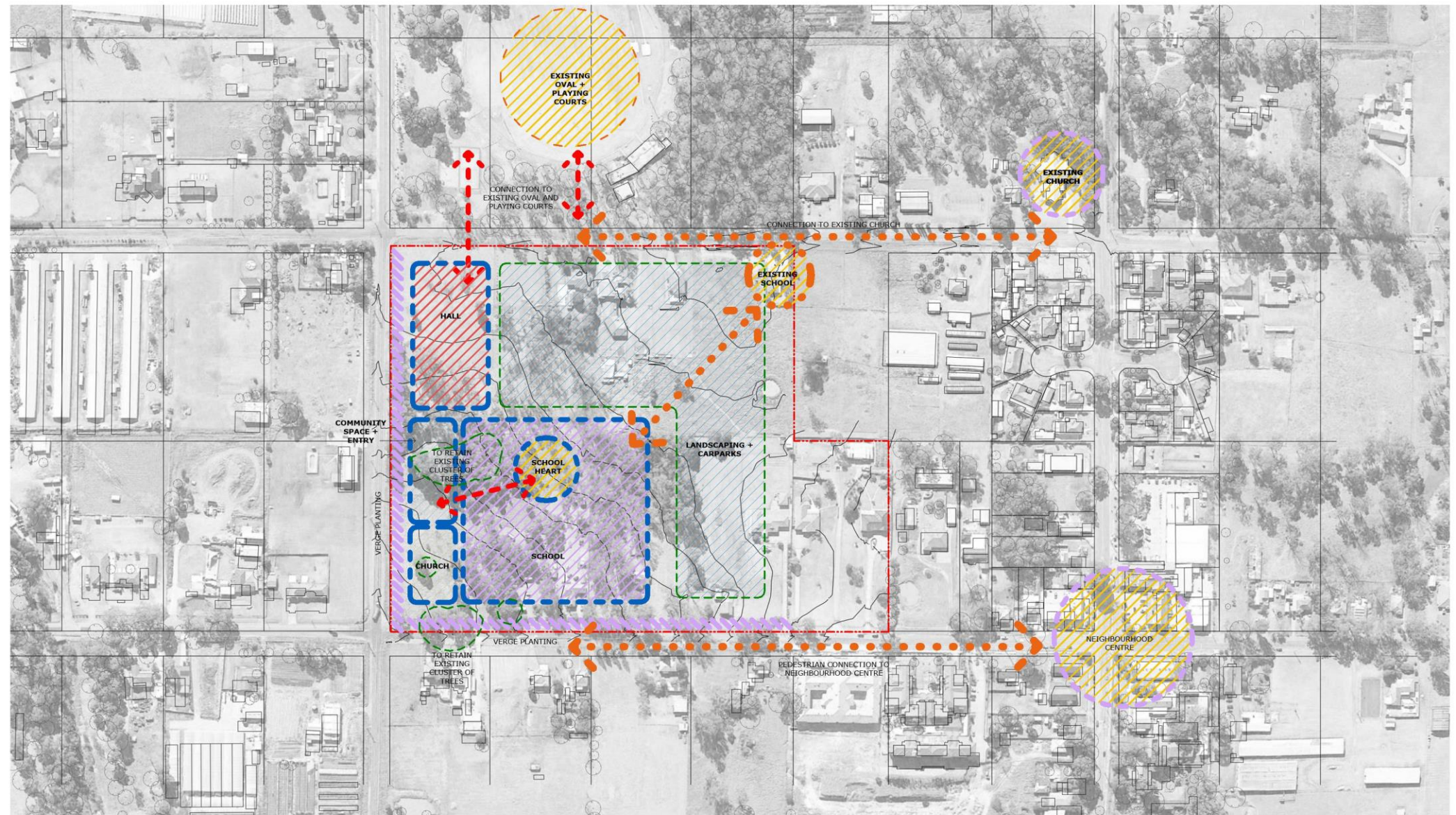
Development Option 2 explores a planning arrangement with the school orientated to address Fourth Avenue. The principles and functional relationships on site are similar to those in presented in Option 1.

ADVANTAGES:

- Improved school interface with Tenth Avenue and its connection to the Austral Neighbourhood Centre
- Address to higher order road in Fourth Avenue
- Improved connectivity of landscaped/open space (including playing field and courts) and urban open space and Craik Park

DISADVANTAGES:

- Piazza orientated to the west, resulting in potential overshadowing from the hall and opening Piazza to westerly winds;
- School entrance and school buildings isolated from existing Church;
- Existing school buildings would need to be redeveloped to provide alternate functions (too isolated from school heart).



DEVELOPMENT OPTION 3

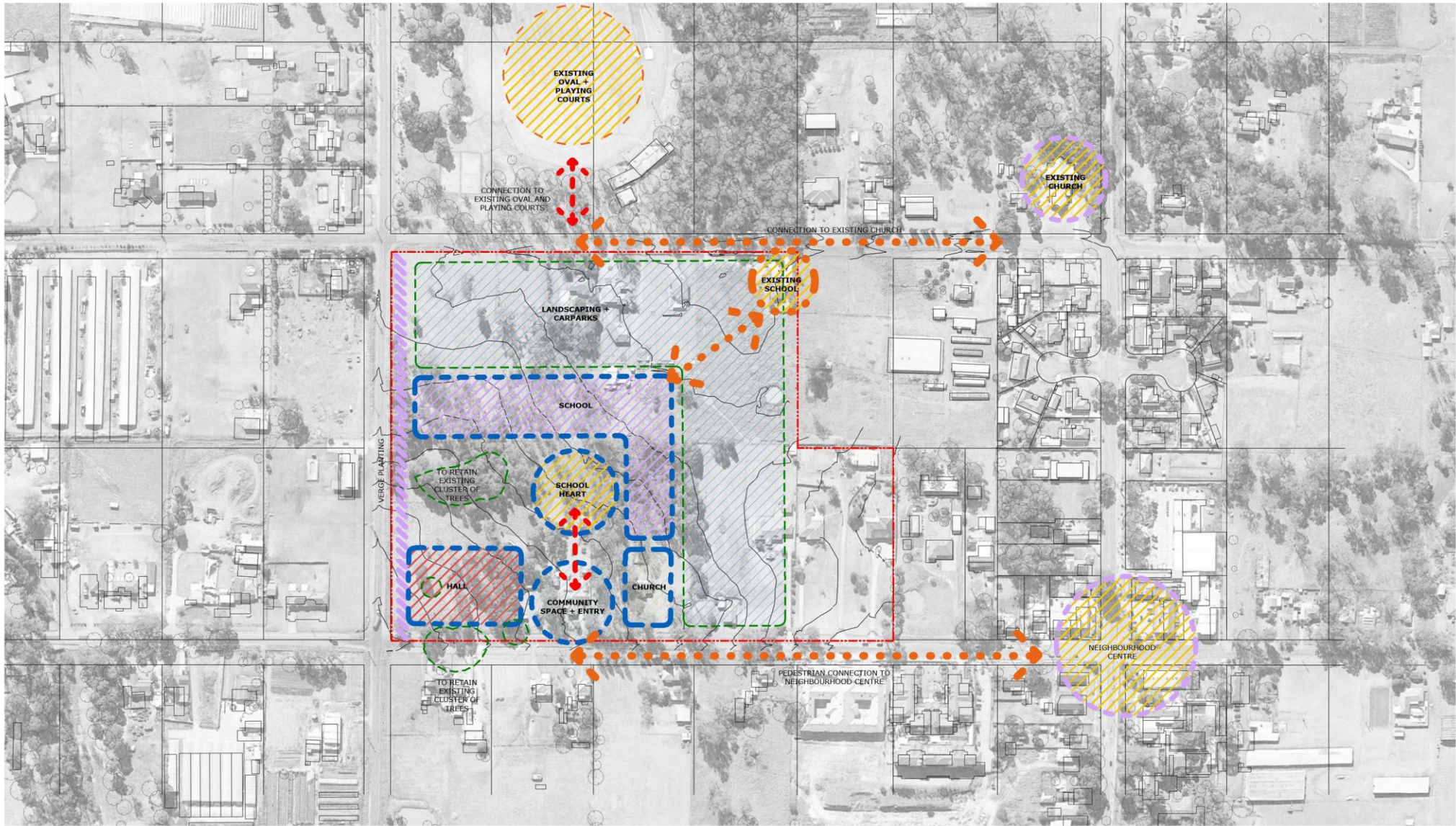
Development Option 3 explores a planning arrangement with the school orientated to address Tenth Avenue. The principles and functional relationships on site are similar to those in presented in Options 1 and 2.

ADVANTAGES:

- Improved connection of the Piazza/school entrance to Austral Neighbourhood Centre
- Opportunity for school entrance to connect with proposed pedestrian/bicycle path along Tenth Avenue.
- Potential for connectivity of landscaped/open space (including playing field and courts) and urban open space and Craik Park

DISADVANTAGES:

- Piazza orientated to the south, resulting in potential overshadowing from the school buildings and opening Piazza to southerly winds in winter;
- School entrance and school buildings isolated from existing Church;
- Existing school buildings would need to be redeveloped to provide alternate functions (too isolated from school heart;



8.0 EDUCATIONAL PLANNING PRINCIPLES

New Learning Environments (NLE) worked with SCS, STAPCS and the consultant team to prepare the Educational Specification to articulate the educational vision for the school and and provide guidance on the spatial implications for the delivery of this vision.

Educational Planning Principles were developed collaboratively through a number of meetings and workshops with SCS, the school and community stakeholders to guide the development of the project in line with the vision. The Educational Planning Principles incorporated/reflected in the design for STAPCS are:

- Catholic Tradition
- Saint Anthony of Padua
- Evangelisation
- Identity
- Community Minded
- Community Connectivity
- Flexibility, informed by best research
- Natural Environment
- Professional + Collaborative Culture
- Library + Resources
- Stage Related Learning
- Individualised Learning
- Critical + Creative Thinking
- Incorporation of Latest Technology

Learning Neighborhood

The pedagogical approach for the school is based on the creation of learning neighborhoods that reflect stage related learning; comprising the Primary School Neighbourhood (Preschool, Kindergarten to Year6); the Middle School Neighbourhood (Year 7 to Year 9); and the Senior School Neighbourhood (Year 10 to Year12).

Learning Hubs

Each of the neighbourhoods are provided with flexible spaces to support a range of learning activities, including collaborative spaces, quiet and individual spaces, groups spaces, presentation spaces, maker spaces and outdoor learning.

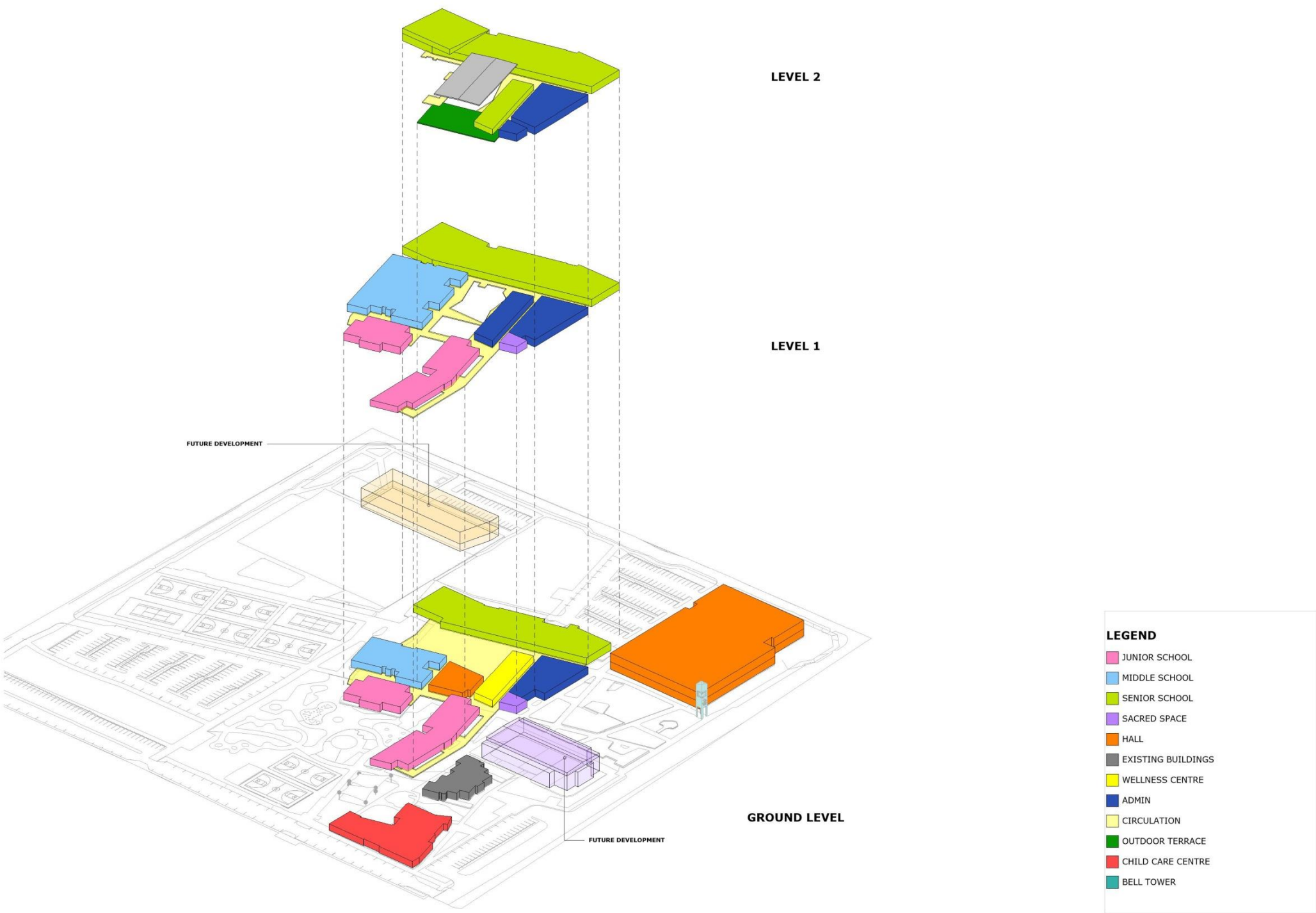
These general learning neighbourhoods will be supported by community and specialist hubs that are located to activate the Forum as the heart of the school and provide connection between the school and broader community.

The Forum

The Forum will be a student centered space that ties together the learning hubs, specialist spaces and administration, staff spaces and the Wellness Hub (resource centre, student services, pastoral care, counselling and the like).

Distributed Resource Nodes

Resource nodes will be distributed throughout the school to provide targeted resources to the learning hubs. These nodes will be supported by facilities and services in a central resource centre which is part of the Wellness Hub in the Forum.



9.0 DESIGN STATEMENT

9.1 URBAN DESIGN + BUILT FORM

St Anthony of Padua Catholic School (STAPCS) addresses Eleventh Avenue, providing a symbolic and physical link to the original 1950s St Anthony of Padua Catholic Church and a public interface to Craik Park.

The school entry is marked by the Piazza; a publicly accessible, community and landscaped space that allows students and visitors to orientate themselves and access the key elements of the site prior to entering the 'privileged' spaces of the school. Connections and entries are also provided for staff and student access to Fourth Avenue and Tenth Avenue, activating each of the site frontages.

Each of the verges will be developed to provide improved streetscapes and public accessibility, with pedestrian paths provided to Edmondson Avenue and onto the Austral Neighbourhood Centre. The southern entrance to Tenth Avenue will allow for access to the school from the proposed suburban Pedestrian and Bicycle spine.

A generous setback and avenue tree planting is provided to each of the frontages to create a green edge to the site and integrate with the native landscape open space of Craik Park.

The siting, scale and mass of the school has been designed in response to the proposed low and medium density development of the Austral area as indicated in the Indicative Layout Plan. The three to four storey scaled built form of the school is located centrally to reduce the visual impact of the development and allow for shared access to school amenities located to the perimeter of the development.

Built forms - two storeys in scale - are provided to Eleventh Avenue to frame the Piazza and create a space that opens to the north and is protected from the prevailing winds. The frontages and streetscape to the remaining frontages are provided with landscaped setbacks to frame the development.

The 'Forum' is a semi enclosed space that will provide an informal learning and social space for the school community. The Forum may be opened outside of school hours to allow community access to this space and the facilities co-located with the Forum that include the Café, Theatre, Performing Arts Hub, Primary Hall and Wellness Hub.

Each of the schools neighbourhoods connect with the Forum which provides students and staff with easy and safe movement through the school, improving accessibility to all students, from Preschool to Year 12.

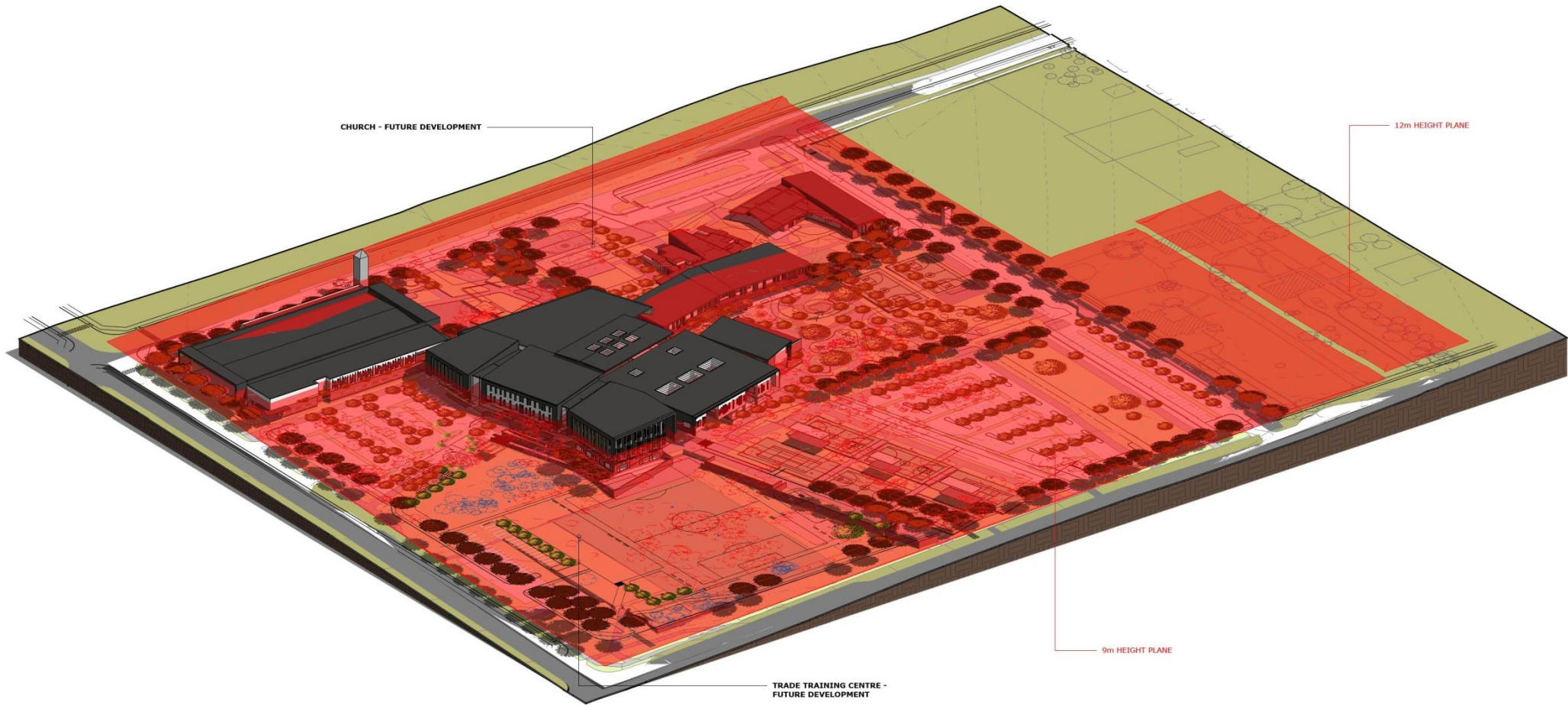
The Hall and Indoor Sports Centre are located at the intersection of Eleventh Avenue and Tenth Avenue to frame the Piazza and provide opportunities for community use of these facilities outside of school hours.

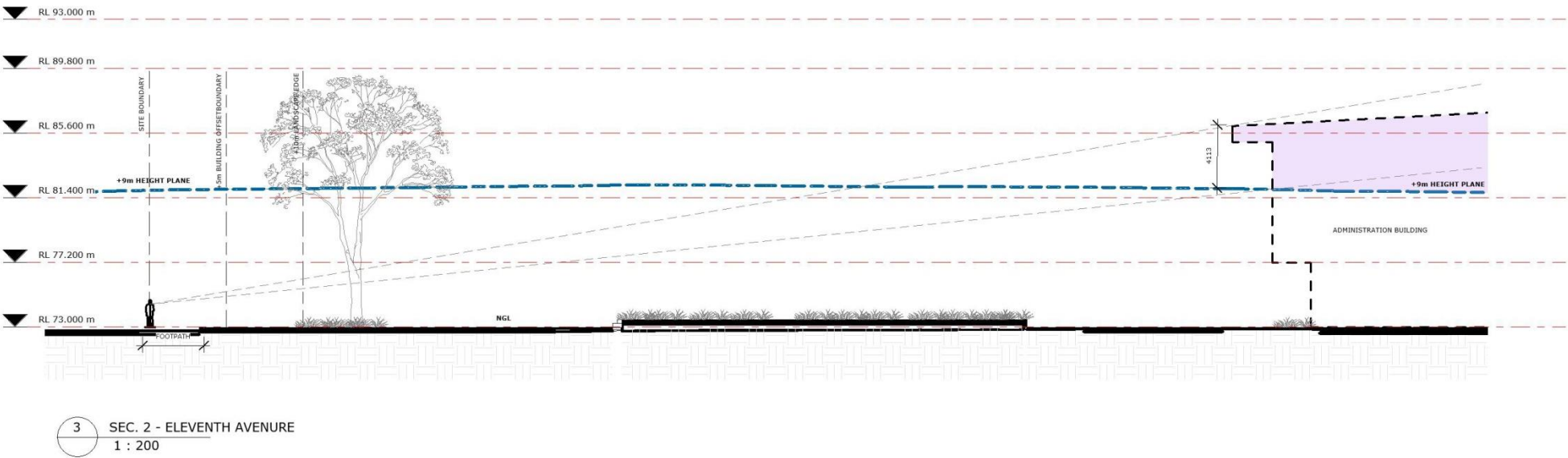
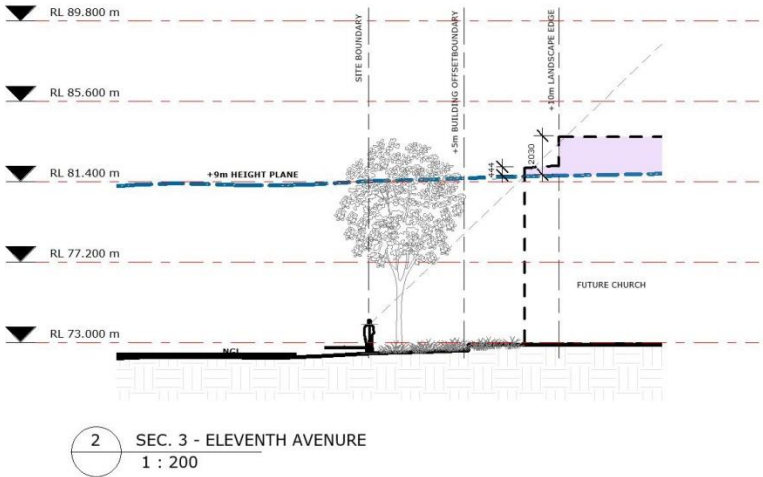
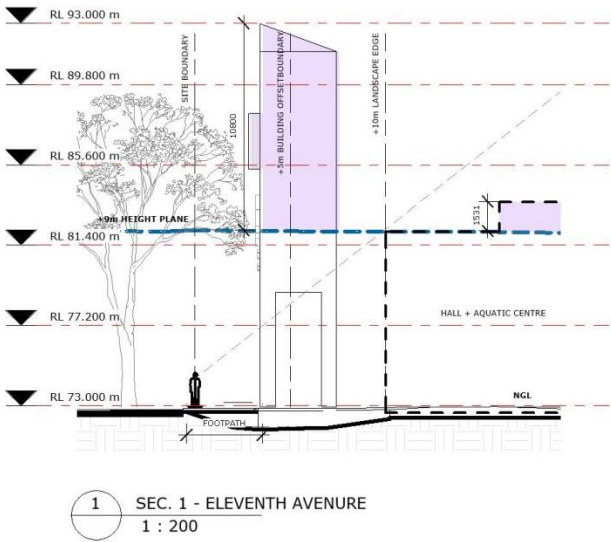


9.2 HEIGHT LIMITS + INTERFACE STUDIES

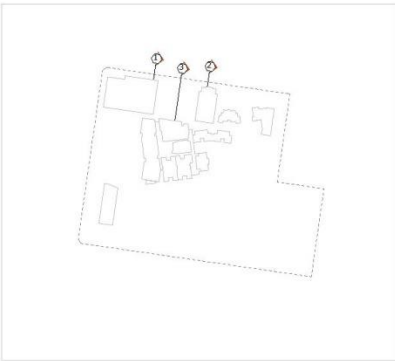
The existing and proposed zoning for Low Density Residential includes a 9m height limit to the majority of the site, with a small portion of the site to the eastern side being Medium Density Residential with a height limit of 12m.

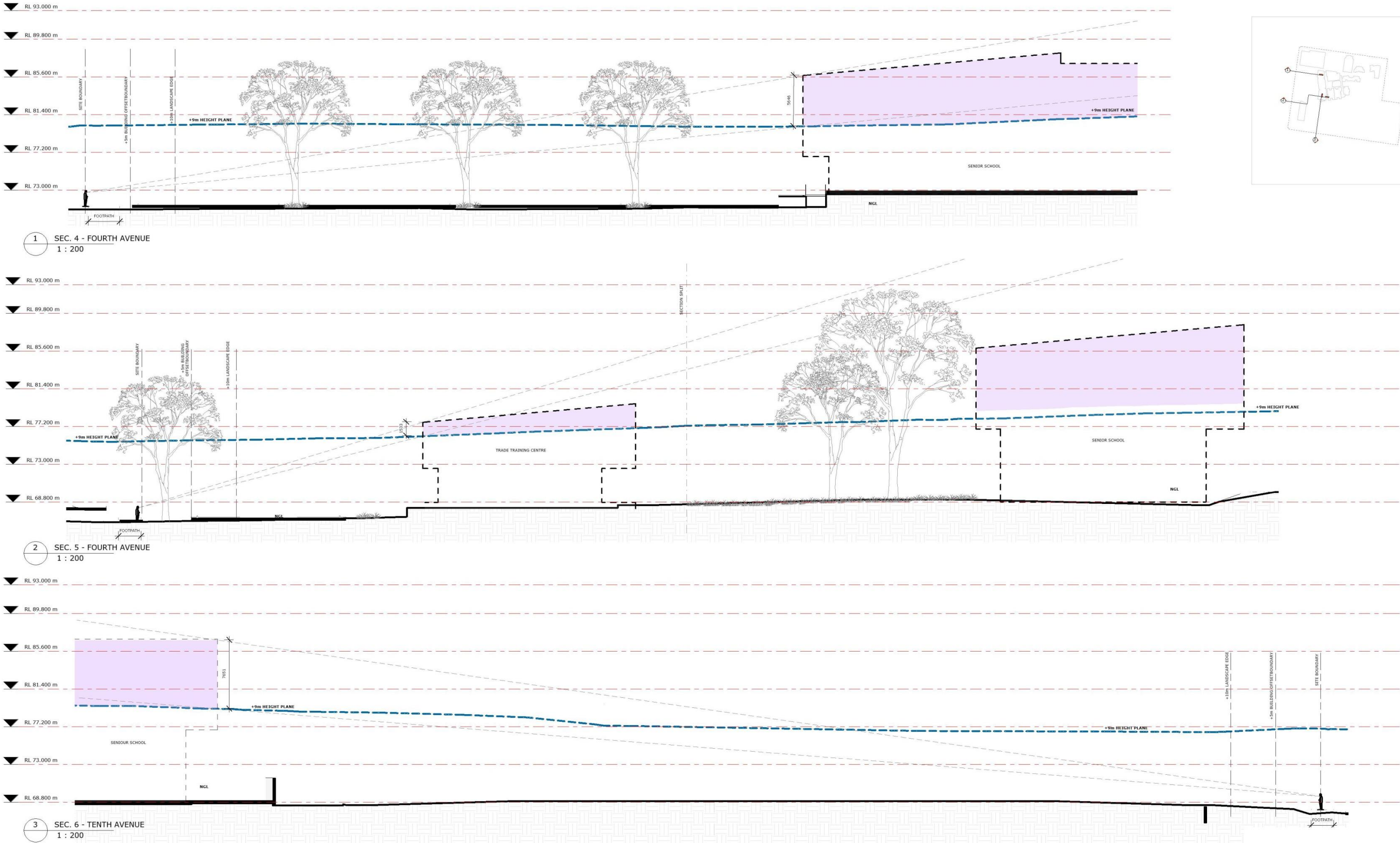
The proposed development exceeds this height plane in several locations, however the where the buildings exceed the heights, the bulk of the buildings have increased setbacks to reduce the visual impact of the building heights, and provide opportunity for increase landscape treatments.





KEY PLAN - HEIGHT STUDY_1





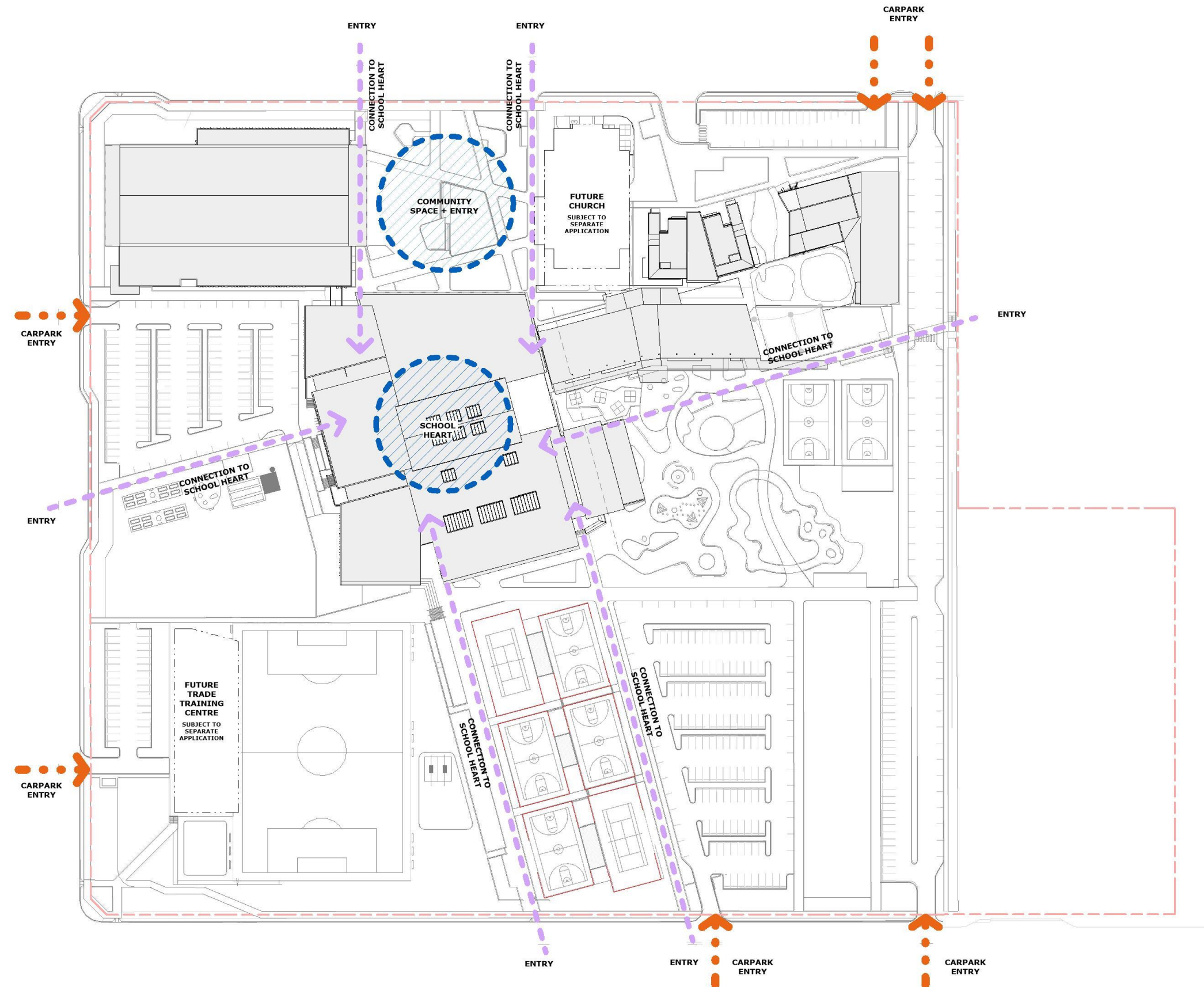
9.3 ACCESSIBILITY + SECURITY

A key objective of the project is to create a school that integrates with the community. To enable this, the Masterplan provides a layered response for accessibility and security, enabling the school to be opened up and provide opportunities for community use, whilst providing the necessary security to create a safe environment for the students.

The Piazza creates a civic space that will allow school and community activities to be held. The ground plane will provide pedestrian access across the site, from each of the street frontages and through the Forum. The paths provide fully accessible routes to ensure all users are able to move easily and safely throughout the site.

Three types of spaces are created through the use of fencing and the building envelope to control of access for students and the community:

- Public Spaces
- Privileged Spaces; and
- Private Spaces.



Public Space

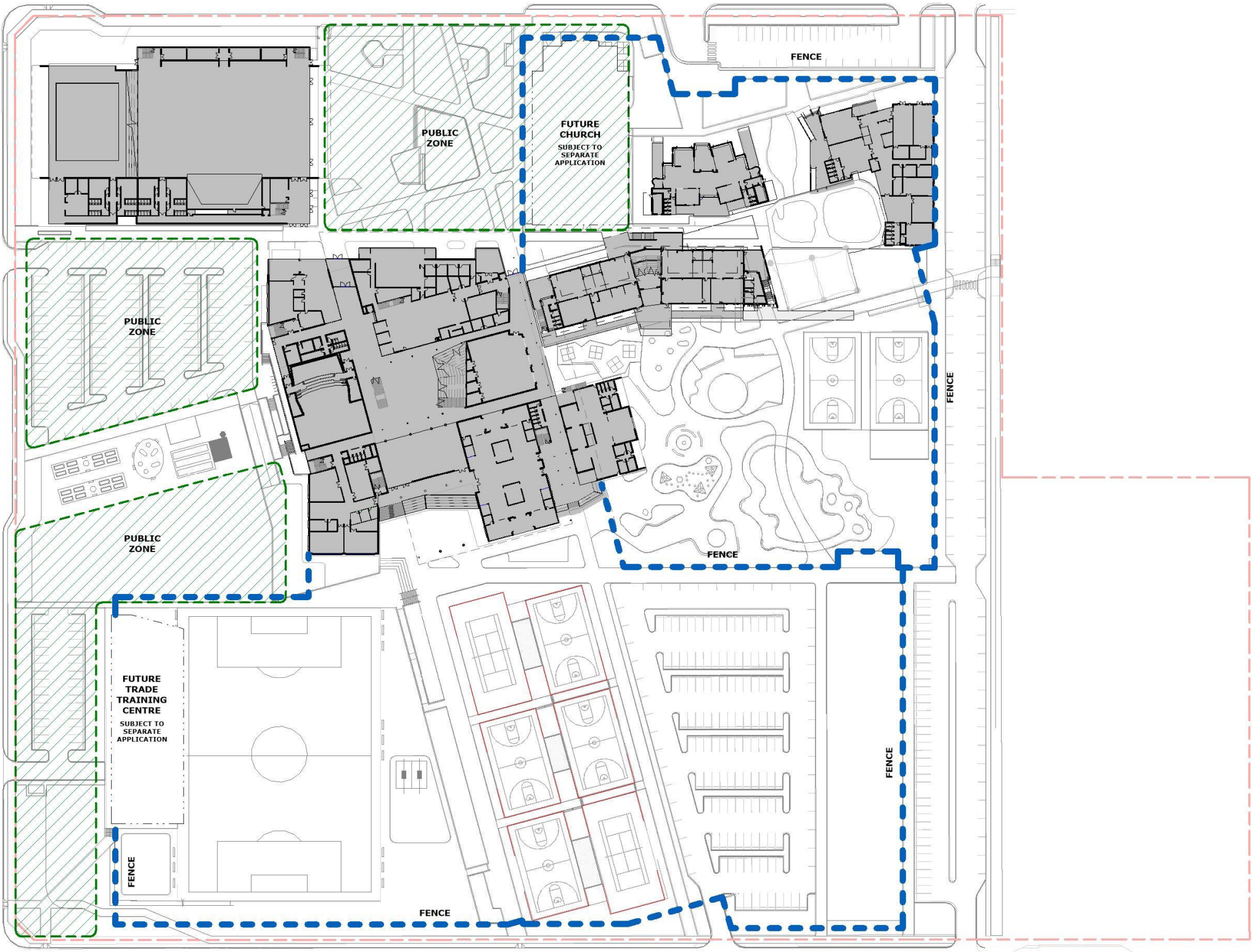
The creation of public spaces to provide opportunities for the school and community to interact is an important element in the development. The Piazza, Fourth Avenue carparks and the street frontage are proposed to be publically accessible at all times.

These spaces provide entry points to the site and parking for visitors to the school and its facilities during and after school hours.

The Piazza is a civic space that will allow the school to hold events that integrate with the community and can act as an extension of the Hall for occasional whole of school functions. The Piazza will also provide spaces for smaller group activities and informal learning for senior year groups.

The Fourth Avenue carpark will provide accessible parking and entry to the Piazza (and school) and connects directly with the Hall and Indoor Recreation Centre, Market Garden and will also provide parking for the future church.

Access to the Trade Training Centre and playing fields is provided from Fourth Avenue.



Privileged Space

The provision of 'Privileged Space' within the development creates the opportunity to open up the school and provide controlled community access to various parts of the school and the site – responding to the vision for the school to actively engage with and encourage community interaction.

The layering of security through the use of fencing and the building envelope will allow the school to shut down and open up parts of the site and the schools facilities as required.

The Forum is provided with access from the Piazza, Fourth Avenue Carpark and the playing fields and playing courts fronting Tenth Avenue to the south of the site.

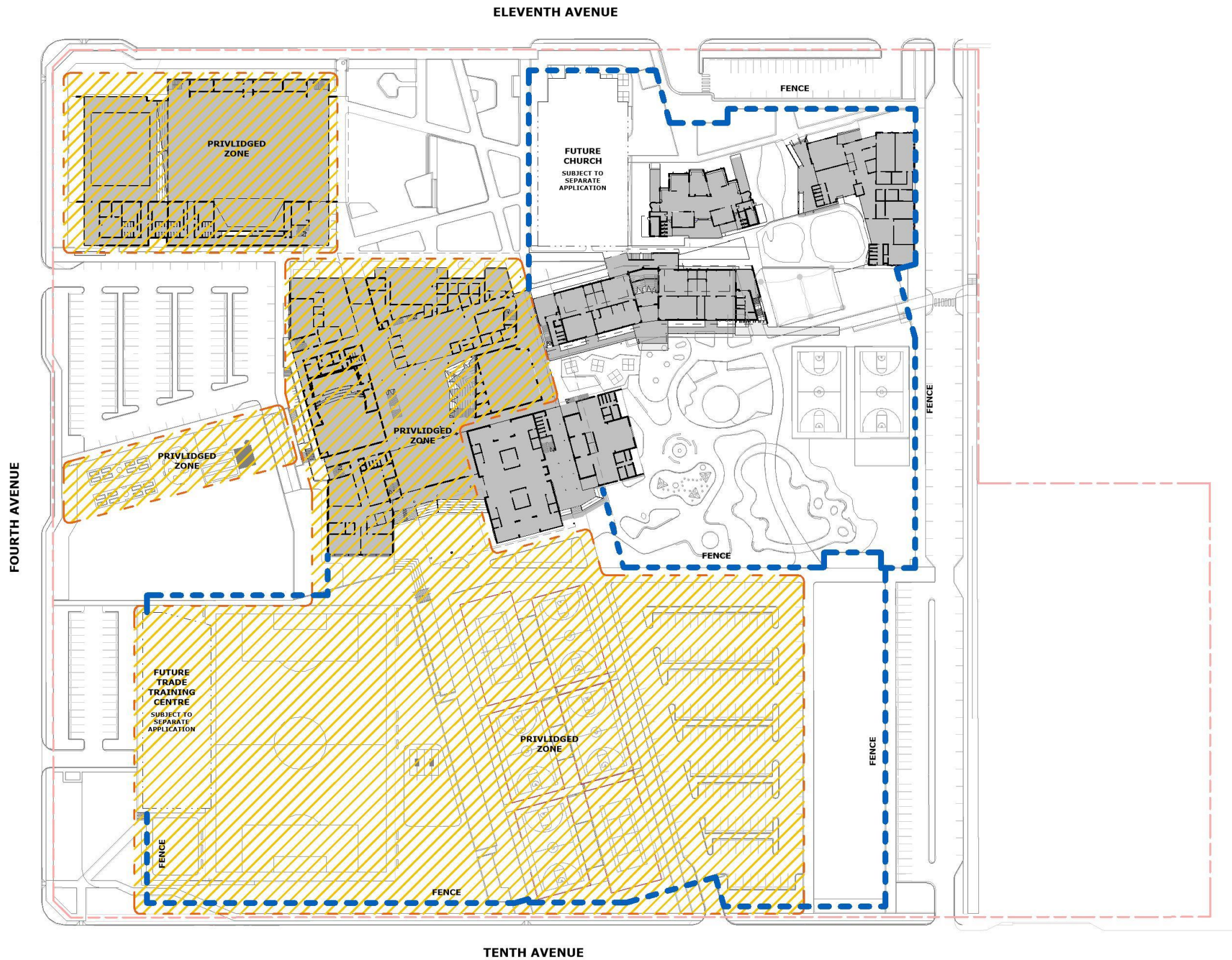
Within the Forum – including its informal learning spaces - access can be provided to the Café, Theatre, Wellness Hub, Primary Hall and Performing Arts Hub. The connectivity between each of these spaces provide opportunities for controlled community access to the range of school facilities after hours for drama, dance, music and community group meetings and activities.

The Hall and Indoor Recreation Centre will allow for school gatherings and fitness elements of the curriculum. These facilities will be available for use by the community and sporting groups after hours.

The provision of the Market Garden within the school grounds provides a connection to the history of the Austral area. The garden will provide the school with facilities for the delivery of agricultural elements of the curriculum and provides opportunity for the production of fresh produce to be used in the Café and Hospitality spaces. The Market Garden is located so as to allow access for the school community (parents and grandparents of students) and the local gardening groups, outside of school hours.

The Trade Training Centre (TTC) is to be developed to support vocational training for the students of St Anthony of Padua Catholic School and other schools in the area. The range of courses and training provided will be developed in response to the needs of the community.

The TTC building also provides change rooms, secure bicycle parking and 'end of trip facilities'. Access to these amenities can be accessed to support the use of the playing fields and playing courts for the school and outside of school hours.

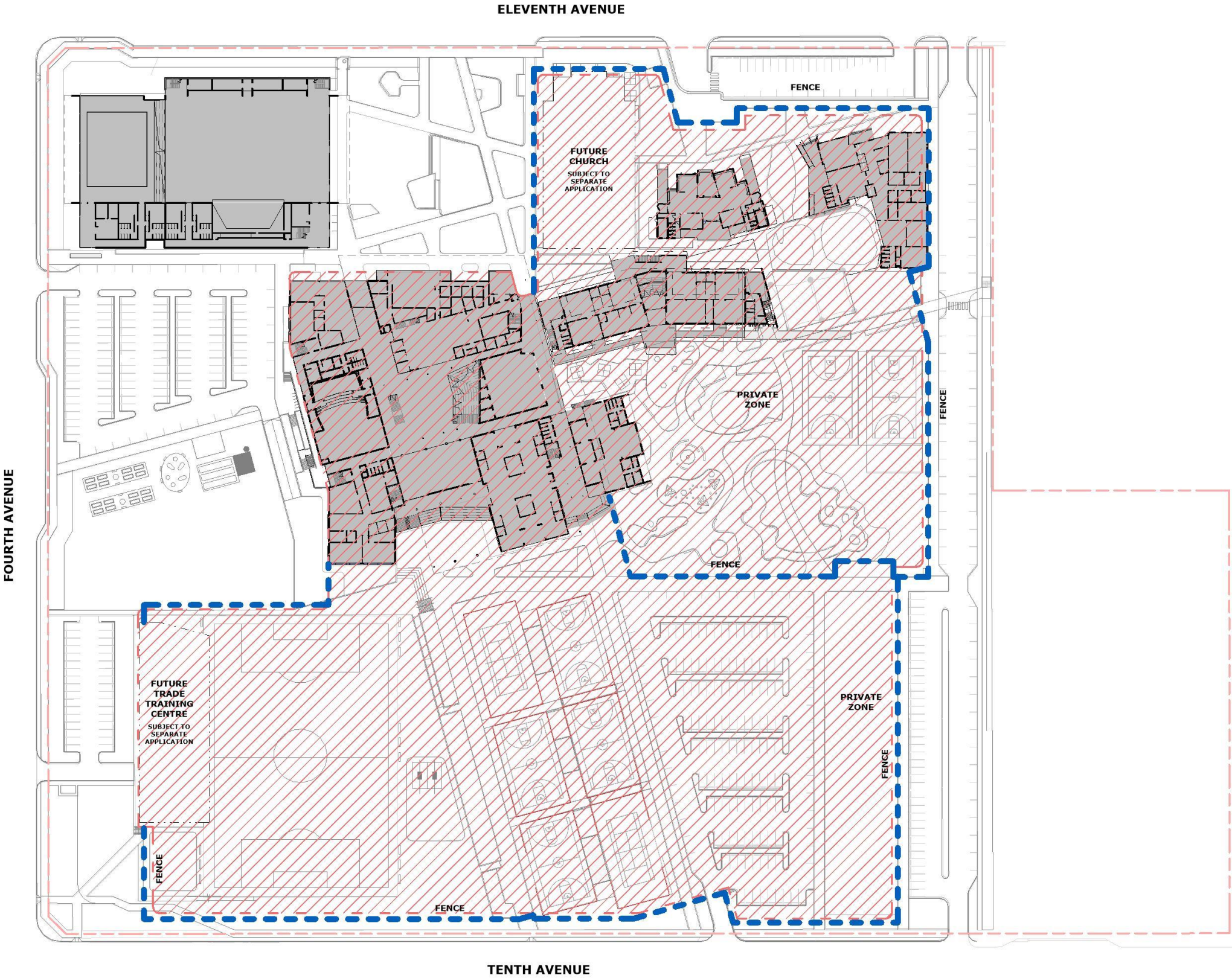


Private Space

It is imperative that the development of the school creates a safe learning environment for the students and staff. The building envelopes and perimeter fences provide the school with the ability to control access, secure the school buildings and allow for the safe movement of staff and students through the school.

Facilities that have increased external use are located in and around the Forum at the ground floor. The Primary Neighbourhood, Middle Neighbourhood, Senior Neighbourhood and Specialist Spaces are located on the upper floor levels as 'private spaces' to be accessed by students and staff only.

The external play areas for the Primary Students are more contained and controlled through the use of perimeter and internal fencing lines, while the play areas for the Middle and Senior students are secured through perimeter fencing during school hours.



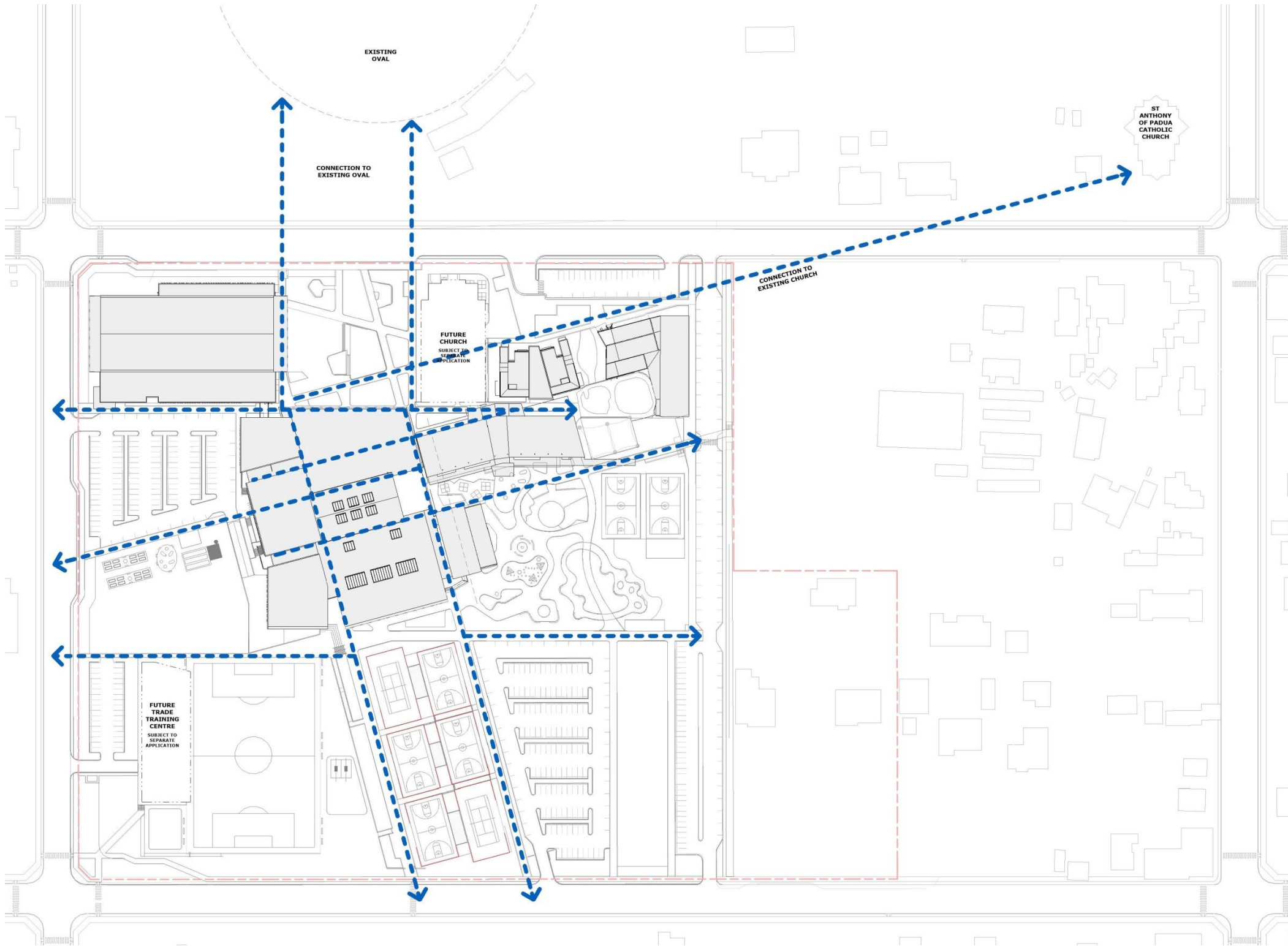
9.4 PEDESTRIAN MOVEMENT

The site planning and movement axis are design to provide clear and legible pedestrian axis to facilitate easy and safe movement in and around the site.

Connections are provided from the north to south to connect Eleventh Avenue with movement from the street, through the Piazza, the Forum, and the outdoor recreational spaces to Tenth Avenue.

Alternatively east west connections are provided from Fourth Avenue to the Piazza and school entrances, and from the east drop off and pick up road through the landscape spaces and intro the Forum.

Each of the circulation spines are designed to provide equality of access to all users for the site, and intersection with lift and stairway cores to enable vertical movement through the learning spaces.



9.5 LANDSCAPE

The integration of landscape spaces to provide outdoor learning opportunities, passive recreation spaces, active play spaces and landscaping to the public domain is an important element in the development of the Masterplan.

The creation of the Piazza, as a shared civic space, provides the school and the community with a place to support the development of a sense of community in an area undergoing significant urban change. The Piazza is provided with a range of spaces, including a paved square capable of holding small events, performances or markets, a stage, shaded seating for the café, irrigated grass, informal seating through street furniture and garden walls, avenue planting and garden beds.

The site is bounded by native broad canopy trees indigenous to the Cumberland woodland of the area. These new plantings will enhance the grove of remnant trees to be retained to Fourth Avenue.

The entrance and main circulation spines through the site are reinforced through the use of axial plantings, framing the vistas and providing shade and shelter.

To address the potential heat sink island effect of the carparks and paved areas of the school, trees are provided to the boundary and within these spaces. The selection of light coloured paving to paths and hard landscape spaces will help to minimize head absorption.



- LEGEND**
- 1 Establish generous entry pathways into development.
 - 2 Provide a welcoming civic space with multifunctional opportunities for public events.
 - 3 Provide a buffer and appropriate landscape treatment to Indoor Recreation Centre.
 - 4 Retain & protect existing remnant trees.
 - 5 Use feature tree avenues along major axis.
 - 6 Provide appropriate landscape interface to the Forum complex.
 - 7 Provide stimulating outdoor learning and play environment.
 - 8 Provide courts with attractive and functional facilities.
 - 9 Provide tree canopy to carparks.
 - 10 Extend outdoor learning to existing kindergarten.
 - 11 Include broad canopy trees around soccer field.
 - 12 Provide broad canopy trees to site streetscape frontage.
- KEY PEDESTRAIN LINKS
- SECONDARY PEDESTRAIN LINKS
- FENCING DELINEATING SCHOOL AND PUBLIC ENVIRONMENT
- VEHICULAR EXIT & ENTRY
- BIKE RACKS IN SUITABLE LOCATIONS (180 IN TOTAL)
- BELL TOWER
- TREE FRAME WORK REFER TO SK07 FOR MORE DETAILS & SK08 FOR PROPOSED SPECIES
- F ALLOCATED AREAS FOR FITNESS STATIONS
- P OUTDOOR PRACTICAL SPACE
- B SHELTERED BBQ AREA

9.6 TRAFFIC MANAGEMENT + PARKING

The Masterplan aims to manage traffic issues generated by the development of the school though the distribution of access and egress at appropriate points away from intersections to all sides of the development. Carparks are accessible from each of the street frontages and a drop off/pick up driveway is provided on the eastern side of the site.

The 'public' carpark addressing Fourth Avenue will provide visitor parking in close proximity to the Piazza (to access main school entry/administration and reception and the future church) and the Hall and Indoor Recreation centre. This carpark is also provided with kerb side drop off and pick up bays. A secondary carpark is provided to Fourth Avenue for the Trade Training Centre and after hour access to the playing field.

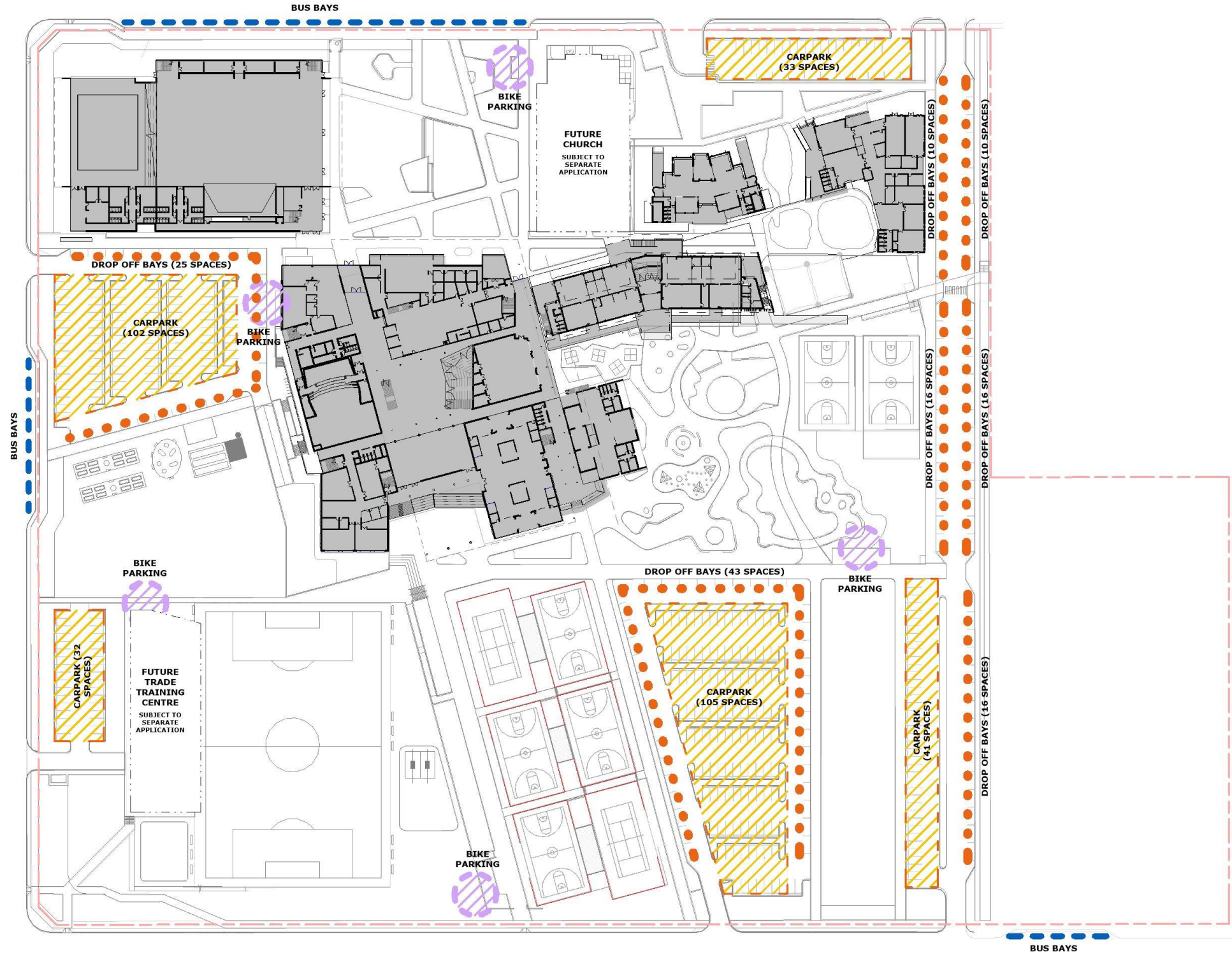
The existing carpark on Eleventh Avenue will be reconfigured to provide drop and pick up parking required for the Childcare Centre and Preschool.

The main carpark for staff and students is located off Tenth Avenue. This carpark will be controlled by a gate during school hours and will provide additional kerb side pickup and drop off bays.

A drop off and pick up driveway is proposed to the eastern side of the site, enabling direct linkage to the Primary School Neighbourhood and Forum and provide a connection between Tenth Avenue and Eleventh Avenue.

Bus parking is proposed in indented bays to the Eleventh Avenue and Fourth Avenue frontages, activating the Piazza with movement of students before and after school.

Waste trucks and deliveries are to occur through the Fourth Avenue carpark to access the Waste Enclosure adjacent to the Market Garden and loading bay at the lower ground level with Engineering.



9.7 MATERIALITY

The proposed design includes the selection of a range of low maintenance, durable and cost-effective materials. These materials are proposed to reflect the existing native plantings of the site and are used to establish an identity and language for the school.

The colour palette is reflective of the remnant eucalypt plantings and provides a contextual response for the school. This concept is further abstracted through the textural nature of many of the chosen materials including; brick, profiled metal cladding, prefinished fibre cement, concrete and timber screening and shading devices. The colour palette of the building harmoniously compliments the natural setting and adds to the surrounding neighbourhood.

All of the buildings have a robust masonry base, grounding the school to the site and providing a durable source of thermal mass. The colour of the brick is reflective of the trunks of the native plantings and help the school sit within its proposed landscape setting.

The upper façade of the building comprises prefinished fibre cement cladding with a pattern of differing sizes and offset from one another forming a textured and visually interesting finish. The facades are provided with further texture through the perforation of vertical windows and shading elements.

Profiled metal cladding wraps past the roof of the buildings to frame the facades and highlight entry locations. These highlights provide generous overhangs which provide protection from inclement weather to entrees.

These main materials are offset against: concrete elements to provide a durable finish in high traffic areas and as a source of thermal mass.; and carefully placed timber cladding and screens that provide a reference to the original woodlands and provide warmth.



10.0 QUALITY DESIGN PRINCIPLES

The design has been developed in response to the project requirements, as described in *Section 9.0* and the location and context of the development consistent with the SEPP Quality Design Principles.

10.1 PRINCIPLE 1
CONTEXT, BUILT FORM + LANDSCAPE

The Masterplan for St Anthony of Padua Catholic School creates a development that responds to its future urban context, the existing land form and landscape elements reflective of the native woodland and market garden history of the area.

The entry and ground plane of the school has been developed to provide on grade connections to the Eleventh Avenue and Fourth Avenue frontages. The buildings and landscape respond to the site fall, to the south west through the lower ground building level and stepping within the landscape spaces.

The building form is orientated east to west across the site with the highest buildings site on the western side. The siting and orientation of the building maximizes the opportunities for the provision of natural light to all of the buildings, while providing protection from prevailing westerly and southerly wind. The building forms and height are also designed to reduce overshadowing of the external play spaces and neighbouring sites.

The integration of landscape spaces has been an important element in the development of the Masterplan. The creation of the Piazza provides a shared civic space along with establishing a sense of community for both the school and the public, enhancing on-site amenity. In addition, the site is to be bounded by native broad canopy trees reflecting the original woodlands of the area, anchoring the site to its heritage. These tress, contribute to the streetscape and also mitigate noise pollution from the transit boulevard and surrounding roads.

To address the potential heat sink island effect of the carparks and paved areas of the school, trees are provided within storm water swales in the carparks and to the perimeter of paved spaces.

10.2 PRINCIPLE 2 –
SUSTAINABLE, EFFICIENT + DURABLE

Fundamental to the Masterplan arrangement was the aim to achieve a positive environmental and social outcome. In addition, the design was to be durable, adaptable and resilient, with the ability to evolve and change with any future requirements.

The Masterplan has been developed consistent with the encyclical *Laudato si’* and within the framework of a 5 Star ‘Greenstar’ rating (however it is not proposed to seek a formal rating).

The design strategies include a development that maximises the opportunity for natural ventilation, natural lighting and thermal mass to control the internal environment and reduce the reliance on active heating and cooling.

The buildings are designed and orientated to control the entry of natural light on the northern, southern and eastern facades. The western facade incorporates fixed external vertical shading to assist in the management and control of sunlight and potential heat gain, while adding to the texture of the facades as a link back to the vertical trunks of woodland of the site.

Durable building materials, including concrete and brick will remain exposed to act as a thermal mass within the building. This thermal mass, in conjunction with natural ventilation has been incorporated within the design to help naturally cool the building. Air is pulled through the building, cooling it, with unwanted hot air expelled through the semi covered and central forum space.

Low energy light fittings are proposed to be used throughout the building to keep energy consumption to a minimum, with energy consumption to be supplemented by solar panels to the school’s roof. These generate the school’s own renewable energy source and further reduce the overall energy consumption of the school.

Water efficient fittings are proposed for the development to reduce water consumption, with roof water and run off to be collected and reused for irrigation

Segregated waste streams are to be employed throughout the school to both encourage and establish good recycling principals. Organic waste will be collected form the café and hospitality and used as composting within the school’s market garden, promoting plant health and crop yield for utilisation within the school.

10.3 PRINCIPLE 3 –
ACCESSIBLE + INCLUSIVE

The school is provided with entry locations on each of the three street frontages; Eleventh Avenue, Fourth Avenue and Tenth Avenue. The main point of entry is located on Eleventh Avenue, marked by the Piazza. The Piazza is a landscaped public space that provides access to key buildings within the site and allows visitors to easily find their way to their first point of entry.

Fourth and Tenth Avenue offer both pedestrian and vehicular drop off/pick up access. The main entrances are quickly identified and established through generous entry pathways and feature tree avenues. All of these paths extend and link with the Forum at the centre of the site.

To provide connectivity at the ground plan, all of the paths are on grade (and ramped), ensuring an inclusive environment with ease of access for everyone.

To support connectivity to the community, the Masterplan provides a layered response for both accessibility and security. This enables the school to be opened up and provide opportunities for community use, whilst providing the necessary security to create a safe environment for the students. This is especially effective where the Hall and Indoor Recreation Centre, Wellness Centre, Performing Arts Hubs, hospitality and forum are able to be accessed by the broader community outside of school hours, without compromising general site security.

These entry locations and pedestrian paths will be supplemented through the development of a clear a legible wayfinding system that will enable students, staff and visitors to orientate themselves and move safely and easily around and through the site.

10.4 PRINCIPLE 4 –
HEALTH + SAFETY

Creating a space that was both accessible and welcoming for students and the community, is core to the project. The Masterplan responds to the health, safety and security of both the students and visitors to the school. To address these requirements the Masterplan includes a layered approach to security as a way of integrating the community with the school, both during and after school hours, whilst providing the necessary security to create a safe environment for students.

The design challenge of creating a school that is integrated with the community, but is also safe and secure for the students has been addressed through the layered approach, where the school can be separated into public, privileged and private spaces through the use of building envelopes, landscaping and fences to create an integrated, welcoming, accessible and safe environment.

The school will also provide facilities and programs to assist the health and wellbeing of the students, staff and community. These include:

Wellness Centre

As a way of promoting health and wellbeing within the school and community, a wellness center has been proposed for the school. The center would offer counseling for both the school and community, as well as pastoral care, careers advice and health services for the students. All of the important services are linked and located close to the school’s Chapel.

Market Garden

A market garden has been proposed for the western-most side of the school. The garden not only draws back to the market garden heritage of the site but also provides a stimulating and educational outdoor learning environment for students.

Within the market garden students will learn how to grow their own produce to be used within the school’s café and hospitality classrooms, as well as learning the importance of recycling and being environmentally responsible through the collection of food waste for composting.

Any excess produce and products produced in the market garden can be used in fundraising events held by the school. This would provide greater opportunities to invite the community into the school.

Outdoor Learning Environments

Stimulating outdoor environments are integrated throughout the site, promoting health, fitness and wellbeing.

10.5 PRINCIPLE 5 –
AMENITY

The proposed Masterplan development provides a high level of amenity for the school and broader community through a range of spaces that are accessible for a wide range of educational, cultural, social and community activities.

The siting and scale of the proposed development responds to the future urban context of the Austral neighbourhood. The urban interface of the Eleventh Avenue frontage relates to the public space of Craick Park and defines the school entry, while the mass of the buildings are set back from the other boundaries to allow for the provision of landscaped edges to the Fourth Avenue and Tenth Avenue frontages.

These strategies will limit the impact of the development on the proposed residential developments, whilst providing a strong connection to the public realm on Eleventh Avenue and supporting the schools integration with the community.

The creation of an integrated P-12 school will provide staff and students with a broad range of facilities in support the proposed pedagogical model. The range of general and specialist learning spaces will provide varied learning opportunities and allow for the development of programs to suit the individual learner.

The landscape design will support the internal learning activities through the connection and integration of outdoor learning spaces and creation of a range for passive and active environments in response to the evolving needs of students from early childhood to senior years.

10.6 PRINCIPLE 6 –
WHOLE OF LIFE, FLEXIBLE + ADAPTIVE

The Masterplan proposal considers both the future needs of the school, as well as the future needs of the developing community to ensure a durable and enduring architecture.

Achieved through flexible learning spaces and floor plates, the school buildings have the ability to adapt to changing needs of the school and pedagogical approaches over the life of the buildings. The Masterplan provides a civic space through the Piazza that will engage with the community and allow for the potential relocation and integration of St Anthony of Padua Church on site, supporting community connections with the school.

The school buildings are provided with flexible and multi-use facilities that can be enjoyed by both the school and the community, including; the Piazza, the Forum, Hall and Indoor Recreation Centre, Church, Wellness Hub, Theatre, Performing Arts Hub and Café.

The flexible learning spaces are designed to a range of learning programs. The adaptability of the school and its buildings are supported through the provision of relatively large open, floorplates that allow for refurbishment. The use of collaborative spaces, lightweight partitions and joinery enables the learning spaces to be adapted with ease to meet future pedagogical requirements of the school.

The selection of low maintenance, durable materials ensure the school will withstand the impacts of a school building and the test of time.

In addition, the Masterplan proposes high environmental performance through previously mentioned design strategies and renewable energy sources.

**10.7 PRINCIPLE 7 –
AESTHETICS**

The Austral Masterplan is designed to provide an enduring, dynamic built form. All of the buildings have a robust masonry base with articulated building forms and facades. The palette for the cladding, fenestration and use of vertical shading will provide texture and character to each of the building facades. The proposed colours are designed to be harmoniously and complement its natural setting and add to the surrounding neighbourhood.

The careful use and placement of elements of timber cladding and screens relate back to original the woodland of the area and add warmth and texture to the built form.

The Piazza, Church, Hall and ‘Bell Tower’ provide the development a strong street presence and provide a sense of identity for the school.

These concepts, combined with the site planning, functional spaces and passive environmental principals described previously, produce an aesthetic that is both dynamic yet responsive to climate and context.