



New High School in Bungendore

State Significant
Development Application
(SSD-14394209)

Response to Submissions:

Response to GANSW SDRP Advice 3

Prepared for



School Infrastructure NSW

Rev B
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Document/Status Register				
Issue	Date	Purpose	Written	Approved
A	28.07.22	Issued for RtS	RS	RD
B	09.09.22	Issued for RtS	RS	RD

We acknowledge that the proposed New High School in Bungendore is located on the land of the Ngunnawal and Ngarigo peoples who have a continuing connection to the land, water and sky. We pay our respects to the Elders and the knowledge holders, past present and emerging and express our gratitude for sharing of knowledge and culture.

Introduction

This report is an Addendum to the Architectural Design Report submitted with the original proposal for the new High School at Bungendore NSW.

The proposal for the New High School, has been modified. Some of these changes are due to changes to the shared use arrangements for the site and some are in direct response to comments received from government agencies and members of the public in submissions.

The design changes since the exhibition are:

- > The amended design no longer includes facilities for Queanbeyan-Palerang Regional Council (Council) such as the previously proposed Community Health Centre, Community Library and Council shop front. The facilities are to be provided on a separate site, through a separate planning process by Council and does not form part of this application.
- > Administration and Staff facilities have been relocated from Block A into Block C (existing council building) and the Visual Arts and TAS functions have been relocated into Block A.
- > The School Library has been relocated from Block D to a Standalone block, Block E, which is located to east of the Majara Street alignment and centred on the School Common.
- > Block D has been replanned to address the removal of Council facilities, the relocation of the School Library and to sit to the east of the Majara Street alignment. The floor level of Block D has also been lowered to suit the revised building footprint.
- > Block B has been relocated to the west, off the Majara Street alignment.
- > The Games Courts and Cricket Batting Nets have been relocated within the school boundary.
- > The Bulk and Scale of buildings facing public roads (Blocks A and B) have been reduced.
- > The façade materials of the proposed buildings have been revised to be more sympathetic to the existing village character.
- > The primary outdoor learning areas, including the 'covered' outdoor learning areas have been relocated and redesigned to be integrated within the landscape design.
- > Minor planning changes to Block B, which include the relocation of the outdoor learning spaces, student amenities and building services to provide a new covered walk through from the School Avenue to the western outdoor learning spaces adjacent to Mick Sherd Oval.
- > The covered walkway connection between Block B and Block D has been redesigned to arc around the eastern side of the School Common and provide a covered connection to the relocated School Library, Block E.
- > The school security fence between Blocks B and D has been redesigned to arc around the western perimeter of the School Common. The school security fence to the northern and southern boundaries has been rationalised and face brickwork piers have been introduced to define the school entries. A timber lap

and cap fence has been introduced to the school boundaries which adjoin The Station Masters Cottage (No.16 Majara Street) and The Signalman's Cottage (No.63 Turallo Terrace).

- > The waste vehicle turning circle has been removed from the proposal. The waste collection area has been relocated to the southern end of the existing carpark and a waste vehicle turning head has been added. A new turning bay is provided for assisted transport vehicles to the northern end of the car park.
- > The electronic school sign has been replaced with a changable, static 'notice board' sign. The sign has been relocated further back from Majara Street, behind the school security fence.
- > The Scout Storage Shed has been relocated from the Agricultural Plot to within the Scout site. The Scout Storage Shed will be subject to a separate planning pathway and does not form part of this application. The School Agricultural Support Building, Block F, has been repositioned and the landscape paths and driveways have been updated to suit the change.
- > An addition 58 car parking spaces are proposed along Turallo Terrace providing a total of 98 spaces (compared to the original 35). An additional 3 drop off/ pickup spaces are proposed on Turallo Terrace providing a total of 6 spaces (compared with the original 3).
- > The proposed delineation works to Mick Sherd Oval and the War Memorial have been removed from the proposal.
- > The extent of the Pickup and Drop Off zone to Gibraltar Street has been reduced to provide a curtilage to the War Memorial
- > The redesign of pedestrian crossings on Gibraltar Street and Turallo Terrace from 'School Crossings' to 'Wombat Crossings'.
- > A footpath is proposed to the northern side of Turallo Terrace connecting the proposed parking with the existing path adjacent to Turallo Creek

This addendum is structured as follows:

- > Introduction
- > Overview of the amendments to the proposal
- > Responses to GANSW SDRP Advice 3

It is considered that amendments provide an improved architectural and urban design when compared to the original proposal.

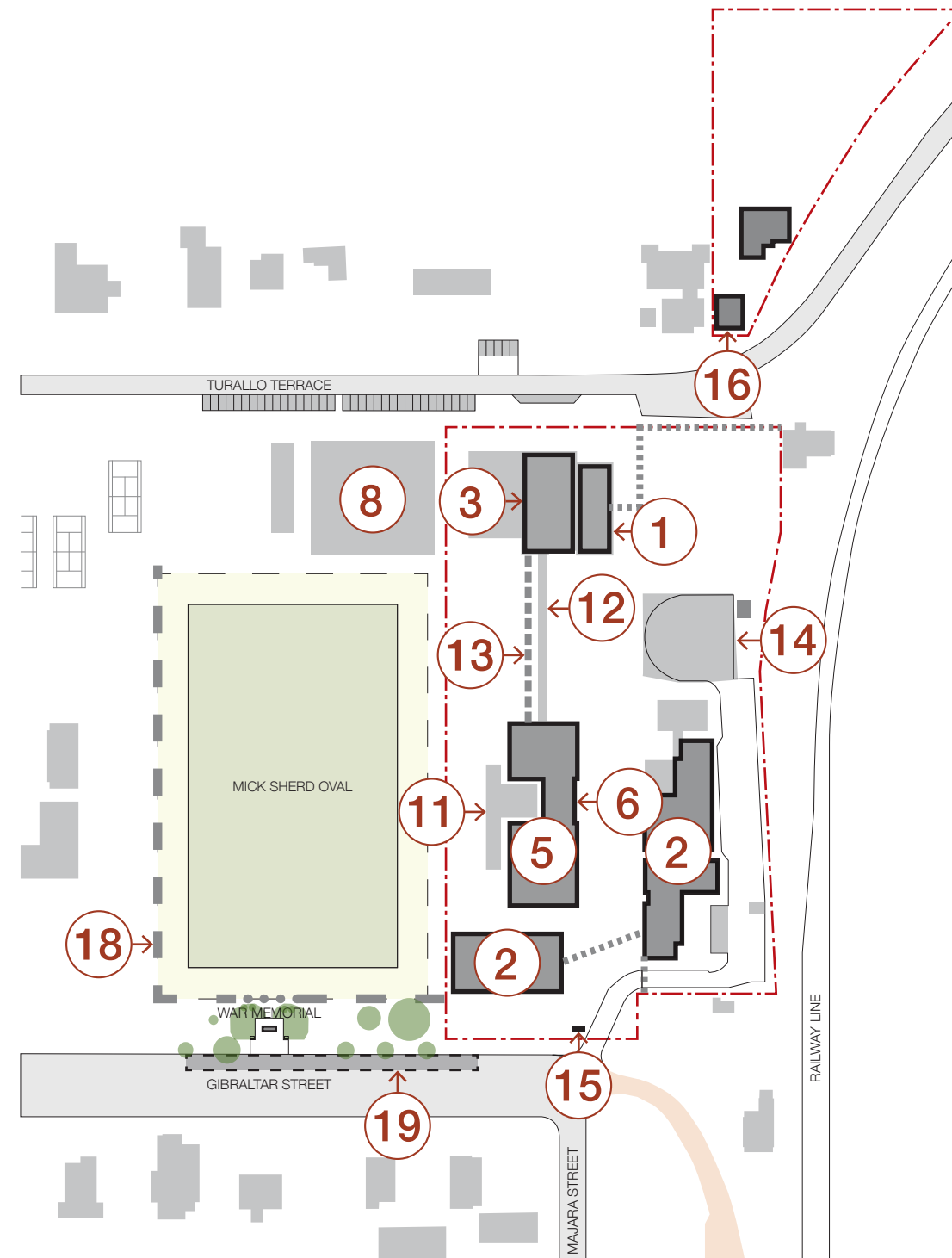
This addendum should be read in conjunction with the revised architectural drawings prepared by Tanner Kibble Denton Architects, dated 26th July 2022 and 09th September 2022, and the revised landscape plans prepared by Context Landscape, dated 26th July 2022 and 08th September 2022.

The perspective images throughout the report have been prepared to describe the general design intent of the proposal, however, the planting and trees within the images may not be a true reflection of the final conditions.

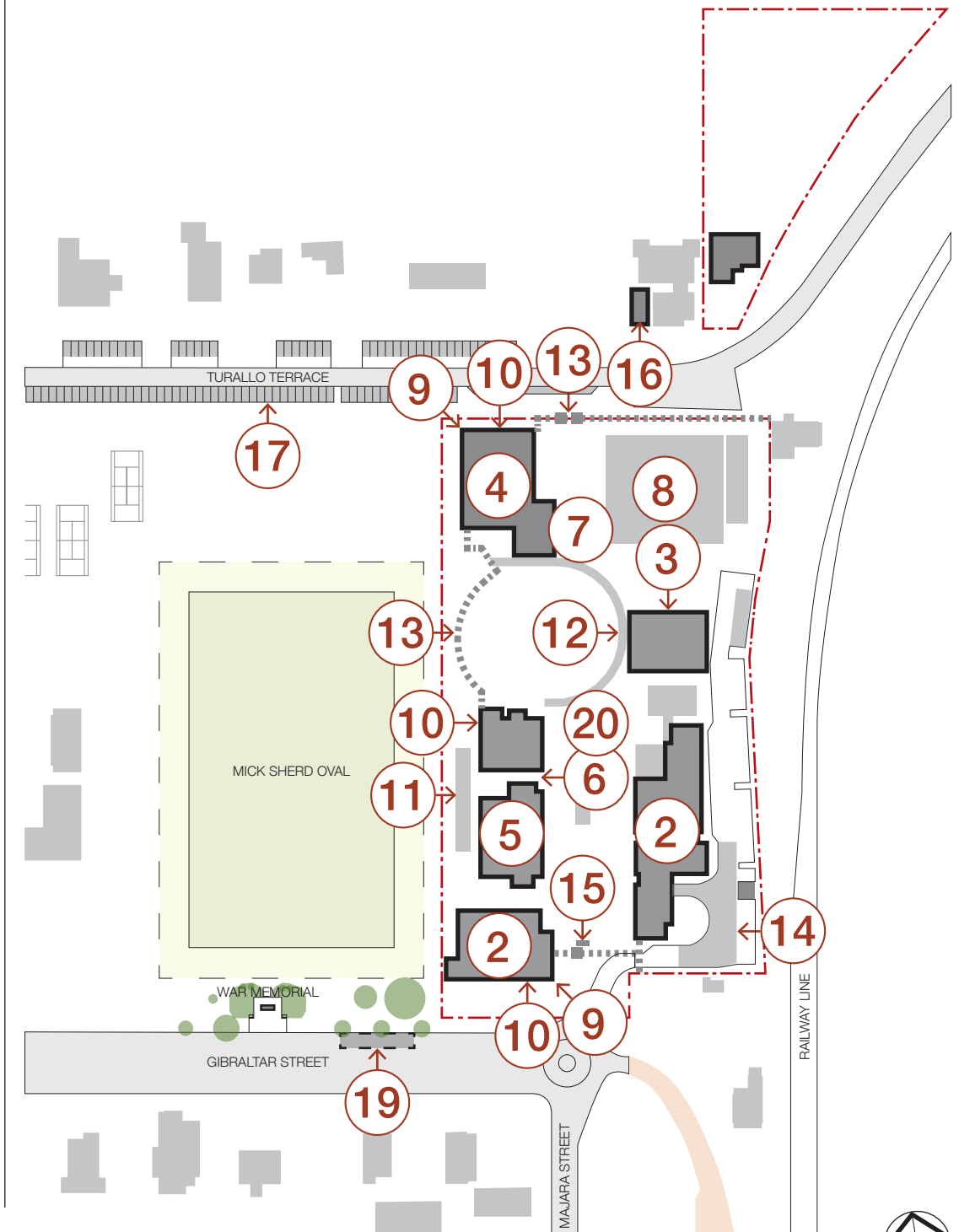
Design Change Summary

- 1 Community Health Centre, Community Library and Council Shop Front removed from the development.
- 2 Administration and Staff facilities relocated from Block A to Block C.
- 3 School Library relocated from Block D to a Standalone block, Block E.
- 4 Block D replanned and the floor level has been lowered to suit.
- 5 Block B relocated to the west, off the Majara Street alignment.
- 6 Minor planning changes made to Block B.
- 7 Reinstatement Majara Street alignment.
- 8 Games Courts and Cricket Batting Nets relocated within the school boundary.
- 9 The bulk and scale of Block A and Block D has been reduced.
- 10 The facade materiality of the new buildings has been revised.
- 11 Outdoor Learning Areas redesigned + relocated
- 12 Redesign of the Covered Walkway between Block B and Block D.
- 13 Revised fencing strategy
- 14 Waste collection and turning area relocated to the southern end of the existing carpark.
- 15 Electronic school sign relocated + replaced with a changable, static 'notice board' sign.
- 16 Scout Storage Shed relocated from the Agricultural Plot to within the scout boundary. School Ag Building, Block F, relocated to suit.
- 17 Additional 58 community parking spaces and an additional 3 school drop off/ pickup spaces to Turallo Terrace.
- 18 Delineation works to Mick Sherd Oval removed.
- 19 Reduced Pickup/ Drop off zone to Gibraltar Street to provide curtilage to War Memorial
- 20 Landscape masterplan redesigned in response to GANSW comments and to compliment the architectural amendments.

Original SSDA Proposal



Amended SSDA Proposal



Connection with Country

1. Consider how the principles and values embedded in a particular place-based narrative or story will provide a framework to inform the architectural and landscape response beyond the naming of spaces and built forms

Principles

The project was developed with the below principles to provide an appropriate response to context.



Purpose

The High School at Bungendore will be a new high school that will **facilitate the transition of students** from the Public School across the road to High School.

How can the buildings and landscape inspire students to expand their understood horizons?

What can be done to create opportunities for looking out, looking up, and looking beyond?



Place

Bungendore is a **progressive historic rural village**.

There are a relatively large number of places included on the LEP Heritage Schedule for the size of the village.

There is a **strong 19th Century character & scale** in the central areas of the village and the heritage character is valued by the community.

Turallo Creek dissects the town and to flows into Lake George. The land-form falls towards the creek and the northern part of the site fronts onto the creek.

How will the School integrate with the town and its unique landscape?

How will students appropriate the new School and feel connected to this place, no matter where they are on the site?



People

How can the buildings and landscape inspire the students and the community to appropriate the new high school as part of the town?

The school benefits from a diverse and engaged community. How can this community feel most supported by this physical place?

What opportunities are there for enhanced engagement, identity and ownership of it? What can be done to create a legible and connected place?

Connection with Country

1. Consider how the principles and values embedded in a particular place-based narrative or story will provide a framework to inform the architectural and landscape response beyond the naming of spaces and built forms

Framework

The below framework has been developed to respond to the project principles and place based narrative developed during Walks on Country

Community

There is a shortage of community meeting facilities or internal spaces large enough for large community functions, performances or sports practice.

1

Provide facilities which provide opportunities for shared use outside of school hours.

The sharing of facilities will support the needs of the community, foster new connections within the community and with the new school.

The provision of a high school provides opportunities for youth development and cultural inclusivity.

2

Provide facilities and spaces that can be shared with the community and encourage and support awareness and education of aboriginal community and culture.

Spaces and facilities designed to be welcoming and with a place based narrative will provide a safe campus that stimulates and facilitates youth development and cultural inclusivity.

Bungendore Town

There are a number of places included on the LEP Heritage Schedule. There is a strong 19th Century character & scale in the central areas of the village and the heritage character is valued by the community.

3

Provide built forms and spaces which complement the existing character of the town.

Built forms which complement the existing character of the town will allow the community to appropriate the new high school as part of the town, contributing to a sense of pride and ownership of the new high school.

Connection with Country

The landscape design and planting material selection will be key in providing connection to country/site.

4

Incorporate endemic planting that provides the opportunity for learning and the sharing of foods

The provision of indigenous planting as an educational tool will support connections with the aboriginal community, enabling the sharing of knowledge and a sense of identity. The sharing of foods through the school's kitchen facilities will also encourage new community relationships.

The Black Crow, Black Cockatoo and Wedge Tailed Eagle are species significant to the area.

5

Incorporate artwork and language to promote a cultural connection/awareness of local fauna.

Incorporating artwork and language will contribute to the school's place based identity, raise cultural awareness and act as an educational tool.

Reference the natural landform, colours and textures of the land

6

Explore landscape and building materials which express the natural landscape

Expression of landform, colours and textures will contribute to the school's place based identity, contributing to the appropriation of the school within the regions natural landscape.

The creek, and flood prone lands to the north connect to Lake George and are the significant natural landforms adjacent to the site.

7

Consider the relationship of the site to water within the design of the school

Water sensitive design themes will connect the school to its place, while acting as an educational tool for students and the community.

Connection with Country

2. Use the consultation with traditional owners to inform design development of the campus so that the site as a whole can become an educational hub for both students and the Bungendore community.

The below elements are incorporated within the amended proposal to encourage the site to become an educational hub for students and the Bungendore community. Further detail of these items is provided in response to advice throughout this report.

Community

- 1 Opportunity for shared use of the Gym and Games Courts, supports community connections and a sense of ownership.
- 2 The school kitchen provides the opportunity for sharing of foods with family and friends.
- 3 Shared administration and staff facilities with the primary school fosters educational connections and support the transition of students between the two schools.

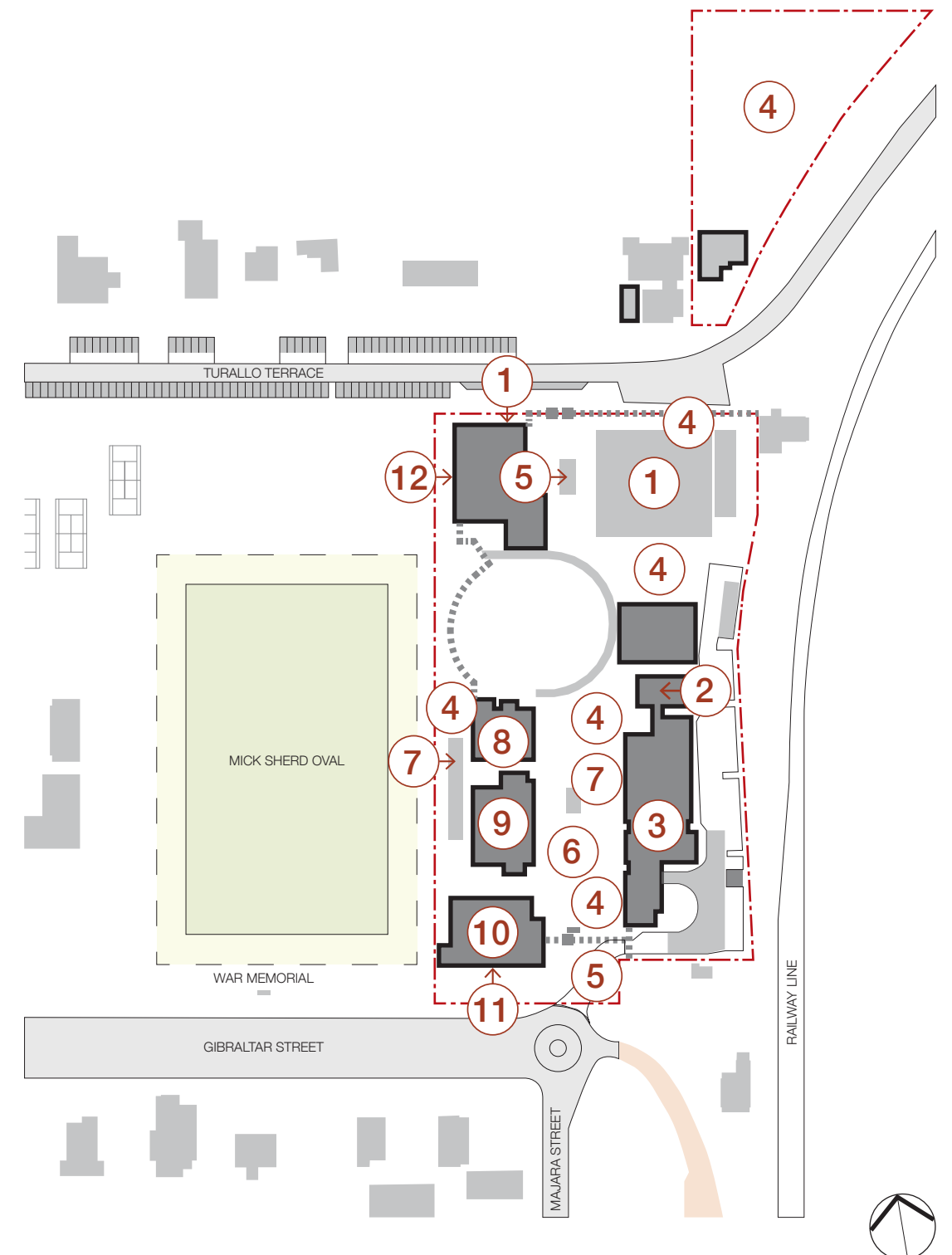
Landscape

- 4 Native perimeter planting, productive and educational gardens, and the Agricultural Plot provide opportunities for Learning from Country, Nourishment from Country and Management of Country.
- 5 Rainwater collection from all buildings, permeable surfaces, deep root plants and a bio-retention swale along the Majara St axis respond to water sensitivity issues in the town and minimise impact on the adjacent creek.
- 6 An avenue of endemic eucalyptus sideroxylon line the School Avenue, emphasising the importance of the Majara Street axis.
- 7 The campus provides a diverse range of outdoor learning spaces for students among native planting, enabling students to develop positive relationships with their environment and interaction with nature.

Architecture

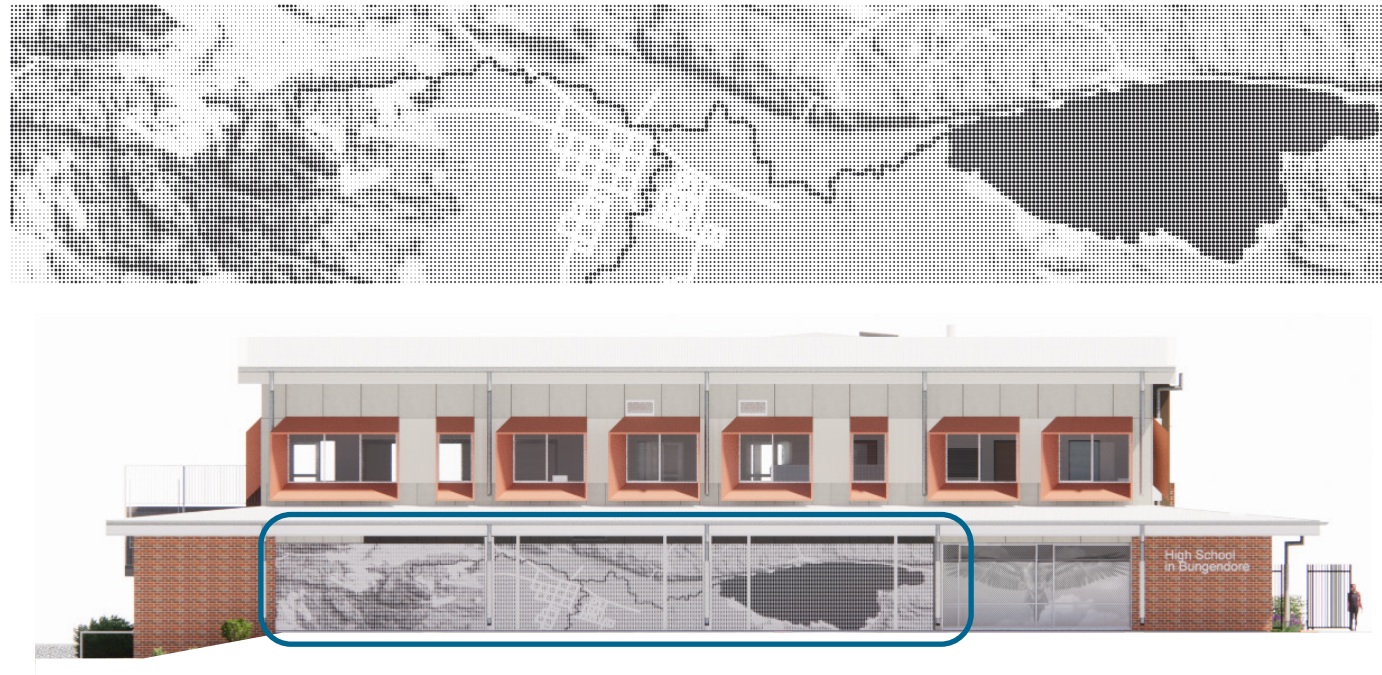
- 8 Ground floor classrooms connect to outdoor learning spaces and all classrooms are provided with large areas of glazing with high quality views to outside. The alignment and massing of Building B provides views to the ridges and country to the east and west. Each of these enable students to remain connected to their surroundings.
- 9 Roof lights from the first floor Shared Learning Area provide views to the sky, acknowledging aboriginal cultural connections to the sky.
- 10 Interior finishes are inspired by the Country and Town through the use of colours, tones and textures which appropriate students to this place.
- 11 Integration of indigenous artwork within the campus celebrates indigenous story telling, describing the town's connection the mountains, to the creek and to Lake George.
- 12 Naming of buildings and spaces after the local Fauna established during walks on Country will contribute the place based identity and facilitate learning of culture and language.

Amended SSDA Proposal



Connection with Country

2. Use the consultation with traditional owners to inform design development of the campus so that the site as a whole can become an educational hub for both students and the Bungendore community.



Indicative image: Entry forecourt artwork describing the site's connection to water



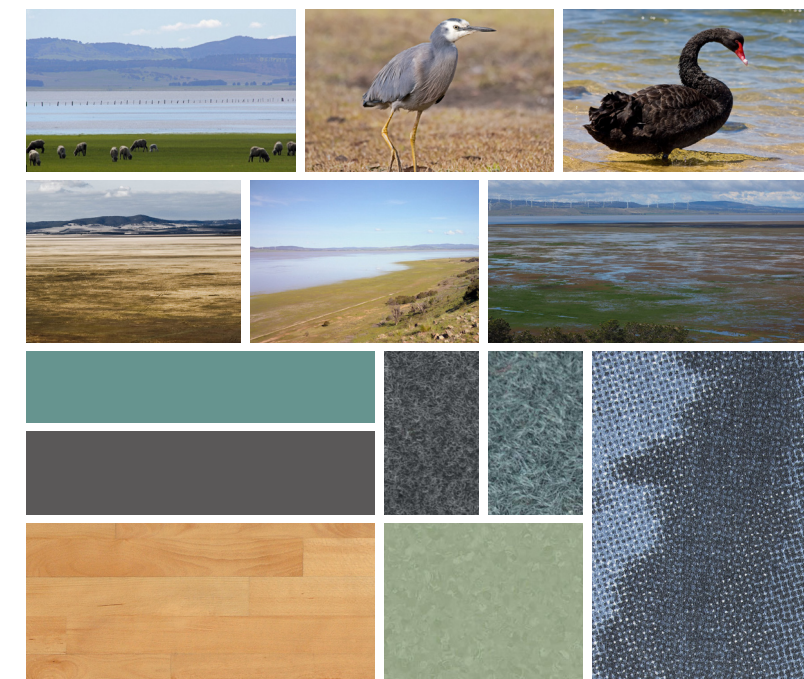
Interior finishes concept: Connection to Town



ROOF LIGHTS
ARE WINDOWS
TO THE SKY

HIGH QUALITY
VIEWS PROVIDE
CONNECTION TO
SURROUNDINGS

PHYSICAL
CONNECTION
TO OUTDOOR
LEARNING AREAS



Interior finishes concept: Connection to Weereewa

Connection with Country

3. Demonstrate through design development how connection to water, learning from country and nourishment from land informs the detail design of the landscape and architecture.

The amended design reinforces Connecting with Country principles throughout the landscape and architecture.

CONNETION TO WATER

A bio-retention swale runs adjacent to the Majara Steet axis, north-south through the school, capturing and treating surface water, providing a symbolic connection to Turullo Creek, and natural water processes.

Rainwater is collected from all building roofs for reuse within the campus.

Approximately 40% of the site's landscape area is proposed as permeable surfaces

The building forms have been relocated to retain the Majara Street alignment and strengthen the connection to the Creek to the north.

The revised design incorporates storey telling artwork fronting the Entry Forecourt. Refer to item 9



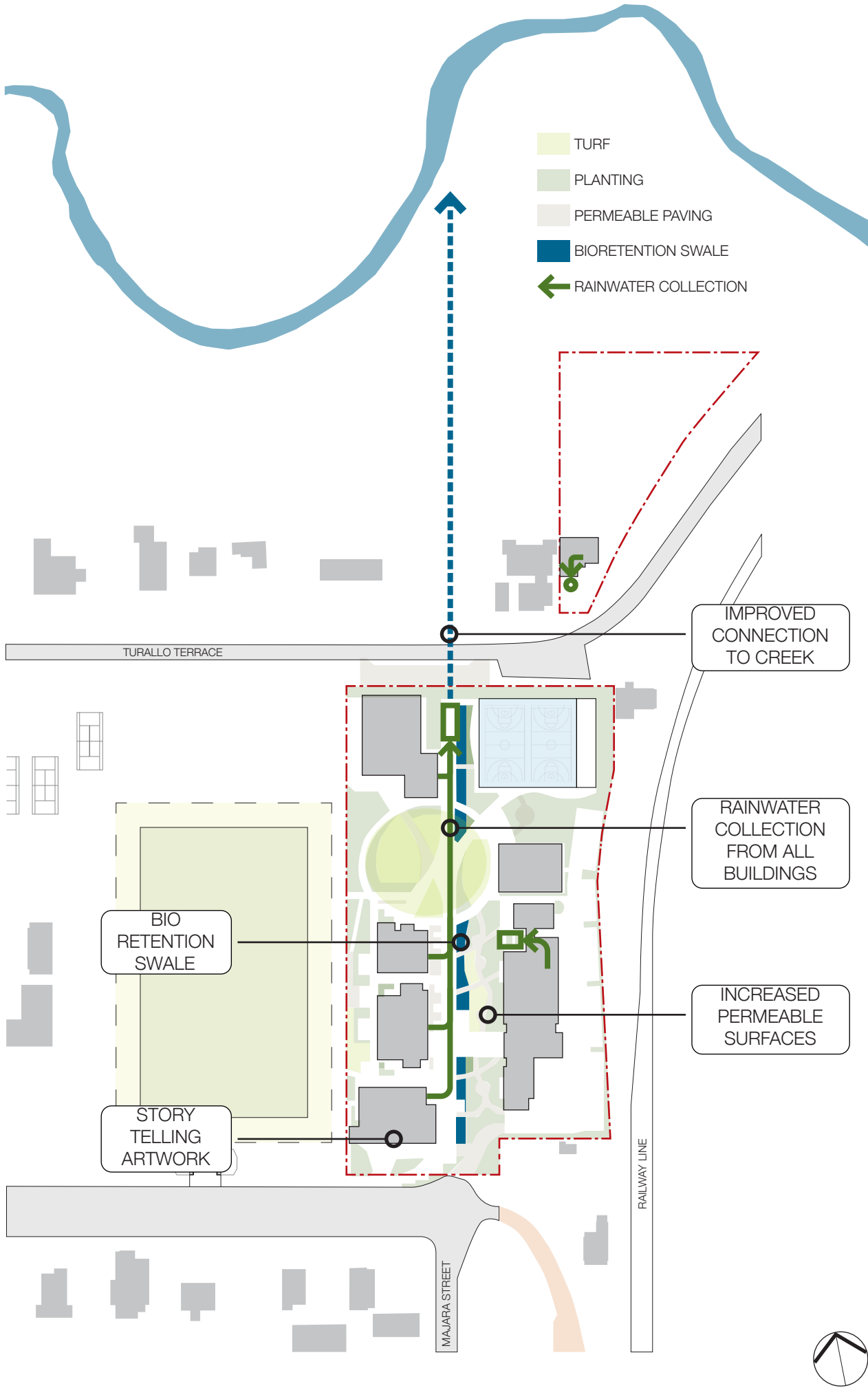
Westringia-fruticosa



Ficinia nodosa



Carex longibrachiata



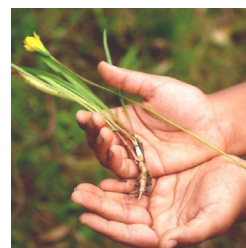
Connection with Country

3. Demonstrate through design development how connection to water, learning from country and nourishment from land informs the detail design of the landscape and architecture.

LEARNING AND NOURISHMENT FROM COUNTRY

Learning from country is encouraged by the introduction of informal learning areas in the form of social ‘yarning circles’ interspersed amongst native planting areas. The planting areas include indigenous productive species, supporting educational opportunities linked to nourishment from land.

A productive Kitchen Garden located in a courtyard adjacent to the food learning spaces, and the agricultural plot provide further learning from country and nourishment opportunities, connecting food sources with the preparation and sharing of foods.



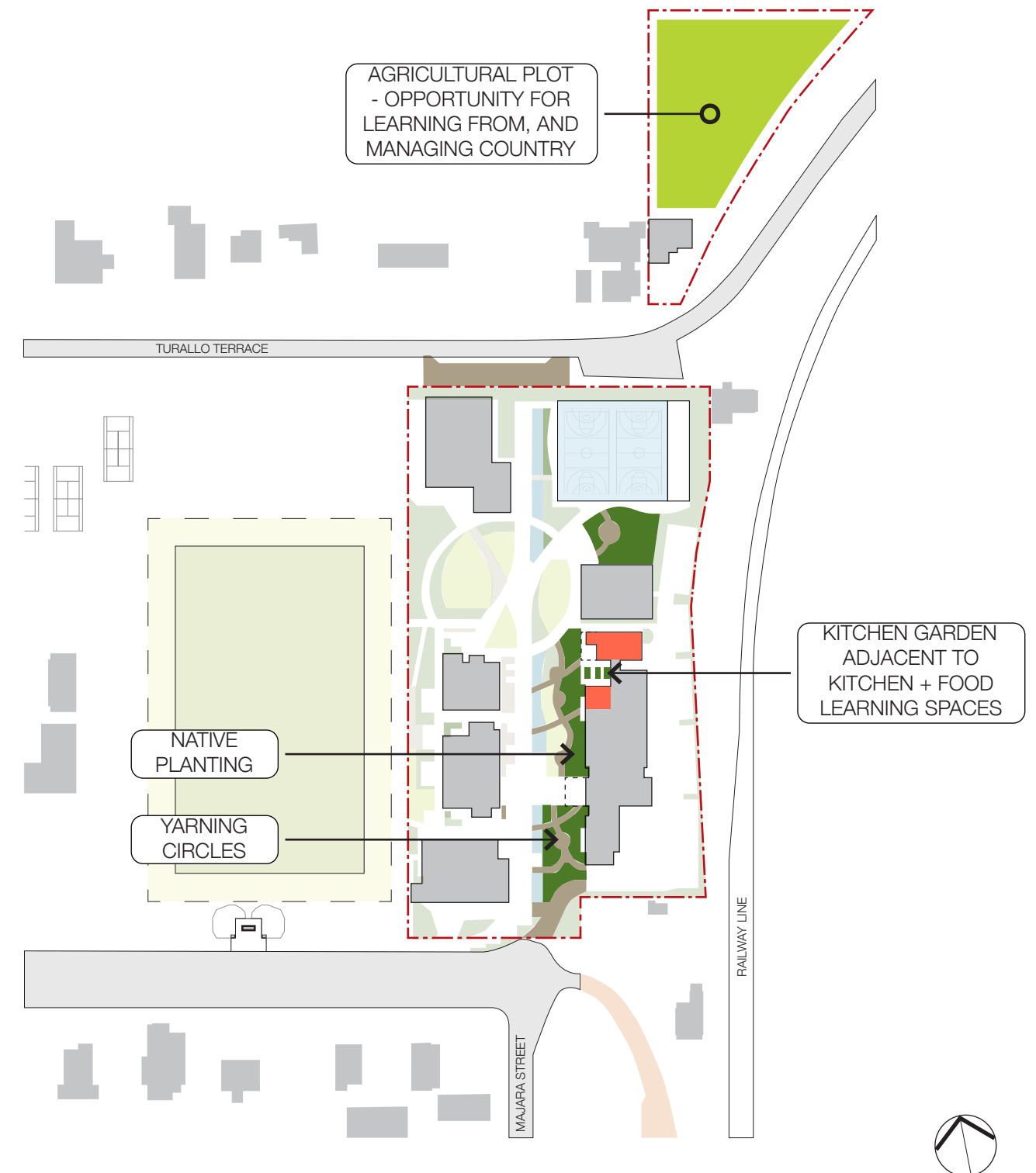
Micoseris lanceolata



Bulbine bulbosa



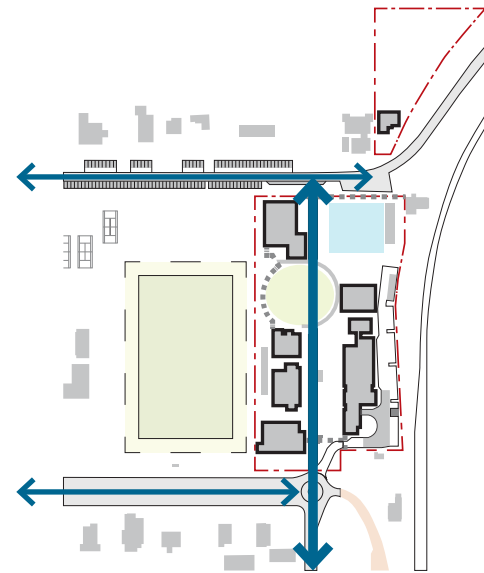
Citrus australasica



Masterplan + Landscape

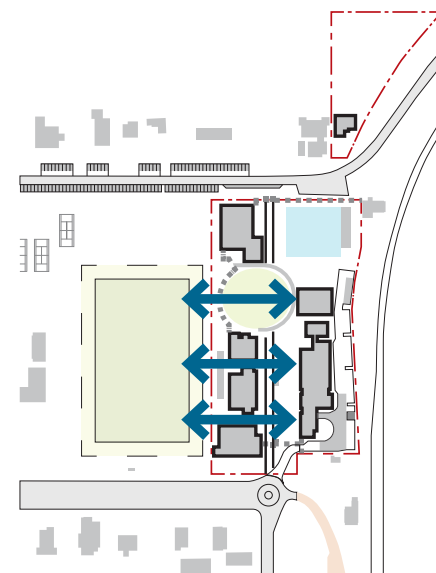
4. Provide clarity on the design principles that have been used to generate the masterplan strategy for the site.

The project has been developed with the below 10 Design Principles which respond and complement the town's, village character.



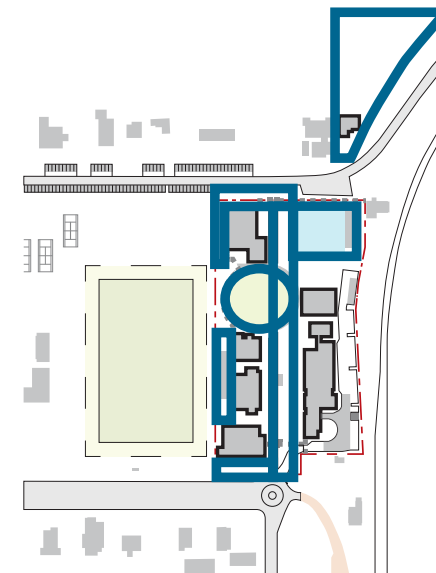
1. Retain the Historic Grid

Retain and enhance the existing 19th century street grid through the alignment of forms and open space



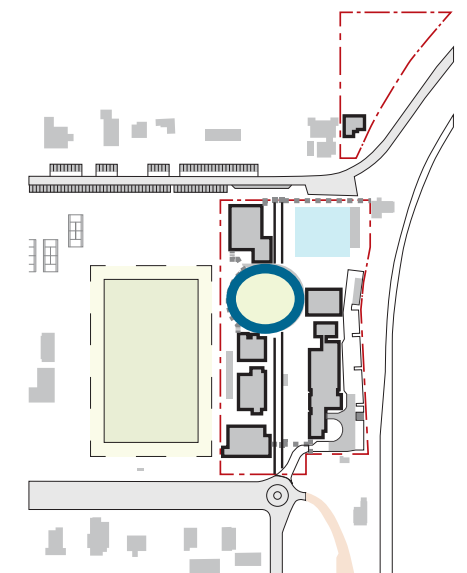
3. East West Permeability

Create inner campus, east west connections, linking the school centre to the western learning areas and the oval beyond



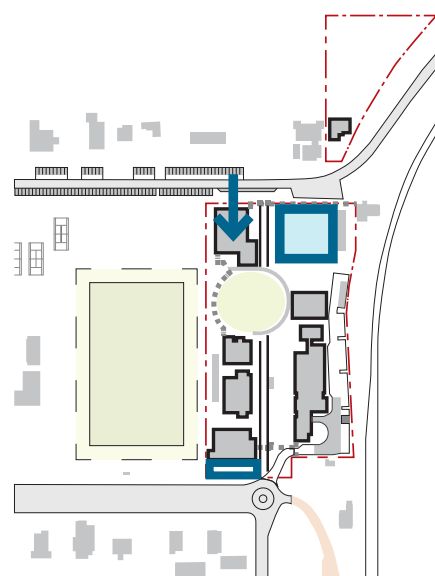
4. Setbacks + Open Space Character

Maintain the open space character of the town through providing built form setbacks from boundaries and open space between buildings



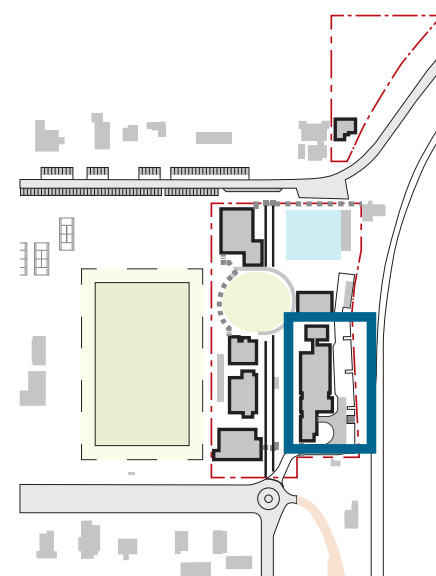
5. Create a School 'Heart'

The creation of large open space to the centre of the school, which acts as a school 'heart', connecting the school's social spaces



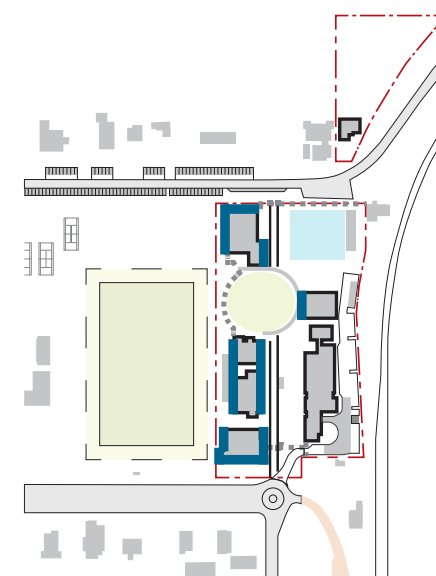
6. Shared Use Access

Locating facilities which provide opportunity for shared use with the community adjacent to the street to allow for direct, out of hours access



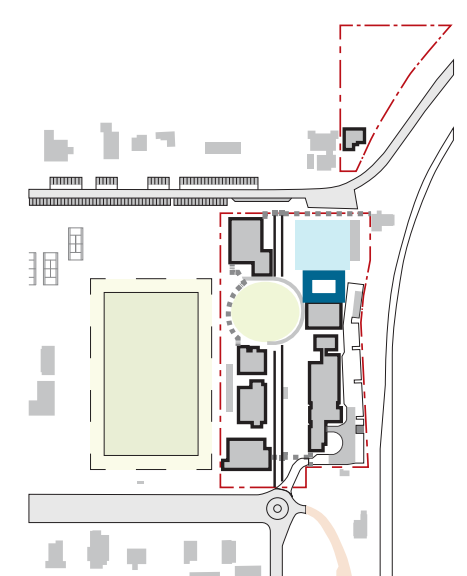
7. Retention of existing assets

Retain the existing council chambers building and car park to support reuse over new construction, minimising the proposal's embodied energy



8. Orientation + Address

Orientation, scale and facade design provide a civic quality which address the public realm and is in keeping with the town's character



9. Space for Expansion

Provide sufficient space for a potential future phase to allow for and additional 150 students

Masterplan + Landscape

5. Ensure the shared use of the campus for the school and community is clear, easily accessible and well defined.

A large public gathering space is proposed to the front of the school. Ample seating opportunities are provided adjacent to areas of planting and beneath deciduous trees.

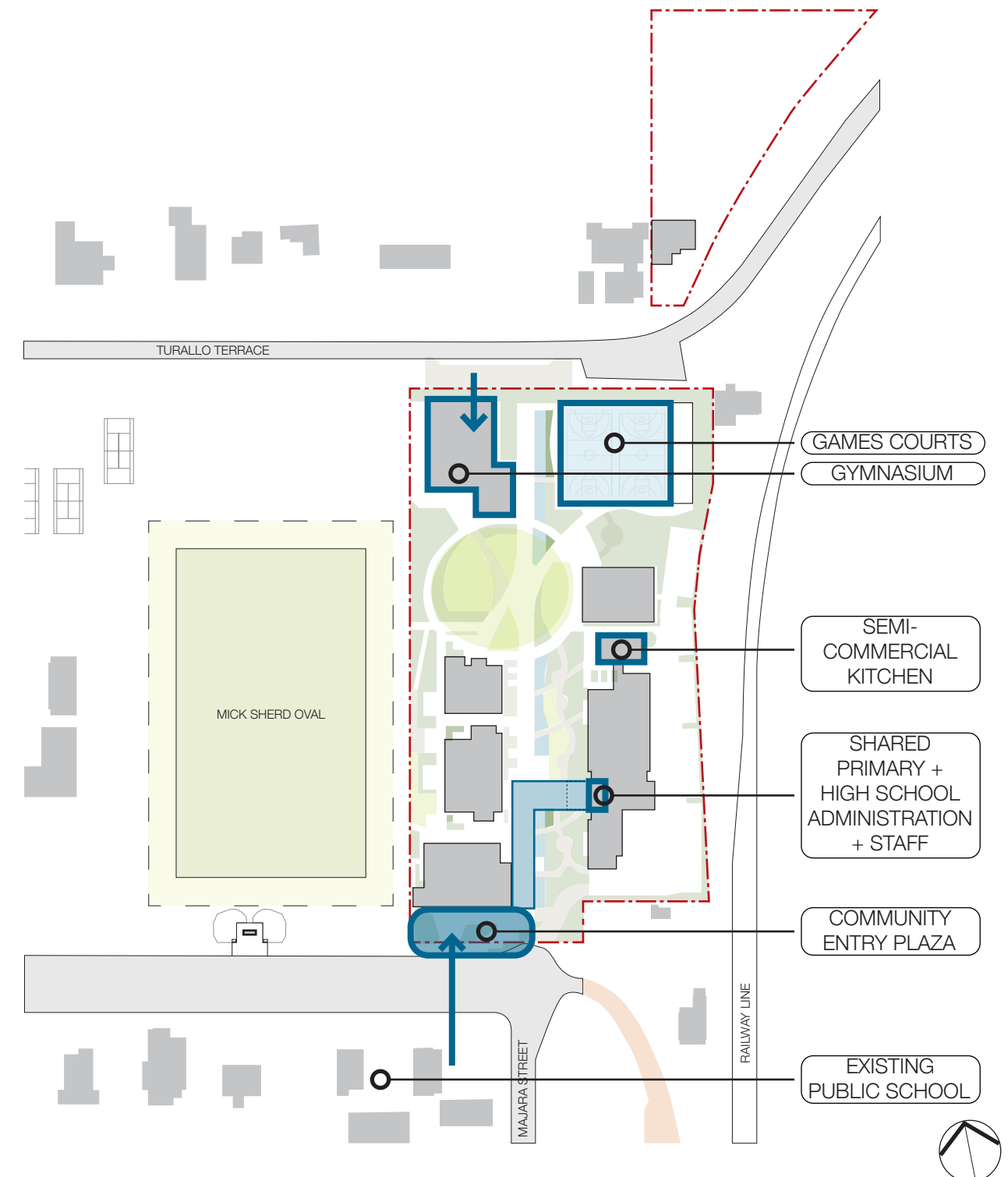
The existing Council building, Block C, is to accommodate shared high school and primary school administration and staff facilities, contributing to the proposed education precinct that creates a supportive environment for pupils to transition between the two schools.

The semi-commercial kitchen provides opportunities for the sharing of foods with families and friends.

The school Gym has been located and designed to have direct access from the street for access by the community outside of school hours. Further opportunity for shared use of the Games Courts is also provided through their location adjacent to the street.

The shared use and community use of facilities are subject to further discussion and agreement between relevant parties and DOE'.

Amended SSDA Proposal



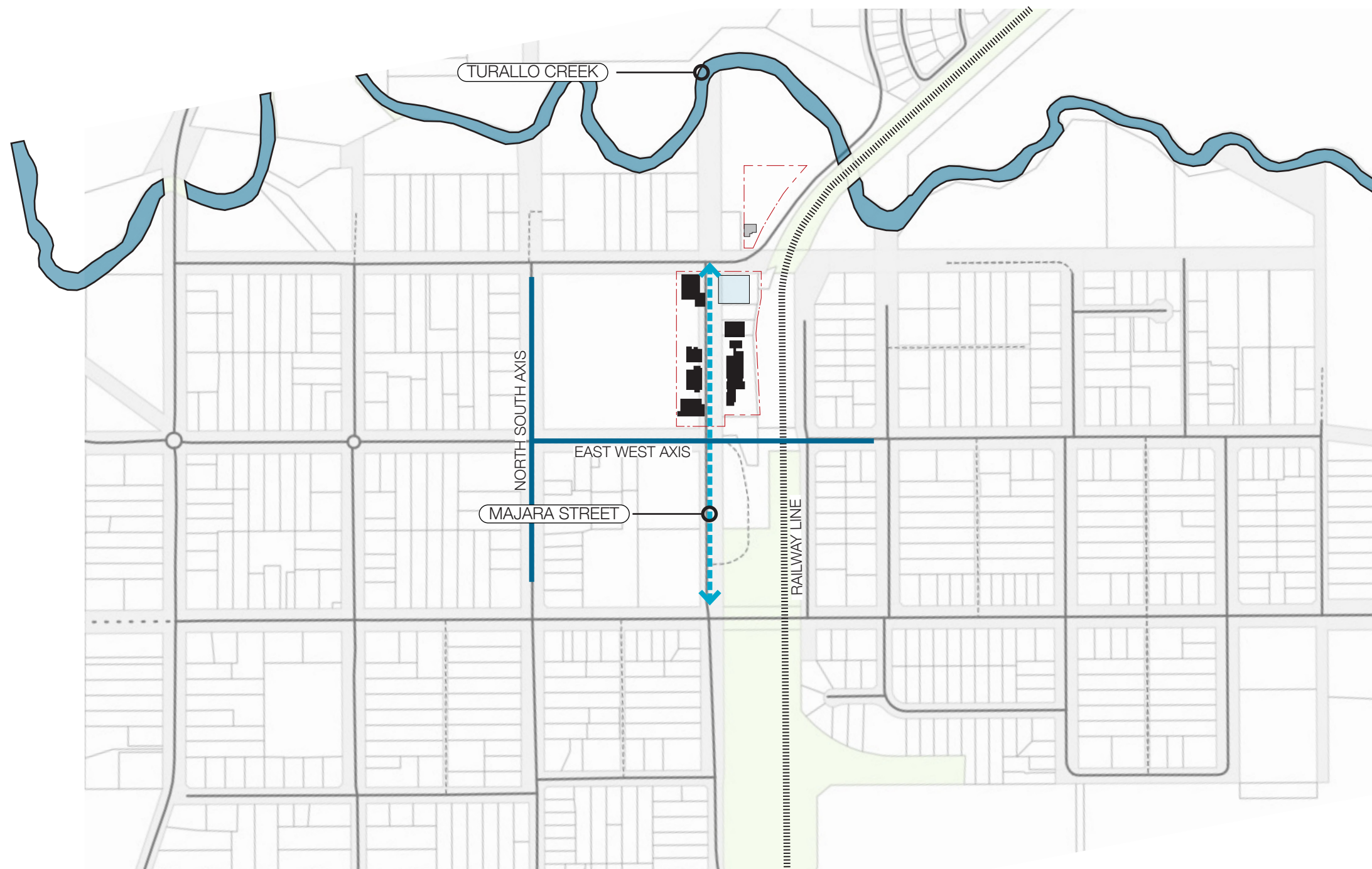
Masterplan + Landscape

6. The erosion of the 19th century street grid is a major concern. It is recommended that the original alignment of Majara St is reinstated and that proposed built form and open space support this gesture to maintain the integrity of the town plan. The proposed built form of the administration building, science, general learning and gym/library impede the original alignment. Consider relocating the built form further west and activate the Majara St plaza to create greater usable learning and open spaces.

7. Ensure that visual access is maintained from Majara St through to the river.

The original alignment of Majara Street has been reinstated within the revised design. The built form and landscape design have been amended to acknowledge and reinforce the original street alignment.

The relocation and redesign of the built form from the Majara Street axis retains the site's existing visual connection with Turallo Creek to the north.



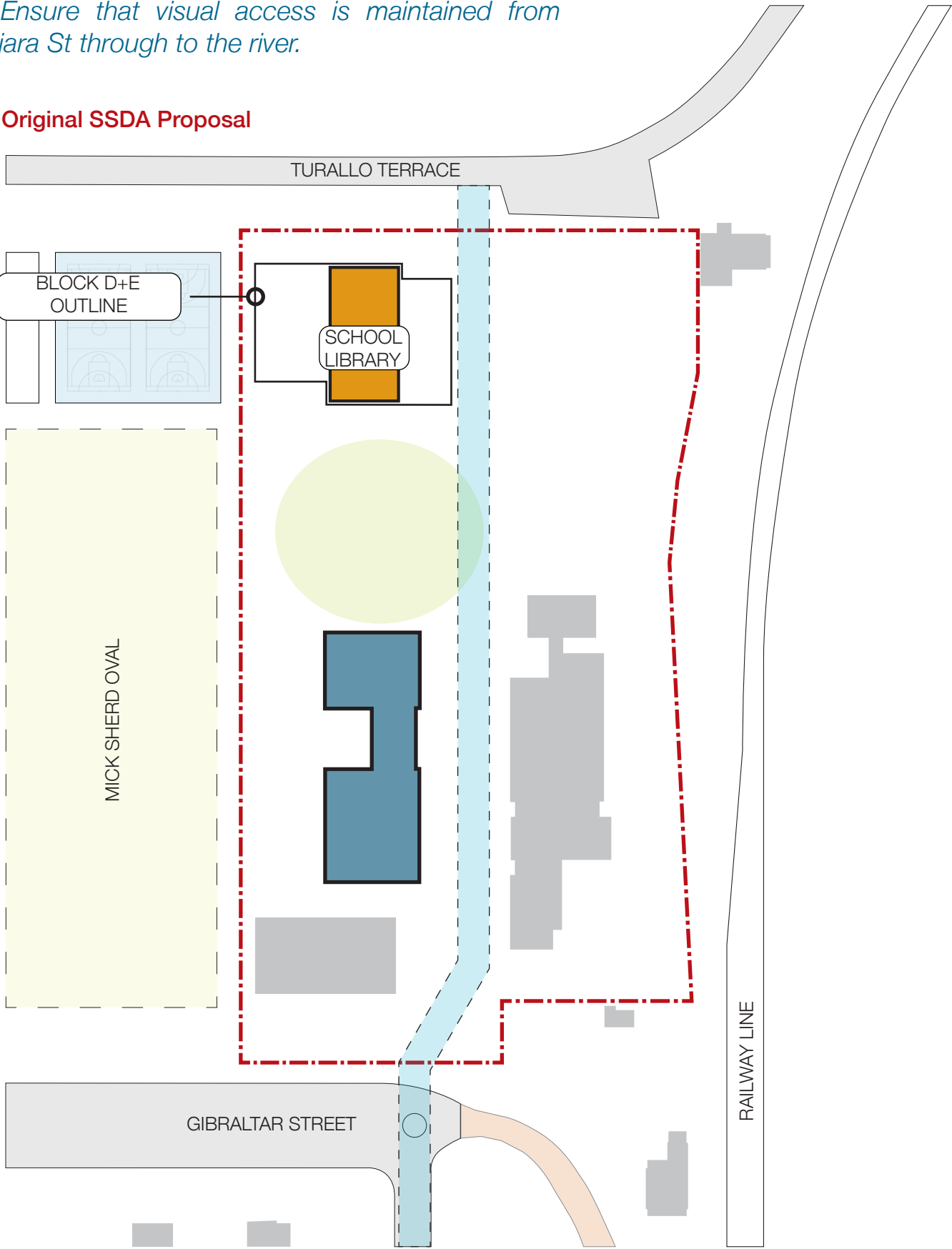
Bungendore Town Street Grid

Masterplan + Landscape

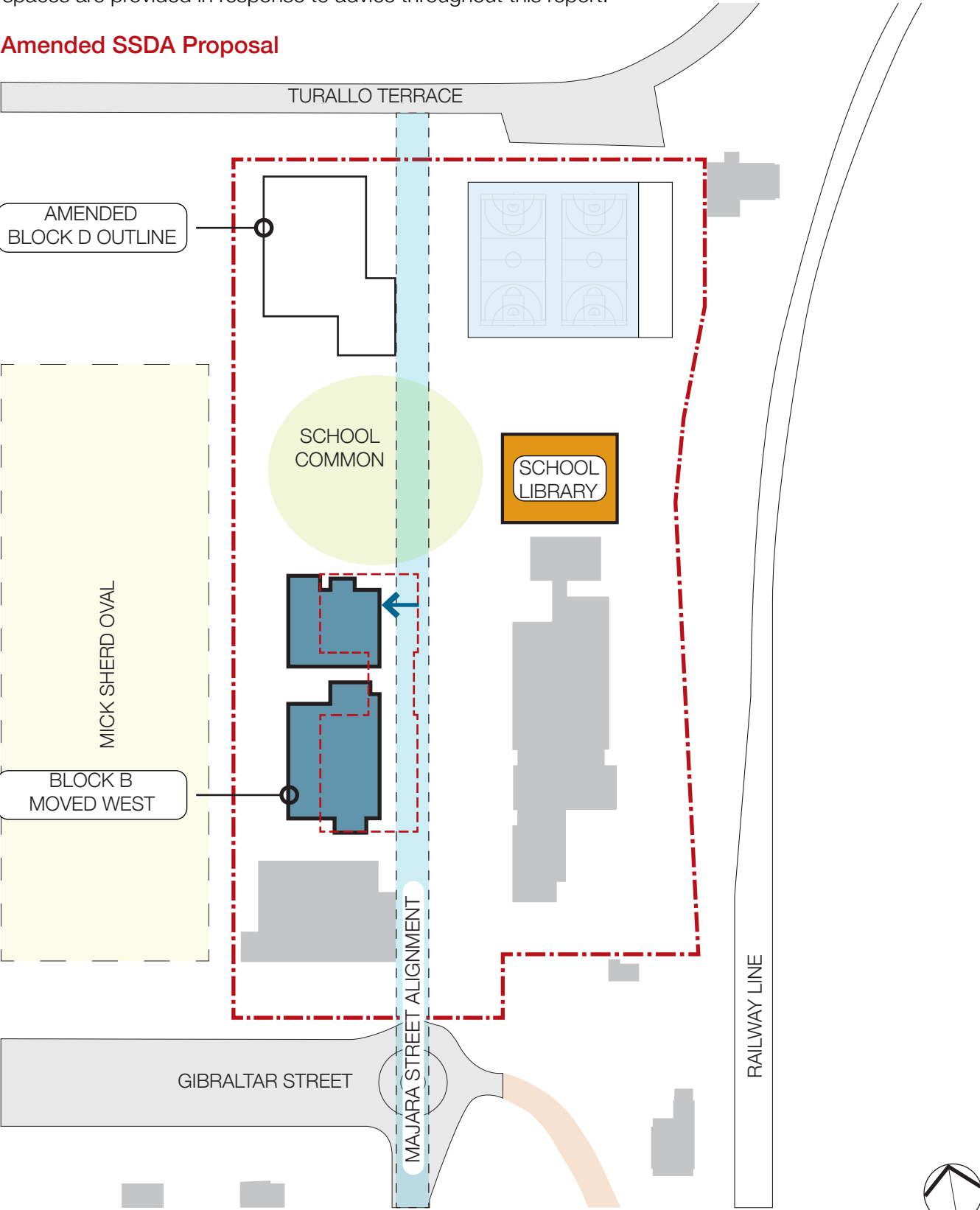
6. 19th Century Street Grid + Majara Street Alignment

7. Ensure that visual access is maintained from Majara St through to the river.

Original SSDA Proposal



Amended SSDA Proposal



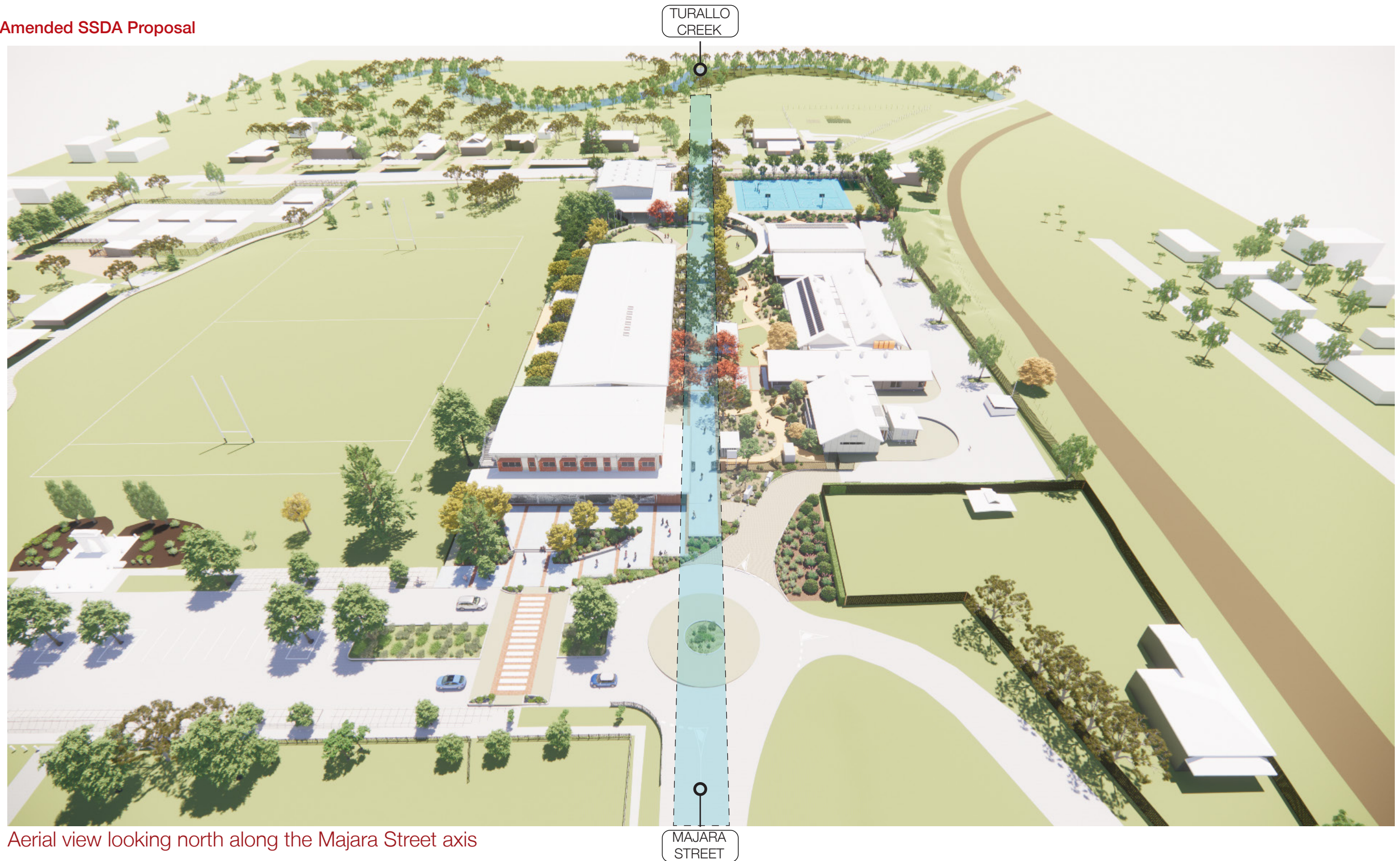
The School Library has been relocated to the east of the Majara Street alignment and centred on the School Common. Block D has been replanned to address the relocated library and removal of Council facilities from the proposal, and Block B has been relocated to the west to sit east of the Majara Street alignment. The central areas between Block B and C have been redesigned to incorporate formal and informal learning spaces either side of the School Avenue which sits on the Majara Street axis. Further detail on the learning spaces are provided in response to advice throughout this report.

Masterplan + Landscape

6. 19th Century Street Grid + Majara Street Alignment

7. Ensure that visual access is maintained from Majara St through to the river.

Amended SSDA Proposal



Aerial view looking north along the Majara Street axis

Masterplan + Landscape

8. Create a legible entry point into the campus from Majara St. This entry should provide year round access outside of school hours through the site for the Bungendore community and students linking to the river.



Aerial view from the south looking towards the Entry Forecourt

The Entry Forecourt, is designed as a large, publicly accessible, civic space, defining the school's main arrival point. The space provides ample gathering and seating opportunities for both the school and community.

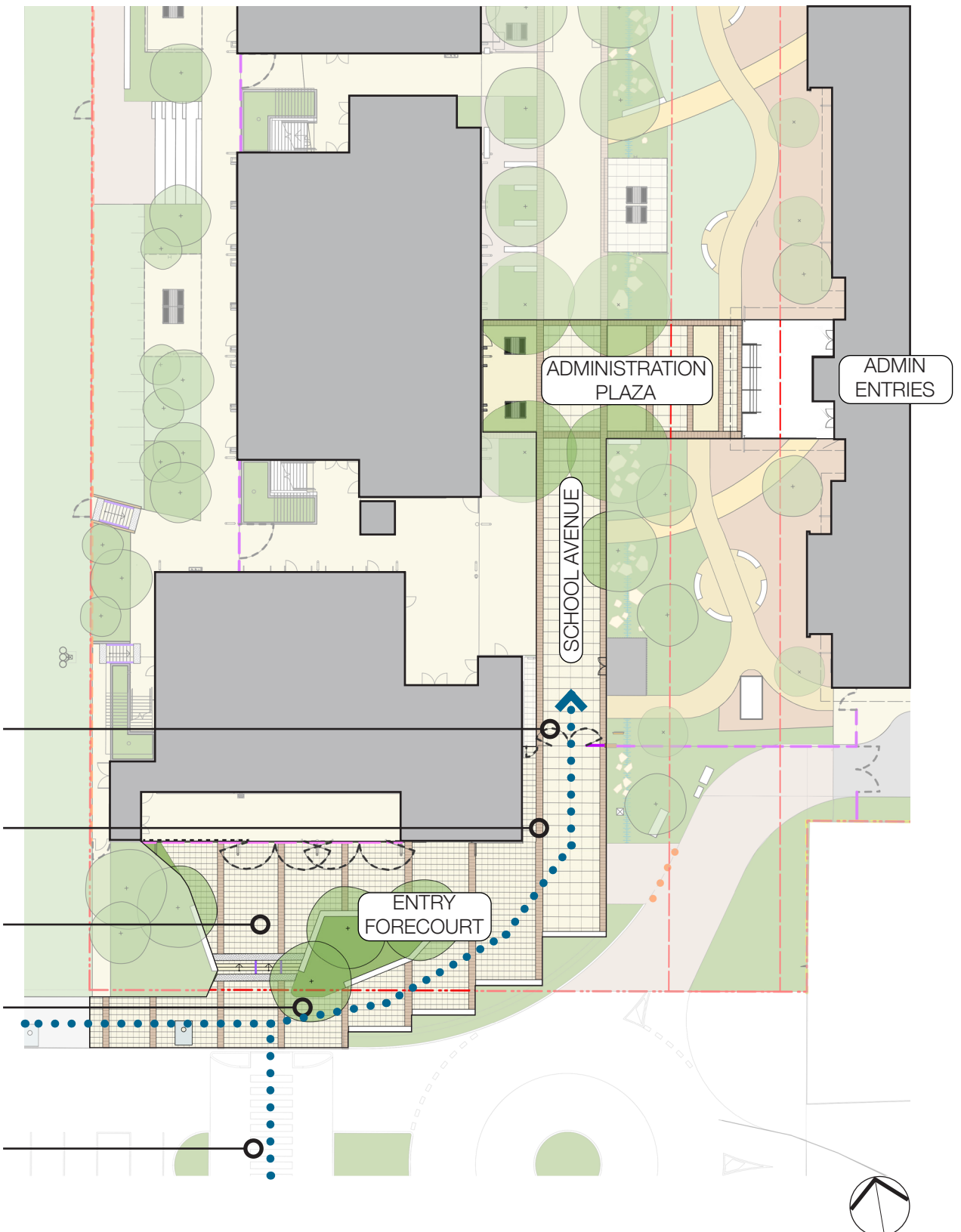
The space is framed by deciduous tree planting offering shade in summer and sunlight in winter.

Saw cut-concrete paving and brick banding, which define the Majara Street axis and which link to the Administration Plaza, spread out into the Entry Forecourt, creating a sense of connectivity between school and the community interface.

The Administration Plaza intersects the School Avenue marking the arrival point for the public reception. The design reuses the existing building's gable ended verandah as a Civic entry for the school.

The shared use and community use of campus is subject to further discussion and agreement between relevant parties and DOE'.

- SCHOOL SECURE LINE SETBACK FROM STREET FRONTAGE.
- FEATURE BRICK PAVING BANDS GUIDE USERS TO THE SCHOOL ENTRY
- LARGE CIVIC GATHERING AND ARRIVAL SPACE
- DECIDUOUS TREES PROVIDE SHADING DURING SUMMER AND ALLOW SUNLIGHT TO THE SPACE IN WINTER
- PEDESTRIAN CROSSING CONNECTS TO ENTRY FORECOURT

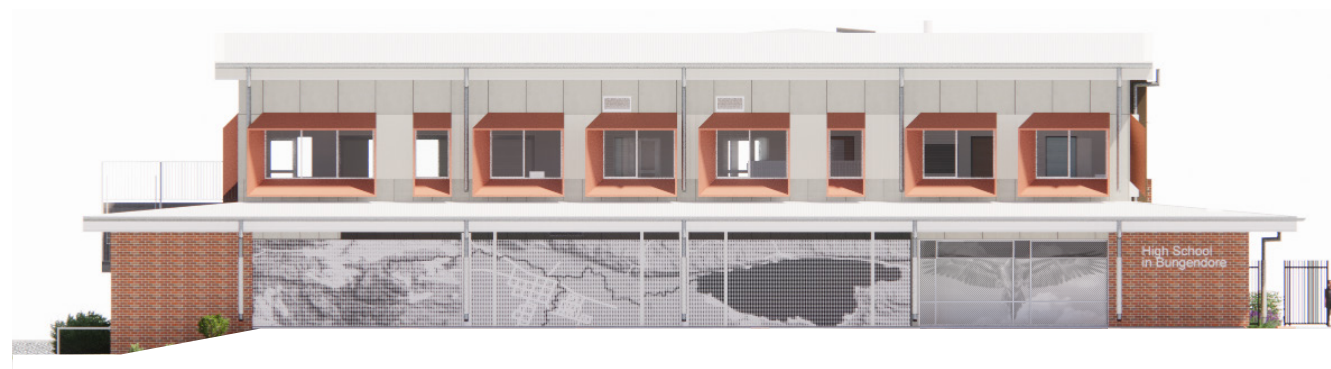
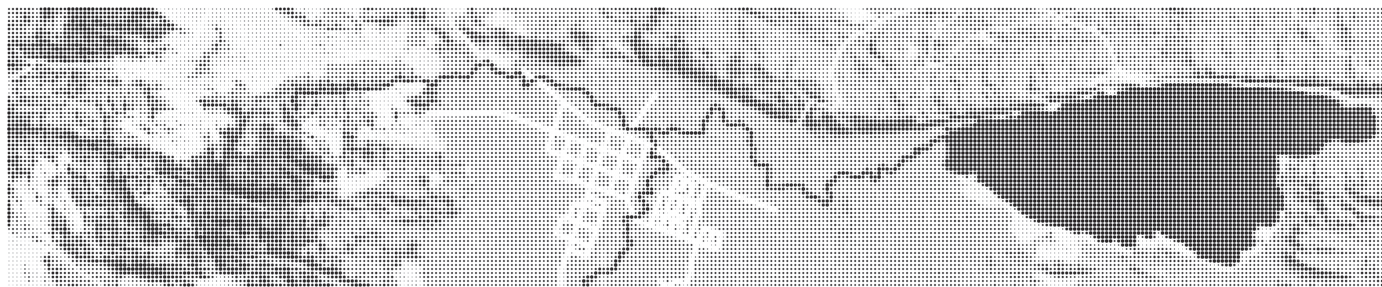
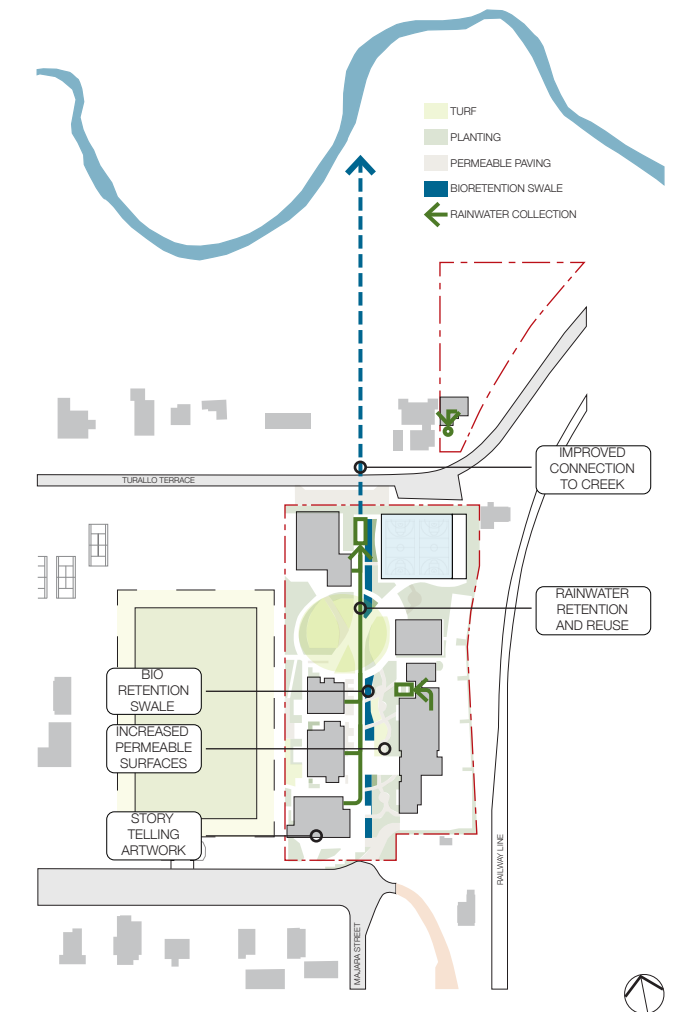


Masterplan + Landscape

9. Further respond to the stories of place in the detailed design of Majara street including water sensitive design and themes generated through consultation with Traditional Owners.

The revised design has been developed to greater respond to the water sensitive design theme generated through Walks on Country.

- The design incorporates approximately 40% of landscape areas as permeable surfaces, which will contribute to reestablishing a more natural hydrologic balance reducing runoff volume, urban heat island effect, potential for flooding, and stimulate plant and tree growth
- A bioretention swale follows the gradient of the land towards the creek, running along the Majara Street axis, capturing and treating stormwater run off from within the school site.
- Rainwater is captured from all building roofs and reused within the site for irrigation and toilet flushing.
- The relocation and redesign of buidings reinforce the Majara Street alignment and retain the existing visual connection to the creek.
- Introduction of integrated artwork into the Block A facade, fronting the public Entry Forecourt, tells the story of the site's connection to water. The below design is inidcative only and subject to further development.

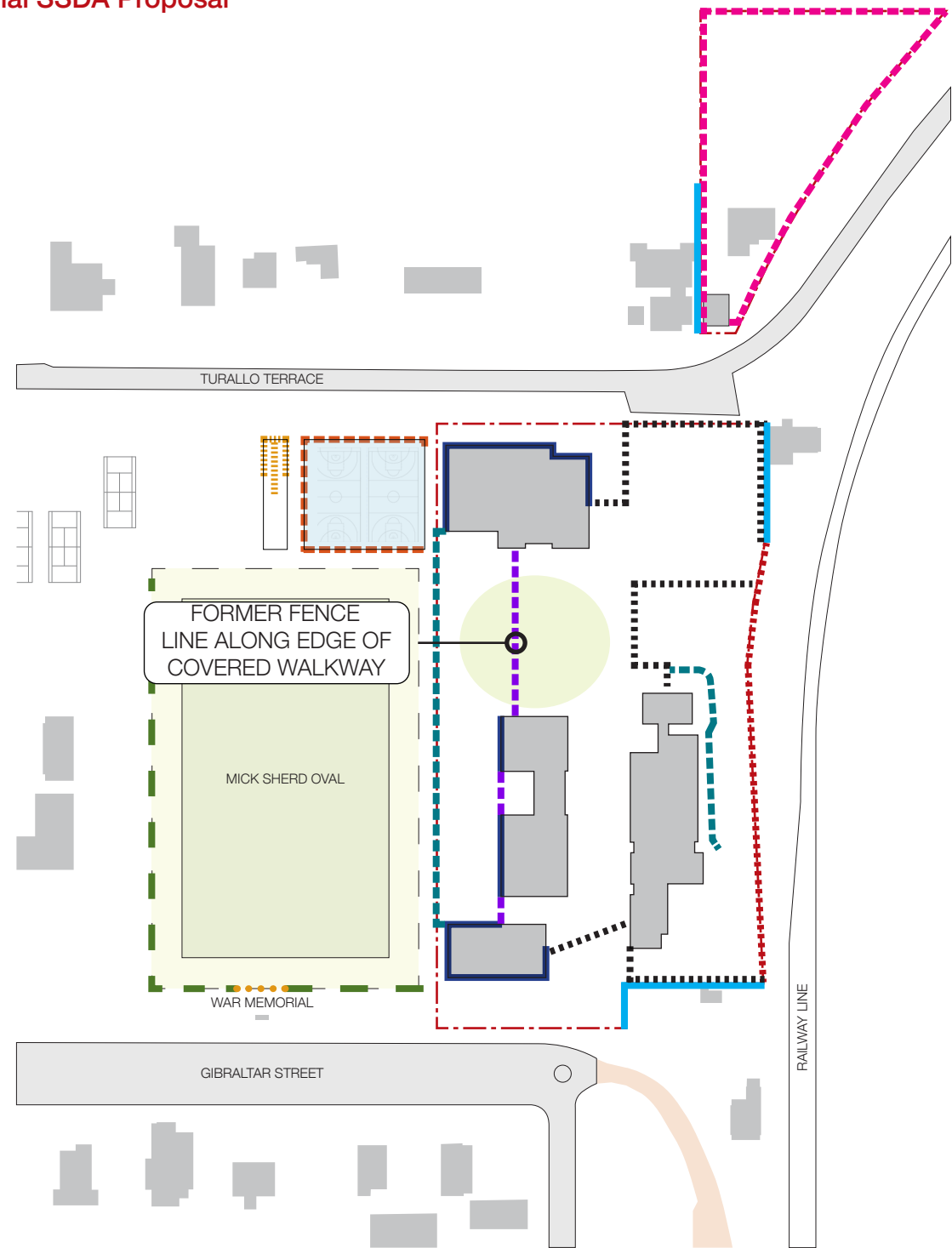


Indicative image: Entry forecourt artwork describing the site's connection to water Perspective image of the bioretention swale

Masterplan + Landscape

10. Revise the fencing strategy. The current proposal is unacceptable as is not in keeping with the character of the town and a school within a rural setting. The fencing strategy impacts on the usability of open space within the campus and truncates the open space unnecessarily. Provide updated details on the fencing strategy including clear articulation of what needs to be secured whilst considering place and context.

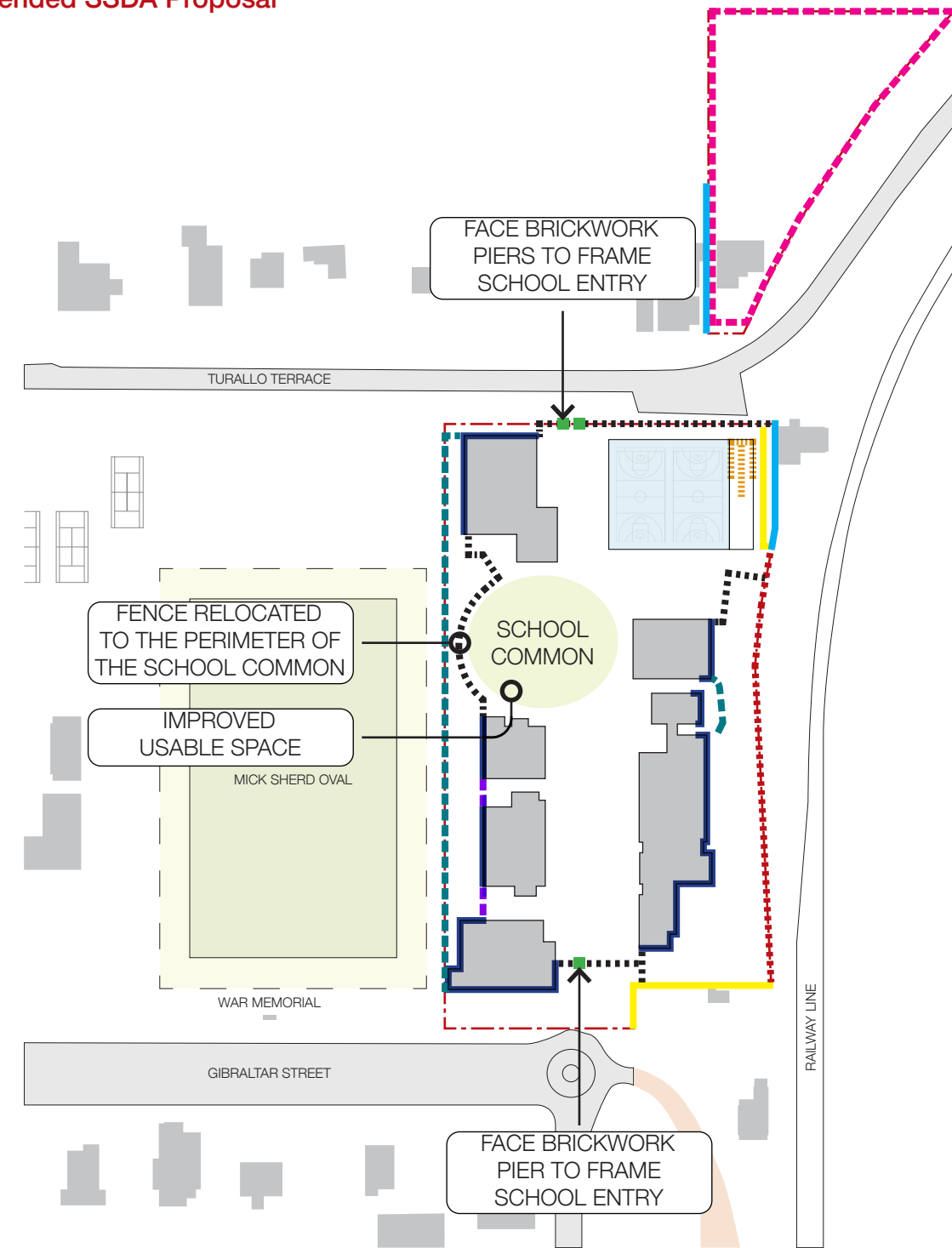
Original SSDA Proposal



The school security fence between Blocks B and D has been redesigned to arc around the western perimeter of the School Common, providing a more versatile open space to the centre of the campus. The school security fence to the northern and southern boundaries has been rationalised and face brickwork piers have been introduced to define the school entries and complement the town's character. A new 2.1m high timber lap and cap fence is proposed to the adjacent Station Master's Cottage and Signman's Cottage. The fence type has been selected in response to heritage advice, to be sympathetic to the heritage character of the two properties.

- BUILDING FACADE
- 1M HIGH CHAINWIRE FENCE
- 2.1M HIGH PALISADE FENCE
- 2.4M HIGH PALISADE FENCE
- 2.4M HIGH CHAINWIRE
- EXISTING FENCE
- 2.1M HIGH TIMBER LAP AND CAP FENCE
- 2.1M HIGH DOG PROOF FENCE
- TIMBER POST AND TOP RAIL DELINEATION
- REMOVABLE TIMBER BOLLARDS
- BATTING NETTING
- FACE BRICKWORK PIERS

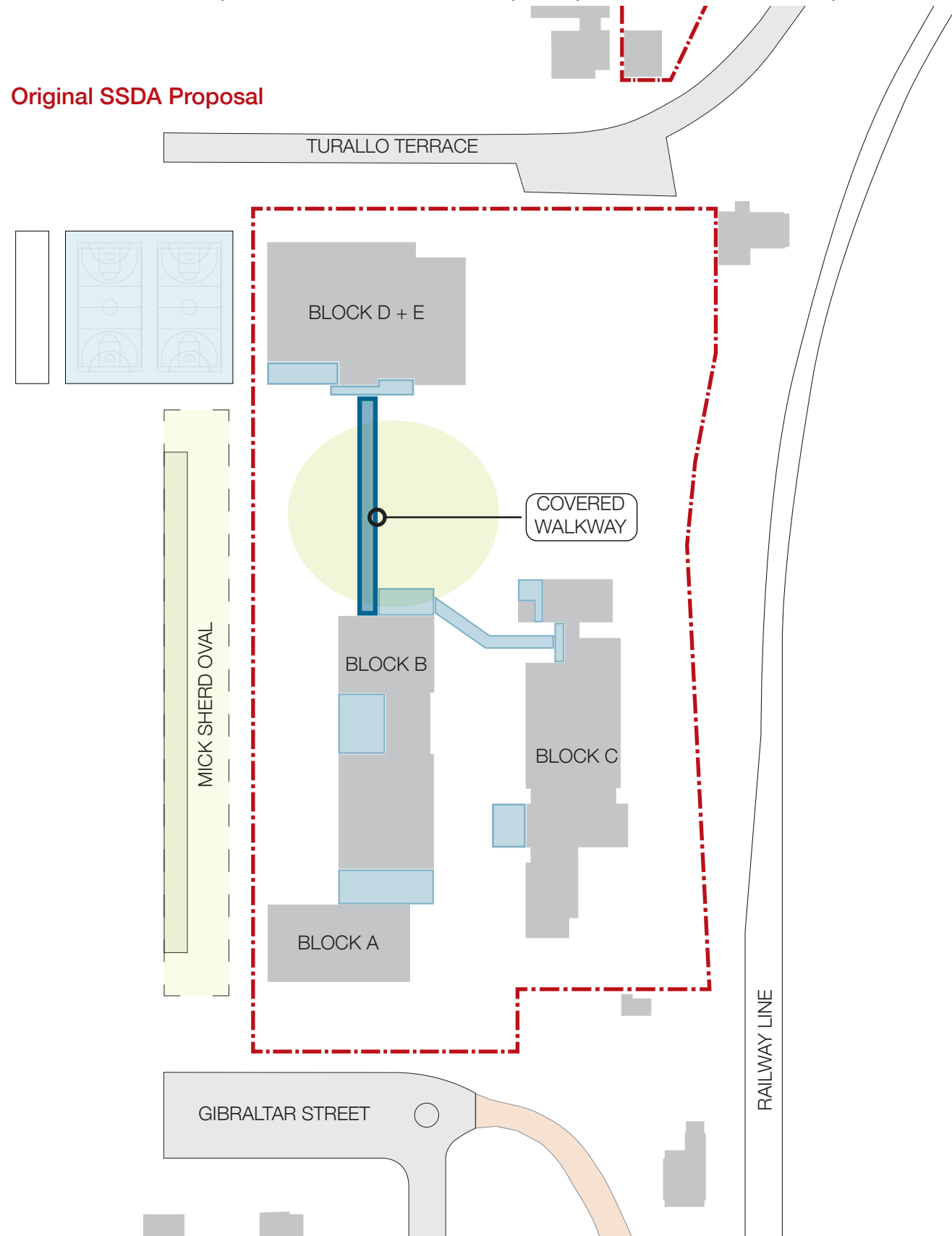
Amended SSDA Proposal



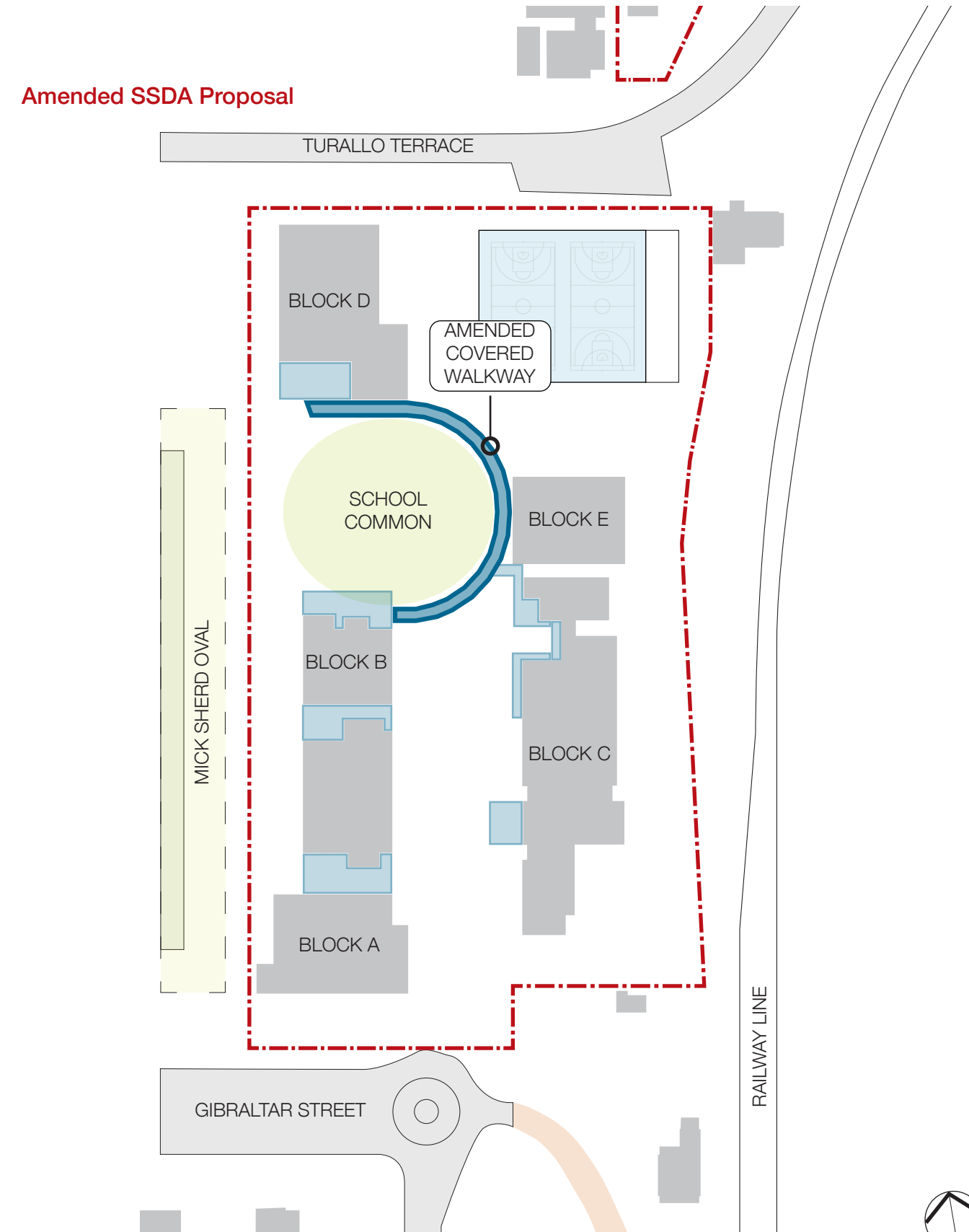
Masterplan + Landscape

11. The covered walkway between the canteen and the science building truncates usable open space. Relocate the covered walkway to the perimeter of the circular oval to further define this space which acts as the open space heart of the campus.

Original SSDA Proposal



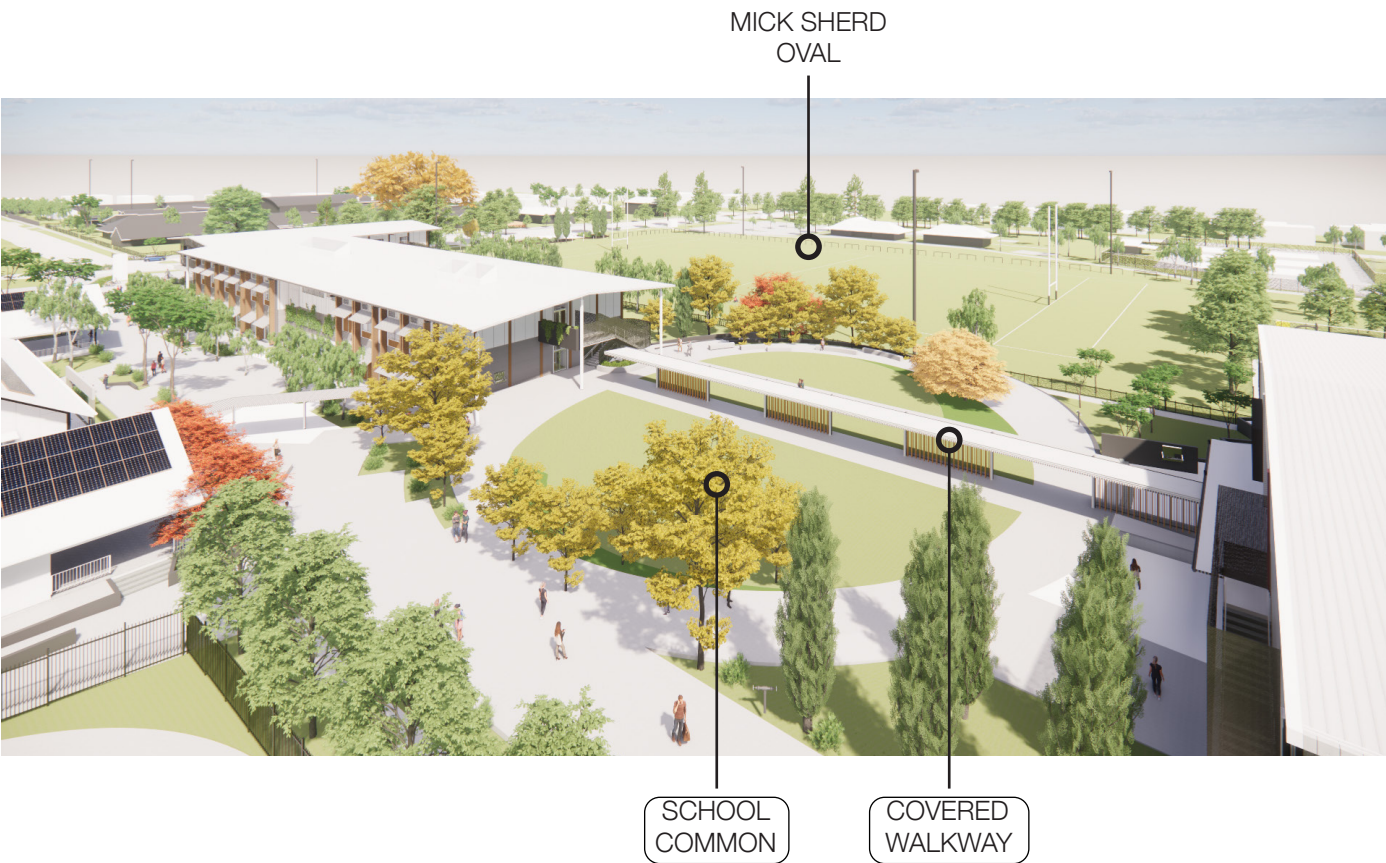
Amended SSDA Proposal



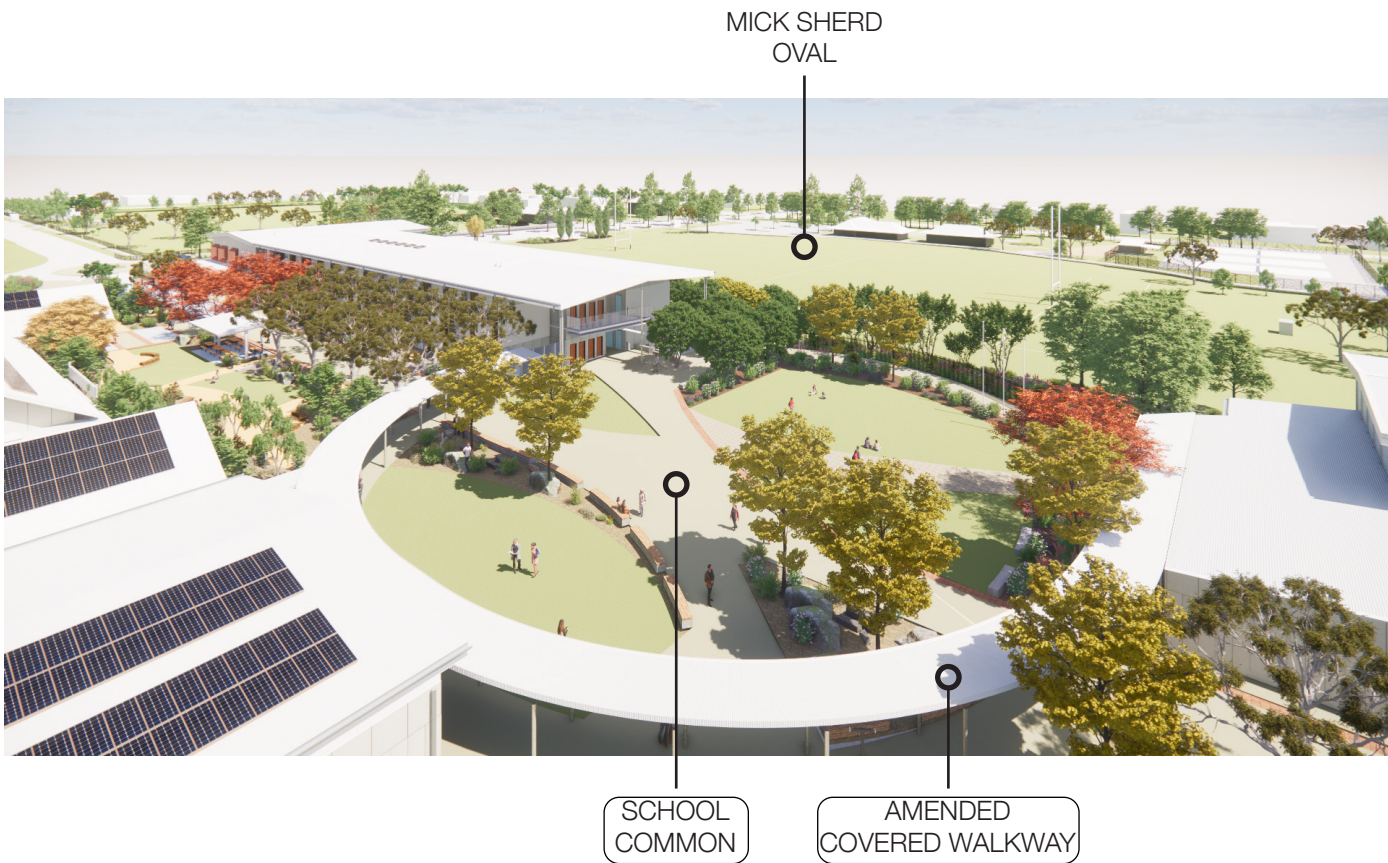
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Original SSDA Proposal



Amended SSDA Proposal

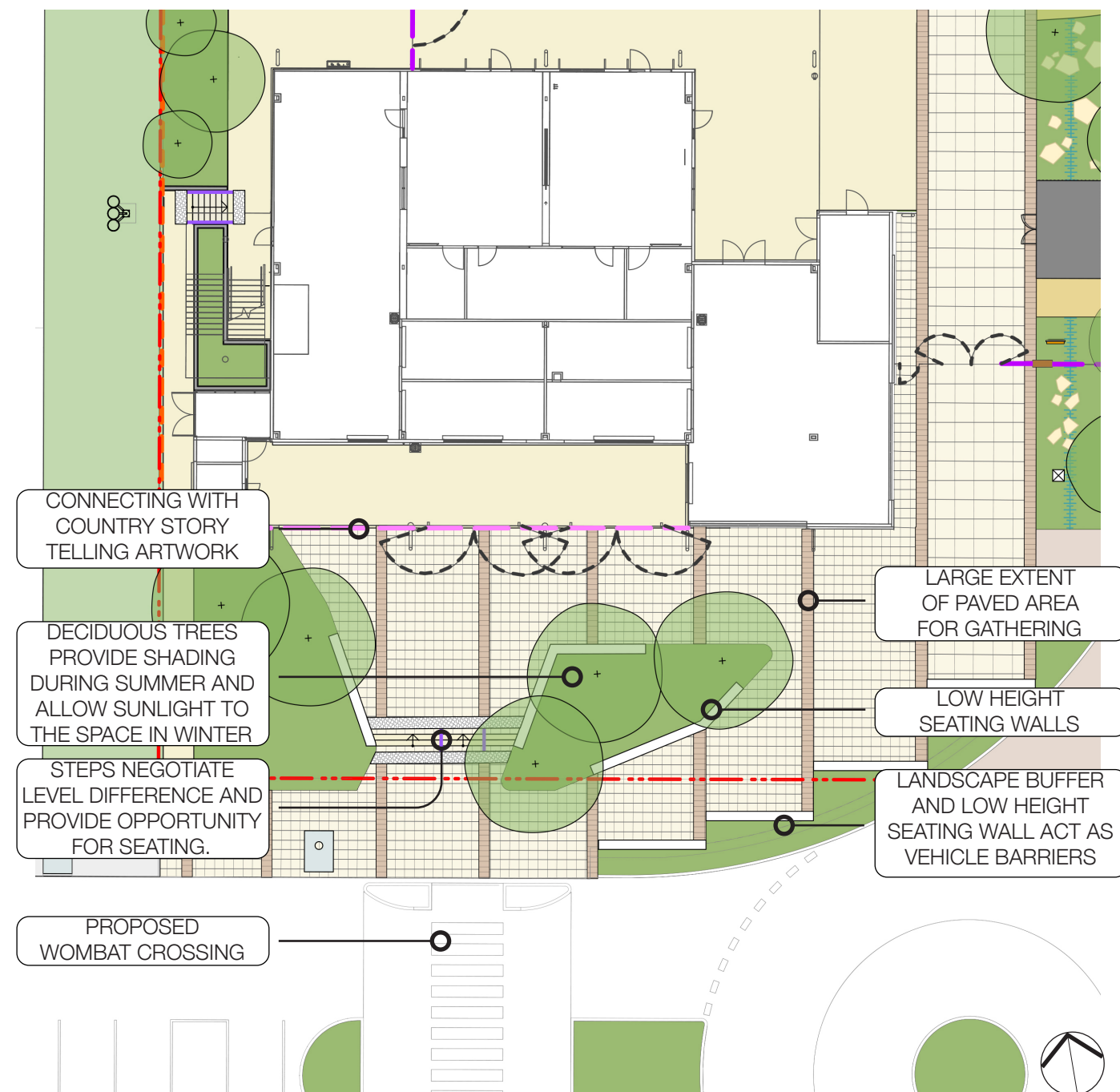


Aerial view looking south west towards the School Common

Masterplan + Landscape

12. Further development of the edge conditions to the campus is required. Provide details through 3D sketches, sections and elevations on the landscape design, perimeter seating for the sports fields, entry/waiting areas, and student experience of the campus.

1 GIBRALTAR STREET



Perspective of the Entry Forecourt

Masterplan + Landscape

12. Further development of the edge conditions to the campus is required. Provide details through 3D sketches, sections and elevations on the landscape design, perimeter seating for the sports fields, entry/waiting areas, and student experience of the campus.

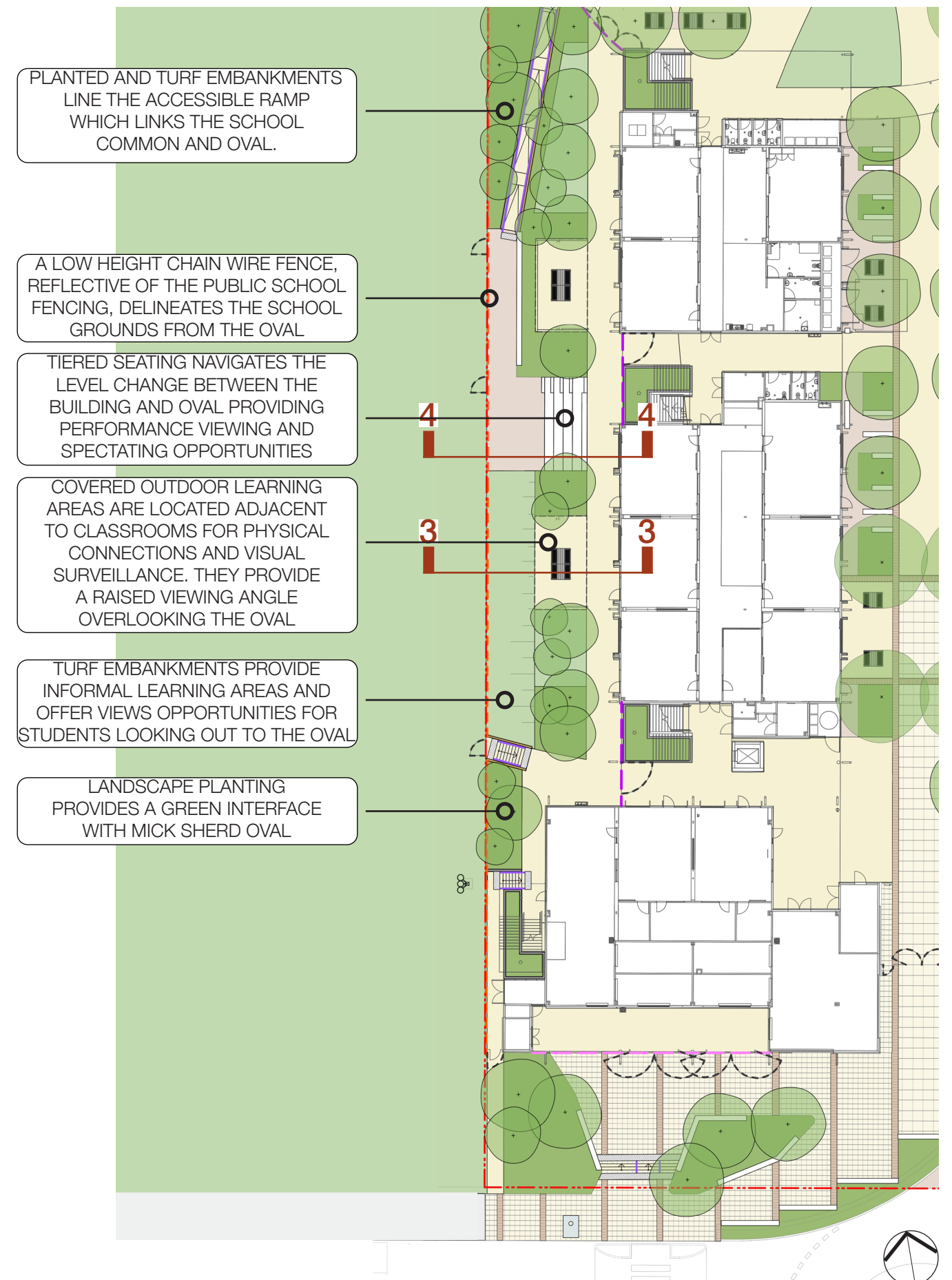
2 MICK SHERD OVAL



Perspective Section 3



Perspective Section 4



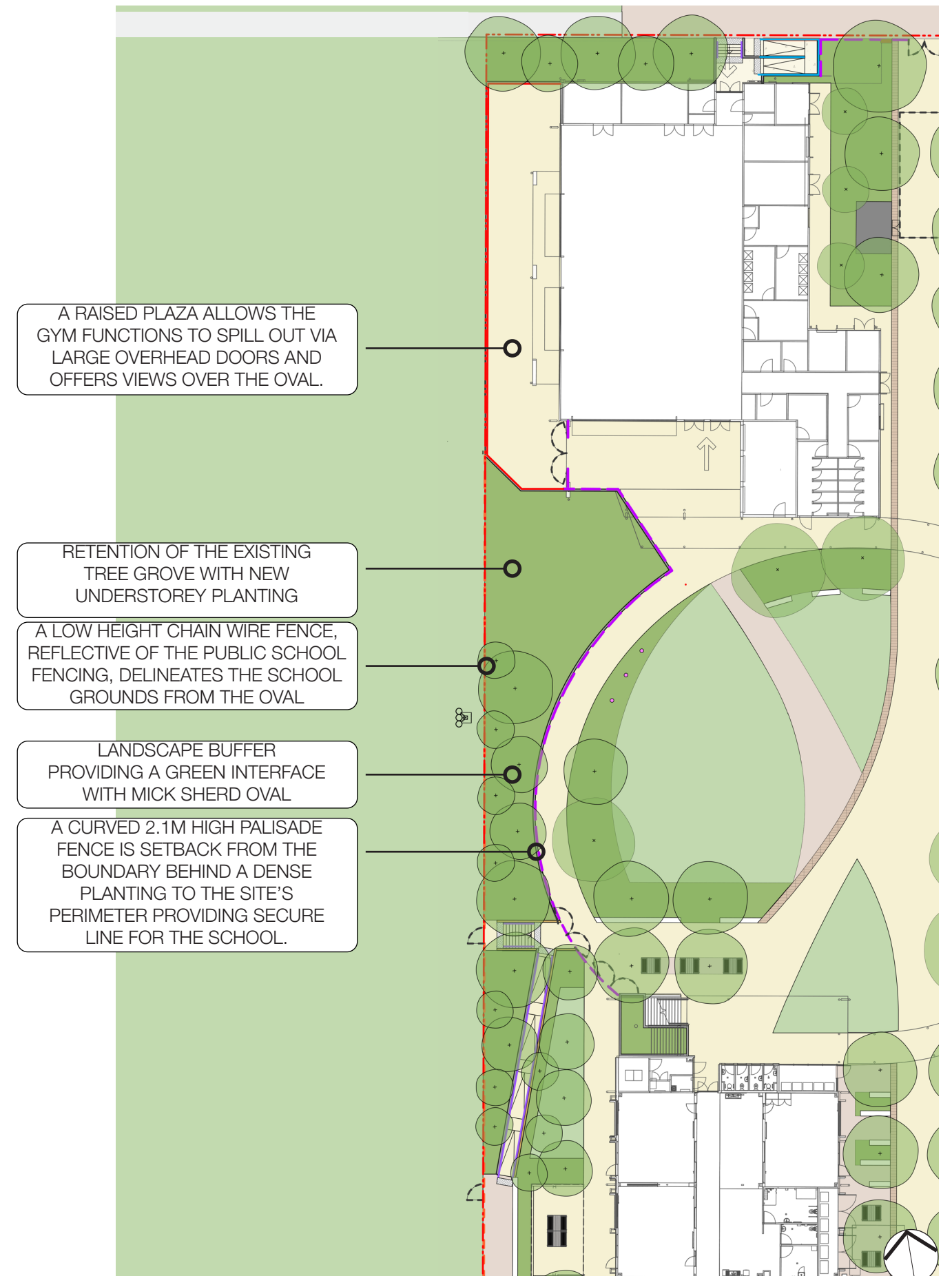
Masterplan + Landscape

12. Further development of the edge conditions to the campus is required. Provide details through 3D sketches, sections and elevations on the landscape design, perimeter seating for the sports fields, entry/waiting areas, and student experience of the campus.

2 MICK SHERD OVAL



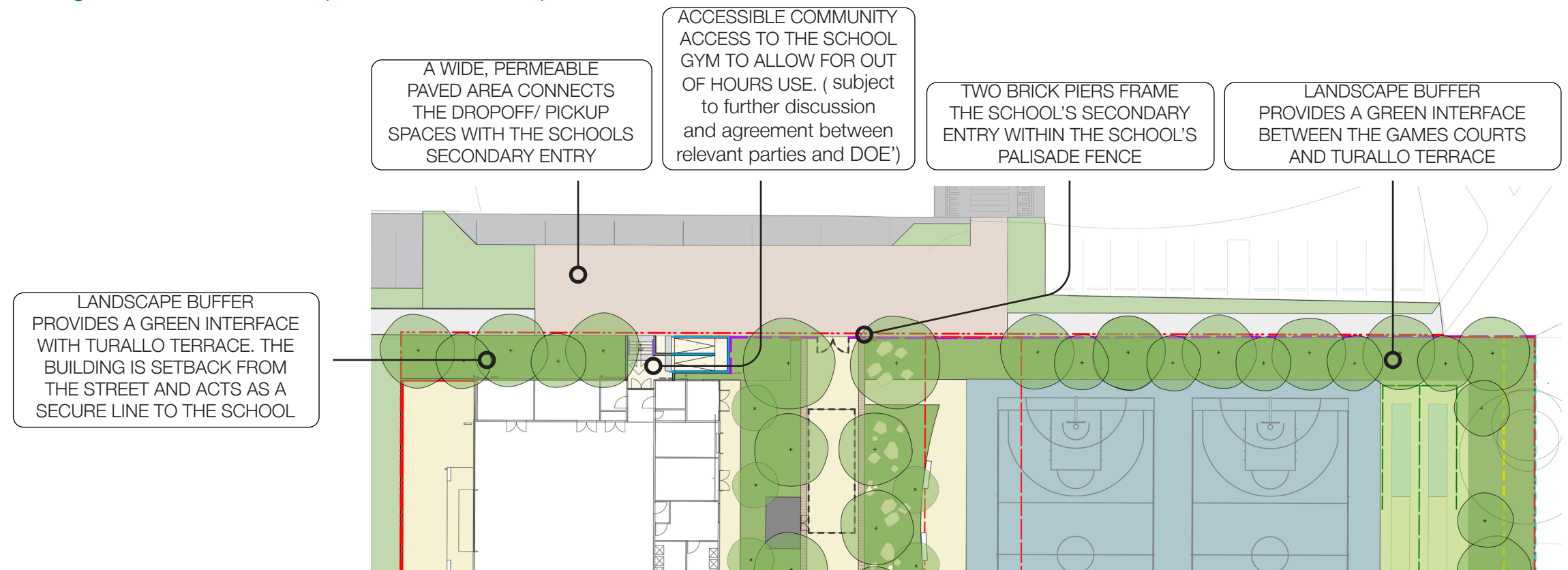
Perspective of the School Common from Mick Sherd Oval



Masterplan + Landscape

12. Further development of the edge conditions to the campus is required. Provide details through 3D sketches, sections and elevations on the landscape design, perimeter seating for the sports fields, entry/waiting areas, and student experience of the campus.

3 TURALLO TERRACE



Persepective of the School Gymnasium, Northern Entry and Sports Courts

Masterplan + Landscape

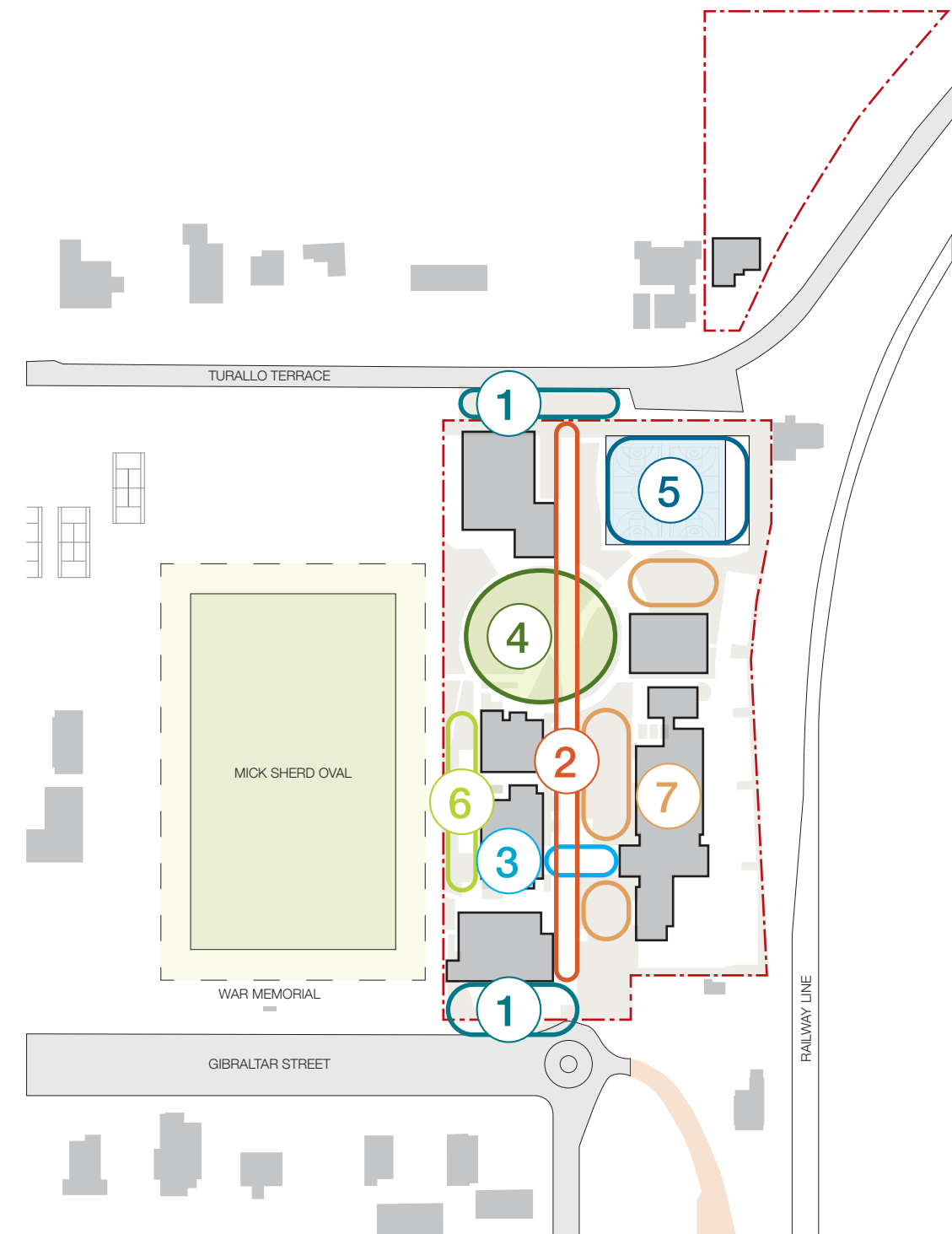
13. The landscape strategy lacks detail. Provide further design development on the hierarchy of spaces, uses and the supporting planting palette.

14. Explore opportunities to amplify the varied character of the outdoor spaces so that they may reflect and integrate the needs of the different uses and adjacencies. Further detailed development of the landscape strategy is required.

- 1 SCHOOL ENTRIES**
Civic character arrival spaces which define the school entries and shared facilities. The spaces provide opportunities for gathering and seating. Carefully located trees provide shade and mark the spaces.
- 2 SCHOOL AVENUE**
The School Avenue responds to the former Majara Street alignment, and forms the main circulation route for the school, connecting all buildings and spaces. Native, avenue trees and a brick banded paving edge line the space. Passive learning spaces sit either side of the avenue.
- 3 ADMINISTRATION PLAZA**
The space intersects the School Avenue, marking the arrival at the Administration Building. 4 deciduous trees frame the space and align with the repurposed building entry.
- 4 SCHOOL COMMON**
The School Common is the 'heart' of the school, the space connects the school's core facilities, including the Canteen, Gym, Library, Student Amenities and Sports Courts. The space provides opportunities for large gatherings, both active and passive activities and creates an open space connection to the oval.
- 5 GAMES COURTS**
The Games Courts and Batting Nets are the school's main active spaces. They are located in close proximity to the Gym and School Common. Shaded seating areas are provided to the courts perimeter for rest and spectating.
- 6 WESTERN OUTDOOR LEARNING SPACES**
The western edge of the site is designed to provide a green edge to the Mick Sherd Oval. It consists of extensive planted areas and a grass embankment for students to sit and look out. Covered Outdoor Learning Areas sit carefully nestled within landscape embankments, providing optimum physical and visual connections with the classrooms. A tiered learning setting for viewing performances and presentations also connects the building level with the oval. Each of these outdoor learning areas offer high quality views over the oval and to the hills beyond.
- 7 INFORMAL, PASSIVE LEARNING AREAS**
Informal, passive learning areas sit to the east of the School Avenue, adjacent to the single storey ex council building. Turf lawn areas, mounded native planting and a series of yarning circles provide opportunity for learning, rest and respite.

Further detail on the relationship and heirarchy of built form and how they relate to the landscape spaces is provided in response to Advice 24.

Amended SSDA Proposal



Masterplan + Landscape

13. The landscape strategy lacks detail. Provide further design development on the hierarchy of spaces, uses and the supporting planting palette.

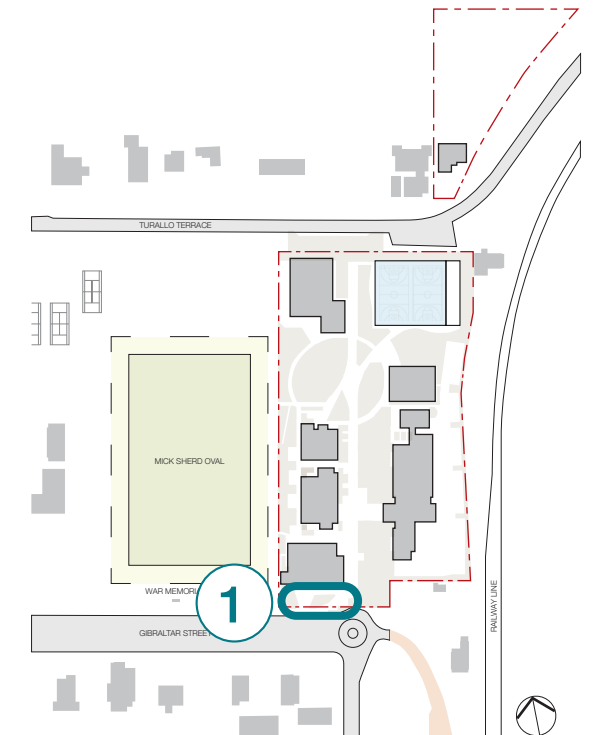
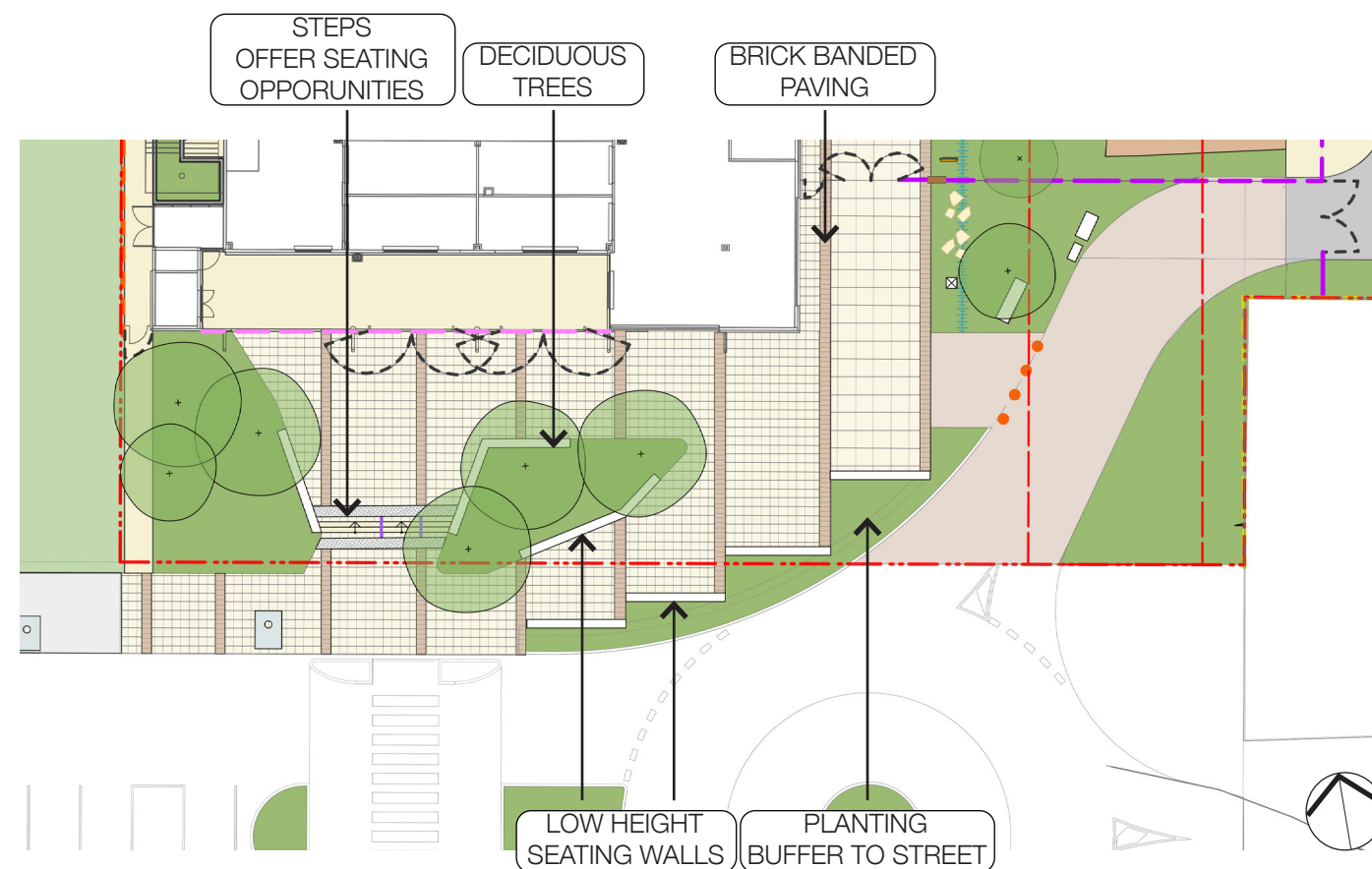
14. Explore opportunities to amplify the varied character of the outdoor spaces so that they may reflect and integrate the needs of the different uses and adjacencies. Further detailed development of the landscape strategy is required.

1 MAIN ENTRY

The public Entry Forecourt is a civic space, located at the front of the school, accessed by the community and school users year round. 3 deciduous trees located within a central planting area provide the space with shade during summer and sun during winter. Large paved areas, low height seating walls and a small flight of steps provide ample opportunity for seating and gathering. Further low height walls and planting also provide a buffer and safety barrier adjacent to the road.

Brick banded paving which lines the Majara Street axis spreads out into the forecourt creating a connectivity between the public and school areas.

Planting at the school entries will utilise colourful, yet hardy native Australian species to create an aesthetic vibrancy and visual interest at the school's threshold. These will create a distinct and recognisable character upon entry and exit of the school grounds.



Indicative Entrance Planting



Masterplan + Landscape

13. The landscape strategy lacks detail. Provide further design development on the hierarchy of spaces, uses and the supporting planting palette.

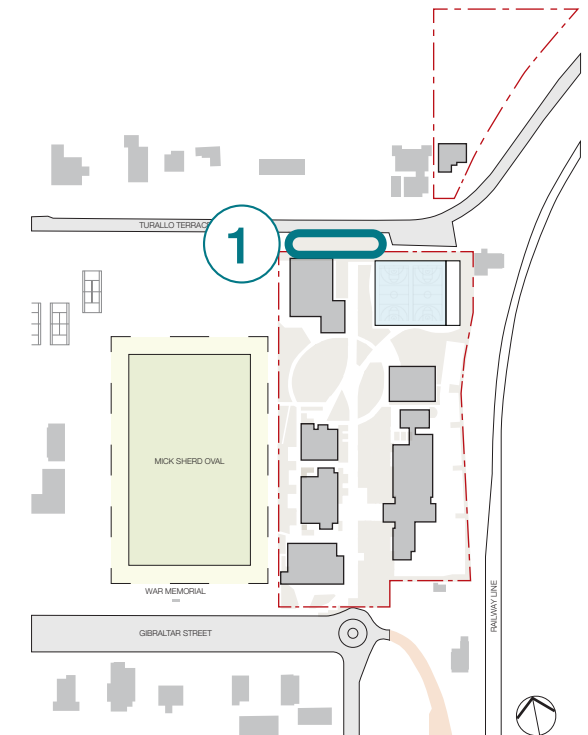
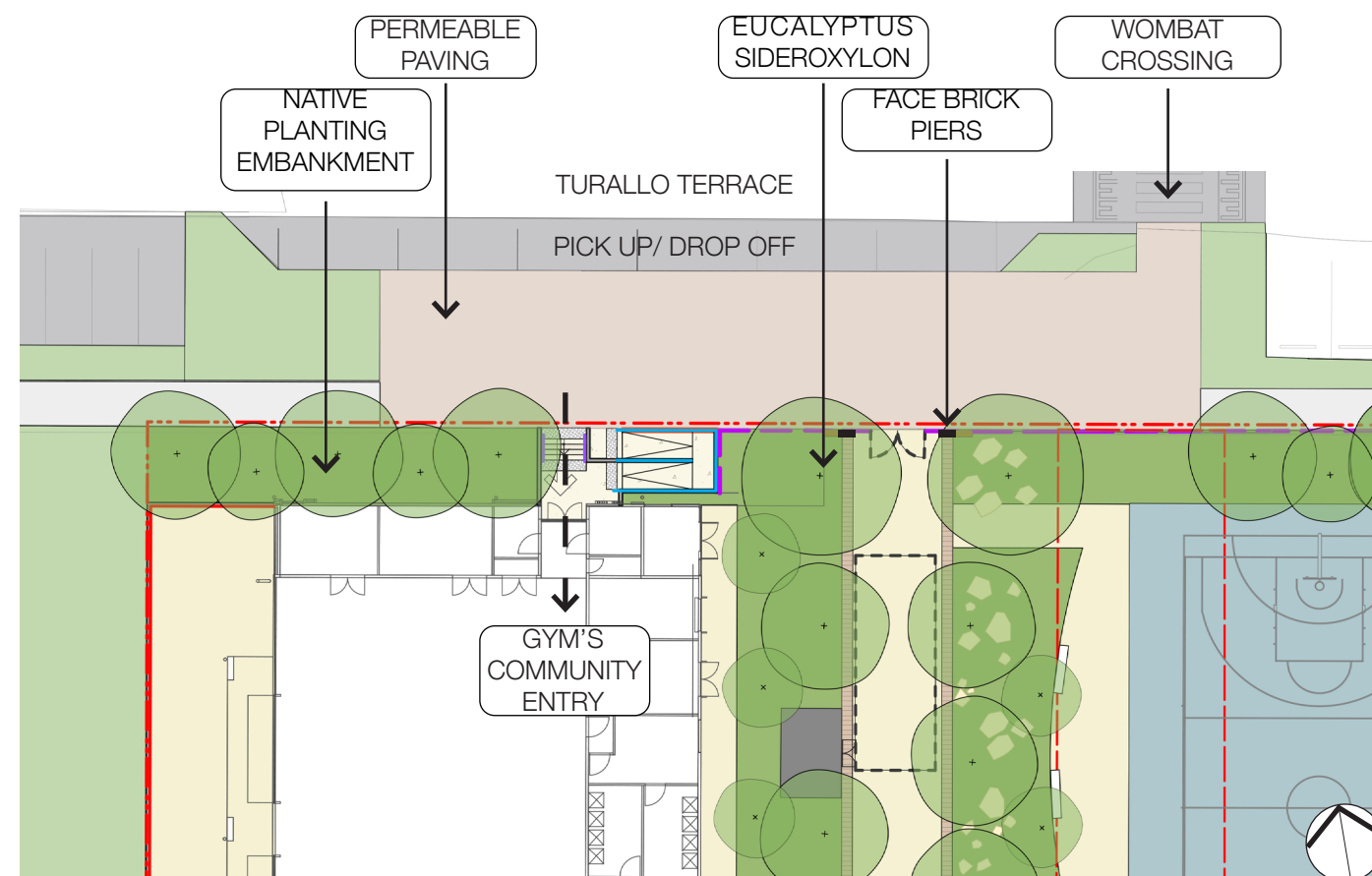
14. Explore opportunities to amplify the varied character of the outdoor spaces so that they may reflect and integrate the needs of the different uses and adjacencies. Further detailed development of the landscape strategy is required.

1 SECONDARY ENTRY

The new public footpath at the secondary entry widens to provide an arrival space adjacent to the school entry, the pick up/ drop off spaces and the community access point to the school gym. Permeable paving has been selected to define the space and to provide a porous surface to the larger extent of paving.

Two Eucalyptus sideroxylon trees and brickwork piers in the fence line define the school entry. The building facade of the gym is setback from the street to provide a planted embankment to the street.

The planting will be similar to the school's main entry, using colour an vibrancy to create visual interest at the entry.



Indicative Entrance Planting



Masterplan + Landscape

13. The landscape strategy lacks detail. Provide further design development on the hierarchy of spaces, uses and the supporting planting palette.

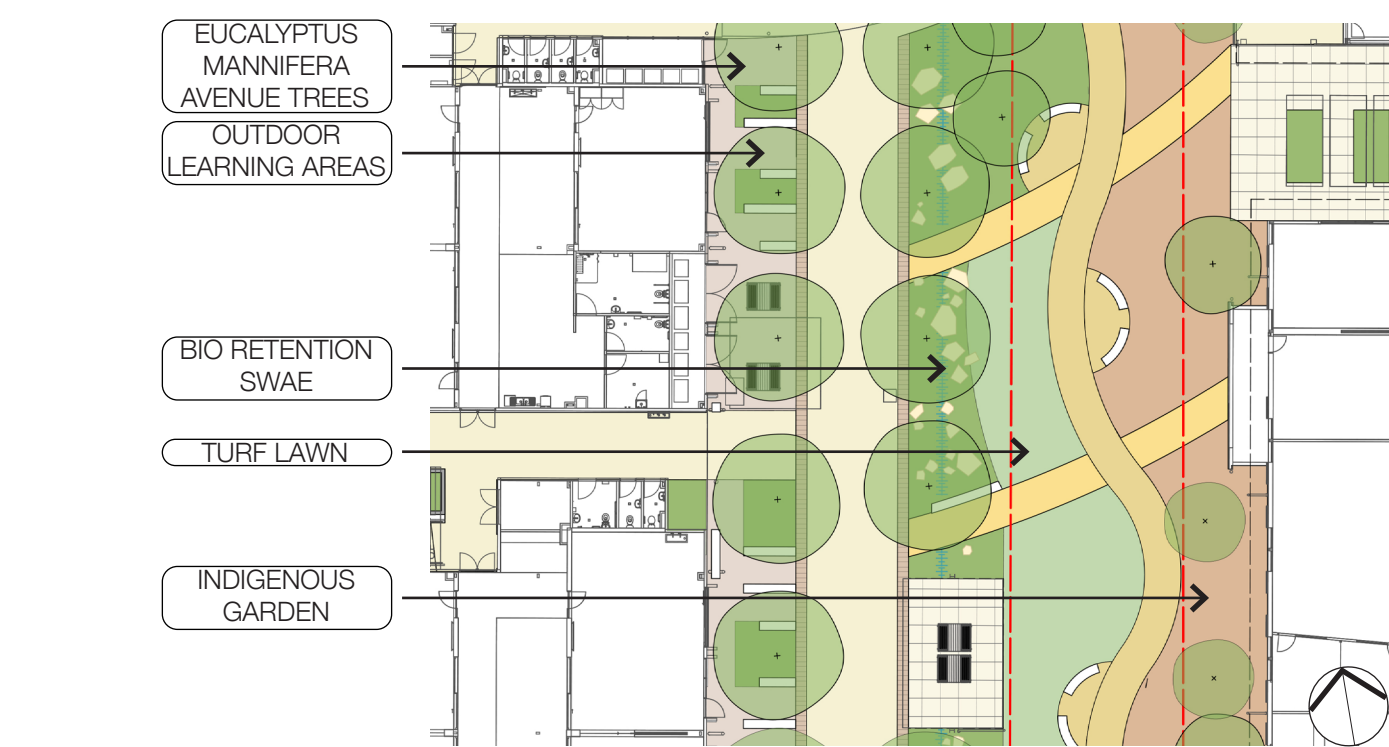
14. Explore opportunities to amplify the varied character of the outdoor spaces so that they may reflect and integrate the needs of the different uses and adjacencies. Further detailed development of the landscape strategy is required.

2 SCHOOL AVENUE

The School Avenue is lined by local, eucalyptus mannifera avenue trees and brick paving banding indicating the Majara Street alignment. These pale, smooth barked trees create a strong and distinct native north-south axis, drawing students along the main school corridor. Outdoor learning spaces sit amongst inner campus planting adjacent to classrooms. The bioretention swale planted with a variety of native WSUD friendly grasses and low shrubs, and an outdoor covered learning area sit adjacent to the east.



Inner Campus Planting



Indicative Water Sensitive Urban Design Planting



Masterplan + Landscape

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3 ADMINISTRATION PLAZA

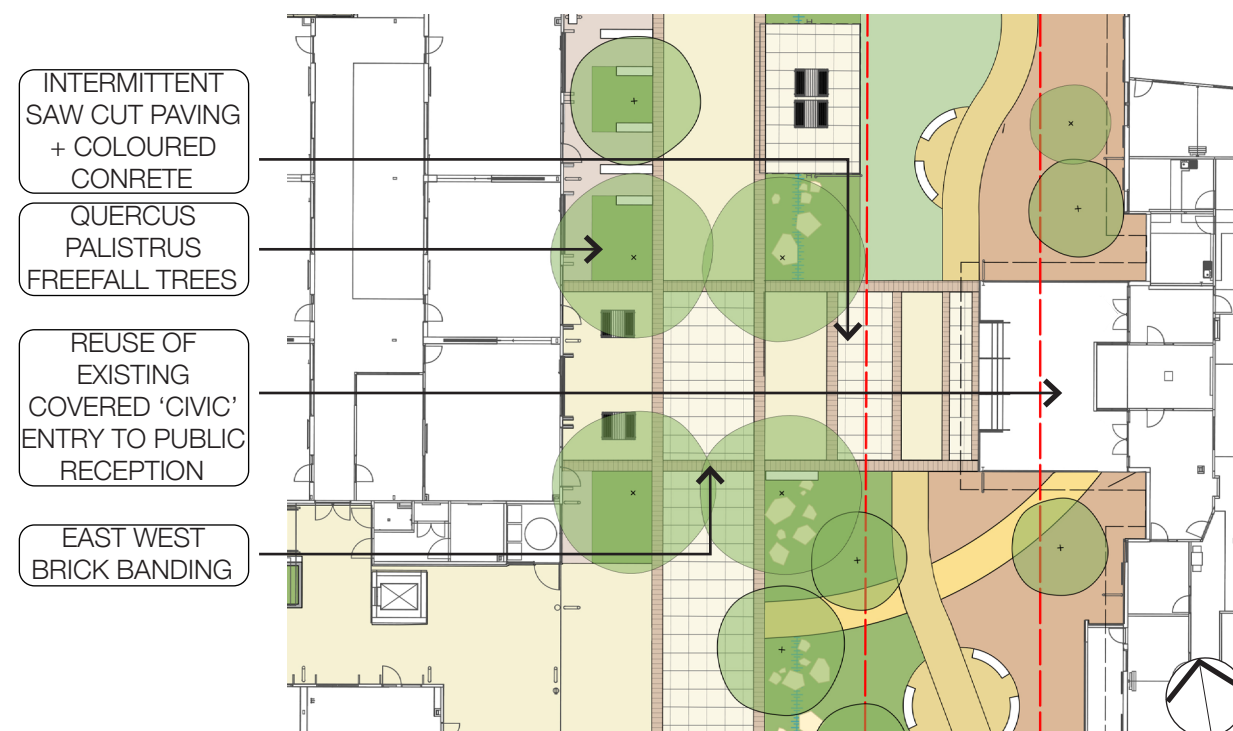
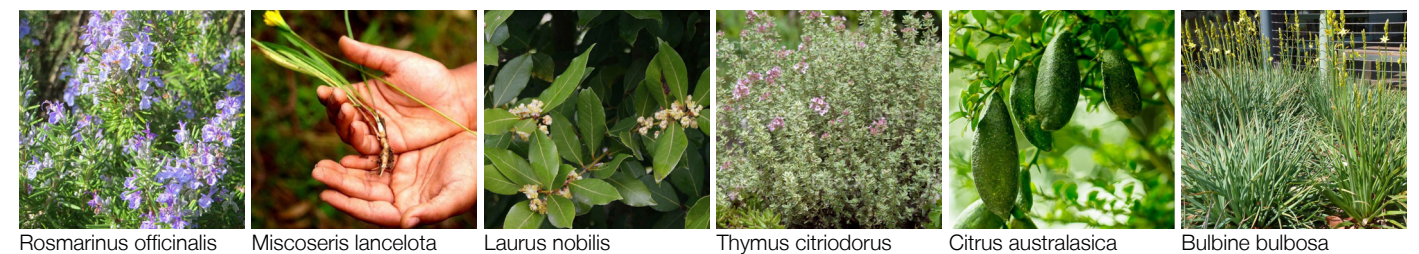
The north-south brick banding and avenue trees of the School Avenue are interrupted at the Administration Plaza, with 4 large deciduous, *Quercus palustris* Freefall trees and east west brick banding, creating a formal arrival space fronting administration building. These deciduous trees will provide autumnal colour, while creating shade in summer and enabling sun in winter. The reuse of the existing 'civic' entry space to the public reception provides a clear entry for school visitors.



Inner Campus Planting



Indigenous Garden Planting



Masterplan + Landscape

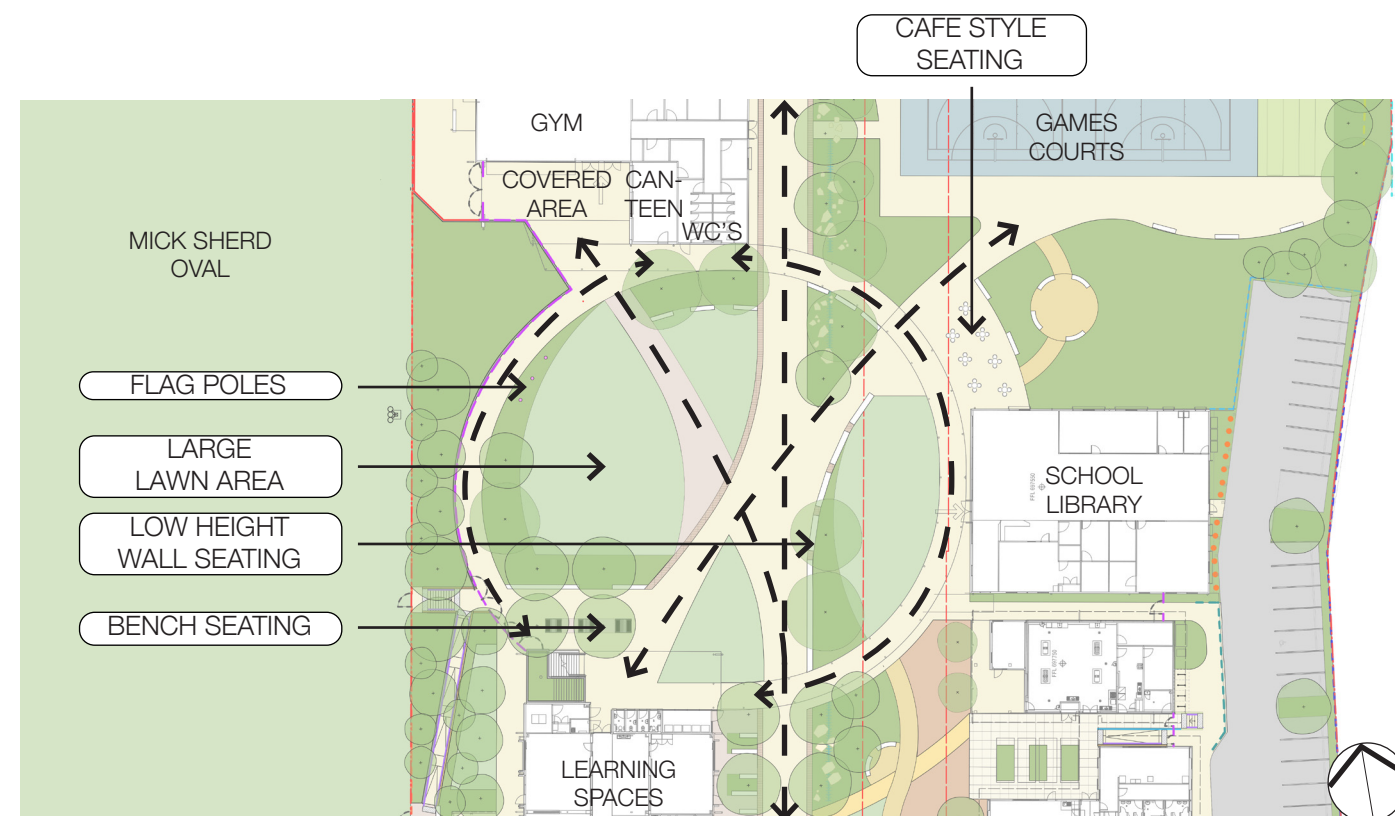
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14. Explore opportunities to amplify the varied character of the outdoor spaces so that they may reflect and integrate the needs of the different uses and adjacencies. Further detailed development of the landscape strategy is required.

4 SCHOOL COMMON

The School Common has been redesigned to accommodate the adjusted movement patterns through the space, with diagonal paths connecting the Gym, Games Court and Majara Street Axis opened through the lawn area. The space provides a variety of bench seating opportunities and open lawn. The Common also contains the school's flag poles and offers ample gathering space.

Planting will be characterised by a variety of exotic tree planting, characteristic of the local context. Deciduous species, such as *Quercus palustris* 'Freefall' & *Zelkova serrata* 'Green Vase', have been prioritised in the school's primary gathering spaces to introduce colour and vibrancy while allowing dappled sunlight in winter.



Inner Campus Planting



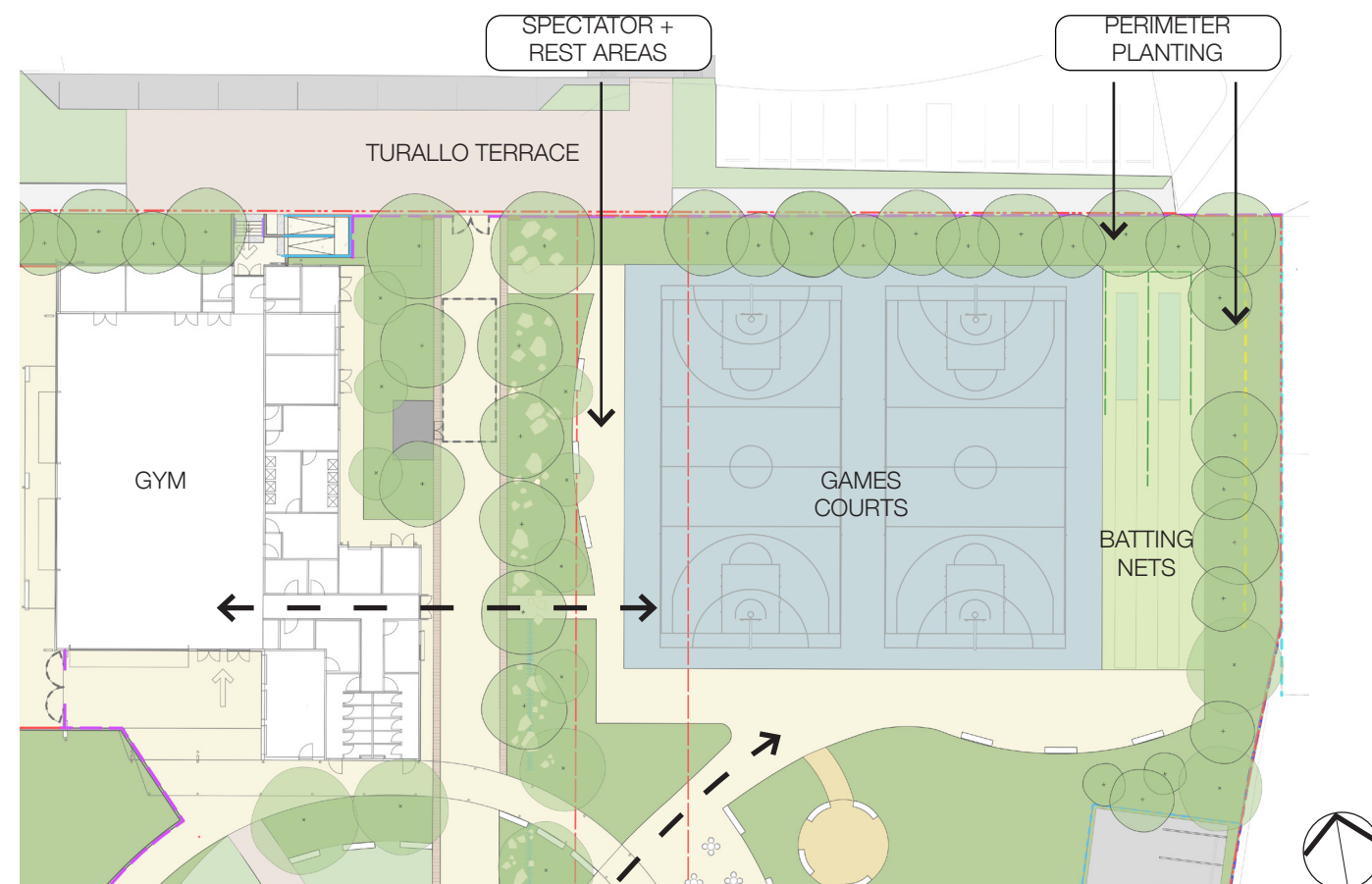
Masterplan + Landscape

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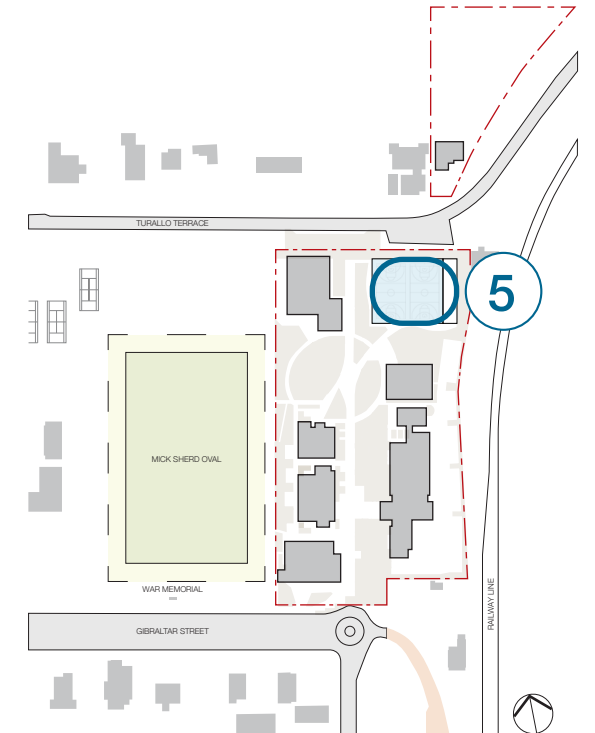
14. Explore opportunities to amplify the varied character of the outdoor spaces so that they may reflect and integrate the needs of the different uses and adjacencies. Further detailed development of the landscape strategy is required.

5 GAMES COURTS

Painted coloured concrete creates a vibrant surface for the games courts as the main active space of the campus. Synthetic turf is provided for the batting nets. Breakout space and low height seating walls, sat below native shade trees and bordered by understorey planting are located at the perimeter of the spaces, providing opportunities for spectating and rest. The planting will create a strong evergreen screen to the school perimeter, bounding the highly active area. The School Avenue planting and WSUD bioswale are set-back from the edge of the sports court to create a passive zone on the edge of active space.



Campus Perimeter Planting



Inner Campus Planting



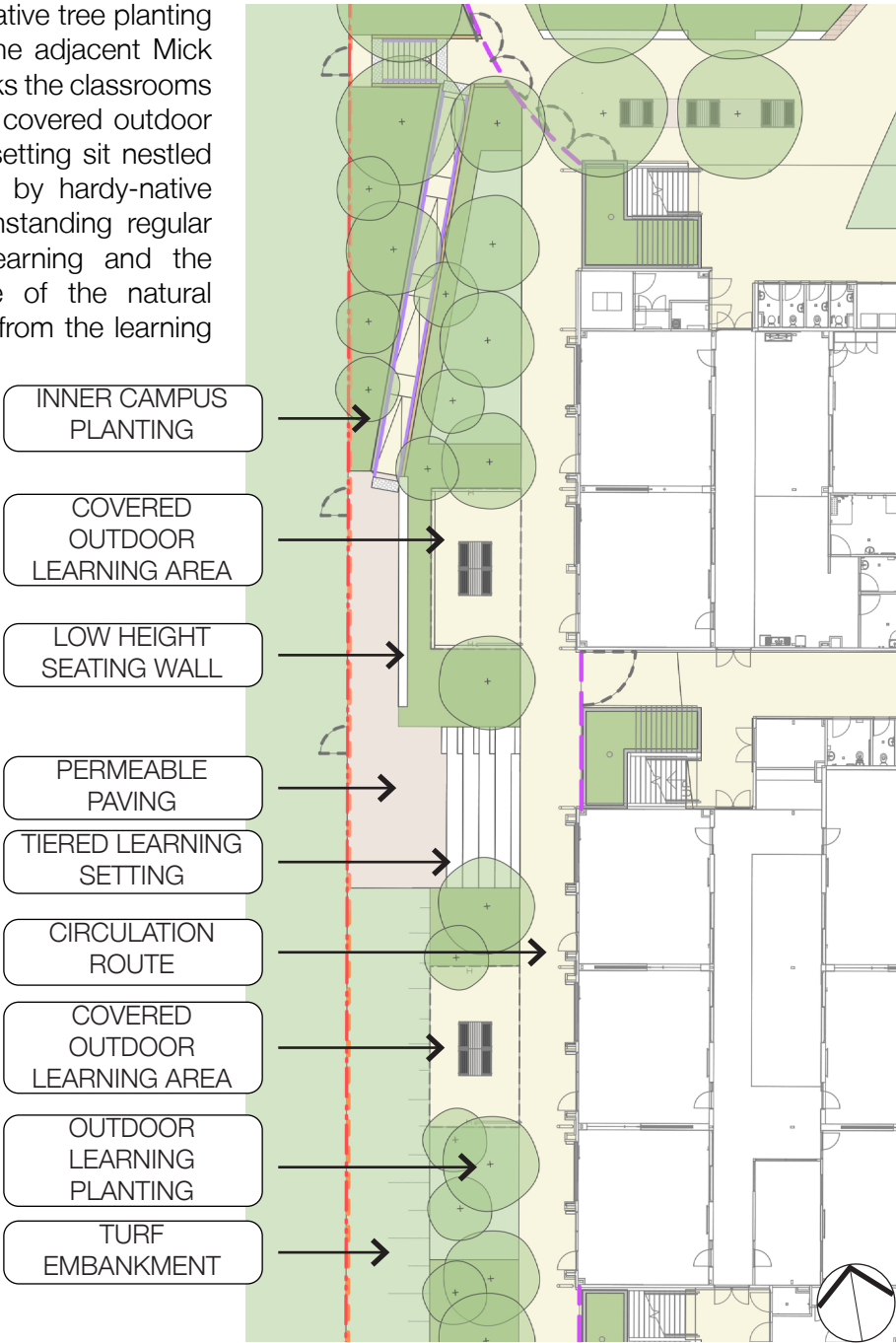
Masterplan + Landscape

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14. Explore opportunities to amplify the varied character of the outdoor spaces so that they may reflect and integrate the needs of the different uses and adjacencies. Further detailed development of the landscape strategy is required.

6 WESTERN OUTDOOR LEARNING SPACES

Planted and turf embankments and native tree planting create a strong evergreen edge to the adjacent Mick Sherd Oval. A new circulation route links the classrooms with the outdoor learning areas. The covered outdoor learning areas and a tiered learning setting sit nestled amongst the planting, characterised by hardy-native understorey planting capable of withstanding regular activity, associated with outdoor learning and the spectating of sporting events. Use of the natural contours provides high quality views from the learning spaces over the oval.



Inner Campus Planting



Outdoor Learning Planting



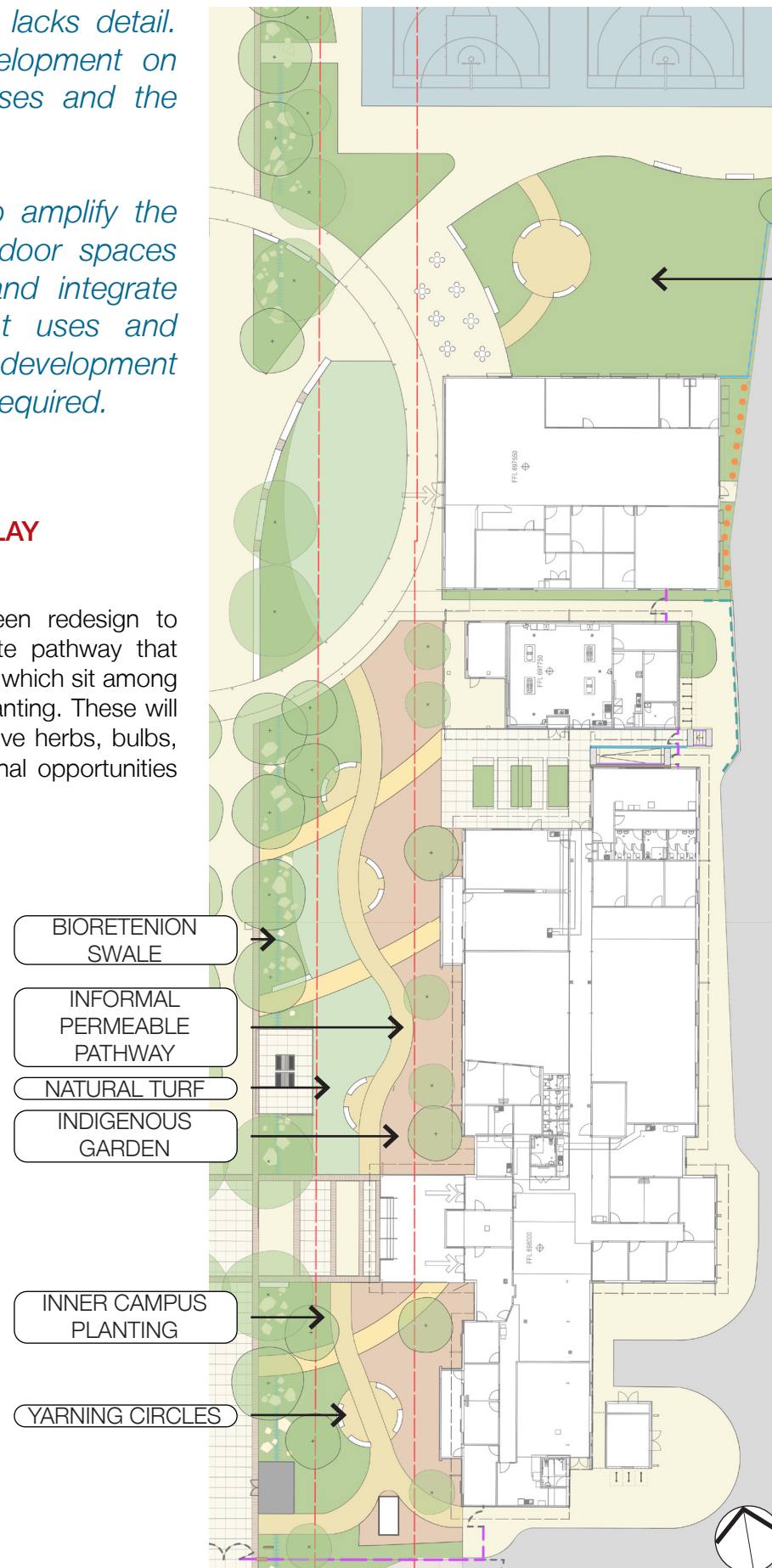
Masterplan + Landscape

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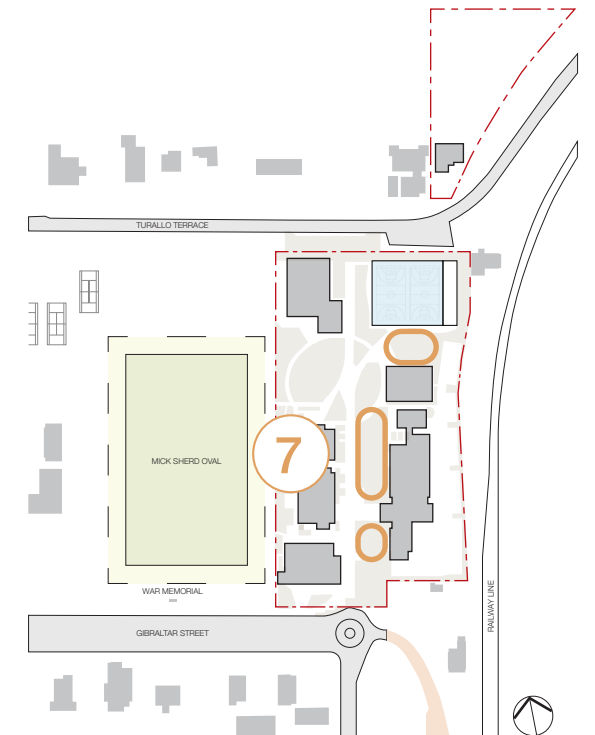
14. Explore opportunities to amplify the varied character of the outdoor spaces so that they may reflect and integrate the needs of the different uses and adjacencies. Further detailed development of the landscape strategy is required.

7 PASSIVE LEARNING + PLAY

The passive learning area has been redesigned to incorporate an informal deco-granite pathway that connects a series of 'yarning circles' which sit among native and indigenous productive planting. These will be characterised by a variety of native herbs, bulbs, and fruit, that will support educational opportunities linked to nourishment from land.



INNER CAMPUS PLANTING



Inner Campus Planting



Masterplan + Landscape

15. Maximise tree canopy for biodiversity, shade and amenity. Increase tree canopy along the site boundaries within and surrounding car parks and within the campus.

The revised proposal increases tree canopy cover within the school site by 50% from the existing conditions. and includes additional trees along site boundaries, within the carpark and within the campus. The increased tree canopy cover will provide biodiversity, shade and amenity for the school.

Amended SSDA Proposal



Masterplan + Landscape

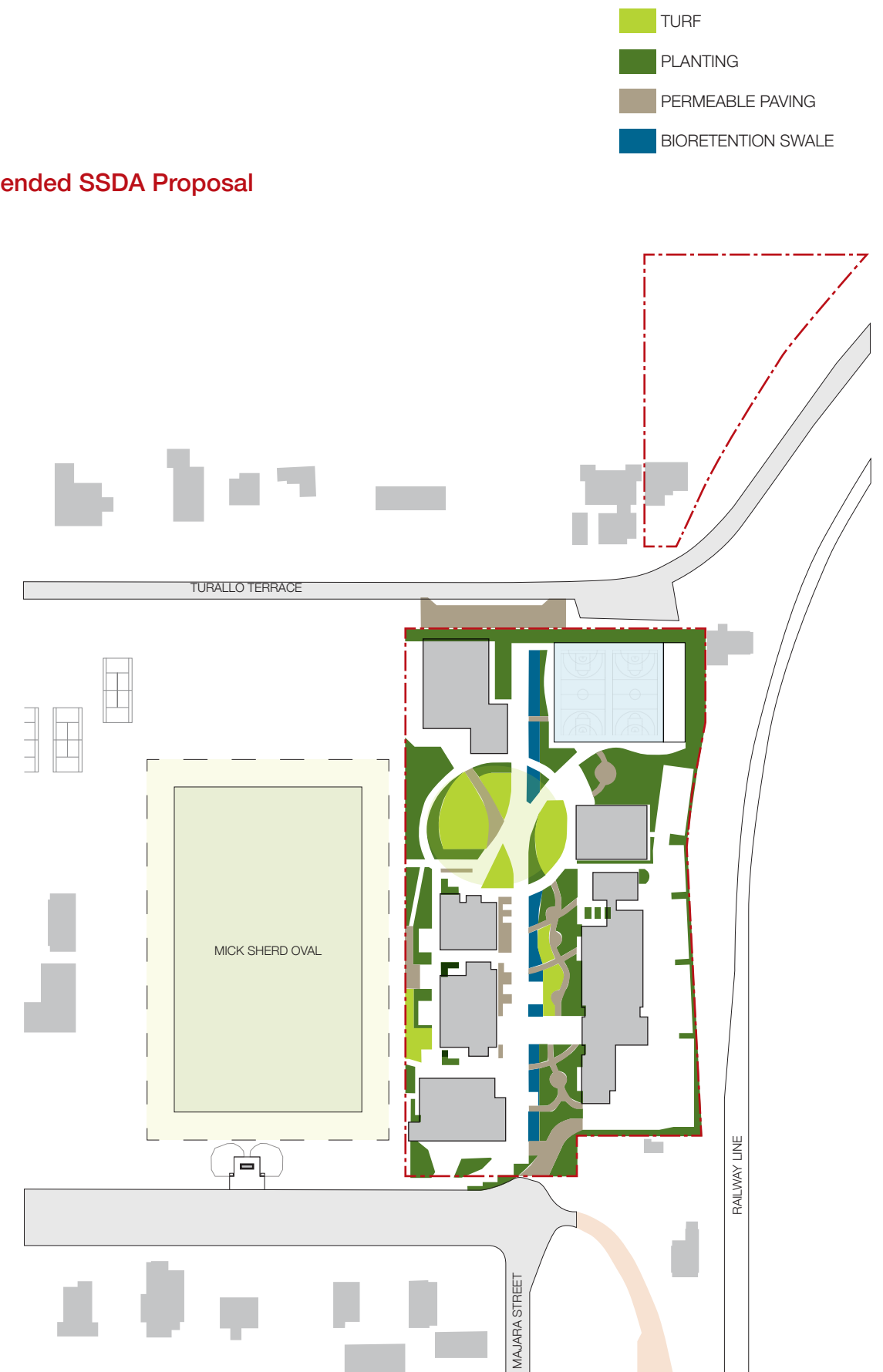
16. Maximise the sites permeable surfaces including car parks, entry forecourts and the Majara St axis.

The landscape design has been revised to increase the site's permeable surfaces. The amended proposal provides approximately 40% of the landscape area of the main campus, as permeable surfaces, which include planting, turf, permeable paving and the bioretention swale. The bioretention swale which lines the Majara Axis will capture and treat stormwater run off.

Rainwater is also collected from all building roofs for storage and reuse within the campus.

The existing carpark has generally been retained in its current form to reduce unnecessary demolition and new materials.

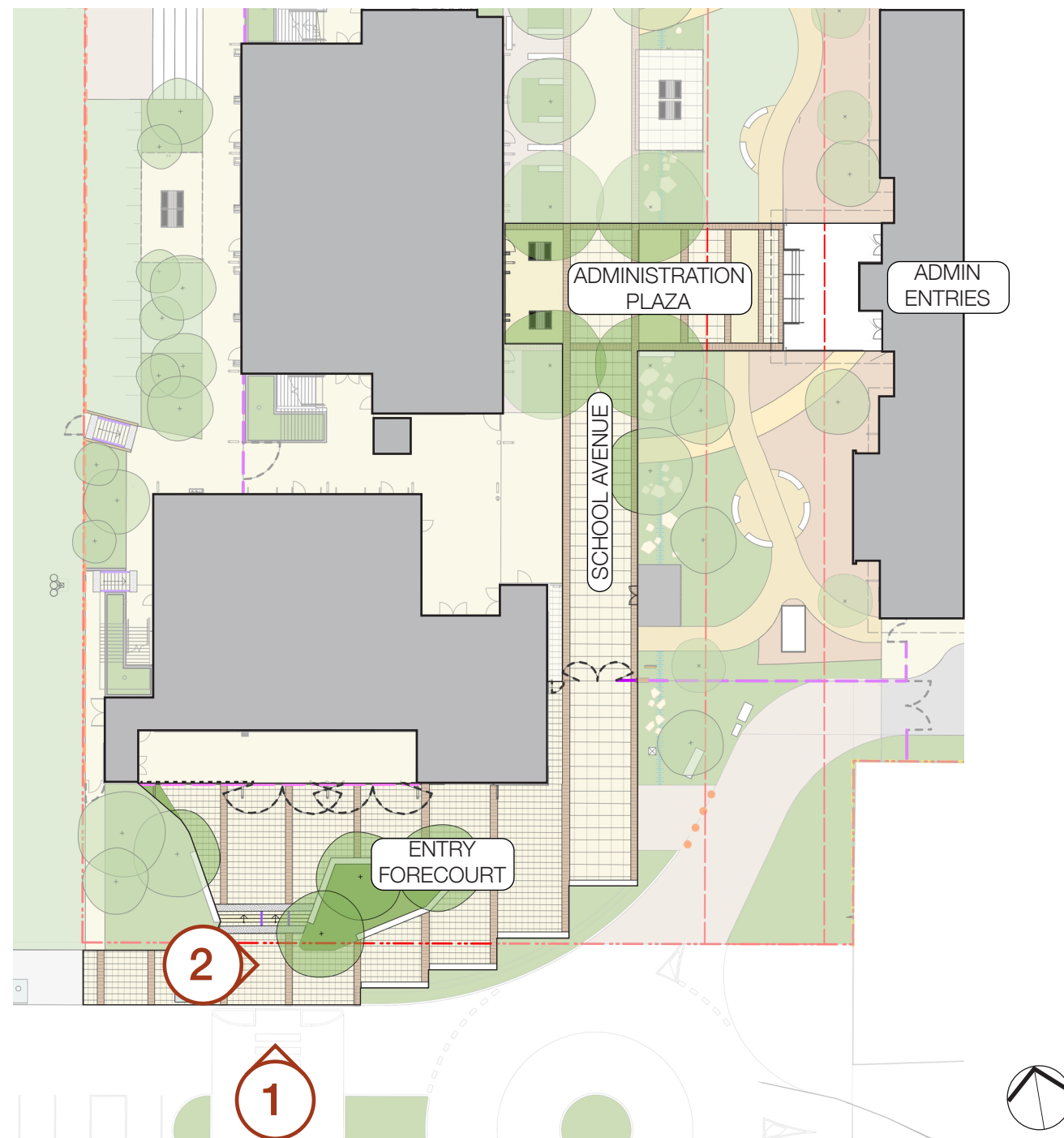
Amended SSDA Proposal



Masterplan + Landscape

17. Provide further detail on the entry experience for visitors and users of the campus.

The below plans and perspectives describe the entry experience for visitors and users to the campus.



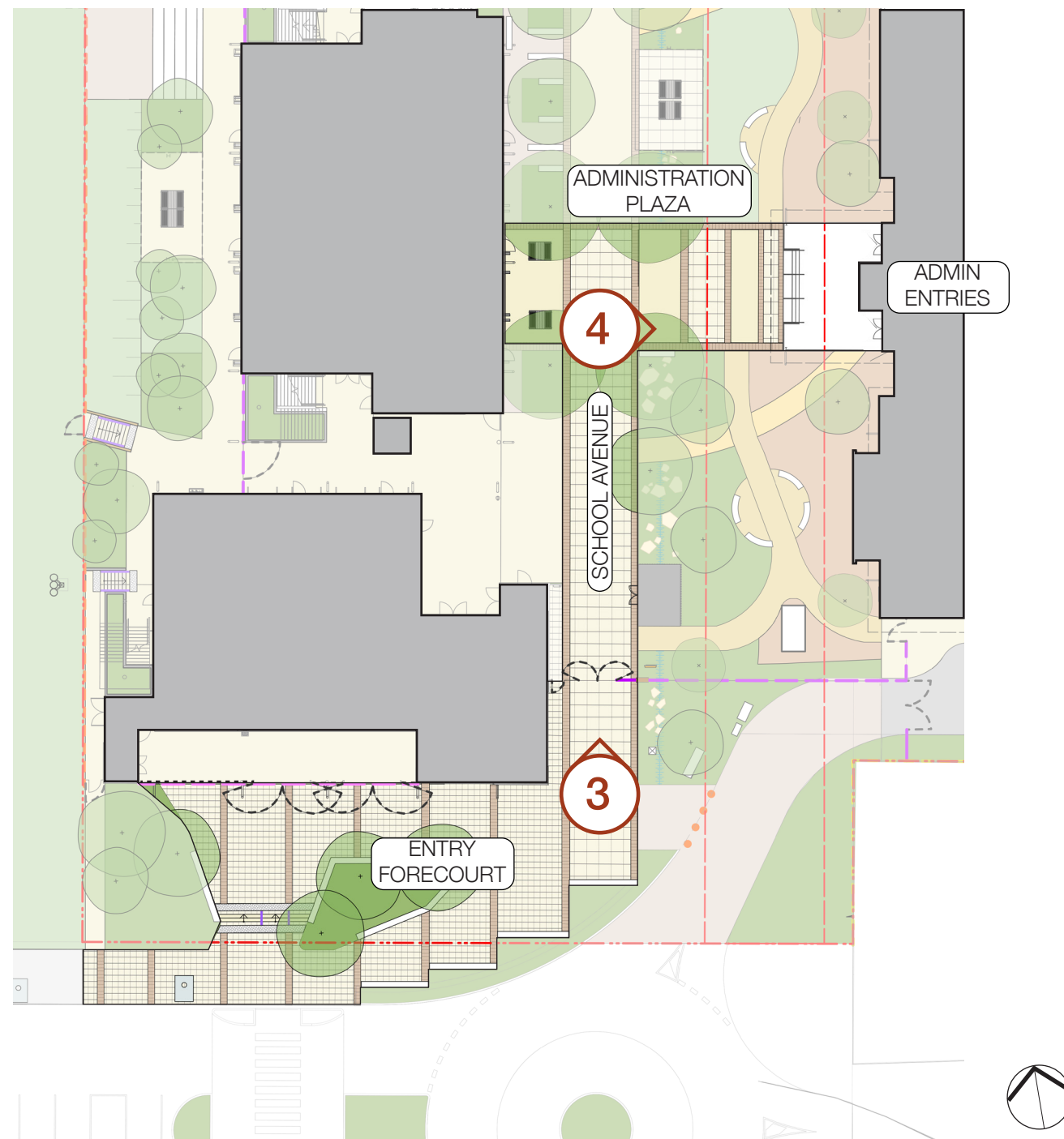
The proposed wombat crossing connects the Entry Forecourt with the relocated bus bay, existing public school and the suburbs to the south.



Brick banding, low height seating walls and landscape planting lead users towards the school entry.

Masterplan + Landscape

17. Provide further detail on the entry experience for visitors and users of the campus.



School signage marks the entry to the school. Brick banding defines the Majara Street axis and school avenue



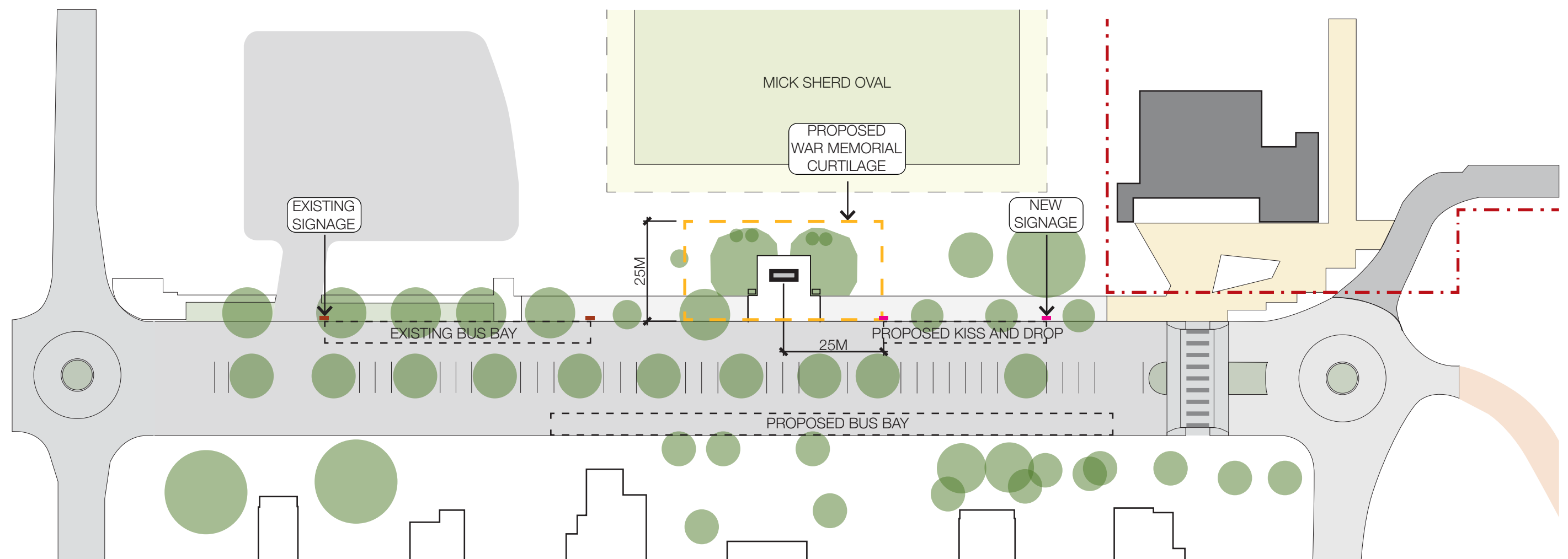
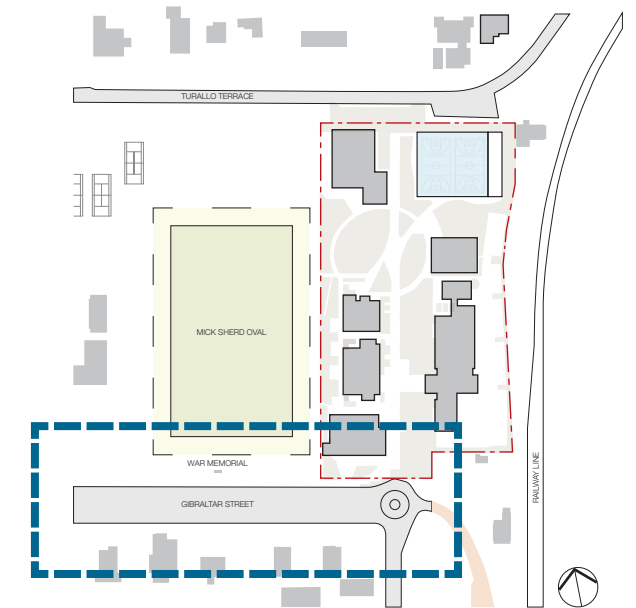
4. The Administration Plaza intersects the School Avenue. Perpendicular brick paving bands and 4 deciduous trees mark the arrival. The gable ended main entry of the existing Council Chambers building provides a civic entry to the public reception and meeting rooms.

Masterplan + Landscape

18. Revise the traffic strategy for Gibraltar St with specific consideration to the management of the War Memorial on ceremonial days.

The Department has met with the BWMC to discuss the concerns raised and to agree on suitable amendments, where required.

- The extent of the kiss and drop to Gibraltar Street has been reduced to provide a 25m curtilage to the existing War Memorial. The proposed curtilage is 50 metres along Gibraltar Street kerb, centred on the arch, with a side setback of 25 metres as shown by the dashed orange rectangle below.
- The proposed post and top rail delineation and removable bollards around Mick Sherd Oval have been removed from the proposal.



Masterplan + Landscape

19. Indicate the locations of future built forms on plan and consequent impact on open space.

The school site provides sufficient outdoor play space required for the proposed number of students, as defined by the NSW Education, Education Facilities Standards and Guidelines (EFSG).

The site allows for a future stage building, which would increase student numbers from 450 to 600 students and provide sufficient outdoor play space for the increase in student numbers.

Amended SSDA Proposal

Proposed Outdoor Play Space

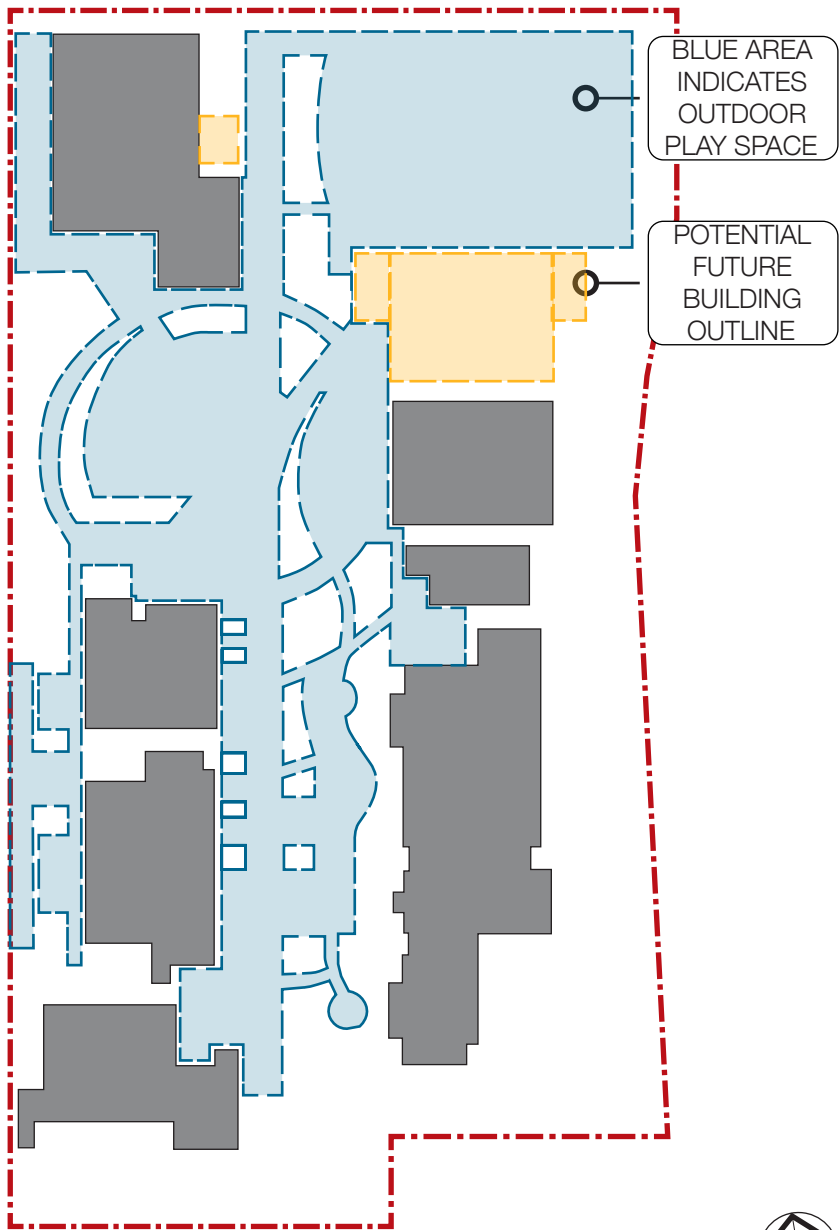
Minimum required outdoor play space for 450 students 4,500m²

Proposed outdoor play space 7,717m²

Proposed and Future Stage

Minimum required outdoor play space for 600 students 6,000m²

Proposed outdoor play space 7,276m²

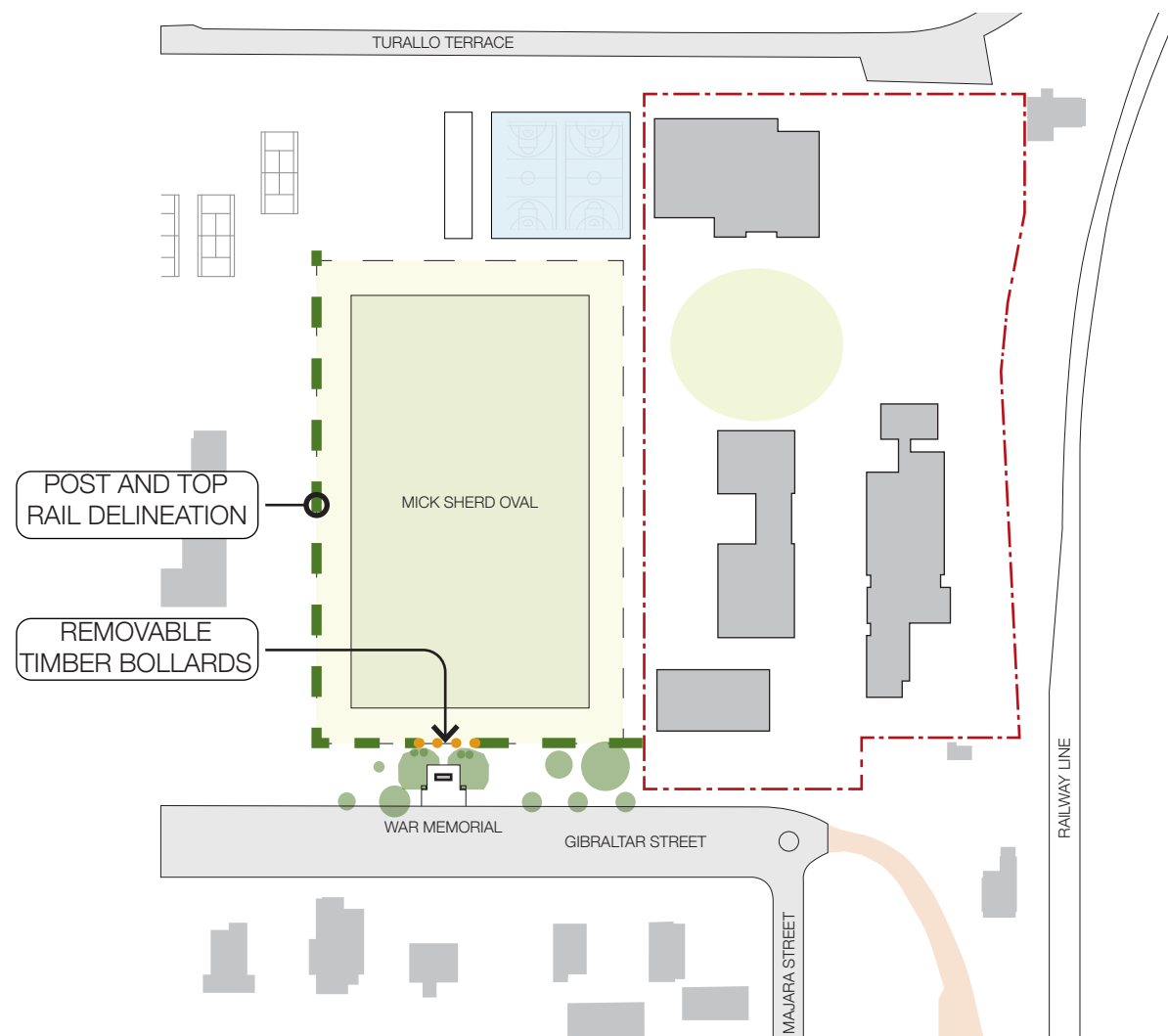


Masterplan + Landscape

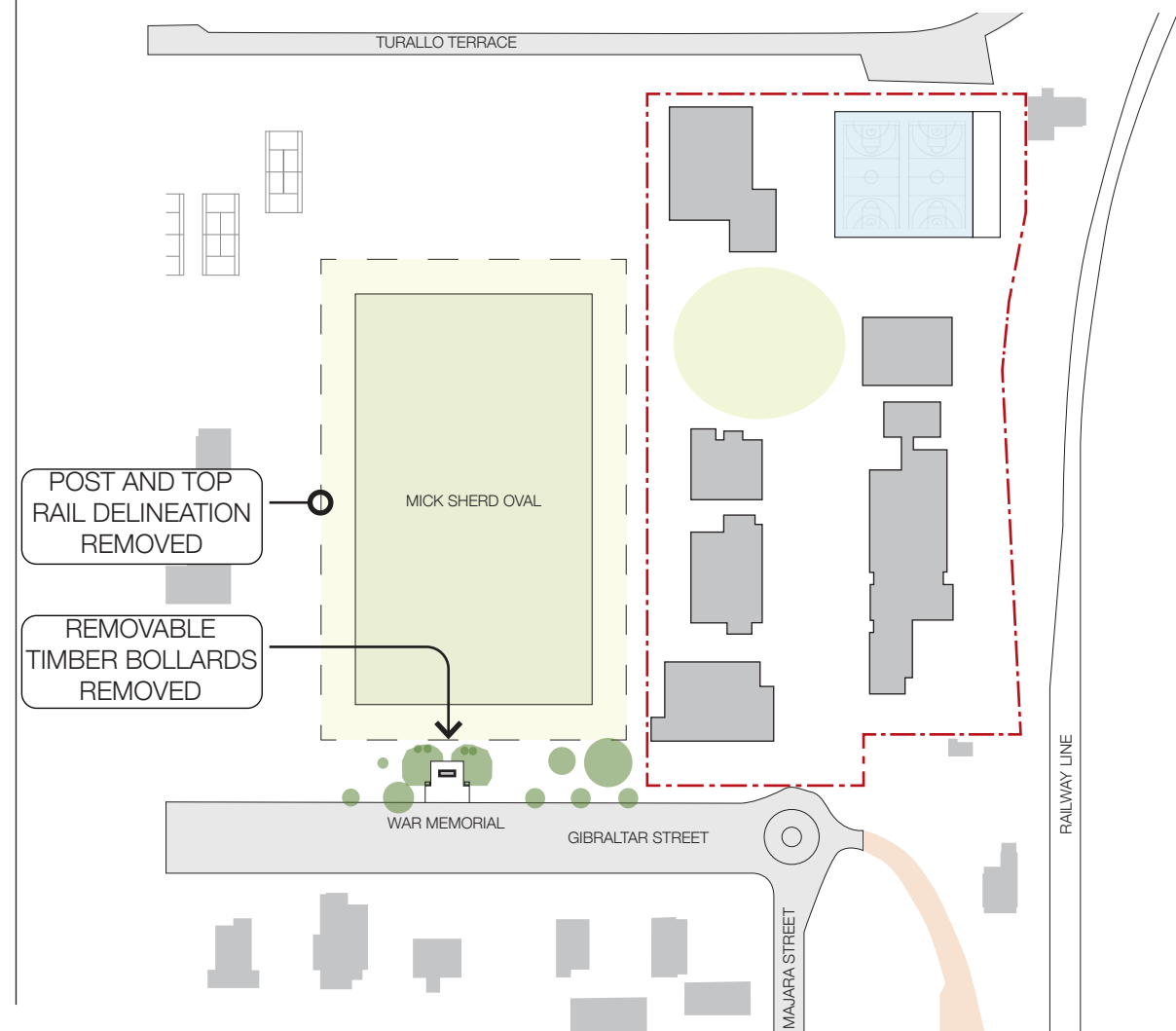
20. Improve the landscape design surrounding the War Memorial on Gibraltar St, providing a respectful division between the memorial and the activities of the school campus.

Landscape works surrounding the war memorial have been removed from the proposal. This includes the proposed post and top rail delineation and removable bollards around Mick Sherd Oval. The existing landscape surrounding the memorial is to be retained.

Original SSDA Proposal



Amended SSDA Proposal



Architecture

21. Further develop the architectural language of the built form so the buildings have a defined presence and civic quality.

The architectural language of the proposed buildings has been revised to complement the existing village character and improve their civic presence.

The building form of Block A has been revised to introduce a single storey element which wraps around the eastern, southern and western facades. The single storey element reduces the overall scale of the building and responds to the town's verandah vernacular. Face brickwork at ground floor level also complements the character of the town and provides a high-quality finish at pedestrian level. Connecting with Country artwork to glazing decals and screening to the Outdoor Workshop also front the new public space.

The revised building alignment and amended landscape design have been developed to have a more civic presence. The Majara Street axis is defined by brick banded paving, native avenue trees and passive breakout and learning areas either side. The new covered walkthrough to Building B is framed by a brickwork arch, creating a more civic and historical connection to the town, and providing views out to the oval.



View of Block A from the Entry Forecourt



View of the new Block B covered walkthrough from the School Plaza

Architecture

21. Further develop the architectural language of the built form so the buildings have a defined presence and civic quality.

The architectural language of Block B has been revised to incorporate brick arches at ground floor level. The use of brick responds to the traditional aesthetic of a solid base and lightweight upper storey; provides depth to the facades; and creates an improved civic quality that relates through materiality to the historic buildings within the town.

Block D has been revised to introduce a lower roof form that wraps around the buildings, providing a sympathetic form that relates the local verandah vernacular and reduces the scale of the building. Facing brickwork has been introduced to define the community entry to the school gym and to frame the verandah on the western elevation.



Note: Trees not shown for diagrammatic purposes

View of Block B from Mick Sherd Oval



View of Block D from Turallo Terrace

Architecture

22. Ensure that the materiality of the built form responds to Connecting with Country and the heritage of the town. Increase the use of natural materials, timber and masonry to achieve this.

The Palerang Development Control Plan 2015 character statement for Bungendore describes the current Bungendore materials palette as consisting largely of “... brick, stone or weatherboard and roofs are predominantly corrugated steel ...” Newer building “... materials include brick, painted timber and corrugated steel”.

The façade materials of the proposed buildings have been revised to complement the existing village character as follows:

Face brickwork has been introduced at ground level to the public facing facades of Gibraltar Street, Mick Sherd Oval and Turallo Terrace, as well as framing the new covered walkthrough of Block B from the School Avenue side. The use of brick responds to the traditional aesthetic of a solid base and lightweight upper storey; provides depth to the facades; and creates an improved civic quality that relates through materiality to the historic buildings within the town.

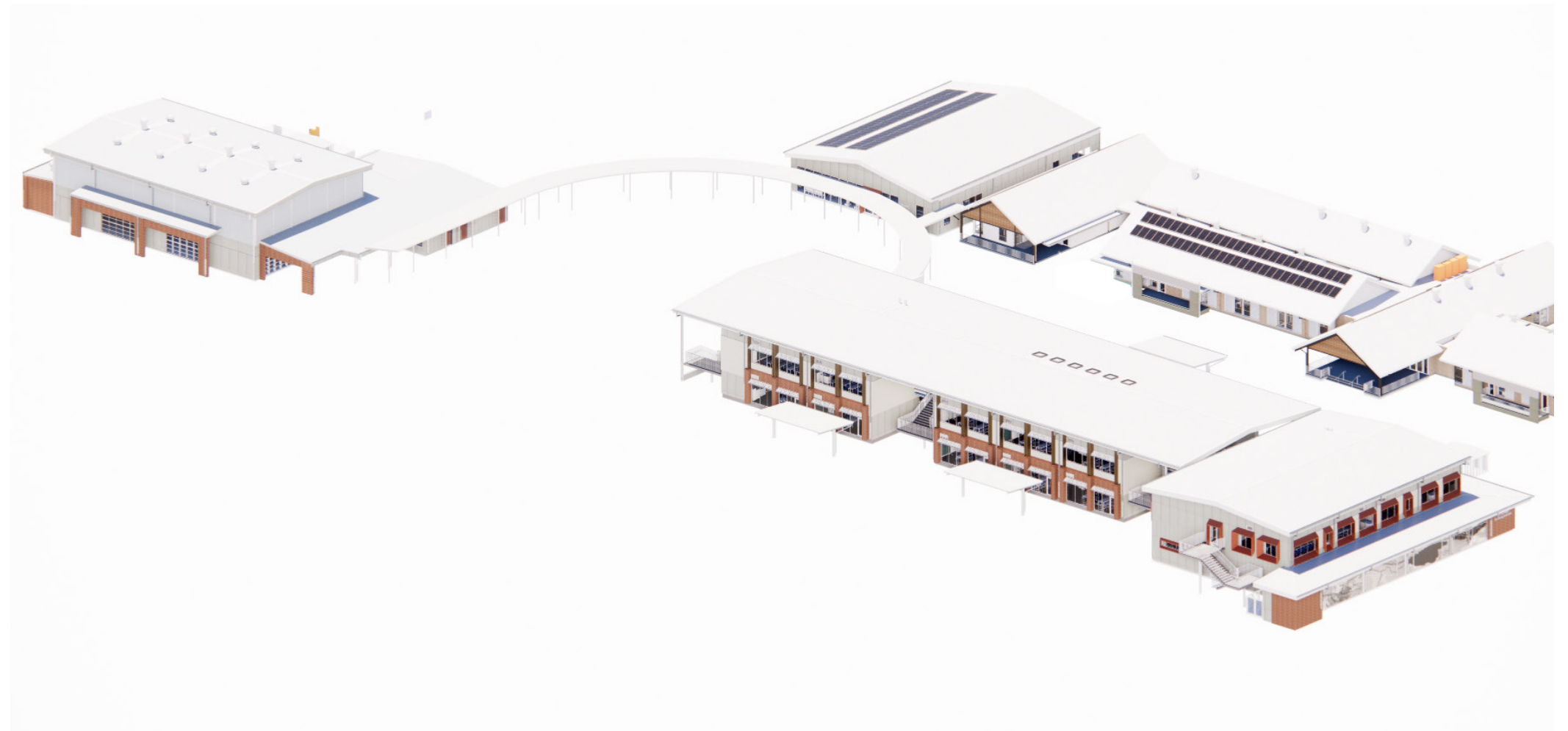
Light coloured, horizontal metal plank cladding has been introduced at first floor level to be suggestive of horizontal painted weatherboard cladding, while meeting NSW Education’s durability and maintenance requirements.

Corrugated metal walling has been retained to the high-level walling of Block D and to Block F, located on the Agricultural Plot.

Corrugated metal roofing is proposed to each of the new buildings.

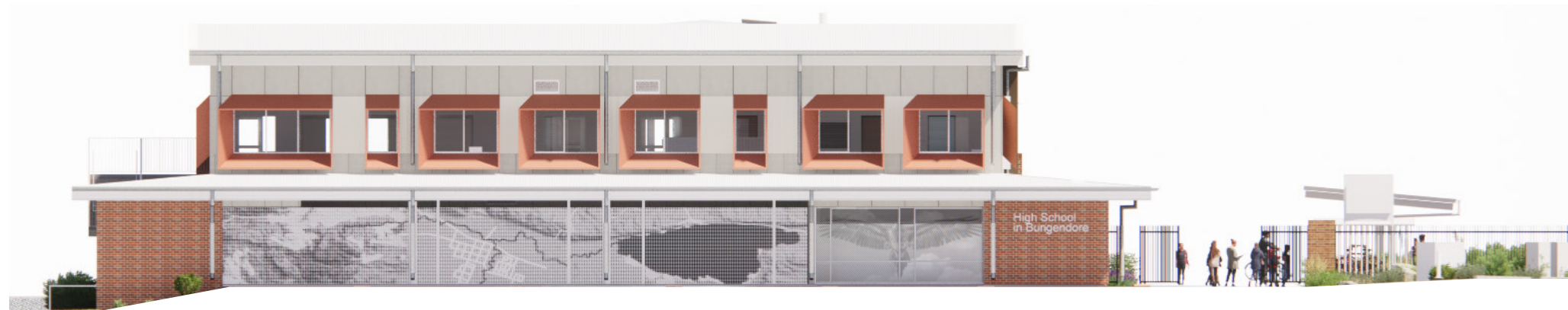
The built form of Blocks A and D have been revised to introduce a lower roof form that wraps around the buildings, providing a sympathetic form that relates the local verandah vernacular and reduces the scale of the buildings.

Amended SSDA Proposal



Architecture

22. Ensure that the materiality of the built form responds to Connecting with Country and the heritage of the town. Increase the use of natural materials, timber and masonry to achieve this.



Amended Building A - Southern Elevation (Gibraltar Street)



Amended Building B - Western Elevation (Mick Sherd Oval)

Architecture

22. Ensure that the materiality of the built form responds to Connecting with Country and the heritage of the town. Increase the use of natural materials, timber and masonry to achieve this.



Amended Building D - Western Elevation (Mick Sherd Oval)



Amended Building D - Northern Elevation (Turallo Terrace)

Architecture

22. Ensure that the materiality of the built form responds to Connecting with Country and the heritage of the town. Increase the use of natural materials, timber and masonry to achieve this.

BLOCK A



- Facade cladding 1:
Prefinished fibre cement
- Metal louvres + window
frames: Clear anodised
- Facade cladding 2:
Metal plank cladding:
Colorbond Sufmist
- Roofing, gutters +
downpipes: Zincolume
- Box sunshades: Earthy
Red
- Face Brickwork: Tan/Red
- Perforated screen and
gates: Custom perforated:
Clear anodised

Architecture

22. Ensure that the materiality of the built form responds to Connecting with Country and the heritage of the town. Increase the use of natural materials, timber and masonry to achieve this.

BLOCK B



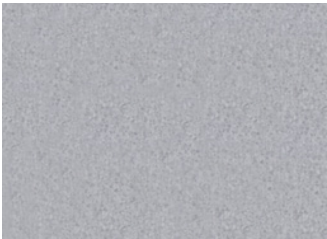
Architecture

22. Ensure that the materiality of the built form responds to Connecting with Country and the heritage of the town. Increase the use of natural materials, timber and masonry to achieve this.

BLOCK D



Corrugated Metal Cladding: Zinalume



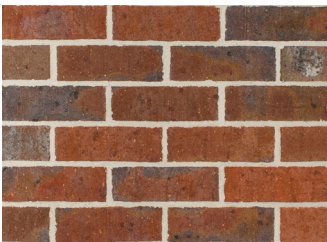
Roofing, gutters + downpipes: Zinalume



Facade Cladding 1: Prefinished fibre cement



Horizontal aluminium sunshades, louvres + frames: Clear anodised



Face Brickwork: Tan/Red

Architecture

23. Provide increased protection to the western facades of the built form to assist in mitigating solar loads and increase cross ventilation.

Ventilation

Glazed louvres have been selected as the preferred natural ventilation mechanism to provide the maximum open area for ventilation and heat disipation during summer. A typical GLS is provided with 15% open area of the floor area.

Sun Shading

The project is located in climate zone 7 (cool temperate) and in a sub-alpine region > 600m above sea level, making it a cooler climate than other parts of Australia.

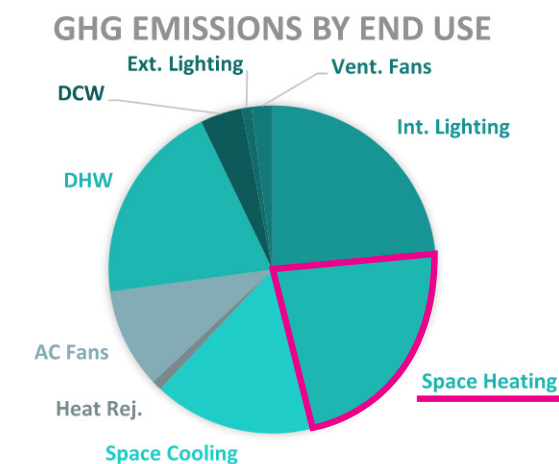
Vertical and horizontal sun shades are provided on the western facade. As demonstrated by the adjacent diagram, shading devices will shade the majority of the fenestration of the western facade at 2pm during summer, when solar loads will be at their greatest.

Design of the glazing and shading is a compromise between multiple factors, such as daylight, glare, energy consumption and thermal comfort. Increased shading further on the western façade glazing may decrease summer cooling load, but it will reduce daylight levels and add additional heating load during winter operation.

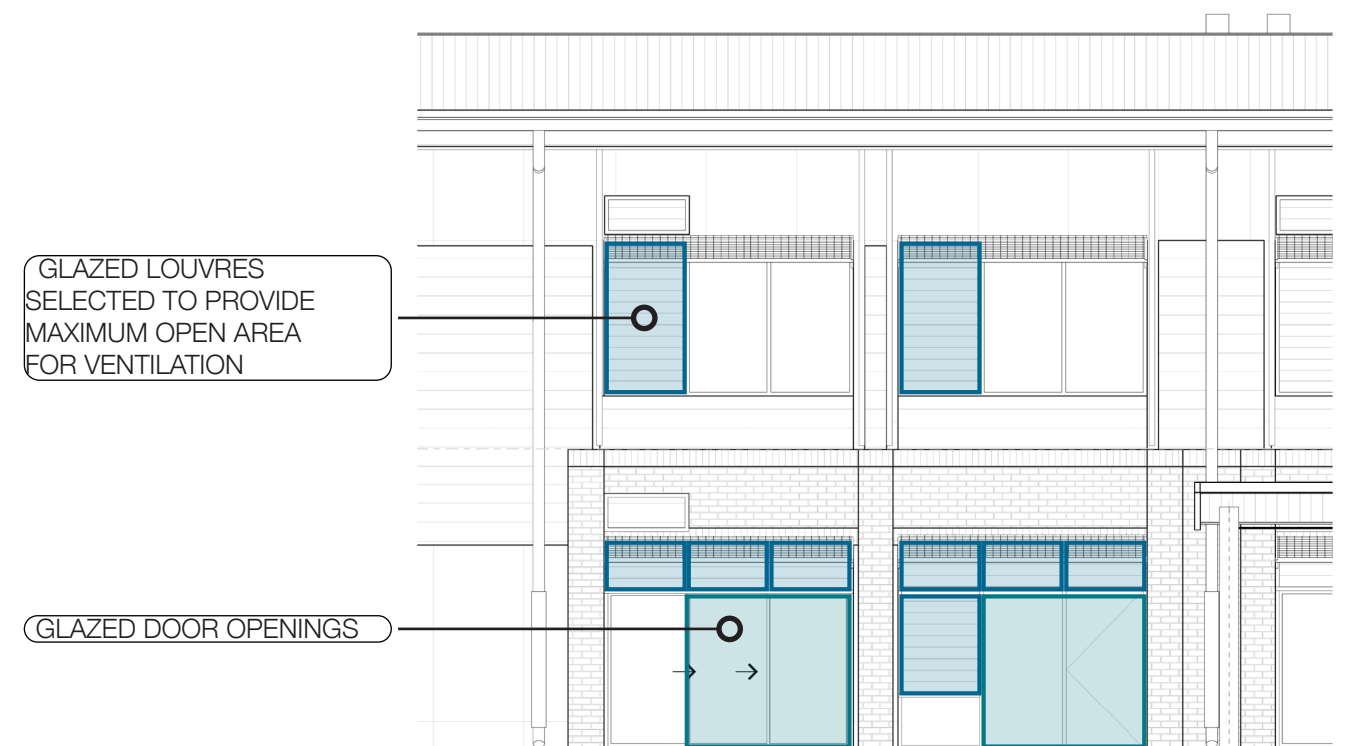
Building fabric performance has been verified by energy modelling for all new buildings. Building heating will consume more energy than cooling, therefore it is likely that adding shading will negatively impact total energy consumption.

It is expected that a significant portion of the peak summer cooling periods will also coincide with school holidays, further decreasing cooling energy contribution.

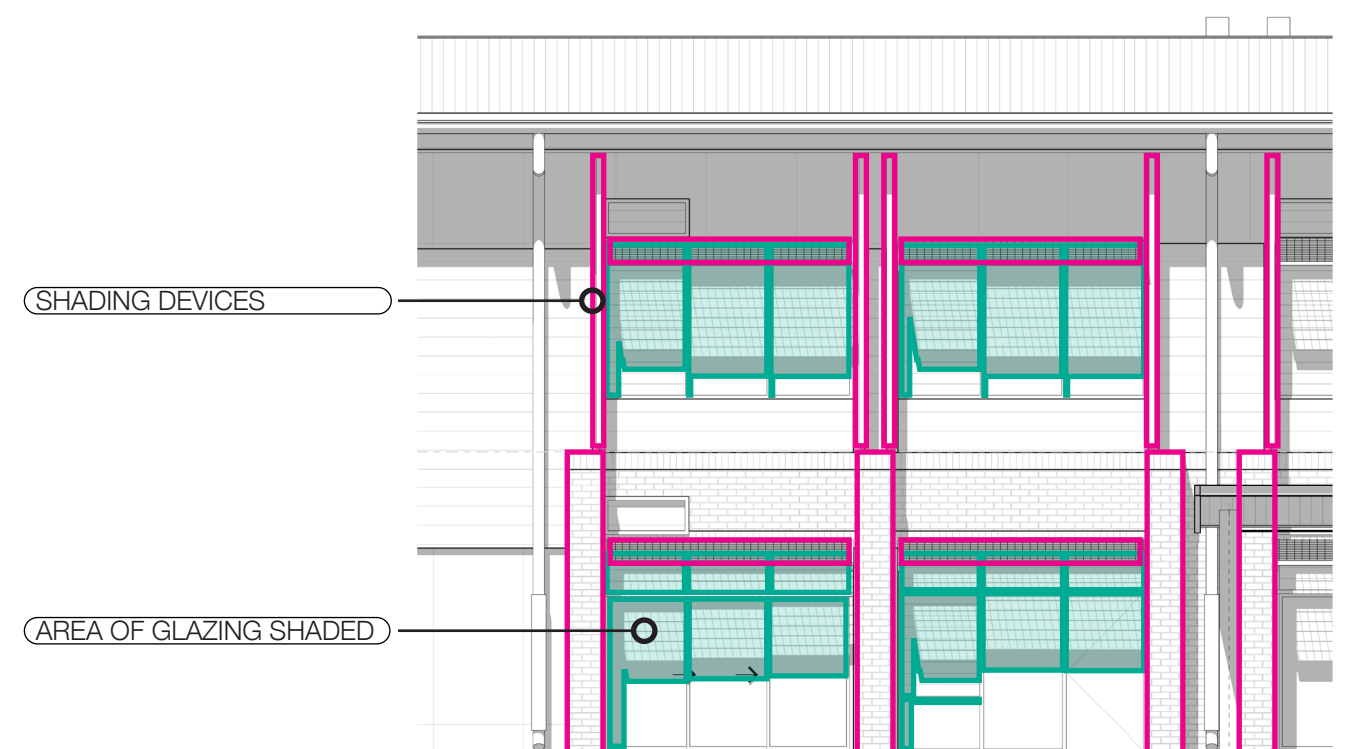
Modelling of the proposed new buildings indicates they will achieve a 46% reduction in energy consumption against the NCC 2019 DtS baseline. Refer to the Ecologically Sustainable Development Statemetn prepared by Norman Disney Young.



Phase 4 End of use energy modelling graph



Western Learning Space Elevation - Area of window shaded at 2pm in February



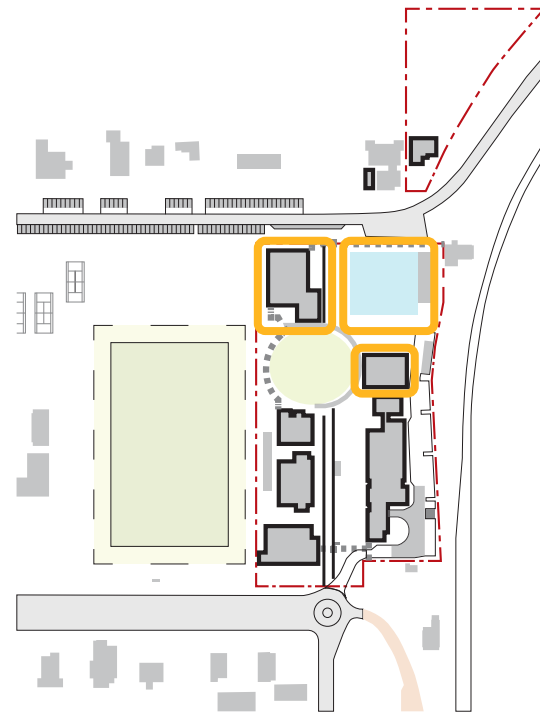
Western Learning Space Elevation - Area of window shaded at 2pm in February

Architecture

24. Ensure that the built form and associated spaces have a clear hierarchy within the campus.

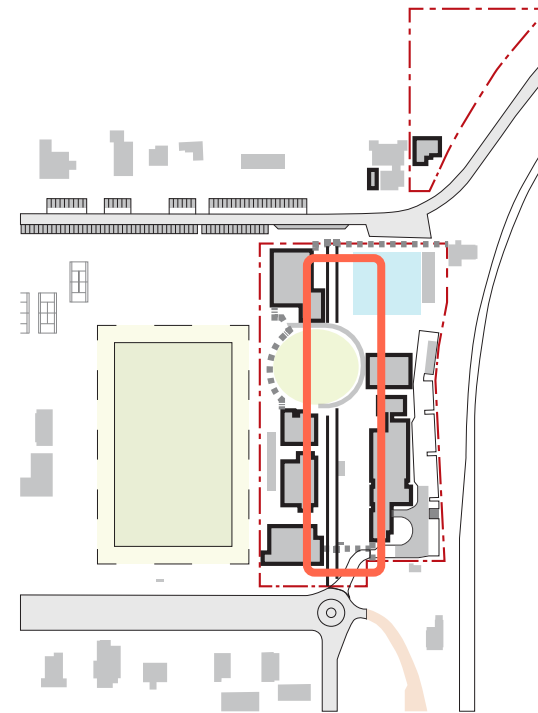
The built form has been developed to respond to the associated landscape spaces as described within the adjacent diagrams.

Further detail on the relationship and heirarchy of landscape spaces and how they relate to the built form is provided in response to Advice 13 and 14.



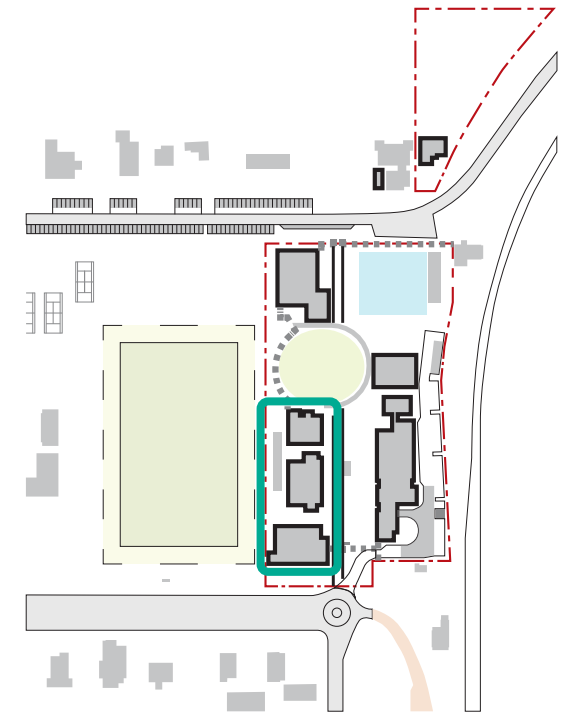
Social Spaces

Social spaces such as the Canteen, Gym, Library and Games Courts are located around the School Common



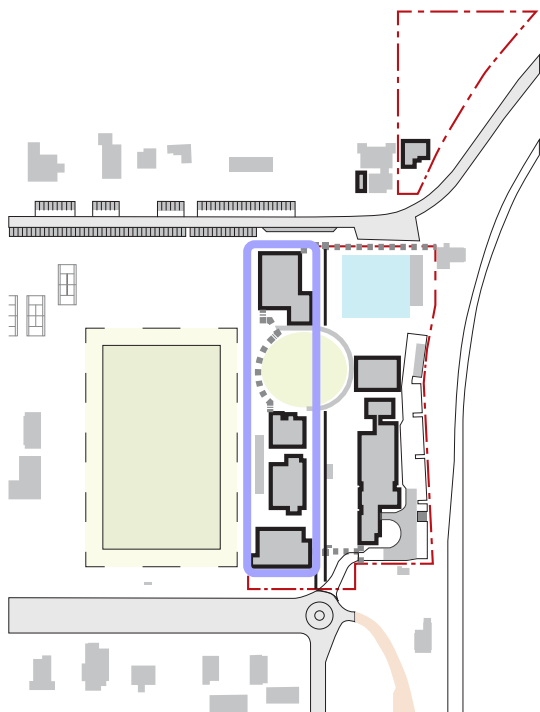
School Avenue Address

Built form and landscape spaces are designed to address and activate the new School Avenue



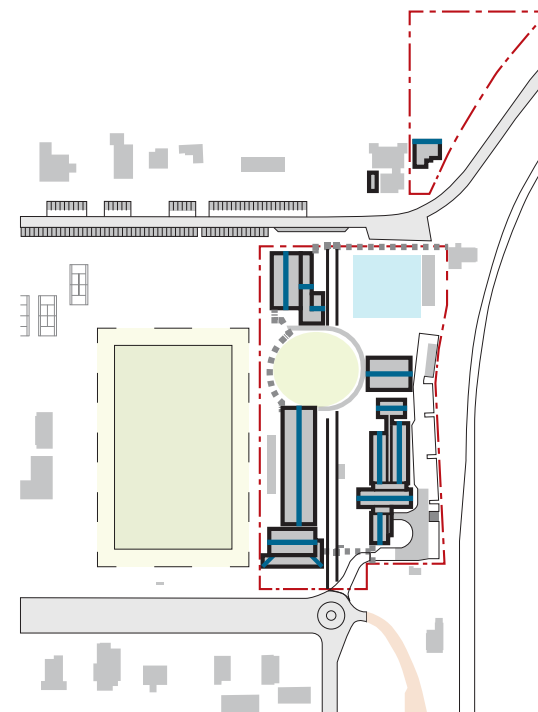
General Learning Spaces

General Learning Spaces are grouped together, providing outdoor connections to both sides of the buildings



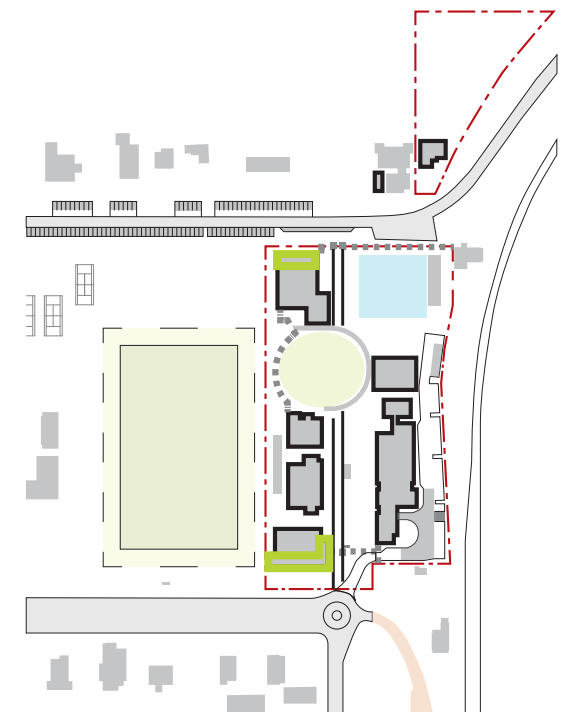
Alignment of two storey massing

The two storey massing has been grouped to the western side of the campus, away from the adjacent neighbouring properties.



Traditional Roof Forms

Traditional pitched and skillion roof forms have been used for all buildings to respond to the character of the town.



Reduction of scale to streets

The two storey massing has been reduced where it addresses the public streets and reflect the local verandah venacular

Architecture

25. Remove the currently proposed outdoor marquees and replace with integrated covered elements.

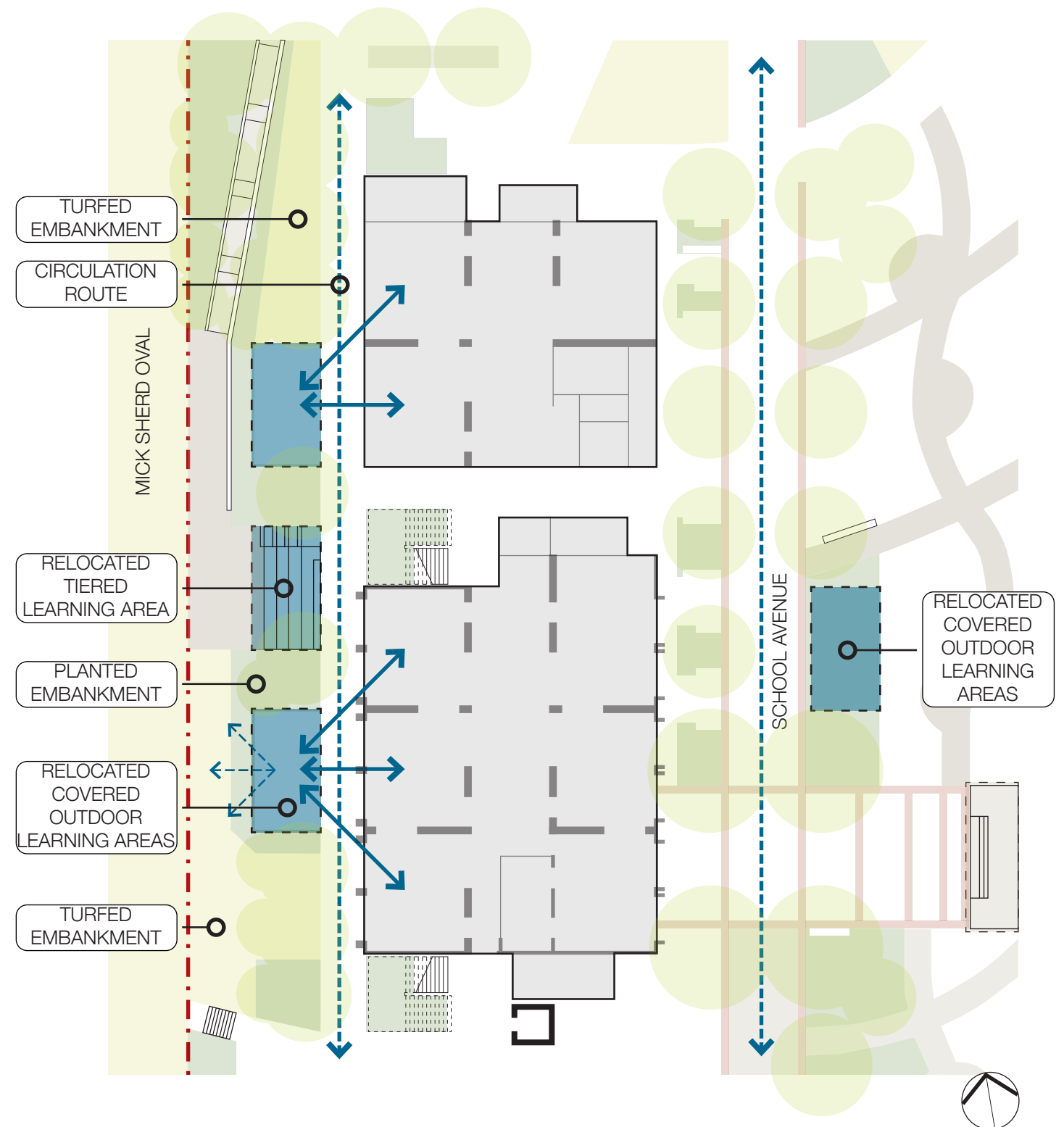
The primary outdoor learning areas have been relocated and redesigned to be more integral within the landscape, provide improved physical and visual connections from the classrooms, and spectating opportunities over the oval.

Two covered learning areas and the tiered learning setting have been relocated adjacent to the classrooms to the west of Block B, nestled between planted embankments. The slightly raised covered learning areas which sit level with the classrooms, and the tiered learning area utilise the natural level change to provide quality views over the oval.

A third covered learning area has been relocated to the east of Block B along the School Avenue.

The design of the covered learning areas have been simplified to express a lightweight cantilever structure.

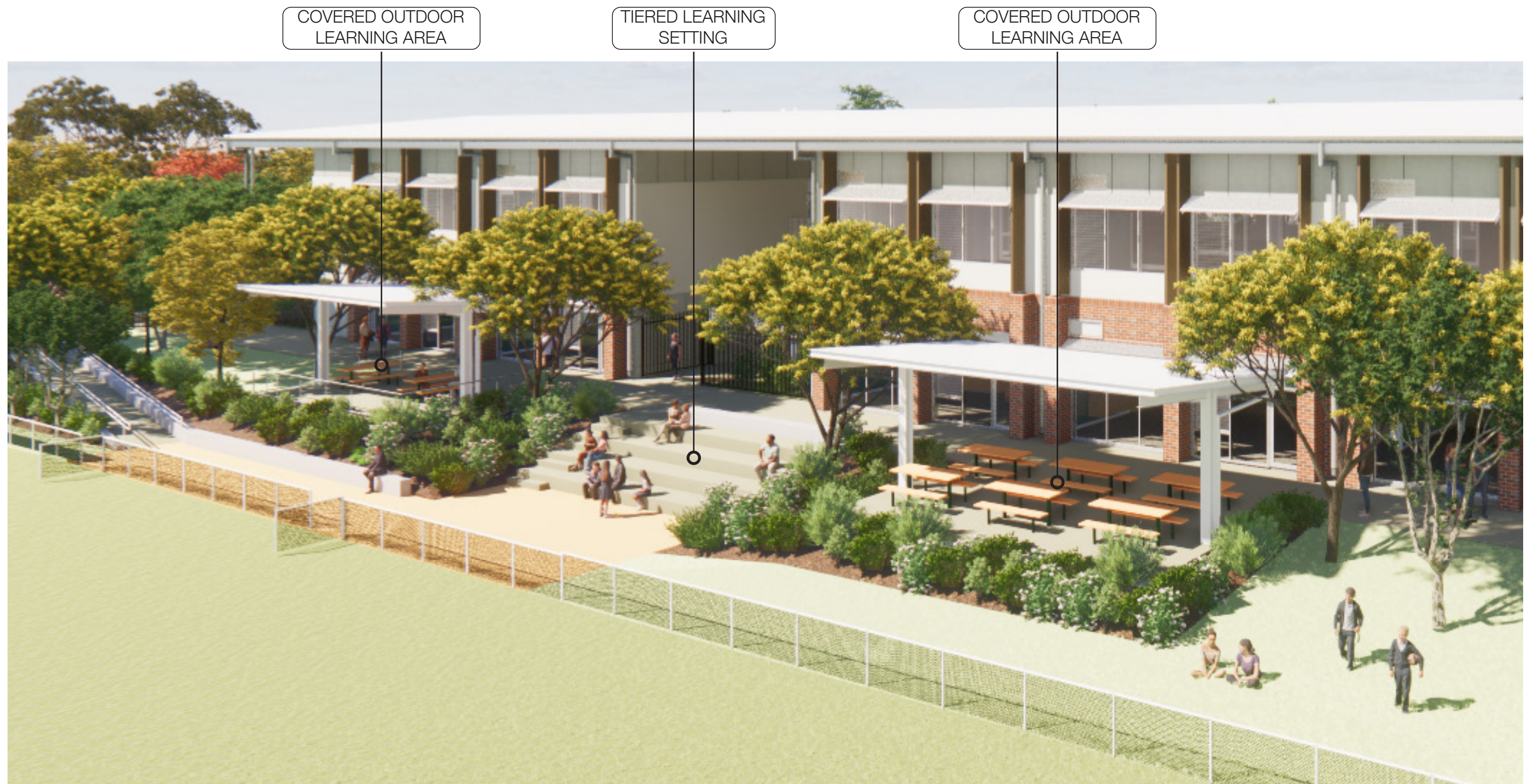
Amended SSDA Proposal



Architecture

25. Remove the currently proposed outdoor marquees and replace with integrated covered elements.

Amended SSDA Proposal

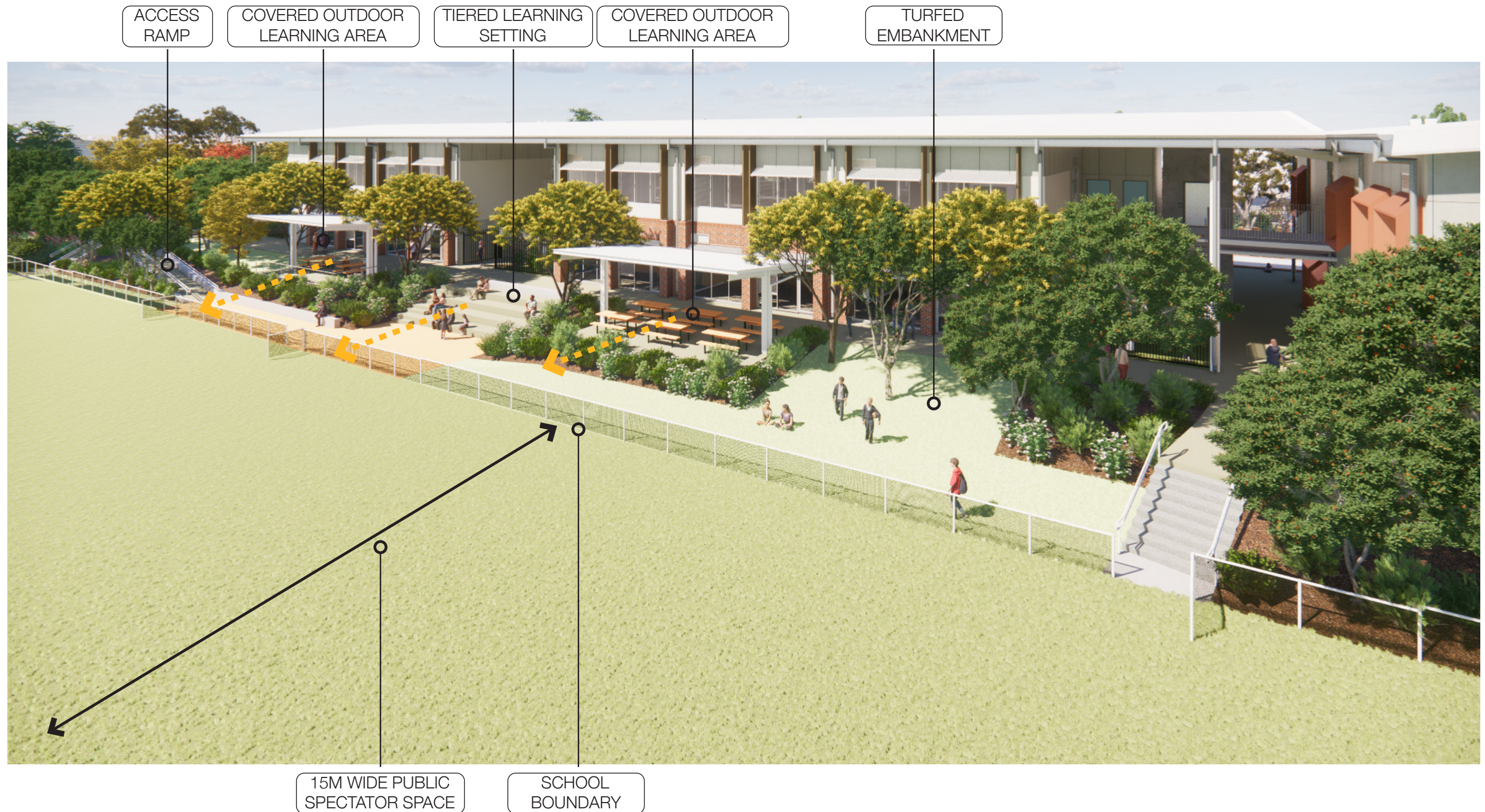


Architecture

26. Provide further detail on the spectator amenity and user experience to the areas adjacent to the Mick Sherd Oval. Provide details on how the spectator area will be used by the students and Bungendore community for different events.

A 15M public spectator zone is retained between the side line of the rugby field and the school boundary. Within the school site, grass embankments, covered outdoor learning areas and a tiered learning setting provide raised opportunities for looking over the oval. A new circulation walkway runs along the western facade of the building connecting each of the spaces.

Amended DA Proposal



Architecture

27. Provide an update on the ESD strategy for the campus including the proposed implementation of sustainable design principles such as 100% photovoltaic electricity and campus wide water harvesting.

Photovoltaic electricity

1. The proposal is anticipated to achieve GreenStar 4 Star which is in accordance with the SEARs requirements for the project.
2. A 70Kw PV system is proposed for the school in accordance with DoE Educational Facilities Standards and Guidelines (EFSG) requirements for a Secondary School size up to Stream 4. The proposal is for a Stream 3 school.
3. Based on Phase 4 energy modelling, the 70Kw system provides 44% of the total 'base building' building energy consumption.

Campus wide water harvesting

4. A rainwater harvesting and water reuse system will be provided to reduce potable water consumption from the mains water supply.
5. The site will be provided with a total of 90kL of rainwater storage.
6. An existing 40kL underground rainwater tank on the site is being retained and reused to serve Block C toilet flushing.
7. A new 50kL rainwater tank is being provided as part of the proposed development to serve Block A, B, D & E and landscaping irrigation
8. A new above ground rainwater tank is proposed to the agricultural plot to serve flushing of the toilets. The tank will provide learning opportunities for students to learn about water management.
9. The introduction of 40% of the landscape area as permeable surfaces and the introduction of the bioretention swale which will capture and treat stormwater run off, also contribute to the site's water management response.

Amended SSDA Proposal

