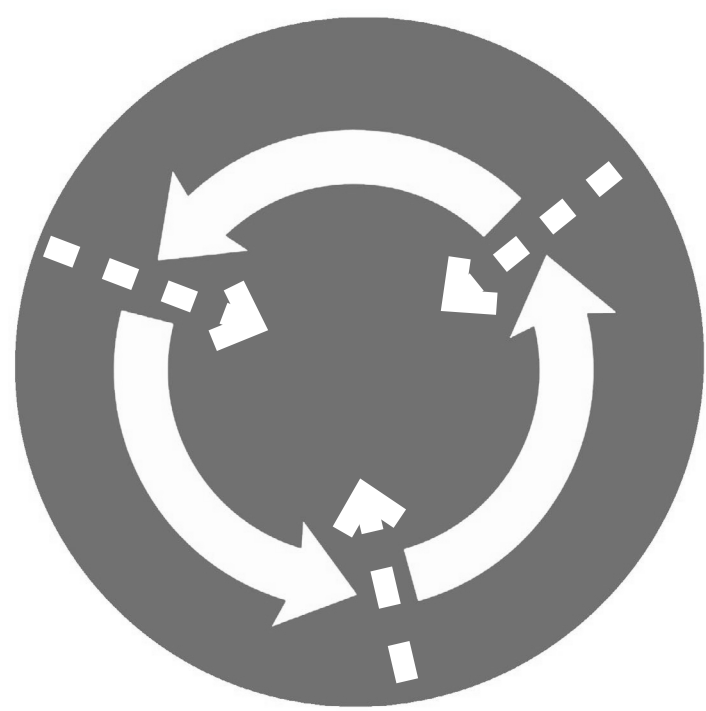


GUIDING PHILOSOPHY



IMPROVE ACCESS + CIRCULATION

while enhancing spaces using site levels, the design aims to improve the pedestrian movement through the different spaces with ease. Accessibility via the upper terrace of the new WMH building has allowed wheelchair access straight into level 2 of the building.



MANAGE WELLBEING

of students, staff and visitors is essential in the designing of any space, especially that of a school. The landscape design creates various adaptable spaces that create microclimates that offer uses for groups of different sizes, set within a sheltered and green environment.



CREATE SENSE OF PLACE

that celebrates the site attributes and reinforces unique character. This has been achieved through the clever use of materials and levels to create a 'one of a kind' landscape experience that is drawn from the schools heritage and locally sourced materials.



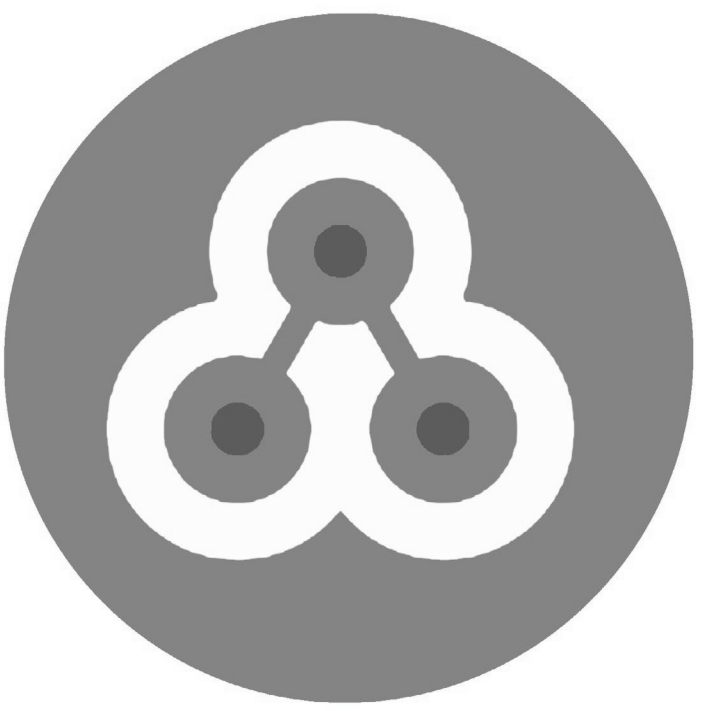
EFFECTIVELY RESPOND TO BUILT FORM

the landscape integrates with both the existing and proposed buildings cohesively. It is this sense of flow and complementary design that will allow the landscape to unite the school facilities.



FACILITATE SOCIAL INTERACTION AND ENGAGEMENT

and promote diversity and inclusion through the creation of adaptable areas for teaching, recreation, study and relaxing. These areas are designed to fit groups of all sizes and encourage inclusive learning practices.



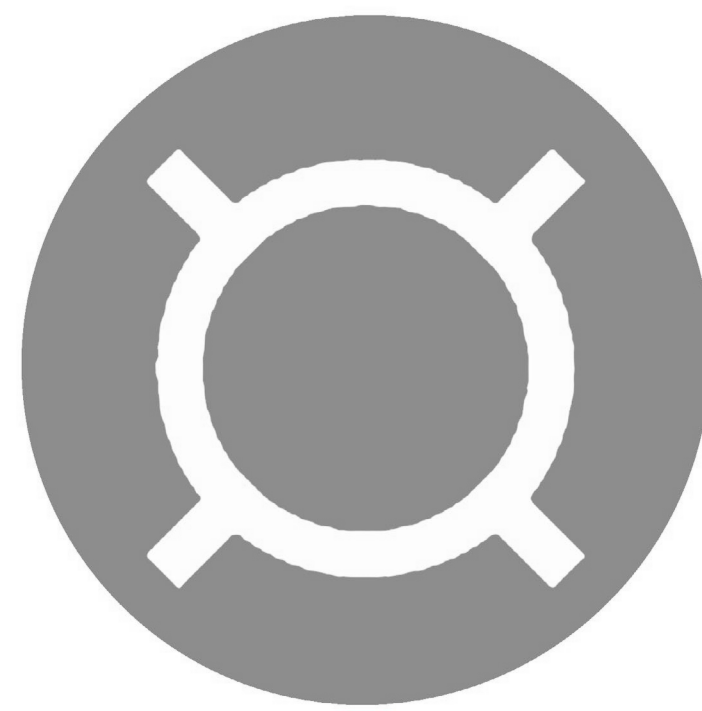
CREATE FLEXIBLE SPACES

that can be adapted throughout the day and year through considered spatial arrangements that also allows for future flexibility. As contemporary teaching practices evolve, the supporting landscape structure will allow for new learning strategies well into the future.



INSPIRE NEW WAYS OF LEARNING

by providing thoughtful, adaptable landscape infrastructure that will facilitate innovative pedagogy through inclusive learning and encouraging students to be involved in the learning processes.



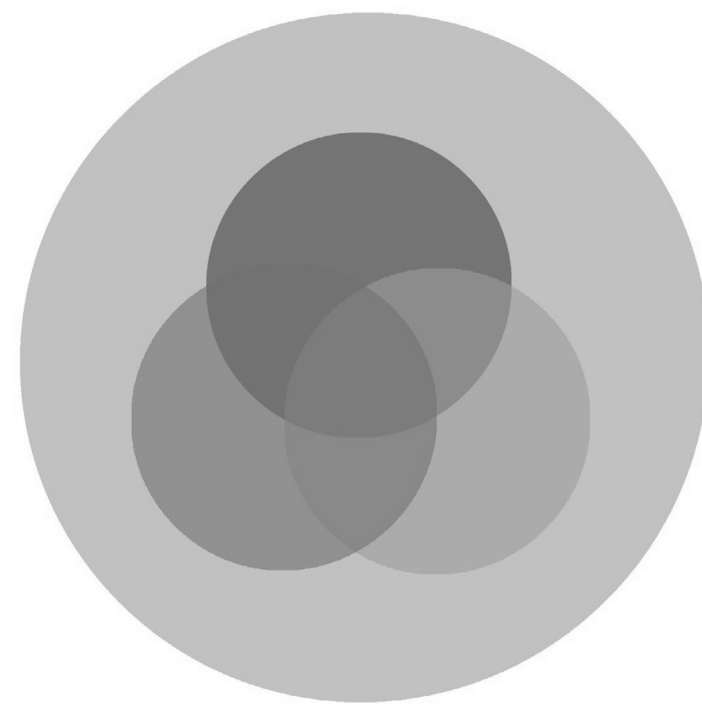
UTILISE THE MAXIMUM AREA

through careful spatial orientation and level management the school open space will be used to its full potential. With a variety of spaces that offer different uses, and create different microclimates throughout the day.



ACHIEVE ENVIRONMENTALLY SENSITIVE DESIGN TARGETS

and minimise resource use / energy usage by introducing an indigenous planting palette throughout and reusing/ sourcing materials found in the local area.



EXPOSE NATURAL PROCESSES

and express systems for education and holistic learning. By reusing materials excavated from site and utilising a native and heritage planting palette into the different spaces, conversations can be started that draw on natural processes and encourage students to examine their environs.

CONCEPT | SYDNEY COASTAL TYPOLOGIES

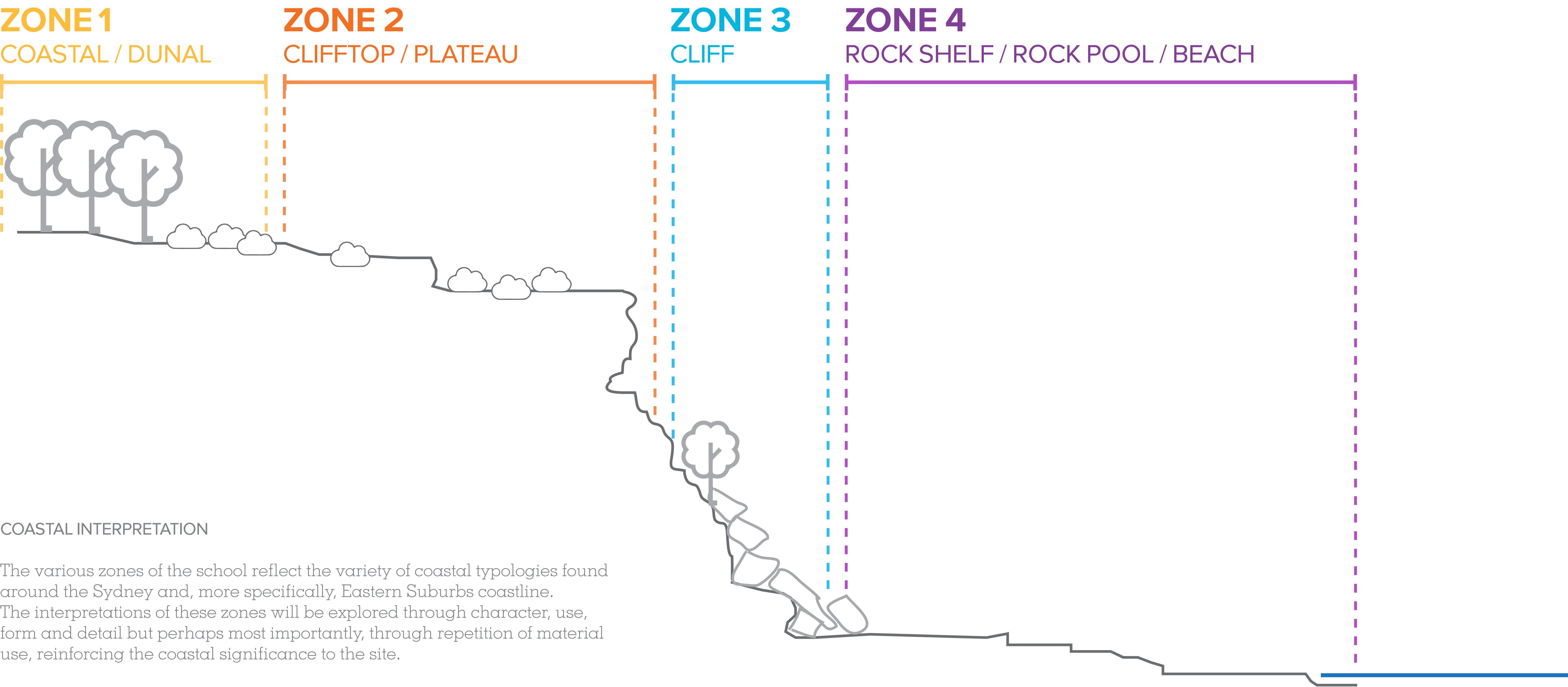


- _sea cliff
- _sandstone outcrop
- _sandy beach
- _built edge

Sydney lies on a submergent coastline on the east coast of New South Wales, where the ocean level has risen to flood deep river valleys (rias) carved in the Sydney sandstone. Port Jackson, better known as Sydney Harbour, is one such ria.

Sydney's coastline and harbour represent one of the most beautiful and environmentally diverse attractions in the world. The coast features cliffs, beaches and inlets of magnificent beauty unique to the region. The harbour offers iconic headlands, historic sites and national parks

CONCEPT | COASTAL EDGE TRANSECT



INFLUENCES | SANDSTONE FORMATION

Sandstone is a rock comprising mostly of minerals formed from sand. The stone gains its formation throughout centuries of deposits forming in lakes, rivers, or on the ocean floor. These elements group together with the minerals quartz or calcite and compresses. In time, the sandstone is formed by the pressure of these minerals coming together.

THE TWO MAIN STAGES

The first stage in the process involves layers of sand amassing due to the process of sedimentation, when particles settle in the fluid they sit in and rest against a barricade; this can either be from water or air. The stone then becomes cemented by the pressure of the suspended stone being precipitated between grains.

The stone is formed from the sand of older, fragmented rocks. This then forms the stone that is typically said to contain sand ranging in size from 1/16th of a millimetre to 2 millimetres. Think about how many of these tiny grands of sand make up one block of sandstone, the stone if formed from all of those tiny grains coming together and compressing.

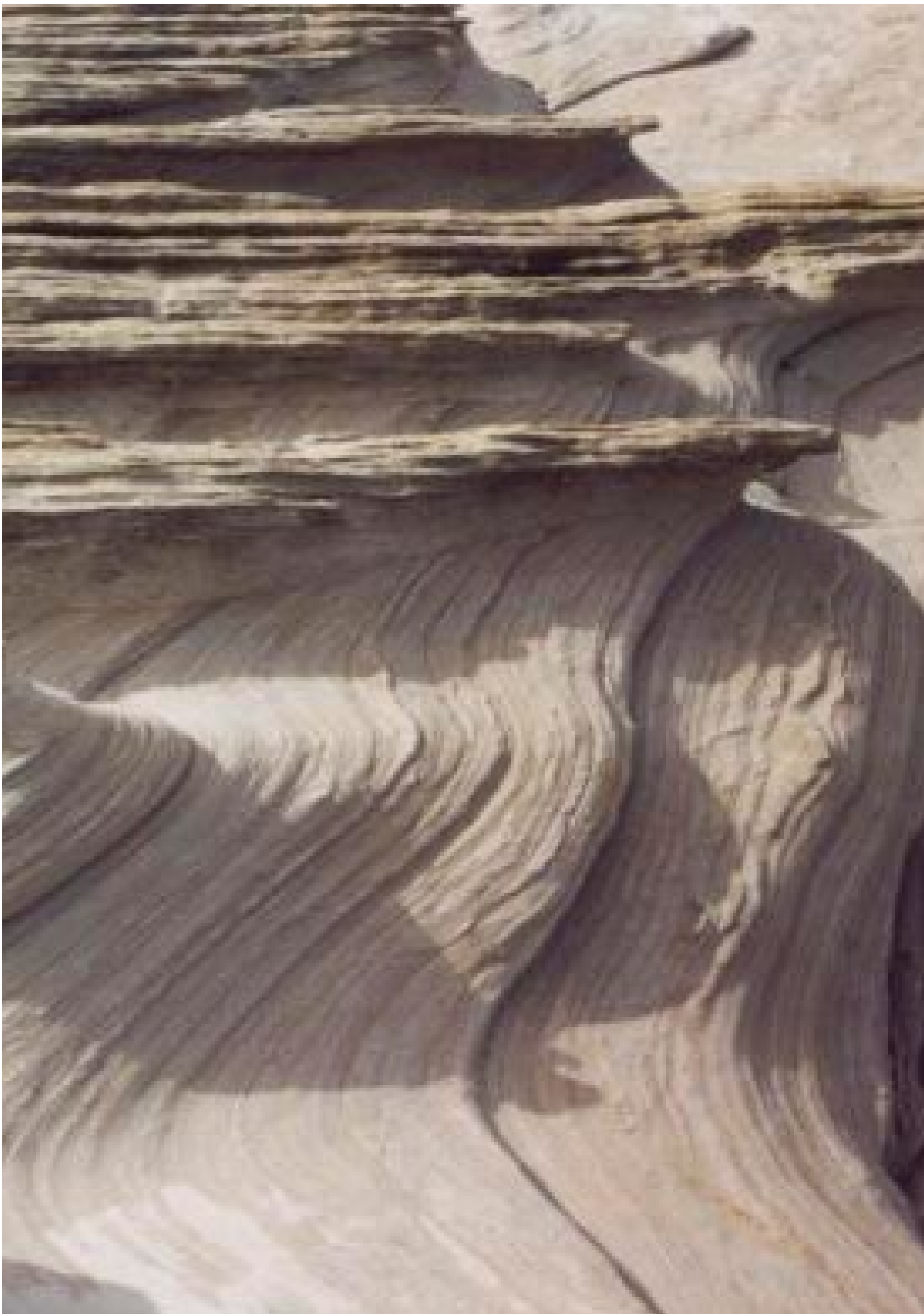
Whilst sand is the most common element found in sandstone (hence the name), there can often be other materials found in it such as cement and matrix. Cement located within the stone is usually comprised of quartz, calcium carbonate or iron oxide. When it holds too much cement material, it is thought of as poorly formed stone.

The stone can be created wherever the conditions listed above are suitable for its creation. Formation occurs mostly in rivers, lakes, the ocean floor, desert dunes and beaches.

There are different classifications of sandstone and whilst sandstone is made up of generally the same minerals they may contain different components that help them form. Sandstone has natural variations in colour, tone, shade and grain. Some stones have oxidising properties and others have unchanging banding.

SYDNEY SANDSTONE

The sand that was to become the sandstone of today was washed from Broken Hill and laid down about 200 million years ago. The ripple marks from the ancient river that brought the grains of sand are distinctive and easily seen, telling geologists that the sand comes from rocks formed between 500 and 700 million years ago far to the south.



INFLUENCES | SANDSTONE EROSION

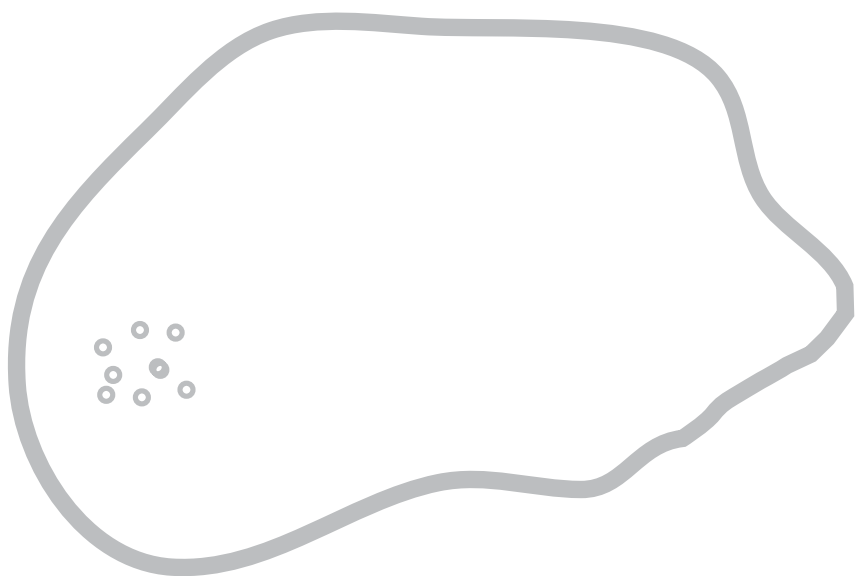
Six kilometres of sandstone and shale lie under Sydney. It is a very porous stone and acts as a giant filter. It is composed of very pure silica grains and a small amount of the iron mineral siderite in varying proportions, bound with a clay matrix. It oxidises to the warm yellow-brown colour that is notable in the buildings which are constructed of it.

The sandstone is the basis of the nutrient-poor soils found in Sydney that developed over millennia and ‘came to nurture a brilliant and immensely diverse array of plants’.

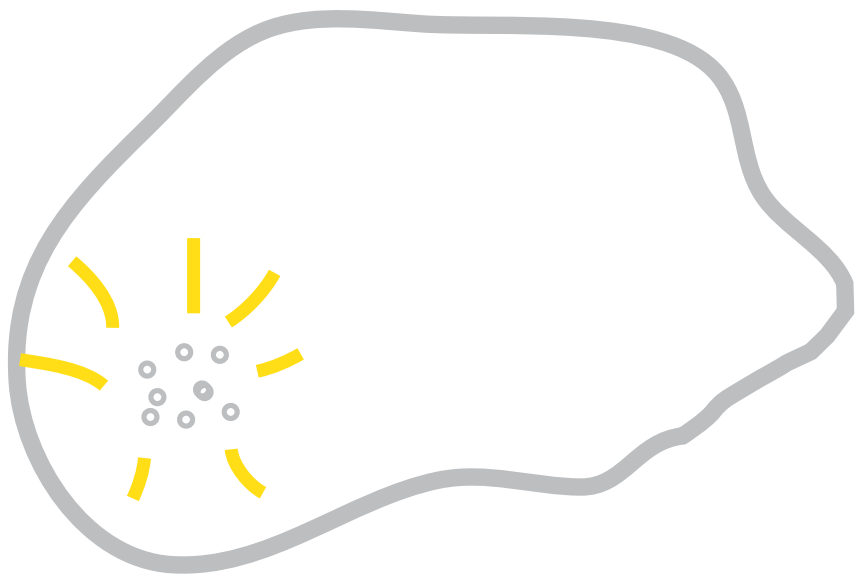
The eastern part of Sydney Harbour is predominantly Hawkesbury sandstone. Sandstone tends to break away in large blocks leaving the boulders and vertical cliffs that characterises the Sydney coastline.



DIFFERENTIAL EROSION PROCESS



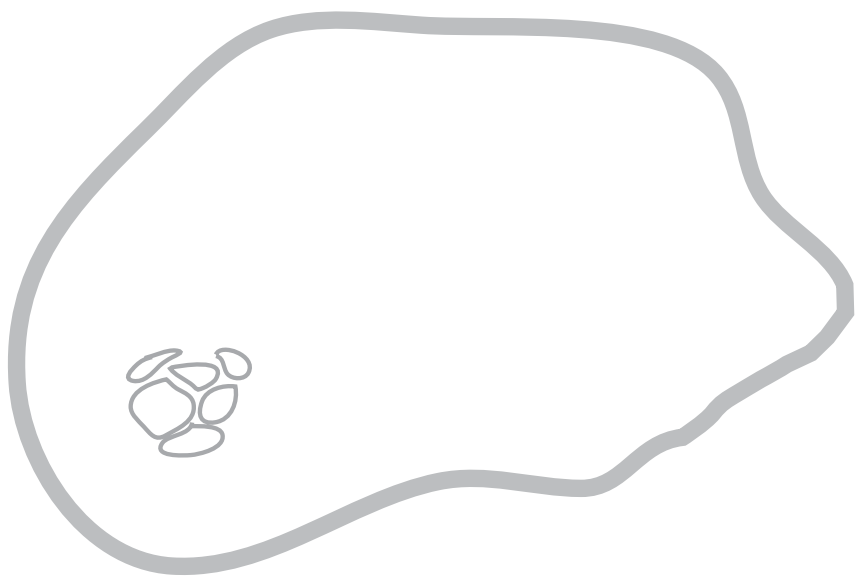
- Salt is deposited on rock surface



- Salt crystallises within pores

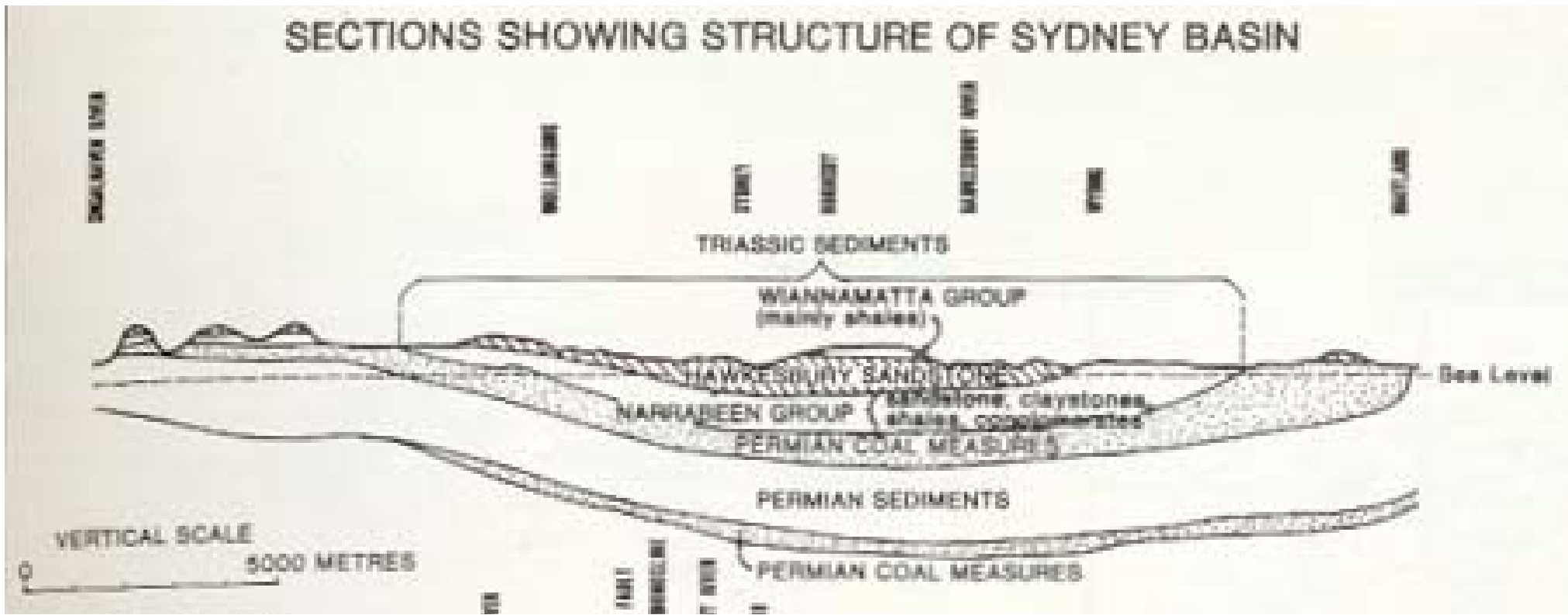


- Salt crystals pry apart the rocks mineral grains, leaving them vulnerable to weathering



- Honeycomb effect is left as rock weathers

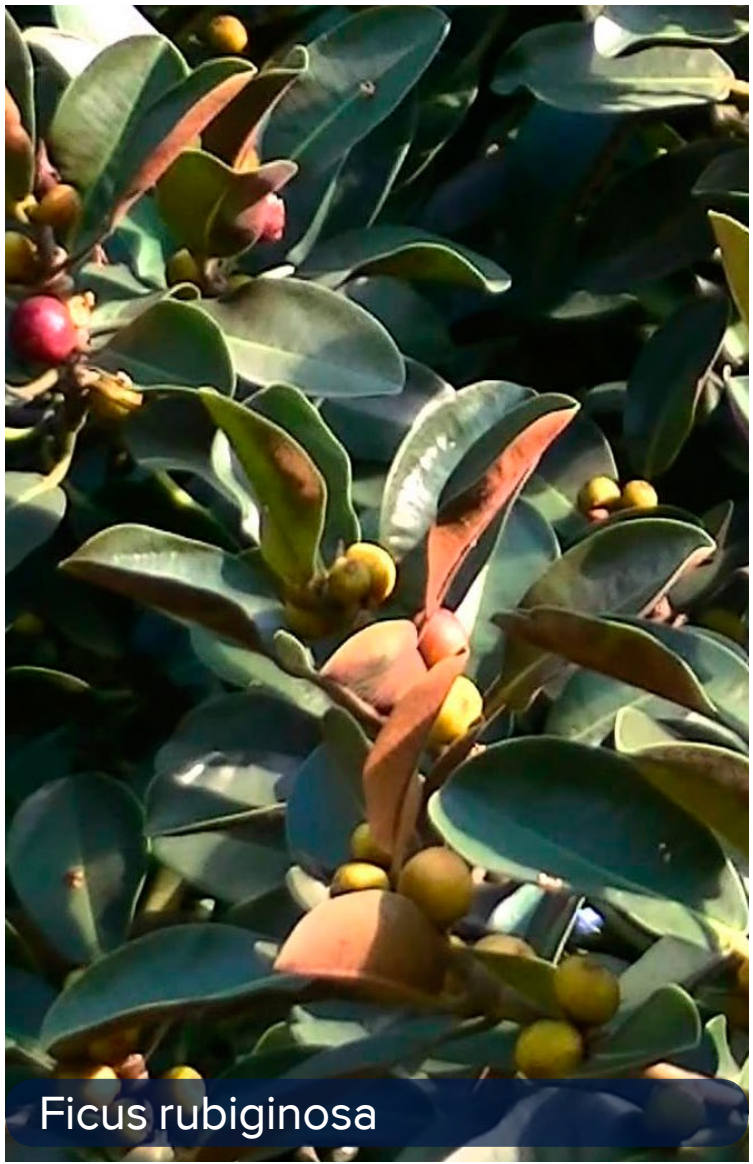
INFLUENCES | SOIL LANDSCAPE



HAWKESBURY SANDSTONE

The areas geology is predominantly made of Medium to fine 'marine' sand (Qhf) and Medium to coarse grained quartz sandstone, very minor shale and laminate lenses (Hawkesbury sandstone)(Rh)

The area is characterised by outcrops of sandstone, generally shallow, sandy, infertile soils and the distinctive benched topography which is similar to the surround harbour edges. These soils and the environmental conditions directly dictate the flora found in the area.



FLORA

Davallia solida var. pyxidata , Histiopteris incisa, Pteridium esculentum, Calochlaena dubia, Pyrrosia rupestris, Cheilanthes sieberi, Tetragonia tetragonoides, Actinotus helianthi, Centella asiatica, Hydrocotyle peduncularis, Platysace lanceolata, Pomax umbellata , Xanthosia pilosa, Cassinia denticulata, Ozothamnus diosmifolius, **Pandorea pandorana**, Allocasuarina distyla, Allocasuarina littoralis, Allocasuarina portuensis, **Casuarina glauca**, **Dichondra repens**, Ceratopetalum gummiferum, **Elaeocarpus reticulatus**, Epacris longiflora, Monotoca elliptica, **Breynia oblongifolia**, Acacia suaveolens , Acacia terminalis incl. subsp terminalis, Acacia ulicifolia, **Dillwynia retorta**, Glycine clandestina/tabacina, Gompholobium latifolium, **Hardenbergia violacea**, Platylobium formosum , Pultenaea daphnoides, Viminaria juncea, Gonocarpus tetragynus, Gonocarpus teucrioides, Plectranthus parviflorus, **Westringia fruticosa**, Cassytha glabella, Lobelia alata, Amyema congener, Dendrophthoe vitelina, Muellerina celastroides, Muellerina eucalyptoides, **Ficus rubiginosa**, Myoporum boninense subsp. australe , Myrsine variabilis., **Angophora costata**, **Callistemon linearis**, Eucalyptus botryoides, **Eucalyptus haemastoma**, Eucalyptus piperita, **Eucalyptus tereticornis**, Eucalyptus umbra, **Kunzea ambigua**, Oleaceae Notelaea longifolia f. longifolia , Notelaea ovata , Oxalis perennans, Peperomia blanda var. floribunda, Billardiera scandens, Pittosporum revolutum, **Pittosporum undulatum**, Melaleuca nodosa, Leptospermum polygalifolium, **Banksia ericifolia subsp. ericifolia**, **Banksia integrifolia**, **Banksia marginata**, Banksia oblongifolia, **Banksia serrata**, Grevillea linearifolia, Opercularia varia , Acronychia oblongifolia, Crowea saligna, Philotheca buxifolia subsp. buxifolia, Exocarpos cupressiformis, **Dodonaea triquetra**, Clerodendrum tomentosum Viola hederacea, Notothixos subaureus, Cissus hypoglauca, Commelina cyanea, Cyperus polystachyos, **Ficinia nodosa**, **Lomandra longifolia**, Dendrobium linguiforme, Eustrephus latifolius, Lepyrodia scariosa, Empodisma minus

INFLUENCES | LEARNING ENVIRONMENTS

The principles that shape the campus situate students within an integrated and unique environment that provides opportunities to learn from multi-sensory outdoor experiences. Outdoor environments as ‘learning space’ to provide locally appropriate and inclusive pedagogies.

The landscape is to act as an extension of the teaching spaces within the buildings.....and this should not be restricted to only the areas directly outside the classrooms.

“... natural and built environments of the campus are used as learning spaces to promote social interactions, conversations, and experiences that enhance student learning...”

John M. Refferty, Charles Sturt University ‘Design of Outdoor and Environmentally Integrated Learning Spaces’ - 2012

EFFECTIVE LEARNING SPACES ARE:

- // Flexible: to accommodate current and evolving pedagogies;
- // Future proofed: to enable space to be re-allocated and reconfigured;
- // Bold: to look beyond tried and tested technologies and pedagogies;
- // Creative: to energize and inspire learners and tutors;
- // Supportive: to develop the potential of all learners; and
- // Enterprising: to make each space capable of supporting different purposes.

CLASSROOM INTERFACE

ENVIRONMENTAL + INTEGRATED

INQUIRY BASED LEARNING

In addition to providing effective learning spaces we understand there is also a demand for effective teaching spaces. With limited space and resources for all of these spaces the opportunity exists to expand current pedagogy. The following opportunities will be addressed in the design of the proposed environments:

CLASSROOM INTERFACE

To complement the interior spaces proposed, new interfaces with the adjacent courtyards will be carefully designed to provide optimal spaces for teachers and students. These spaces will perform during both teaching and non-teaching time for a variety of user groups and user group sizes.

ENVIRONMENTAL + INTEGRATED

Immersive learning in the natural environment has multiple benefits. There is a body of research that promotes the effectiveness of natural settings for the human mind. The principles of these spaces will be utilised to ensure the

INQUIRY BASED LEARNING

Inquiry based learning is all about thinking – thinking in order to make meaning. The urge to inquire activates thinking on many levels and in many forms. This can be approached at both a macro and micro scale with many layers of meaning / detail able to be integrated to landscape, following effective site planning.



LANDSCAPE // LEARNING // LEGACY

The design strategies will address the site conditions and proposed developments adhering to the above considerations.

LANDSCAPE

Interpretation of the coastal significance and relevance to our site through character, use, form and detail of the landscape. Sandstone will be the common thread that unites the various parts of the redevelopment and reinforces the school legacy and attachment to this location.

LEARNING

Progression of pedagogy and student learning will assist in the development of design thinking and spatial arrangement of new landscape spaces.

LEGACY

Design moves consider not only the project outcomes but take a longer view of the future of the school, ultimately showing respect for school history and the positive effects this has on students and old boys.

