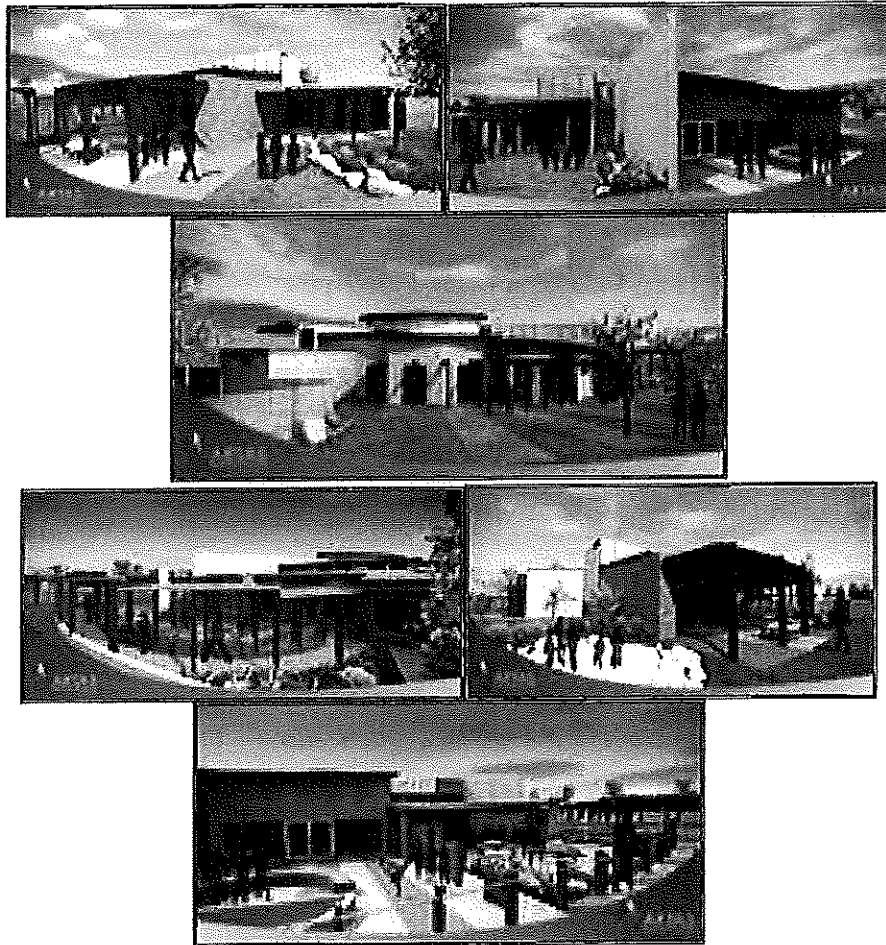


**SUBMISSION TO THE
PARLIAMENTARY STANDING COMMITTEE
ON PUBLIC WORKS**

***THE DEVELOPMENT OF A NEW
PRIMARY SCHOOL AT PORT SORELL***



25 AUGUST 2011

Department of Education
Capital Planning & Development



INTRODUCTION	3
BACKGROUND.....	3
PORT SORELL – THE TOWNSHIP.....	4
EXISTING EDUCATION FACILITIES IN THE REGION.....	4
SCHOOL ENROLMENTS.....	5
ENROLMENT PATTERNS (BASED ON 1ST TERM CENSUS 2011, ACTUAL STUDENTS).....	5
PROJECT ESTABLISHMENT	5
PROJECT MANAGEMENT GROUPS / CONSULTATION.....	5
COMMUNITY CONSULTATION.....	6
KEY PRINCIPLES, THEMES AND IDEAS GUIDING THE SCHOOL DESIGN.....	8
SITE AND SITE CONDITIONS	8
THE SITE	8
SITE ASSESSMENT AND COASTAL VULNERABILITY.....	10
DESIGN BRIEF	12
THE VISION FOR THE SCHOOL – GUIDING PRINCIPLES TO THE DESIGN	12
PROPOSED SCOPE OF WORKS	12
DESIGN RESPONSE	13
MASTER PLAN	13
FUNCTIONAL GOALS.....	13
ACCESSIBILITY AND TOILETS	14
DESIGN PROPOSAL	14
ENTRY AND LAYOUT.....	14
BUILDING VOLUME AND FORM	15
MATERIALS.....	16
THE STUDENT SERVICES BUILDING.....	17
THE SOCIAL HUB	18
LEARNING PODS	18
CONNECTED OUTDOOR LEARNING	19
AMPHITHEATRE AND OUTDOOR STAGE.....	20
SUSTAINABLE DESIGN FOR THE PORT SORELL PRIMARY SCHOOL.....	20
CONSTRUCTION AND BUILDING PERFORMANCE	22
BUILDING SERVICES AND STRUCTURE.....	22
POWER SUPPLY	22
LIGHTING	22
FIRE DETECTION SYSTEM.....	22
MECHANICAL SERVICES.....	23
VENTILATION.....	23
HEATING	23
AIR CONDITIONING	23
SYSTEM CONTROL	23
SECURITY.....	23
COMMUNICATIONS / ICT.....	24
PUBLIC ADDRESS.....	24
HYDRAULIC SERVICES	24
WATER.....	24
SEWER	24
STORM WATER.....	24
STRUCTURAL DESIGN.....	25
MATERIALS AND ELEMENTS	25
LANDSCAPE DESIGN	26
ART FOR PUBLIC BUILDINGS SCHEME – ARTWORK PROPOSAL	26
FUNDING AND PROJECT MANAGEMENT	27
PROJECT BUDGET.....	27
PROJECT COSTS.....	27

PROJECT TIMELINES	28
PRELIMINARY WORKS.....	28
POTENTIAL PROJECT CONSTRAINTS AND BENEFITS	28
ANTICIPATED PROJECT BENEFITS	29
ATTACHMENT 1: GREEN STAR RATING	30
ATTACHMENT 2: RISK MANAGEMENT STRATEGY.....	32
ATTACHMENT 3: REPORT OF PARLIAMENTARY JOINT STANDING COMMITTEE ON COMMUNITY DEVELOPMENT	37
DRAWINGS AND GRAPHICS.....	38

INTRODUCTION

This submission to the Parliamentary Standing Committee on Public Works seeks approval for the construction of a new Primary School for Port Sorell.

Background

In 2009, the Parliamentary Joint Standing Committee on Community Development conducted an inquiry into the provision of public primary school education for the residents of Port Sorell, Shearwater, Wesley Vale, Sassafras and Moriarty.

The Committee found that the community had a strong case for the establishment of a new primary school. A copy of the committee's report is provided at Attachment 3 and the key recommendations of that report are:

- That a new public primary school be planned, constructed and opened in Port Sorell; and
- That in planning for the size and scope of the school, a radius of 5 kilometres be adopted as the catchment area and future growth projections be taken into account.
- That no school be closed immediately as a result of the planned opening of a new school.
- A review be undertaken by the school communities with the support of external consultants to ensure stability for current primary students.
- That consideration be given to an operational model which would allow savings in management costs by operating all schools in the area as a cluster or campus model.
- That an independent task force with consultative and resolution capabilities be assigned to work with Sassafras, Moriarty and Wesley Vale school communities to assist in developing the most appropriate educational model for those students, in collaboration with any new school at Port Sorell.
- That Wesley Vale Primary School considers its immediate needs for heating and urgent capital works and that the remainder of the Building the Education Revolution funding be redirected towards the proposed Port Sorell Primary School.
- That Latrobe Council consider transferring the available land parcel identified within their strategic plan to the Department of Education at no cost.¹

The recommendation to develop a new school was formally supported by the Tasmanian Government in the 2010-11 State Budget through the allocation of \$13.0 million for the construction of the new primary school at Port Sorell. The development of a school is formally supported by Latrobe Council in its strategic plan *Creating Opportunities, A Strategic Direction 2006-2011* and in its having adopted the recommendations of the 2008 *Port Sorell & Environs Strategic Plan Review*

The new school will provide primary education services, catering for students from Kindergarten to Grade Six.

The school will service the educational needs of the Port Sorell and surrounding areas and the chosen site is located within the Port Sorell Township which is part of the Latrobe Council local government area. A demographic study has found that the projected Port Sorell

¹ Parliament of Tasmania Joint Standing Committee on Community Development report on "The Provision of Public Primary School Education for the residents of Port Sorell, Shearwater, Wesley Vale, Sassafras and Moriarty" October 2009

township population (within a 5 kilometre radius of Port Sorell) will grow to between 5,000 and 6,000 within the next decade¹.

Port Sorell – the Township

Port Sorell is on the north-west coast of Tasmania and lies on the waterway of the same name sometimes referred to as the Rubicon Estuary named after the river that discharges into it.

Just 20 km east of Devonport and close to Shearwater and Hawley Beach, the town was originally a fishing and sealing port that has developed into one of many popular holiday spots along the north coast of Tasmania. It is recognized as one of the few towns where the bush meets the sea, giving residents the lifestyle benefits of both.

Port Sorell is one of the highest-growth areas in Tasmania, with a recent annual average growth rate of around 3.4% compared with Tasmania's annual growth rate over the same period at 0.7%. The town population increases significantly over the summer months. In 2008, the population of the town was 3583 with 1933 dwellings. Of these, around 25% were holiday homes and around 23% on rural residential lots.²

The Port Sorell area is unusual in that it has a very high proportion of its housing on rural residential lots. This may be one of the highest proportions of rural residential dwellings to other housing of any town in Australia.

Latrobe Council has provided information that at June, 2010 the Latrobe Municipality had a growth rate of 4.2% compared with a State average of 0.9% and was ranked the fastest growing in the State. The municipality also had the highest number of building approvals for dwellings in the Mersey-Lyell region for the same period. Most recent growth has been on conventional residential lots in the new subdivisions in Hawley Beach and Shearwater and the three settlements of Port Sorell, Shearwater and Hawley are now essentially joined together.

Existing Education Facilities in the region.

Currently most school aged children within the Port Sorell, Shearwater, Hawley Beach, Northdown, Squeaking Point and Thirlstane township areas attend Wesley Vale Primary School, with a lesser number attending Moriarty Primary School. The majority of these children are transported by bus.

The enrolments, based on the first term 2011 census for Wesley Vale Primary School is 311 Head Count; and, at Moriarty Primary School is 73 Head Count.

Based on the first term census for 2011, 322 students reside in Port Sorell, Shearwater, Hawley Beach, Northdown, Squeaking Point and Thirlstane township areas. Of these 322 students, 250 attend Wesley Vale Primary School and 40 attend Moriarty Primary School, whilst the remaining 32 students go to numerous other schools. The official home area for the new school is yet to be finalised, however, the school will draw students from these townships.

¹ Associate Professor Natalie Jackson "Port Sorell and suburbs – Projections" February 2008

² Port Sorell and Environs Strategic Plan Review prepared for Latrobe Council 2008

Initially, the targeted student population capacity for the new school is 350 children.

School Enrolments

The nearest schools to the Port Sorell Township are Latrobe, Sassafras, Moriarty and Wesley Vale. The 2011 profiles of those schools related to student townships of residence are as follows:

Enrolment Patterns (Based on 1st term census 2011, Head Count Students)

Area	Wesley Vale Primary		Moriarty Primary		Sassafras Primary		Latrobe Primary		Other Primary schools		Total	
Port Sorell	*250	80.4%	40	54.8%	3	6.7%	4	1.2%	25	36.2%	322	39.3%
Wesley Vale	21	6.8%	0	0.0%	0	0.0%	0	0.0%	2	2.9%	23	2.8%
Moriarty	4	1.3%	15	20.5%	0	0.0%	3	0.9%	1	1.4%	23	2.8%
Sassafras	0	0.0%	0	0.0%	28	62.2%	7	2.2%	2	2.9%	37	4.5%
Latrobe	8	2.6%	6	8.2%	8	17.8%	253	78.6%	39	56.5%	314	38.3%
Other	28	9.0%	12	16.4%	6	13.3%	55	17.1%	n/a	n/a	101	12.3%
Total	311	100.0%	73	100.0%	45	100.0%	322	100.0%	69	100.0%	820	100.0%

*Wesley Vale School population is predominately, populated by students from Port Sorell.

PROJECT ESTABLISHMENT

Project Management Groups / Consultation

The following groups / roles have been engaged on project management and outcomes.

Steering Committee

A Steering Committee has been formed to manage all aspects of the planning and development of the new school. Membership of the Steering Committee comprises a diverse range of people, representing all facets of the community, including Latrobe Council, Wesley Vale Primary School Association, the Port Sorell Community Schools Committee and staff from the Department of Education and the office of Sport and Recreation.

Future Directions Group

A Future Directions Group has been established to work in parallel with the Steering Committee to develop a long-term strategy for the educational needs of all students in the area immediate region.

Project Working Group

The Port Sorell Project Working Group (PSPWG) reports to the Steering Committee and has the direct task of designing the detailed project brief and design and all other stages of the project. It is comprised of community representatives, the project architect, teacher representatives, a school principal, the General Manager Learning Services NW and staff from the department's Facilities Section.

The Working Group has convened on a regular basis to assess aspects of the project brief that have been considered by the Steering Committee, Port Sorell Community and other interest groups. All milestone stages have been tabled with the Steering Committee for endorsement.

The Working Group will continue to work with the Port Sorell community to identify opportunities of sharing land, recreation areas and built assets.

Community Consultation

To date, the project has been supported by consultation with stakeholders at the master plan and developed design plan stages and it is envisaged that as the design is developed further to tender, interest groups will have the opportunity to support the process.

The following consultation and information sharing process has been undertaken.

- Two Community Forums
- A project internet web site that has been continually updated at www.education.tas.gov.au/dept/infrastructure/portsorell The web site includes an animation of the proposed structures and site.
- Regular updates through school newsletters

A Community Forum was convened in February 2011 with presentations from:

- Brent Armistead, community representative;
- Bruce Cameron, A/General Manager, Learning Services North West;
- Michael Gaffney, Mayor Latrobe Council; and
- Scott Curran, project Architect

The community was openly encouraged to provide views and opinions on the project, all of which have been formally recorded and where practicable, incorporated into the developed design and project web site.

Key messages were received in response to the following question asked at the first Community Forum:

What hopes do you have in the development of the Port Sorell Primary School?

The feedback was:

- Buildings: a multi- purpose centre for community gatherings; creative and flexible spaces; strong indoor- outdoor connections;

- Resources: excellent staffing; ICT; state of the art facilities; strong links in the use of the natural environment in learning and teaching
- Community connection: compatible with the landscape and environment; links with local businesses, community groups and service clubs; promotes community relationships; accessibility; use of facilities 'out of school hours'; community involvement in school programs; a hub for sharing with other schools

What is valued by being part of a school community, by the community and by young people?

The feedback was:

- Community: friendship, making connections and contacts; celebrating together; accessing programs, people and resources; contributing to memories; sharing responsibility; valuing differences; developing pride; connecting with community programs; promoting community culture; interactivity between age groups; buddy opportunities; safety and security;
- Promoting learning and education: being part of children's learning; valuing healthy lifestyles; promoting physical activity; learning life skills; having a wide range of activities and programs that caters for a wide range of needs of people of all ages; and
- Sharing facilities: community access to school facilities; adding to resources; sharing ownership; taking pride in community facilities.

What would you like to know more about?

The feedback was:

- Enrolments: zoning, choice of schools
- Design of the buildings: compatibility with the landscape; environmental considerations; scope for future growth; security
- Impact of the school on local residents and the caravan park and vice versa
- Infrastructure: bikeways, pathways, access to the bush land,
- Development of and access to community facilities: to Camp Boomerang; community swimming pool, tennis club access, access for the scouts, sharing of local facilities
- Staffing processes for the new school
- The impact of the state's budget on the development of the PSPS
- Bus routes
- School uniform and the development of a PSPS "brand"

A follow-up Community Information evening was held in early July 2011 with presentations from:

- Bruce Cameron, A/ General Manager, Learning Services North West;
- Heath Clayton, project Architect; and
- Michael Rataj, Port Sorell community representative.

The outcome from that well attended evening was very positive with community support for a vibrant new school engendering a sense of ownership, place, security and creativity.

The final design plans were received by various members of the town community with interest and excitement. The evening openly offered the opportunity for questions to be addressed.

Overall, the community has been very supportive of the new school and developed design concepts.

Key Principles, Themes and Ideas Guiding the School Design

Based on the information gathered at the community consultations the Project Working Group and the Project Steering Committee adopted some key principles and some key themes and ideas.

The key principles are:

- Camp Boomerang is the site for the school
- Artas Architects will manage the project design and delivery
- Main access off Pitcairn St as identified in the project traffic study.
- The project will not duplicate existing community facilities. The school will be an integral part of the community precinct which includes existing sporting, leisure, and recreational facilities and assets.

The key themes and ideas are:

- The design must reinforce the sense of community by being accessible to all within the school; students and staff should be able to be within close proximity with each other; the layout of the school means that people are seen to be working with each other; parent participation is welcomed and is active.
- The open, flexible learning spaces will 'future proof' the building.
- There should be shared responsibility of the spaces, which are diverse, flexible and creative in design. Use of spaces should be maximised.
- Shared spaces such as meeting areas and playgrounds to be accessible to everyone and be able to serve a variety of purposes and not restricted to a narrow range of uses; all areas should be able to be easily supervised.
- The school will become the heart and soul of the community; it will be a safe centre of learning which compliments the local environment, services and facilities.

SITE AND SITE CONDITIONS

The Site

The optimum location (Camp Boomerang) for a new school in Port Sorell was identified by the Latrobe Council in its comprehensive *Port Sorell and Environs Strategic Plan 2008*. At approximately 5.5 hectares the site is well above minimum requirements, and consists of undulating open spaces with sparse natural bush and grassland.

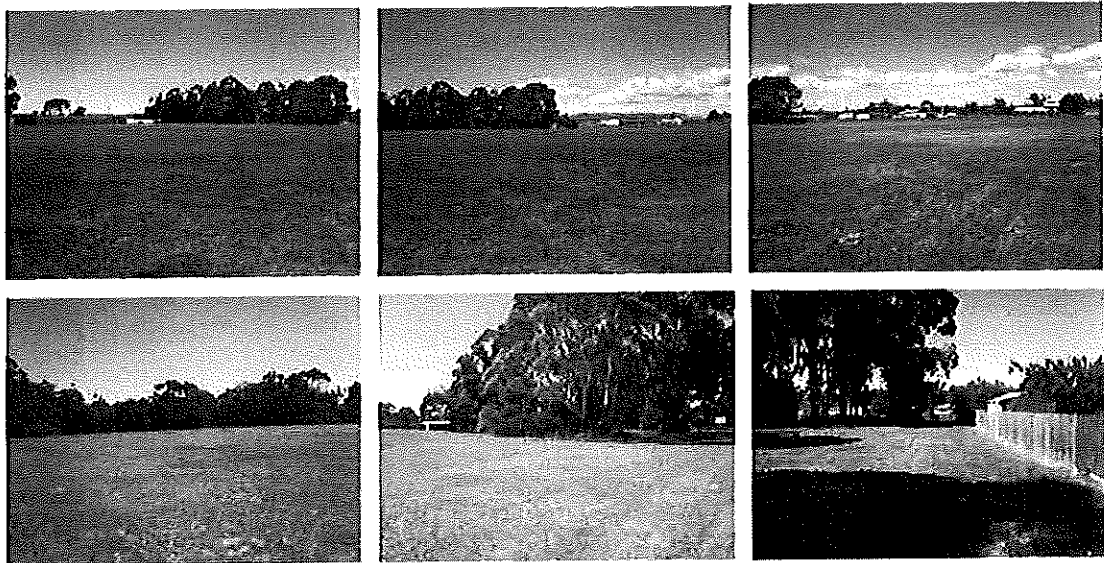
Latrobe Council has agreed to make the Camp Boomerang land available in exchange for the State Government's Camp Banksia site with appropriate monetary adjustments.

The site is bounded by Pitcairn St to the North, Wilmot Street to the South and can be accessed from Kermode St to the East. The *Port Sorell and Environs Strategic Plan 2008* recommends Council develop an additional road to the north of the site and joining Wilmot and Pitcairn streets. The proposed school development will build a cycle and walking path along this future road adjacent any future carriageway.



Ref <http://maps.google.com.au/>

The site is central to the community and within walking distance for many children. It is adjacent to a significant bush reserve to the north and close to the Rubicon river foreshore which is a significant community asset and conservation area.



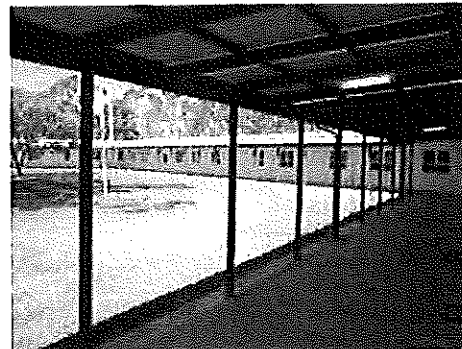
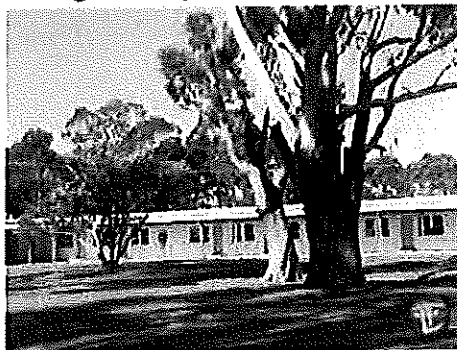


Site photos 16.03.2011

The school will be at the centre of a community precinct.

- Camp Boomerang was on the proposed school site and its activities have been transferred to neighbouring Camp Banksia, located immediately North and across Pitcairn St.
- Rubicon Sea Scouts have a hall on the school site. The hall will be leased to the scouts for peppercorn rental, fenced and provided with separate power and water. The entry road from Kermode St leading to the scout hall and tennis courts will be renovated.
- Council-owned tennis courts off Kermode St are adjacent the school and additional land has been set aside to allow for future expansion of the courts.
- The existing full sized football/cricket ground will be incorporated into the school.
- Pioneer Park is to the East of the school and within easy walking distance.
- The Moomba Holiday and Caravan Park borders the school to the North East.
- There is a bush reserve to the West and Latrobe Council plans to provide additional walking trails in that reserve.
- The school development will include a walking and cycle path linking Wilmot and Pitcairn streets.
- An area will be provided for a community garden near the scout hall and tennis courts.

The aged Camp Boomerang buildings, pictured, have been demolished.



Site Assessment and Coastal Vulnerability

The *Port Sorell Primary School Site Suitability Assessment Report* from Consulting Engineers, Pitt & Sherry determined that the Camp Boomerang site is suitable for the proposed school development.

Coastal Vulnerability is an important consideration. The report indicates that the site is unlikely to be subject to inundation from an extreme storm tide or subject to potential erosion. The lowest point of the site is 3.5m above the approximately present mean sea level (known as AHD) and that point would only be reached by the sea during the peak of an extreme tide if the sea level were to rise significantly exceeding the current majority of scientific projections.

An extreme storm tide is anticipated to reach a maximum of 1.95m AHD. In 2100 an extreme storm tide is estimated to potentially reach an inundation level in the order of 2.70m AHD (incorporating a high greenhouse gas emissions scenario climate change induced sea level rise).

Other site issues identified by the report and the project design response are:

- Allowances for Town Planning and title considerations. *Planning approval has been obtained.*
- Site services infrastructure such as water, stormwater, sewerage, electricity, IT and communications. *The proposed services design reflects the outcome of consultation with relevant authorities, best practice where practicable and environmentally sensitive principles.*
- Site access, increased traffic, parking, off street parking, on-site parking, vehicular movements, pedestrians, school crossings and signage. *Detailed consultation has been held with Council and DIER and the design addresses all pedestrian, vehicle and community access issues.*
- Provision for continued use by the Rubicon Scouts. *The project budget has completed various infrastructure works to the scout hall facility to enable the group to continue operating on their current site. It is envisaged that the Rubicon Scouts will become part of the school community and develop close connections with the school.*
- No historical, aboriginal heritage, flora and fauna issues were apparent to Pitt & Sherry.

Overall the use and development of the site for a school is generally supported by both the Municipal Planning Scheme, and the strategic planning work undertaken in support of the Planning Scheme.

A Strategic Traffic Review Report from Consulting Engineers GHD determined that development of a school on the site would not create any significant traffic issues for the community.

Recommendations from the report are;

- Form a cycle and pedestrian path in place of the proposed road to the west of the school and continuing to Shearwater Esplanade for cycle and pedestrian access to the school and to benefit the wider community;
- Provide for parents to drop children at Wilmot Street where it joins the proposed road, with an internal connection to the school site;
- Council could fill the gap in the existing road network with a more central road, such as that proposed between the Shearwater Centre to Wilmot Street via Fairway Crescent; and Council be asked to fill the gaps in existing footpaths and extend the path network along existing roads.

A Site Infrastructure Report by Consulting Engineers, JMG determined that development of a school on the site would not impose any significant impact on the community infrastructure.

In addition, the project Architects have assessed the existing municipal Gymnasium to ascertain the potential for redevelopment as a shared facility. The outcome of that study indicates that whilst expansion of the building to a contemporary standard and size is feasible, it remains beyond the current Port Sorell project funding allocation and would not on its own meet the school's need for an on-site multi-purpose hall of smaller scale.

DESIGN BRIEF

The Vision for the School – Guiding Principles to the Design

The following principles were developed by the Project Working Group to guide the school design and capture the key principles, themes and ideas detailed earlier in the submission. They concretise the desired vision for the new facility and its community;

- school to be self contained and a General Purpose and Assembly Hall (GP Hall) sized for the school community
- GP Hall orientation to the community and school central social/play area
- linkage of GP Hall and Music
- maximise the image of the school from Pitcairn St via sensitive landscaping of the main car park area
- promoting a healthy lifestyle through provision of bike and walk ways
- vehicle management to provide pedestrian safety
- a common and clearly defined site and school entry area
- administration at the front of the school
- kindergarten spaces to be integrated and orientated to other learning areas
- flexibility in the teaming of teachers and the grouping of students
- flexibility in the changing use of learning spaces into the future
- play and social areas close and accessible to learning spaces
- discovery / flexible spaces attached to each grouping of general learning areas
- teacher resources included within each Learning Pod. (A Learning Pod is a collection of General Learning areas or classrooms in one building – four classrooms per Pod in this school. The Pods have the ability for classrooms to extend outside, to be opened up for team teaching and to provide for large breakout space or smaller focus areas. Each has its own toilets, teacher resource areas and work areas.

Proposed Scope of Works

The initial vision for the project is the provision of a Kindergarten to Grade 6 primary school with an initial design enrolment of 350 students.

Provision for future increased enrolment numbers is incorporated in the design through adaptive use of flexible learning areas, the ability to add another class space to each Learning Pod and an overall site area capable of accommodating an additional Learning Pod subject to authority approvals.

The construction program has been divided into concurrent stages to enable all or part of the buildings to be occupied at the earliest possible date. The staged occupancy and completion is planned to be in the following order with all buildings completed by mid November 2012 and peripheral site works completed by December 2012:

1. Student Centre
2. Pod 1
3. Pod 2
4. Pod 3
5. Site Entry Works
6. Social Hub
7. Peripheral site works

DESIGN RESPONSE

The design response to the vision for the school is strongly community focused and incorporates all the learnings from new primary schools at Austins Ferry, Windermere, Romaine Park and Somerset.

Master Plan

The new Port Sorell Primary School will provide primary education services, catering for students from Kindergarten to Grade Six.

The key concepts and themes for the Master Plan include:

- A design that reinforces a sense of community through its accessibility between staff, students and parents, having a proximity to a range of activities and functions undertaken throughout the school and provide extended views through and beyond the school setting;
- Provide a range of flexible learning spaces and settings that support different learning and teaching models, from one-on-one, small group collaboration, focus activity areas, group learning, connected outdoor space, etc;
- Support and encourage a shared responsibility for the built and natural environment;
- An innovative design that promotes school identity that is also reflective of the larger community - a built form that is unique, organic, logical, contextual and natural;
- A safe environment allowing extended views and ease of casual surveillance into play spaces and activity areas - a village within the village;
- Support and encourage a sense of creativity and playfulness.

Functional Goals

The key areas to be provided include:

- 14 General Learning Areas including early childhood with access to wet activities, quiet withdrawal spaces, and external learning areas;
- Administration;
- General Purpose Hall;
- Centralised resource, ICT and teacher aide support area;
- Staff facilities including lounge, resource and study areas;
- Student, staff and public amenities;
- Canteen; and
- Appropriate and functional storage though the site.

Accessibility and Toilets

The new building will meet the recent and very stringent *Disability (Access to Premises – Buildings) Standards* as referenced in the *Disability Discrimination Act (DDA)*. The project will also comply to Australian Standards 1428.1 2009 Design for access and mobility as well as *Disability (Access to Premises - Buildings) 2010*.

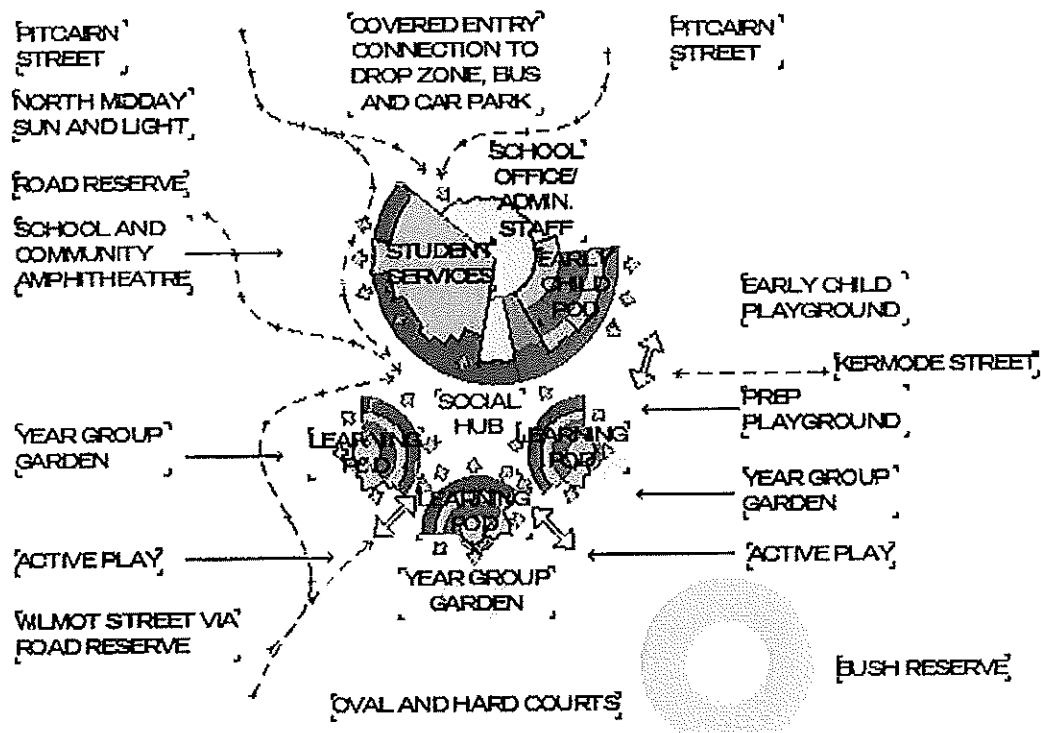
Safety is an important consideration. As well as pedestrian safety, security and safe building materials, students need to feel safe to use toilets. Toilets will be designed to be bully-free, safe and easily supervised. Each toilet cubicle will have floor to ceiling walls and doors and will be self contained and lockable with its own washbasin and ventilation.

DESIGN PROPOSAL

Entry and Layout

The main school vehicular and pedestrian entry is from Pitcairn Street. It provides one way entry and exit points and includes staff and visitor car parks, bus drop zone and student drop off points. The entry delivers visitors and students to a central entry forecourt which guides everyone into the entry of the Student Centre. Further access can be achieved from the road reserve, Kermode Street and Wilmot Street which eases movement in and out of the site. An informal access is provided from Kermode and Wilmot Streets.

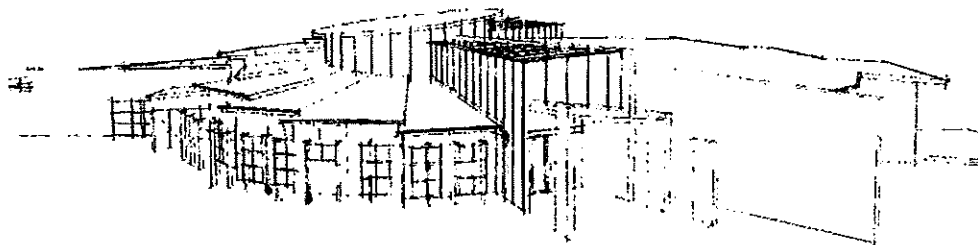
The layout of the three Learning Pods and a central Student Centre form a social hub based upon a contemporary village green approach. The social hub will be formed from rolling grass mounds to provide a stimulating and dynamic terrain to sit, gather and play. This landscape joins each Learning Pod to provide each year group with a connected outdoor space. Structured play space radiates out between the learning Pods providing hard stand play areas and equipment. More formal/sporting play occurs to the rear of the site with two netball/basket ball courts, courts for games such as down ball or four square, and hit up wall with easy access to the oval area.



Master Plan, 2011

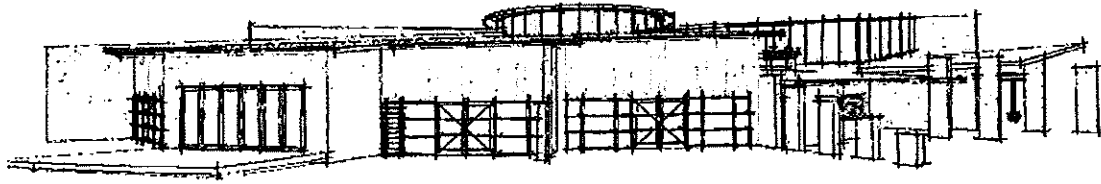
Building Volume and Form

Each building form is based on the nautilus shell - a radial symmetry organised by a natural mathematical order. The building form is unique and creates an immediate identity for the school and community. The central space in the Student Services building forms a structural canopy of laminated timber beams. This central volume is light filled with the use of translucent panels. A similar strategy is used for the Learning Pod. At night each building acts as a beacon to immediately identify when it is in use. The circulation spine from the Student Service building cuts through the radial form to place you at the entry of the social hub, leading out to the Learning Pods.



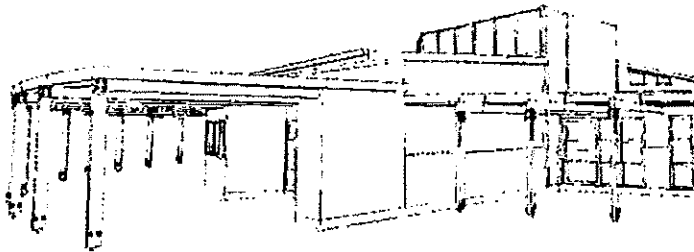
STUDENT SERVICES - entry perspective from forecourt

The perimeter form wraps around the central space. The geometry is segmented to provide a variety in height and form that breaks down the scale of the building. The focus from the forecourt is the entry sequence starting with a large textured wall, an extension of the canopy and the front door, leading into a light-filled gallery space.



STUDENT SERVICES - entry perspective from the social hub

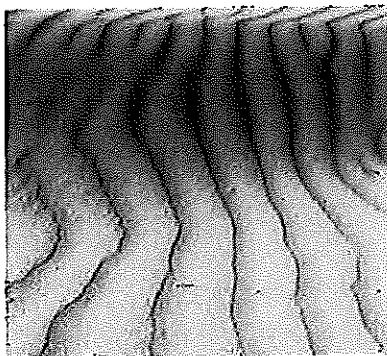
The central drum is light-filled with school functions connected radially. These functions include the Multi-Purpose Area, Music and Performing Art, Library, Staff, Early Learning Area and Administration. The Multi-Purpose Area is adjacent to a large open amphitheatre which will be used for large gatherings and events.



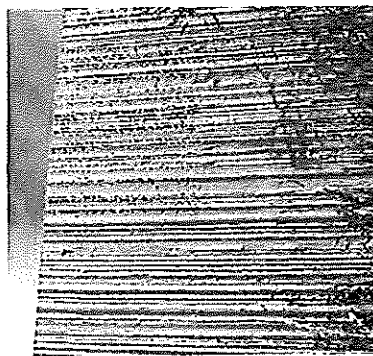
LEARNING POD - perspective to covered walkway and entry

Materials

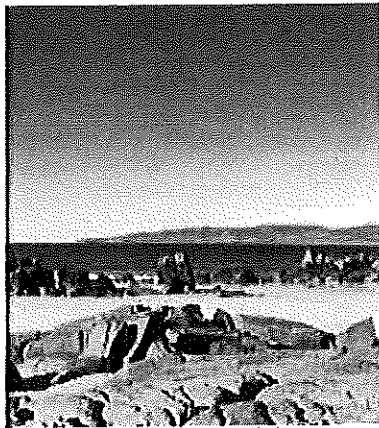
The natural materials used for the building consist of pre-cast concrete textured panels, locally made bricks, exposed timber beams, textured timber board cladding and translucent sheeting. As can be seen in the photographs below, these materials connect with the environmental context of the Port Sorell area - rippled sand, stacked rock, native bush and reflective water.



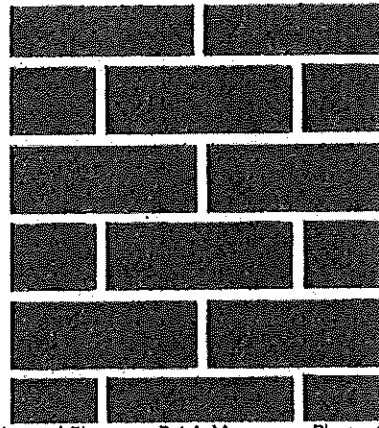
(Freers Beach Catherine P2010's
Photostream Flickr)



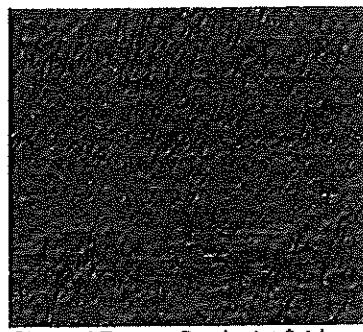
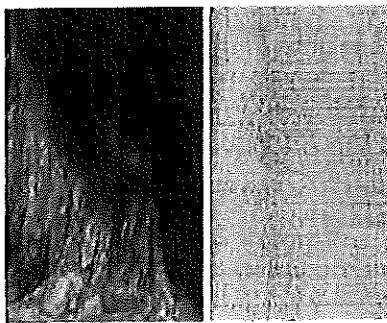
Pre-cast Concrete Panel



(Freers Beach Catherine P2010's



Austral Elements Brick Mercury Photostream Flickr)



Plywood Texture Panel paint finish

The Student Services Building

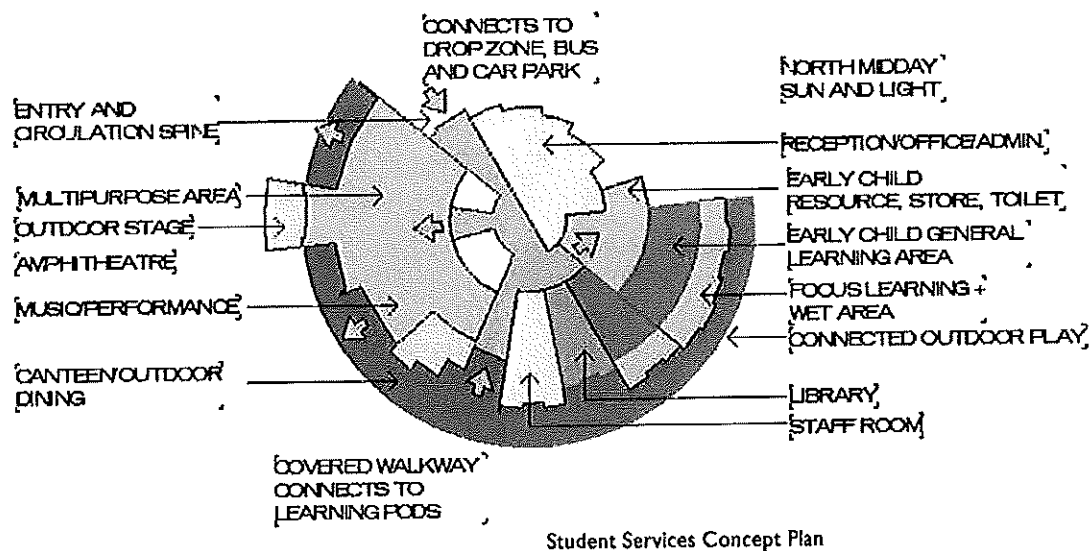
Student Services is located at the 'front of school' with the main entry from the north, via Pitcairn Street. It forms the main entry spine into the school, leading directly into reception, office and administration area. It acts as the first contact point and holding area for visitors to wait, meet with senior staff or access to the Multi Purpose Area for after-school or community use.

The circulation spine continues to connect to the multi-purpose area, the library and Early Learning Centre. The multi-purpose area is divisible with areas to cater for a diverse range of activities, including music and performance. This space leads to an outdoor stage and school amphitheatre on the north-west edge of the building. The multi-purpose area can also access the canteen internally, providing a range of catering required for the different activities for the school community.

The Staff Room is centrally located with views into the social hub. It links to the library to provide flexible meeting and gathering spaces when required.

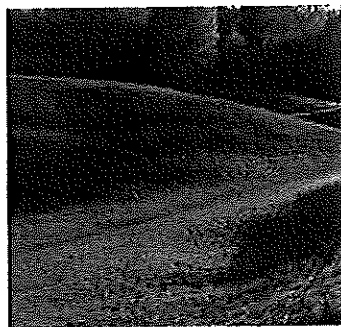
The Early Learning Centre can be safely accessed through the main school building or from the building perimeter via the amphitheatre. Access through the main entry provides controlled entry with sign in/out facility. Early Learning accommodates the range of activities targeted for kinder-aged children and includes a generous wet area. It is directly connected to an extensive outdoor play landscape for active, interactive, focused, inventive and creative play.

Within the main building the spine continues to segment the space to locate students and staff at the entry to the pedestrian walkway to the social hub and Learning Pods.



The Social HUB

Social play engages and teaches young students to interact, socialise, co-operate and develop meaningful relationships and experiences. The social hub space is a central square large enough to provide the setting for outdoor school assemblies or year group gatherings as well as enable students to interact during play and lunch breaks.

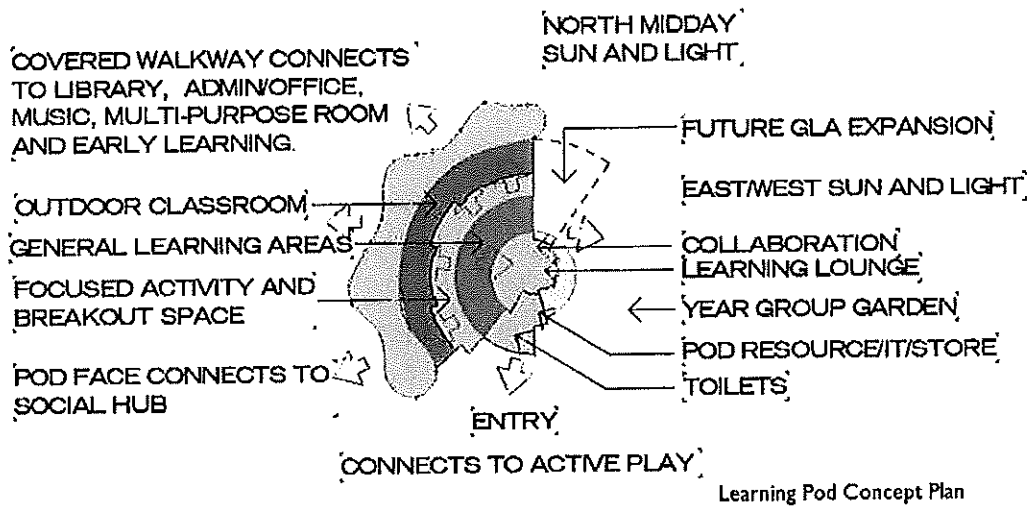


Ref: Gustafson Porter Landscape Architect

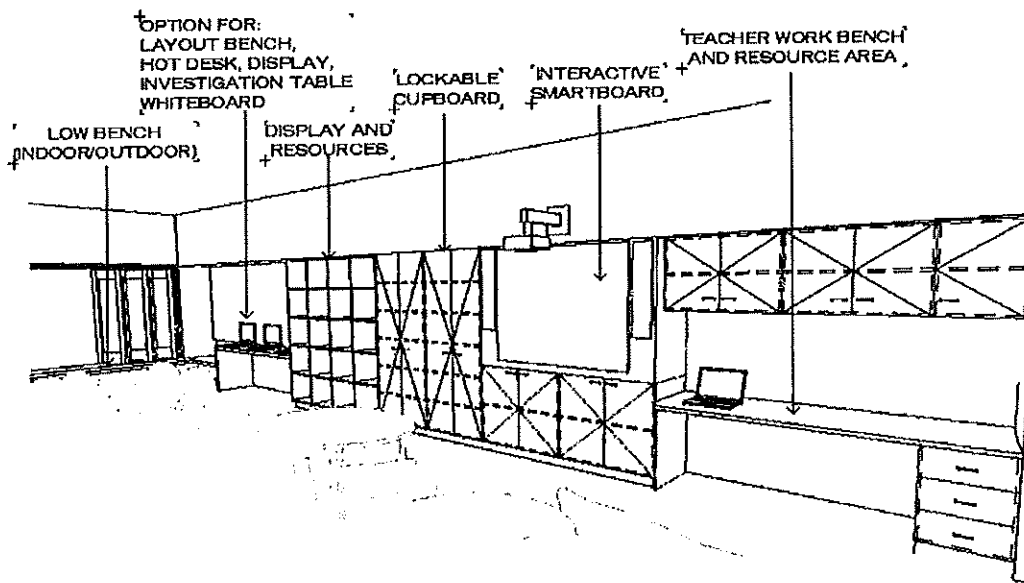
Grassy mounds provide protection and sense of enclosure to the central space. This central space is defined by a group of shade trees and seating.

Learning Pods

The Learning Pod supports a range of teaching and learning models, including year gathering, student presentations, informal student work areas, wet areas, focus areas, quiet spaces for collaboration, one-on-one learning and specialist areas, etc. The learning area extends to the outside 'deck' through doors and bi-folding windows framing a bench seat. This seat can be used for individual or small group activity both inside and outside. The general learning area has a large storage wall that accommodates a smart board (also known as an electronic whiteboard), student and teacher resources, storage cupboards, display space, hot desk, etc.



Each General Learning Area supports collaborative learning and team teaching opportunities. Learning can expand into a large breakout space or smaller focus areas. The Learning Pod is a visually rich environment which is able to connect to IT devices.



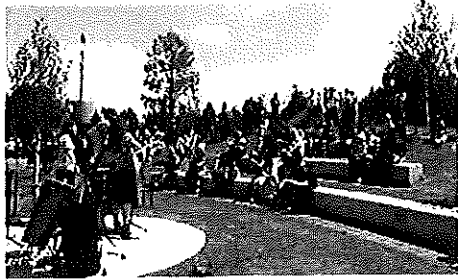
Storage Wall Concept

Connected Outdoor Learning

The General Learning Area is directly connected to an outdoor classroom setting as well as a year group garden. The outdoor garden will allow each year group to apply their own learning focus - kitchen garden, science garden, propagation, worm farm, seasonal garden, etc. There is also provision for a larger school market garden and bush reserve for development as a learning setting.

Amphitheatre and Outdoor Stage

The outdoor stage and amphitheatre will enable both the school and wider community to conduct large outdoor events. It is naturally formed by an incline in the terrain and is buffered from winds by group tree plantings around the western edge.



Jaja architects - harbour stage visualisation

Sustainable Design for the Port Sorell Primary School

The State Government policy is that all new buildings will be 5 Star Green Star rated. The Green Star rating tool is explained briefly in Attachment I Green Star Rating. In large part this tool enforces the important principle that any building, due to their large resource consumption, should adopt sustainable building principles.

Committing to sustainability at the beginning of the development will give the project the best chance of achieving the most sustainable solutions in the most cost effective manner.

Built environments are critically linked to our enjoyment, health, comfort and life experiences. Contemporary architectural design requires that we create environments that can provide natural ventilation, natural light, thermal advantages, comfort and spatial quality.

This approach to design ensures that the school will have sustainable design principles to:-

- Take maximum advantage of passive design principles such as solar access, natural ventilation and existing landscaping;
- Reduce the impact on the site and local eco-systems;
- Use elements such as windows, massing and external shading to increase energy efficiency;
- Plan internal spaces into zones that require similar heating and cooling requirements;
- Select and use materials that have lower environmental impact and beneficial life cycle costing;
- Ensure our buildings are appropriately insulated; and
- Employ energy saving devices such as renewable energy sources, low energy Lighting, energy efficient appliances/equipment and energy management systems.

Passive Design

Design strategies support passive design as a priority over mechanical engineering solutions including but not limited to:

- Natural ventilation
- Cooling of thermal mass
- Shading and solar control
- Winter sun penetration to heat building mass, in appropriate areas
- Day lighting

- Thermally efficient building envelope with appropriate balancing of glass, mass and insulation.

Energy Reduction

There are a number of innovative technological options that can be explored in relation to mechanical, hydraulic and electrical servicing of the building. The following innovative approaches to servicing will be considered:

- LED lighting
- Renewable energy generation

Water Re-use

Extensive use of water re-use technologies will achieve reductions in water usage and reduce the load on public infrastructure. The following strategies are planned:

- Collecting, treating, storing and re-using rainwater, storm water and wastewater on site.
- Incorporating water efficient plant and equipment
- Using rainwater, storm water and grey water (after appropriate treatment), for garden irrigation and toilet flushing

Material Procurement

Extensive use of low embodied energy/high re-cycled content materials has the potential to reduce carbon emissions and embodied water.

Consideration will be given to procure building materials, furnishings and fittings to support indoor environment quality, low embodied energy and water, recyclability, disassembly and de-materialisation. Special consideration will be given in the procurement of large material quantities, such as concrete, steel and timber. Tools such as Eco-specifier and Good Environmental Choice Australia will be used to support material selection.

Materials Re-use and Construction Waste

Consideration will be given to the re-processing of demolition and waste materials and the environmental management of such processes. This will be considered as a tender specification when selecting a building contractor.

Ways of maximising re-use of demolition materials in new work will be explored with the builder, and minimising the generation of construction waste and diversion of waste to landfill will be considered. Demolition materials have been re-used or diverted to recycling facilities wherever possible.

Indoor Environment - air quality

Due consideration has been given to achieving a high quality indoor environment. This requires consideration of the types of materials and paints used, and their capacity to release volatile organic compounds (VOC's).

Strategies are considered which provide optimum productivity gains for occupants through the highest standards of indoor environment quality. Special attention is given to natural ventilation and material selection.

Infrastructure to support cycling and walking

Showers and change rooms are included to encourage cycling and walking. Storage space for bicycles will be included.

Encouraging a sustainable workplace

Consideration will be given to 'visible sustainability' to inspire and educate the general public. Suggestions for visible sustainability include (but are not limited to) the following:

- Solar powered public lighting
- Native and indigenous planting to attract native fauna and promote biodiversity
- Re-cycling bins in public spaces
- Waste management strategies

CONSTRUCTION AND BUILDING PERFORMANCE

The fabric of the building and all associated energy related systems are required to comply with Section J of the Building Code of Australia (BCA) and will be provided in accordance with the prescriptive requirements. The building will be constructed to meet all 'Deem to Satisfy' provisions of the BCA.

Building Services and Structure

Power Supply

- New power supply from a new pad mounted substation.
- All distribution boards to be provided with residual current device protection.

Lighting

- Majority of all lighting to consist of T5 fluorescent or compact fluorescent fixtures with LED highlight fittings.
- Internal lighting controlled via local on switches, absence off detection and the security system for master control.
- Feature light fixtures to be incorporated for highlighting architectural and landscape elements.
- External lights to provide general and security lighting around the building controlled via photoelectric cell, motion sensor and the security system.
- Security and car park lights controlled via photoelectric cell and the security system.
- Emergency lights will be installed in locations as required.

Fire Detection System

The proposed fire services shall comprise the following systems:

- Smoke detection system serving offices and general learning areas etc.
- Heat detectors protecting rooms which might be subject to spurious alarms if smoke detectors are installed, such as cleaner's rooms or toilet areas.
- Fire indicator panel controlling smoke and heat detectors and building occupant warning facilities – located in the main lobby. The system will be connected to DoE's brigade monitoring apparatus.
- Interconnection of mechanical services equipment such as mechanical plant shut-down with the fire indicator panel for shut down or control during fire emergencies.
- Building occupant warning system throughout the building in the form of localised sounders and visual warning devices.

- Interconnection to the security system upon a fire alarm.

The building occupant warning facilities will comprise local sounders which will be ceiling mounted. In the event of a fire alarm, all sounders will simultaneously operate.

Mechanical Services

Ventilation

- Natural ventilation in accordance with Building Code of Australia requirements to be provided to all occupied spaces via user-openable windows.
- Heat Reclaim Ventilators shall provide additional ventilation to General Learning Areas, enabling energy efficient ventilation during colder periods when utilization of natural ventilation is limited.
- Mechanical exhaust ventilation provided to all toilet and amenities areas.

Heating

- Individual building VRF (Variable refrigerant flow) systems with cooling operation locked out to functional spaces providing high efficiency reverse cycle heating with local control in each room/area.
- Electric radiant ceiling heaters in more transient areas.

Air conditioning

- Active cooling provided only to administration offices via dedicated VRF (Variable refrigerant flow) system; and board room and server room via dedicated packaged air conditioning systems.

System Control

- System operation interfaced with respective building security systems to minimize erroneous after hours operation.
- Local on/off control and temperature adjustment of heating and air conditioning systems.
- Sensor control of toilet and amenities exhaust systems.
- Space Volatile Organic Compound (VOC) monitoring.
- Energy and water metering and analysis

Security

- The building will include a standalone security system with facility to turn off lighting and heating when the system is armed. The main security panel is to be located in the student services building.
- Selected external doors will be provided with access control equipment to operate either an electric strike or magnetic lock. Where doors fitted with electric locking mechanisms form a nominated emergency exit they are to be connected to the fire indicator panel in a fail safe manner. Internal doors that are locked will be released via a push button.
- Closed circuit television monitoring of outdoor areas spaces will be provided.
- Security issues to be monitored on site.

- External monitoring capacity will be provided for connection by client.

Communications / ICT

- Communication to include a wireless system for laptops and hard-wired data system for, staff and teacher usage. System to be installed to the requirements of the latest DoE ITS cabling standards.

Public Address

- An Audio - Hearing Loop will be provided for hearing impaired persons in the Multi Purpose Hall Area 1
- Overhead projection and sound reinforcement will be installed within the Multi Purpose Hall Area 1 and the meeting room.

Hydraulic Services

Water

- The site will be serviced with a DN150 connection to the nearby Cradle Mountain Water infrastructure in Pitcairn Street. Within the property boundary will be a CWW metering and backflow device. Pressure reduction or boosting to be installed if required after testing to determine the size of this potable water arrangement and any additional pressure adjustment needs
- Site main reticulation at nominally 50-63mm will be provided to service potable fixtures at buildings, and provide redundancy of supply should sections of the reticulation need to be isolated.
- A top up off-take from the site reticulation will supply site rainwater tanks which are used for toilet cistern supply. A registered air gap will be the means for backflow prevention at this point.
- The site is protected by existing fire hydrants. Fire Hose Reels will be added where required in accordance with statutory requirements.

Sewer

- The site will be provided with site reticulation via conventional DN150 gravity mains. Site fixture loads are based on the floor plan layouts and AS3500. Connection will be made to the existing BLW network on the southern side of the building:

Storm water

- The site will be provided with a rainwater harvesting system to collect roof water from part of the overall roof. This water will be reused in landscape irrigation (minor) and toilet flushing. It is expected that 80% of toilet water use will be catered for.
- The site and building hardstand areas will be drained to the existing Council infrastructure. Wherever possible, the stormwater will be directed to water sensitive urban design principles. Absorption drains, open swales, gross pollutant traps and detention systems will all be incorporated to preserve water and control contaminated stormwater discharge.

Structural Design

Foundation & Ground Slab:

- Concrete stiffened raft slabs located on grade will be used throughout for overall strength, thermal mass to maximise heat gain.

Wall and Roof Structure:

- Pre cast concrete panel
- Timber truss and rafters for roof framing
- Traditional timber frame wall structure with some steel columns used where there are high loads or where areas need significant tie down.
- Window lintels and door frame heads to suit made from plantation timber wherever possible.
- Steel beams sized to support all operable wall units and where large open spans do not make the use of timber framing appropriate.

Materials and elements

- Colorbond steel roof sheeting in Spandek profile. Roofs will be fully insulated with 4.5 R value rating and external walls acoustic/thermal insulation with 3.7 R value rating.
- External glazed frames will be powder coated aluminium with double glazed units made from 2 layers of 6.38mm laminated glass with a 10 - 12mm air gap to all doors and windows.
- Internal glazed frames will be powder coated aluminium with single safety glass to all doors and windows.
- 12mm plywood cladding in natural texture and shadowclad profile with a pre-primed and paint finish.
- 1200/1800mm brick veneer at the ground connection will act as a solid base to building for wear. Where 1800mm is not proposed, the upper wall section will be plywood cladding for impact resistance.
- Internal walls will be lined typically in 13mm thick plasterboard sheet. Dado or decorative wall panels to 1200mm from floor finish or to ceiling height will be used where high traffic wear is expected. Wallboards and paint finishes will have a low or nil volatile organic compound rating for emissions. Typically ceilings will be lined with plasterboard with the addition of some timber veneer lining to the breakout spaces in Learning Pods. Extensive use of glass will be used internally to maintain visual connections between spaces and provide easy but unobtrusive surveillance by staff.
- Sheet rubber will be used as a floor finish in general wet areas and toilets, carpet tiles in public areas and broadloom wool carpet in general learning areas and breakout spaces.

Landscape Design

The proposed landscape treatment is designed to meet functional, aesthetic and environmental criteria.

Design themes respond to the school's location adjacent to the coastline and abutting a bushland reserve. Low grassy and planted mounds, reflective of low dunes, are used to help define spaces whilst maintaining view-lines critical for supervision of the grounds.

The proposed planting palette draws heavily on indigenous coastal vegetation, helping the new landscape to blend with the existing bushland adjacent to the site. Some non-local Australian natives and exotic trees and shrubs are proposed for specific reasons – for example deciduous trees to provide summer shade but allow winter sun for solar gain to buildings. All plants are selected for their low water-use and minimal maintenance requirements. Planting is designed to provide structure, seasonal colour and interesting textures with a minimal maintenance requirement. Once established, planting will require minimal or no watering. Some lawn areas in high traffic/high use areas will be irrigated.

Materials and finishes selected for built forms within the landscape also complement the coastal themes. Exposed aggregate concrete paths, low concrete 'sitting walls' and boulders complement the planting and further reinforce the definition of spaces within the broader landscape.

Providing all-weather access for the school community throughout the school is a key design consideration. Paths are designed to follow 'desire-lines' between buildings and other playground features, whilst also helping to define spaces. Covered walkways are designed to provide cover for the school community on rainy days, but maintain an openness to allow supervision of students.

Art for Public Buildings Scheme – Artwork Proposal

An important initiative of the Arts @ Work program is the development of regional artists. Accordingly, it is hoped that this project will offer potential for local artists to participate and develop their skills base as a worthy contribution to the Tasmanian Collection. This project will provide an opportunity for the art component to be appreciated by the wider community as they visit and use the school campus.

FUNDING AND PROJECT MANAGEMENT

Project Budget

The following table outlines proposed funding sources for the project;

Source of Funds	Amount (\$)
Capital Investment Program – State Funds	\$13,000,000
Total Source of Funds	\$13,000,000

Project Costs

Cost Estimates

Description	Amount (\$)
Building Works, Site works and Services (see next table)	9,500,000
Contingencies	500,000
Cost Escalation	150,000
Project Design / Management / Authority Fees and Permits	900,000
Furniture and Equipment	1,000,000
Special Provisions: Demolition and pre-contract works \$175,000; Infrastructure charges; permits, surveys, headworks \$250,000; and Provisional Sums: uniforms, promotion, establishment \$95,000.	520,000
Artworks (Art in Public Buildings Scheme)	80,000
Post occupancy commissioning works	350,000
Total	\$13,000,000

Indicative Cost Elements of Building Works, Site Work and Services

The following table outlines indicative costs of major components applicable to the works.

Description	Amount (\$)
New Buildings – Learning Pods	4,341,000
New Buildings – Student services	3,132,000
Site Works / Landscaping	1,631,000
Site Services	396,000
Total	\$9,500,000

Project Timelines

The timetable for this project will comprise the following key milestones and timeframes:

Milestone	Date
Consultant appointed	December 2010
Preliminary Site Master Planning	January 2011
Community Consultation	February 2011
Full Site Master Planning	February 2011
Schematic Design	March 2011
Design and Documentation	May 2011
Submission for Development Approval	June 2011
Submission to the PSCPW	August 2011
Tender Advertising (Conditional on PSCPW approval)	August 2011
Tender Closing	September 2011
Builder Appointed (Subject to PSCPW recommendation)	September/October 2011
Construction commences	October 2011
Practical Completion – staged	From mid November 2012 to December 2012
Defects Liability Period ends	December 2013

The school must be completed in time for staff to occupy and commission the facility. This timeframe will also allow sufficient time to carry out detailed defects liability inspection and management before students attend the site.

Preliminary Works

A preliminary contract to demolish existing buildings and clear the site in readiness for construction is completed. In addition, infrastructure support has been provided to the Rubicon Sea Scouts to ensure that they can operate unhindered throughout the project.

Potential Project Constraints and Benefits

Risk Management Plan

A detailed *Risk Management Plan* has been developed for the Port Sorell Primary School project. The plan does not indicate a project risk higher than normal industry standard. A full copy of the report is provided at Attachment 2.

Any influences to the project timeline or budget evident at tender, will be managed within the current project allocation.

Anticipated Project Benefits

The redevelopment is directed at achieving:

- The creation of a primary school of sufficient size and flexibility that can cater for the future educational needs of the township
- Provision of an extended curriculum and social support programs expected of a modern school.
- A flexible facility that will provide significant flexibility to accommodate future directions in teaching and learning.
- A site that will accommodate further development of school services.
- Provision of appropriate car parking and traffic management.

ATTACHMENT 1: GREEN STAR RATING

The building is designed as a 5 Star Green Star building using the Education Version 1 rating tools of the Green Building Council of Australia (GBCA). Green Star certification requires a formal process. The building design will be submitted to the GBCA for assessment.

Launched in 2002, the GBCA is a national, not-for-profit organisation. Its key objectives are to drive the transition of the Australian property industry towards sustainability by promoting green building programs, technologies, design practices and operations as well as the integration of green building initiatives into mainstream design, construction and operation of buildings. Green Star is a comprehensive, national, voluntary environmental rating system that evaluates the environmental design and construction of buildings. Green Star was developed for the property industry in order to:

- Establish a common language;
- Set a standard of measurement for green buildings;
- Promote integrated, whole-building design;
- Recognise environmental leadership;
- Identify building life-cycle impacts; and
- Raise awareness of green building benefits.

Green Star rating benefits include:

- Lower operating costs
- Higher return on investment
- Greater tenant attraction
- Enhanced marketability
- Productivity benefits
- Reduced liability and risk
- A healthier place to live and work
- Demonstration of Corporate Social Responsibility
- Future proofed assets
- Competitive advantage

The nine categories included within all Green Star rating tools assess the environmental impact that is a direct consequence of a projects site selection, design, construction and maintenance. These categories are divided into credits, each of which addresses an initiative that improves or has the potential to improve environmental performance. Points are awarded in each credit for actions that demonstrate that the project has met the overall objectives of Green Star. The categories are:

1. Management - Credits address the adoption of sustainable development principles from project conception through design, construction, commissioning, tuning and operation.
2. Indoor Environment Quality (IEQ) - Credits target environmental impact along with occupant wellbeing and performance by addressing the HVAC system, lighting, occupant comfort and pollutants.

3. Energy - Credits target reduction of greenhouse emissions from building operation by addressing energy demand reduction, use efficiency, and generation from alternative sources.
4. Transport - Credits reward the reduction of demand for individual cars by both discouraging car commuting and encouraging use of alternative transportation.
5. Water - Credits address reduction of potable water through efficient design of building services, water reuse and substitution with other water sources (specifically rainwater).
6. Materials - Credits target resource consumption through material selection, reuse initiatives and efficient management practices.
7. Land Use & Ecology - Credits address a project's impact on its immediate ecosystem, by discouraging degradation and encouraging restoration of flora and fauna.
8. Emissions - Credits address point source pollution from buildings & building services to the atmosphere, watercourse, and local ecosystems.
9. Innovation - Green Star seeks to reward marketplace innovation that fosters the industry's transition to sustainable building.

Once all claimed credits in each category are assessed, a percentage score is calculated and Green Star environmental weighting factors are then applied. These environmental weighting factors vary across states and territories to reflect diverse environmental concerns across Australia.

The Green Star Ratings are:

- 4 Star Green Star Certified Rating (score 45-59) signifies 'Best Practice' in environmentally sustainable design and/or construction
- 5 Star Green Star Certified Rating (score 60-74) signifies 'Australian Excellence' in environmentally sustainable design and/or construction.
- 6 Star Green Star Certified Rating (score 75-100) signifies 'World Leadership' in environmentally sustainable design and/or construction.

ATTACHMENT 2: RISK MANAGEMENT STRATEGY

The approach is to identify, assess and mitigate risks where possible and to continually monitor risks throughout the remainder of the project as other risks or threats emerge, and as a risk's impact or likelihood changes. As risk management is an ongoing process over the life of the project, this plan is a 'snap shot' of relevant risks at one point in time. A combination of M/H Likelihood with an M/H Seriousness requires strong attention to mitigation strategies.

Description of Risk	Potential Impact on Project (Identification of consequences)	Likelihood Low - L Med - M High - H	Severity Low - L Med - M High - H	Overall Grade. E Low to A Extreme (See table at end)	Mitigation Actions (Preventative or Contingency)	Individual/ Group responsible for mitigation action(s)
Conflict of Interest	Probity and perceptions concerns.	L	M.	D	Stringent tender procedures and audit systems in place. Steering Committee briefed on this risk.	Department of Education
Changes within Steering Committee and Working Group.	Loss of focus, skills and knowledge. Delayed decision making	M.	Low	D	Record keeping. Building a shared and enduring vision. Specifications and drawings.	All
Multiple Stakeholders	Potential tensions over design or scope. Sectional interest put before educational need. Delays to decision making. Land transfer complications.	L	Med.	D	Consultation. Wide representation. Highlight link to participants' strategic objectives.	Steering Committee.
Planning approval appeal	Extended timeframes and cost escalation. Delay while re-documenting.	L	H	C	Preliminary Discussions already held with Council. Consultation. Nature of project means objections unlikely.	Steering Committee
Council planners 'stop the clock' and go beyond 42 days. Building permits delayed.	Extended timeframes and cost escalation. Delay while re-documenting. Builder resigns contract.	M	H	B	Talk to planners and other officers before lodgement.	Artas Architects

Parliamentary Standing Committee on Public Works rejects, delays or re-scopes project.	Extended timeframes and cost escalation. Changes not funded. Unpredictable impact.	L	H	C	Quality of submission. Witnesses drawn from key stakeholders.	Steering Committee
Community expectations differ from project scope and budget.	Disappointment and confusion about what is being delivered. Reputational damage. Political responses divert energy and focus. Lowered community acceptance of staff and school.	M	M	C	Community forum. Steering Committee as 'champions' to explain to community. School newsletters and information. Press releases by Minister. Update Latrobe Councillors regularly.	GM Learning Services NW, Working Group, Steering Committee members.
Disagreement over design aspects at consultation and planning stages.	Extended time frame. Cost of revisions and re-documenting. Compromise leading to lower standard outcome.	M	H	B	Start with well established proposals. Obtain community input.	Steering Committee Chair
Consultant or builder perform poorly or lose key staff.	Extended timeframes and cost escalation. Lower quality, higher ongoing cost. Delays and over budget.	M	H	B	Consultants and builders to be pre-qualified with Treasury. Good contract documentation. Good selection criteria. Agree schedules prior to engagement and acceptance. Bank Guarantees from Builder. Use of experienced and reliable companies. Crown Law support. Fortnightly site meetings. Ensure contractors have adequate staff and are of sufficient capacity.	Manager Capital Planning and Development.
Sub-contractors or the architect's sub-consultants perform poorly or go into liquidation.	Extended timeframes and cost escalation. Lower quality, higher ongoing cost. Delays and over budget.	M	M	C	Key trades to be pre-qualified with Treasury. Assess proposed sub-contractors with builder and architect. Select based on experience and performance.	Manager Capital Planning and Development.

Significant unexpected variation to cost.	Cost savings identified may reduce output and quality. Cost reduction causes extended timeframes.	M	M	C	Make contingency provision. Employ Quantity Surveyor. Revise building elements, fittings and footprint at tender. Reschedule for a later phase.	Manager Capital Planning and Development.
Natural disaster and adverse weather. Vandalism. Inundation.	Various scenarios ranging from severe to inconvenience.	M	L-H	C	Exclude prolongation payments from contract. Require evidence of 'rain day'. Builder to have site insurance.	Manager Capital Planning and Development.
Inadequate identification of educational requirements. Inadequate design.	Potential tensions over design or scope. Sectional interest put before educational need. Delays to decision making.	L	M	D	Flexible design allowing easy repurposing of spaces. Future-proofing. On going consultation with Future Directions Group. Engage experienced architects. Allow as much time for consultation and revision as schedule permits. Working Group visit other sites. LSNW as owner of educational requirements. Consult experienced staff.	Manager LSNW.
Project prolonged beyond January 2013. Materials and labour shortages ('Queensland flood' effect)	Students have new uniforms and have to stay in old school. Staff transfers cancelled. Bus, supplier and utilities arrangements confused.	M	H	B	Remind Working Group and Committee that delays in decision making now become delays at end. Use proven project management approach. Obtain regular schedules from builder – identify problems early. Include significant liquidated damages amount for delay in contract. Select builder on performance.	All

Cost of working on unknown green field site. Slapdash performance by utility providers – Telstra, Aurora and Cradle Water	Disproportionate amount of budget for provision of services. Cradle Water require high headworks charges. Drainage, Telstra and Aurora (new sub-station) costs too high. Excessive costs lead to inadequate funding and design compromises.	M	H	B	Consultants reports for early identification. Seek cost estimates from utility providers before budget committed elsewhere.	Manager Capital Planning and Development.
Discovery of unknown site conditions such as contamination, reactive soil, etc	Excessive costs lead to inadequate funding and design compromises.	M	H	B	Consultants reports for early identification.	Manager Capital Planning and Development.
Incoming Principal	Requests late changes. Delayed appointment beyond fit out stage. Delayed engagement with community and School Association.	M	M	C	Management action.	General Manager Learning services North West.

OVERVIEW

In practice, it is often difficult to analyse the likelihood/seriousness of risks quantifiably and that is why a qualitative word scale often is used. Risks analysed above can be graded easily using the risk matrix below.

	SERIOUSNESS			
		Low (Insignificant adverse impact, note only)	Medium (Reasonable adverse monitoring)	High (Will have significant adverse impact)
LIKELIHOOD	Low (Unlikely to occur during project)	E	D	C
	Medium (May occur at some stage in project)	D	C	B
	High (Probably will occur during project)	C	B	A

The table below suggests the mitigation considerations related to each kind of risk grade.

Grade	Risk Mitigation Actions
A	Mitigation actions, to reduce the likelihood and seriousness, to be identified, costed and prioritised for implementation before the project commences or immediately as they arise during project execution
B	Mitigation actions, to reduce the likelihood and seriousness, to be identified, costed and prioritised. Appropriate actions implemented during project execution
C	Mitigation actions, to reduce the likelihood and seriousness, to be identified and costed for possible action if funds permit
D & E	To be noted; no action is needed unless grading increases over time