

SHIRE OF ROEBOURNE KARRATHA CULTURAL PRECINCT

CONCEPT DESIGN REPORT VOLUME 1

INTRODUCTION

The Shire of Roebourne has embarked on a strategic plan “Karratha City of the North” to grow the town from a mining community of 19,000 to a significant regional city of 50,000 residents.

The vision will see a new provision of new social infrastructure to provide support to this growing community. A key ingredient will be development of the civic centre precinct.

In late 2012 a separate report was commissioned to find a suitable location for the civic precinct and to develop a needs analysis through community consultation

The outcome of this report has been the identification of lot 7021 on Sharpe Avenue as the preferred site and the functional brief to which this design has responded.

THE SITE



THE SITE

The site is a rectangular shape bounded by Dampier Highway to the south, Sharpe Avenue to the west and Welcome Road to the north, the drainage gully forms the boundary to the east. Primary vehicular access is restricted to Welcome Road.

The site is relatively flat with few features and is amenity filled with spalls from adjacent road works. Connection to all services is available at the site boundary. The site is 1.37ha in area, and the use is defined as gateway building-civic uses.

The adjacent sites are to be developed in a sympathetic manner and will be coordinated by the Shire of Roebourne and Landcorp. A super GP clinic is proposed on the site lot 7017 to the north west.

The sites to the north lots 7020 & 7019 comprise the gully drain some unallocated parking and a future development site.

To the east of the project is the site of St Paul's Catholic Church and nearby are the Shire of Roebourne council offices.

To the south of Dampier Highway the iconic rolling hills provide a scenic lookout over Karratha town centre with the Cultural Centre as the key focus in the gateway.



THE SITE

CITY CONTEXT



CITY CORE CONTEXT



DAMPIER RD PRECINCT

CITY CONTEXT

The transition from a small regional town to a city sets a new benchmark for planning and urban design. When the town was first planned it was about the concept of a community space defined by vehicle movements and now there is a strong focus on creating a vibrant city based on walkability. As Karratha sits in a hot dry climate, creating a walking city required sheltered and cool public realm. The architectural character of the built form activity engages with this challenge to create a vibrant and interesting active streetscape that is shaded, cool and safe.

The redevelopment of Sharpe Avenue from the city core to the Dampier Highway precinct (the location of the Cultural Centre) shows a transition in land use from inner city residential apartments, cafes & shopping to service providers like the Super GP clinic, the Shire of Roebourne offices and State and Federal Government agencies.

The Cultural Centre is the premium land use in this context and is the appropriate iconic statement in the entry to the city. The Cultural Centre represents the “soul” of the city – a place where the cerebral development grows – a place of fun and entertainment and a meeting place which is equitable to all members of the community.

SHARPE AVE STREETSCAPE



CITY CORE STREETSCAPE



THE QUARTER STREETSCAPE



THE SITE

CLIMATIC CONSIDERATIONS

MONTHLY CLIMATIC STATISTICS

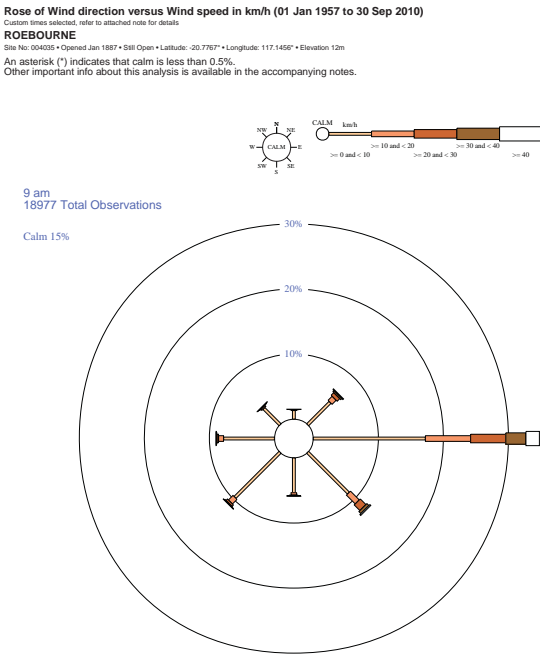
SITE: ROEBOURNE

| STATISTICS | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL |
|--------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|--------|
| TEMPERATURE | | | | | | | | | | | | | |
| Mean maximum temperature (°C) | 38.7 | 38.0 | 37.6 | 35.3 | 30.5 | 27.0 | 26.8 | 29.1 | 32.6 | 35.6 | 38.0 | 39.0 | 34.0 |
| Mean minimum temperature (°C) | 26.2 | 26.2 | 25.3 | 22.2 | 18.3 | 15.3 | 13.6 | 14.5 | 16.8 | 19.7 | 22.6 | 24.9 | 20.5 |
| RAINFALL | | | | | | | | | | | | | |
| Mean rainfall (mm) | 62.0 | 67.1 | 64.0 | 28.4 | 27.6 | 31.1 | 13.6 | 4.9 | 1.4 | 0.8 | 1.5 | 12.3 | 314.8 |
| OTHER DAILY ELEMENTS | | | | | | | | | | | | | |
| Mean number of clear days | 13.9 | 11.1 | 16.1 | 17.2 | 18.1 | 18.2 | 22.5 | 24.5 | 24.6 | 25.6 | 23.0 | 19.7 | 234.5 |
| Mean number of cloudy days | 5.8 | 6.4 | 5.0 | 4.4 | 5.7 | 5.1 | 3.2 | 2.1 | 1.4 | 0.8 | 1.4 | 2.5 | 43.8 |
| 9AM CONDITIONS | | | | | | | | | | | | | |
| Mean 9am temperature (°C) | 32.7 | 32.0 | 31.7 | 29.4 | 24.7 | 21.2 | 20.2 | 22.4 | 26.1 | 29.7 | 32.3 | 33.2 | 28.0 |
| Mean 9am relative humidity (%) | 52 | 58 | 52 | 46 | 47 | 50 | 47 | 41 | 37 | 33 | 35 | 42 | 45 |
| Mean 9am wind speed (km/hr) | 7.1 | 7.8 | 8.3 | 8.8 | 11.5 | 12.9 | 12.9 | 11.6 | 10.9 | 9.6 | 8.2 | 7.7 | 9.8 |
| 3PM CONDITIONS | | | | | | | | | | | | | |
| Mean 3pm temperature (°C) | 36.9 | 36.5 | 36.3 | 34.0 | 29.3 | 26.1 | 25.9 | 28.0 | 31.3 | 34.0 | 36.2 | 37.2 | 32.6 |
| Mean 3pm relative humidity (%) | 40 | 44 | 38 | 34 | 37 | 39 | 34 | 29 | 27 | 27 | 29 | 33 | 34 |
| Mean 3pm wind speed (km/hr) | 12.7 | 11.5 | 10.4 | 9.6 | 10.3 | 11.1 | 11.3 | 11.5 | 12.8 | 13.3 | 14.0 | 13.5 | 11.8 |

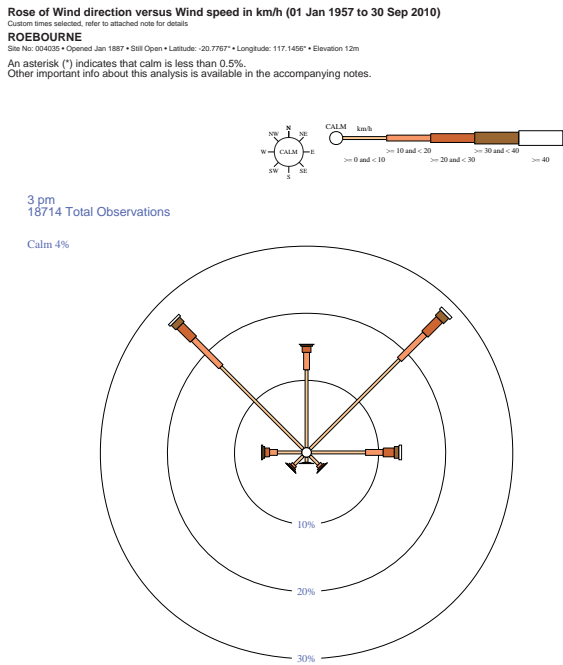
SOURCE : BUREAU OF METEOROLOGY
(http://www.bom.gov.au/climate/averages/tables/cwv_004035.shtml)

WIND SPEED VS DIRECTION PLOT

9am



3pm



CLIMATIC CONSIDERATIONS

Karratha has an excellent climate with hot to warm summers, many cloud free days, and warm winter months with low rainfall. The Bureau of Meteorology data that reflects this synopsis is below.

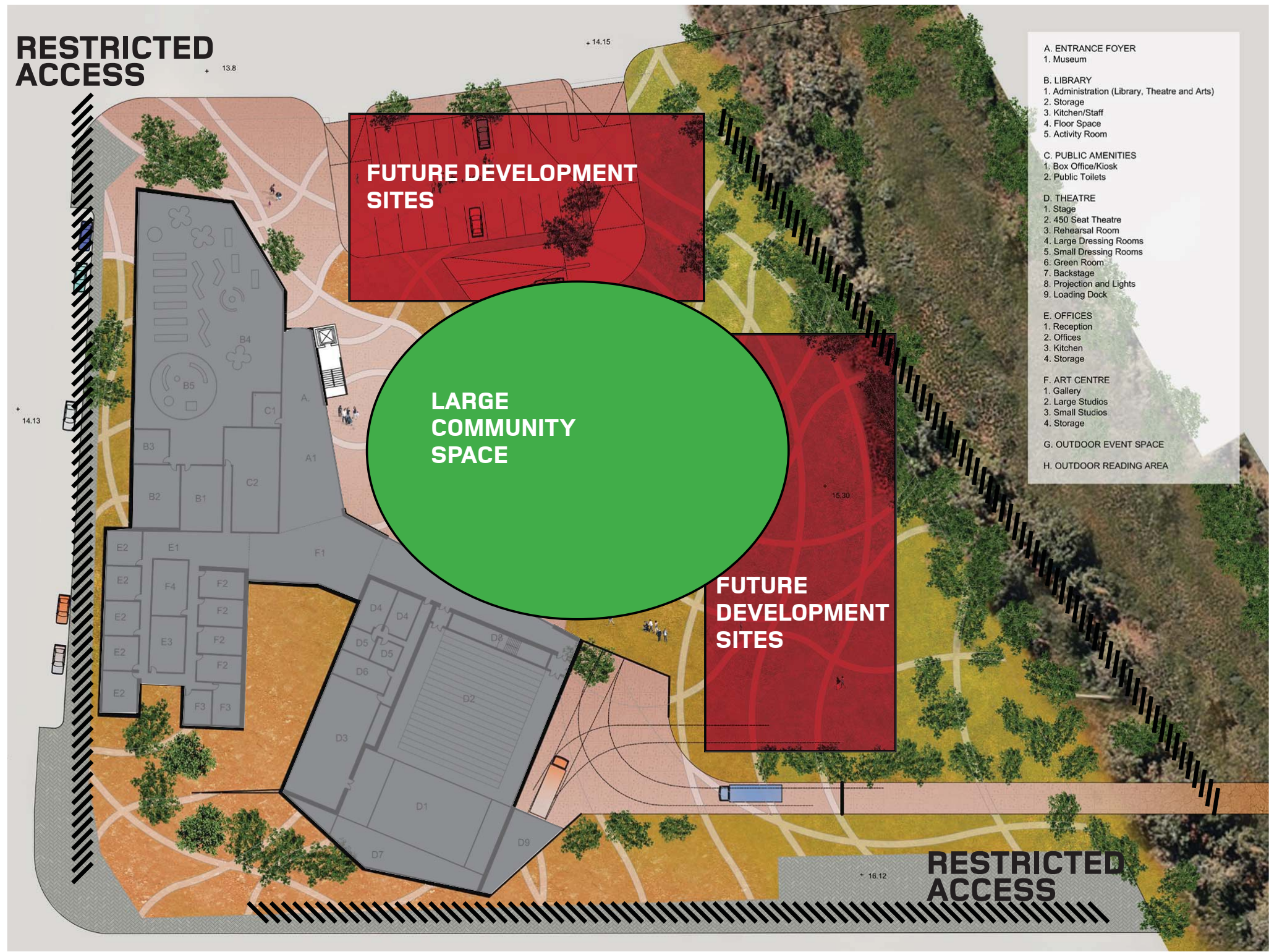
Wind speeds are predominantly higher from the easterly and westerly direction.

In considering these climatic conditions the building is orientated to create a shaded and sheltered environment to the central amphitheatre. The large glass areas of the eastern facing foyer are protected from solar gain by the grand shade structure over the amphitheatre. The western facing glass areas of the library and the office suites are protected from solar gain by the large overhanging roof cantilever that forms a verandah to the street frontage. Reducing the solar gain by correctly orientating the building and providing good shading will reduce the running costs of the building by lowering the demand on air conditioning.

The Karratha climate has an effect on the community by making it orientated to outdoor activities in the cooler evenings. Also the summer cycle of cyclonic conditions require a building design that is robust to resist damage from wind born debris and has cyclone shutters to protect fragile glazed areas. The building has the potential to become part of the network of community cyclone emergency shelters in Karratha.

THE SITE

SITE OPPORTUNITIES & CONSTRAINTS



SITE OPPORTUNITIES

The site is 1.37ha in area and the building footprint including the amphitheatre and on-grade parking occupies about 60% of this area. The residual site area is made up of generous site setbacks and vacant but landscaped areas to the east that could be future development sites. There is a demand in Karratha for a larger community space to be used for celebrations or gatherings such as Anzac Day or Australia Day

CONSTRAINTS

The site frontages to the east, south and west have restricted access to the site and Welcome Rd is the only clear access to the site. Later in this report opportunities are presented as to how these constraints can be overcome to provide;

1. A grade access across the eastern boundary via the gully to provide a servicing corridor with access through St Paul's Church site
2. Access from Sharpe Ave for intermittent library servicing.

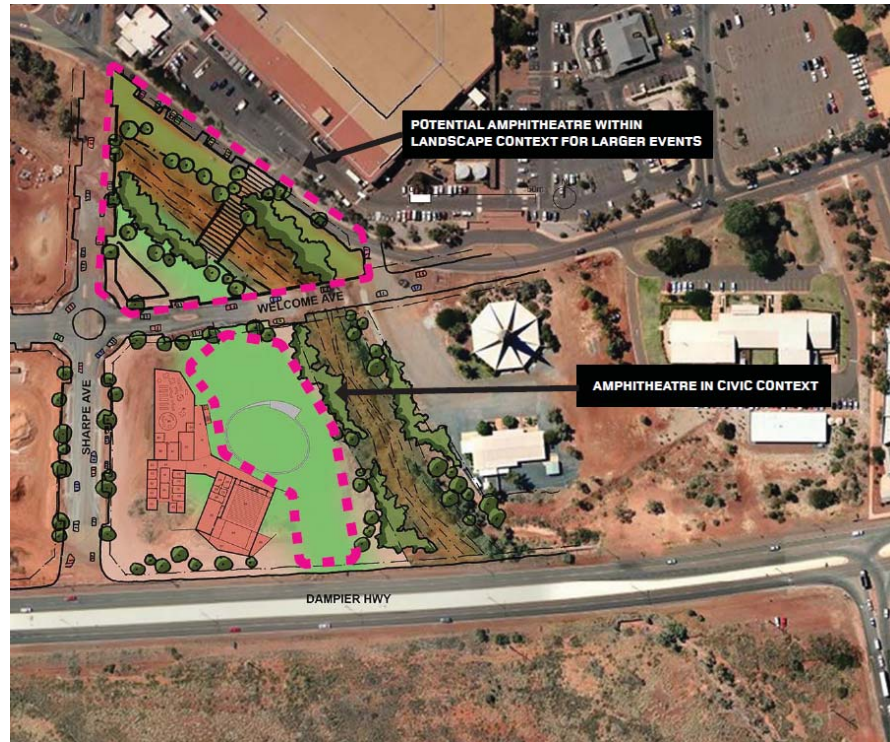
THE SITE

FUNCTIONAL CAPABILITIES

A number of functional provisions have been identified as options for inclusion within the Cultural Precinct.

AMPHITHEATRE

The natural topography of the site and proximity to the open stormwater drainage system provides and opportunity for integration as an Amphitheatre space



THEATRE FOYER

The design should consider the opportunity for the Foyer of Theatre to double up as an exhibition space.

BOX OFFICE/CINEMA

An opportunity exists for a Box Office to be incorporated. The concept design should consider after hours access and overlap with visible elements.

The potential to utilise the rooftop as either a terrace or outdoor cinema and events space associated with the amphitheatre should be investigated.

CAFE/KIOSK

An opportunity exists for a Café/Kiosk. Again the concept design should consider the varying opening hours to be accessed by the patrons of the key functional areas.

LOCATION AND EXPOSURE

The landmark nature of the site at the southern entry to the city centre precinct provides a number of key opportunities.

The site is considered to be the natural link from the Hills to the Ocean.

The building form and massing is considered to represent a Southern 'bookend' for the city centre precinct and as such opportunities exist for an 'Iconic' public building.

A roof top terrace would potentially enjoy significant views to the surrounding landscape.

The site represents an opportunity to 'market' the Shire of Roebourne including public signage.

DRAINAGE PASSAGES

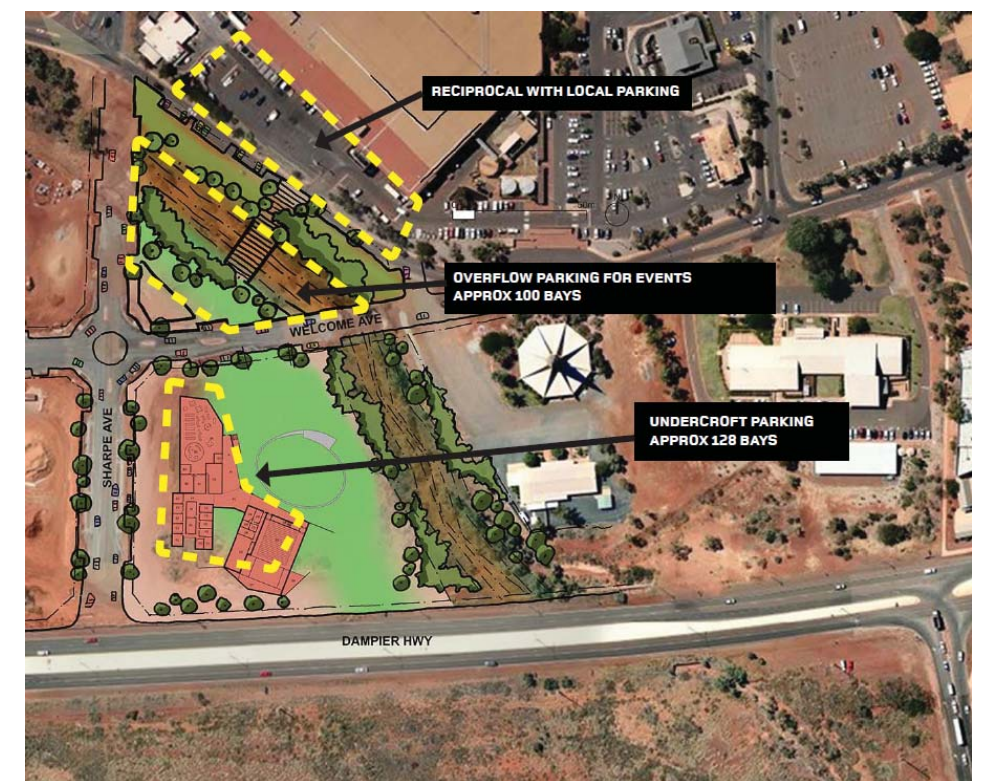
An opportunity has been identified for drain realignment on north side of Welcome Road adjacent shopping centre to make better use of land (refer Figure 5).

LANDSCAPING

The design should consider the opportunity to continue the natural landscaping/streetscape into the facility. This should also reflect the Karratha vernacular colour schemes and guidelines.

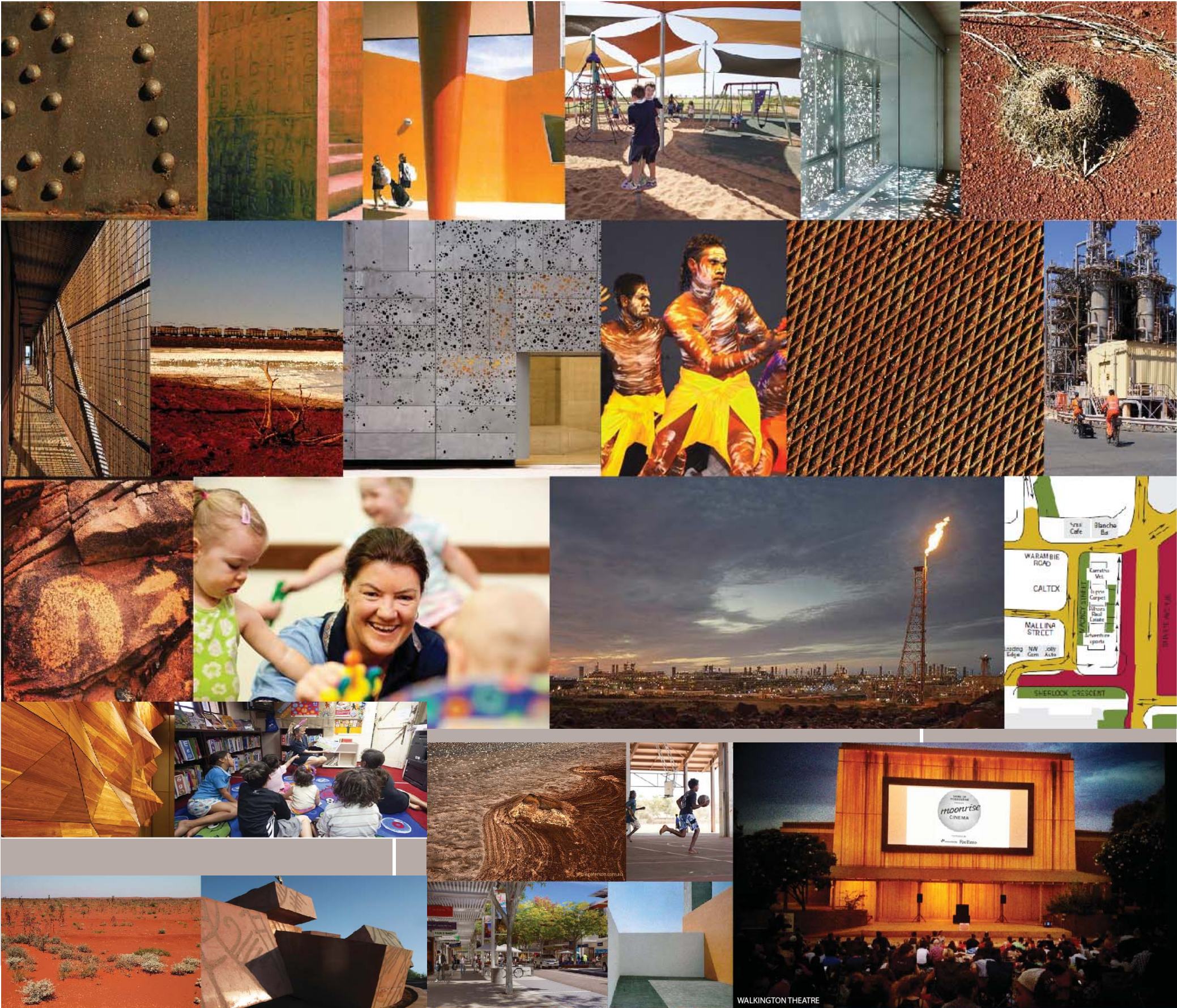
PARKING

The site design is required to provide up to 130-150 bays of undercroft parking. Overflow parking for events of approx. 100 bays could be serviced by the area to the north of Welcome Road (subject to drain realignment). Due to the relatively constrained land area available reciprocal arrangements should be consider with adjacent local parking areas.



THE SITE

UNDERSTANDING KARRATHA



THE SITE

UNDERSTANDING KARRATHA

The community of Karratha is quickly changing and its early stages with remote rural development and traditional community representation have evolved into a modern city with pressures on families, employment, education and identity.

The climate creates an outdoor lifestyle and this engenders a love of nature and a strong sense of community participation.

The new developments of the Karratha leisure complex and the Pam Buchanan Centre are great examples of infrastructure supporting the community and providing a nurturing environment.

Karratha is set within a beautiful natural environment and a robust mining/ industrial context. The blend of these two elements on the landscape has created a strong materials palette that is resistant to the powerful climate conditions, intense heat and cyclonic conditions.

The influence on commercial and residential architecture has created a building character which is well shaded with filtered light and breezeways. These spaces are at the centre of community and family meeting spaces – the shaded verandah walkways on large retractable shade canopies – they create architecture and character of the place and is strongly evident in the central city core streetscape concepts.

THE SITE

LEARNING FROM THE LAND



THE SITE

All good architecture and urban design take lessons from their context to create a sense of place that is reflective of the community and the environment. The Karratha context is based on the strong natural forms and colours of the land and the many variations that it goes through over the seasons.

The Karratha character has a reference to the rolling rusty coloured hills that gently surround the city. These hills are a myriad of colours as the sun reflects off them and the seasons generate spontaneous natural vegetation. As the water flows from the hills through the gullies and waterways to the sea, the land is etched into a set of distinctive and changing patterns. The coastline is dominated by the strong turquoise colour of the ocean and the modulating patterns of the islands and promontories.

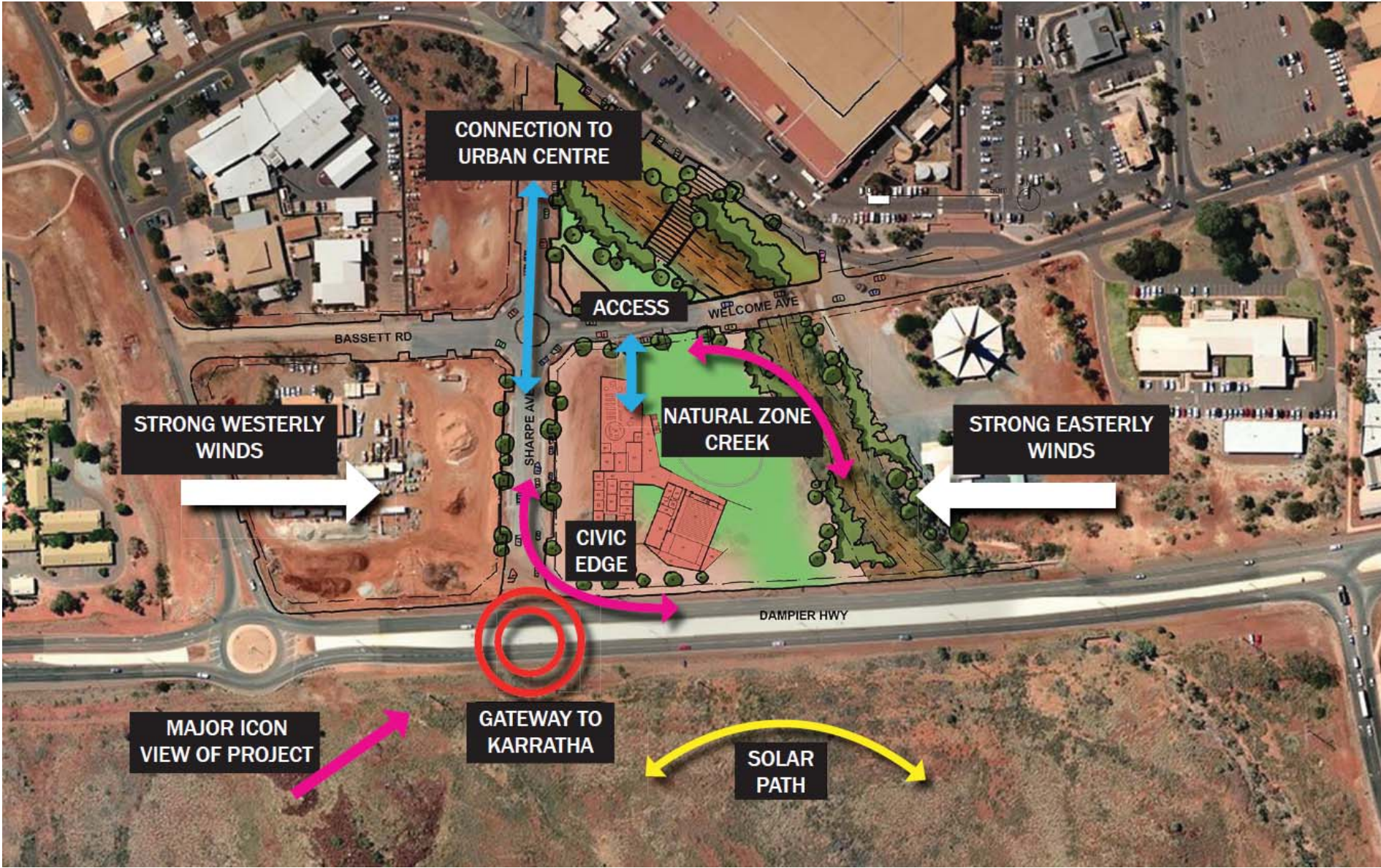
Amidst this stunning context lies the beautifully detailed and unique flora that creates an ever-changing display of colour. Our architectural inspiration has come from this setting and we have created the large sculptural forms of the fly towers of the theatre to represent the rolling hills. The low lying forms of the library to represent the coastal plain, the amphitheatre geometry represents the coastal patterns and the tidal turquoise oceans colours and the wildflower colours are captured within the interior walls and glazed walls of the library and the foyer.

The architecture will be a representation of the transition from the large scale reference to the natural rolling hills to the detailed man made streetscapes of the new urban environment. The building will be both a gateway icon and a human scale expression of fun and delight.



BUILDING CONCEPT

BUILT FORM



BUILT FORM

The concept proposal creates a strong civic edge at the south at the gateway entry to Sharpe Ave from Dampier Highway. This is represented by the 18m high fly towers for the theatre and is a strong geometric prism from that will be identified with the city entry. The built form along Sharpe Ave is single level and responds to the urban design streetscape intent of the city core, and creates an activated character to the public realm.

As the site is approached from Welcome Rd the project is more garden orientated and human scale with the dramatic shade structure of the amphitheatre providing a welcoming and shady respite.

BUILDING CONCEPT

The building concept is planned over 3 levels with all of the principles activities and the Ground Floor. The Basement provides sheltered parking for visitors, staff and servicing and also accommodates the plant rooms.

The First Floor is only on the area above the library and this provides the space for the covered outdoor cinema.

All floors are served by the central lift and stair case.

FACILITY REQUIREMENTS

FUNCTIONAL ELEMENTS

| AREA | NUMBER | TOTAL AREA |
|---|---------|---------------|
| ENTRY FOYER/ADMINISTRATION | | |
| Entry Statement to Civic Facility | | |
| Total | | 150m² |
| OFFICE ACCOMMODATION/SUITES | | |
| Provision of office accommodation/suites suitable as external tenancies for complimentary entities. | | |
| Reception/Waiting Area | | 40m² |
| Kitchenette/Staff room | | 20m² |
| Toilets | | 30m² |
| Storage | | 40m² |
| Office Suites | 5 | 125m² |
| Subtotal | | 255m² |
| Circulation | | 38m² |
| Total | | 293m² |
| THEATRE (Performing Arts) | | |
| Performing arts centres are a space for arts rehearsal and performance, ranging from small playhouses to large multipurpose performance centres. Performing arts centres support a wide range of performing arts (from plays to operas and eisteddfods) and generally include space for arts workshops, rehearsals and storage. | | |
| Stage | | 150m² |
| Individual Seating for 450 person capacity | | 450m² |
| Rehearsal/Class Space | | 150m² |
| Admin Office | | 12m² |
| Backstage | | 65m² |
| Large Dressing Room | 2x 30m² | 60m² |
| Small Dressing Room | 2x 15m² | 30m² |
| Greenroom | | 42m² |
| Toilets | | 80m² |
| Circulation Allowance | 15% | 155m² |
| Total | | 1219m² |
| AMPHITHEATRE | | |
| Outdoor event spaces provide opportunities formal and informal gatherings including functions such as markets, weddings, concerts and ceremonies. When colocated with an indoor facility they can provide a complimentary space creating indoor-outdoor event space. | | |
| Total | | 1100m² |

| AREA | NUMBER | TOTAL AREA |
|--|--------------------------------|--------------|
| ARTS CENTRE (Exhibition and artist space) | | |
| An art gallery / exhibition centre is a space specifically allocated for the display, promotion and/or sale of art (be it paintings, sculpture, photography) or other exhibitions. It may or may not be a multipurpose space, but should ideally have facilities for the proper display, lighting, and handling of artworks or exhibits. More dedicated galleries may have associated function spaces to support exhibitions, or activity rooms to support classes, workshops or artists in residence workspace. | | |
| Gallery | | 120m² |
| Medium Studio | 4x 25m² | 100m² |
| Small Studio | 2x 15m² | 30m² |
| Storage | | 40m² |
| Admin Office | | 15m² |
| Toilets | 2x 12m² | 24m² |
| Shared Use Potential | Admin Office with Theatre 15m² | |
| Total | | 314m² |
| LIBRARY | | |
| Libraries are facilities that provide a variety of services, primarily related to the access, storage and management of information. More recently, library services have expanded to provide learning and social opportunities, access to digital and electronic media and the provision of internet services. | | |
| Library Floor Space | | 582m² |
| Activity Room | | 60m² |
| Toilets | 2x 60m² | 24m² |
| Kitchenette | | 25m² |
| Circulation Allowance | (15%) | 105m² |
| Storage | | 50m² |
| Total | | 850m² |
| MUSEUM | | |
| Display Area to be included in Gallery and Foyer Space. Storage to be integrated with Library storage | | |
| Total | | 314m² |

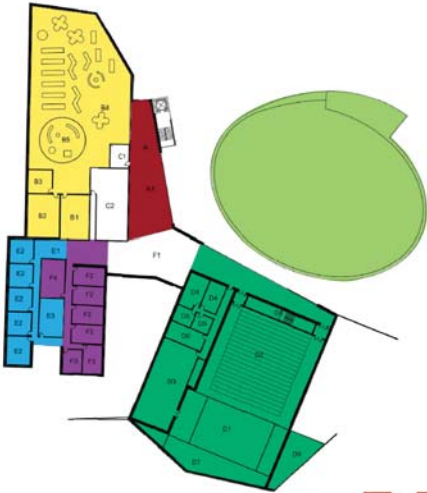
FUNCTIONAL PLANS

The planning for these activities has been based on an improved efficient layout which combines the administration and back of house facilities for each use into a centralised service.
The library, theatre, gallery and NGO areas all share central administration and services.

The foyer is designed as a linking space – to link the interior to the outside and the amphitheatre, and also to link each of the functions – If a patron is visiting the library they get exposed to activities in the theatre, the gallery and the museum.

The planning also responds to the urban design context – the larger scaled inward looking theatre is against the icon gateway entry and the lower scaled more activated entry, and the lower scaled more activates uses like the offices and the library are related to Sharpe Ave and Welcome Rd.

| | |
|------------------------|---------------|
| Theatre | 1219 m² |
| Library | 850 m² |
| Foyer | 150 m² |
| Office Accommodation | 293 m² |
| Art Gallery | 314 m² |
| Amphitheatre | |
| Total Nett Area | 2826m² |



BUILDING CONCEPT

FUNCTIONAL PLANS

THEATRE AND PERFORMING ARTS CENTRE

To support a range of performing arts

Functional Spaces
 Space for arts workshops, rehearsals and storage
 450 seat theatre
 150m² stage
 Admin office (could be shared with Arts Centre)
 Large and Small dressing rooms
 Greenroom
 Box Office
 Backstage
 Toilets

Total Area : 1219m²

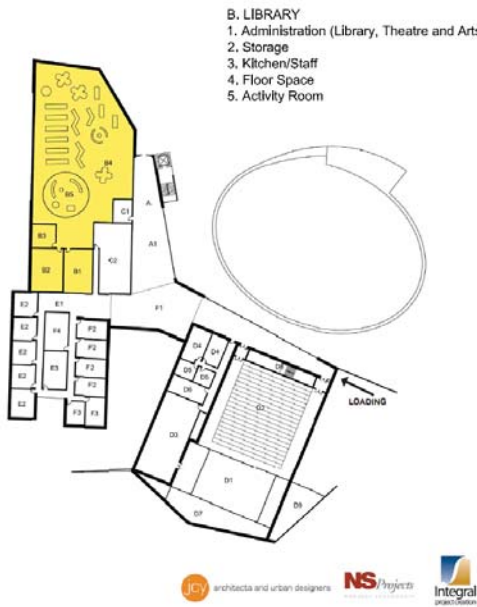


LIBRARY

Library
 Provides access to information and literature.

Functional Spaces
 Floor space
 Activity room
 Toilets
 Kitchenette
 Storage

Total Area : 850m²



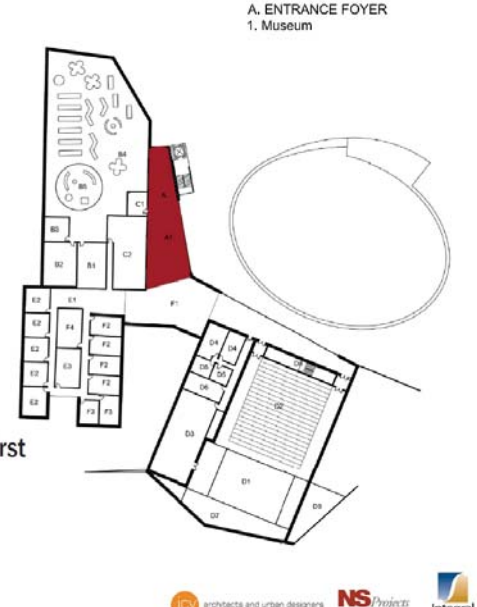
ENTRY FOYER

Entry Foyer
 Entry Statement to civic facility (and possibly Karratha)

Functional Spaces
 150m² Entry Foyer, this is in addition to reception

Additional notes
 The entry foyer will be many people's first experience of the new cultural centre

Total Area : 150 m²

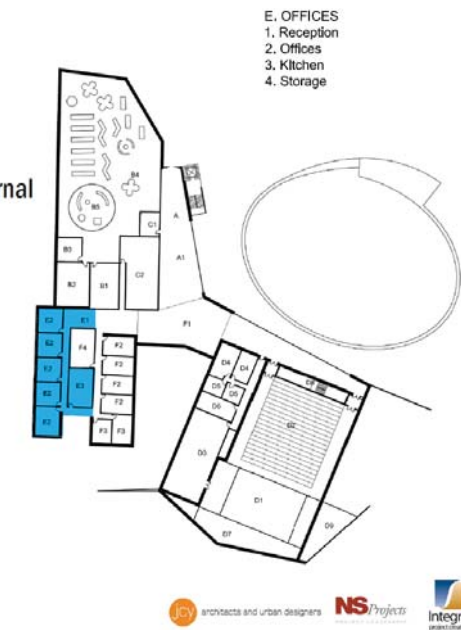


OFFICE ACCOMMODATION

Office Accommodation
 Office accommodation/suites for external tenancies by complimentary organisations.

Functional Spaces
 Reception and waiting area
 Kitchenette/staff room
 Toilets
 Storage
 125m² Office space

Total Area : 293m²

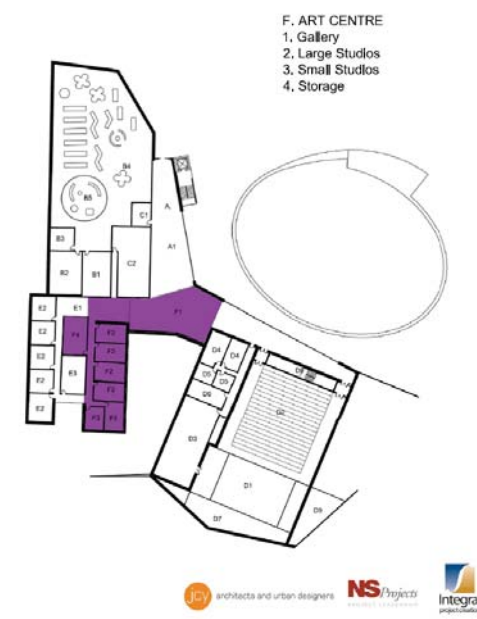


ART CENTRE & GALLERY

Art Centre and Gallery
 Exhibition space and artist studios

Functional Spaces
 120m² Gallery
 Medium Studios
 Small Studios
 Storage
 Admin Office (could be shared with Theatre)
 Toilets

Total Area : 314 m²

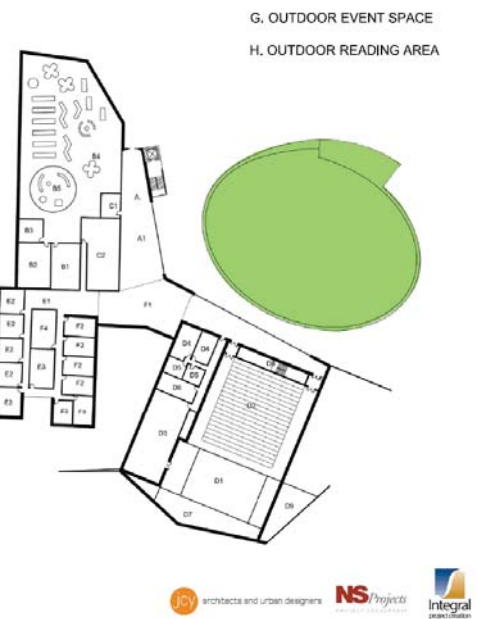


AMPHITHEATRE

Amphitheatre
 Multi-purpose Outdoor Event Space

Functional Spaces
 1100m² outdoor space

Total Area : 1100m²



SERVICES & INFRASTRUCTURE PROVISIONS

1. BUILDING ENVIRONMENTS

The building has been designed with consideration to not only environmental and personal health initiatives but also to encourage a building culture and social interaction both within building as well as the great streetscape and civic neighbourhood.

2. STORM WATER AND WASTE DISPOSAL

The detailed investigation and recommendation for the provision of storm and waste water disposal will be undertaken by a hydraulic consultant in the commencement of the schematic design phase.

Preliminary discussion with the Shire of Roebourne and Landcorp infrastructure offices have confirmed sufficient capacity in the newly installed services to cater for the storm water and sewer but we may require a restricted flow tank to accommodate cyclonic conditions. The hydrological flow path for storm water will be designated by open landscaped contour drains to channel the run-off away from the building to collect in the open gully/creek drain on the eastern boundary. The hydraulic consultant will confirm these assumptions as soon as they are appointed

3. NOISE

The noise impact report will be prepared by the Acoustic Consultant as part of the Schematic Design Phase. The Quantity Surveyors' cost report takes into account noise strategies necessary for the efficient operation of the theatre library and amphitheatre.

The Acoustic Consultants report will evaluate both external born noise and internally and adjacently born noise, and propose design solutions as required by the performance standards for this class of facilities.

4. WIND

A wind evaluation will be prepared by the ESD Consultant initially a desk top evaluation will be conducted using computational flow dynamics (CFD) technologies. The impact on services will include a natural ventilation strategy for the car park in the basement. Also the study will review a resolution of the façade and balcony projections related to the level one roof cinema in order to reduce the impact of any detrimental wind impact possibilities.

5. GEOTECHNICAL AND ENVIRONMENTAL IMPACT

A geotechnical report has been prepared by Douglas Partners Sept 2011. In the Schematic Design Phase the geotech consultant will review the concept design against this report to determine the likely ground structure for the purpose of engineering design and costing.

6. FIRE SERVICES

In discussions with the offices of the Shire of Roebourne and Landcorp there is sufficient provision in the street fire services for this development. In the Schematic Design Phase further pressure testing will be required to confirm the supply is sufficient to met the provision of fire sprinklers, hydrants and hose reels to provide a compliant design solution.

7. SITE AND POWER SUPPLY

A detailed investigation will be undertaken by the electrical consultant in the next stage. Importantly the determination of the substation location will need to be defined. The current concept location is in the basement and this will need approval from Western Power and an early application to them is advised. In addition the electrical consultant is to investigate and offer solutions and options for energy efficient systems.

8. SITE WATER SUPPLY

The concept design has an ambition to reduce water consumption within the project to create a benchmark of sustainable development a demonstration project of xerophytic landscape and public realm design.

9. ACCESS SAFETY AND SECURITY

The nature of this public building and public space means that access, safety and security need to be carefully arranged to minimize the risk of injury, anti-social behaviour as well as the risk of alienating tenants and visitors. It is recommended that a building management plan be instigated and that this forms part of the brief for the next phase of Schematic Design.

10. TECHNOLOGY

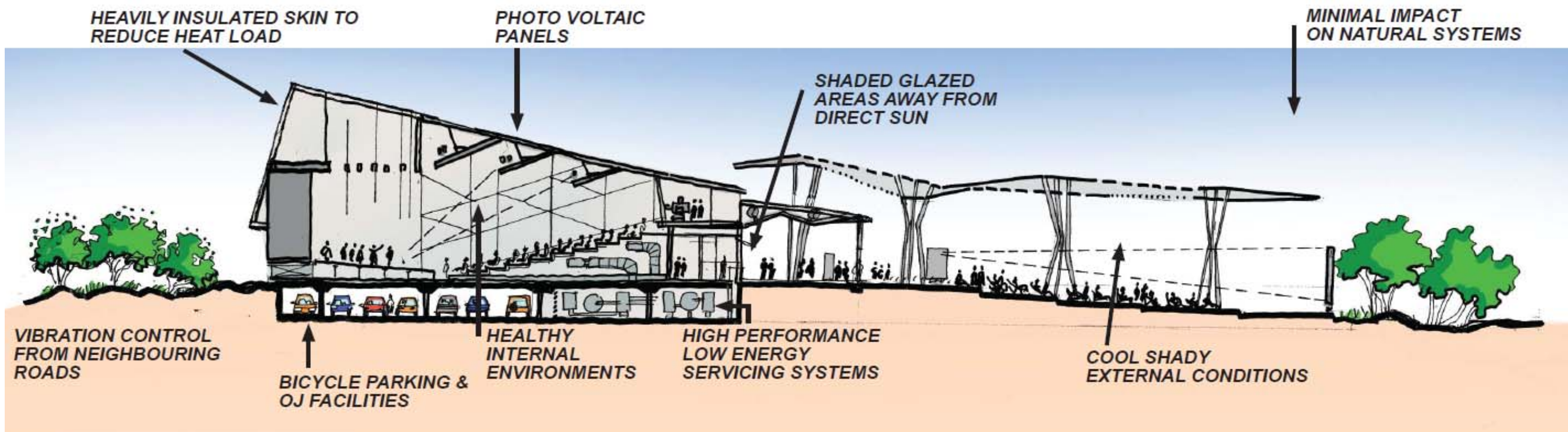
The project has the base technology of security and emergency warning services but the nature of the tenants and users creates a springboard for new emerging technologies using wifi to promote crowd sourcing, events notifications and individual learning and itinerary planning across all user groups. The Library will be the centre of operation for this new technology, and it will provide support services to the other tenants in the Theatre, Gallery, Offices and Amphitheatre events management.

11. GRAFFITI AND VANDALISM MANAGEMENT

The long term durability of the building is a key brief requirement that can be reduced by the impact of vandalism. With CCTV monitoring and good visibility throughout zones of high use and public accessibility, loitering and vandalism will be discouraged. The use of surfaces internally and externally that are readily cleaned or repaired or are sufficiently durable and secured will reduce the impact or risk of vandalism.

12. WASTE MANAGEMENT

In the next phase a waste management plan will be developed with the Shire of Roebourne and the operators. The concept provides for waste storage and collection in the basement. Separate activities in the Theatre or Artist Studios will generate longer volumes and more dangerous goods related to paints and set construction materials. These can be stored in a separate area in the loading bay and will require appropriate screening and protection.



ESD

The Cultural Centre is an opportunity to create a demonstration project of recycling, use of renewable energy systems and conservation of water and other consumables. The project will be designed to minimize whole of life costs, selecting materials that are low maintenance, long lasting and recyclable.

The building is orientated to avoid large heat loads on glass areas and to create passive cool zones under the amphitheatre canopy.

The ongoing development of the concept must target to reduce waste and use environmentally safe materials.

The aspiration is to create healthy indoor environments that link with and engage the outdoors.

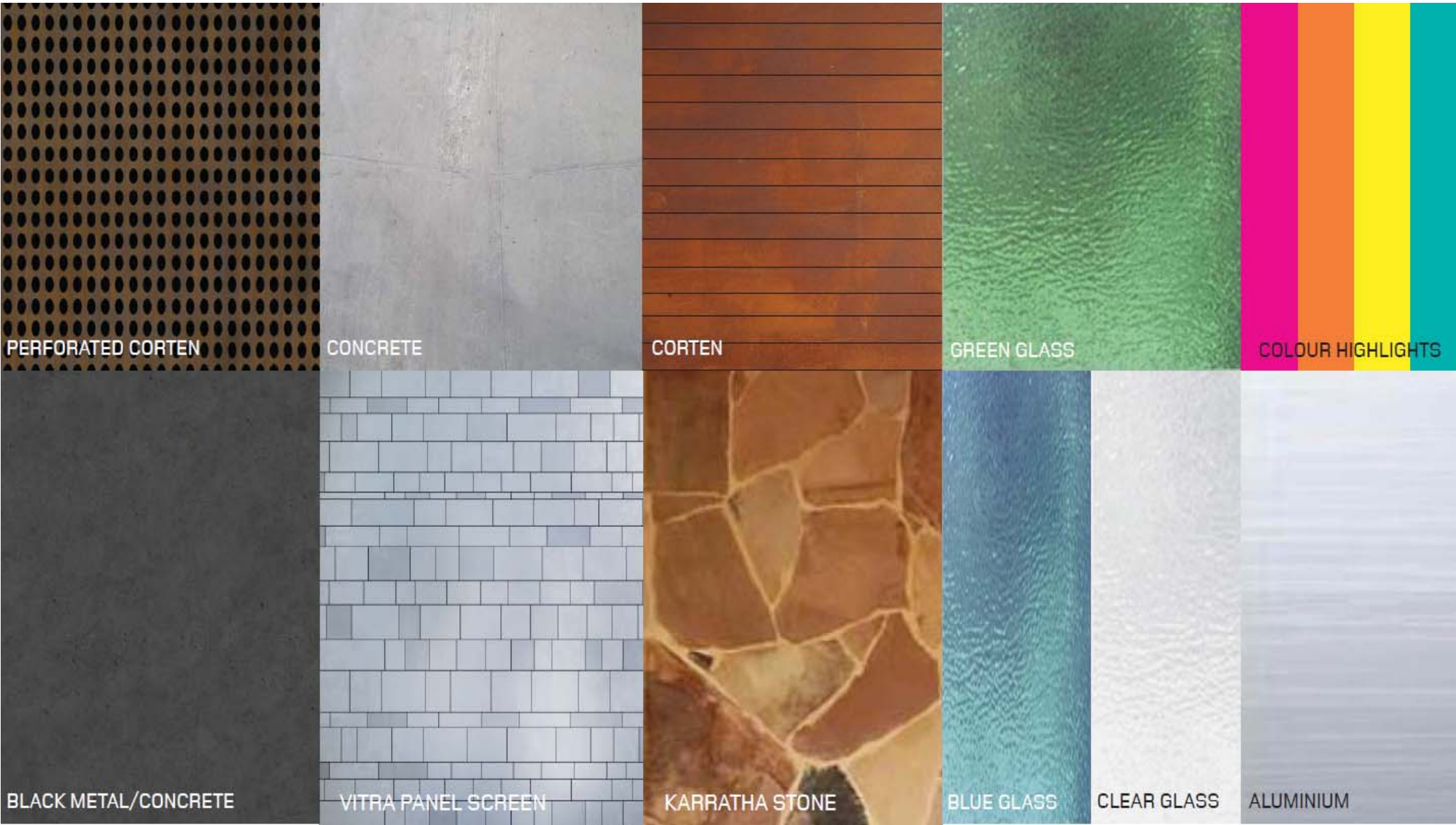
The existing site context, with natural and man made systems, will be sensitively engaged with by our hydrological and landscape systems to ensure minimum environmental impact.

The project will be an opportunity to contribute to the local economy and purchasing and employment decisions should be cognizant of supporting local and regional providers.

The project has some sensitive areas in relation to acoustics (theatre and library), lighting (theatre, library and gallery) and humidity/temperature control. As the concept develops further evaluation will be required.

The performance targets will be humidity (between 40 and 60% relative humidity), temperature (between 20 and 25 degrees Celsius) and avoid sharp fluctuations, lighting in the gallery to avoid direct sunlight and high UV levels for delicate objects, and acoustically there will be a requirement in the theatre to reduce the impact of road vibrations. The landscape will use recycled water for irrigation (where it is not actively used) and xerophytic planting to reflect the indigenous species content.

MATERIALS



MATERIALS SELECTION

These materials are selected to respond to the local context of colours in the landscape and the character of Karratha. The materials have been selected based on the following parameters;

- These materials have been used in many existing projects in the North West and have proven to be readily available and easily transportable.
- We have selected materials that are resistant to the extreme weather conditions including solar radiation, cyclonic wind and rain.
- These materials are resistant to wind driven debris damage and will be incorporated with cyclone shutters.
- We have chosen these materials that are stain resistant and we have detailed the concept to avoid dust and water collection points that contribute to staining.
- These materials are quality products that fit within the context of a major icon structure and are all factory finished to avoid long term maintenance issues
- These materials will be selected based on their low toxicity, the ability to recycle and the preference for materials with low embodied energy

PARKING



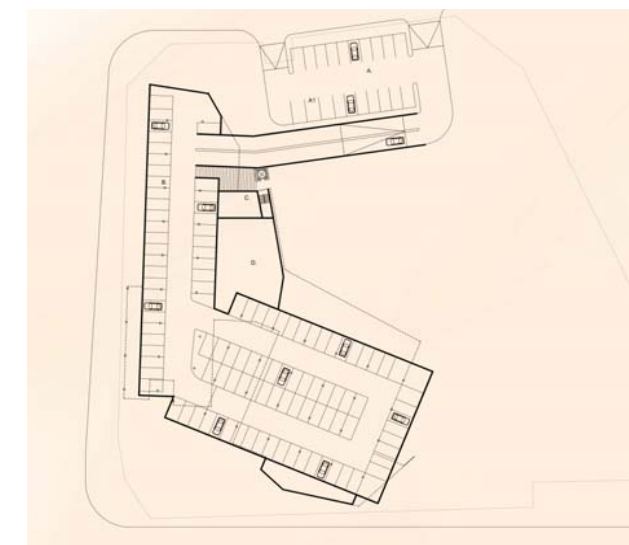
PARKING

- Theatre - 450 patrons/2.3 per car = 195 bays
- Library - Average peak load 120 persons/2 per car = 60 bays
- Amphitheatre - 900 patrons/2.7 per car = 330 bays
- Rooftop Cinema - 400 patrons/2.3 per car = 173 bays
- Arts Centre - 5 bays
- NGO Offices - 5 bays
- Museum & Gallery - 120 patrons = 5 bays
- Staff Parking - 15 persons = 10 bays

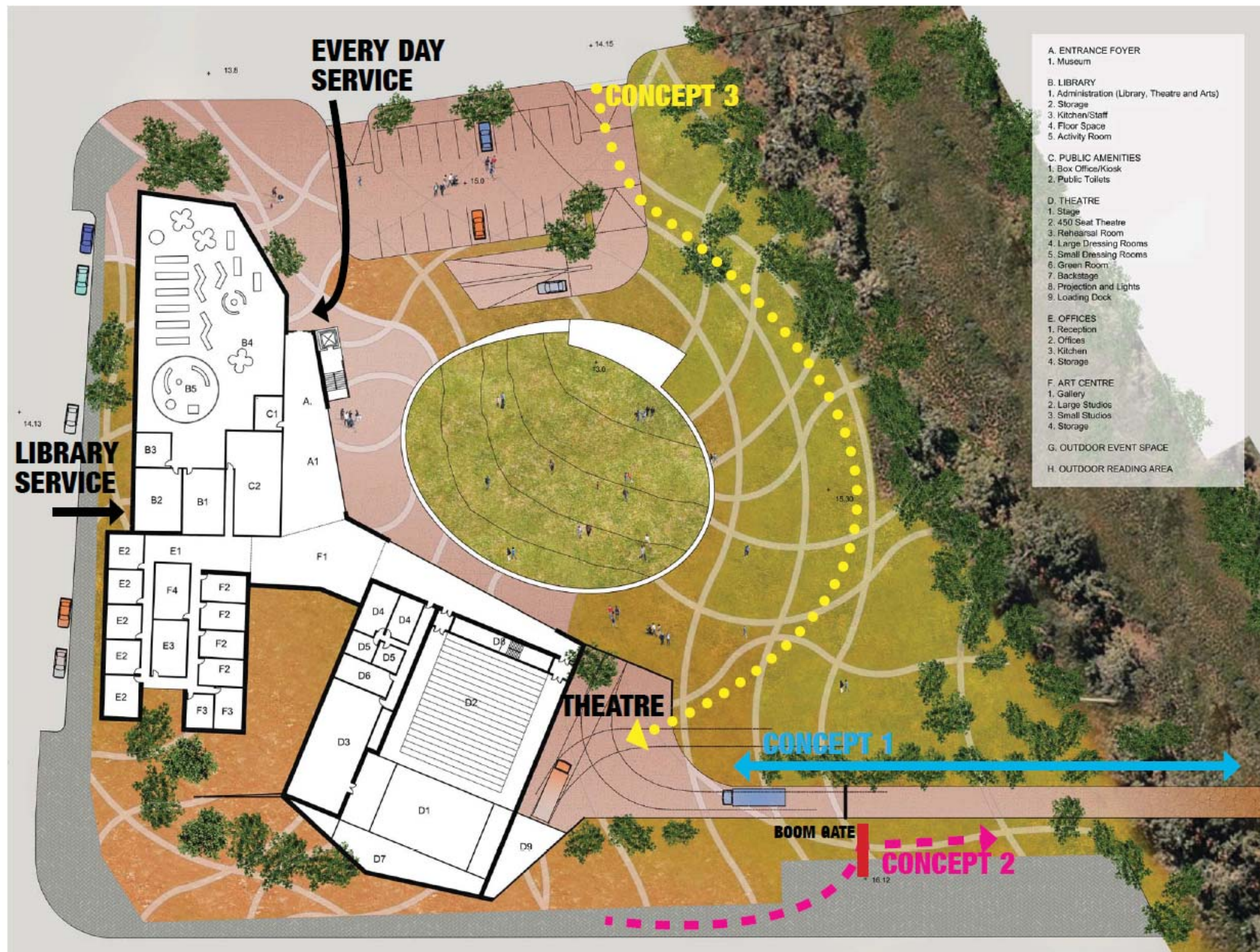
Parking will be reciprocal amongst all users.
Maximum parking required 330 bays including disabled (200 bays required off site for peak load related to Amphitheatre)

- Option A 100 bays (as per brief requirement)
- Option B 128 bays (as per cost plan and concept design)
- Within a 300m walking radius there are the following reciprocal parking opportunities.

| | |
|------------------------------------|-----------------|
| St Paul's Church | 80 bays |
| Shire of Roebourne Council Offices | 60 bays |
| Centro Shopping Centre | 150 bays |
| Total | 290 bays |



ACCESS



LOADING & SERVICING

The 3 concepts for loading and servicing have come from extensive consultation with the Shire of Roebourne officers, Landcorp and Arup traffic consulting.

The loading and servicing requirements are based the following demands;

- Monthly book exchange and day to day deliveries
- Day to day deliveries and quarterly exhibitions requiring small truck access
- 2 monthly access for sets, costume and lighting delivery
- Monthly access for sound and light installations

CONCEPT 1

Access to the east via St Paul's church and gully

CONCEPT 2

Access from Dampier Hwy with controlled boom gate

CONCEPT 3

Access adjacent to the eastern boundary across the perimeter of the amphitheatre in a human scale integrated paving campus road concept.

PROGRAMME

| ITEM | INDICATIVE PERIOD |
|-------------------------------------|-------------------------------------|
| INTERNAL APPROVALS | |
| External Funding & Design | Current to March 2014 |
| Construction | April 2014 to April 2015 |
| Commissioning, Fit-out & Transition | 2 months Post Completion (Feb 2017) |
| OPERATIONAL ASSESSMENT | |
| Year 1 | Feb 2017 to Feb 2018 |
| | (Jan Cash Flow Qtr) |
| Year 5 | Feb 2022 to Feb 2023 |
| | (Jan Cash Flor Qtr) |
| | |
| | |
| | |
| | |
| | |
| | |

PROGRAMME

The programme currently adopted for the Karratha Cultural Precinct is based on provision for future external funding, design development and internal budget allocation. As agreed with the SoR the business plan provides operating forecasts for the construction period and 5 years post practical completion.

The following table provides a breakdown of the development programme and assessment period dates.

COST PLAN

| KARRATHA CULTURAL PRECINCT | | 10 DECEMBER 2013 |
|--|----|------------------|
| MAIN SUMMARY | | |
| Building | \$ | 13,579,000 |
| Amphitheatre | | 3,410,000 |
| Car Parking | | 2,260,000 |
| Externals | | 2,201,000 |
| Sub-Total (Perth Value) | \$ | 21,450,000 |
| | | |
| Location Allowance (55%) | | 11,800,000 |
| Sub-Total (Karratha Value) | \$ | 33,250,000 |
| | | |
| Planning Contingency | | - |
| Design Contingency (5% of Karratha Value) | | 1,650,000 |
| Construction Contingency (5% of Karratha Value) | | 1,650,000 |
| Loose Furniture and Equipment (4.75% of Perth Value) | | 1,000,000 |
| Public Artwork (1% of Karratha Value) | | 325,000 |
| Relocation Allowance (0.25% of Karratha Value) | | 75,000 |
| Consultants Fees (10% of Perth Value) | | 2,150,000 |
| Consultant Disbursements (1% of Perth Value) | | 225,000 |
| Cost Escalation to 2014 (3%) | | 1,200,000 |
| Cost Escalation to 2015 (4%) | | 1,650,000 |
| Cost Escalation to 2016 (4%) | | 1,725,000 |
| | | |
| ESTIMATED TOTAL PROJECT COST | \$ | 44,900,000 |
| | | |
| GST excluded | \$ | 4,490,000 |

| KARRATHA CULTURAL PRECINCT | | | | 10 DECEMBER 2013 |
|----------------------------------|----------------|-------|----------|-----------------------------|
| BUILDING | | | | |
| Library | m ² | 850 | \$ 3,750 | \$ 3,187,500 |
| Arts Centre | m ² | 314 | 3,750 | 1,177,500 |
| Theatre | m ² | 1,260 | 4,750 | 5,985,000 |
| Entry foyer | m ² | 150 | 4,500 | 675,000 |
| Museum | m ² | 162 | 4,500 | 729,000 |
| Office Accommodation (no fitout) | m ² | 300 | 2,750 | 825,000 |
| Roof Terrace | m ² | 500 | 2,000 | 1,000,000 |
| Total to Summary | | | | <u><u>\$ 13,579,000</u></u> |
| AMPHITHEATRE | | | | |
| Terraced amphitheatre | m ² | 1,100 | \$ 600 | \$ 660,000 |
| Covered roof canopy | m ² | 2,200 | 1,250 | 2,750,000 |
| Total to Summary | | | | <u><u>\$ 3,410,000</u></u> |
| CAR PARKING | | | | |
| Undercroft parking (No. 108) | m ² | 2,700 | \$ 800 | \$ 2,160,000 |
| Ongrade parking (No. 20) | m ² | 1,000 | 100 | 100,000 |
| Total to Summary | | | | <u><u>\$ 2,260,000</u></u> |

COST PLAN

| KARRATHA CULTURAL PRECINCT | | 10 DECEMBER 2013 |
|---|------|---------------------|
| EXTERNAL WORKS | | |
| Site preparation (m ² 20000) | Item | \$ 250,000 |
| Retain creek (m ² 5000) | Item | 50,000 |
| Urban plaza (m ² 4000) | Item | 650,000 |
| Hard landscaping (m ² 3000) | Item | 300,000 |
| Soft landscaping (m ² 5000) | Item | 250,000 |
| Site hydraulic services | Item | 200,000 |
| Site electrical services | Item | 100,000 |
| Headworks | Item | 150,000 |
| Loading dock | Item | 50,000 |
| Sundry works | Item | 201,000 |
| Total to Summary | | <u>\$ 2,201,000</u> |



RISK ASSESSMENT & MITIGATION

NS Projects Pty Ltd
Risk Management

Shire of Roebourne
KARRATHA CULTURAL PRECINCT
Draft Risk Matrix



| Item | Project Management Risks | Risk Assessment | | | | Mitigation Strategy | Residual Risk | | | |
|------|---|----------------------------|---------------------------|------------|--------------------------|--|----------------------------|---------------------------|------------|--------------------------|
| | | Consequence (1,2,3,4,5) | Likelihood (1,2,3,4,5) | Assessment | Risk Rating (E,H,M,L) | | Consequence (1,2,3,4,5) | Likelihood (1,2,3,4,5) | Assessment | Risk Rating (E,H,M,L) |
| 1.0 | Stakeholder/Political | | | | | | | | | |
| 1.1 | Stakeholders not able to provide sufficiently clear information for brief resulting in additional effort in later design stages to make building fit for purpose | 4 | 1 | 4 | M | Consultant and Project Reference Group experience of similar facilities to be utilised to focus on weaker brief areas through charettes. Detailed stakeholder consultation | 2 | 1 | 2 | L |
| 1.2 | Client/Stakeholder requests scope changes or alters previously agreed position which increases costs or introduces delays to the project and creates team tension | 3 | 3 | 9 | H | Scope to be locked in before going to market. Suitable level of Client held contingency required outside of Contract to cover cost of changes. | 2 | 2 | 4 | M |
| 1.3 | Stakeholder approvals causes delay i.e. building appearance/concept | 3 | 2 | 6 | M | Sufficient and realistic timescales introduced into programme to allow review and Stakeholder buy-in. | 2 | 1 | 2 | L |
| 1.4 | 'Promises' made to Stakeholders through satellite meetings that cannot be implemented resulting in Stakeholder disappointment | 3 | 3 | 9 | H | Project team involvement in all stakeholder meetings to allow for project/design context explanations. | 2 | 1 | 2 | L |
| 1.5 | Stakeholder/Team Member provides information that results in unwanted press attention | 3 | 2 | 6 | M | Communication plan to restrict information that is in the public forum particularly relating to financial and programme details. | 2 | 1 | 2 | L |
| 1.6 | Stakeholder disagreement over design/brief development | 3 | 2 | 6 | M | Confirmation through the PMP who has design decision control overall and if necessary for each section of the project. Combined workshops to determine needs and identify mutually agreeable solutions. | 1 | 2 | 2 | L |
| 1.7 | Not meeting expectations from User Groups (eg Arts & Learning) | 3 | 3 | 9 | H | Clearly define hierarchy and conditions of use of the facility and communicate to user groups/stakeholders | 2 | 1 | 2 | L |
| 2.0 | Environment | | | | | | | | | |
| 2.1 | Construction impact on surrounding residents/business - Noise, track and dust pollution caused by construction | 3 | 2 | 6 | M | No existing residential to impact on close to site. Traffic management study to be developed and plan to be implemented | 2 | 1 | 2 | L |
| 2.2 | Cyclonic area design constraints | 2 | 5 | 10 | H | Regular inspections by Enviro Health for compliance with dust control. Full suite of typical management plans. Fully integrated with other activities. Site demarcation important. | 2 | 1 | 2 | L |
| 2.3 | Impact of Damper Highway on the facility - noise & vibration | 2 | 5 | 10 | H | Consultant team to consider throughout design process and ensure design compliance | 2 | 2 | 4 | M |
| 2.4 | Unknown geotechnical conditions requiring additional engineering | 3 | 2 | 6 | M | Carry out noise and vibration analysis early to inform design team. Make necessary allowances in budget as required. | 2 | 1 | 2 | L |
| 2.5 | Effect of climate during construction | 4 | 2 | 8 | H | Early geotech information to be procured either from Landcorp or commissioning survey directly by the SoR to ensure any cost/budget impacts are understood. | 3 | 2 | 6 | M |
| 3.0 | Financial | | | | | | | | | |
| 3.1 | Cost estimate exceeds budget meaning re-design and / or programme overrun (pre construction) | 3 | 3 | 9 | H | Programme and contract conditions to be developed to allow for potential delays arising from climatic conditions. Budget to consider necessary contingencies | 3 | 2 | 6 | M |
| 3.2 | Budget Increase - Cost overruns due to variations (during construction) | 4 | 3 | 12 | E | Cost review as soon as brief is developed in sufficient detail to confirm that aspirations do not exceed budget. Cost reviews at key milestones and implementation of strict change control. Continuing value management to achieve best cost outcome. Procurement methodology selected to drive lowest cost outcome. | 4 | 1 | 4 | M |
| 3.3 | Capital availability - Insufficient reserve funds to deliver project | 4 | 3 | 12 | E | Brief to be confirmed and stakeholder sign off before going to market. Adequate contingencies to suit level of documentation at time of tender. De-risk prior to going to tender through progressive detailed scope definition through user groups and interface management and identification of functions. Allow sufficient time in the programme. | 3 | 3 | 9 | H |
| 3.4 | External funding - Insufficient funding from Federal Government | 3 | 3 | 9 | H | Significant Capital reserve exist and Council deems the project as a priority amongst future infrastructure projects. Project incorporated into the long term financial plan. | 3 | 3 | 9 | H |
| 3.5 | External funding - Insufficient funding from State Government | 3 | 3 | 9 | H | Discussions with Federal have begun, however, given the political nature and uncertainty of infrastructure funding at present the risk parameters remain unchanged. | 3 | 2 | 6 | M |
| 3.6 | External funding - Insufficient funding from Resource Industry | 4 | 3 | 12 | E | Discussions with State Government have been ongoing for the past couple of years. State government are well aware of the project, its history and councils approach for significant infrastructure funding for the project. | 3 | 2 | 6 | M |
| 3.7 | Debt Borrowing - Market Risk - High Level borrowing Impact on future borrowing costs | 3 | 2 | 6 | M | Discussions with Industry have been ongoing over the past year. With major industry bodies well aware of the project, its history and councils approach for significant infrastructure funding for the project. | 2 | 1 | 2 | L |
| 3.8 | Meeting the requirements of funding agreements - Project Delays | 3 | 3 | 9 | H | Given current level of reserve funds, discussions with State and Federal bodies and industry organisations as well as Council currently being "debt free" the risk is determined to be low. | 3 | 1 | 3 | L |
| 3.9 | Developer fees - Land Cost higher than predicted | 3 | 3 | 9 | H | Provide regular reports to state and federal and maintain close communication | 1 | 1 | 1 | L |
| 3.10 | Taxation Implications - Liability for GST | 4 | 2 | 8 | H | Allow contingencies for budget increases at various stages | 1 | 1 | 1 | L |
| 3.11 | Lack of clarity regarding the funding allocations - i.e. what funds are allocated to construction, fit out, FF&E etc. Results in overspend on project budget. | 3 | 3 | 9 | H | Shire to seek advice from legal advisers - may have a positive effect on project budget | 3 | 1 | 3 | L |
| 3.12 | SoR capacity for ongoing operating/maintenance costs | 3 | 3 | 9 | H | Budget to be clearly broken down and signed off by PCG prior to proceeding to tender. | 3 | 2 | 6 | M |
| 3.13 | Tendered prices exceed the project budget and contingent allowances requiring a revaluation of the project scope or budget allowances | 4 | 2 | 8 | H | Business plan to consider ongoing operational and maintenance costs including future funding assistance from user groups/industry | 3 | 1 | 3 | L |
| 4.0 | Legal | | | | | | | | | |
| 4.1 | Injury or Death of worker or member of public on site during construction phase | 5 | 2 | 10 | H | PTE prepared and within budget. Ongoing market reviews | 4 | 1 | 4 | M |
| 4.2 | Failure to address Contractual compliance to comply with federal grants | 3 | 2 | 6 | M | Ensure that all contractors comply with OSH Act & relevant regulations | 3 | 1 | 3 | L |
| 4.3 | Policy Compliance - Non Compliance with Councils internal policies and requirements | 3 | 2 | 6 | M | SoR is indemnified against liability. Non-negotiable must happen. | 2 | 1 | 2 | L |
| 4.4 | Issues with Landcorp over land acquisition | 3 | 2 | 6 | M | Procurement documentation to be developed to suit requirements | 2 | 1 | 2 | L |
| 4.5 | Disputes - exiting TAFE agreements and Walkington contractual issues | 3 | 2 | 6 | M | Project team to be fully aware of Council requirements | 2 | 1 | 2 | L |
| 5.0 | Organisational | | | | | | | | | |
| 5.1 | Ability of project team to deliver major projects | 4 | 2 | 8 | H | In principle agreements have been reached between the Shire and Landcorp. | 3 | 1 | 3 | L |
| 5.2 | Team capacity to chase funding | 3 | 2 | 6 | M | Appoint legal adviser. Work with TAFE to ensure satisfactory outcome for both SoR and TAFE | 2 | 1 | 2 | L |
| 5.3 | Team capacity to ensure required level of consultation | 3 | 2 | 6 | M | Procurement methodology to allow for securing best skills available for all participants. | 3 | 1 | 3 | L |
| 5.4 | Internal project management - client/provider issues | 3 | 2 | 6 | M | Adequate capacity exists with identified skill set. Some finance available to contract consultants to assist should the need arise. | 2 | 1 | 2 | L |
| 5.5 | Organisation change - Local government reform | 2 | 2 | 4 | M | Consider using external consultants as required. | 1 | 1 | 1 | L |

NS Projects Pty Ltd
Risk Management

Shire of Roebourne
KARRATHA CULTURAL PRECINCT
Draft Risk Matrix



| Item | Project Management Risks | Consequence (1,2,3,4,5) | Likelihood (1,2,3,4,5) | Assessment | Risk Rating (E,H,M,L) | Mitigation Strategy | Consequence (1,2,3,4,5) | Likelihood (1,2,3,4,5) | Assessment | Risk Rating (E,H,M,L) |
|------|--|----------------------------|---------------------------|------------|--------------------------|--|----------------------------|---------------------------|------------|--------------------------|
| | | | | | | | | | | |
| 6.0 | Planning | | | | | | | | | |
| 6.1 | Planning Delays - Delays in planning and design process | 4 | 2 | 8 | H | Procurement strategy dependent. Detailed Planning approvals programme to integrate into project procurement with key players. Planning and matters need to be resolved ahead of builder's engagement. | 3 | 2 | 6 | M |
| 6.2 | Project not aligning with SoR and State Government strategic goals and expectations | 3 | 2 | 6 | M | SoR team to ensure consultants are full briefed and understand SoR requirements. Ongoing consultation and 'buy in' from Reference Group and State Govt representatives. | 3 | 1 | 3 | L |
| 6.3 | Other buildings/facilities not leveraged/considered resulting in inefficiencies | 3 | 2 | 6 | M | SoR and project team to ensure other relevant buildings and facilities considered in overall planning for the site | 2 | 1 | 2 | L |
| 6.4 | Traffic Management issues | 4 | 2 | 8 | H | Design team to consider implications and ensure design appropriately considers all traffic management issues including access, parking, deliveries | 2 | 1 | 2 | L |
| 6.5 | Non alignment with City Centre Group | 3 | 2 | 6 | M | Ongoing consultation | 3 | 1 | 3 | L |
| 6.6 | Section 18 issues delaying/impacting on planning process | 3 | 2 | 6 | M | SoR has confirmed that Section 18 is complete and no issues remain | 1 | 1 | 1 | L |
| 7.0 | Project Delivery | | | | | | | | | |
| 7.1 | Project not delivered within target timescale. | 3 | 3 | 9 | H | Confirmation of approval timescales for appointments/contract awards and streamlined/delegated authorities to be considered. | 3 | 2 | 6 | M |
| 7.2 | Programme requires hasty brief development and poor project outcome as a result | 4 | 1 | 4 | M | It appears that adequate time is available | 3 | 1 | 3 | L |
| 7.3 | Construction Delays - The builder fails to complete the works by the deadline | 3 | 3 | 9 | H | Adopt a strict progress reporting system (e.g. Earned Value Management) to accurately track progress of works and regular reporting. Develop an conservative project timeline. Develop contingency plans and ensure contractors provide contingencies. Builders to be in receipt of complete design information to complete site progress. | 2 | 2 | 4 | M |
| 7.4 | Documentation errors result in abortive works, additional costs or delays | 3 | 3 | 9 | H | Step by step process with gateway approvals and design reviews. Contract procurement process to consider most appropriate model to suit construction market at the time. | 3 | 2 | 6 | M |
| 7.5 | Quality of finish not achieved resulting in excessive defects and ongoing maintenance issues | 4 | 3 | 12 | E | Well defined brief, accurate documentation and competent contractors. | 2 | 1 | 2 | L |
| 7.6 | Inadequate commissioning resulting in patron/staff complaints | 4 | 3 | 12 | E | Commissioning programme agreed and included within the Contract | 3 | 1 | 3 | L |
| 7.7 | Contractor goes into liquidation during works | 5 | 2 | 10 | H | Ensure during tender process that detailed reference checks are carried out, credit checks, cash flow ability, sub-contractor checks and appropriate retentions and bank guarantees are in place. Need to be aware of current risk and keenness in pricing and understanding margins. Conscious of commerciality of tender offer. | 5 | 1 | 5 | M |
| 7.8 | Construction - Market Risk - Loss or delays in contractual disputes | 4 | 3 | 12 | E | Independent Project Manager to manage and resolve contractual issues through role as Superintendent's Rep. Independent QS appointed for period of project to provide advice on cost. Industrial relations need to be allocated to builder. Relationship based Contract procurement route selected reducing risk. | 3 | 1 | 3 | L |
| 7.9 | Project Management - Inexperienced or under resourced project manager reducing delivery capacity | 4 | 3 | 12 | E | Independent and experienced Project Manager to be appointed. | 3 | 1 | 3 | L |
| 7.10 | Building Manager for centre appointed/confirmed too late in programme and opportunities lost | 3 | 2 | 6 | M | Early Identification and appointment of building manager to assist in the design process. Where this is not possible, retain contingency sums to allow for adaptation of building where practical after appointment | 2 | 2 | 4 | M |
| 8.0 | Service Delivery | | | | | | | | | |
| 8.1 | Statutory Service suppliers fail to deliver to programme | 3 | 3 | 9 | H | Establish procedure for early identification of needs and early involvement of relevant authorities with advance works as appropriate. Early advice of service requirements, loads etc. to allow sufficient supplies to be included in LandCorp servicing. Integrating with LandCorp as 'one project approach' | 2 | 2 | 4 | M |
| 8.2 | Annual facility attendances - Lower than expected facility attendances | 4 | 3 | 12 | E | Develop strong marketing plan 12 months from opening | 3 | 1 | 3 | L |
| 8.3 | Facility subsidy - Operating subsidy higher than expected | 3 | 3 | 9 | H | Engage marketing firm to develop and implement strategies Working group to be formed to address. Further review required | 1 | 2 | 2 | L |
| 9.0 | Site specific issues | | | | | | | | | |
| 9.1 | Provision of site services (power/water/sewer) result in unexpected cost impact | 3 | 3 | 9 | H | Review of entry fees to reduce ongoing subsidy Attendance targets set per month | 3 | 2 | 6 | M |
| 9.2 | Site conditions/topography results in drainage issues or additional cost of earthworks/cost to import fill | 4 | 2 | 8 | H | Early identification and consideration in concept design planning. Suitable allowance to made in business plan. | 2 | 2 | 4 | M |
| 9.3 | Inability to achieve car parking numbers on site | 4 | 3 | 12 | E | Early agreement with Landcorp over final design levels. Design and budgets to consider/make due allowance for cost of fill/earthworks/drainage | 2 | 3 | 6 | M |
| 9.4 | Inability to gain Main Roads approval for a gated delivery access to the loading dock off Damper Highway. | 4 | 2 | 8 | H | Early consideration of overflow or reciprocal parking arrangements utilising neighbour car parking facilities | 2 | 3 | 6 | M |
| 9.5 | Accessible car park location and proximity to entrance | 2 | 3 | 6 | M | Early consultation with Main Roads and engage traffic consultant to demonstrate acceptability of proposal. Alternative access could be provided either through neighbouring property or trafficable route across POS. | 2 | 3 | 6 | M |

PROCUREMENT

Local Government traditionally has a track record of delivering projects in support of its business which varies according to the scale of projects. Typical delivery methods include Traditional (Developed Design), Design-Novate-Construct or Design & Construct. All of these methods provide for very different risk profiles in terms of flexibility for change, cost certainty, apportionment of risk, and complexity of the project.

The table below demonstrates the complete range of options.

| CONSTRUCTION CONTRACT PROCUREMENT METHOD | PROJECT PHASE | | | | |
|---|----------------|--------------------|---------------|--------------|---------------------------|
| | CONCEPT DESIGN | DESIGN DEVELOPMENT | DOCUMENTATION | CONSTRUCTION | MAINTENANCE/ OPERATION |
| Traditional (Developed Design) | | | | | |
| Design, Novate & Construct | | | | | |
| Design & Construct (ECI) | | | | | |
| Design & Construct and Maintain | | | | | |
| Guaranteed Maximum Price | | | | | |
| Managing Contractor | | | | | |
| Alliance (varying models) | | | | | |
| Build Own Operate Transfer (BOOT) | | | | | |
| Privately Financed Project | | | | | |

From the available list of procurement options, the most appropriate for this project include: Design & Construct, Early Contractor Involvement and Traditional. These models should be further explored through the procurement workshop with focus on the importance of the following key criteria:

1. Current market conditions.
2. Project scale & complexity.
3. Flexibility for Client to refine/change scope.
4. Programme & time constraints.
5. Cost certainty.
6. Ability to achieve/deliver the required scope and quality.
7. Ability to control/manage stakeholders/interfaces.
8. Focus on future operations of asset and knowledge management.
9. Variation management.
10. Where and at what stage can a contractor best add value?

The following summarises when to use the three identified procurement methods:

- D&C (Design and Construct)
- Client's requirements are tightly specified before tender and do not change.
 - Contractor is better placed to manage design risks.
 - Requirement for a single point of accountability for design and construction.
 - Requirement for a fixed price contract.
 - Requirement to potentially reduce the overall project cost by giving the contractor the opportunity to contribute construction experience into the design, resulting in innovation and efficiencies.

- D&C with Early Contractor Involvement (ECI)
- Complex projects with high risk and design unknowns
 - Scarcity of available resources
 - Price certainty is paramount
 - Limited delivery time and there is a need to engage a contractor early
 - Increased opportunity for innovation
 - Project risks can be better allocated
 - Client wishes to have maximum involvement in early development phases
 - Risk of not obtaining competitive tenders using other procurement models
 - It is clear that better value for money can be achieved by involving the contractor early in the planning and design stages through innovation, cost limitations and so on.

- Traditional (Fully Documented, Construct Only)
- Scope is/can be well defined and there is little likelihood of scope creep or wholesale changes to requirements.
 - Client has strong expertise
 - Client funding is already secured
 - Innovation from contractor input limited or unnecessary.
 - Sufficient time and desire to complete design documentation prior to tendering.
 - Work is repetitive i.e. standard designs
 - Limited opportunity for bundling services/maintenance and creating whole-of-life efficiencies.
 - Large pool of potential tenderers which leads to increased competition.
 - Greater scope for competitive prices because of design certainty.

At an appropriate time, following resolution of funding matters and once SoR's programme requirements are confirmed, a detailed risk & procurement workshop will need to be undertaken to identify and consider the SoR's specific skill set against appropriate delivery measures and controls to determine the best procurement model for this project.

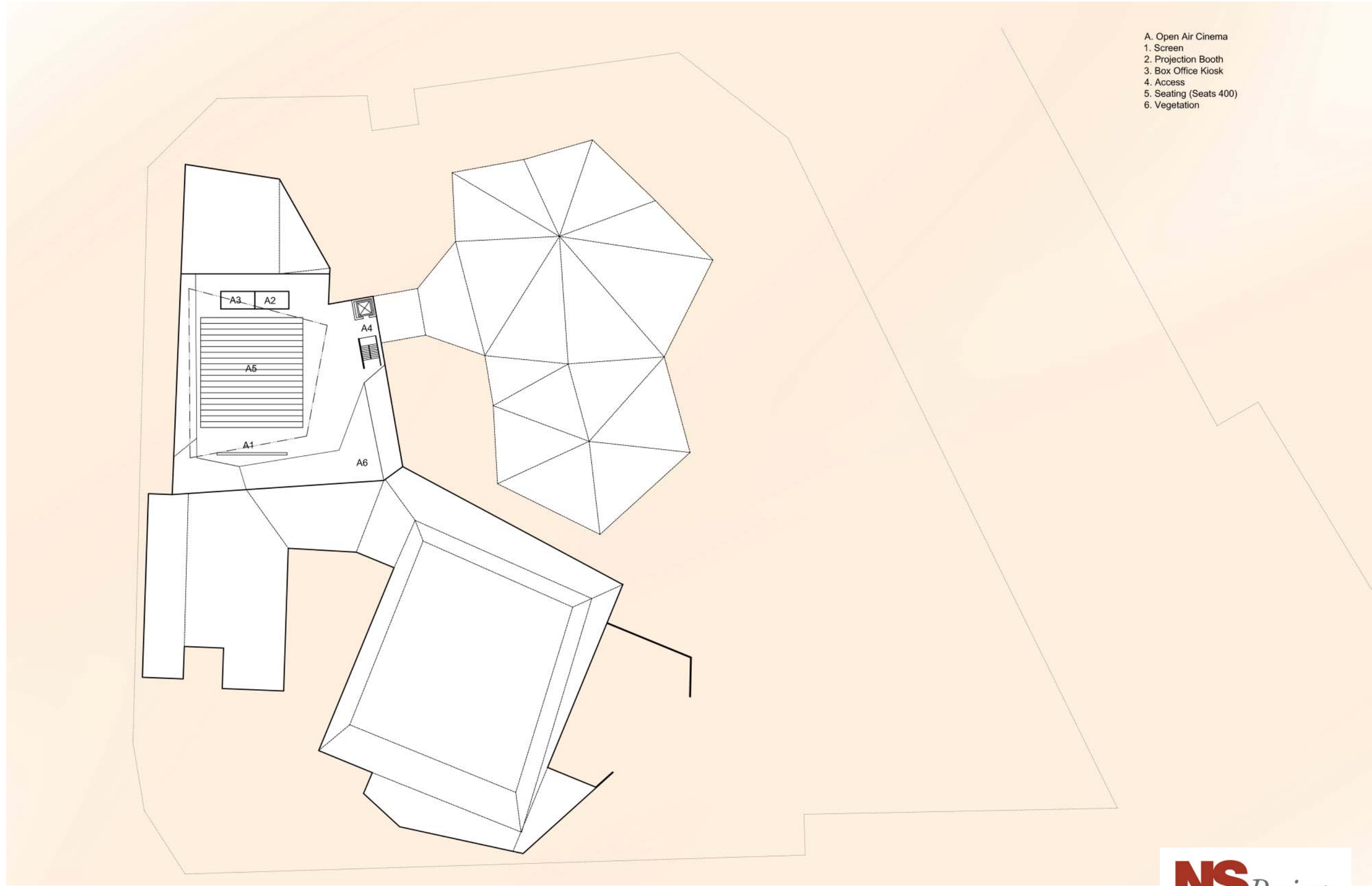
SHIRE OF ROEBOURNE KARRATHA CULTURAL PRECINCT

CONCEPT DESIGN REPORT VOLUME 2

GROUND FLOOR & SITE PLAN

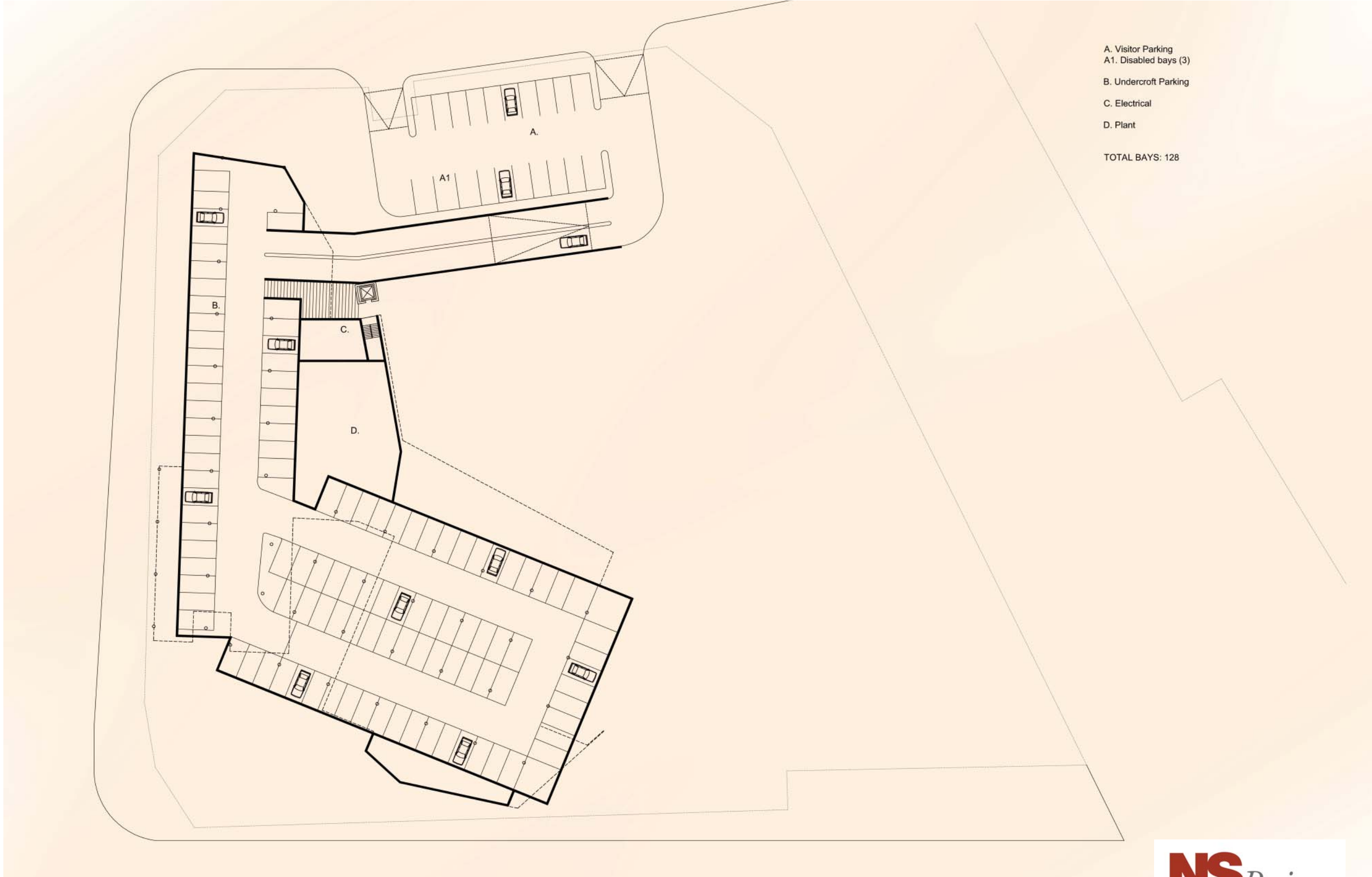


FIRST FLOOR PLAN



- A. Open Air Cinema
1. Screen
2. Projection Booth
3. Box Office Kiosk
4. Access
5. Seating (Seats 400)
6. Vegetation

BASEMENT PLAN



WEST ELEVATION



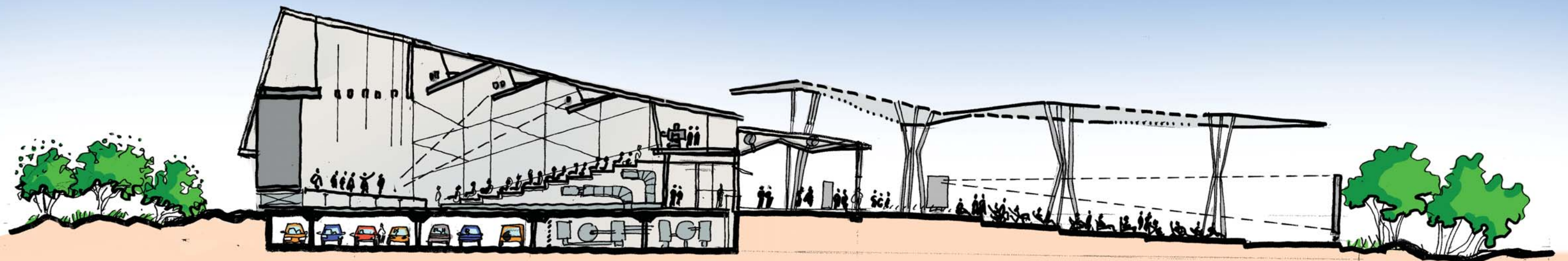
KARRATHA CULTURAL PRECINCT

SOUTH ELEVATION



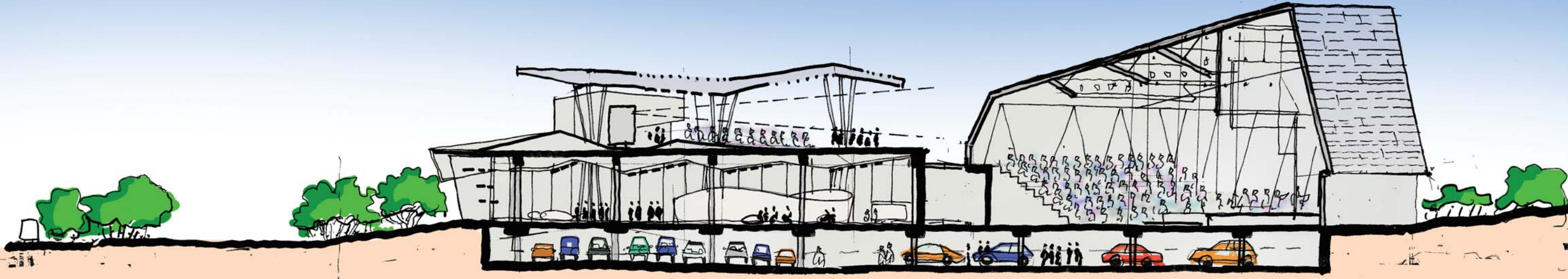
KARRATHA CULTURAL PRECINCT

SECTION



EAST-WEST
SECTION

SECTION



NORTH SOUTH
SECTION

PERSPECTIVES



VIEW FROM SHARPE AVENUE
BUILDING GATEWAY ICON SCALE

PERSPECTIVES



KARRATHA CULTURAL PRECINCT

VIEW FROM WELCOME RD
HUMAN SCALE RELATIONSHIP TO CITY CENTRE CORE

PERSPECTIVES



KARRATHA CULTURAL PRECINCT

EASTERN VIEW ACROSS AMPHITHEATRE TOWARDS FOYER & GALLERY SPACE

PERSPECTIVES



KARRATHA CULTURAL PRECINCT

VIEW FROM WELCOME RD
NIGHT PERSPECTIVE