RICHMOND VALLEY COUNCIL

CASINO CIVIC HALL

RESTORATION MASTERPLAN

stea
astute architecture

Level 1, 25 River St,
PO Box 758 Mackay Q 4740
ABN 49 061 927 731

(07) 4957 7341
mail@stea.com.au
stea.com.au

CONTENTS

INTRODUCTION

STEA and their consultant team have been engaged by Richmond Valley Council to assist Council with the creation of a Masterplan for the restoration and upgrade of the Casino Civic Hall.

This consultant team includes the following disciplines,

- Architect
- Theatre Consultant
- Acoustic Consultant
- Structural Engineer
- Electrical Engineer
- Mechanical Engineer
- Hydraulic Engineer
- Building Surveyor
- Quantity Surveyor

The nominated objectives of this commission are to develop a staged masterplan to restore this iconic building to its former art deco origins, both internally and externally. In addition to the restoration of the original architectural features an integrated upgrade of the technical services including lighting, sound system and air-conditioning to acceptable modern standards is to be investigated and recommendations provided.

The nominated deliverables required of this study include

- Identification of heritage elements and the ability/requirements to return the entire structure close to full original operational condition
- Examples of appropriate architectural elements to be included in renewal works.
- Ability to relocate public toilets to allow foyer redevelopment.
- Restoration of stage and fly away and wings of stage.
- Inclusion of a modern portable seating solution, and associated storage.
- Technology solution including sound, lighting and air conditioning proposal
- Schedule of works required, and associated estimate of costs.
- Project Plan staging works and associated timelines.

To undertake this study STEA have agreed a comprehensive methodology with Council which is detailed in the following section.

This report will be progressively published in draft form at the completion of each stage for comment and review.

The progressive draft will be amended and updated as required at the completion of each stage with the final amended an agreed document forming the Casino Civic Hall Restoration Masterplan.

METHODOLOGY

EXISTING FACILITIES REVIEW

A detailed site inspection of the existing building will be undertaken by each discipline to assess the current status and condition of the building fabric constructional components, functional areas, operational efficiency, services and its compliance to current statutory standards and modern functional expectations.

The results of these inspections and investigations will be documented by each discipline and a comprehensive review of the existing building provided that identifies the compliance of the facility with respect to statutory requirements, and the extent, condition and serviceability of the current building components and services.

In addition to this review of the existing facilities an investigation of the available historic records and information on the building will be conducted to identify the original features of the building to assist in identifying features were the restoration

PUBLIC CONSULTATION

In order to ascertain and document stakeholders, users, and the general public's views and desire for the utilisation and restoration of this important community asset our methodology includes direct discussions with current stakeholders and users as well as a consultation workshop. It is proposed that the workshop include stakeholders, facility users, Council representatives and interested members of the local public.

It is anticipated that the workshop will be conducted in the early evening, after normal work hours, with direct invitations issued to a relevant mailing list provided by Council with an invitation to the general public advertised in the local paper and posted on appropriate social media.

The aim of the workshop will be to identify and document the following:

- The Objectives of the Project
- The activities to be accommodated within the project to achieve the objectives
- identify the functional spaces, facilities and services required within the Hall Restoration to support the agreed activities.

Minutes of the consultation outcomes will be documented and circulated with recommendations of the desirable inclusions identified in the consultation to be included in the project brief.

RETURN BRIEF

Based on the initial masterplan project brief, the results of the public consultation on council's instructions on the final agreed scope of the project a draft detailed return brief for the restoration masterplan and the final scope of work to be considered will be documented and provided to Council for agreement and sign off.

When agreed and signed off this brief will be the definitive scope for the Casino Civic Hall Restoration Masterplan.

MASTERPLAN RECOMMENDATIONS

Based on the requirements of the return brief each discipline will prepare preliminary sketches, details and recommendations for the masterplan inclusions for comment and review. These preliminary sketches and recommendations will be presented to council and circulated to appropriate parties identified by council. Feedback will be documented with consultant team recommendations provided to Council for final instructions.

The preliminary proposals will be amended as required and develop into final masterplan recommendations.

ESTIMATE OF PROBABLE COSTS

The documented recommendations for the proposed scope of work and subconsultants estimates of probable costs for services and equipment will be provided to the quantity surveyor for the preparation of the overall estimate of probable costs.

A draft of this estimate will be issued to council for comment and review and when accepted the final Masterplan document will be issued.

EXISTING FACILITIES REVIEW

ARCHITECTURE

The Daily Examiner reported on Saturday, 14 September 1935 reported that the Casino Council had adopted the draft plans submitted by Grafton firm of architects for the erection of the new civic buildings at a cost of £12,000 .

The buildings were to be erected on the site of the present council property in Walker Street.

The development was to include nine public offices on the top floor of the building facing Walker Street, council chambers, administration office, committee rooms and five shops on the ground floor divided by an arcade. The development was to and extend to the rear of the site where a large dance and public Hall was to be erected

.

Two firms of architects had submitted plans and those prepared by Messer RC Ash and WB Gilbert of Grafton were accepted.

The Sun newspaper reported on 19 May 1936 that the Commonwealth Bank had undertaken to finance the loan proposal connected with the Council's £16,000 Civic Centre building scheme. It seems there was some controversy associated with the development of the hall. The Northern Star reported on 8 September 1936 that public

enquiry into Council's proposal to borrow the £16,000 to finance the project was conducted on Monday 7th September by Mr O J Moore the district engineer for the public works department.

The newspaper reports that the hall, originally to be located behind the council chambers accessed off Simpsons Lane had been relocated to the current Canterbury Street site to comply with the chief secretary's regulations regarding the mandatory street frontage width.

It also stated that Council considered its Walker Street site too valuable as a commercial precinct for the construction of the hall alone fronting Walker St. The town clerk stated that the hall would not be a commercial proposition in Walker Street as the chief secretary would not allow shops to be built with it and the land in Walker Street was too valuable for the hall alone.

Councils statement of significance for the Casino Civic Complex states that the buildings was constructed by J Schmitzer. Both sites were tendered as one project.

The Richmond River Herald and Northern Star Advertiser reported on 10 September 1937 that the hall was opened on Monday, 6 September 1937 with a Civic ball attended by about 180 couples from almost every centre on the Richmond, however the high price of admission had kept many away. The report stated;

> *Outstanding features of the new structure are the arch ceiling and modernistic stage, both of which are of artistic design. Chromium plated section strips are used across the ceiling and around the maple panelling. The actual dancing space is 4500 feet on the floor is of colour would which should develop into one of the best dancing flaws in the country. The seating accommodation is arranged in a semi-loge plan on a raised platform. An effective diffused lighting system installed throughout, and the central and stage main lighting has been tastefully blended in variegated hues.*

The original Casino Civic Hall was a single story timber framed building located on the southern side of Canterbury Street with a masonry fly tower. The original building consisted of a foyer addressing Canterbury Street, a main auditorium hall with a raised floor surround, a raised stage complete with fly tower and minimal wings, an anteroom east of the stage, two dressing rooms to the west of the stage, and a supper room with adjoining kitchen located immediately behind and at the same level as the stage.

The building was constructed in the art deco style with decorative facades to the street and weatherboard lower walls and battened flat sheet up walls to the side of the building.

He is from the available photographs and documentation that the foyer and its facade work masonry construction.

The building has a tongue and groove timber floor throughout over timber framing with timber posts.

With the exception of the masonry walls surrounding the fly tower internal walls were all. timber framed with fibrous plasterboard lining.

The main auditorium had steel trusses with timber batons and a corrugated metal roof. The arched feature ceiling to the main auditorium is fibrous plaster on timber framing.

Newspaper reports suggest that the original ceiling to the auditorium was maple panelling with chrome section strips.

Major changes from the original hall evident in the existing building are as follows;

- The original foyer with its decorative has been demolished and replaced with a brick public toilet block.
- A brick veneer has been installed around the entire outside perimeter of the building
- The decorative art deco facade to the main auditorium has been clad with colour bond mental
- the stepped-up floor around the main auditorium has been removed
- The feature maple panelling mentioned in early newspaper articles has been removed
- timber flooring to the main auditorium has been replaced
- a concrete slab has been placed underneath the stage to provide storage area for seating

The building is well-maintained and generally in good repair. A more detailed record of the existing facilities for each discipline are detailed in the following sections.

A 3D Revit model of the existing building has been constructed from existing drawings, site inspection and photographs. A copy of these drawings is included in appendix A of this document.

One of the stated objectives of this study is the restoration of the hall to its former art deco glory. It is suggested that the greatest degradation of the art deco integrity to this building is the demolition of the original foyer and facade and the construction of the existing brick public toilet block.

Further investigation is necessary to ascertain if the original art deco facade of the auditorium has been maintained behind the installed colour bond mental cladding.

Whilst the replacement of the weatherboard and flat sheet cladding to the sides of the building with brick veneer has certainly detracted from the art deco presentation of the building it is suggested that the demolition of the brick veneer and the restoration of the original cladding is impractical and would be very expensive. It is suggested that appropriate screening to the street alignment of the laneways either side of the building obstructing the view from the street sides of the building may be a more practical and cost-effective solution worthy of consideration.

THEATRE FITOUT AND FUNCTION

The hall is set up as a typical flat floor community hall with entry foyer, with public toilets. The hall has a raised stage with a fly tower over and backstage amenities linked via an ante room to a supper room used for function catering and as a rehearsal studio.

The existing theatre fit-out consisting of stage masking curtains, stage lighting system and sound system is basic and is showing its age.

The Theatre rigging system installed in the Fly tower over the Stage is substandard by todays safety standards and should be inspected by a recognised theatre rigging company that undertakes safety inspections and reporting on regional and community theatres.

The Theatre Rigging system consists of manual winch operated lighting bars and curtain bars suspended on wire rope rigging, pulleys and winches installed to the Fly Gallery to one side of the Stage.

Stage Lighting consists of three winch operated Stage Lighting Bars with simple flexible cable looms run to the Stage Lighting Patch Bay and Dimmer Rack installed at the raised Perch Platform over the side of Stage.

A Theatre Sound system has been installed in the Hall for use by hires, with a mix of speakers installed at the Proscenium and side walls each side of the hall.

The Stage Floor is in reasonable condition although the surface is showing wear and tear and requires a smooth surface for dance productions, with the potential laying of an industry standard dance floor for dance performances.

Dressing Room accommodation is typical of community halls with two reasonable sized Dressing Rooms with basic ensuite facilities at the side of the Stage. Further backstage assembly space is available at the opposite side of the hall in the ante room and supper room at the rear of the stage.

The large Supper Room is used as a stand-alone Rehearsal Studio by local dance schools and is equipped with mirrors to one wall for dance rehearsals.

In its current condition the Casino Civic Hall is suitable for hiring for presentation of a range of local events, celebrations, functions, dance school rehearsals and performances, school, community and council events. The hall does not currently attract regular touring productions although there is an aspiration to increase the regularity of such touring productions, especially if the hall has upgraded theatre and public facilities.

An upgraded Civic Hall could provide a venue that could be (re)established on the Regional Touring circuit throughout Northern NSW, assuming that the local community would support such initiatives instead of traveling further afield to see touring concerts and productions.

ACCOUSTICS

The inspection indicated that the facility currently contains two acoustically critical spaces, those being the main performance space and the rehearsal room at the rear of the building.

The hall included predominantly plasterboard walls, glazing, a curved plasterboard ceiling, sprung timber floor and some perforated acoustic panels on the rear wall. These di not appear to be effective at either reducing the reverberation time or control of slap-back echoes from the rear wall when observing from the front of the hall.

The main hall space was found to be subjectively very reverberant, which is a function of the predominantly hard surface finishes throughout. Whilst a high reverberation time can be quite beneficial for musical recital it does result in limitations acoustically for other functions of the space such as theatre and community uses.

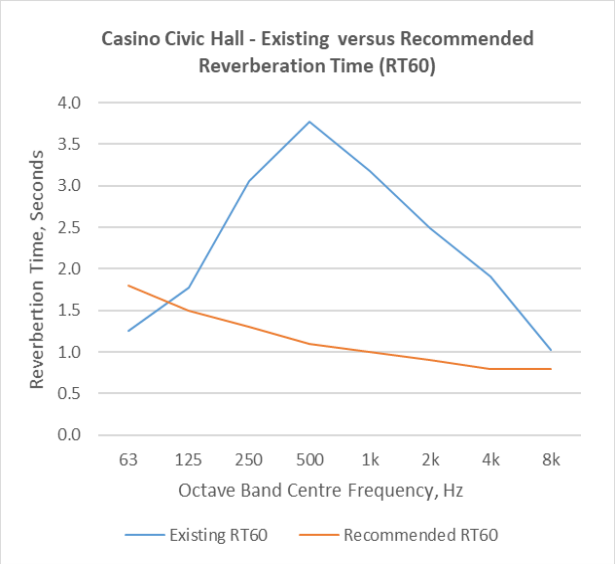
In addition to the high level of reverberation, it was found that the curved ceiling and rear wall contained predominantly hard surfaces, resulting in clearly audible slap-back echoes and reflections. This is not desirable in a multi-purpose space and can cause a loss of speech intelligibility and clarity within the space.

Reverberation Time (RT_{60}) is the time it takes for an impact sound to decay by 60 dB within a space and is a descriptor of the internal acoustic performance within a space. It does not identify specific issues such as “slap back echoes” or “dead spots” but provides an overall parameter that can be compared to a recommended value to determine an optimum overall acoustic performance for the space. A range of different reverberation times for different volumes and uses of performance spaces are recommended in Australian Standard AS 2107:2015 – Acoustics – Recommended Sound Levels and Reverberation Times for Building Interiors.

RT_{60} measurements were recorded within the main hall during the site inspection to determine the existing reverberation time and the results are shown below.

Figure 1 below shows a comparison between the recommended reverberation time for a multi-purpose space of this size and proposed use and measured results.

Figure 1: Measured versus Recommended RT_{60}.



This figure shows that the current RT_{60} is not optimum for the size and desired use of the space.

An inspection of the rehearsal space was also carried out and it was also noted to have predominantly hard surfaces. These being a timber sprung floor, plasterboard / painted masonry walls, glazed windows, a large mirrored wall and a plasterboard ceiling. It was noted that there were some curtains in the studio which may be drawn across the mirrored wall to provide some absorption in the spaces. Given the hard surfaces in this room, the expected reverberation time is expected to have a similar profile to the hall but a lower value due to the decreased volume of the room.

The inspection indicated that both spaces would benefit from provision of some additional absorption treatment to specific areas of each of the spaces.

ELECTRICAL

POWER SUPPLY

The civic hall is fed from an existing LV Over Head (O/H) network located along Canterbury St. via a 3 phase, 100A fuse service enclosure (located to the side of the building). The supply authority KWH meters and their fuse links are installed inside the same enclosure. The power supply to the building is capped at 100A.
The earthing rod (connected to the Main switchboard Earthing bar) is installed in close proximity to the supply authority enclosure (located to the side of the building).

SWITCHBOARDS

The Electrical LV distribution within the existing Civic hall currently comprises of a Main distribution Board located at a storeroom adjacent the main entry and rated at 100A.
The Main distribution board feeds a stage DB and the kitchen equipment; as well as power and lighting loads within the main hall.

The stage DB is rated at 100A and is fed from the Main Distribution board via a 63A circuit breaker (supply to stage DB is caped at 63A).
The stage DB feeds a local JANDS dimmer control panel via a 32A circuit breaker and a 40A rated 3 Phase 5-pin GPO (combined with 30mA RCD switch).

The condition of the MSB and stage DB are fair however there has been a lack in the regulatory maintenance to these switchboards in the past. Both switchboards lack RCD protection for most outgoing circuits. This poses a direct OH&S hazard to the operational personnel.

LIGHTING

The lighting within the main hall comprises of light boxes recessed into the hall ceiling. According to the Hall asset management, the light fittings within the light boxes have recently been upgraded to LED.
All the other lights within the hall comprise of a mixture of linear fluorescent light fittings, incandescent pendants, oyster fittings and recessed downlights utilising old technology fluorescent CFL lamps.
The lights are centrally controlled via selector switches integrated within the Main switchboard. Local light switches are also provided adjacent the various spaces within the hall.

Most of the light fittings appear to be in a poor condition. This includes lighting in the supper room, change rooms, cloak room, entry foyer and external canopy. The existing auditorium has wall mounted lights installed on the East and West existing pillars; these are generally in a fair condition.
Main light boxes within the auditorium appear to be at approximately 8.5 mm AFFL. Cardno understand that access to these light boxes is from the top (via the ceiling pace). Access compliance to the existing ceiling space will need to be reviewed as part of any lighting upgrade methodology.

TELECOMMUNICATIONS

The building does not currently have a telecommunications system. There is a telephone Main Distribution frame located in the Main switchboard storeroom with an existing lead-in Telephone Copper cable connected to an existing Telstra pit on Canterbury St. Size of the incoming phone cable is unknown at this stage.

SECURITY AND SURVEILLANCE

An analogue 4-channel DVR has been recently installed in the Cloak room. There is an existing CCTV camera in the main entry foyer that is connected to the CCTV DVR.

CABLE PATHWAYS

Most of the existing cables have been installed within the building fabric. Given the heritage nature of the building there might be little opportunity to install cable trays/ducts to reticulate the cables through the building (particularly the main auditorium).

EMERGENCY & EXIT SIGNAGE

The building is provided with Exit and emergency signage and an Emergency/Exit signage test facility (located adjacent the main switchboard). The exit signage generally appears in compliance with the NCC requirements. Assessment of emergency lighting coverage will need to be undertaken to ensure compliance with the minimum requirements of the Australian standard AS.2293.

SUB CIRCUIT CABLING

Some of the existing power and lighting sub circuit cables are considered non-compliant (in terms of colour coding and size) with the current version of the Australian standards. Re-using existing sub circuit cables - as part of any proposed upgrade works to the civic hall - shall only be limited and applicable to the compliant ones. existing

MECHANICAL

GENERAL VENTILATION

Current mechanical systems were limited throughout the existing facility. Mechanical ventilation was provided to the existing Auditorium via wall mounted isolating axial fans. The fans are considered in a satisfactory condition for the purpose of the intent. However it should be noted that no outside was identified on site. Outside air is required to comply with NCC.

SMOKE VENTING

One roof mounted smoke spill fan was provided over the stage area. Smoke spill fan operated via a local on/off key switch. The fan was located on the roof, therefore access at the time of the inspection wasn't available. We consider the condition of the smoke spill fan in satisfactory condition. However confirmation of the fans suitability weren't achievable at the time of the inspection. The smoke spill fan appeared to be used to assist in general ventilation of the auditorium/stage area.

AMENITIES VETILATION

Amenities contained no mechanical ventilation, natural ventilation was provided via louvres to the external walls. No filtration was provided to the rear of the louvres, therefore dust and insects would be an issue. Natural ventilation is an alternate solution however, mechanical ventilation is considered the appropriate method of ventilating commercial amenities.

HYDRAULIC

COLD WATER

The cold-water supply is fed from the water main in Canterbury Street. The supply included a water meter housed in a path box, on the left hand side of the building entry. The water meter size is assumed to be 20mm and is believed to supply all plumbing fixtures and fire hose reels.
Fixtures which are connected to the cold-water reticulations include, male and female public amenities, store room cleaners sink, dressing room amenities and kitchen.

The cold-water pipework has generally been installed within walls and floor voids. The pipework appears to be installed in copper, which is compliant with AS3500 requirements.
The size of the water supply connection may be adequate for future refurbishments. Further assessment can be conducted on water supply demands upon review of proposed refurbishment works

HOT WATER

Existing tapware within kitchens and amenities have been installed with hot water taps which may indicate that hot water had been reticulated throughout the building in the past. Currently there is no hot water on site, therefore the cold water reticulation appears to be interconnected to the hot water taps to reticulate cold water supply through all taps on site.
Should hot water be desired in the future, a suitable hot water system can be documented upon review of proposed refurbishment.

FIRE HOSE REELS

There are currently three fire hose reels installed on site. Two hose reels are installed within the Auditorium, and one hose reel has been installed within the Supper Room.
The locations of the fire hose reels provide compliant fire coverage to the overall building.
The pipework has been reticulated to the fire hose reels in copper. This may have been compliant at the time of installation. However, fire services run within non-sprinklered buildings should be run in galvanised pipe and fittings.

This requirement can be checked and confirmed with the project building certifier as a part of future refurbishment works.

The supply to the fire hose reels is assumed to be connected to the domestic water meter. If so, the domestic water meter may require upgrading to a minimum 25mm water meter assembly for compliant flows at the fire hose reels.
The fire hose reel services shall have backflow prevention valves installed to protect the potable water supply from cross connection. This can be achieved by separating the fire hose reel supply from the potable water supply at the entry point to the building and installing a testable backflow prevention valve on the fire hose reel supply at the connection point to the potable water supply.

FIRE HYDRANTS

Fire hydrant coverage is assumed to be achieved by utilising the street hydrants in Canterbury Street. The street hydrants may be used as feed hydrants to the fire brigade pumping appliance. From the pumping appliance the fire brigade can provide fire coverage with a 60m hose and 10m of hose stream.

SEWER

On site sewer is reticulated to the male and female public amenities, store room cleaners sink, dressing room amenities and kitchen. The sewer is believe to reticulate in 100mm pipework.
The installed pipe material below ground is un-known, and the condition of the existing drainage is un-known. The drain is believed to reticulate to Simpson Parade. However, CCTV is required to establish the below ground drainage material, condition and direction of flow, prior to review of potential sewer implications to accommodate future refurbishments.
A 100mm drain is expected to have suitable capacity for future building refurbishments.

STORMWATER

The existing roof has been constructed with box gutters on the front section of roof above the male and female public amenities. The remainder of the roof falls to eaves gutters at the building perimeter.

Downpipes connecting to the box gutter are reticulating to ground level concealed within walls / risers, internal to the building. Whereas, the downpipes connecting the eaves gutter to the in-ground stormwater drainage are reticulating external to the building against the outside walls. The installed pipe material below ground is un-known, and the condition of the existing drainage is un-known. The drain is believed to reticulate to Simpson Parade or Canterbury Street, where stormwater pits and grates are visible at surface

STRUCTURE

BUILDING CONSTRUCTION

The Casino Civic Hall is a single storey brick building with an additional two storey stage located towards the rear (southern end) of the hall, both with colorbond roofs over. The building consists of a front foyer with public toilets (on Canterbury Street), a main auditorium hall, a raised stage, an ante room east of the stage, a supper room behind the stage, a kitchen and two dressing rooms west of the stage.

The building previously had a brick and colorbond roofed toilet attached to the rear southern side of the supper room.

A review of documents provided about the Hall reveals the original construction of the building was generally as follows:

- Typical concrete strip footings with brick work over throughout the front foyer;
- Typical concrete slab on ground, through the foyer;
- Suspected low pitched trim deck roof over foyer;
- Concrete strip footings with two storey brick walls over around the stage perimeter;
- Raised timber framed floor with tongue and groove flooring throughout the stage area;
- Steel framed roof trusses throughout the main auditorium with a colorbond roof over, and an arched timber framed plaster ceiling below;
- Typical timber framed roof with colorbond roofing over throughout the rest of the hall;
- Timber framed external walls with weatherboard and flat sheet cladding over;
- Timber framed flooring with hardwood tongue and groove flooring over throughout the auditorium and adjoining rooms;
- Internal framed timber walls with plaster lining;
- Previous slab on ground toilet block, with brick veneer walls and colorbond roof over;
- Concrete footpaths and ramps externally.

Renovations on the building around the early 1990`s then altered the building with the addition of:

- External brick veneer walls around the hall;
- Colorbond wall cladding on the front facades facing Canterbury Street, and;
- We suspect the removal of the toilet block from the rear of the building may have occurred during this period.

In addition, replacement and relevelling of the floor throughout the auditorium and concreting under the stage occurred in 2018.

BUILDING CONDITION

The overall condition of the building, for its age, is fair. However, the inspection has revealed some localized faults, mainly around the two-storey brick stage structure.

Faults observed are as follows:

- Suspected settlement of the footings under the external stage brick walls;
- Misaligned (out of level) floors in all the rooms surrounding the stage, except the recently replaced auditorium floor;
- Cracked gyprock walls in the rooms around the stage;
- Misaligned doors and door jambs in the walls around the stage;
- Peeling paint work on the curved ceiling over the auditorium.

As requested, the rigging systems throughout the stage were also inspected during the site visit. However, as theatre rigging is not a speciality of our office, we recommend (as suggested) that a recognized theatre rigging specialist be brought in for the assessment of the current stage rigging.

ASSESSMENT OF THE BUILDING INSPECTION

Assessment of the faults show that the majority of the building is in reasonable condition. It is our opinion that the two-storey brick stage structure has experienced settlement issues over time, and that this settlement has then generated most of the surrounding faults to the adjoining rooms.

The roof void inspection of the hall has also revealed that some of the roof structure may not be adequate by today`s standards.

Therefore, in the context of assessing the building further for the Masterplan, we recommend the following additional engineering / inspections will be required:

- Geotechnical site investigation of the substrate foundation material supporting the two-storey stage structure;
- To determine the soil bearing capacity of the foundation material and to determine if underpinning of the stage footings is required.
- Inspection (under the floors) of all the out of level floors in the rooms adjoining the stage;
- To determine why the floors are out of level and to establish what condition the bears and joists are in and if there are moisture content issues.
- Review the current under floor ventilation requirements if moisture issues are detected;
- Further investigation of the structural adequacy of all the timber roof structures with the hall;
- To check their compliance with today`s standards.
- Inspection of the front façade of the building, facing Canterbury Street;
- To identify the current façade structure behind the cladding for future development.
- Review the current adequacy of stage catwalk and access ladders, by today`s standards;
- To determine if they comply and what upgrades maybe required.
- Further investigation of all stage rigging, by recognized theatre rigging specialists.
- To determine if the current systems comply and what upgrades maybe required.

BUILDING CODE COMPLIANCE

An audit of the existing civic hall's compliance with the relevant provisions of the building code of Australia 2019 volume 1 was completed by Craig Nolan of Tectonic Building.

The audit revealed that the existing premises generally complies with the relevant provisions of the building code of Australia however there are several issues which require attention in order to ensure compliance. Issues raised include the following;

- Fire separation
- protection of openings
- disability access
- stage construction
- provision of amenities.

The report also assessed the adequacy of the existing structure against the current BCA 2019 requirements. The description of the services undertaken include;

- Audit site inspection
- BCA report.

The report did not include an assessment or determination on the structural adequacy however as previously discussed such investigations and reporting was undertaken by a registered structural engineer, reported in the previous section.

Full report is included in appendix C of this document however significant issues identified and be summarised as follows;

- A number of the stage access stairs which form part of the required exit path from the building are narrower than the required 1 m
- the access ladder to the rigging loft has not been provided with the guard in accordance with the requirements of a 1657
- some required exit doors were fitted with round knobs rather than lever action handles as required by the code
- Public access ramps do not comply with the current requirements of AS 1428, Design For Access And Mobility General Requirements For Access
- provisions within amenities did not comply with the requirements of AS 1428
- compliant disability access was not provided to the stage
- compliant disability access was not provided to the raised floor surrounding the main hall
- a complying hearing augmentation system was not provided
- compliant tactile indicators were not provided
- wheelchair seating in accordance with table D3-9 of the BCA is not provided
- complying Smoke hazard management is not provided
- complying emergency warning and injured from system complying with AS 1670.4 is not provided
- provision of amenities based on national occupancy of the building a less than adequate
- there is no provision for accessible adult change facilities
- the area of the existing foyer is less than adequate based on the national occupancy of the hall's
- the recently installed care storage space underneath the stage does not mean fire separation requirements of the BCA
- the current stage rigging and egress from the fly mezzanine does not comply
- allowable load notices for the stage are not provided
- complying proscenium safety curtain is not provided
- adequate fire separation between general storeroom is not provided
- adequate fire separation enclosure for the switchboard room is not provided
- adequate electrical circuit protection is not provided
- location of light switching is not accessible to code requirements
- automatic smoke and heat venting to the stage in accordance with the code is not provided

PUBLIC CONSULATION

In order to maximise public input into this important project a consultation workshop was organised at 5:30 PM 13th June at the Casino Civic Hall.

Council provided a stakeholder and user mailing list to whom an email invitation to the workshop and explain the process and the format of workshop requesting their attendance, encouraging participation, and inviting them to give some thought to their suggestions and ideas for a project. A copy of the email forwarded in the mailing list is included in appendix C of this document.

An open invitation to the public was also posted on council's social media social media.

The meeting was attended by 25 locals who enthusiastically participated in the process. A list of the attendees is also included in appendix C

The workshop commenced with a welcome by the Mayor of Richmond Valley Council, Robert Mustow , and introduction to the project and consultant team by Andrew Leach the Manager of Asset Planning.

The meeting facilitated by Steve Turner Project architect and director of STEA astute architecture, and Richard Stuart the theatre subconsultant.

After an introduction to the project, an explanation of the purposes of the consultation workshop, and a discussion about creative thinking techniques and an encouragement for the participants to explore out of the box thoughts and ideas the meeting proceeded as a collective brainstorming activity. All ideas and suggestions were recorded on butcher paper sheets displayed at the front of the meeting.

In the first part of the meeting participants were asked to comprehensively identify the objectives of the project.

Once the list of suggested objectives is exhausted participants were requested to brainstorm the activities that should be accommodated in the restoration project to achieve the listed objectives.

When the suggestions for activities was exhausted participants were asked to identify the facilities to be provided to facilitate an accommodation the listed activities. The recorded results of the workshop are as follows:

OBJECTIVES

Stated Objectives of the commission,

- staged masterplan
- restoration of the iconic building to its former art deco glory internally and externally
- upgrade technical services such as lighting, sound and air-conditioning to acceptable modern standards

Recorded Worksop list:

- Community engagement
- Hospitality
- Adequate ablutions
- Safety
- Sustainability
- Education
- Employment
- Marketable
- Functional
- Exciting
- Inviting
- Fun
- Different
- Unique
- Restoration art deco presentation
- Security
- Accessibility
- acoustically appropriate
- services to modern expectations
- community cultural
- an architectural feature (not the shed behind the toilets)
- licensed
- promotion
- civic pride
- accessible for show bump ins
- versatile
- flexible
- adapted
- multipurpose
- comfortable seating
- good sightlines
- engaging
- multigenerational
- broad appeal
- movies/cinema
- regional unique
- warm in winter, not hot in summer
- preserving historic features
- timely completion
- feasible
- politically attractive
- regionally significant
- celebrates Casino
- civic pride
- memorable
- Instagramable
- community focused
- bridge the past to the future
- forward-looking
- crazy
- affordable
- efficiently utilise what we have
- relocate public toilets out of the hall.

ACTIVITIES

- eating
- drinking
- wedding
- balls
- movies / cinema
- visiting artists

- dance lessons
- School concerts
- Eisteddfods
- Festivals
- talent quest
- charity events
- old time music hall
- Choirs
- Bingo
- Conferences
- Displays
- Pantomimes
- Laser shows
- Roller skating
- Regional theatre
- orchestral performances
- indoor bowls
- craft shows
- boxing
- disco
- opera
- soup kitchen
- cultural activities
- Food market
- community meeting
- briefing workshops
- funeral
- wakes
- Church services
- disaster management
- gymnastics
- rockclimbing
- abseiling
- flying foxes
- markets
- classes
- yoga
- woodworking
- Anzac Day celebrations
- Australia Day celebrations
- Casino
- theme nights
- citizenship ceremonies
- cleaning
- maintenance
- rehearsals
- ticket sales
- ablutions
- training
- producing shows
- homeless shelter
- disaster accommodation
- town brass band rehearsals
- band concerts
- setting up
- activities associated with festivals
- beef with activities
- trivia nights
- games nights
- Management Centre
- Karaoke
- radio controlled cars
- model trains
- speed dating
- silk gym
- flying Circus
- Cabaret
- Theatre restaurants
- sewing activities
- pop-up restaurants
- cocktail making

FACILITIES

- Kitchen, prep and serve
- Bar
- storage areas
- tables and chairs
- power
- lights
- air-conditioning
- the air-conditioning equipment
- trolleys
- stage access
- adequate dressing rooms
- adequate toilets and showers
- adequate ventilation
- blackout facilities
- seating
- pullout raked seating
- entrance
- foyer
- ticket sales
- seating for 530
- Internet
- dance floor
- public address and sound system
- Theatre communications
- Security/CCTV
- data projector/screens
- lockable doors to toilets

- adequate permanent storage
- a safe and functional stage fit
- a good sound system
- practical stage flying system
- appropriate acoustics
- appropriate ventilation
- disco ball
- standby power
- appropriate communications/data facilities
- clean install
- management offices
- production control room
- anchor points to the ceiling
- kiosk
- access the catering services
- lifting device
- piano store

In addition to the brainstorming there was some general discussion regarding the redevelopment of the building. The view was expressed that the demolition of the existing toilets to the front of the building may not be the most sensible approach given the significant construction value of the existing facilities. It was suggested that perhaps the art deco feel could be achieved through the application of art deco features the existing structure.

There was some discussion with respect to the merit of this approach and it was suggested by the writer that such an approach was not consistent with the objective of the restoration of the original building which was one of Council stated objectives in the commissioning of consultants for the study.
It did however appear that the general senses of the participants were that the use of the hall toilets as general public toilets, should not continue and that toilet facilities provided in the redeveloped for should be exclusively for the hall use.

It was advised that the issues would be recorded in the public consultation documentation and that the final decision on the direction of the project would rest with Council subsequent to their consideration of the issues raised and the advice of the consultant.

The writer's perception of this workshop was that the participants were positive about the project and were keen to see the restored facility become a civic and cultural focus of Casino, that would be utilised and embraced by all demographics of the community.

WRITTEN SUBMISSIONS

Due to an inability to attend public consultation workshop a written submission was received from one of the stakeholder/users included on the Council provided mailing list.

The submission received from Neil McCubbin suggest that the provision of retractable tiered seating to the rear of the theatre, the provision of a Jacobs ladder cable management system to the front of house lighting, the provision of 4no additional lighting bars throughout the balance of the theatre, additional lights on stage lighting , and lighting and sound control facilities provided on the mezzanine at the rear of the hall . A copy of this submission is also included in appendix C of this document.

RETURN BRIEF

ARCHITECTURE

Based on the results of the consultation and discussions with Council officers the following scope of works was agreed to form the basis of the restoration masterplan.

- Demolition of the existing public toilets and foyer and the provision of a new foyer including appropriate amenities consistent with the original building design
- Restoration of the facade of the current hall to its former art deco expression
- Investigation of seating options to provide maximum flexibility including the provision of retractable tiered.
- Establishing the desirable hall occupancy
- Investigation of appropriate technical theatre fit including lighting sound and stage rigging
- Provision of an appropriate ventilation/air conditioning/heating system
- A review of required accessibility provisions
- Investigation of BCA compliance requirements Identified in the BCA audit
- Review of the back of house arrangements to improve stage access, amenities, dressing requirements.
- Reconsideration of the kitchen, supper hall, kiosk, bar, in general food and drink service facilities throughout the complex.
- Consideration of acoustic treatments to enhance acoustic performance of the hall.

The following detailed return brief has been prepared by for each discipline which details the scope of considerations that inform the masterplan recommendations.

THEATRE FITOUT AND FUNCTION

The hall should be upgraded to meet at least current safety and access codes as applicable to public buildings.

The hall is substantially sound and a fine example of Art Deco halls throughout Australia. It is certainly worthy of upgrade to ensure its heritage is preserved whilst meeting theatre technical and patron needs with particular emphasis on safety and equity of access for all abilities.

To facilitate the hiring of the Civic Hall by both local community theatre groups, schools and dance schools as well as professional touring productions investment is required to improve the theatre technical facilities, back of house amenities and patron comfort and amenities.

From the main patron entry at Canterbury Street through to the Supper/Rehearsal Room at the rear work is required to restore heritage features and install current technology and services to take the Civic Hall forward for another fifty years.

It is understood that it would be desirable to increase the use of the Civic Hall and that any upgrades should be prioritised against a holistic masterplan to allow funding to be sought and allocated in manageable amounts to progressively address both infrastructure and equipment requirements into the future.

Further it is recommended that the initial focus should be on safety, amenity and infrastructure as a first priority and noting that loose technical equipment can be sourced from rental companies for short term events on an as required basis until such time as all infrastructure priorities are implemented. Thus, the Civic Hall would have all require infrastructure to support local and touring productions without initial investment in a full complement of theatre technical equipment.

ACOUSTICS

REVERBERATION TIME

The Main Hall is proposed for a range of uses which impact on the required internal acoustic performance in terms of reverberation time or RT_{60}.

The recommended mid-range RT_{60} for both the performance space and the rehearsal studio have been determined from Australian Standard AS/NZS 2107-2016: "*Acoustics - Recommended design sound levels and reverberation times for building interiors*" as follows:

Performance Hall:	1.1 seconds at 500 Hz
Supper Room:	0.7 seconds at 500 Hz

INTERNAL BACKGROUND NOISE LEVELS

The following internal background noise levels apply to each space within the building"

Auditorium:	NR25
Rehearsal Room:	NR35
Foyer:	NR40
Stage Area:	NR25
BOH Areas:	NR40
Toilets:	NR45

ELECTRICAL

ERGON SUPPLY

The building power supply fuses will need to be upgraded to cater for the new mechanical air conditioning loads. An application is to be submitted through the Ergon portal.
If the maximum demand load is in excess 800A the MSB room will need to comply with AS/NZS.3000:2018 and shall have 2 egress doors.

MAIN SWITCH BOARD

The MSB shall be sized to accommodate the following:
Air conditioning loads.
New stage DB loads
Hydraulic and Fire services loads
The MSB is proposed to be located in the Store room adjacent the male toilet.
It is anticipated that the MSB will be approx. 3000Wx250mmDx2100mmH (To Be confirmed as part of the detailed design of the building)

STAGE DISTRIBUTION BOARD

The stage DB is to serve the stage AV and lighting loads.
1200mmWx150mmDx1800mmH approximately.

LIGHTING

Lighting selections will be LED and will be designed to suit the building fabric, presentation and ceiling/roof constraints.
The BOH areas are to be generally recessed, cool white fittings.
Main auditorium to have pendants spot lights (to be confirmed).
Amenities/Foyer to have LED warm lighting systems.

TELECOMMUNICATIONS

The building shall have an NBN ready Infrastructure. An application is to be submitted to NBN for fibre reticulation.
NBN NTD's to be provided to serve the minimum requirements of the building (Fire services, Telecommunications and security system – as required).
The NBN CTL is proposed to be located at the BOH store room (approx.. 1000mm Wx1000mmDx1000mmH zone).

CABLE MANAGEMENT

Cable management is to be predominantly via cable trays in the existing voids. BOH, amenities and foyer cables to be concealed as much as possible.

Atrium cabling shall be limited to wall mounted lights, GPO's and can be reticulated through the posts.

EMERGENCY & EXIT SIGNAGE

The building is provided with Exit and emergency signage and an Emergency/Exit signage test facility (located adjacent the main switchboard).
The exit signage generally appears in compliance with the NCC requirements. Assessment of emergency lighting coverage will need to be undertaken to ensure compliance with the minimum requirements of the Australian standard AS.2293. The new DB's are to have emergency lighting test facilities.

SUB CIRCUIT CABLING

All the sub circuit cabling shall be new (we would expect due to the age of the building that the existing sub circuit cables are non-compliant).

SECURITY AND SURVEILLANCE

The building shall have a CCTV system covering the main entries and exits (and in liaison with the council requirements). Security brief to be sought from council during detailed design.

MECHANICAL

GENERAL

The purpose of this document is to provide a guide in understanding the features of mechanical systems that is proposed for Casino Civic Hall.

In general the concept would be to utilise standard commercial equipment, with higher performances, enhance the operations through the use of simple strategic design initiatives.
For a facility of this nature and, with a significant cooling load during the peak cooling season, and accurate temperature and humidity control in large functional high occupancy areas, we consider that cooling by chilled water is the best solution. Chilled Water systems provides more flexibility of future use and long term sustainability and extended life cycle.

Back of House areas require less strict cooling demand therefore it is desirable to operate minor DX style VRV cooling systems completely independently of the main plant. These areas include Dressing Rooms, Supper Rooms and 24/7 operation such as Comms Rooms and MSB rooms utilising DX refrigerant air-conditioning systems.

SENSITIVITY TO ARCHITECURAL DESIGN

The mechanical services shall be installed in an unobtrusive manner that does not detract from the architectural appearance nor reduce the amenity of the facilities, existing key architectural internal features or adjacent areas.
This requirement shall extend to all aspects of the installation including but not necessarily limited to location, route, fixing, spacing, noise, vibration, size, colour, shape and finish.
Mechanical services shall be arranged to ensure adequate protection from vandalism and tampering.
When viewed in plan, conduits, ducts, tray, cabling and the like shall generally run parallel or perpendicular to main building grid lines.

MECHANICAL VENTILATION

Toilets amenities including cleaner's rooms are all served by mechanical ventilation systems.
Storerooms throughout the facility shall be mechanically ventilated on separate systems to the amenities.

HYDRAULIC

GENERAL

The intent of this document is to outline the proposed strategies for providing hydraulic services, including drainage, water and fire hose reel services where required for the refurbishment.

The general intent is to utilise the existing plumbing and drainage infrastructure where possible to avoid excessive plumbing and drainage works for the refurbishment.

SEWER

The new plumbing fixtures shall be connected to the existing sanitary drainage as close as practicable to the proposed plumbing fixture locations. The proposed connection points and the extent of works required will be subject to the depth and condition of the existing drainage.

WATER

The existing water supply including the connection shall be replaced to ensure the water supply has sufficient performance for the domestic and fire hose reel supplies. New reticulation pipework shall be provided to all new plumbing fixtures.

FIRE HOSE REELS

The existing water supply including the connection shall be replaced to ensure the water supply has sufficient performance for the fire hose reels. New reticulation pipework shall be provided to all new fire hose reels.

FIRE HYDRANTS

The proposed fire hydrant coverage shall be supplied from the existing street hydrants in the street frontage. Flow and pressures tests are required on the water main to ensure the hydrant performance requirements are achieved.

STRUCTURE

The structural report did not identify any major structural issues or noncompliance that needed to be addressed or upgraded. Any additions or extension of the existing building will be constructed to current standards and building code requirements.

BUILDING CODE COMPLIANCE

The inspection of the existing building by the building surveyor identified a number of issues with respect to the compliance of the existing building with the current national construction code .

There is no statutory requirement to upgrade an existing building to the current building code unless major changes and renovations are proposed.

Accordingly the extent of upgrades anticipated as required due to the extension and amendments proposed in this masterplan will be identified and the scope of works deemed necessary to obtain a building approval at the time of redevelopment included in the Master plan and estimate the probable costs .

MASTERPLAN RECOMMENDATIONS

ARCHITECTURE

As anticipated by the return brief the major architectural component of the masterplan recommendations is the demolition of the of the brick foyer and public toilets constructed on the front of the hall and the construction of a new foyer containing adequate foyer space, toilets, store and a kiosk consistent with the design presentations of the original hall.

The photograph below along with some drawings of the original hall were used in establishing the original design.

Whilst functional requirements, modern expectations compliance with the current national construction code necessitated a foyer area greater than the original foyer, the architectural form and the art deco expression of the original façade has been replicated as closely as possible.

The width of the foyer on the street alignment, and the fenestration and architectural decoration of the original facade has been reproduced.

The design proposes the removal of the car parks immediately in front of the hall, to allow the widening of the footpath for the construction of a new staircase and disability access compliance ramp to the entry of the entry.

To accommodate the necessary additional area and amenities required the rear section of the foyer has been widened to extend beyond the facade of the auditorium.

Whilst this is not consistent with the original foyer design, appropriate art deco proportions and fenestration have been included. The design proposes landscape planters between the extension and the street alignment which will have the effect of substantially concealing the non-original extension thereby maintaining a more original street presentation to the new foyer.

This new foyer area also provides mezzanine plant areas above the proposed amenities to accommodate air-conditioning air handling units to provide air-conditioning in the auditorium. The height of the facade is sufficient to accommodate the proposed air-cooled chiller plants to be installed on platforms above the new foyer roof.

This proposal also has the advantage of providing some street infill to the existing open areas on both sides of the building which currently provide a less than attractive presentation to the street.

The provision of aesthetically appropriate screening fences, with appropriate fire egress doors, to infill the remaining gap between the extended foyer and the adjacent buildings on both sides will significantly enhance the street presentation. This feature will also provide effective visual screening to the brick veneer cladding and escape staircases which were not part of the original design and attract considerably from the art deco presentation of the building.

As also required by the return brief the concept plans include the provision of retractable seating, concealed in enclosures against the back wall of the auditorium when not in use, which incorporates a small mezzanine for a control desk above the auditorium entry from the foyer.

Other proposed modifications that the architecture of the building include a reconfiguration of the supper hall and kitchen behind the stage, to allow the provision of a loading dock and enhanced access to the stage for the bump in and out of touring productions.

Some architectural modifications are also proposed to enhance the accessibility throughout the building making it more consistent with modern expectations and the requirements of the current national construction code.

Concept plans and perspective drawings of the proposed modification and additions are included in appendix C of this document.

THEATRE FITOUT AND FUNCTION

The hall requires an extensive upgrade to address safety in the first instance with future options that can be implemented to progressively expand the functionality of the hall in response to growth in community and hirer demand.

It is recommended that initial works should focus primarily on safety and general amenity with further technology upgrades proposed as a series of future projects that Council can manage subject to individual or grouped funding allocations.

Theatre related components for inclusion in proposed upgrade works as detailed by others to include:

- Enhance Main Foyer “Entry Statement”
- Resolution of public versus Civic Hall only amenities
- Foyer Bar/Kiosk
- Auditorium Entry Doors with Sound and Light Locks
- DDA compliant access to the Main Hall and to the Stage
- Air Conditioning to Auditorium
- Devise a standard Theatre Seating Layout for use by hirers, with code compliant configurations of temporary seating on the flat floor that maximise sight-lines to the Stage
- Upgrade to the Supper/Rehearsal Room to allow greater flexibility of use
- Consideration of provision of Wheelchair access from the Auditorium and Supper Room to the Stage level

Theatre technical related infrastructure components for inclusion in proposed upgrade works listed by the Theatre Consultant to include:

LIGHTING

Auditorium House Lighting to create a theatrical ambience as well as general purpose lighting.

A new House light installation in the Hall will create a theatrical ambience for events and performances where a theatrical mood is desirable rather than the brighter general lighting required for less formal events and gatherings.

It is recommended that a lighting installation using energy efficient LED lights with a colour temperature of 3000 Kelvin is deployed to achieve the required theatrical ambience and with a programmable dimming control system to allow a variety of preset lighting “looks” to be programmed.

RETRACTABLE THEATRE SEATING

Design for future installation of Retractable Theatre Seating for improved sight-lines to the Stage for theatrical productions, should the usage of the hall move more towards formal theatrical rather than flat floor configuration.

The installation of Retractable Seats will provide improved sightlines to the Stage and greater comfort for patrons attending performances and concerts in the Hall.

The choice of a suitable Retractable Seating system must include the facility to “drive” the bank of Retractable Seats forward from the rear wall of the Hall several metres towards the Stage,

creating a secondary circulation space between the rear of the Seating bank and the front Foyer for patrons to mingle.
It is recommended that two banks of good quality and comfortable Retractable Seats are installed at the rear of the hall and to each side of the main doors.

It is noted that investment in a high-quality Retractable Seating system is warranted to avoid complications with cheaper but less stable seating systems that tend to be noisy in use and a cause of concern to patrons.

CONTROL DESK PLATFORM

Installation of a Control Desk Platform at the rear of the hall for setting up portable Sound, Lighting and Audio/visual Control Desks with a clear view to the Stage.

To allow greater production values for theatrical performances and concerts it is proposed to construct a raised Technical Control Platform at the rear of the Hall and spanning the main doors to the Foyer.

A steel framed planform with compliant handrails would provide a suitable area for Lighting, Sound and Audio/visual Control Desks to be located on a bench and with technical infrastructure circuit patching linking Control Desks to equipment at the Stage.

Access stairs to the Control Platform will be required from one side of the Hall, noting that the stair and walkway access system must be clear of the Retractable Seating system when stored against the Rear Wall and that such access stair access is limited and not fully compliant with DDA legislation.

FOLLOW SPOTLIGHT PLATFORM

Installation of a Follow Spotlight Platform high above the entry doors to the hall.

As the scale of productions staged in the Hall grows a Followspot Platform should be constructed over the Control Desk Platform to provide an optimum position to locate a Follow Spot used to spotlight performers on Stage from the rear of the Hall.

Access will be required up to the Follow Spot Platform, perhaps with a compliant ladder up from the control Desk Platform below, noting that such ladder access is not fully compliant with DDA legislation.

A Follow Spot Platform is considered a desirable rather than essential item for the Hall at Day 1 but may be required as demand and scale of production increases.

STAGE FLOOR SURFACE

Upgrade and repair to the timber Stage Floor Surface with a Weathertex top surface painted low sheen Black for hard wear and tear and to the required BCA 7.5kPa floor loading (noting that a resilient stage floor surface is desirable and to allow for the laying of a portable vinyl Dance Floor covering for dance performances.

The existing Stage Floor is worn and in need of either refurbishment or ultimate replacement.

The timber flooring once levelled and sanded should be covered with a layer of Weathertex sheeting screwed (not glued) to the timber over the entire Stage floor area to create a smooth Stage surface suitable for dance and ballet, painted in a low sheen Black wash and wear paint finish.

The hard wearing Weathertex surface gives a good industry standard Stage Floor to take the hard wear and tear of setting up and dismantling stage scenery, props, band instruments, rostra, furniture, pianos and the like that are used in theatre productions and concerts.
The Weathertex floor surface is also suitable for contemporary dance especially Tap Dance due to its smooth surface.

A portable Dance Floor covering should be available for use by dance and ballet schools and hirers as an alternative to the Weathertex Stage floor surface, particularly for classical ballet with dance lifts and Pointe work.

Typically, either Tarkett or Harlequin brand vinyl Dance Floor is used to lay out and tape in place on the Stage Floor as required for ballet production use.

It is recommended that a stock of four to five rolls of Vinyl Dance Floor material is purchased for use on the Stage in the Hall.

Standard Gaffer Tape in a colour to match the colour of the Dance Floor is used to tape the unrolled sheets of Vinyl Dance Floor in place on the Stage.

Depending on the programmed use of the Hall it may be determined that the Vinyl Dance Floor stays in place on the Stage most of the time and is only removed on those occasions where scenery, props, rostra or bands may damage the Dance Floor.

FRONT OF HOUSE STAGE LIGHTING BAR

Upgrade to the FOH Stage Lighting Bar in the Auditorium with an initial safety inspection, report and upgrades to ensure the current system is fully compliant.

The existing FOH Stage Lighting Bar system, whilst operational in a rudimentary sense, is not up to industry standard for community theatres and public halls, particularly when located over the heads of the public in the Auditorium.

The design of the single Stage Lighting Bar installed with two separate manual winch line sets is not in line with best practice for installation of such Winch Line sets in that the single line operation can lead to the Lighting Bar getting out of alignment resulting in excessive load transferred to the one winch.

It is recommended that in the first instance an inspection and upgrade is undertaken to make the existing FOH Stage Lighting Bar safe and compliant.

Further, there is no Cable Management system for Stage Lighting and DMX circuits feeding the FOH Stage Lighting Bar, other than a stretched flexible cable loom fed via a corner of the Proscenium to the Lighting Bar from the Dimmer Rack zone backstage which is not satisfactory for a semipermanent installation.

An industry standard energy chain cable management system from the Stage Lighting Bar up to the ceiling should be installed as part of the safety upgrade to the FOH Stage Lighting Bar.

Ideally, the FOH Stage Lighting Bar would be upgraded to a fully compliant Motorised Winch system with Energy Chain Cable Management system and with fixed Stage Lighting Circuit and DMX/Data Circuit wiring installed and with a Remote Control to operate the FOH Stage Lighting Bar Winch from the Side Stage and with visual line of sight to observe the raising and lowering of the lighting bar.

As part of planning for greater theatrical and event use of the Hall consideration is given to installation of additional FOH Stage Lighting Bars to the ceiling of the Hall at locations that provide improved and flexible Stage Lighting angles but that also sympathetic to the historic Art Deco architecture of the Hall Ceiling.
It is recommended that any upgrade to the FOH Stage Lighting Bar system is undertaken in conjunction with upgrades to the House Lighting and/or Air Conditioning in the Hall as one fully coordinated project in the masterplan.

THEATRE RIGGING SYSTEM

The existing Theatre Rigging System over the Stage, whilst operational in a rudimentary sense, is not up to industry standard for community theatres and public halls.

The Theatre Rigging System over the Stage requires an initial safety inspection, report and safety upgrades to ensure the current system is fully compliant.

In the first instance the Theatre Rigging system installed in the Fly tower over the Stage should be inspected by a recognised theatre rigging company that undertakes safety inspections and reporting on regional and community theatres (HME Services in NSW or Theatre Safe Australia in

QLD undertake such safety inspections for local authorities).

If nothing else is done Council should have a Safety Inspection undertaken and provide funds to bring the current Theatre Rigging system up to safe operational standard, especially if unauthorised personnel are to be allowed to use the system when hiring the Hall.

Upgrade to the Theatre Rigging System to allow greater flexibility of rigging with the installation of additional motorised hoist line sets for use by local and touring productions.
The existing Theatre Rigging system is only just adequate to provide a basic Stage Masking Curtain system (Stage Masking side Leg Curtains, overhead Masking Borders, Rear Traverse Curtains "Tabs") with two additional manual winch lines allocated for Stage Lighting Bars but with limited capacity or cabling infrastructure.

The existing Grid over the Stage appears to have structural integrity to support the proposed loads of a modest Theatre Rigging system subject to review.

It is recommended that any upgrade to the scope of the existing Theatre Rigging system is checked by the Structural Engineer to ensure that any new applied Rigging loads are within design tolerances for the Fly Tower and Grid structure.

It is recommended that the Theatre Rigging system is completely upgraded to use a mix of industry standard Manual Hand Operated Brake Winch Line Sets to suspend the Stage Masking Curtains, Hirers Backcloths and White Cyclorama cloth and Motorised Winch Line Sets to suspend new wired Stage Lighting Bars over the Stage.

New Stage Lighting Bars over the Stage would comprise a system with either Energy Chain Cable Management system or trailing cable looms and with fixed Stage Lighting Circuit and DMX/Data Circuit wiring installed and with a Remote Control to operate the Stage Lighting Bar Winches from the Side Stage and with visual line of sight to observe the raising and lowering of the lighting bars.

It is proposed that all manual and Motorised Winch Line Sets would be installed to the side wall of the Fly Tower at the upper Fly Gallery level in a fully compliant installation, leaving the limited side stage area to each side of the Stage clear for performers.

A typical Theatre Hanging Plot, to basic Regional Theatre Benchmark standard for an 8m deep Stage, would provide the following Theatre Rigging items installed:

- 00mm - Proscenium Wall
- 200 - Main Curtain Track - House Curtain Track installed to Proscenium Wall
- 400 - Proscenium Border - Manual Winch Line 250 kg **Note 1*
- 800 - Stage Lighting Bar #1 - Motorised Winch Line 500 kg
- 2000 - Masking Border #1 Manual Winch Line 250 kg – **Note 1*
- 2200 - Masking Legs #1 Manual Winch Line 250 kg – **Note 1*
- 2200 - Projection Screen - Motorised Projection Screen (Dead Hung from Grid, between Leg Curtains)
- 2600 - Stage Lighting Bar #2 - Motorised Winch Line 500 kg
- 3400 - Hirers Backcloth - Manual Winch Line 250 kg (Future)
- 4000 - Masking Border #2 - Manual Winch Line 250 kg – **Note 1*
- 4200 - Masking Legs #2 - Manual Winch Line 250 kg – **Note 1*
- 4400 - Mid Traverse Tabs - Manual Winch Line 250 kg – **Note 1*
- 4800 - Stage Lighting Bar #3 - Motorised Winch Line 500 kg
- 5400 - Hirers Backcloth - Manual Winch Line 250 kg (Future)
- 6000 - Masking Border #3 -Manual Winch Line 250 kg – **Note 1*
- 6200 - Masking Legs #3 - Manual Winch Line 250 kg – **Note 1*
- 6600 - Stage Lighting Bar #4 - Motorised Winch Line 500 kg
- 7000 - Rear Traverse Tabs - Manual Winch Line 250 kg – **Note 1*

- 7400 - Hirers Backcloth - Manual Winch Line 250 kg (Future)
- 7600 - Hirers Backcloth - Manual Winch Line 250 kg
- 7800 - White Cyclorama - Manual Winch Line 250 kg
- 8000 - Rear Stage Wall

Note 1 – If Structural limitations preclude the number of Winch Line Sets installed these items could be Dead Hung from the Grid

This Hanging Plot is typical of a neatly presented (masked) Stage to the Audience with side and overhead curtains set in a symmetrical layout to provide four entrance/exits to the Stage on each side and with Stage Lighting Bars located at regular intervals over the Stage and with the option to have a rear curtain, hirers backcloth or white Cyclorama cloth at the rear of the Stage.

As use of the Hall increases in time additional Winch Line sets could be added for greater functionality and higher production standards.

THEATRE WORKLIGHTS

Upgrade to the current poor Theatre Worklights to provide energy efficient lighting system of White light for safe working light levels during set-up and rehearsal and Blue Lights in all relevant backstage areas as safety lighting during performances.

Worklights in backstage areas are almost non-existent and must be upgraded to ensure appropriate general Worklight levels during set-up and maintenance plus there is a need to have suitable Blue Lights to guide performers in darken backstage areas during performances.

Areas in the Stage Grid and Fly Gallery and any storage area such as below the stage require appropriate worklights installed and controlled at a master switch panel at the Stage Manager Desk location.

High power LED floodlights should be installed to provide bright light levels for set up and rehearsal to avoid using the Stage Lighting system.

POWER DISTRIBUTION SYSTEM

Upgrade to the Power Distribution System to provide increased Power Supply to the Stage area for Lighting, Sound, Audio/visual and Temporary Rigging equipment.

A schedule of power supply requirements to feed Stage Lighting, Winches, Audio and other theatre technical systems has been provided to the Electrical Consultant for incorporation in the Electrical Power Supply required for the refurbished Hall.

The Electrical Consultant will provide Switchboards at key locations for Theatre Technical systems in consultation with the Theatre Consultant.

TECHNICAL INFRASTRUCTURE

Upgrade to the Technical Infrastructure - Sound, Lighting, Audio/visual, Headset Communications infrastructure wiring to enable safe and efficient connection of loose theatre equipment at all required production locations.

Existing Technical Infrastructure wiring is very basic and needs a comprehensive upgrade to bring it up to modest Benchmark standards for a small to medium sized Community Theatre or Civic Hall.

A new Technical Infrastructure plan will provide essential technical circuits wired from Equipment Racks backstage and at the Control Platform to key technical locations to allow the operation of the following basic technical theatre systems:

- Stage Manager Desk and Technician Headset Communications
- Back of House and Foyer Paging
- Sound - Mixing Desk and associated Playback equipment
- Sound – Microphone Circuits
- Sound - Radio Microphone Circuits
- Sound – Amplifiers
- Sound – Speaker Circuits
- Stage Lighting - Control Desk
- Stage Lighting – DMX/Data Network Circuits

- Stage Lighting - 10A Lighting Circuits and Patch Panel
- Stage Lighting – Dimmer/Relay Racks
- Audio/visual – Vision Control Desk
- Audio/visual – Projector
- Audio/visual – Projection Screen
- Audio/visual – Lectern for Meetings and Presentations
- CCTV – Stage View Camera
- CCTV – TV Monitors in Foyer, Dressing Rooms, Ante Room and Supper Room

DRESSING / CHANGE ROOMS

The two existing basic Dressing/Change Rooms to the side of the Stage require a general upgrade to bring these rooms up to Benchmark standard with energy efficient mirror lighting, vinyl flooring, repainting, upgraded plumbing and provision for air conditioning.

Theatre related equipment components for inclusion in proposed upgrade works to meet modest Benchmark standard for Regional Theatres and Civic Halls will include:

STAGE MANAGER DESK

Stage Manager Desk and Headset Communications system for technical communication to all technical work areas.

An industry standard compact Stage Manager Desk should be provided at the side stage adjacent to the Proscenium and Main Curtain from which the Stage Manager calls cues to technicians and calls performers and musicians to the stage.
The Stage Manager Desk (SMD) houses the Headset Communications system Master Control Panel and Paging Panel for the Paging system to FOH and BOH. A TV monitor is mounted to the top of the Stage Manager Desk so the Stage Manager can see the action on stage from an audience perspective.

The Stage Manager Desk has an umbilical cable loom connecting it to a technical panel on the side stage wall.

PAGING SYSTEM

Paging System with Foyer speakers for paging patrons to the auditorium and Back of House speakers for paging performers to the stage.

The Paging System is an industry standard Digital Paging system (Bosch or Digipage or similar) that allows for microphone inputs from the Stage Manager Desk to be routed to Speakers in the backstage areas or from the Foyer Kiosk to be routed to Speakers in the Foyer and public amenities, for providing a clear and audible paging signal to all selected areas.

Further a Show Relay Microphone mounted in the Auditorium provides an audio signal of the action/activity on the Stage that is fed to the Paging system so that patrons in the Foyers and Performers backstage can hear the action on Stage.

The Paging Calls mute the Show Relay sound so that Paging Calls cannot be missed.

The signal from the Show Relay Microphone is also split to be used to feed audio into the Hearing Assistance system to meet Code requirements (covered in the Electrical Specification).

STAGE MASKING CURTAINS

Existing Stage Masking Curtains must be inspected for compliance with Code requirements to meet Fire Indices.

Subject to the extent of upgrade or expansion of the Stage Masking Curtain system existing Curtains may be repurposed or replaced at the time of upgrade.

New Stage Masking Curtains will be required to facilitate the upgraded Hanging Plot to meet Benchmark standards for modest Regional Theatres and Civic Halls.

New Stage Masking Curtains should use only inherently flame retarded fabric such as Black Wool, apart from the White Cyclorama Cloth that is a specialist seamless White Cotton Filled Cloth

used to create the infinity sky effect at the rear of the stage action.

The Theatre Consultant should produce a set of drawings for the Stage Masking Curtain layout once a plan of action is adopted for the upgrade project.

HOUSE CURTAIN UPGRADED

The existing Main Curtain ("House Curtain") is a heavy cotton Velour curtain that has been in place in the Hall for some time.

It was proposed to retain the Main Curtain and its French Action Curtain Track installed at the Proscenium Opening.

The Draw Cord rigging for the Main Curtain required replacement with a new system that has the sash Cord ropes run out of view from the Audience either through raising the physical Curtain Track or installation of a new matching fabric pelmet to the rear of the upper cut-out section of the Proscenium Opening thus masking the curtain Track from Audience view.

STAGE LIGHTING CONTROL SYSTEM

Provide a Stage Lighting Control Desk with a minimum of 1,000 channels with up to 4 streams of DMX signal to control Stage Lighting Dimmers/Relays to feed Conventional, LED and Automated Stage Lighting Fixtures.

Provide a DMX/Data Network and DMX Splitters to provide data control signal over Ethernet cabling between the Control Desk, Dimmer/Relay Racks and Stage Lighting Fixtures.

STAGE LIGHTING DIMMER/POWER CONTROL SYSTEM.

Provide Stage Lighting Dimmer/Relay Racks (minimum 48 channels, expandable to 96 channels) to feed Stage Lighting Circuits at Stage Lighting Bars and Field Outlets.

Provide a Stage Lighting Patch Lead Panel system to allow flexible patching of all infrastructure 10A Stage Lighting Circuits (minimum 100) and DMX/Data Network Circuits.

STAGE LIGHTING SPOTLIGHTS AND FLOODLIGHTS

Provide a compliment of Stage Lighting fixtures including Profile Spots, Fresnel Spots LED Par Spots, LED Cyclorama Floodlights and associated hardware and accessories for a basic stage lighting system at Day 1 operation and that can be augmented by Council as funds permit, noting that with the required wiring infrastructure in place hirers of the Hall can also provide additional equipment from rental companies.

Provide for the use of Automated Profile and Wash Lights (Moving Lights) within the Stage Lighting rig although these high cost items may be deferred as a "desirable items" that can be sourced from rental companies at direct cost to Hirers.

Allow for a minimum initial complement of forty (40) Stage Lighting Fixtures to provide an even stage lighting coverage of the Stage and Cyclorama at Day 1, that can be augmented as required on a show by show basis.

SOUND MIXING

An industry standard modest Sound Mixing Desk should be provided to meet the sound requirements of most local and touring concerts and productions staged in the Hall, together with a Digital Multicore Network, Stage Boxes and associated equipment to ensure a high standard sound mixing system is available to hires of the Hall.

A typical digital Sound Mixing Desk (Yamaha, Allen and Heath, Soundcraft or similar) suitable for most small to medium scale events, productions and concerts staged in the Hall would have a minimum of 24 Input Channels and 8 Outputs plus Monitor Outputs.

SPEAKER SYSTEM.

A suitable industry standard Speaker System should be provided to ensure excellent sound reinforcement to patrons sitting in all areas of the Hall, with main Speakers located left and right of the Proscenium and with supplementary "Fill"

Speakers at other locations should computer modelling of a proposed Speaker System deem this necessary.

FOLDBACK SPEAKERS

Portable Foldback Speakers should be provided for musicians and soloists performing on the Stage, with associated hardware and flexible cables to allow for a variety of configurations in usage.

Microphones

A complement of industry standard Microphones Microphone Stands and flexible Microphone Cables is required for use by presenters, soloists, choirs and musicians. An initial stock should comprise 12 Microphones of assorted types plus an industry standard suitcase to store the microphones in securely.

Musical Instrument Direct Input devices (DIs) are required to connect guitar amplifiers and musical instruments to the Sound Mixing Desk. An initial complement of 4-6 DIs should be provided.

RADIO MICROPHONES

Radio Microphones are required for Presenters and Solo performers in the Hall.

A dual channel industry standard (Shure) Radio Microphone system should be provided together with hand-held Microphones, Headset Boom Microphones, Transmitters, Receivers and Aerials and associated hardware and cabling to make a complete system at Day 1.

AUDIO/VISUAL PRESENTATION CONTROL SYSTEM

An Audio/visual Presentation system (Crestron or similar) allows for all AV equipment to be routed and pre-programmed to be operated from a central Touch Screen Panel (as in a meeting room) for ease of user groups and to contain technical staff costs.

In a typical installation the AV Lectern, Projector, Motorised Projection Screen, Playback devices and Audio system are all interfaced through the AV Presentation Control system to make for seamless and easy to use AV facilities.

An AV Presentation system may be considered a desirable system, although cable infrastructure should be installed to facilitate installation of the AV Presentation equipment in the future.

DATA PROJECTOR

A high-powered Data Projector (around 10,000 Lumens output) should be provided to allow for meetings, seminars, presentations and production use of projection together with the ability to screen video, live TV or films on occasion in the Hall.

The Projector should be mounted at the rear of the hall, above the Control Platform, where it can be readily accessed and provided with an acoustic noise enclosure if required.

The Projector should have a high-quality lens to provide the chosen image format to the Projection Screen.

PROJECTION SCREEN

An industry standard Motorised Projection Screen should be provided, installed over the Stage amongst the Stage Masking Curtains where the Screen Roller Box can be masked from view.

It is recommended that a Screen Technics 220-275-inch Motorised Projection Screen would be suitable for the application in the Hall.

The Projection Screen Motor Roller Box would be suspended on chains or wire ropes from the Grid over the Stage and have flexible power and data cables run as trailing cables to an outlet panel at a suitable location on the side stage wall or Fly Gallery.

CCTV STAGE VIEW CAMERA RELAY SYSTEM

A Stage View Camera located at the rear of the auditorium in the centre provides a colour picture of the action on the Stage for relay to TV Monitors located throughout the building.

A compact (security dome style) Digital Remote-Control Camera, Remote Camera Control Panel

and Camera Signal distribution (possibly using IPTV technology) is used to provide the signal to TV points as required.

The Remote-Control Camera can be refocused and zoomed to suit the variety of set up configurations for productions, concerts and events staged in the Hall.

TV MONITORS

TV Monitors are located in the Foyers, Supper Room, Ante Room Dressing Rooms and backstage assembly areas so that patrons and performers and staff can see what is happening on stage from remote locations.

TV monitors in the Foyers are used for latecomers to watch the action on stage until a suitable break in the action when they may be admitted to the auditorium.

Although TV monitors may be deferred from installation at Day 1, infrastructure circuit wiring should be installed in readiness for TV Monitor installation.

DANCE FLOOR

A portable vinyl Dance Floor (Tarkett or Harlequin brand) covering should be available for use by dance schools, ballet schools and hirers as an alternative to the Weathertex Stage floor surface, particularly for classical ballet with dance lifts and Pointe work.

It is recommended that a stock of four to five rolls of Vinyl Dance Floor (black or dark grey colour) material is purchased for use on the Stage in the Hall.

Standard Gaffer Tape in a colour to match the colour of the Dance Floor is used to tape the unrolled sheets of Vinyl Dance Floor in place on the Stage.

A Dance Floor Storage Trolley is desirable to store the rolls of vinyl to avoid potential damage to the rolls if not stored correctly.

ACCOUSTICS

AUDITORIUM

Given the configuration of the auditorium space, it is recommended that the most practical treatment would be to treat the ceiling, and the rear auditorium wall facing towards the stage. The approximate area of absorption treatment required is recommended as follows:

- Auditorium ceiling surface: 60% of total surface area (approximately 425 m^2).
- Auditorium rear wall surface: 75% of total surface area (approximately 120 m^2)

The absorption treatment should be distributed across the above surfaces as evenly as possible, with the ceiling absorption concentrated towards the rear of the space (furthest from the stage).

On this basis, for optimum acoustic performance, the recommended the adopted absorption material(s) shall achieve the following minimum absorption coefficients:

Table 1: Recommended Acoustic Treatments – Minimum Absorption Coefficients

Treatment Location	Required Minimum Absorption Coefficient, α, at Frequency, Hz					
	125	250	500	1k	2k	4k
Auditorium Ceiling	0.15	0.45	0.85	1.00	1.00	0.95
Auditorium Rear Wall	0.30	0.75	0.85	1.00	1.00	0.95

SUITABLE TREATMENT OPTIONS

Treatment options are provided below to address the acoustic requirements only and further advice should be sought from skilled professionals specialising in (but not limited to) safety, fire, and structural design, to confirm the suitability of these recommendations, prior to installation.

Option 1 – Direct Stick Products

These can be installed directly to the ceiling / wall with adhesive or speed pins.

- 25 to 50mm direct stick fabric faced or coloured polyester batt / blanket products (25mm and 50mm products may have a mass of 2.3kg/m^2 and 3.8 kg/m^2 respectively).
- 38mm to 50mm direct stick acoustic foam products (50mm products may have a mass of approximately 0.5kg/m2).

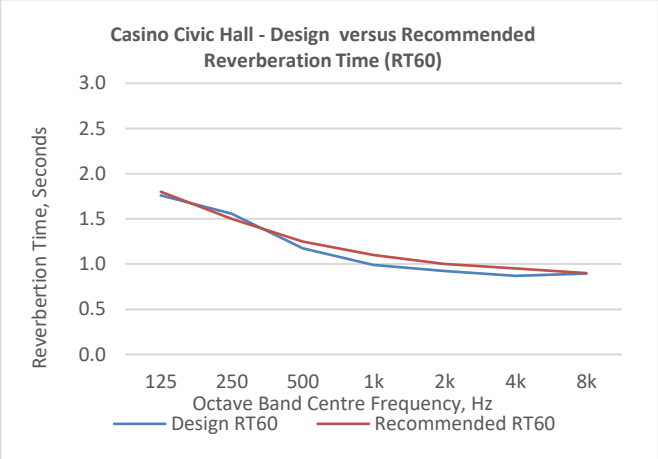
Option 2 – Insulation Backed Perforated Board

Treatments consisting of thin perforated sheet (i.e. steel, FC, MDF, or ply) backed with insulation tend to be heavier per unit of area, may be harder to mount to curved surfaces, and may require additional labour to install.

To achieve the recommended absorption coefficients, they will require high density backing insulation and cavities between the existing wall/ceiling lining and perforated sheet of 50mm or more; therefore, they are also bulkier. However, these treatments may be preferred for other reasons, such as visual appeal, and resilience to impacts / cleaning, particularly for the rear wall. Suitable options are as follows;

- Maximum 6mm thick perforated ply (min 25% open area) fixed on 50mm battens or top hat to existing ceiling/wall backed with 50mm (nominally 24 kg/m^3) insulation.
- 0.42mm BMT perforated steel (min 20% open area) fixed on 75mm battens or top hat to existing ceiling/wall backed with 50mm (nominally 32 kg/m^3) insulation.

Figure 2 following shows the predicted reverberation times with the adopted recommendations above compared to the recommended reverberation times in AS 2107 for this space.



ELECTRICAL

ERGON SUPPLY

The building power supply fuses will need to be upgraded to cater for the new mechanical air conditioning loads. An application is to be submitted through the Ergon portal.
If the maximum demand load is in excess 800A the MSB room will need to comply with AS/NZS.3000:2018 and shall have 2 egress doors.

MAIN SWITCH BOARD

The MSB shall be sized to accommodate the following:
Air conditioning loads.
New stage DB loads
Hydraulic and Fire services loads
The MSB is proposed to be located in the Store room adjacent the male toilet.
It is anticipated that the MSB will be approx. 3000Wx250mmDx2100mmH (To Be confirmed as part of the detailed design of the building)

STAGE DISTRIBUTION BOARD

The stage DB is to serve the stage AV and lighting loads.
1200mmWx150mmDx1800mmH approximately.

LIGHTING

Lighting selections will be LED and will be designed to suit the building fabric, presentation and ceiling/roof constraints.

The BOH areas are to be generally recessed, cool white fittings.
Main auditorium to have pendants spot lights (to be confirmed).
Amenities/Foyer to have LED warm lighting systems.

TELECOMMUNICATIONS

The building shall have an NBN ready Infrastructure. An application is to be submitted to NBN for fibre reticulation.
NBN NTD's to be provided to serve the minimum requirements of the building (Fire services, Telecommunications and security system – as required).
The NBN CTL is proposed to be located at the BOH store room (approx... 1000mm Wx1000mmDx1000mmH zone).

CABLE MANAGEMENT

Cable management is to be predominantly via cable trays in the existing voids. BOH, amenities and foyer cables to be concealed as much as possible. Atrium cabling shall be limited to wall mounted lights, GPO's and can be reticulated through the posts.

EMERGENCY & EXIT SIGNAGE

The building is provided with Exit and emergency signage and an Emergency/Exit signage test facility (located adjacent the main switchboard). The exit signage generally appears in compliance with the NCC requirements. Assessment of emergency lighting coverage will need to be undertaken to ensure compliance with the minimum requirements of the Australian standard AS.2293. The new DB's are to have emergency lighting test facilities.

SUB CIRCUIT CABLING

All the sub circuit cabling shall be new (we would expect due to the age of the building that the existing sub circuit cables are non-compliant).

SECURITY AND SURVEILLANCE

The building shall have a CCTV system covering the main entries and exits (and in liaison with the council requirements). Security brief to be sought from council during detailed design.

MECHANICAL

INTRODUCTION

The following section will provide proposed mechanical services to serve the areas nominated below:

- Main Auditorium
- Main Entry Foyer
- Dressing Rooms
- Supper Rooms
- Amenities
- Storerooms
- Kitchen

MAIN AUDITORIUM

Two equally sized small chilled water plant approximately 125kW each will supply conditioned air to the space via concealed ducted within the current ceiling structure. Side blow outlets shall evenly distribute air flow throughout the Auditorium with directional outlets towards the stage. Two small plantrooms are proposed over the amenities to house each air handling unit. With high occupancy loads expected and to reduce running costs and associated plant selections, carbon filters are proposed to enable reduced outside air requirements per person. As part of building compliance economy cycles shall be incorporated into the design providing "free cooling" during periods where outside ambient conditions is within nominated parameters. Two equally sized roof top chillers shall be air cooled and fitted with optimum low noise EC fans and pumps located over the foyer area. Positioning shall be co-ordinated to ensure plant does not impede or distract from the front elevation.

MAIN ENTRY FOYER

Foyer air conditioning will be supplied via a single approximately 15kW split style DX style refrigerant fully ducted system. Rooftop air cooled condenser shall be located adjacent to air cooled chillers serving the Auditorium.

BACK OF HOUSE (BOH)

BOH air conditioning shall include the following areas:

- Dressing Rooms
- Supper Rooms
- Kitchen

BOH air conditioning shall be provided via a single VRV system connected to small individual internal wall mounted of recessed cassette style fan coil units serving each functional space. All BOH fan coil units will be connected via refrigeration pipework to one roof mounted air cooled condenser located adjacent to other roof mounted plant.

VENTILATION

Fully ducted mechanical ventilation shall be provided to each store room independent from the systems. Amenities located adjacent to the foyer shall have similar, ducted mechanical ventilation systems.

Fully ducted filtered outside air ventilation shall be provided to all air conditioning systems to satisfy building code compliance.

The Main Auditorium shall be provided with a smoke/relief air fan that shall operate as required for building pressurisation during economy mode/general air conditioning conditions. This also provide cooling to stage areas drawing air from the Main Auditorium space. The smoke spill fan shall provide smoke relief during fire alarm mode.

KITCHEN

Dedicated commercial exhaust systems have been excluded as part of this Masterplan. Light meal preparation is provided and any ventilation shall be support by proprietary ventilation systems.

HYDRAULIC

INTRODUCTION

The following section will provide proposed hydraulic services to serve the areas nominated below:

- Male Amenities
- Female Amenities
- DDA Amenities
- Dressing Rooms
- Kitchen

MALE AMENITIES

The male amenities shall be supplied with drainage to all fixture locations in accordance with AS3500 requirements. The drains shall connect to the existing drainage in ground. The fixtures within the male amenities are proposed to be supplied with cold water only. The cold water reticulation shall be supplied as new from the building supply point.

FEMALE AMENITIES

The female amenities shall be supplied with drainage to all fixture locations in accordance with AS3500 requirements. The drains shall connect to the existing drainage in ground. The fixtures within the female amenities are proposed to be supplied with cold water only. The cold water reticulation shall be supplied as new from the building supply point.

DDA AMENITIES

The DDA amenities shall be supplied with drainage to all fixture locations in accordance with AS3500 requirements. The drains shall connect to the existing drainage in ground. The fixtures within the DDA amenities are proposed to be supplied with cold water only. The cold water reticulation shall be supplied as new from the building supply point.

DRESSING ROOMS

The dressing rooms shall be supplied with drainage to the existing fixture points in accordance with AS3500 requirements. The fixtures within the dressing rooms are proposed

to be supplied with cold water only. The cold water reticulation shall be supplied as new from the building supply point.

KITCHEN

The kitchen shall be supplied with drainage to all fixture locations in accordance with AS3500 requirements. The drains shall connect to the existing drainage in ground. The kitchen has been assumed as not being used for food preparation and therefore grease arrestors have not been proposed. The fixtures within the kitchen are proposed to be supplied with cold water, hot water and warm water. A 50 litre electric hot water unit is proposed to supply the kitchen with hot water. The cold, hot and warm water reticulation shall be supplied as new from the building supply point.

BCA COMPLIANCE

A comprehensive report identifying noncompliance with the current building code within the existing building is contained the Techton report in appendix B of this document.

As discussed in the return brief section of this report the extent to which upgrades to meet current code requirements is necessary is determined by the scope of work implemented at the time the approval is sought.

Accordingly it is not possible to unequivocally predict the required upgrades until the scope of each individual portion of work is identified.

This is particularly relevant as our understanding is that this upgrade may proceed in stages dependent on receipt of grant funding.

It is only when scope of each individual stage is established that an assessment of the upgrade requirements triggered by that particular scope of work can be made.

These comments notwithstanding our building surveyor has identified the issues which we believe will be required to be upgraded irrespective of the staging of the redevelopment.

The issues identified as requiring and included in the masterplan recommendations and costings include

- provision of upgraded exit width to corridors and stairs to the stage
- additional amenities for performers
- provision of a wheelchair lift to provide access to the stage from the Auditorium level
- provision of compliant access ramps to the entry of the building
- provision of adequate amenities based on the assessed patron and performer numbers anticipated in the building rather than the numbers obtained from notional occupancy calculations.
- Provision of emergency lighting and exit requirements
- provision of a compliant mechanical ventilation and air conditioning to the building
- provision of compliant exit paths to public open spaces through the courtyard areas on either side of the building.
- provision of a fire rated sliding door to the rear of the stage to provide access from the loading dock
- upgrades to the electrical mechanical and hydraulic as identified in each discipline documentation.

It should be noted that some items like fire separation of the stage, smoke venting should be addressed through the implementation of a performance based assessment at the time of detailed design and documentation.

It is been our experience on similar projects that significant concessions on the deemed to satisfy provisions of the BCA are achievable through the implementation of performance-based strategies.

Such concessions can only be assured when the detailed documentation and design is completed however this report has assumed a performance-based approval will be implemented and costed the masterplan recommendations accordingly.

ESTIMATE OF PROBABLE COSTS

Based on the scope of work detailed above and the masterplan drawings prepared by each discipline and included in appendix D of this document an estimate of probable cost was prepared by Costplan quantity surveyors.

The estimated probable cost of construction including a 10% contingent allowance but exclusive of GST is $3,159,000.

The items excluded from this estimate include

- The supply and install of retractable seating have been excluded in the overall estimate and listed as an optional item for the client's discretion (350K)
- Retractable seating floor upgrades have been excluded in the overall estimate and listed as an optional item for the client's discretion •
- Construction of building structures and roof structures have been excluded due to initial inspections concluding that the elements are adequate
- Any underpinning works have been excluded until such time as inspections are completed and design developed
- Any structural upgrades have been excluded until such time as inspections are completed and design developed
- Kitchen FF&E has excluded cook tops, ovens and will operate as a plate and serve.
- Any footing and foundation repairs have been excluded due to lack of a defined scope of works

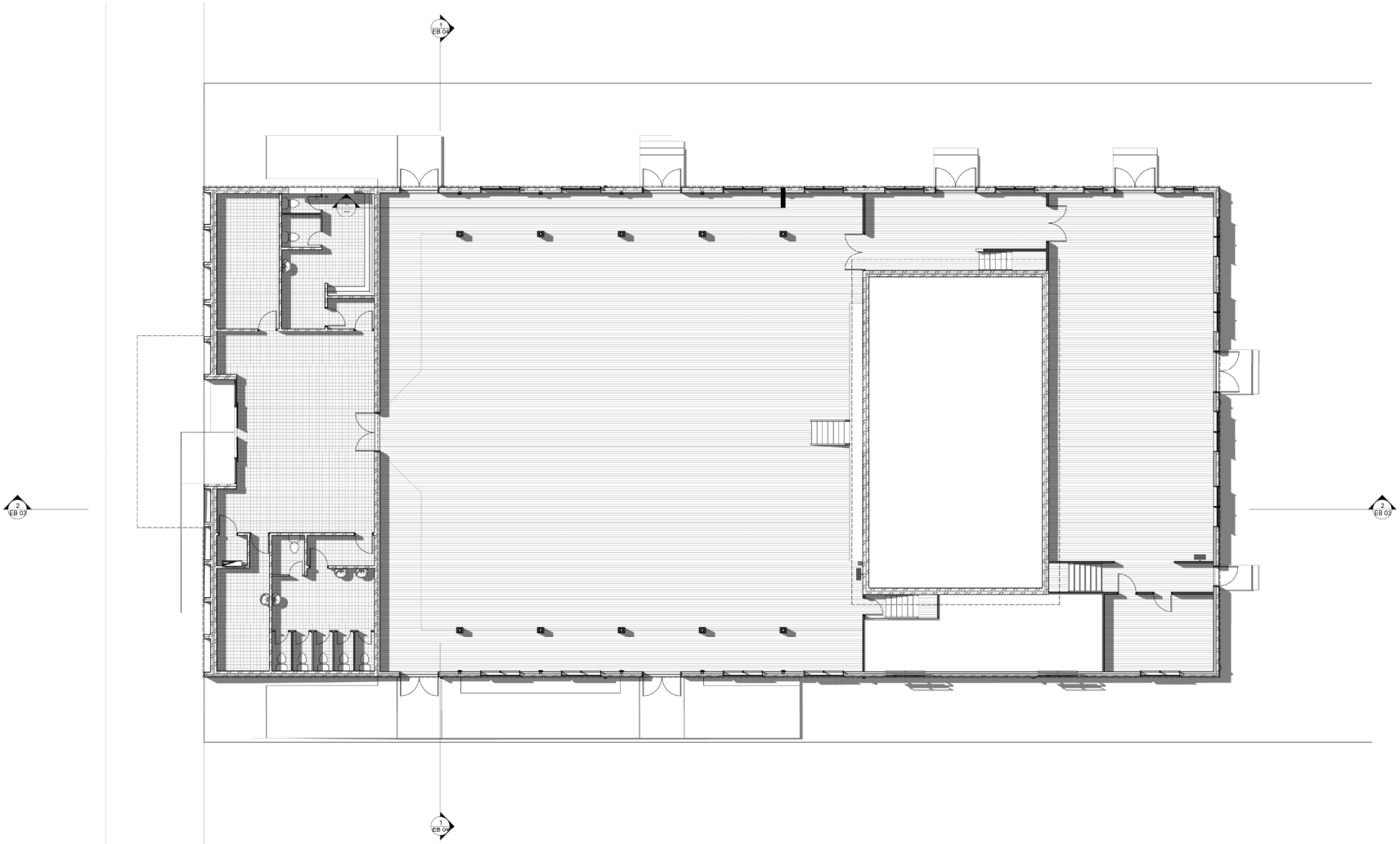
It should be noted that this estimate of probable cost is based on the work being completed as a single stage, and a fully documented lump-sum fixed price tender.

We would also recommend the inclusion of a professional fee allowance of 15% of the construction cost inclusive of the additional contingent allowance to ensure adequate for allowances for the necessary investigations of the existing building and implementation of performance-based approval as discussed earlier.

Accordingly, we recommend the following budget allowances for the implementation of the masterplan recommendations.

Estimated construction cost	$3,159,000
Professional Fees @15%	$ 470,850
TOTAL	$3,629,850

APPENDIX A Existing Building Drawings



1 EB 02 Z 000 Ground Floor
Scale 1 : 100

stea
astute architecture

Richmond Valley Council

CASINO CIVIC HALL
RESTORATION
MASTERPLAN

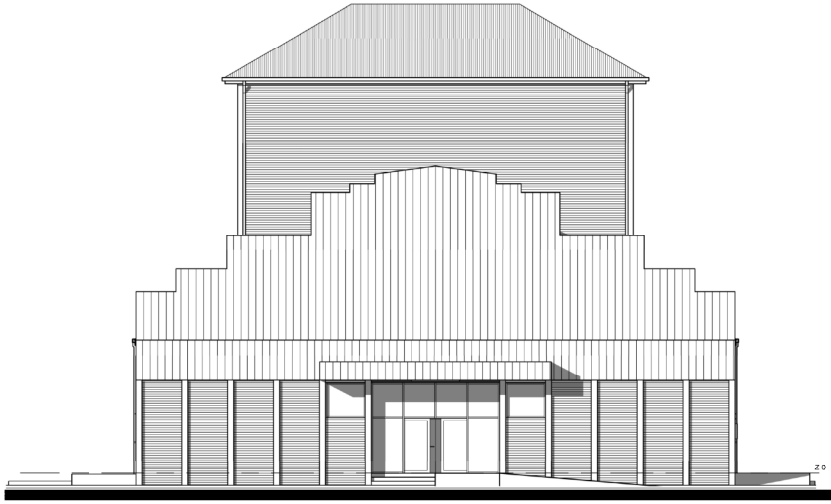
FLOOR PLAN

Scale 1 : 100 at A1
Drawn Author
Date May 2019
Job Number 2410
Drawing Number EB 01 Issue

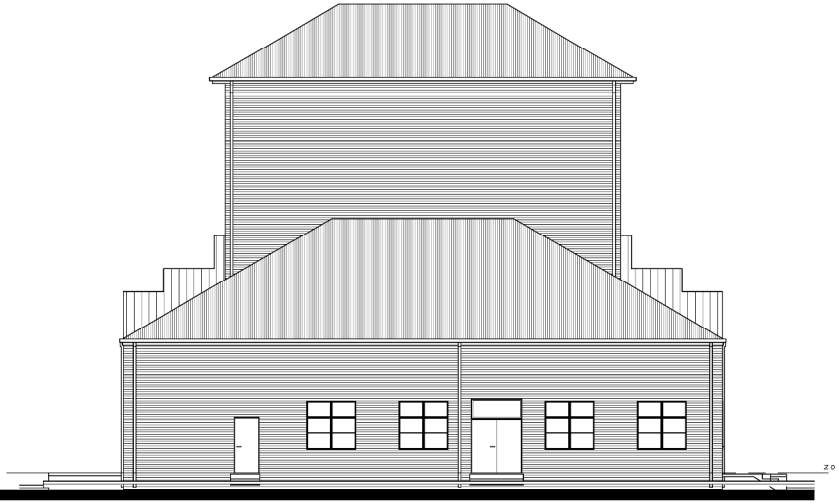
Level 1, 25 River St,
PO Box 758
Mackay Q 4740

(07) 4957 7341
mail@stea.com.au
www. stea.com.au

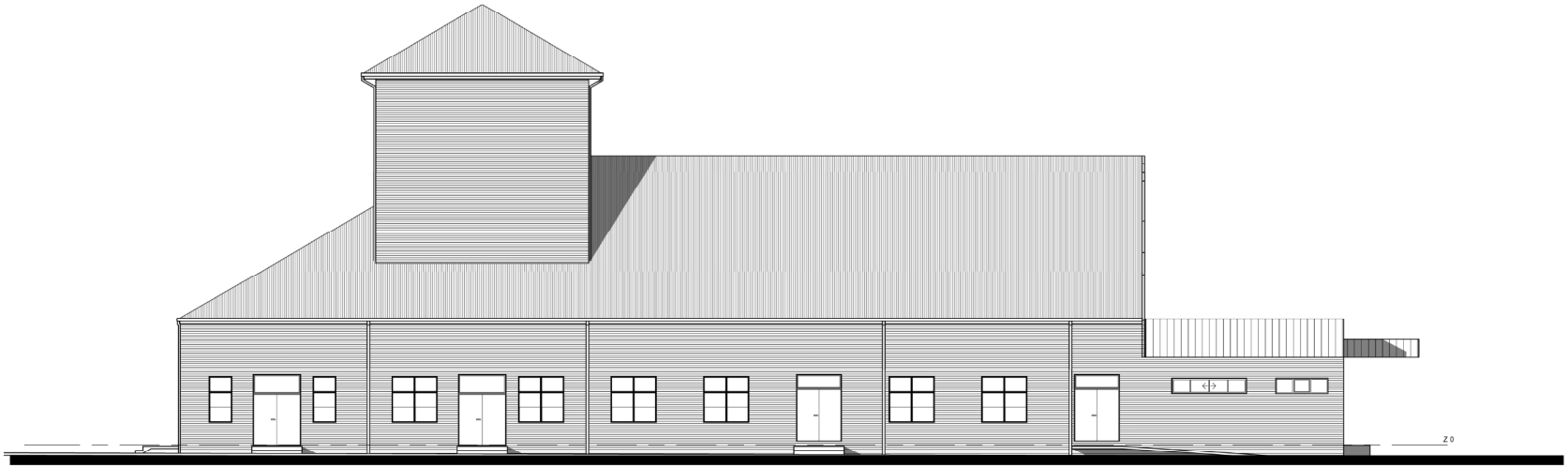
0 10 20 30 40 50 mm
USE FIGURED DIMENSIONS IN PREFERENCE TO SCALED.



1 North Elevation
Scale 1 : 100



3 South Elevation
Scale 1 : 100



2 East Elevation
Scale 1 : 100

stea
astute architecture

CASINO CIVIC HALL
RESTORATION
MASTERPLAN

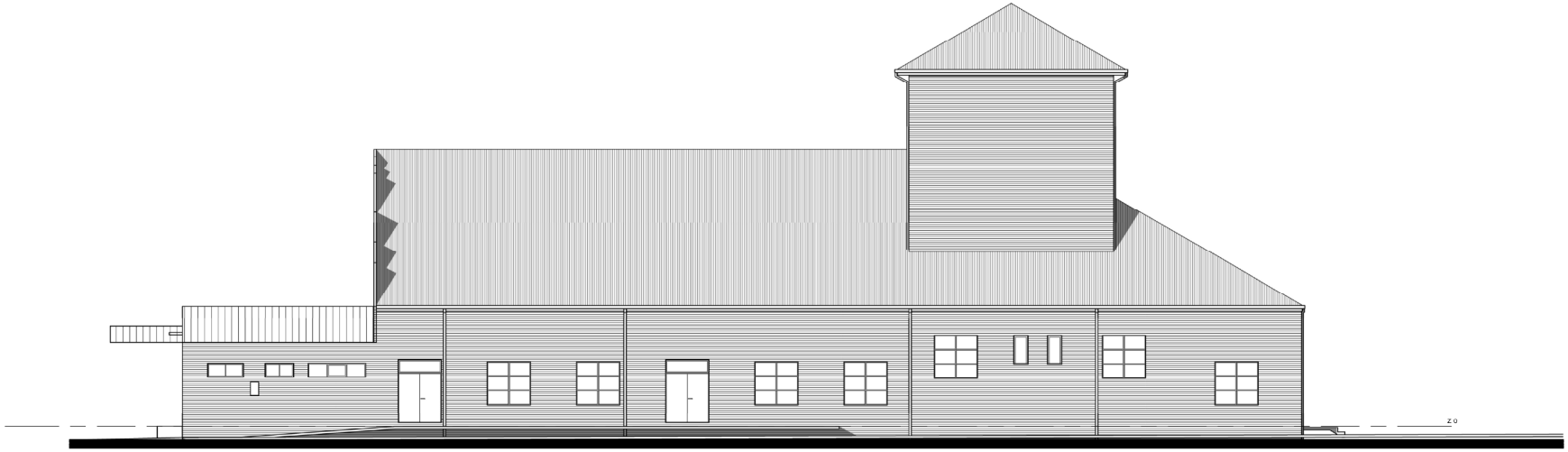
ELEVATIONS

Scale 1 : 100 @ A1
Drawn Author
Date May 2019
Job Number 2410
Drawing Number EB 02 Issue

Level 1, 25 River St,
PO Box 758
Mackay Q 4740

(07) 4957 7341
mail@stea.com.au
www. stea.com.au

0 10 20 30 40 50 mm
USE FIGURED DIMENSIONS IN PREFERENCE TO SCALED.



1 West Elevation
Scale 1 : 100

2 / EB 01 Section B-B
Scale 1 : 100

stea
astute architecture

CASINO CIVIC HALL
RESTORATION
MASTERPLAN

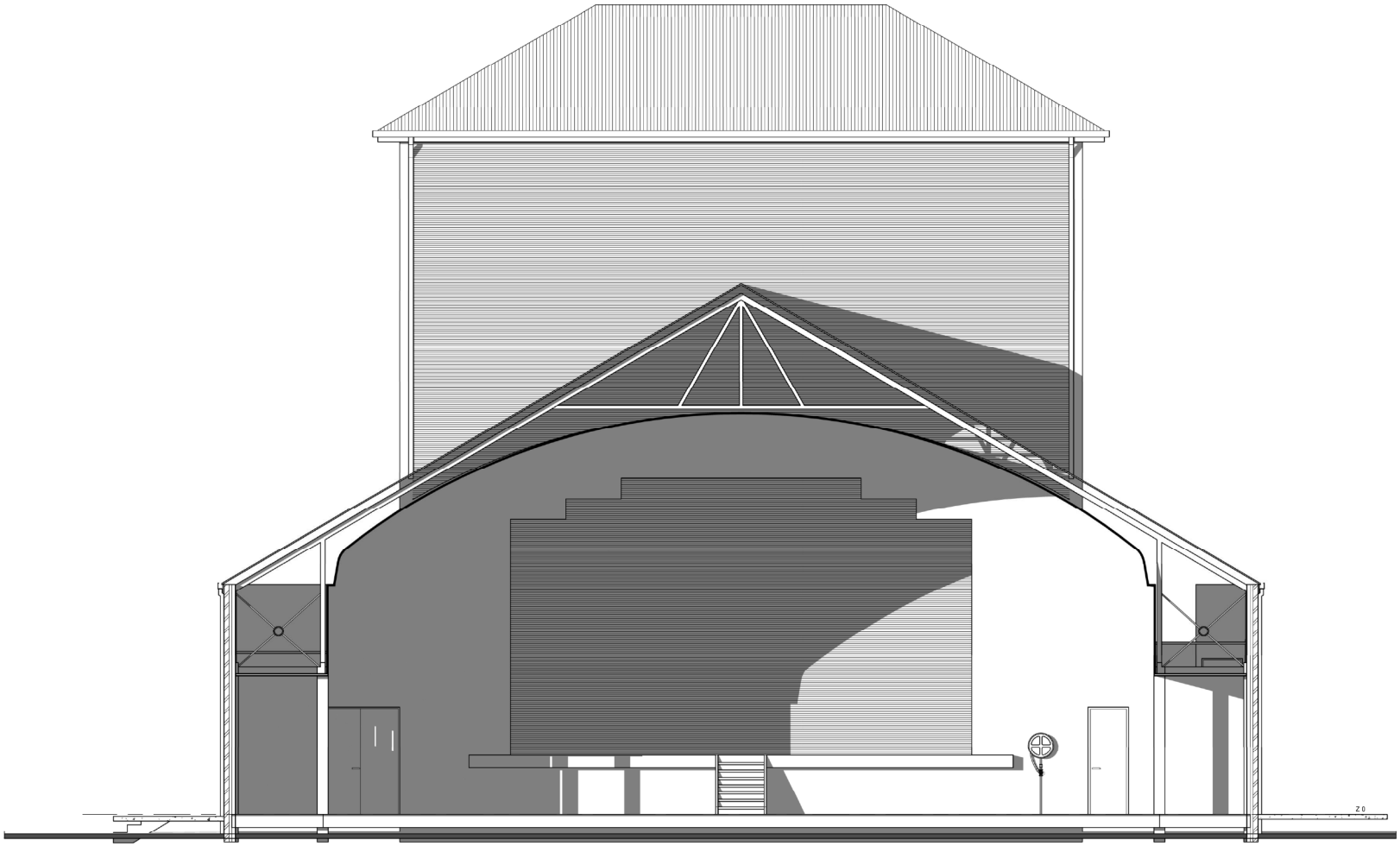
ELEVATION SECTION

Scale 1 : 100 @ A1
Drawn Author
Date May 2019
Job Number 2410
Drawing Number EB 03 Issue

Level 1, 25 River St,
PO Box 758
Mackay Q 4740

(07) 4957 7341
mail@stea.com.au
www. stea.com.au

0 10 20 30 40 50 mm
USE FIGURED DIMENSIONS IN PREFERENCE TO SCALED.



1 EB 01 Section A-A
Scale 1 : 50

stea
astute architecture

CASINO CIVIC HALL
RESTORATION
MASTERPLAN

SECTION

Scale 1 : 50 at A1
Drawn Author
Date May 2019
Job Number 2410
Drawing Number EB 04 Issue

Level 1, 25 River St,
PO Box 758
Mackay Q 4740

(07) 4957 7341
mail@stea.com.au
www. stea.com.au

0 10 20 30 40 50 mm
USE FIGURED DIMENSIONS IN PREFERENCE TO SCALED.

stea
astute architecture

1 3D View 1
Scale

CASINO CIVIC HALL
RESTORATION
MASTERPLAN

PERSPECTIVE

Scale: at A1
Drawn: Author
Date: May 2019
Job Number: 2410
Drawing Number: EB 05 Issue

Level 1, 25 River St,
PO Box 758
Mackay Q 4740

(07) 4957 7341
mail@stea.com.au
www. stea.com.au

0 10 20 30 40 50 mm
USE FIGURED DIMENSIONS IN PREFERENCE TO SCALED.

RICHARD STUART
THEATRE AND PRODUCTION CONSULTANT

CASINO CIVIC HALL

EXISTING TECHNICAL FACILITIES REVIEW AND RECOMMENDATIONS FOR TECHNICAL UPGRADE WORKS

AS AT 23 SEPTEMBER 2019

THEATRE FITOUT AND FUNCTION

The hall is set up as a typical flat floor community hall with entry foyer, with public toilets. The hall has a raised stage with a fly tower over and backstage amenities linked via an ante room to a supper room used for function catering and as a rehearsal studio.

The existing theatre fit-out consisting of stage masking curtains, stage lighting system and sound system is basic and is showing its age.

The Theatre rigging system installed in the Fly tower over the Stage is substandard by todays safety standards and should be inspected by a recognised theatre rigging company that undertakes safety inspections and reporting on regional and community theatres.

The Theatre Rigging system consists of manual winch operated lighting bars and curtain bars suspended on wire rope rigging, pulleys and winches installed to the Fly Gallery to one side of the Stage.

Stage Lighting consists of three winch operated Stage Lighting Bars with simple flexible cable looms run to the Stage Lighting Patch Bay and Dimmer Rack installed at the raised Perch Platform over the side of Stage.

A Theatre Sound system has been installed in the Hall for use by hires, with a mix of speakers installed at the Proscenium and side walls each side of the hall.

The Stage Floor is in reasonable condition although the surface is showing wear and tear and requires a smooth surface for dance productions, with the potential laying of an industry standard dance floor for dance performances.

Dressing Room accommodation is typical of community halls with two reasonable sized Dressing Rooms with basic ensuite facilities at the side of the Stage. Further backstage assembly space is available at the opposite side of the hall in the ante room and supper room at the rear of the stage.

The large Supper Room is used as a stand-alone Rehearsal Studio by local dance schools and is equipped with mirrors to one wall for dance rehearsals.

It is proposed to use one side of the existing Supper Room to accommodate a new Kitchen and Loading Dock area to improve these amenities.

In its current condition the Casino Civic Hall is suitable for hiring for presentation of a range of local events, celebrations, functions, dance school rehearsals and performances, school, community and council events. The hall does not currently attract regular touring productions although there is an aspiration to increase the regularity of such touring productions, especially if the hall has upgraded theatre and public facilities.

An upgraded Civic Hall could provide a venue that could be (re)established on the Regional Touring circuit throughout Northern NSW, assuming that the local community would support such initiatives instead of traveling further afield to see touring concerts and productions.

RETURN BRIEF

THEATRE FITOUT AND FUNCTION

The hall should be upgraded to meet at least current safety and access codes as applicable to public buildings.

The hall is substantially sound and a fine example of Art Deco halls throughout Australia. It is certainly worthy of upgrade to ensure its heritage is preserved whilst meeting theatre technical and patron needs with particular emphasis on safety and equity of access for all abilities.

To facilitate the hiring of the Civic Hall by both local community theatre groups, schools and dance schools as well as professional touring productions investment is required to improve the theatre technical facilities, back of house amenities and patron comfort and amenities.

From the main patron entry at Canterbury Street through to the Supper/Rehearsal Room at the rear work is required to restore heritage features and install current technology and services to take the Civic Hall forward for another fifty years.

It is understood that it would be desirable to increase the use of the Civic Hall and that any upgrades should be prioritised against a holistic masterplan to allow funding to be sought and allocated in manageable amounts to progressively address both infrastructure and equipment requirements into the future.

Further it is recommended that the initial focus should be on safety, amenity and infrastructure as a first priority and noting that loose technical equipment can be sourced from rental companies for short term events on an as required basis until such time as all infrastructure priorities are implemented. Thus, the Civic Hall would have all require infrastructure to support local and touring productions without initial investment in a full complement of theatre technical equipment.

MASTERPLAN RECOMMENDATIONS

THEATRE FITOUT AND FUNCTION

The hall requires an extensive upgrade to address safety in the first instance with future options that can be implemented to progressively expand the functionality of the hall in response to growth in community and hirer demand.

It is recommended that initial works should focus primarily on safety and general amenity with further technology upgrades proposed as a series of future projects that Council can manage subject to individual or grouped funding allocations.

Theatre related components for inclusion in proposed upgrade works as detailed by others to include:

1. Enhance Main Foyer “Entry Statement”
2. Resolution of public versus Civic Hall only amenities
3. Foyer Bar/Kiosk
4. Auditorium Entry Doors with Sound and Light Locks
5. DDA compliant access to the Main Hall and to the Stage
6. Air Conditioning to Auditorium
7. Devise a standard Theatre Seating Layout for use by hirers, with code compliant configurations of temporary seating on the flat floor that maximise sight-lines to the Stage
8. Upgrade to the Supper/Rehearsal Room to allow greater flexibility of use
9. Consideration of provision of Wheelchair access from the Auditorium and Supper Room to the Stage level

Theatre technical related infrastructure components for inclusion in proposed upgrade works listed by the Theatre Consultant to include:

1. **Auditorium House Lighting** to create a theatrical ambience as well as general purpose lighting.

   A new House light installation in the Hall will create a theatrical ambience for events and performances where a theatrical mood is desirable rather than the brighter general lighting required for less formal events and gatherings.

   It is recommended that a lighting installation using energy efficient LED lights with a colour temperature of 3000 Kelvin is deployed to achieve the required theatrical ambience and with a programmable dimming control system to allow a variety of preset lighting “looks” to be programmed.

2. Design for future installation of **Retractable Theatre Seating** for improved sight-lines to the Stage for theatrical productions, should the usage of the hall move more towards formal theatrical rather than flat floor configuration.

   The installation of Retractable Seats will provide improved sightlines to the Stage and greater comfort for patrons attending performances and concerts in the Hall.

   The choice of a suitable Retractable Seating system must include the facility to “drive” the bank of Retractable Seats forward from the rear wall of the Hall several metres towards the Stage, creating a secondary circulation space between the rear of the Seating bank and the front Foyer for patrons to mingle.

It is recommended that two banks of good quality and comfortable Retractable Seats are installed at the rear of the hall and to each side of the main doors.

It is noted that investment in a high quality Retractable Seating system is warranted to avoid complications with cheaper but less stable seating systems that tend to be noisy in use and a cause of concern to patrons.

3. Installation of a **Control Desk Platform** at the rear of the hall for setting up portable Sound, Lighting and Audio/visual Control Desks with a clear view to the Stage.

   To allow greater production values for theatrical performances and concerts it is proposed to construct a raised Technical Control Platform at the rear of the Hall and spanning the main doors to the Foyer.

   A steel framed planform with compliant handrails would provide a suitable area for Lighting, Sound and Audio/visual Control Desks to be located on a bench and with technical infrastructure circuit patching linking Control Desks to equipment at the Stage.

   Access stairs to the Control Platform will be required from one side of the Hall, noting that the stair and walkway access system must be clear of the Retractable Seating system when stored against the Rear Wall and that such access stair access is limited and not fully compliant with DDA legislation.

4. Installation of a **Follow Spotlight Platform** high above the entry doors to the hall.

   As the scale of productions staged in the Hall grows a Followspot Platform should be constructed over the Control Desk Platform to provide an optimum position to locate a Follow Spot used to spotlight performers on Stage from the rear of the Hall.

   Access will be required up to the Follow Spot Platform, perhaps with a compliant ladder up from the control Desk Platform below, noting that such ladder access is not fully compliant with DDA legislation.

   A Follow Spot Platform is considered a desirable rather than essential item for the Hall at Day 1 but may be required as demand and scale of production increases.

5. Upgrade and repair to the timber **Stage Floor Surface** with a Weathertex top surface painted low sheen Black for hard wear and tear and to the required BCA 7.5kPa floor loading (noting that a resilient stage floor surface is desirable and to allow for the laying of a portable vinyl Dance Floor covering for dance performances.

   The existing Stage Floor is worn and in need of either refurbishment or ultimate replacement.

   The timber flooring once levelled and sanded should be covered with a layer of Weathertex sheeting screwed (not glued) to the timber over the entire Stage floor area to create a smooth Stage surface suitable for dance and ballet, painted in a low sheen Black wash and wear paint finish.

   The hard wearing Weathertex surface gives a good industry standard Stage Floor to take the hard wear and tear of setting up and dismantling stage scenery, props, band instruments, rostra, furniture, pianos and the like that are used in theatre productions and concerts.

The Weathertex floor surface is also suitable for contemporary dance especially Tap Dance due to its smooth surface.

A portable **Dance Floor** covering should be available for use by dance and ballet schools and hirers as an alternative to the Weathertex Stage floor surface, particularly for classical ballet with dance lifts and Pointe work.

Typically, either Tarkett or Harlequin brand vinyl Dance Floor is used to lay out and tape in place on the Stage Floor as required for ballet production use.

It is recommended that a stock of four to five rolls of Vinyl Dance Floor material is purchased for use on the Stage in the Hall.

Standard Gaffer Tape in a colour to match the colour of the Dance Floor is used to tape the unrolled sheets of Vinyl Dance Floor in place on the Stage.

Depending on the programmed use of the Hall it may be determined that the Vinyl Dance Floor stays in place on the Stage most of the time and is only removed on those occasions where scenery, props, rostra or bands may damage the Dance Floor.

6. Upgrade to the **FOH Stage Lighting Bar in the Auditorium** with an initial safety inspection, report and upgrades to ensure the current system is fully compliant.

   The existing FOH Stage Lighting Bar system, whilst operational in a rudimentary sense, is not up to industry standard for community theatres and public halls, particularly when located over the heads of the public in the Auditorium.

   The design of the single Stage Lighting Bar installed with two separate manual winch line sets is not in line with best practice for installation of such Winch Line sets in that the single line operation can lead to the Lighting Bar getting out of alignment resulting in excessive load transferred to the one winch.

   It is recommended that in the first instance an inspection and upgrade is undertaken to make the existing FOH Stage Lighting Bar safe and compliant.

   Further, there is no Cable Management system for Stage Lighting and DMX circuits feeding the FOH Stage Lighting Bar, other than a stretched flexible cable loom fed via a corner of the Proscenium to the Lighting Bar from the Dimmer Rack zone backstage which is not satisfactory for a semipermanent installation.

   An industry standard energy chain cable management system from the Stage Lighting Bar up to the ceiling should be installed as part of the safety upgrade to the FOH Stage Lighting Bar.

   Ideally, the FOH Stage Lighting Bar would be upgraded to a fully compliant Motorised Winch system with Energy Chain Cable Management system and with fixed Stage Lighting Circuit and DMX/Data Circuit wiring installed and with a Remote Control to operate the FOH Stage Lighting Bar Winch from the Side Stage and with visual line of sight to observe the raising and lowering of the lighting bar.

   As part of planning for greater theatrical and event use of the Hall consideration is given to installation of additional FOH Stage Lighting Bars to the ceiling of the Hall at locations that provide improved and flexible Stage Lighting angles but that also sympathetic to the historic Art Deco architecture of the Hall Ceiling.

It is recommended that any upgrade to the FOH Stage Lighting Bar system is undertaken in conjunction with upgrades to the House Lighting and/or Air Conditioning in the Hall as one fully coordinated project in the masterplan.

7. The existing **Theatre Rigging System over the Stage**, whilst operational in a rudimentary sense, is not up to industry standard for community theatres and public halls.

   The Theatre Rigging System over the Stage requires an initial safety inspection, report and safety upgrades to ensure the current system is fully compliant.

   In the first instance the Theatre Rigging system installed in the Fly tower over the Stage should be inspected by a recognised theatre rigging company that undertakes safety inspections and reporting on regional and community theatres (HME Services in NSW or Theatre Safe Australia in QLD undertake such safety inspections for local authorities).

   If nothing else is done Council should have a Safety Inspection undertaken and provide funds to bring the current Theatre Rigging system up to safe operational standard, especially if unauthorised personnel are to be allowed to use the system when hiring the Hall.

8. Upgrade to the **Theatre Rigging System** to allow greater flexibility of rigging with the installation of additional motorised hoist line sets for use by local and touring productions.

   The existing Theatre Rigging system is only just adequate to provide a basic Stage Masking Curtain system (Stage Masking side Leg Curtains, overhead Masking Borders, Rear Traverse Curtains "Tabs") with two additional manual winch lines allocated for Stage Lighting Bars but with limited capacity or cabling infrastructure.

   The existing Grid over the Stage appears to have structural integrity to support the proposed loads of a modest Theatre Rigging system subject to review.

   It is recommended that any upgrade to the scope of the existing Theatre Rigging system is checked by the Structural Engineer to ensure that any new applied Rigging loads are within design tolerances for the Fly Tower and Grid structure.

   It is recommended that the Theatre Rigging system is completely upgraded to use a mix of industry standard Manual Hand Operated Brake Winch Line Sets to suspend the Stage Masking Curtains, Hirers Backcloths and White Cyclorama cloth and Motorised Winch Line Sets to suspend new wired Stage Lighting Bars over the Stage.

   New Stage Lighting Bars over the Stage would comprise a system with either Energy Chain Cable Management system or trailing cable looms and with fixed Stage Lighting Circuit and DMX/Data Circuit wiring installed and with a Remote Control to operate the Stage Lighting Bar Winches from the Side Stage and with visual line of sight to observe the raising and lowering of the lighting bars.

   It is proposed that all manual and Motorised Winch Line Sets would be installed to the side wall of the Fly Tower at the upper Fly Gallery level in a fully compliant installation, leaving the limited side stage area to each side of the Stage clear for performers.

A typical **Theatre Hanging Plot**, to basic Regional Theatre Benchmark standard for an 8m deep Stage, would provide the following Theatre Rigging items installed:

00mm	Proscenium Wall	
200	Main Curtain Track	House Curtain Track installed to Proscenium Wall
400	Proscenium Border	Manual Winch Line 250 kg – Note 1
800	Stage Lighting Bar #1	Motorised Winch Line 500 kg
2000	Masking Border #1	Manual Winch Line 250 kg – Note 1
2200	Masking Legs #1	Manual Winch Line 250 kg – Note 1
2200	Projection Screen	Motorised Projection Screen (Dead Hung from Grid, between Leg Curtains)
2600	Stage Lighting Bar #2	Motorised Winch Line 500 kg
3400	*Hirers Backcloth*	*Manual Winch Line 250 kg (Future)*
4000	Masking Border #2	Manual Winch Line 250 kg – Note 1
4200	Masking Legs #2	Manual Winch Line 250 kg – Note 1
4400	Mid Traverse Tabs	Manual Winch Line 250 kg – Note 1
4800	Stage Lighting Bar #3	Motorised Winch Line 500 kg
5400	*Hirers Backcloth*	*Manual Winch Line 250 kg (Future)*
6000	Masking Border #3	Manual Winch Line 250 kg – Note 1
6200	Masking Legs #3	Manual Winch Line 250 kg – Note 1
6600	Stage Lighting Bar #4	Motorised Winch Line 500 kg
7000	Rear Traverse Tabs	Manual Winch Line 250 kg – Note 1
7400	*Hirers Backcloth*	*Manual Winch Line 250 kg (Future)*
7600	Hirers Backcloth	Manual Winch Line 250 kg
7800	White Cyclorama	Manual Winch Line 250 kg
8000	Rear Stage Wall	

Note 1 – If Structural limitations preclude the number of Winch Line Sets installed these items could be Dead Hung from the Grid

This Hanging Plot is typical of a neatly presented (masked) Stage to the Audience with side and overhead curtains set in a symmetrical layout to provide four entrance/exits to the Stage on each side and with Stage Lighting Bars located at regular intervals over the Stage and with the option to have a rear curtain, hirers backcloth or white Cyclorama cloth at the rear of the Stage.

As use of the Hall increases in time additional Winch Line sets could be added for greater functionality and higher production standards.

9. Upgrade to the current poor **Theatre Worklights** to provide energy efficient lighting system of White light for safe working light levels during set-up and rehearsal and Blue Lights in all relevant backstage areas as safety lighting during performances.

   Worklights in backstage areas are almost non-existent and must be upgraded to ensure appropriate general Worklight levels during set-up and maintenance plus there is a need to have suitable Blue Lights to guide performers in darken backstage areas during performances.

   Areas in the Stage Grid and Fly Gallery and any storage area such as below the stage require appropriate worklights installed and controlled at a master switch panel at the Stage Manager Desk location.

   High power LED floodlights should be installed to provide bright light levels for set up and rehearsal to avoid using the Stage Lighting system.

10. Upgrade to the **Power Distribution System** to provide increased Power Supply to the Stage area for Lighting, Sound, Audio/visual and Temporary Rigging equipment.

A schedule of power supply requirements to feed Stage Lighting, Winches, Audio and other theatre technical systems has been provided to the Electrical Consultant for incorporation in the Electrical Power Supply required for the refurbished Hall.

The Electrical Consultant will provide Switchboards at key locations for Theatre Technical systems in consultation with the Theatre Consultant.

11. Upgrade to the **Technical Infrastructure** - Sound, Lighting, Audio/visual, Headset Communications infrastructure wiring to enable safe and efficient connection of loose theatre equipment at all required production locations.

    Existing Technical Infrastructure wiring is very basic and needs a comprehensive upgrade to bring it up to modest Benchmark standards for a small to medium sized Community Theatre or Civic Hall.

    A new Technical Infrastructure plan will provide essential technical circuits wired from Equipment Racks backstage and at the Control Platform to key technical locations to allow the operation of the following basic technical theatre systems:
    - Stage Manager Desk and Technician Headset Communications
    - Back of House and Foyer Paging
    - Sound - Mixing Desk and associated Playback equipment
    - Sound – Microphone Circuits
    - Sound - Radio Microphone Circuits
    - Sound – Amplifiers
    - Sound – Speaker Circuits
    - Stage Lighting - Control Desk
    - Stage Lighting – DMX/Data Network Circuits
    - Stage Lighting - 10A Lighting Circuits and Patch Panel
    - Stage Lighting – Dimmer/Relay Racks
    - Audio/visual – Vision Control Desk
    - Audio/visual – Projector
    - Audio/visual – Projection Screen
    - Audio/visual – Lectern for Meetings and Presentations
    - CCTV – Stage View Camera
    - CCTV – TV Monitors in Foyer, Dressing Rooms, Ante Room and Supper Room

12. **Dressing / Change Rooms** to the side of the Stage.

    The two existing basic Dressing/Change Rooms to the side of the Stage require a general upgrade to bring these rooms up to Benchmark standard with energy efficient mirror lighting, vinyl flooring, repainting, upgraded plumbing and provision for air conditioning.

Theatre related equipment components for inclusion in proposed upgrade works to meet modest Benchmark standard for Regional Theatres and Civic Halls will include:

1. **Stage Manager Desk and Headset Communications** system for technical communication to all technical work areas.

   An industry standard compact Stage Manager Desk should be provided at the side stage adjacent to the Proscenium and Main Curtain from which the Stage Manager calls cues to technicians and calls performers and musicians to the stage.

The Stage Manager Desk (SMD) houses the Headset Communications system Master Control Panel and Paging Panel for the Paging system to FOH and BOH. A TV monitor is mounted to the top of the Stage Manager Desk so the Stage Manager can see the action on stage from an audience perspective.

The Stage Manager Desk has an umbilical cable loom connecting it to a technical panel on the side stage wall.

2. **Paging System** with Foyer speakers for paging patrons to the auditorium and Back of House speakers for paging performers to the stage.

   The Paging System is an industry standard Digital Paging system (Bosch or Digipage or similar) that allows for microphone inputs from the Stage Manager Desk to be routed to Speakers in the backstage areas or from the Foyer Kiosk to be routed to Speakers in the Foyer and public amenities, for providing a clear and audible paging signal to all selected areas.

   Further a Show Relay Microphone mounted in the Auditorium provides an audio signal of the action/activity on the Stage that is fed to the Paging system so that patrons in the Foyers and Performers backstage can hear the action on Stage.

   The Paging Calls mute the Show Relay sound so that Paging Calls cannot be missed.

   The signal from the Show Relay Microphone is also split to be used to feed audio into the Hearing Assistance system to meet Code requirements (covered in the Electrical Specification).

3. **Stage Masking Curtains** upgraded or replaced.

   Existing Stage Masking Curtains must be inspected for compliance with Code requirements to meet Fire Indices.

   Subject to the extent of upgrade or expansion of the Stage Masking Curtain system existing Curtains may be repurposed or replaced at the time of upgrade.

   New Stage Masking Curtains will be required to facilitate the upgraded Hanging Plot to meet Benchmark standards for modest Regional Theatres and Civic Halls.

   New Stage Masking Curtains should use only inherently flame retarded fabric such as Black Wool, apart from the White Cyclorama Cloth that is a specialist seamless White Cotton Filled Cloth used to create the infinity sky effect at the rear of the stage action.

   The Theatre Consultant should produce a set of drawings for the Stage Masking Curtain layout once a plan of action is adopted for the upgrade project.

4. **House Curtain** upgraded

   The existing Main Curtain (“House Curtain”) is a heavy cotton Velour curtain that has been in place in the Hall for some time.

   It was proposed to retain the Main Curtain and its French Action Curtain Track installed at the Proscenium Opening.

   The Draw Cord rigging for the Main Curtain required replacement with a new system that has the sash Cord ropes run out of view from the Audience either through raising

the physical Curtain Track or installation of a new matching fabric pelmet to the rear of the upper cut-out section of the Proscenium Opening thus masking the curtain Track from Audience view.

5. **Stage Lighting Control** system with automated (moving light) capability.

   Provide a Stage Lighting Control Desk with a minimum of 1,000 channels with up to 4 streams of DMX signal to control Stage Lighting Dimmers/Relays to feed Conventional, LED and Automated Stage Lighting Fixtures.

   Provide a DMX/Data Network and DMX Splitters to provide data control signal over Ethernet cabling between the Control Desk, Dimmer/Relay Racks and Stage Lighting Fixtures.

6. **Stage Lighting Dimmer/Power Control** system.

   Provide Stage Lighting Dimmer/Relay Racks (minimum 48 channels, expandable to 96 channels) to feed Stage Lighting Circuits at Stage Lighting Bars and Field Outlets.

   Provide a Stage Lighting Patch Lead Panel system to allow flexible patching of all infrastructure 10A Stage Lighting Circuits (minimum 100) and DMX/Data Network Circuits.

7. **Stage Lighting Spotlights and Floodlights** using energy efficient LED technology.

   Provide a compliment of Stage Lighting fixtures including Profile Spots, Fresnel Spots LED Par Spots, LED Cyclorama Floodlights and associated hardware and accessories for a basic stage lighting system at Day 1 operation and that can be augmented by Council as funds permit, noting that with the required wiring infrastructure in place hirers of the Hall can also provide additional equipment from rental companies.

   Provide for the use of Automated Profile and Wash Lights (Moving Lights) within the Stage Lighting rig although these high cost items may be deferred as a “desirable items” that can be sourced from rental companies at direct cost to Hirers.

   Allow for a minimum initial complement of forty (40) Stage Lighting Fixtures to provide an even stage lighting coverage of the Stage and Cyclorama at Day 1, that can be augmented as required on a show by show basis.

8. **Sound Mixing Desk** with Digital Network and Stage Breakout Boxes.

   An industry standard modest Sound Mixing Desk should be provided to meet the sound requirements of most local and touring concerts and productions staged in the Hall, together with a Digital Multicore Network, Stage Boxes and associated equipment to ensure a high standard sound mixing system is available to hires of the Hall.

   A typical digital Sound Mixing Desk (Yamaha, Allen and Heath, Soundcraft or similar) suitable for most small to medium scale events, productions and concerts staged in the Hall would have a minimum of 24 Input Channels and 8 Outputs plus Monitor Outputs.

9. **Speaker System** of suitable industry standard for live concerts and events.

   A suitable industry standard Speaker System should be provided to ensure excellent sound reinforcement to patrons sitting in all areas of the Hall, with main Speakers located left and right of the Proscenium and with supplementary “Fill” Speakers at other

locations should computer modelling of a proposed Speaker System deem this necessary.

10. **Foldback Speakers** for Musicians and Singers on the stage.

    Portable Foldback Speakers should be provided for musicians and soloists performing on the Stage, with associated hardware and flexible cables to allow for a variety of configurations in usage.

11. **Microphones** for Musicians and Singers.

    A complement of industry standard Microphones, Microphone Stands and flexible Microphone Cables is required for use by presenters, soloists, choirs and musicians. An initial stock should comprise 12 Microphones of assorted types plus an industry standard suitcase to store the microphones in securely.

    Musical Instrument Direct Input devices (DIs) are required to connect guitar amplifiers and musical instruments to the Sound Mixing Desk. An initial complement of 4-6 DIs should be provided.

12. **Radio Microphones** for Presenters and Singers.

    Radio Microphones are required for Presenters and Solo performers in the Hall.

    A dual channel industry standard (Shure) Radio Microphone system should be provided together with hand-held Microphones, Headset Boom Microphones, Transmitters, Receivers and Aerials and associated hardware and cabling to make a complete system at Day 1.

13. **Audio/visual Presentation Control** System for meetings, seminars and events.

    An Audio/visual Presentation system (Crestron or similar) allows for all AV equipment to be routed and pre-programmed to be operated from a central Touch Screen Panel (as in a meeting room) for ease of user groups and to contain technical staff costs.

    In a typical installation the AV Lectern, Projector, Motorised Projection Screen, Playback devices and Audio system are all interfaced through the AV Presentation Control system to make for seamless and easy to use AV facilities.

    An AV Presentation system may be considered a desirable system, although cable infrastructure should be installed to facilitate installation of the AV Presentation equipment in the future.

14. **Data Projector** for AV presentations.

    A high-powered Data Projector (around 10,000 Lumens output) should be provided to allow for meetings, seminars, presentations and production use of projection together with the ability to screen video, live TV or films on occasion in the Hall.

    The Projector should be mounted at the rear of the hall, above the Control Platform, where it can be readily accessed and provided with an acoustic noise enclosure if required.

    The Projector should have a high quality lens to provide the chosen image format to the Projection Screen.

15. **Projection Screen** over the Stage for AV Presentations.

    An industry standard Motorised Projection Screen should be provided, installed over the Stage amongst the Stage Masking Curtains where the Screen Roller Box can be masked from view.

    It is recommended that a Screen Technics 220-275 inch Motorised Projection Screen would be suitable for the application in the Hall.

    The Projection Screen Motor Roller Box would be suspended on chains or wire ropes from the Grid over the Stage and have flexible power and data cables run as trailing cables to an outlet panel at a suitable location on the side stage wall or Fly Gallery.

16. **CCTV Stage View Camera** relay system.

    A Stage View Camera located at the rear of the auditorium in the centre provides a colour picture of the action on the Stage for relay to TV Monitors located throughout the building.

    A compact (security dome style) Digital Remote Control Camera, Remote Camera Control Panel and Camera Signal distribution (possibly using IPTV technology) is used to provide the signal to TV points as required.

    The Remote Control Camera can be refocused and zoomed to suit the variety of set up configurations for productions, concerts and events staged in the Hall.

17. **TV Monitors** in Foyers, Dressing Rooms, Supper Room and Backstage.

    TV Monitors are located in the Foyers, Supper Room, Ante Room Dressing Rooms and backstage assembly areas so that patrons and performers and staff can see what is happening on stage from remote locations.

    TV monitors in the Foyers are used for latecomers to watch the action on stage until a suitable break in the action when they may be admitted to the auditorium.

    Although TV monitors may be deferred from installation at Day 1, infrastructure circuit wiring should be installed in readiness for TV Monitor installation.

18. **Dance Floor** (Tarkett or Harlequin brand) Portable vinyl Dance Floor to lay on the Stage for dance and ballet school productions.

    A portable vinyl Dance Floor (Tarkett or Harlequin brand) covering should be available for use by dance schools, ballet schools and hirers as an alternative to the Weathertex Stage floor surface, particularly for classical ballet with dance lifts and Pointe work.

    It is recommended that a stock of four to five rolls of Vinyl Dance Floor (black or dark grey colour) material is purchased for use on the Stage in the Hall.

    Standard Gaffer Tape in a colour to match the colour of the Dance Floor is used to tape the unrolled sheets of Vinyl Dance Floor in place on the Stage.

    A Dance Floor Storage Trolley is desirable to store the rolls of vinyl to avoid potential damage to the rolls if not stored correctly.

APPENDIX C Public Consultation Information.

OBJECTIVES

- STAGED MASTERPLAN
- RESTORE ICONIC BUILDING
  - TO IT'S ART DECO ORIGONS
  - INTERNALLY & ETERNALLY
- UPGRADE TECH SERVICES
  - LIGTING
  - SOUND
  - AIRCONDITIONING

↓ TO ACCEPTABLE MODERN STAND.

→ COMMUTY ENGEMENT
- HOSPITALITY.
- ABLUTIONS
- SAFTY -
- SUSTAINABILITY
- EDUCATION
- EMPLOYMENT
- GLAMOURI
- MARKETABLE
- FUNCTIONAL
- EXCITING.
-

- INVITING
- FUN
- DIFFERENT
- UNIQUE
- REFLECTION OF ART DECO
- SECURITY
- ACCESSABILITY -
- ACOUSTICALLY APPROPRIATE.
- ACHIEVE SERVICE EXPECTATIONS
- COMMUNITY CULTURAL ARCHITECTURAL FEATURE (NOT SHED BEHIND TOILETS)
- LICENSED.
- PROMOTION
- CIVIC PRIDE
- ACCESSABLE FOR SHOWS BUMP IN.
- VERSITLE
- FLEXIBLE
- ADAPTABLE
- MULTI PURPOSE.
- COMFORABLY SEATED
- GOOD SIGHT
- ENGAGEING
- MULTI GENERATIONAL
- BROAD APEAL
- MOVIES / PROJECTORS CINEMA
- REGIONALLY UNIQUE.
- WARM / NOT HOT
- PURSUING HISTORIC FEATURES
- TIMELY COMPETION
- FEASIBLE
- POLITICALLY ATTRACTIVE
- REGIONALLY SIGNIFICAT.
- CELEBRITYS CASINO
- CIVIC PRIDE
- REMOVABLE
- INSTAGRAMABLE.
- COMMUNAL FOCUS
- BRIDGE PAST TO FUTURE
- FOWARD LOOKING
- CRAZY
- AFFORDABLE * DANCE SHOW
- UTALISING WHAT WE HAVE
- RELOCATE PUBLIC TOILETS OUT OF THE HALL.

ACTIVITIES.

- EATING
- DRINKING
- WEDDINGS
- BALLS
- MOORE THEATRE
- CINEMA
- VISITING ARTIST
- DANCE LESSONS
- SCHOOL CONCERTS
- EISTEDDFOD
- FESTIVALS
- TALENT QUEST
- CHARITY EVENTS
- OLD TIME MUSIC HALL
- CHOIRS
- BINGO
- CONFERENCES
- DISPLAYS
- PANTOMIMES
- LASER SHOWS
- IMAX
-

- BASKET BALL
- ROLLER SKATING / DERBY
- REGIONAL THEATRE
- ORCHESTRAL PERFORMANCES
- INDOOR BOWLS
- CRAFT SHOWS
- BOXING
- DISCO
- OPERA
- SOUP KITCHEN
- CULTURAL ACTIVITIES
- FOOD MARKET
- COMMUNITY MEAL
- BEREAVEMENT WORKSHOPS
- FUNERAL
- MARKETS
- CHURCHES
- DISASTER MANAGEMENT
- GYMNASTICS
- ROCK CLIMBING
- ABSEILING
-

- FLYING FOXES
- MARKET
- CLASSES
- YOGA
- WOOD WORKING
- ANZAC DAY CELEBRATIONS
- AUSTRALIA DAY CELEBRATIONS
- CASINO
- HOME NIGHTS
- CITIZENSHIP CEREMONY
- CLEANING
- MAINTENANCE
- BOARDINGS
- SELLING TICKETS
- ABLUTIONS
- TRAINING
- PRODUCING SHOWS
- HOMELESS SHELTER
- DISASTER ACCOMODATION
- TOWN BAND BOSS
- BAND CONCERTS
-

- BETTING UP TENTS
- ACCOMODATE FESTIVAL
- ACTIVITIES AT BYRD WATCH FEST
- BEER WEEK
- TRIVIA NIGHTS
- GAMES NIGHT
- MANAGEMENT CENTRE
- KARAOKE
- RADIO CONTROLLED CAR
- MODEL TRAINS
- SPEED DATING
- SILK GYM
- FLYING APPARATUS
- CABARET
- THEATRE RESTAURANT
- SEWING SCHOOL
- POP UP RESTAURANT
- COCKTAIL MAKING
-

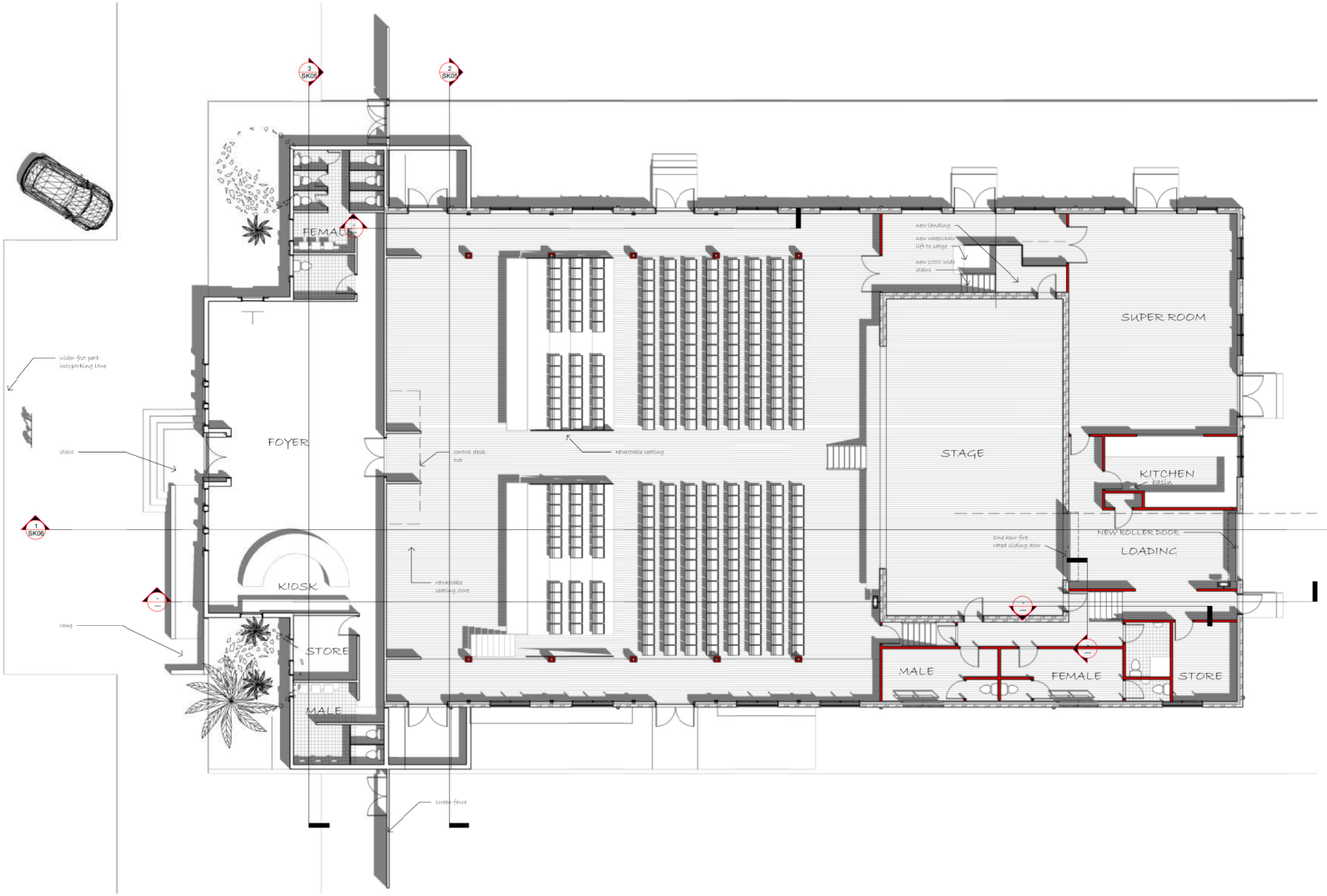
FACILITIES.

- KITCHEN - POE PLATE & SOCKE
- BAR
- STOOLS / 2L SOCKS
- TABLE & CHAIRS
- POWER
- LIGHTS
- AC UNDIT
- AV EQUIPMENT
- TROLLY
- STAGE ACCESS
- DRESSING ROOM ADEQUATE
- TOWERS / STICKS
- VENTILATION / AC
- BLACK OUT BLIND
- SEATING
- PULL OUT SEATING
- FOYER / ENTRANCE
- TICKET SALES
- 530 SEATS
- INTERNET
- DANCE FLOOR
- P.A / SOUND
- THEATRE
- COMMUNICATION
- SECURITY / CCTV.
- PROJECTOR / SCREENS
- LOCKABLE DOORS TO TOILETS
- STORAGE / ROOM
- FENCING SECURITY
- ADEQUATE TOILETS
- SAFE STAGE FIT
- ADEQUATE STAGE SURFACE.
- GOOD SOUND SYSTEM
- PORTABLE FLYS.
- ACOUSTICS
- VENTILATION
DISCO BAR

STANDBY POWER
- COMMS
- CURTAINS STAGE
- MANAGMENT OFFICES
- CONTROL ROOM.
- ANCHOR POINTS ON CEILING
- PARTITION)
- KIOSK.
- CATERING SERVERS & ACCESS
- LIFTING PLACE
- PIANO STORE
-

APPENDIX D Master Plan Drawings

stea
astute architecture



1 SK04 Z 000 Ground Floor
Scale 1 : 100

Richmond Valley Council

CASINO CIVIC HALL
RESTORATION
MASTERPLAN

GROUND FLOOR

Scale 1 : 100 at A1
Drawn Author
Date November 2019
Job Number 2410
Drawing Number SK01 Issue

Level 1, 25 River St,
PO Box 758
Mackay Q 4740

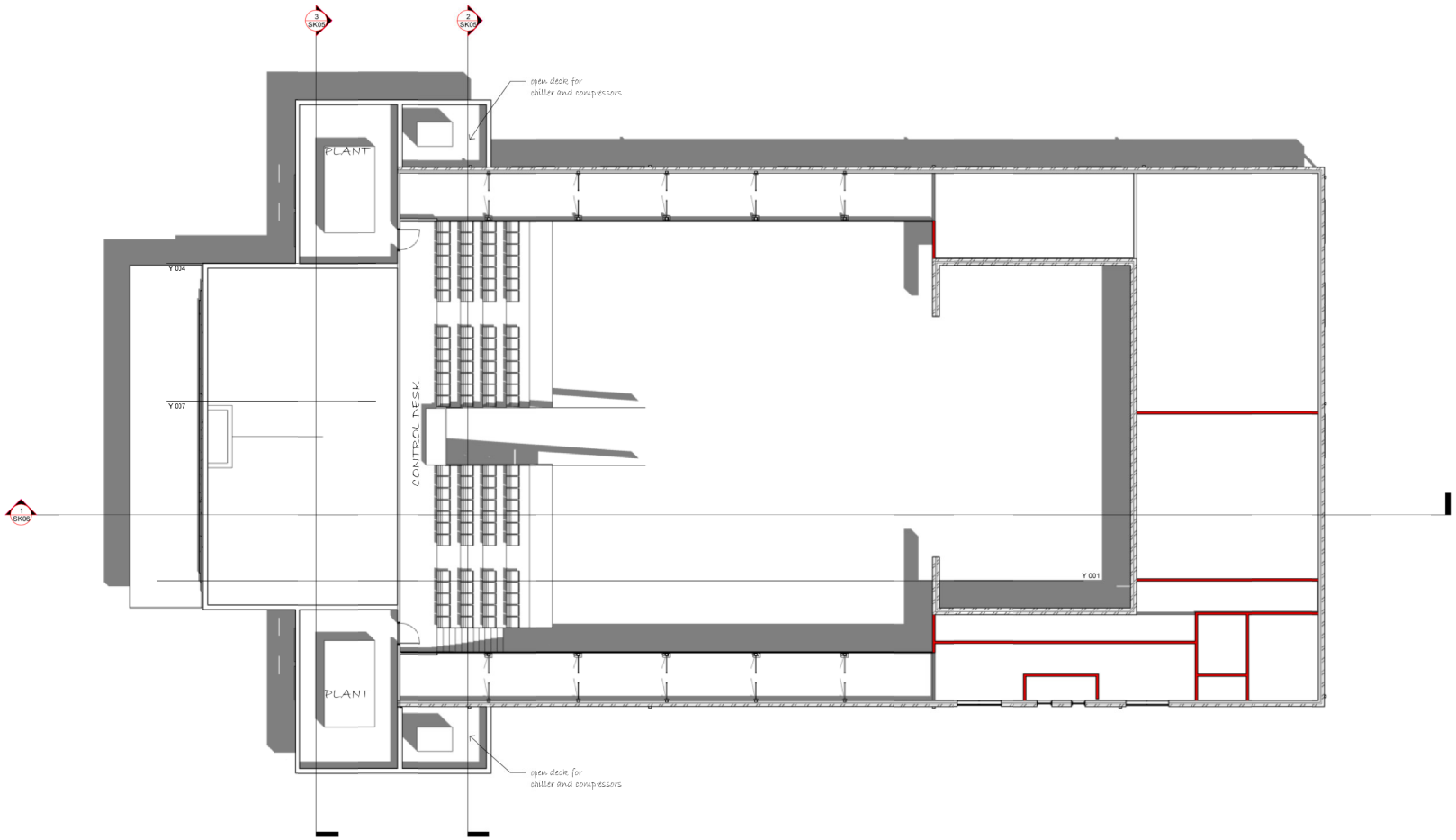
(07) 4957 7341
mail@stea.com.au
www. stea.com.au

0 10 20 30 40 50 mm
USE FIGURED DIMENSIONS IN PREFERENCE TO SCALED.

A1

Sanders Turner Ellick Architects Pty Ltd trading as Stea Astute Architecture ABN 49 061 927 731 ACN 061 927 731

G:\Documents\Casino Civic Hall Master Plan\2401 Concept Plan 23-01-20.rvt



1 / SK04 PLANT ROOM
Scale 1 : 100

stea
astute architecture

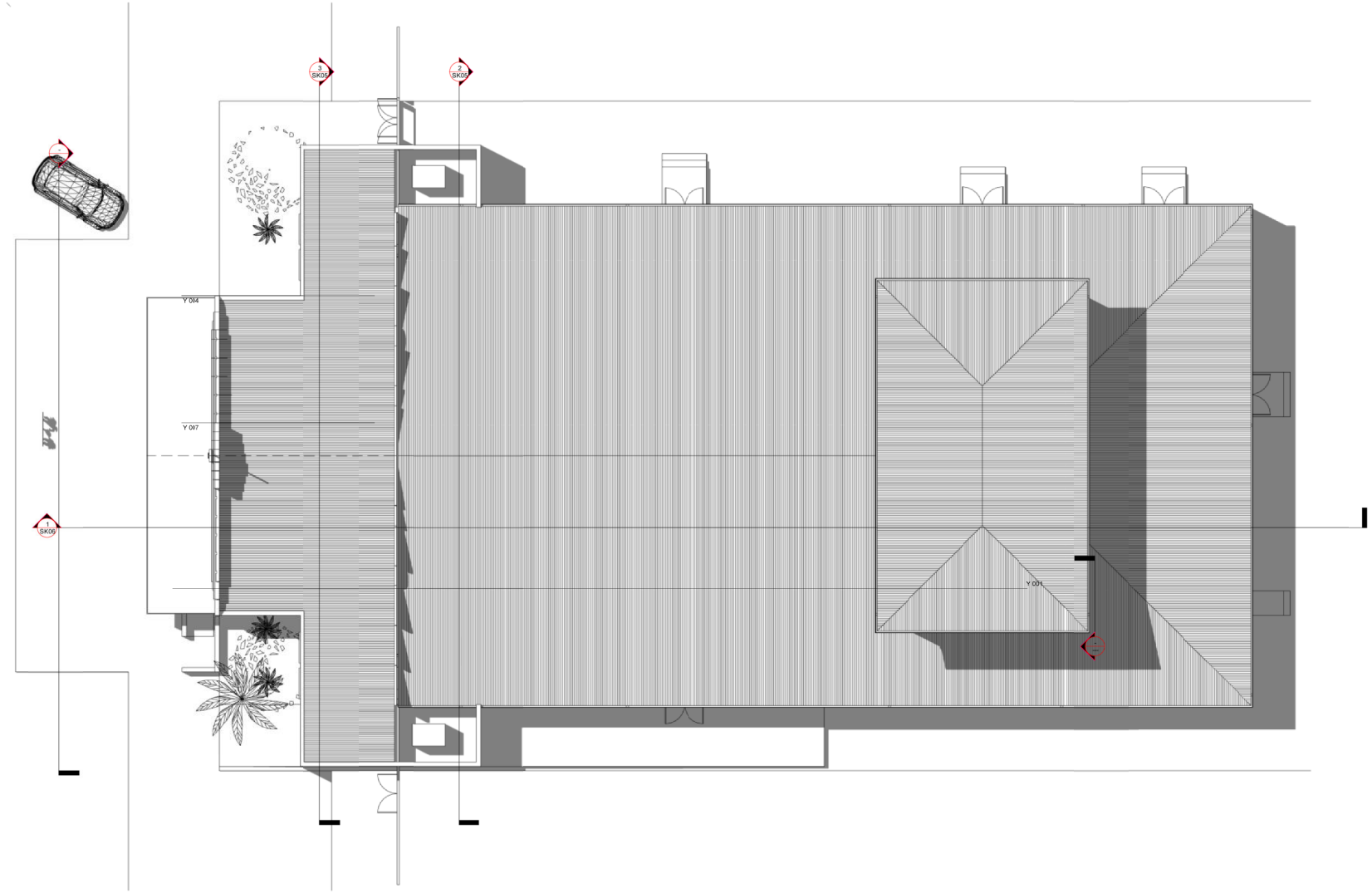
CASINO CIVIC HALL
RESTORATION
MASTERPLAN

PLANT ROOM LEVEL

Scale 1 : 100 at A1
Drawn Author
Date November 2019
Job Number 2410
Drawing Number SK02 Issue

Level 1, 25 River St,
PO Box 758
Mackay Q 4740
(07) 4957 7341
mail@stea.ccm.au
www. stea.ccm.au

0 10 20 30 40 50 mm
USE FIGURED DIMENSIONS IN PREFERENCE TO SCALED.
A1



1 ROOF PLAN
Scale 1 : 100

stea
astute architecture

CASINO CIVIC HALL
RESTORATION
MASTERPLAN

ROOF PLAN

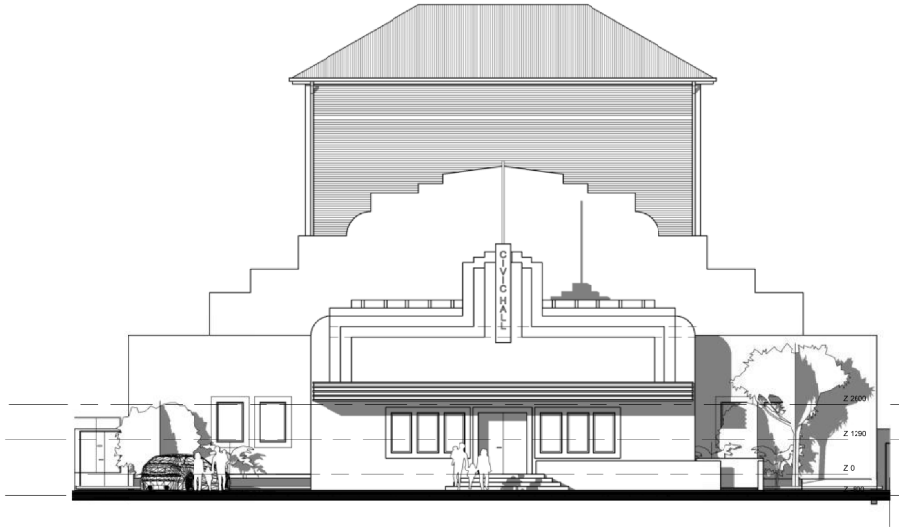
Scale 1 : 100 at A1
Drawn Author
Date November 2019
Job Number 2410
Drawing Number SK03 Issue

Level 1, 25 River St,
PO Box 758
Mackay Q 4740

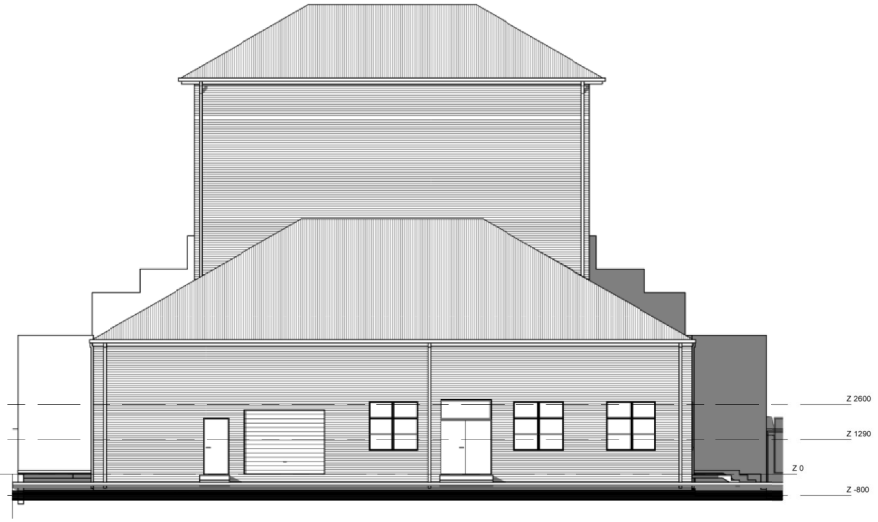
(07) 49577341
mail@stea.ccm.au
www. stea.ccm.au

0 10 20 30 40 50 mm
USE FIGURED DIMENSIONS IN PREFERENCE TO SCALED.
A1

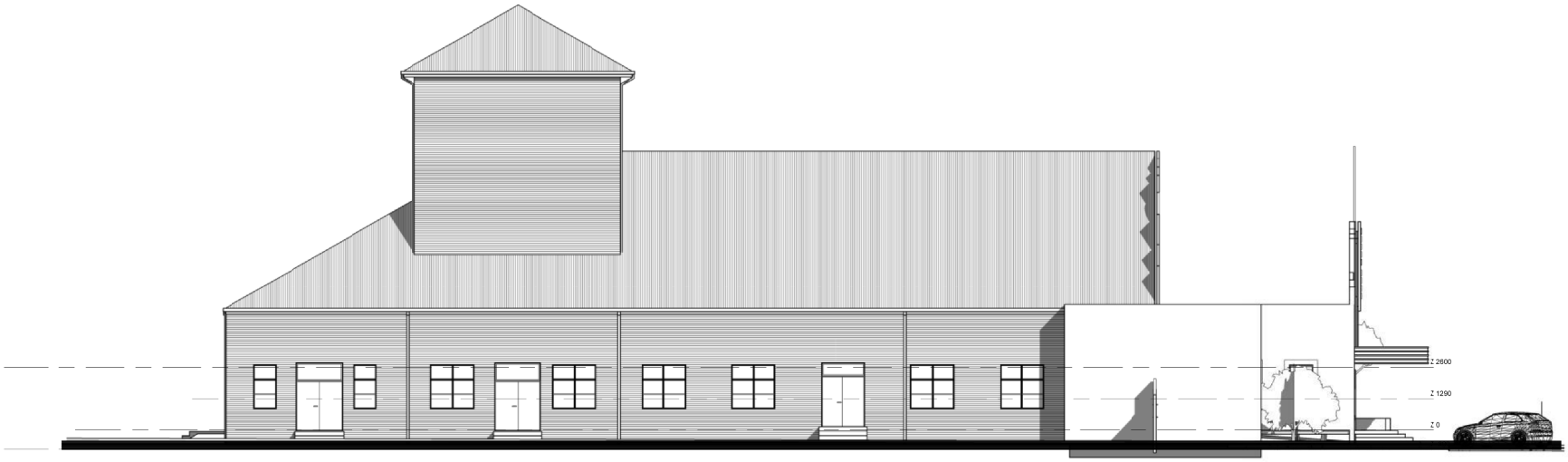
stea
astute architecture



1 North Elevation
Scale 1 : 100



3 South Elevation
Scale 1 : 100



2 East Elevation
Scale 1 : 100

CASINO CIVIC HALL
RESTORATION
MASTERPLAN

ELEVATIONS

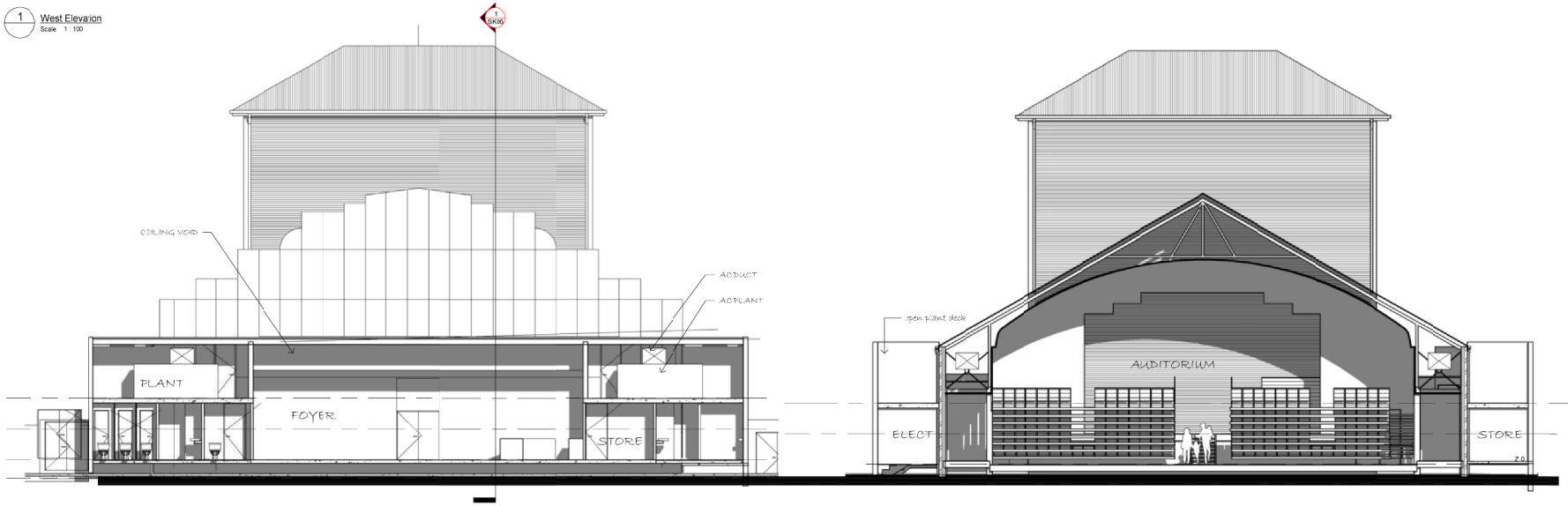
Scale 1 : 100 at A1
Drawn SOT
Date November 2019
Job Number 2410
Drawing Number SK04 Issue

Level 1, 25 River St,
PO Box 758
Mackay Q 4740

(07) 49577341
mail@stea.ccm.au
www. stea.ccm.au

0 10 20 30 40 50 mm
USE FIGURED DIMENSIONS IN PREFERENCE TO SCALED.
A1

1 West Elevation
Scale 1 : 100



3 SK01 FOYER SECTION
Scale 1 : 100

2 SK01 Section A-A
Scale 1 : 100

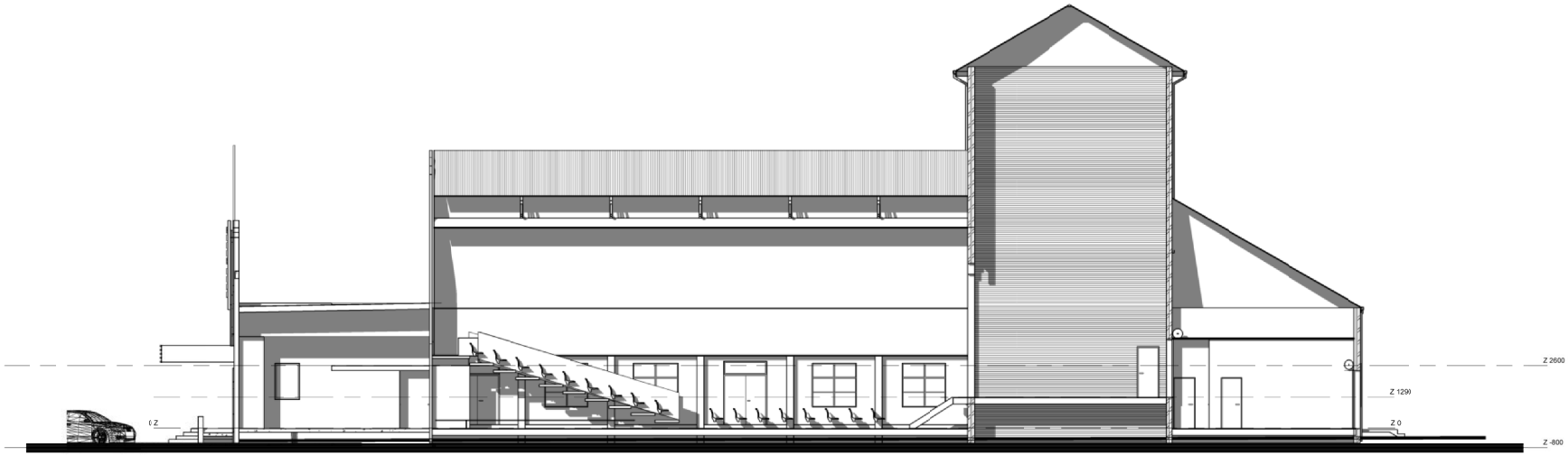
stea
astute architecture

CASINO CIVIC HALL
RESTORATION
MASTERPLAN

ELEVATION SECTION
Z -800
Scale 1" 100 at A1
Drawn Author
Date November 2019
Job Number 2410
Drawing Number SK05 Issue

Level 1, 25 River St,
PO Box 758
Mackay Q 4740
(07) 49577341
mail@stea.ccm.au
www. stea.ccm.au

0 10 20 30 40 50 mm
USE FIGURED DIMENSIONS IN PREFERENCE TO SCALED.
A1



1 SK01 Section B-B
Scale 1 : 100

stea
astute architecture

CASINO CIVIC HALL
RESTORATION
MASTERPLAN

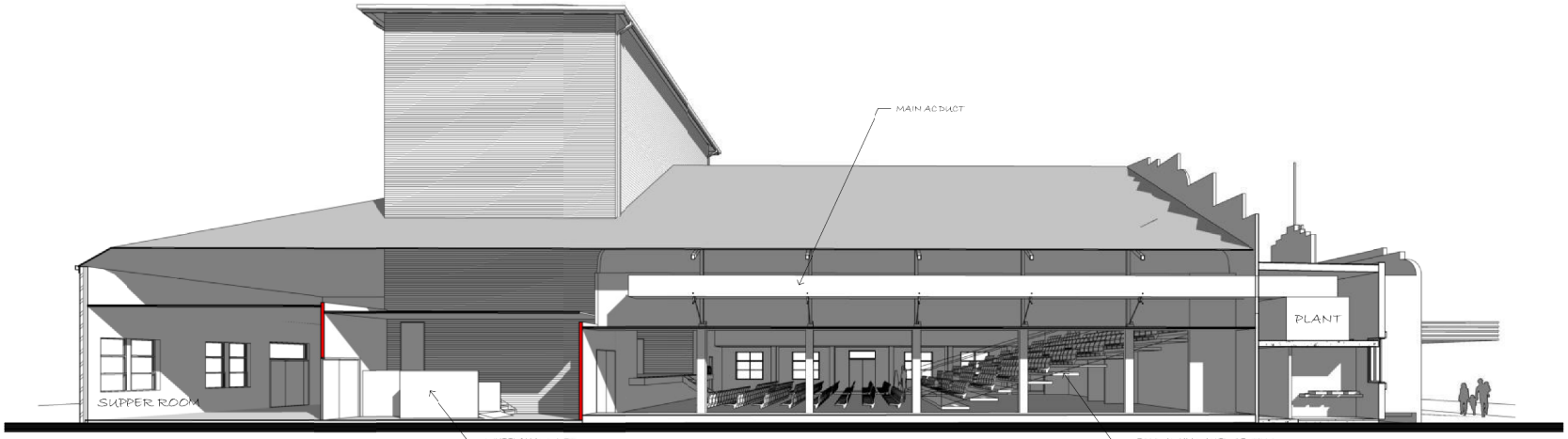
SECTION

Scale 1 : 100 at A1
Drawn Author
Date November 2019
Job Number 2410
Drawing Number SK06 Issue

Level 1, 25 River St,
PO Box 758
Mackay Q 4740

(07) 49577341
mail@stea.ccm.au
www. stea.ccm.au

0 10 20 30 40 50 mm
USE FIGURED DIMENSIONS IN PREFERENCE TO SCALED.
A1



1 3D View 8
Scale

2 3D View 8 Copy 1
Scale

stea
astute architecture

CASINO CIVIC HALL
RESTORATION
MASTERPLAN

SECTIONAL PERSPECTIVE

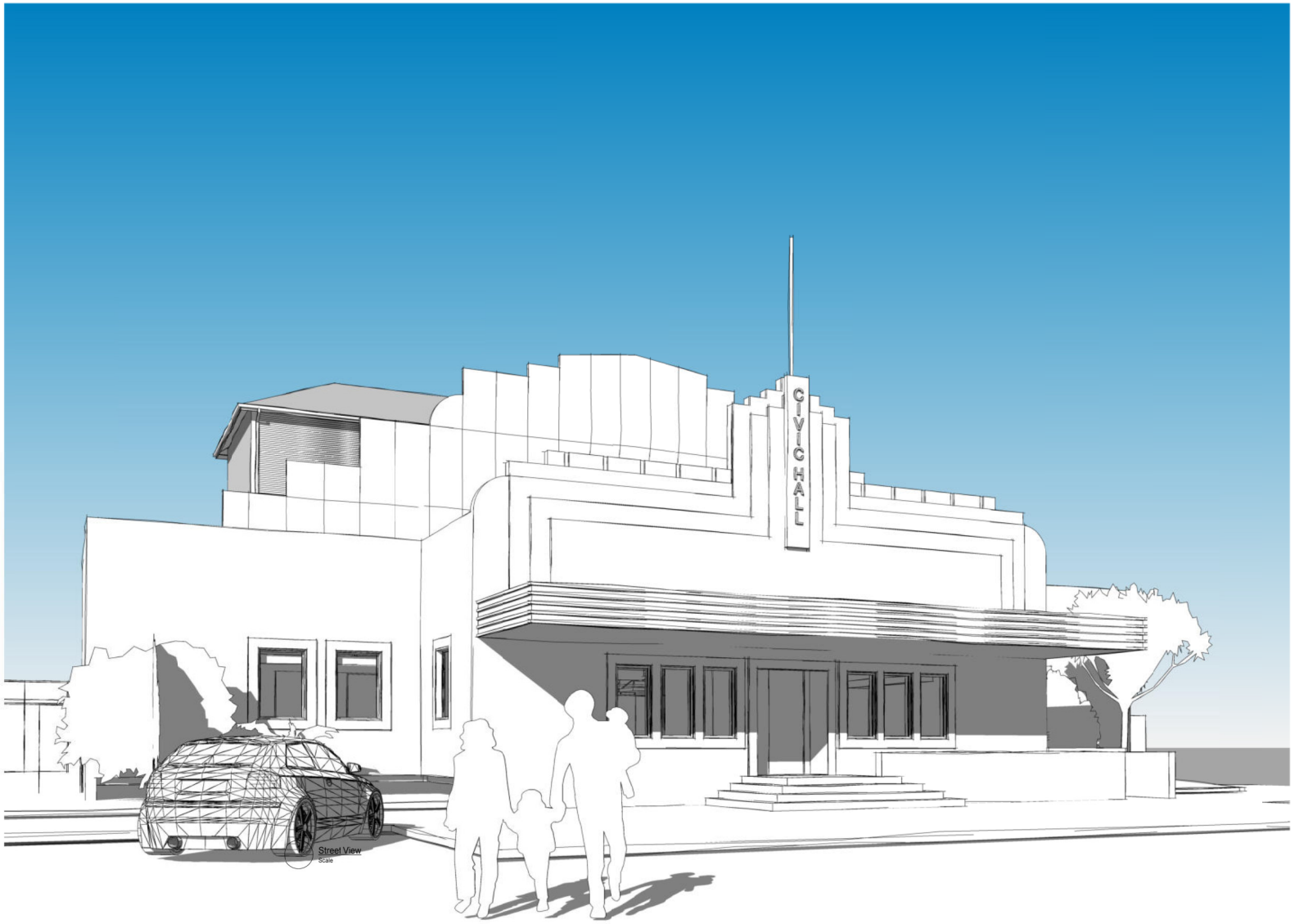
Scale at A1
Drawn Author
Date November 2019
Job Number 2410
Drawing Number SK07 Issue

Level 1, 25 River St,
PO Box 758
Mackay Q 4740

(07) 49577341
mail@stea.ccm.au
www. stea.ccm.au

0 10 20 30 40 50 mm
USE FIGURED DIMENSIONS IN PREFERENCE TO SCALED.

A1



stea
astute architecture

CASINO CIVIC HALL
RESTORATION
MASTERPLAN

PERSPECTIVE

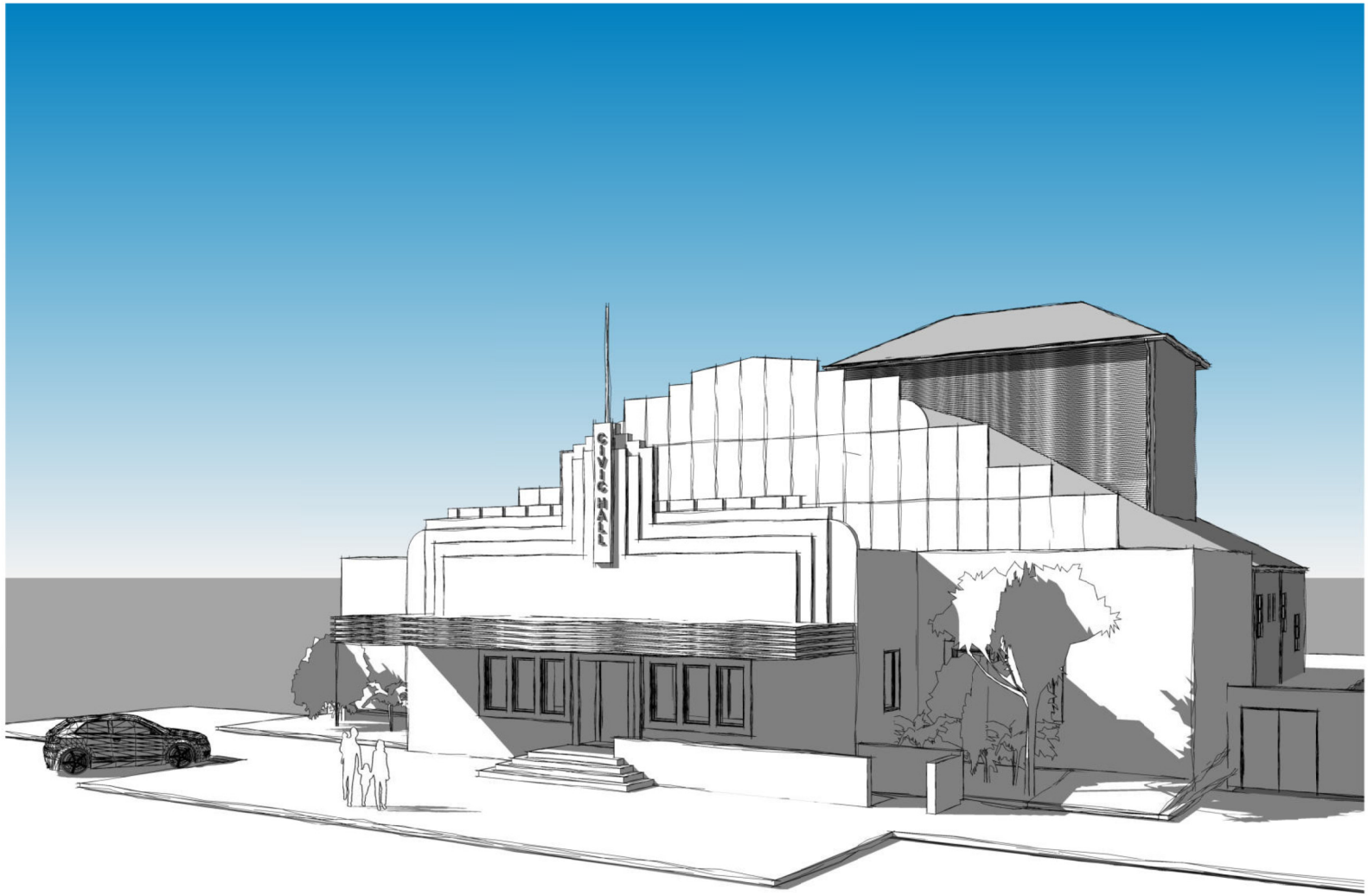
Scale at A1
Drawn Author
Date November 2019
Job Number 2410
Drawing Number SK08 Issue

Level 1, 25 River St,
PO Box 758
Mackay Q 4740

(07) 49577341
mail@stea.ccm.au
www. stea.ccm.au

0 10 20 30 40 50 mm
USE FIGURED DIMENSIONS IN PREFERENCE TO SCALED.
A1

stea
astute architecture



1 Aerial Street View
Scale

CASINO CIVIC HALL
RESTORATION
MASTERPLAN

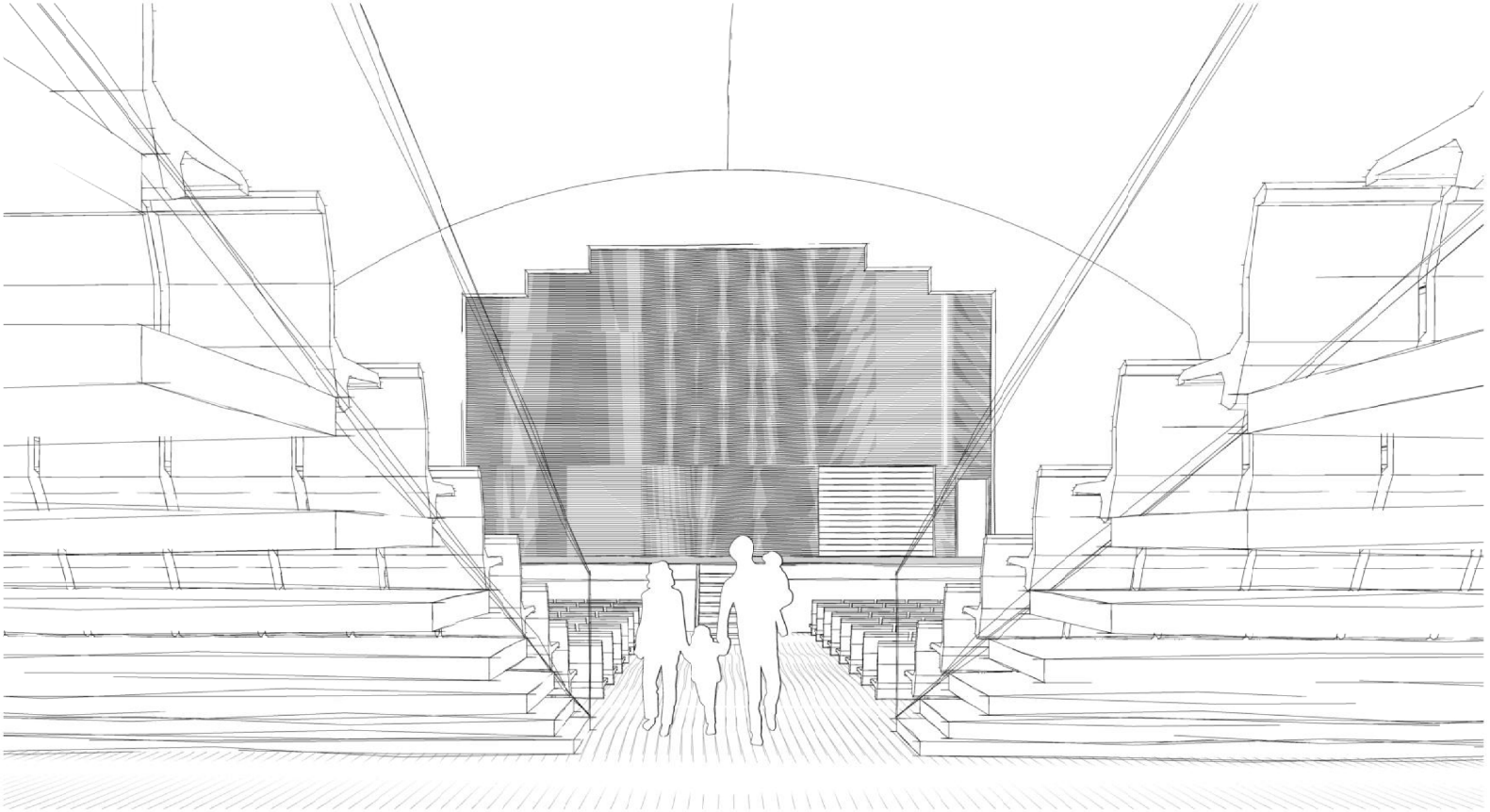
PERSPECTIVE

Scale at A1
Drawn Author
Date November 2019
Job Number 2410
Drawing Number SK09 Issue

Level 1, 25 River St,
PO Box 758
Mackay Q 4740

(07) 49577341
mail@stea.ccm.au
www. stea.ccm.au

0 10 20 30 40 50 mm
USE FIGURED DIMENSIONS IN PREFERENCE TO SCALED.
A1



1 Auditorium View
Scale

stea
astute architecture

CASINO CIVIC HALL
RESTORATION
MASTERPLAN

PERSPECTIVE

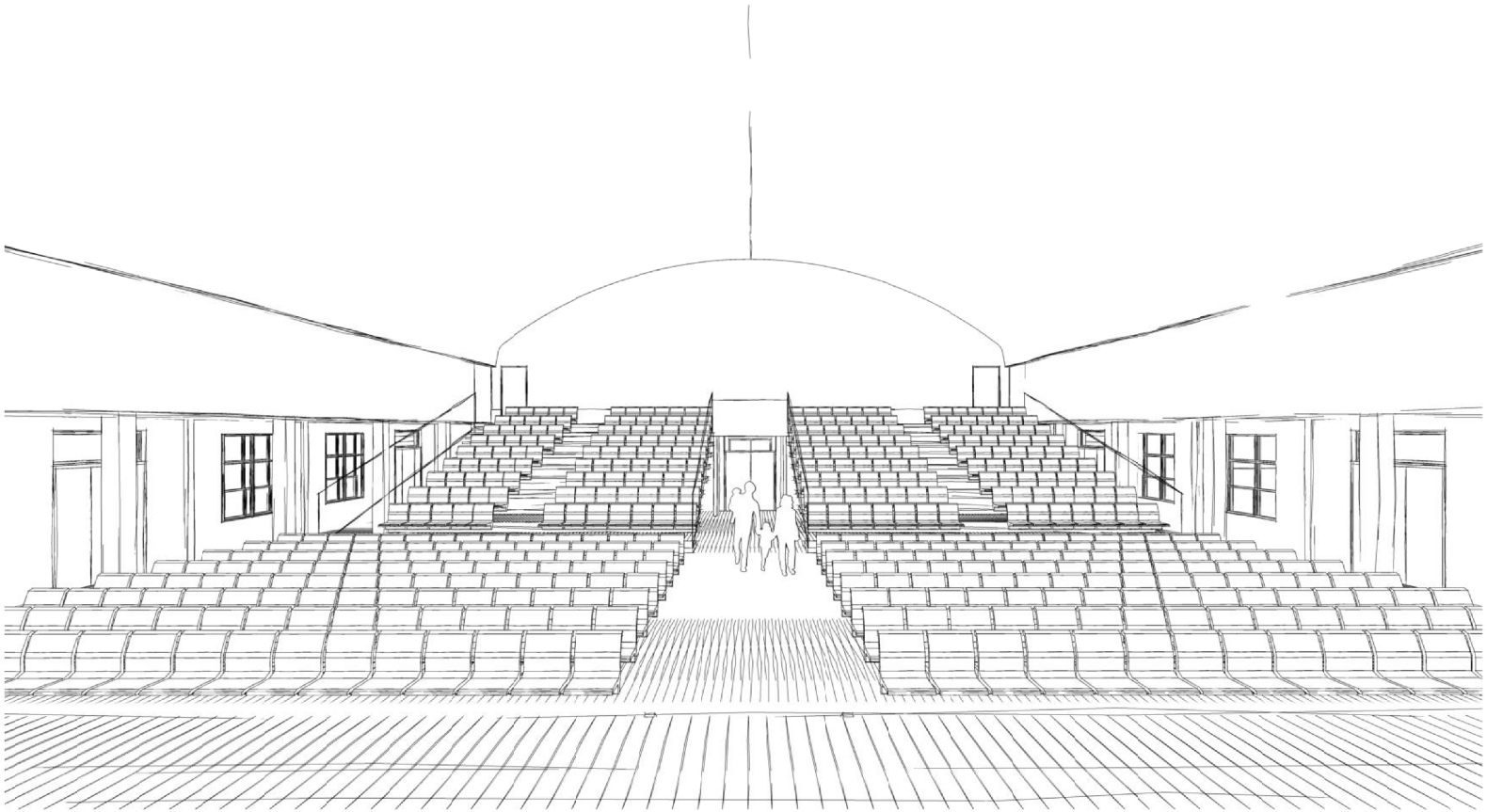
Scale at A1
Drawn Author
Date November 2019
Job Number 2410
Drawing Number SK10 Issue

Level 1, 25 River St,
PO Box 758
Mackay Q 4740

(07) 49577341
mail@stea.ccm.au
www. stea.ccm.au

0 10 20 30 40 50 mm
USE FIGURED DIMENSIONS IN PREFERENCE TO SCALED.
A1

G:\Documents\Casino\Casino Civic Master Plan\2401 Concept Plan 23.10.20.vwx



1 View from the Stage
Scale

stea
astute architecture

CASINO CIVIC HALL
RESTORATION
MASTERPLAN

PERSPECTIVE

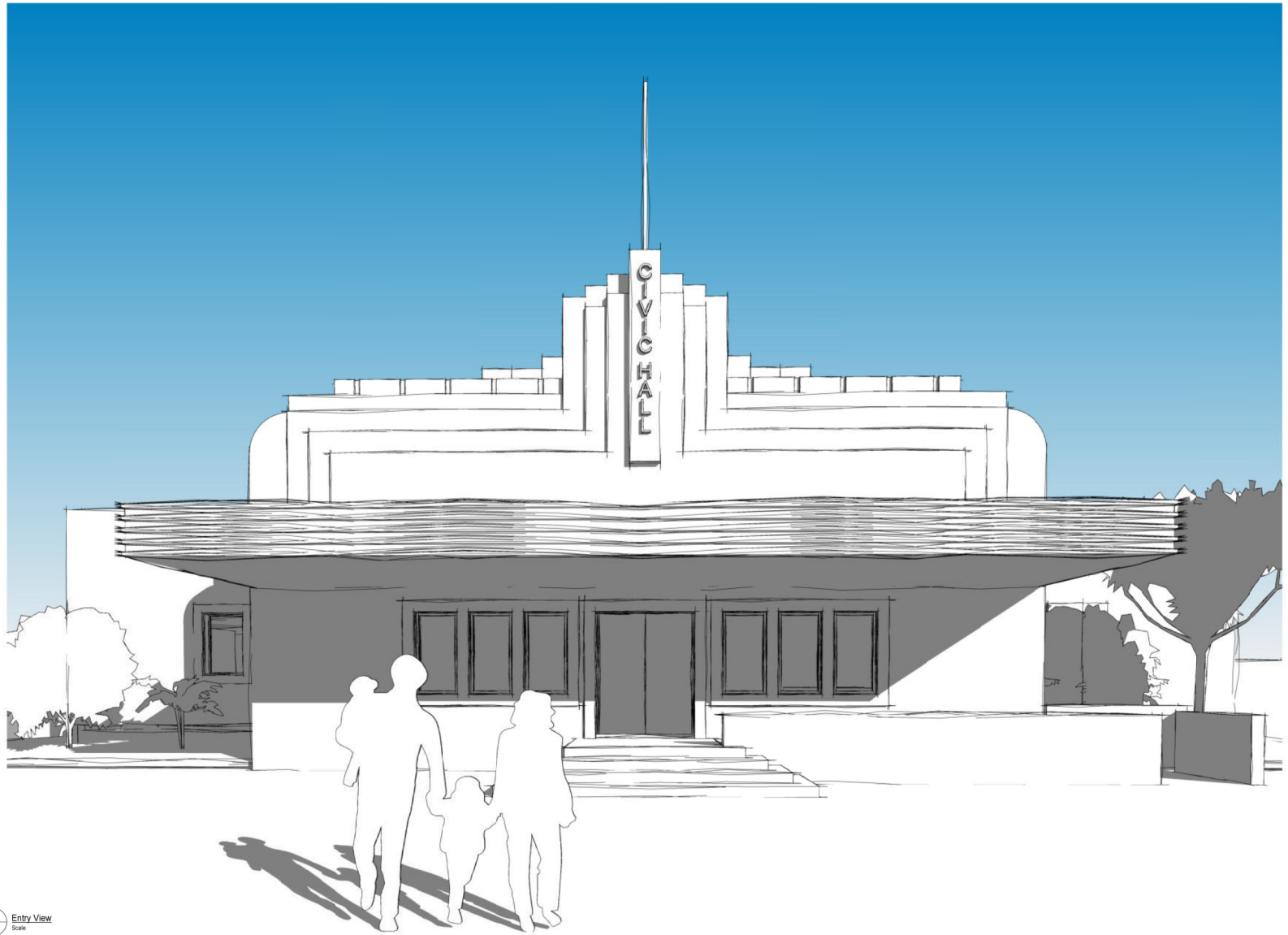
Scale at A1
Drawn Author
Date November 2019
Job Number 2410
Drawing Number SK11 Issue

Level 1, 25 River St,
PO Box 758
Mackay Q 4740

(07) 49577341
mail@stea.ccm.au
www. stea.ccm.au

0 10 20 30 40 50 mm
USE FIGURED DIMENSIONS IN PREFERENCE TO SCALED.
A1

stea
astute architecture



1 Entry View
Scale

CASINO CIVIC HALL
RESTORATION
MASTERPLAN

PERSPECTIVE

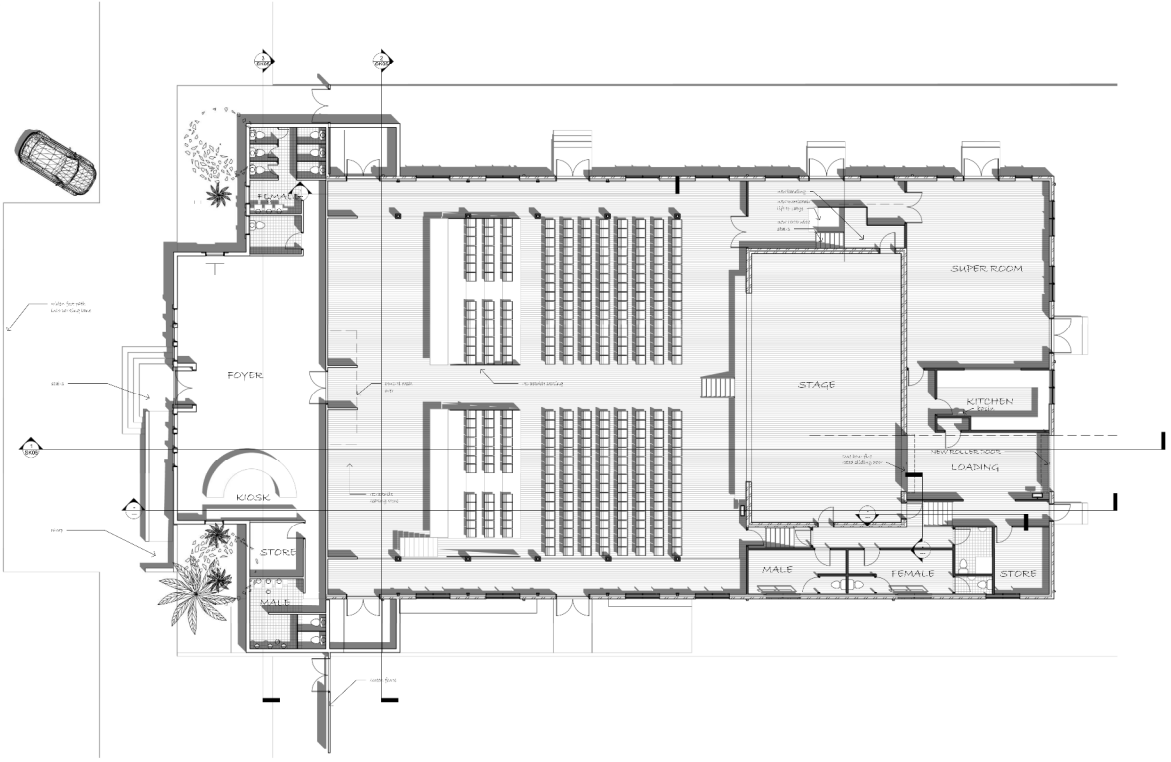
Scale at A1
Drawn Author
Date November 2019
Job Number 2410
Drawing Number SK12 Issue

Level 1, 25 River St,
PO Box 758
Mackay Q 4740

(07) 49577341
mail@stea.ccm.au
www. stea.ccm.au

0 10 20 30 40 50 mm
USE FIGURED DIMENSIONS IN PREFERENCE TO SCALED.
A1

stea
astute architecture



1 SK04 Z 000 Ground Floor
Scale 1 : 100

Richmond Valley Council

CASINO CIVIC HALL
RESTORATION
MASTERPLAN

GROUND FLOOR

Scale 1 : 100 at A1
Drawn Author
Date November 2018
Job No. 2410
Drawing Number SK01 Issue

Level 1, 25 River St, PO Box 758 Mackay Q 4740
(07) 4957 7341
mail@stea.com.au
www. stea.com.au

0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 mm