





Design and Access Statement

Pontardawe Arts Centre

This document has been prepared by Childs Sulzmann Architects to support the planning application for the reconfiguration, refurbishment and extension to the Pontardawe Arts Centre to improve the current internal layout and provide a new dedicated cinema.

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Revision C

**CHILDS
SULZMANN**
ARCHITECTS

www.cs-architects.co.uk

9th Floor Beacon Tower
Colston Street
Bristol
BS1 4XE
01179 300010

mike.cox@cs-architects.co.uk
alex.steenfeldt@cs-architects.co.uk
christopher.gough@cs-architects.co.uk

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4.4 The Proposal

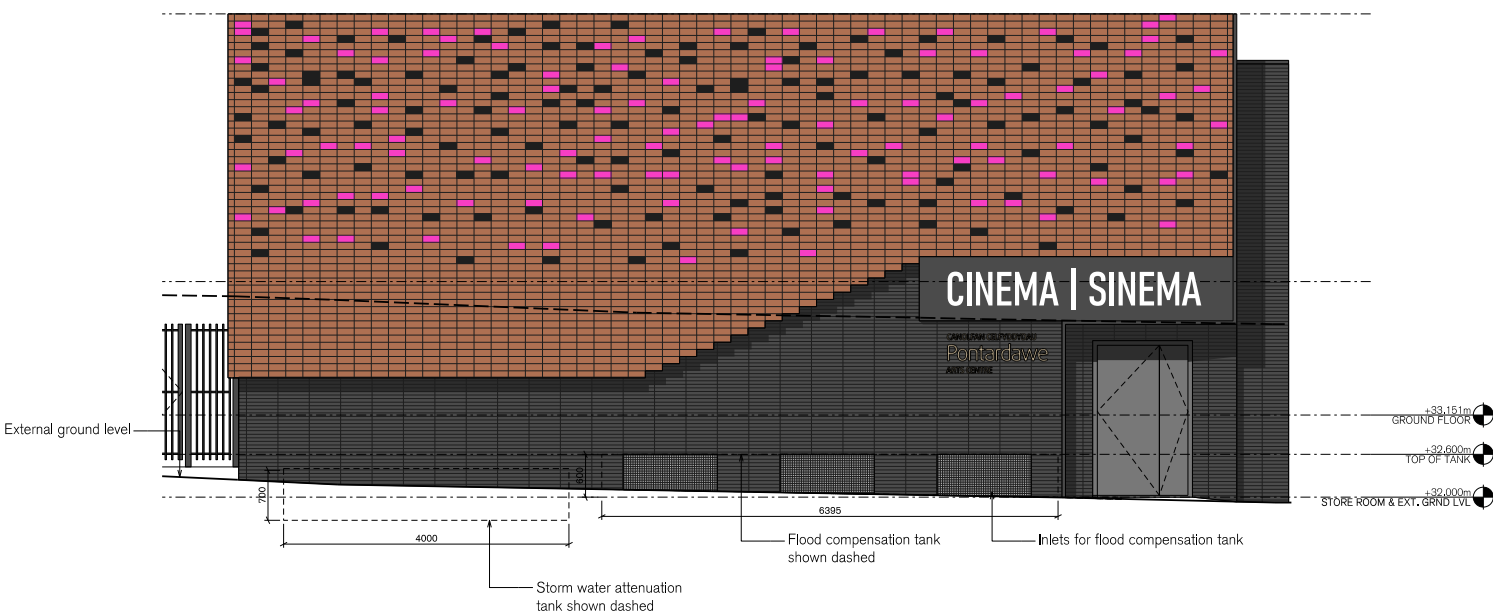
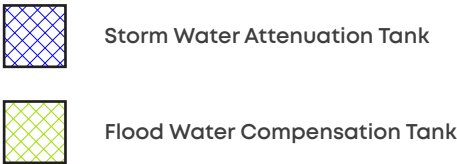
Flooding

In response to NRW comments and to comply with TAN 15 a flood water compensation tank, in addition to a storm water attenuation tank, has been incorporated into the scheme.

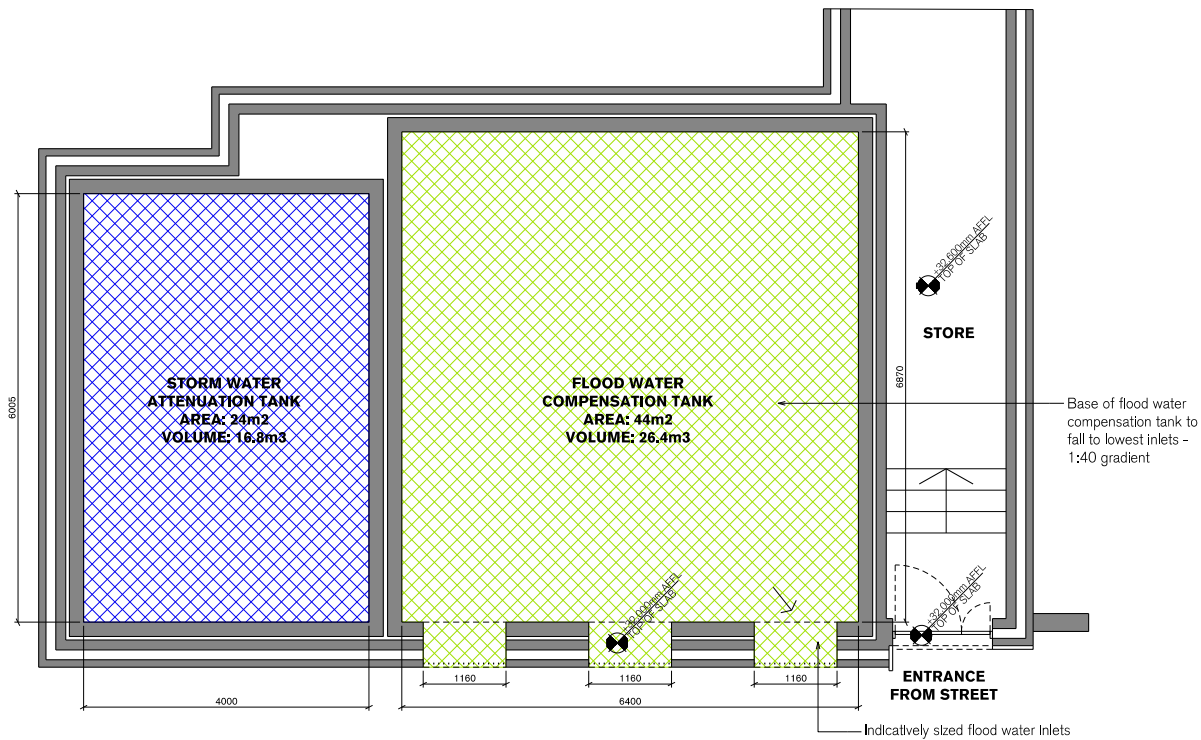
The storm water attenuation tank has a volume of 16.8m³ and is located to the north of the new cinema extension. In the event of an increase in rainwater during a storm, the attenuation tank will fill up and release the water into the public drainage system at a pre-determined controlled rate. This replicates the slow rate of water infiltrating the ground that would occur if the site remained undeveloped. As a result, the likelihood of storm surges is reduced.

The flood water compensation tank has a volume of 26.4m³ and is located to the south of the new cinema extension where the site slopes down towards Herbert Street. By incorporating the compensation tank the scheme will comply with NRW's technical advice note TAN 15.

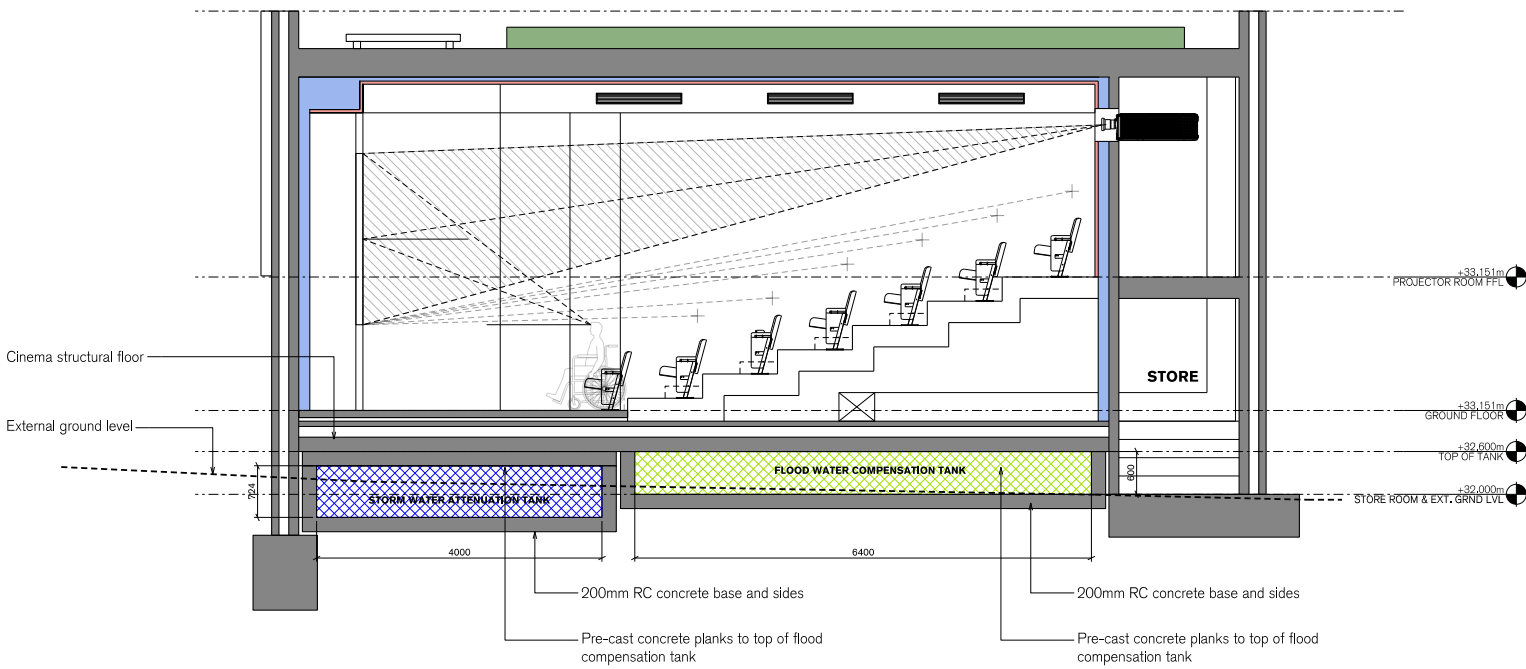
During flood events the tank will fill up with flood water that would have occupied the site pre-development. This reduces the risk of pushing flooding impacts downstream. Flood water enters the tank via 3 inlets on the NW-SE elevation. As the flood water recedes the tank will empty accordingly meaning the tank must lie flush with ground level. A robust metal mesh is placed within the inlet to mitigate the ingress of vermin and litter while allowing the free flow of water.



Proposed Elevation showing compensation tank inlets



Proposed Below Ground Plan showing attenuation and compensation tanks



Proposed Section showing attenuation and compensation tanks

4.5 The Proposal

Ecology

A bat survey was undertaken by Just Mammals Ltd to determine the presence of bats within the site and the impact that this development will have. This report is submitted with this application.

From the survey:

“Survey effort identified two bat roosts within the property, both used by a small number of common pipistrelle bats. The roosts are within the apex area of the east facing gable of the main roof and also under the ridge tile of the studio theatre south gable wall. The roosts are assessed to be used as summer day roosts and are unlikely to be maternity roosts due to the small number of bats within each. However, as the observations were carried out in August and September, the possibility that earlier in the year there was a small maternity roost at this site cannot be ruled out. Maternity roosts will start to disperse in late August, though there is no evidence for the presence of one at the Arts Centre, and the likelihood of this occurring is assessed to be low.

Presence of bats at other times of year apart from the summer was considered and the building is assessed to have negligible potential to be used by hibernating bats. No features offering cool and constant thermal conditions to support hibernating bats were identified.”

In addition to the bats survey the Ecology Survey confirmed that there was no evidence of nesting birds at the time of the survey.

Recommendations

The report states that an EPS license is not required but that scaffolding of the main studio theatre, or main roof of the arts centre must be avoided during the months of may to mid-september. As no works to this part of the building require scaffolding this is not seen to be an issue.

Table 4: Pontardawe Arts Centre, Pontardawe – Dusk Observation 27th August 2021

Time (24 Hour Clock)	Species (Common Name)	Recording No.	Observed Activity
20:30 hours	Common pipistrelle (x2)	1 MW: 1 NI: 1 DM: 1 NA	Emerged in quick succession from main roof at apex area of east facing gable; flew south
20:37 hours	Common pipistrelle	3 DM	Foraging over ground to south-east of site
20:38 hours	Common pipistrelle (x2)	4 DM	Foraging to south-east of site
20:38 hours	Soprano pipistrelle	2 NA: 1 BG	Commuting over plant room from east to west
20:39 hours	Soprano pipistrelle	2 MW	Commuting north to south over rear of main building
20:43 hours	Common pipistrelle	5 DM	Foraging over adjacent property to south-east

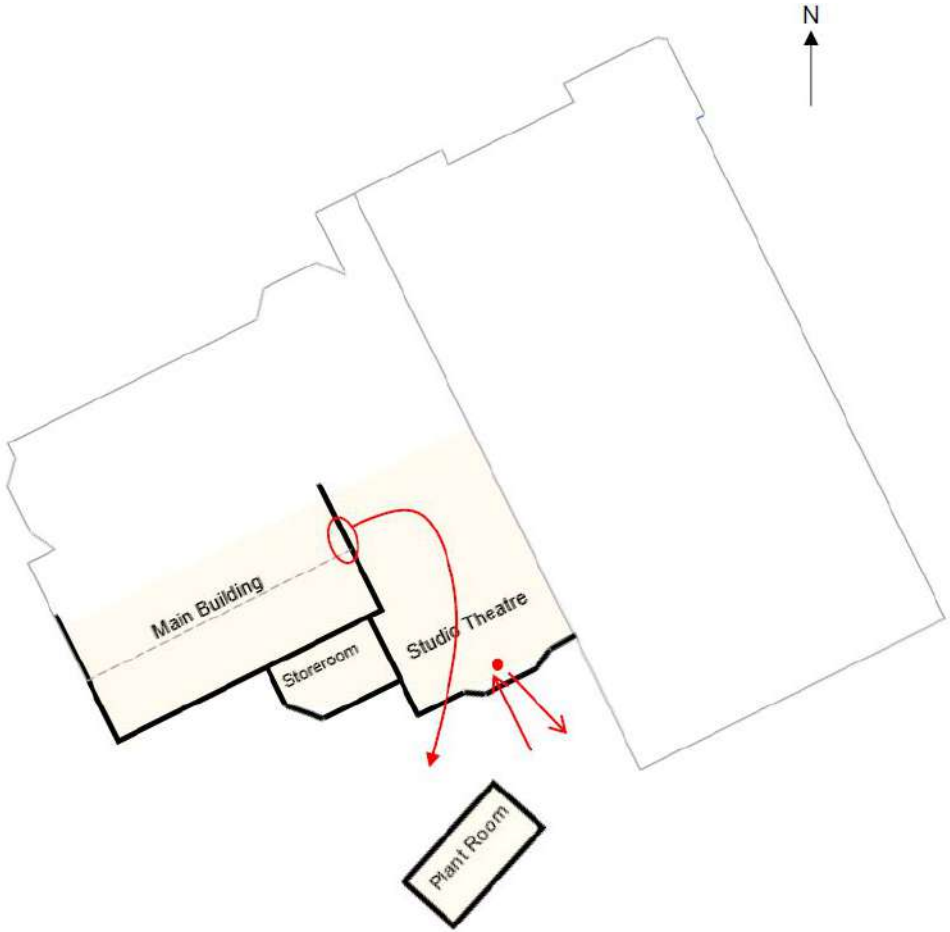
Note: Records in bold indicate emergence or re-entry activity

Table 5: Pontardawe Arts Centre, Pontardawe – Dusk Observation 14th September 2021

Time (24 Hour Clock)	Species (Common Name)	Recording No.	Observed Activity
19.24 hours	Common pipistrelle	1 RM	Emerged from area of east facing gable of main roof
19.31 hours	Common pipistrelle	2 RM, 1 MW	Entered under gable end ridge tile of studio theatre
19.49 hours	Common pipistrelle	2 MW	Emerged from studio theatre gable end ridge tile
19.56 hours	Common pipistrelle	3 MW	Heard but not seen to south-east of site
20.09 hours	Common pipistrelle	3 RM, 4 MW	Commuting south to north between plant room and main building
20.13 hours	Common pipistrelle	4 RM	Heard but not seen foraging south-east of survey site
20.21 hours	Common pipistrelle	5 RM	Heard but not seen foraging south-east of survey site
20.22 hours	Soprano pipistrelle	5 MW	Heard but not seen foraging south-east of survey site

Note: Records in bold indicate emergence or re-entry activity

Survey Results, Ecology Report, 2021



Bat emergence activity - from the Ecology Report, 2021

4.6 The Proposal

BREEAM

The proposed extension to Pontardawe Arts centre is being assessed under the BREEAM UK New Construction 2018 (Other Buildings: Cinema) scheme and is on target to achieve the BREEAM Excellent rating. Sol Environment have been appointed as BREEAM Assessor and the scheme has been registered with the BRE in June 2022.

As a team we have undertaken the following steps as part of the Early Actions Summary:

- Neath Port Talbot Council and Pontardawe Arts Centre have undertaken public consultation as part of the development for the business case and funding
- Consultation has been undertaken with South Wales Police Designing Out Crime Officer
- Acoustic consultants have undertaken a noise impact assessment
- Ecology consultants have surveyed the site and produced reports and ecology management plan

The key sustainability criteria adapted within the design include looking at the demolition waste, sourcing of materials to be used within the construction of the building and considering the response to both climate change and the future adaptability of the building.

The cinema is proposed to be ventilated, heated and cooled with an Air Handling Unit. Integrated into this is an Air Source Heat Pump and thermal wheel. This ensures heat or cool is captured as much as possible from exhaust air and only “topped up” with the use of

the air source heat pump. This in turn will make use of efficiencies of approximately 300% when compared to direct electric heating.

The Air Handling Unit will be controlled to maintain CO2 levels in the space served. This ensures it is only operation and consuming the minimum amount of energy required for the occupation at any time.

WCs and circulation spaces will also use heat recovery as part of their ventilation strategies to minimise the need for space heating.

The sustainability assessment that has been completed considered a fabric first approach to the construction, recommended fabric performance targets that would keep heat losses and air infiltration to reasonable levels. It also reviewed various low carbon technologies such as biomass, ground source heat pumps, air source heat pumps, solar thermal etc to consider their suitability – confirming that PV and / or ASHPs could work on this site. Based on this, an ASHP system has been proposed as the source of heating and cooling to the cinema.

The water supply to the new part of the building will be metered and monitored. This will assist with identifying excessive use so that action can be taken to reduce this. It is also being considered to limit water usage will be limited through the specification of solenoid shut off valves linked to motion detectors to shut off water supplies when WC areas are vacant. This prevents water outlets being left running.

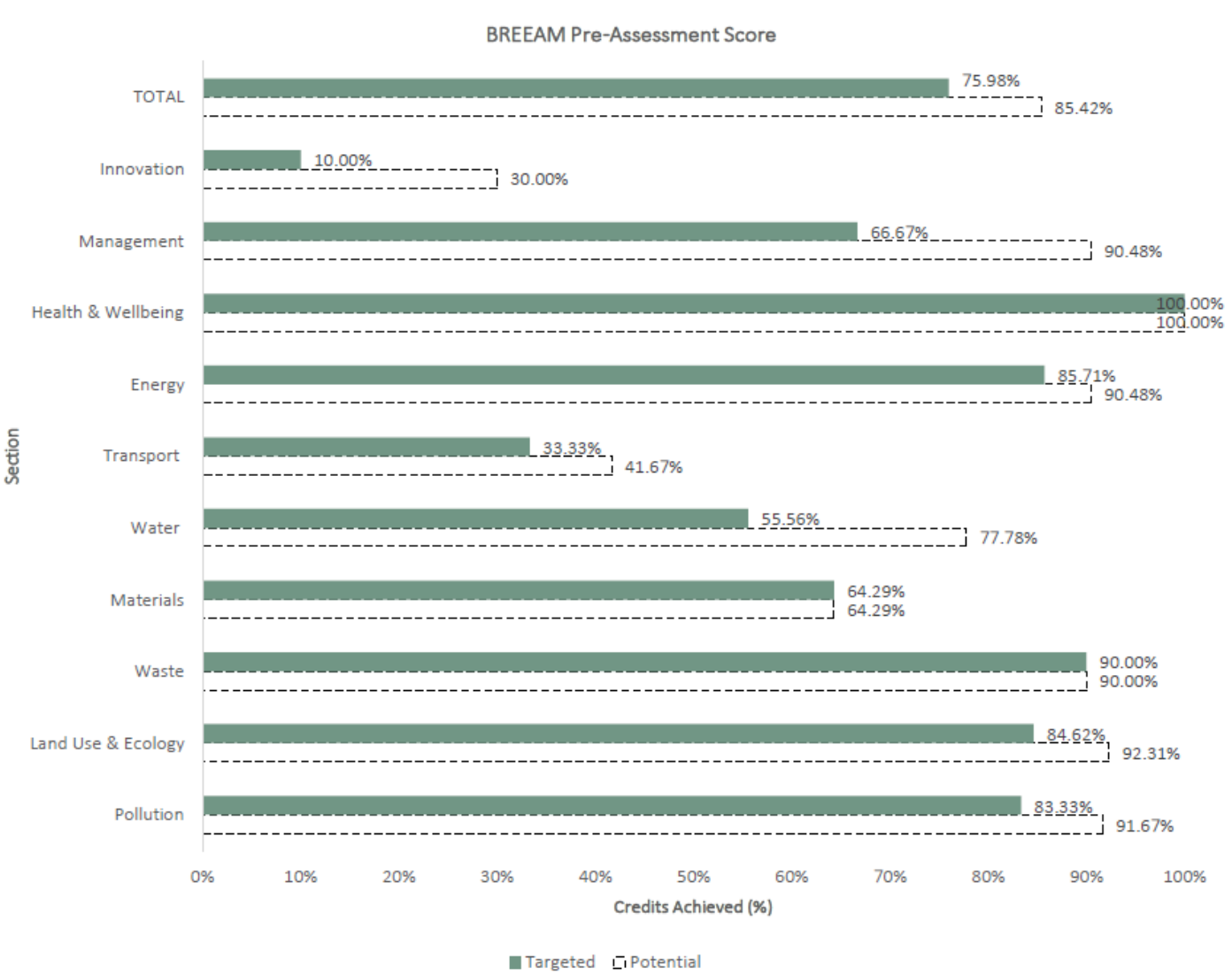
Solar Panels

Solar panels have been proposed for installation on the new cinema extension. This avoids them being visible on the existing pitched roof of the Arts Centre. In total, 9.6m² of solar panels, consisting of 6 no. 1m x 1.6m panels, is required.

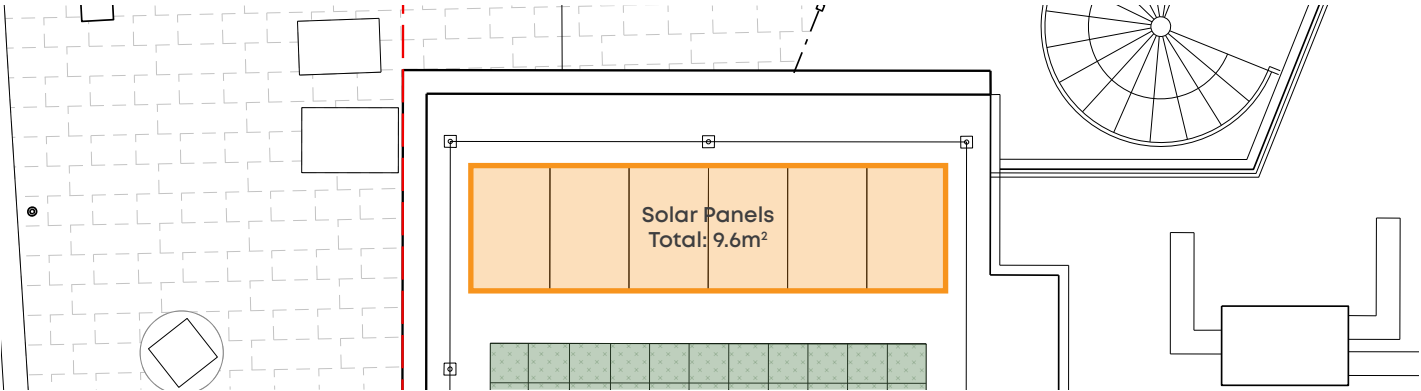
By installing solar panels the building’s reliance on the electricity grid is reduced. The optimum panel slope is

33°. A flat installation is possible, however, this will reduce the output by 10%.

In order to not compromise the green roofs integrity, the solar panels are located in an easily accessible area of the roof with a mansafe running the perimeter to ensure the safety of anyone maintaining/ cleaning the solar panels.



Summary of BREEAM Pre-Assessment Scores. BREEAM Excellent (70%) is being targeted, BREEAM Outstanding (85%) is potential.



Solar panels adjacent to green roof on new cinema extension.

4.7 The Proposal

Biodiversity Enhancement

As part of the BREEAM excellent requirements for the new extension and at the recommendation of the Ecology survey to comply with Planning Policy PPW10, a green roof has been incorporated on to the roof of the cinema.

With the limited opportunities for biodiversity enhancement at ground level a green roof is seen to be the most effective method for increasing the available biodiversity to encourage invertebrates.

The proposed green roof system is a modular system arranged on a grid 4.5 x 11.5m which contains a mix of plant species.

The M-Tray® sedum green roof modules are grown from seed and include 13 different sedum species suitable for the British climate have been selected to bring biodiversity and variety across the roof throughout the year.

The system uses flowering sedums, which include yellow, pink and white flowers which will appear throughout spring, summer and even in autumn; attracting bees, butterflies and other wildlife to the roof space.



Sedum Hybridum: Flowers May-August



Sedum Album: Flowers June - August



Sedum Czar's Gold: Flowers May-August



Sedum Pullchellum: Flowers May-July



Separation and geotextile layers installed before sedum modules.



Trays secured together using integrated connection points.

4.8 The Proposal

Acoustics

Acoustic Consultants Limited have been appointed to undertake a noise survey to determine the impact that noise associated with the proposed cinema has on the nearby dwellings. The report has been produced to determine the impact of both break out noise from the cinema itself and from the proposed plant for planning. The noise impact assessment has been undertaken in accordance with Planning Policy Wales, TAN11, the 'Good Practice Guide on The Control of Noise from Pubs and Clubs' and BS4142.

Pontardawe Arts Centre is located on Herbert Street in Pontardawe, set in a mixed-use area the site is surrounded by both commercial and residential properties. Immediately to the east of the premises and to the south on Herbert Street lie a small number of commercial premises with residential dwellings above on the first floors. These are deemed to be the nearest NSRs at a minimum distance of 1 meter. To the north lie a row of terraced residential dwellings, these are separated from the proposed site by approximately 30 metres at the closest boundary points. The main source of noise at the site is road traffic from Herbert Street to the immediate south and west.

Noise monitoring exercises were undertaken at the site between the 6th of May and Monday the 9th of May 2022. The main noise source affecting the baseline noise monitoring location was road traffic noise from the road to the south west of the proposed development site.

The measured baseline sound levels from the overnight survey are presented below, consisting of the equivalent LAeq levels and background noise levels (LA90), we have summarised the data into Table A:

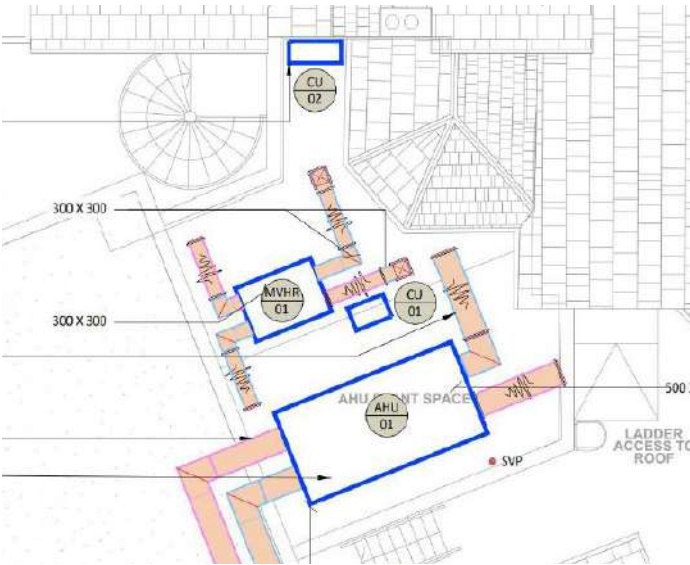
Operational Noise Limits:

Plant units associated with the proposed development have the potential to operate 24 hours a day. For the Cinema we have assumed the films will stop at 1am. Based on the above baseline noise levels, and guidance documents when the cinema is in use, we would advise cinema noise (fixed plant and film noise) does not exceed the following noise limits at the nearest noise sensitive receivers. These limits should be determined as the free-field level at the façade of the development or existing sensitive receivers. These limits are summarised in Table B.

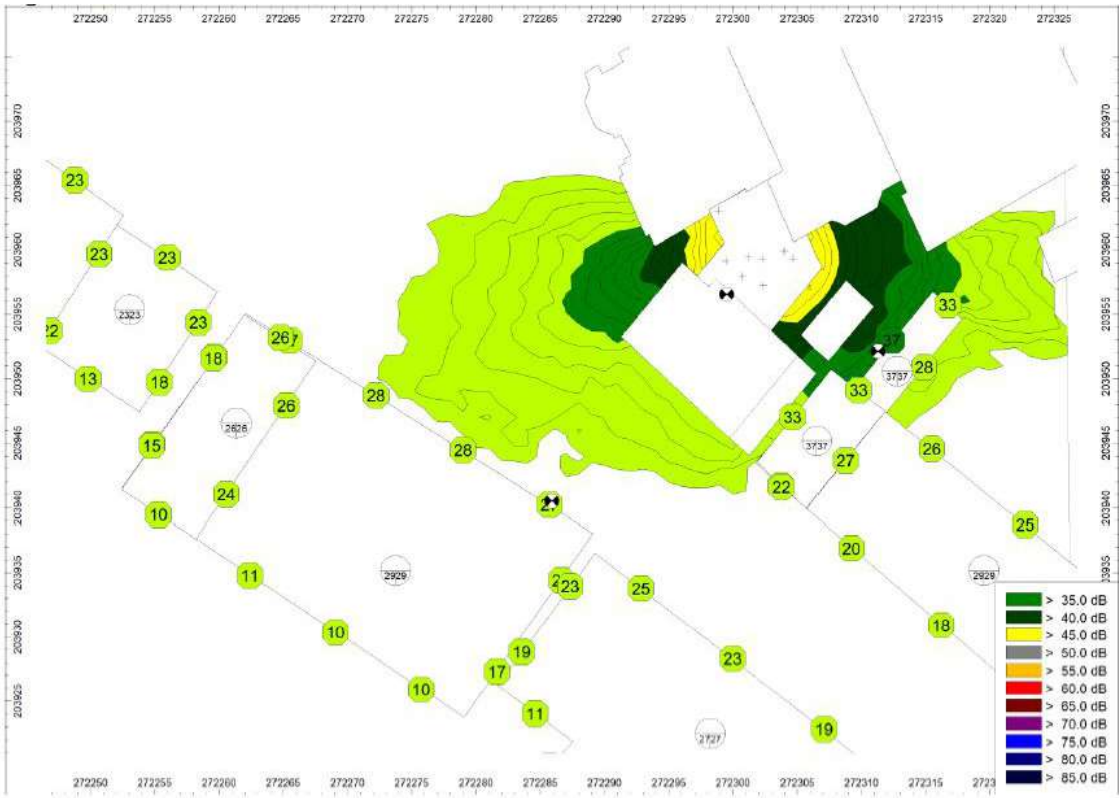
Noise Emission Assessment:

Acoustic Consultants Ltd. have considered both the operational noise levels from the cinema and the noise emissions of the roof-top plant within their report which includes a detailed modelling of these emissions. The cinema noise assessment states that the overall change in noise levels will have a negligible impact on the surrounding properties and concludes that the internal noise egress is easily acceptable and meets the aims of Planning Policy Wales by avoiding significant adverse impact.

The proposals include 2 Condenser units, a Mechanical Heat Recovery Unit and an Air Handling Unit all situated on top of the cinema lobby building. The report recommends attenuation will be required to the Condenser Units and MVHR to ensure that the noise impact of the plant is acceptable and meets the aims of Planning Policy Wales by avoiding significant adverse impact. The proposals for the attenuation for the AHU and MVHR will be developed with the manufacturers to meet the noise reduction criteria defined. The condenser units will have acoustic screening around the units to provide the attenuation as this level cannot be achieved within the design of the equipment.



Plant locations on proposed flat roof.



Predicted Plant Noise Levels at NSR

Time Period	LAeq,15minute		LA90,15minute	
	Range	Typical	Range	Typical
Daytime (07:00 – 23:00)	48-76	55	40-55	50
Evening (19:00 – 23:00)	48-61	55	40-54	49
Night time (23:00-07:00)	39-68	47	36-49	37
Friday & Saturday (23:00-01:00)	48-68	50	41-49	49

Table A: Summarised Baseline Noise Levels

Noise Source	Time Period	Noise Limits
Fixed Plant	Daytime (07:00 to 19:00 hrs)	49 dB LAeq(1 hour) *
	Night Time (23:00 to 07:00 hrs)	37 dB LAeq(15 min) *
Cinema	Daytime (07:00 to 23:00 hrs)	45 dB LAeq(1 hour)
	Night Time (23:00 to 01:00 hrs)	40 dB LAeq(15 min)

Table B: Plant Noise Rating Level Limits (free field)

4.9 The Proposal

Section A and B

Scale

The need to maintain the internal floor level, both for access and to respond to flood levels, means that the volume is raised from the shop front as the street level drops away from the main entrance to the corner of the Lloyds Pharmacy building.

As discussed in the layout section above the operational requirements of the cinema dictate the volume of building required in the new extension. This means that the new cinema will have an impact on the public realm to Herbert Street and our proposals need to consider how best to moderate the design to minimise the impact of the extension and make a meaningful contribution to the streetscape.

One of the key steps we have taken to allow us to improve the perception of the scale of the building has been to step back the façade around the projection room area which allows the building to be separated from the scale of the shops along Herbert Street. This simple step allows the volume of the cinema to be read as an individual element and we can begin to develop the façade to both celebrate the architecture and breakdown the scale of the elevations

