Full Building Feasiblity Study

for

Conversion of the Pebbles Building, No 55 High Street, Tenterden into a 2 screen digital cinema with a cafe/bar

prepared for

Tenterden Town Council

by

Burrell Foley Fischer LLP, Architects and Urban Designers
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1.0 Executive Summary

1.1 Introduction (Section 2.0)

The objective of the Full Building Feasibility Study is to provide a firm foundation for taking the project forward with an understanding of: the accommodation that can be provided; the implications for the business case, outline operating budget and operator interest; the estimated construction cost and estimated total project cost; potential sources of funding; options for achieving a low carbon development; statutory implications of taking the project forward and project risks.

The proposals contained in the Full building Feasibility Study are a development of 'Alternative Approach 2' illustrated in the Pre-Application Report and confirmed as the basis of the Full Building Feasibility Study.

1.2 Surveys, Reports and Advice which have informed the Building Feasibility Study (Section 3.0)

The proposals contained in the Building Feasibility Study have been informed by:

- Pre-Application advice received from Historic England South East
- Pre-Application advice received from Ashford Borough Council
- Pre-Application advice received from Kent County Council, Highways and Transportation
- An Archaeological Desk-Based Assessment by Wessex Archaeology
- A measured and topographical survey
- A desk top assessment of ground conditions using the British Geographical Survey website
- A visual inspection of the Pebbles building

1.3 Consultation which has informed the Building Feasibility Study (Section 4.0)

The proposals contained in the Building Feasibility Study have been informed by:

- Consultation with Tenterden Town Council and the Cinema Focus Group on the Pre-Application Report
- Public Consultation
- Consultation with Tenterden Town Council and Tenterden Cinema Ltd on the draft Full Building Feasibility Report

1.4 Architect's Report (Section 5.0)

The Concept plan for a two screen digital cinema with a café bar, contained in the Full Building Feasibility Report are a development of 'Alternative Approach 2' illustrated in the Pre-Application Report and have been informed by: the input of the consultant team; surveys and investigations, advice from statutory authorities, client and public consultation.

The proposals provide an accessible main entrance on the High Street frontage. For all building users.

A natural conversion of the Pebbles building is proposed, that minimises impact on the historical and architectural significance of the Grade II Listed building, while meeting the requirements of the front and back of house accommodation for the cinema.

At ground floor level is a foyer and café bar with a single sales counter for economy of operation. The café bar provides an active frontage to the High Street and connects with outside amenity space on the forecourt. To the rear it links directly to a courtyard garden through a new 'conservatory' style extension on the footprint of the demolished existing 20th century extension. Ancillary accommodation at ground floor level includes a goods hoist linking the sales counter to the first floor level catering kitchen and drinks store, a disabled toilet with baby change facilities, a further unisex toilet, a cleaners store, and store for the sales point.

At first floor level is the catering kitchen, kitchen store, drinks store and main ladies and gentlemen's toilets.

At second floor level is the staff accommodation, including a staff office and meeting room and staff welfare facilities, a cleaners store, plant room and server room.

The two new cinema screens are housed in a new build extension to the rear of the Pebbles building and are reached through the 'conservatory' style extension to the ground floor café bar via a glazed link along the west side of the courtyard garden located between the Pebbles building and new building housing the cinema screens.

The two cinema screens are entered via light and sound lobbies at the level of a wide rear tier on which the wheelchair positions are located, adjacent to seats for able bodied companions. Two permanent wheelchair positions are shown but additional wheelchair spaces could be provided through removable seats. The steep seating tiers provide clear sightlines onto the screen. The floor level at the screen end is approximately 3 meters below ground level to reduce the impact of the new building housing the cinemas screens on the setting of the Pebbles building. Screen 1 has 102 seats with 2 permanent wheelchair positions. Screen 2 has 56 seats with 2 permanent wheelchair positions. A unisex disabled toilet with baby change facilities and cleaners store are located close to the point of entry into the cinema screens.

The new building housing the cinema screens has a green roof to reduce the ecological impact.

Outside amenity space to the rear of the Pebbles building comprises the courtyard garden located between the Pebbles building and new cinema screens and soft landscaped Millennium garden to the south of the new cinema screens. Where possible, existing plants have retained and plants that the gardener, responsible for maintaining Millennium garden, has advised are capable of relocation have been moved to the borders on the west and east boundaries.

1.5 Services Engineer's Report (Section 6.0)

The most economic action to take to increase the sustainability of the building is to increase the amount of thermal insulation beyond that required to comply with Building Regulations. This will apply to the new parts of the building and only to the existing building where possible. The thermal insulation is fairly cheap to install and is there for the lifetime of the building.

All new M&E equipment will be as low energy and efficient as possible. This will consist of boiler, lighting, pumps and fans. Heat recovery systems will be installed on the new ventilation plant which serves the new screens. These will recover heat from the outgoing air and use it to pre-heat the cold incoming air.

Photovoltaic panels will be installed on the new roof and South facing wall of the new cinema block. These will generate electrical power. This power will be stored in batteries until it can be used within the building.

A ground source heat pump will be installed with the ground coupling boreholes located within the new courtyard between the existing and new buildings. The heat pump will abstract 'free' energy from below ground and use it to heat and cool the building.

The effect of all of the above measures will be to reduce the energy consumption of the building by 55%, a saving of 21 tons of CO_2 per year.

Further low carbon measures that could be considered are included in the Services Engineers Report contained in Section 6.0 and a costed list of the low carbon measures can be found in the Quantity Surveyors Report contained in Section 9.0.

1.6 Structural Engineer's Report (Section 7.0)

The structural assessment is based on the Building Feasibility Study Report prepared by Burrell Foley Fischer and the Stage 1 drawings referenced SK0101-SK0111 and SK200-SK210. The study concluded that the proposed refurbishment of the Pebbles Building and the extension into the Millennium Gardens is feasible. Two options have been appraised for the cinema structure, both are viable, and these will assessed further during Stage 2 so that there is a single option and the end of the stage. Key investigations have been identified and these are to be undertaken at the earliest opportunity as they inform the design and minimise risk to the project in both programme and cost.

1.7 Acoustic Consultant's Report (Section 8.0)

During the feasibility study the design has developed to accommodate fundamental acoustic requirements that are necessary for a high quality boutique cinema.

Allowances have been included in the external building fabric for providing high sound insulating constructions. This is to ensure the cinemas and surrounding premises are not disturbed by one another

Control of noise transfer between spaces internally has also been considered such that the Cinemas can function simultaneously.

Architectural zones for interior sound absorptive finishes have been set out. This will ensure that interior reverberation will be controlled to allow the screen's sound system to perform at its best.

A review of the Local Authority noise emission from new plant items has been undertaken and we have identified the need to undertake a noise survey as the project progresses.

Overall the feasibility design proposal incorporate all the requirements that are necessary for a high quality venue.

1.8 Quantity Surveyor's Report (Section 9.0)

A cost plan has been prepared by Greenwood Projects Ltd for the scheme in line with all information made available by the Architect, Structural and Civil Engineer, M&E Consultant, Cinema Business Consultant and Acoustic Consultant. The cost plan has been prepared to provide a completed "shell" for the scheme to be handed to an operator for final fit out and is in the approximate sum of £2.19 million exclusive of VAT, fees and the other items noted in the Summary table of the Estimated Total Project Cost contained in Appendix D2. A previous cost plan was prepared in January 2019, on limited information and for a differing scheme, in the sum of £1.45 million. The reasons for the changes to the cost are all noted within the main body of the report but can be summarised as being attributable to changes in construction methods, inclusion of a glazed link between the Screens Building and the Existing Building, revisions to Mechanical & Electrical Works & Scope and revisions to the External Works proposals. There are a number of options and risks that should be borne in mind when considering the costs and again these are all noted and commented upon within the main body of the report.

1.9 Cinema Business Consultant's Report (Section 10.0)

1.9.1 Marketing the opportunity to cinema operators

Two well-established independent cinema operators in the south of England confirmed their interest in operating and investing in a cinema in Tenterden: Kino Digital (cinemas in Hawkhurst, Rye and Bermondsey) and the Picture House in Uckfield.

Local authorities have a long history of involvement in arts and cinema provision. An increasing number of local authorities are investing in new cinema provision, often as part of a wider regeneration scheme.

1.9.2 Service level agreement for the incoming operator

A Cinema Operator Agreement will be required between Tenterden Cinema Company and the selected Cinema Operator (the Tenant). The Agreement will include Service Level Requirements for programming, education activities, marketing, catering and private hires of the venue.

1.9.3 Busines projections

The cinema sector has performed strongly in 2018 and 2019, aided by high levels of investment in the quality and technical capability of modern digital cinemas. A noticeable trend over the past decade has been the increasing number of new, distinctive, independent cinemas with high quality café bars and/or restaurants. These cinemas emphasise their local connections, distinctive architecture, style of decoration, choice of programme, quality of catering, and friendly attitude of staff.

Residents in Tenterden have four main cinema options which can be reached (by car) in under 30 minutes: the Kino cinemas in Hawkhurst and Rye, and the Picturehouse and Cineworld cinemas in Ashford.

Taking the comparison data and the demographic analyses into account together with the current design proposals, an estimated 75,000 annual admissions are forecast for budgeting purposes.

Based on 75,000 admissions the operating profit, after payment of £50,000 rent by the operator, is estimated to be £98,500.

Cinema operators face many potential risks most notably the quality and attractiveness of films offered by film distributors. Skilful management of the venue can mitigate many of the risks, especially by ensuring a high quality customer experience.

1.10 Statutory Considerations (Section 11.0)

The development proposals will require: Full Planning Permission, Listed Building Consent and Plan Approval under the Building Regulations. A Premises Licence will need to be applied for. The statutory appointment of a Principal Designer will need to be made in compliance with the CDM Regulations 2015 relating to the management of health and safety and a Contractor capable of meeting the duties of a

Principal Contractor under the CDM Regulations 2015 will need to be appointed.

1.11 Project risks (Section 12.0)

Key project risks include:

- Statutory consents, albeit that the pre-application process has reduced these to low;
- Funding gap between estimated construction cost and total project cost and available funding;
- Lack of operator interest, albeit that this has been reduced through early market testing that has identified two potential operators with a strong interest;
- Lack of funding to optimise the adoption of measures to deliver as low carbon a project as possible;
- The unknown financial and programme implications of the COVID-19 emergency;
- Archaeology.

1.12 The next steps (Section 13.0)

Tenterden Cinema Ltd has developed a 'Route Map for Development of Pebbles Cinema' Key next steps identified include:

- Marketing the cinema project to potential investors, funders and operators;
- Appointing a Project Manager;
- Appointing a Design Team to take the project forward from Developed Design to Completion;
- Lodging an application for Full Planning Permission and Listed Building Consent on completion of the Developed Design.

Prior to commencing the Developed Design Tenterden Town Council and Tenterden Cinema Ltd may wish to review the brief in the light of the estimated construction cost and total project cost and the extent of the low carbon measures that are adopted.

1.13 Conclusion (Section 14.0)

The conclusion of the Full Building Feasibility Study is that it is feasible to develop a high quality independent two screen digital cinema with a café bar within the existing Pebbles building and on land to the rear.

It is feasible to achieve this without harm to the historical and architectural significance of the Pebbles building (Listed Grade II) and without significant ecological impact.

Outside amenity space to the rear of the Pebbles building is maintained in the form of a courtyard garden between the Pebbles building and the new cinema screens and a soft landscaped garden to the south of the new cinema screens.

The draft operating budget indicated the potential for a viable cinema and café bar operation.

It is anticipated that there will be strong interest in the cinema operation by two local cinema operators.

2.0 Introduction

Following a competitive tender process, Tenterden Town Council appointed the professional team outlined below, on behalf of the Cinema Focus Group, to carry out a Full Building Feasibility Study of the Pebbles Cinema, 55 High Street, Tenterden.

Project Lead and Architect with cinema and conservation expertise:	Burrell Foley Fischer LLP
Cinema Business Consultant	Craigmount Consulting
Quantity Surveyor:	Greenwood Projects
Services Engineer:	SGA Consulting Ltd
Structural Engineer:	Conisbee
Acoustic Consultant:	Theatre Projects

The objective of the project is to develop a 2 screen digital cinema with a café/bar and to enhance the amenity of Millennium Garden.

The objective of the Full Building Feasibility Study is to provide a firm foundation for taking the project forward, with an understanding of: the accommodation that can be provided; the implications for the business case, outline operating budget and for operator interest; the estimated construction cost and estimate total project cost; potential sources of funding; options for achieving a low carbon development; statutory implications of taking the project forward and project risks.

The Full Building Feasibility Study builds on previous commissions.

A Site Options Appraisal dated 06 August 2018 (Rev C) identified the Pebbles Building as the preferred site for the development of a 2 screen digital cinema with a café/bar in Tenterden Town Centre.

A Pre-Application was prepared. This further examined the outline proposal for the Pebbles Building prepared at Site Options Appraisal Stage to establish the acceptability in principle of the development proposals to the Local Planning Authority, Ashford Borough Council and to Historic England South East. The Pre-Application advice received from Historic England South East gave comfort on a risk identified in the Site Options Appraisal, namely the impact of the development proposals on the architectural and historic significance of the Pebbles Building (Listed Grade II).

The proposal that is being further developed at Full Building Feasibility Study Stage is 'Alternative Approach 2' illustrated in the Pre-Application report.

3.0 Surveys, Reports and Advice which have informed the Building Feasibility Study

3.1 Pre-Application advice received from Historic England South East

Pre-Application advice was provided by Historic England South East on 26 April 2019.

Alternative Approach 2 illustrated in the Pre-Application report, which forms the basis of the Full Building Feasibility Study, was supported in principle. The proposed uses within the existing Pebbles Building

is considered low key, that is to say they would have a low impact on the architectural and historical significance of the building. It was noted that there is an opportunity to reveal more of the historic joinery throughout the building with the removal of modern joinery and partitions.

The existing 20th century extension that is being demolished to make way for the development of the new screens is considered unattractive.

The new build development of the 2 new cinema screens to the rear of the Pebbles Building illustrated in Alternative Approach 2 is considered to represent an opportunity to enhance the setting of No 55 with the removal of the unattractive 20th century extension and the re-creation of a courtyard to its rear, which historic mapping suggests once existed here. A contemporary idiom to the new building to the rear of No 55 is supported provided the detailing and materials are all very high quality.

The desirability was noted of reinstating a garden area which helps connect the building to domestic origins and allows Tenterden Town Council to sustain its use as a memorial garden which holds community value for local residents and amenity value for all visitors.

3.2 Pre-Application Advice received from Ashford Borough Council

Pre-Application advice was received on 9 July 2019. Ashford Borough Council reviewed the proposals against Policy EMP8 of the adopted Ashford Local Plan 2030 adopted on February 2019.

This states that town centre uses other than A1 retail use, will be permitted, subject to the proposal maintaining or enhancing the centre's vitality and viability. While not an A1 retail use, Ashford Borough Council consider that a cinema in the Pebbles Building would broadly satisfy Policy EMP8 relating to the primary shopping frontage in Tenterden Town Council. It is noted that the proposed café at ground floor fronting the High Street would retain an active street frontage.

Regarding Alternative Approach 2, the need in due course to consult with Kent County Council for the excavation works is noted. This is also noted by Wessex Archaeology who carried out the Archaeological Desk Based Assessment (Refer to 3.4).

It was further noted that a modern design approach to the new development to the rear of the Pebbles Building is preferred. This accords with the advice received from Historic England South East (Refer to 3.1). Details of materials, design and landscape will be needed as part of an application for Full Planning Permission.

Concerns were raised in connection with the potential for unacceptable levels of noise and disturbance from the external seating area to the rear of the Pebbles Building. This is a matter that can be further discussed with Ashford Borough Council as part of the process of determination of the Planning Application and might be addressed through a Condition attached to any Planning Permission granted through restriction of hours of use.

It was further noted that careful consideration will need to be paid in respect of the installation of any extract system/ducting for the café in regards impact on the listed building, conservation area and residential amenity of any nearby flats/dwellings. The approach to addressing this is outlined in Section 5.8 of the Architect's Report.

The need to consider sound insulation measures to avoid noise disturbance is also noted and this is addressed in Section 5.5 of the Architect's Report. Noise survey and assessments will need to be submitted in support of application for Full Planning Permission.

It is noted that as car parking cannot be provided on site, reliance would need to be placed on public transport and public car parks. The acceptability of this is confirmed by Kent County Council (Refer to Section 3.3).

An ecological report may need to be submitted in support of an application for Full Planning Permission to establish if there is any ecological potential on the site.

3.3 Pre-Application Advice received from Kent County Council, Highways and Transpiration

Pre-Application Advice was received on 18 February 2020.

It was noted that no parking is to be provided as part of the application. This was considered acceptable as the location of the site means there is access to a number of public car parks within easy walking distance. It was stated that parking restrictions are to be installed on the new development accessed off Recreation Ground Road. This will prevent any informal parking on nearby residential roads.

3.4 Archaeological Desk-Based Assessment

An Archaeological Desk-Based Assessment was commissioned from Wessex Archaeology and received in January 2020.

It was noted in the conclusion that the effect of the development proposal on the known and potential heritage resource will be a material consideration in the determination of the planning application. The Desk-Based Assessment identified no overriding cultural heritage constraints which are likely to prohibit development.

The scale, scope and nature of any further assessment and/or archaeological works will need to be agreed through consultation with the Local Planning Authority and KCC Archaeology at Developed Design Stage and as part of the Planning process. This will have cost implications that will have an impact on the total project costs and programme implications that will have an impact on the Strategic Programme.

3.5 Measured Survey and Topographical Survey

A measured survey of the Pebbles Building and Topographical survey of the land to the rear was commissioned from CPB Surveys.

The 'as existing' plans and 'as proposed' plans contained in the Full Feasibility Study report are based on the measured survey and topographical survey.

3.6 Ground Conditions

The Structural Engineer, Conisbee, have used the British Geological Survey website www.bsg.ac to determine the anticipated ground conditions. As the project is taken forward beyond Feasibility Study Stage, site investigations will need to be commissioned and coordinated with archaeological works. This will have a cost implication for the total project cost.

3.7 Site visit

A visual inspection of the Pebbles Building was carried out by Burrell Foley Fischer Ltd, SGA Consulting Ltd and Conisbee on 15 January 2020.

4.0 Consultation which has informed the Building Feasibility Study

4.1 Consultation on the Pre-Application Report

A presentation of the Pre-Application report was made to an audience including Town Councillors and members of the Cinema Focus Group in 2019.

There was broad support for Alternative Approach 2, which forms the basis of the Full Building Feasibility Study.

Consultation was then conducted by Tenterden Town Council with the Green Spaces Focus Group, at which mitigation of the impact on the amenity space and ecological footprint of Millennium Garden was outlined. There is an opportunity, through the development, to enhance the amenity value of Millennium Garden. This was noted in the Pre-Application advice received from Historic England South East. There is a further opportunity to improve the route to Millennium Garden from the High Street.

4.2 Public Consultation

As part of a pubic consultation exercise conducted by Tenterden Town Council on 21 and 22 February, a display was mounted and manned by members of the Cinema Focus Group on proposals for the Pebbles Cinema. The display included Concept plans of the proposal which are contained in Appendix F.

The feedback suggests there is broad support for the proposal. A comment was made on the narrowness of the passage past new Screens 1 and 2, linking the courtyard garden to the soft landscaped garden to the rear of the Pebbles Building. The Concept plans contained in Appendix A of the Feasibility Study report have been adjusted to increase the width of the passage, through reorientation of the screens.

4.3 Consultation on the draft Feasibility Study Report

A draft of the Feasibility Study Report has been issued to Tenterden Town Council and the Cinema Focus Group for review and comment.

5.0 Architect's Report

5.1 Introduction

The Concept plans contained in Appendix A of the Building Feasibility Study Report are a development of Alternative Approach 2 illustrated in the Pre-Application Report. They have been informed by the surveys, reports and advice outlined in preceding Section 3.0, and by the consultations outlined in preceding Section 4.0. They have been further informed by the input of the rest of the professional team, appointed to carry out the Full Building Feasibility Study.

The general approach taken to the development of the Concept plans has been further informed by a heritage impact assessment, carried out at Pre-Feasibility Stage.

A key consideration has been to meet the brief and operational requirements of a 2 screen digital cinema, with a café bar through the development of the Pebbles Building and land to the rear, without harm to the architectural and historical significance of the Pebbles Building (Listed Grade II) and the ecological and amenity value of Millennium Garden.

To this end an approach of 'natural conversion' of the existing Pebbles Building has been taken, bringing existing rooms into use to accommodate the front and back of house accommodation required by the cinema and café/bar. Structural alterations have been minimised, and impact on fabric of high significance avoided. The opportunity has been taken to remove modern partitions and joinery and to reveal move of the building's historic appearance. The opportunity has also been taken to bring the currently unused characterful basement on the High Street frontage, with a brick floor and walls, into use as a bar.

As part of the development proposals the poor quality 20th century extension to the rear of the Pebbles Building is demolished. A new glazed 'conservatory' structure provides additional seating for the ground floor café/bar in the Pebbles Building and links it to a new courtyard garden. A glazed link with further café/bar tables leads to Screens 1 and 2 accommodated in a new building positioned between the courtyard garden and soft landscaped garden at the south end of the site. The new screens have a green roof to minimise impact on ecological footprint. The development improves the route from the High Street to Millennium Garden and seeks to enhance its amenity value for local residents and visitors. The approach to the development to the rear of the Pebbles Building reflects the site layout on historic maps which show a courtyard of outbuildings and stables to the rear of the Pebbles Building with a landscaped garden beyond the stable block traversing the site and separating the courtyard from the garden.

5.2 Description of the proposals

A further description of the accommodation follows:

5.2.1 Forecourt on High Street frontage

While the forecourt is north facing it would also receive evening sun from the west and in common with the forecourt to the neighbouring White Lion could be a popular place to sit out in the late afternoon and evening, bringing further vitality to the High Street. It could be furnished with outdoor tables and chairs as an extension of the ground floor café/bar.

During a site visit, Historic England South East were of the opinion that the steps leading to the main entrance are not original. It is proposed to replace them with new steps and a ramp that would provide common access to the main entrance for all building users.

The pebbles set in the hard landscaping either side of the well to the basement window, would be retained.

The design of high quality metal railings to the ramp and steps would incorporate appropriate signage and display, that seeks to reconcile the requirements of the cinema with conservation considerations.

While there is no on site parking, an application could be made to Kent County Council for disabled parking bays on the high street in front of the cinema.

5.2.2 Ground floor foyer and café/bar

The main entrance leads to a ground floor foyer and café/bar with a single sales point for tickets, food and drink. This helps to keep stage and operational costs down at less busy times of the day, noting it is anticipated that the Pebbles Cinema would be open from morning to evening.

A seating area within the bay window facing the High Street and forecourt would support the vitality of the High Street. A choice of seating options is provided within the café/bar including banquette seating, café tables and chairs, sofa and low tables, bar top and stools. This accommodates both visitors just wanting a drink or a snack and different social groupings.

The layout of the ground floor seeks to avoid masking historic joinery. Ancillary accommodation is limited to a unisex disabled toilet with baby change facilities, a further unisex toilet, a cleaner's store, a store, and a hoist linking the sales point with the kitchen, kitchen stores and drinks store at first floor level.

5.2.3 Glazed extension to café/bar

A glazed 'conservatory' style extension to the rear, where the existing 20th century extension has been demolished, extends the seating area for the café bar and provides a direct connection to a south facing courtyard garden, in which there would be outside café tables and chairs. The opening between the ground floor of the original Pebbles Building and extension is formed through the removal of 20th century partitions and does not entail any alteration to original fabric.

A glazed link leads from the 'conservatory' style extension to Screens 1 and 2 housed in a new building positioned between the courtyard garden and soft landscaped garden. This provides additional café tables and chairs and would have a view of planting along the west boundary to the White Hart and of the courtyard garden to the east. The glazing would have colour coated fine sightline metal frames for ease of maintenance and a high thermal and anti glare performance.

5.2.4 Lobbies to Screen 1 and 2

Within the outer lobby to Screen 1 and 2 is a further cleaner's store to facilitate ease of cleaning between screenings and to provide space for storing booster seats for children, and a further unisex disabled toilet.

Screens 1 and 2 are entered from the outer lobby through light and sound lobbies.

5.2.5 Screen 1 (102 seats and 2 permanent wheelchair positions)

The light and sound lobby to Screen 1 provides access to a wide rear tier on which two permanent wheelchair positions are provided, alongside seats for able bodied companions. Additional wheelchair positions could be provided through removable seats on the rear tier.

The tiered seating provides clear sightlines to a 7.5m wide screen on Scope format (Aspect ratio 2.35:1) and 5.9m wide screen on Flat format (Aspect ratio 1.85:1).

The digital projector would be housed within a proprietary projection pod fixed at high level to the rear wall of the auditorium. For ease of operation, the server room would be located within the Pebbles Building, close to staff offices, subject to the servers not being too distant from the projectors.

The external envelope of the cinema would comprise masonry walls faced with brickwork to blend with the brickwork to existing buildings. The lower part of the cinema, approximately 3m below ground level, would need to be tanked to prevent water ingress. The structure of the roof would support a green roof. Within the external envelope would be an acoustically isolated 'box' comprising an acoustically isolated floor, walls and mass barrier ceiling.

Overall the isolated and non-isolated construction would be designed to address noise intrusion, noise break out and noise transfer between the two adjoining auditoria.

An appropriate 'dead' room acoustic for cinema exhibition would be provided by lining the side and rear walls of the auditorium above 1.1m with acoustic absorbent wall panels. The use of a digitally transparent fabric to the outer face of the panels, etched with a botanical design is proposed to evoke the garden location of the cinema. The front wall behind the screen would be lined with black tissue faced absorptive panels.

The capacity of the auditorium has been based on 600mm seat centres and 1200mm seat tier widths (excepting the rear tier with wheelchair positions, which is 2000mm wide). This would match comfort standards in comparator independent cinemas and allow for a wide choice of comfortable seats. The selected operator is likely to have an input into seat selection.

As Screen 1 has in excess of 60 seats it will require a 2nd means of escape. This is located at the screen end and exits directly to the exterior.

5.2.6 Screen 2 (56 seats and 2 permanent wheelchair positions)

The principles of Screen 2 are the same as for Screen 1 (Aspect ratio 2.35:1).

Points of difference include the screen size which is 6m wide on Scope format (Aspect ratio 2.35:1) and 4.7m wide on Flat format (Aspect ratio 1.85:1).

As there are under 60 seats a 2nd means of escape is not required.

5.2.7 Basement bar

There is a characterful basement on the High Street frontage of the Pebbles Building that is not currently usable. It has a brick paved floor and fairfaced brick walls with brick alcoves. There are exposed timber beams, floor joists and exposed underside of the floorboards to the ground floor. There has been significant water ingress into the basement and this would need to be addressed in the development proposals. The existing brick paved floor would need to be re-laid on a ground floor slab incorporating a damp proof membrane. The exposed timber beams would need to be treated with a clear fire retardant and the underside of the floor lined with fireline board to achieve a 1 hour fire compartment between the ground floor and basement. A new metal balustrade would need to be installed to be installed to the basement stairs, which would need to be repaired and provided with contrasting nosings. A new 1 hour fire resisting door would need to be installed at the top of the stairs.

There is a discrete route for air intake and extract to the basement bar connecting with a high level grille in the blocked up door opening to the side passage.

5.2.8 First floor accommodation

Back of house accommodation in support of the public facilities at ground floor level are located at first floor level.

These include the catering kitchen and kitchen store, and the drinks store. There is a double sided goods hoist linking the catering kitchen and drinks store to the ground floor sales point for food and drink.

There are additional public toilets for customers of the café/bar and cinema. The layout of the ladies toilet within a room with an original fireplace, allows for this to be retained and enjoyed.

It is proposed to remove modern boarding encasing the balustrade to the stair between ground floor and first floor level, in anticipation of the original balustrade being behind it and being repairable.

A pass door prevents access for the public to the kitchen areas at first floor level and staff accommodation and plantroom at 2nd floor level.

The extract to the catering kitchen would rise vertically through the 2nd floor and roof void, then penetrate a back facing pitch of the roof, which takes the form of three pitches and two valleys running parallel with the front and rear elevations. In this location it will not be visible from either the High Street or Millennium Garden. The smells from the catering kitchen can be attenuated with UV filtration along the length of the kitchen extract duct.

5.2.9 Second floor accommodation

Staff accommodation and plantrooms are located at 2nd floor level. This includes staff welfare facilities, office, meeting room and plantroom and server room.

5.2.10 Courtyard garden

The south facing courtyard garden located between the rear of the Pebbles Building and new Screens, would be a predominantly hard paved area with outside café tabled and chairs.

A magnolia tree would be the center piece to the courtyard garden with cyclamens at its base.

There would be planting to the west boundary with the White Lion, that would be visible from the glazed link leading to the new screens.

There would be an opportunity to plant climbers along the east boundary with the White Lion that would be visible from the glazed link leading to the new screens.

A pergola structure is proposed to mask the blank north elevation to Screen 2. The existing Vine could be retained and Wisteria or other climbing plants could be planted and trained over the pergola, recreating the existing bower to the rear of the Pebbles Building.

5.2.11 Millennium Garden

Millennium Garden, beyond the new screens, would be a predominantly soft landscaped garden. Like the courtyard garden it is south facing. The boundaries would be planted and paved paths would frame a grassed area. The objective would be to retain existing plants of landscape value, either on the current location, or to replant them as part of a coherent soft landscape scheme. Advice has been sought from the gardener who currently maintains Millennium Garden, and who has experience of working for National Trust Properties.

6.0 Services Engineer's Report

6.1 Introduction

This feasibility report is divided in to two sections. The first details the sustainable measures that are proposed to make this project as low energy and sustainable as possible. The second section details the M&E services that are proposed for this project.

This low energy and sustainable section describes a range of the types of renewable and alternative energy options that could be used at The Tenterden Cinema to reduce the carbon dioxide output of the new and existing parts of the building to zero if feasibly possible. Each of the options available has been described generally and then each option has comments and recommendations specific to this project. Initial calculations have been done at this point, in order to approximate the sizes of the various systems.

6.2 Client Brief

The brief for the project from the client and Burrell Foley Fischer is as follows:-

The development is to be as low energy and sustainable as possible. Proposals are to be put forward to achieve this for the Town Council to consider.

Proposals are to be made to BFF for the level of thermal insulation to be applied to both the existing and the new building.

The historic significance of the existing building is to be respected. The proposals for the M&E services must do as little damage to the existing building as possible.

The existing building is to be used as a café, bar, public toilets, kitchen, and back-of house areas.

The cinema screens will be located as a separate structure within the Millennium Garden.

The cinema screens will need to be mechanically ventilated and heated and cooled to maintain comfort levels for the occupants.

The proposed M&E services will need to provide suitably low levels of noise to the cinema screens. Space will need to be provided at this stage so that appropriate noise attenuation can be provided during the later stages of design.

Proposals are to be made to BFF for the required plant room space and main routing of the M&E services.

The existing incoming utility services are to be investigated so that any required changes can be determined.

The layout of the new sanitary fittings are to be arranged to suit the layout of the existing below ground drainage system.

6.3 Low Energy Recommendations

For The Tenterden Cinema a number of options are available to reduce the net carbon dioxide emissions of the new and existing sections of the building.

An obvious saving can be made by improving the insulating properties of the building fabric where reasonably possible, giving a potential saving of 8.5%.

The use of a mechanical ventilation heat recovery (MVHR) unit can be used to reduce the heating load in the auditoria by 'recycling' warmth, saving 6.3% of annual carbon dioxide emissions compared to the baseline for the total of the new and existing building sections.

We are proposing to replace the existing boiler with a more efficient model. The new boiler will be used to provide hot water and heating to the existing building. This will reduce the relative carbon emissions of the building by 2.2%.

The energy consumed by the building when in use can be greatly reduced by using low-energy LED light fittings, and further so if these fittings are appropriately controlled, with a combined carbon emissions reduction of 12.6%.

Solar energy can be utilised using photovoltaic cells (PVs) to provide electricity to the building, with any excess being supplied to the grid. Utilising the rear wall of the auditoria can reduce emissions by 2.1% and the roof space 8.9%.

The heating requirement for the auditoria could be provided either by a ground or air source heat pump (GSHP/ASHP), using the 'free' electricity from the PVs increases the validity of this as an option. A GSHP is recommended, with a gas boiler heating the existing building, as a GSHP will provide a consistent load year round whilst an ASHP's performance would reduce in colder months. A GSHP could decrease annual carbon dioxide emissions by 14.1%.

The cumulative measures described above equate to a 54.7% reduction in annual carbon dioxide emissions of 19580kgCO_2/year from the baseline new and existing building. Reducing the carbon footprint of the building will increase capital costs, but will reduce ongoing costs and will contribute to a 'greener' planet.

6.4 Renewable Heat Incentive (RHI)

Phase 1: the non-domestic element of the RHI was launched in November 2011. Currently, the RHI shall be in place for the life of the equipment or a maximum of 20 years. The Government are currently reviewing the tariffs associated with various technologies. The current tariffs are listed below:

- Biomass (under 200 kW) 3.11p/kWh
- Solid Biomass CHP system: all capacities 4.51p/kWh
- GSHP's all capacities 9.56 p/kWh
- ASHP's all capacities 2.75 p/kWh
- Solar Thermal (up to 200kW) 10.98 p/kWh.
- Small Biogas combustion. Less than 200 KWth4.74p/KWh.

The current proposals are that the non-domestic RHI will support:

- Biomass (boilers must only be eligible to burn biomass)
- Ground source and water source heat pumps (COP must be at least 2.9)
- Geothermal
- Solar thermal collectors (panels must be flat plate or evacuated tube)
- Biomethane and biogas (except from landfill gas)

To be eligible for the scheme:

- The equipment must be installed in England, Scotland or Wales on or after 15 July 2009
- The equipment you install must be new and of a certain size or 'capacity'
- The equipment and installer must have Microgeneration Certification Scheme (MCS) or equivalent certification (if available for your type of installation)
- The equipment must use liquid or steam to deliver the heat
- The equipment must be used to heat a space or water - or for carrying out a process where the heat is used within a building
- The equipment cannot be used to heat a single home (though a combination of homes sharing a heating installation might be eligible – e.g. a block of flats)
- A public grant cannot be used to buy or install the equipment

The government provides a standard energy assessment method for buildings (SBEM). This was used to estimate the energy consumption of the existing and proposed buildings.

An initial SBEM analysis has been carried out in order to determine how close to carbon neutral the proposed building can reasonably reach. The building was split into three nominal zones: existing, screens and corridor. For the existing building, building data was assumed based upon the SBEM database. For new sections of the building the SBEM database, along with the current building regulations, was used.

An initial SBEM analysis has been carried out in order to assess the performance of the existing building. This initial calculation stated that the building, in a worst-reasonable case would produce **26137kgCO_2/year.** This provided a benchmark figure to compare the proposed building against.

The new areas of the building were modelled using the SBEM database. The addition of the new areas increases the carbon emissions t**o 38696kgCO_2/year** from the building because it is a much larger building. However the addition of the new building decreases the Energy Performance Asset Rating(EPAR) as this considers emissions per unit area.

From this starting point a series of energy saving measures were entered into the SBEM calculation in order to determine their effectiveness and feasibility for application at The Tenterden Cinema. For technologies deemed to be suitable for this project a percentage energy saving has been included. The cumulative effect of these savings has been applied to work out a total annual CO_2 output.

6.5 Building Fabric

The glazing on the existing front and rear façades, assumed to be single glazing, could be replaced with Histoglass. This is a brand of low u-value glazing designed to mimic the aesthetic of historic glazing. The glazing units are also thin so that they could fit in to the existing wooden window frames of the building. This allows for a u-value of 1.3W/m^2/K, improved from 5.7W/m^2/K, bringing the values in line with any new glazing. Insulating/increasing the insulation in the roof space of the existing building is a relatively cheap and simple way of reducing the energy consumption of the building with no impact on the appearance of the building. This will improve the thermal insulation of the roof from 1.2 to 0.25W/m^2/K.

The new building will need to comply with Part L (Energy Efficiency) of the Building Regulations. We propose that the thermal insulation of the building goes beyond the requirements of Part L to achieve a more energy efficient building, see the table below.

Thermal Element	Building Regs U-Value	Proposed U-Value
Floors	0.22 W/m² K	0.18 W/m² K
Windows	1.6 W/m² K	1.3 W/m² K
Walls	0.26 W/m² K	0.20 W/m² K
Roof	0.18 W/m² K	0.12 W/m² K

These improvements in building fabric reduce the calculated annual output to 35415 kgCO_2/year (8.5% reduction).

6.6 Ventilation

A lot of fresh air ventilation needs to be delivered to the cinema screens because of the numbers of occupants. A corresponding amount of warm air is extracted from the spaces. The heat within this air could be recovered and used to pre-heat the incoming fresh air. Using a heat recovery ventilation system on the auditoria, such as a thermal wheel MVHR, is an easy to implement saving. This reduces the heating and cooling load associated with ventilation and therefore the total energy consumption.

Assuming an efficiency of 75%, using heat recovery can reduce the calculated annual output to 32963 kgCO_2/year (6.3% reduction).

6.7 Efficient M&E Systems

The existing building is heated by a gas boiler. Replacing the existing unit with a more efficient model reduces the carbon output of heating the existing building and producing hot water. This brings the actual hot water load in line with the notional load. This reduction can be increased further through the use of efficient pumps and appropriately sized pipes. The total reduction is **32093 kgCO_2/year (2.2% reduction).**

The electricity consumed by the running of the building can be reduced by using low-energy, LED light fittings, then lowered further by using appropriate lighting control, such as automatically dimming the auditoria lights when the space is not in use. This lowers the annual output **to 27213 kgCO_2/year (12.6% reduction)** and brings the actual lighting load in line with the notional load.

6.8 Wind Turbines

Wind turbines use the kinetic energy of natural wind currents to generate electricity. The power generated by a turbine is dependent on density of air, wind speed and the area covered by the rotating blades.

They can be used in rural or urban areas. Rural environments are preferred as the undisturbed higher velocity winds are key to increasing the output from the turbine.

Wind turbines can be standalone or building integrated, with either horizontal or vertical axis types available.

PROS
- Renewable source of electrical power
- Reliable and proven technology
- Minimal impacts on the environment
- Available in a wide range of sizes
- Electricity generation matches demand. Greater output during the evening and winter when demand for power is higher
- High visibility, community to see the building is environmentally friendly

CONS
- Can be noisy
- Unsightly, depending on personal preference
- High capital costs
- Long lead time with large standalone turbines (not a problem with smaller building integrated turbines)
- Additional electrical supply required for back up
- Planning permission required
- Turbine and generator require regular maintenance

6.8.1 Application

As Tenterden is in a fairly rural area, a wind turbine would be fairly effective. However it is on the edge of the High Weald area is an AONB (Area of Outstanding Natural Beauty) the planning permission for a wind turbine will almost certainly be difficult to obtain. Because of this reason this option has been discounted.

6.9 Solar Photovoltaics (PV Cells)

Solar photovoltaic cells are made up of a special silicone material that directly converts the energy found within sunlight into electricity. Photons found in sunlight that have enough energy will hit free electrons on the semiconductor material of the cell. This sets the electrons in motion and electricity begins to flow.

A typical cell will be approximately 100cm². A module typically contains 28 to 36 cells. Modules connected in parallel or series make up an array.

The electricity generated can be used to power everything from household appliances, lights to commercial buildings and power plants. Solar photovoltaics can be used to benefit from the FIT scheme.

PROS
- Free and renewable source of electricity
- No moving parts and very little maintenance
- Long life technology (over 20 years)
- Can be used in remote areas with no access to the electricity grid
- Noise and exhaust free
- Highly visible from outside the building
- Excess generation can be exported to the grid

CONS
- Does not produce any power during the night
- Low efficiency. Large areas required to provide a worthwhile power output
- Very expensive form of renewable technology

- Some toxic material used in PV cell production process
- Energy output varies daily and seasonally
- Batteries (where they are integrated in to the system) are not particularly environmentally friendly

6.9.1 Application

The new cinema building will have almost no shading from surrounding buildings. Therefore it is certainly suitable for the installation of photovoltaic panels. The rear wall of the auditoria facing into Millennium Gardens, faces almost due South. It can be used assuming 'very little' shading and the panels being mounted with an inclination of 90°.

This PV arrangement in building fabric reduces the calculated annual output to 26,384 kgCO_2/ year (2.1% reduction), bringing the total annual carbon dioxide emitted by the proposed new and existing building to less than the current existing building.

The roof of the screens provides a greater area for solar PV, approximately 200m^2 can be used, Assuming 'very little' shading based on surrounding buildings, mounting solar PV panels at an inclination of 30°over most of the roof, to allow for sufficient spacing to avoid shadowing

Adding both PV areas to the building reduces the calculated annual emissions to 22,956 kgCO_2/ year (8.9% reduction).

In summer most of the power that is generated in the morning (and maybe early afternoon) may need to exported from the building. This is because the building may not be being used very much in the mornings. If batteries were included within the system, then the electricity that is generated would be stored until it is can be used within the building in the afternoon or evening. The inclusion of batteries make the system slightly worse for the environment because of the materials incorporated within the batteries. However their inclusion would reduce incoming electricity and save money for the cinema.

Instead of batteries it would be possible to make use of any spare power from the PVs to heat the domestic hot water. This way the energy from the PVs will be stored as heat. We would need to look in to the difference in rates between the cost of gas and the export tariff for electricity.

Due to the large south-facing area available, solar PVs would be an effective 'green' technology for this building.

A screen within the building displaying current and total energy generation/carbon savings from the PVs could promote community interest. However utilising solar energy would affect the appearance of the green roof.

6.10 Solar Thermal Collectors

Solar thermal collectors absorb radiated heat from the sun and transfer it to a fluid (usually water) passing through the collector. The water from the collector continues to a heat store (hot water tank) and is used to contribute to the building hot water demand.

The output of the collectors will vary with the seasons, with more output available during the summer. They are most effective when facing south and are free from shaded areas.

Collectors are typically 2 - 4m^2 each, many collectors can be assembled into an array depending on the area available and requirement of the building. The main two types of solar collectors are flat plate and evacuated tube collectors. Both types would usually be roof mounted.

PROS
- Renewable supply of heat energy
- Few moving parts so little maintenance issues
- High visibility, community to see the building is environmentally friendly
- Low maintenance requirement
- Long life technology (minimum 25 years)

CONS
- Fairly high capital costs
- Additional back up heating system required
- Reduced output in winter
- Storage tanks and collectors most be located close to one another
- Space required both on roof for the collectors and within the property for hot water storage
- Needs a non-shaded location

FLAT PLATE VS EVACUATED TUBE COLLECTORS

FLAT PLATE
- Flat plate panels are not prone to overheating as are tubes. Overheating reduces the life of the collector, therefore a flat plate panel will tend to last a lot longer
- Flat plate panels are much more robust than tubes
- Panels are much cheaper than tubes
- Panels can be easily integrated into the roof in new build projects, tubes cannot be roof integrated
- In windy conditions tubes can develop stress fractures, eventually leading to failure. This is not an inconvenience with flat plates.

EVACUATED TUBE
- The efficiency of a vacuum tube collector does not vary in efficiency as much as a flat plate collector through the year
- Tubes perform better in relation to their area, generally a vacuum tube will require 10-12% less area than equivalent flat plate collector
- If an individual tube fails it can be replaced; the whole manifold does not need to be replaced
- Tubes can be rotated to face south even if the roof is not due south facing

On each project generally one system or the other would be preferred due to site or cost constraints. The choice may come down to the building owners' personal preference over the aesthetics of either flat plate or tube collectors.

6.10.1 Application

As discussed above, the new cinema building is un-shaded and so is very suitable for the installation of solar systems.

The hot water storage tank would be located in the existing building to provide hot water storage for the solar-thermal system. The collectors would be mounted at the rear of the property. The distance between them would increase the installation costs of the system. Installing a solar hot water system would reduce the space available for solar photovoltaic panels. As the hot water requirement for the building is relatively low, the available areas would be better utilised with PVs. The solar hot water that is generated would sometimes be wasted because there would be no demand. Whereas the electricity from PVs could always be used.

The carbon saving for a solar-thermal system would be fairly small at **1,200kg CO_2/year.**

For these reasons the installation of photovoltaic panels would be more appropriate.

6.11 Biomass

Biomass usually refers to living or recently dead plant material that can be used for fuel purposes.

Biomass is carbon neutral as the carbon that is released in to the atmosphere by burning the fuel has recently been taken from the atmosphere by growing the fuel.

Biomass is part of the carbon cycle, where carbon in the air is converted into a biological matter using photosynthesis. Biomass is a renewable energy, as plants or trees specifically grown to produce biomass can be replaced, and don't take long to grow. Biomass is seen as more environmentally friendly and longer lasting than traditional fossil fuels

Biomass systems are more effective in rural locations where the fuel is grown locally. If the fuel has to be transported long distances, then the carbon used in this process makes the system less sustainable.

Storage of biomass is required; it is fed into the boiler and burned to produce heat. The heat generated is used for the heating and hot water.

PROS
- Local source of renewable energy
- Ideal for rural or semi-rural location where biomass fuel is local, although not essential
- Can be used with a number of different fuels such as wood, straw, biofuels such as Miscanthus, Rape etc
- Reliable technology
- Supports local agriculture
- An additional back up heating system is not always required
- Close to carbon neutral

CONS
- Capital costs can be high
- Lead times can be long depending on the project
- May be reliant on infrastructure and partnerships
- Needs someone who is willing to handle and correctly store the biomass fuels and waste
- Space required to store the biomass fuels and waste local to the boiler
- Additional maintenance is required on the boiler and the fuel handling systems
- Can be difficult to control effectively

6.11.1 Application

A biomass boiler has the potential to be good choice of renewable energy to use for this project. With Tenterden being in a rural area, there is a good chance of finding a local source of biomass fuels. However an area of approximately 50m^2 would be required for fuel storage and potentially 25m^2 for the boiler, as well as space for a back-up system. A back-up gas boiler would be required because biomass boilers are more prone to failures. The back-up system would further increase capital costs and introduce control issues which can lead to increased emissions.

Theoretically biomass heating could provide a large reduction of 6,755kgCO_2/year (17%). However in practice this would most likely be lower due to the control issues mentioned above.

Due to the heavy requirement for maintenance and the large plant area required to be taken from Millennium Garden, biomass is not recommended for this project.

6.12 Air Source Heat Pump - ASHP

A Heat Pump is a device that extracts heat from a low temperature source and upgrades it to a higher temperature. The process of upgrading the low temperature to a high temperature requires an energy input into the heat pump.

The main feature of a heat pump is that it produces more usable energy than it consumes. This efficiency is measured by a Coefficient of Performance (COP), essentially its efficiency. A COP of 3 is equivalent to 300% efficiency.

The ASHP can operate with external air temperatures as low as -15°C. ASHP's are extremely efficient at optimum operating conditions, for every kW of electricity input into the system, up to 3 – 4 kW's of heat are produced. This means ASHP's are very cheap to run and are low on CO_2 emissions.

ASHP are at their most efficient when they only need to raise the temperature by about 40°C. At lower external conditions, or where high internal conditions are required the COP of the ASHP will drop off to as low as about 1.6.

These are a low energy system, not a completely renewable energy technology. ASHP's are powered by electricity which generally has a worse environmental footprint than gas.
- Electricity 0.281 kg CO_2/kWh
- Gas 0.210 kg CO_2/kWh

These systems can be very effective when used on the right type of project.

PROS
- Extremely efficient at optimum external conditions (1 electricity unit input for every 3-4 units heat output)
- Units come in a range of outputs
- Can work very efficiently with underfloor heating as underfloor heating operates at a fairly low temperature
- Inverter driven and so not constantly switching on and off

CONS
- Not a completely renewable system as they require some energy to power them.
- Units need to be externally located, space needed external to the building
- Units are fairly noisy. Not a problem in a city, but can be a problem in a quiet rural environment
- Huge variations in COP throughout the year. At low external temperatures the COP may be close to 1
- Can only provide temperature to a maximum of 50°C, meaning that radiators may need to be uprated
- Not a very visible system, if green credentials are to be demonstrated

6.12.1 Application

Using an air source heat pump for Tenterden Cinema is a possibility. It could easily be used to heat the cinema screens which would be heated by the air handling units that provide ventilation to the spaces.

Using an ASHP to heat the auditoria could **reduce the annual emissions to 19,932kgCO_2/year (7.8%).**

However as mentioned in the con's list, the effectiveness of an ASHP decreases in winter, which is when the heating requirement will be greatest. Additionally the need for an external condenser will cause noise pollution which may disturb occupants of the courtyard and Millennium Garden. The Planners may well object to the installation of an ASHP because they may cause excessive noise. For these reasons ASHP is not recommended for this project.

6.13 Ground Source Heat Pump - GSHP

A GSHP works on the same principal as an ASHP, extracting energy from the ground instead of from the air. The benefit of this being that the ground does not vary in temperature very much through the year (10 – 15 degC) and the amount of heat energy output from the system will remain fairly constant.

The method of heat abstraction from the ground could be open loop or closed loop.

An open loop system would consist of a well abstracting water which would then be discharged to a water course or injected back below ground.

A closed system would consist of water running through a network of pipes below the ground. This would abstract the heat from the ground which would then be transmitted to the heat pump inside the building.

There are various types of GSHP loops available. The most effective one will vary for each project. A large element of the cost of this type of system is burying the pipe loop. Therefore these systems would be more appropriate where the cost of the ground loop can be minimised.

They do not suffer as much with lowering COP figures as ASHP. This is because the temperature of the ground is fairly stable over the year.

Similar to ASHP they are a low energy system not a renewable energy technology.

PROS
- Can be a very efficient system. For every unit of energy input, 3 – 4 units of heat output is possible
- Consistent output from heat pump all year round
- Little maintenance required. Once pipes are buried there are no problems with corrosion or degradation
- Long life system, heat pump have a life expectancy of 25 years
- Completely invisible system, so the planners are usually kept happy.

CONS
- Not a completely renewable system as they require some energy to power them.
- Expensive technology, mostly from the process of installing the loops within the ground
- Space requirement for the heat pump and storage cylinder required within the property
- If a buried pipe were to fail once installed they cannot be easily accessed for maintenance. This is usually only a slight risk
- Completely invisible system, if green credentials are to be demonstrated.

6.13.1 Application

Because the building has quite a lot of space around it, it means that there will be space for ground loops to be installed. Vertical boreholes could be drilled in the courtyard and path, 5 or 6 would likely be needed. GSHPs are expensive in terms of capital cost however payback is normally 11-12 years compared to a gas boiler. A GSHP would also be eligible for a RHI grant. For use at Tenterden Cinema, a GSHP is a more viable option than ASHP as the GSHP will provide consistent output year round and produce no external noise. Heating and cooling in the auditoriums with a GSHP, powered by electricity from the national grid (or from the PVs), would reduce the total annual output to **17,526 kgCO_2/year (14.1% reduction).**

6.14 Combined Heat and Power - CHP

Combined heat and power (CHP) integrates the production of usable heat and power (electricity), in one single, highly efficient process.

In the process of generating electricity, heat is produced. This heat is usually wasted as the demand for this excess heat is not required at the location of generation (coal and gas power stations) leading to an overall efficiency of electricity generation of about 35%. Generating your own electricity on site allows you to capture this heat that would otherwise be wasted and use it to heat the building.

As an energy generation process, CHP is fuel neutral. This means that a CHP process can be applied to both renewable and fossil fuels. CHP provides a cost-effective means of generating low-carbon or renewable energy.

CHPs are very efficient when both the heat and the electricity is being fully used on site. They are less efficient where some of either the heat or the electricity has to be dumped. There is a possibility that CHP can benefit from FITs.

PROS
- Highly efficient at the point of use (up to 85%)
- Enhanced security of supply
- Could be powered by biofuel, making them even more sustainable
- Possibility to store excess heat for when it is required

CONS
- CHP units are noisy
- Will require fairly regular maintenance

- Not completely carbon neutral
- Large space requirement
- Most effective when the heat and electricity demand are required simultaneously, e.g. Swimming pools

6.14.1 Application

The noise issues and space requirements of a CHP unit are thought to outweigh the benefits of the system. The system will produce unwanted heat during the summer, which unless stored until winter will be wasted. Storage of the heat can be done, for example using a large below ground heat store; however this will have a huge effect on the capital cost.

With grid electricity becoming 'greener', over time systems such as GSHP do, and will continue to, improve relative to CHP.

For these reasons a CHP unit is not suggested for this project.

6.15 Integrating Multiple Technologies Into One Project

Using more than one type of renewable or alternative energy source for a single project can be done with excellent results; however this is not applicable in all cases for all types of energy sources. It is useful to be aware of which technologies work well together and which ones don't.

As an example of some technologies that work well alongside each other, the following combinations can be considered for a single project:

PV can work well with some technologies requiring a small amount of electrical power. For example PV cells could be used to power the pump operating within a solar collector system, or to power an ASHP or GSHP, making the systems even more sustainable. In this case solar PV could be used effectively to run a GSHP.

Biomass boiler or CHP unit can work well with solar collectors. Solar collectors are used to preheat the hot water tank. Top-up of the hot water temperature is needed to avoid legionella (above 60degC). Biomass boilers and CHP units are capable of providing top-up temperature when the solar collectors cannot provide a high enough temperature to the hot water tank.

On the other hand there are some technologies that do not work well with each, as indicated below:

ASHP or GSHP do not go particularly well with solar collectors. As mentioned previously, a hot water tank must be kept above 60degC to avoid legionella, for this reason solar collectors will always need an alternative technology capable of providing temperature top-up (typically a boiler or immersion heater). Using a solar collector alongside an ASHP/GSHP will not work as the temperature output from the ASHP/GSHP is limited to approximately 50degC. Therefore the solar collectors will not be able to use an ASHP/GSHP for top-up heating.

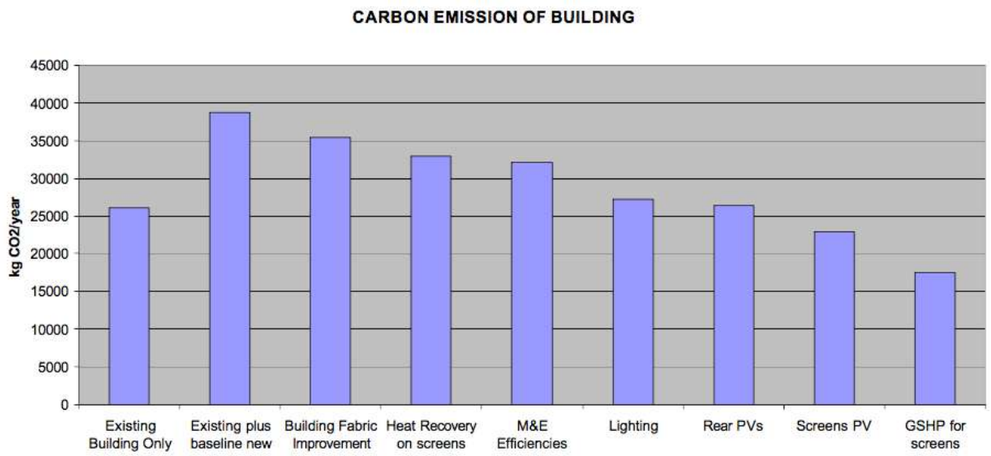
CHP with Wind Turbines or PV Cells. All of these technologies are capable of generating electricity, it would therefore be much too complicated to integrate two or more of these technologies to provide the electricity load for one project.

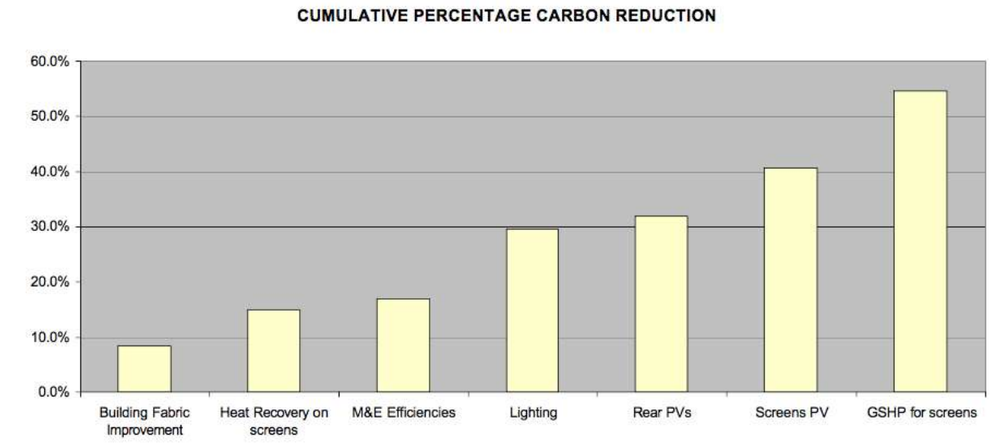
6.16 Summary

As the report has shown, the proposed building and the existing building could be designed to produce less carbon dioxide annually than the existing building currently does. It also shows that the total new and existing building emissions could be reduced by 54.7% and 21,170kgCO_2/year from the baseline (38696kgCO_2/year).

The target of this report was to find the feasibility of the proposed building having net-zero carbon dioxide emissions. This is not feasibly achievable due to the assumed limitations of the existing building, such as relatively poor insulation due to the building's age. Whilst net-zero carbon is not feasible in this case, large reductions can still be made, as this report has shown.

The graph below plots the building emission rate (kgCO_2/year) against the carbon-saving measures described above. The graph shows the increase in total annual carbon dioxide output caused by increasing the area of the building. It then charts the decrease in emissions to below that of the existing building (shown by black line).





6.17 Description of the M&E Services

Incoming Services
There is an existing incoming water supply in to the basement from the high street. This will not be large enough to feed the revised scheme. This is because large numbers of people will tend to use the toilets within a short period of time. Therefore this incoming water main will need to be increased in size. This should be easy to achieve, there will be adequate water within the water main which currently runs down the high street.

There are two existing incoming gas supplies from the high street in to the basement of the building. One fed the shop and one fed the flats above. One of these existing gas supplies should be large enough to feed the new scheme, it will be re-used to feed the revised building. Detailed calculations will need to be carried out during the later design stages of the project to confirm this assumption. The supply to the gas meter that is located within the basement will be stripped-out. The existing gas meter which is located on the ground floor of the building will be re-used.

There is an existing incoming 3-phase elec supply from the high street in to the basement of the building. It is believed that this will have a capacity of 60A. This will probably need to be increased in site to 100A 3-phase to provide enough electricity to feed the new GSHP. Detailed calculations will need to be carried out during the later design stages of the project to confirm this assumption.

R11 Drainage above ground
Above ground drainage pipes will be provided to connect the new sanitary fittings to the existing below ground drainage system. In many cases the pipes will follow the routes of the existing pipes through the building. The drainage from the new kitchen on the first floor of the building will run down the new services riser which is located near to the new goods hoist. A new drainage connection will be provided internally at the rear of the building to serve the new toilets on the first floor of the building.

The rainwater pipes from new screens building and the covered way will run externally to the building and connect to the new below ground drainage system that will be installed below the new courtyard at the rear of the existing building. The rainwater pipes of the existing building will be replaced, but remain in their existing locations.

The drainage pipework is generally in uPVC. Any exposed wastes and pipework in the toilets to be chrome plated copper.

R12 Drainage below ground
Connect the new drainage system to the existing sewers. An existing manhole is located at the rear of the existing building by the side alley. This manhole appears to be approx 1.5m deep (the Southern Water map does not give a depth for the relevant manhole). This should be deep enough to accept all of the new drainage from the new screens building. This will avoid the need to pump any of the drainage.

Install two new 100mm below ground drainage connections to serve the new kitchen and the new toilets on the ground floor and the first floor of the building. These will connect to the existing manhole that is located in the side alley that is next to the building.

Install a new 100mm below ground drainage connection to serve the new screens. This will collect the drainage from the disabled toilet there as well as collect the condensate from the AHUs and new rainwater downpipes.

A Sustainable Urban Drainage System (SUDS) will need to be installed to collect the rainwater from the new screens building. This will limit the rate of rainwater drainage from the site so that it will not exceed the existing rate of rainwater drainage. Therefore the pressure on the existing below ground drainage system in Tenterden will not be worsened by the development of this new building.

S12 H&C water
There is an existing incoming water supply in to the basement from the high street. This will not be large enough to feed the revised scheme. This is because large numbers of people will tend to use the toilets within a short period of time. Therefore this incoming water main will need to be increased in size. This should be easy to achieve, there will be adequate water within the water main which currently runs down the high street.

The toilets for the refurbished scheme will all be located within the existing building, with the exception of one toilet in the screen building. Cold water will be provided directly from the incoming water main. Hot water will be provided from a storage hot water calorifier that will be located within the 2nd floor plant room. The calorifier will store enough water to cope with the peaks of usage. This will reduce the size of the gas boiler which is required to heat the water. A pumped hot water circulation system will be provided, this will minimise the time waiting for the hot water to be delivered to the outlets.

Hot taps to basins in toilets are to be fitted with thermostatic mixing valves to provide final maximum temperatures of 43 degrees Centigrade.

All pipework to be copper, except where run exposed in the toilets where chrome plated copper pipework shall be used. Cold water pipework is to be thermally (and vapour) insulated with nitrile rubber insulation.

S32 Natural gas
There are two existing incoming gas supplies from the high street in to the basement of the building. One fed the shop and one fed the flats above. One of these existing gas supplies should be large enough to feed the new scheme, it will be re-used to feed the revised building. Detailed calculations will need to be carried out during the later design stages of the project to confirm this assumption. The supply to the gas meter that is located within the basement will be stripped-out. The existing gas meter which is located on the ground floor of the building will be re-used.

S63 Sprinklers
It is assumed that sprinklers will not to be required. They will be difficult to incorporate within the existing historic building. They are not required to meet Building Regulations. The Council is to advise if they would like sprinklers installed to protect the fabric of the existing building.

T32 Low temperature hot water heating
The new screens will be heated using the air from the air handling units that will be needed to ventilate the spaces. The heat to these air handling units will be provided from a ground source heat pump (GSHP).

The basement bar will be heated by air delivered from the small AHU that will be located on the 2nd floor of the existing building. This will also derive its heat from the GSHP.

The corridor to the screens will be heated by underfloor heating pipes which will derive their heat from the GSHP.

A GSHP is a much more efficient method of heating a building because it is extracting heat from below the ground. The ground is at a fairly constant temperature of 10°C all year around. Energy can be extracted from this heat source and used to provide more efficient (and cheaper) heating for the building. Pipes are run below ground and pick up the 10°C heat, this is then run through a heat pump which increases (concentrates) the heat up to approx 45°C. This heat is then used to heat the building. The heat pump is a refrigeration device that consumes energy when it is increasing the heat of the ground water. However it will only need 1kW of electrical input to deliver about 4kW of heat output. Therefore the system is approximately 400% efficient. In reality the efficiency of the system will vary slightly over the year from approx 300% to 500%.

Because the GSHP runs on electricity which is roughly three times the cost of gas, a GSHP will cost about 70% of the amount that a gas boiler would. However, the generation of electricity only emits about 40% more carbon than the gas burning in the boiler. Therefore a GSHP will produce only about 30% of the amount of carbon than a comparable gas fired heating system would.

The GSHP will consist of a number of vertical boreholes (perhaps 50m deep) that will be drilled within the new courtyard that will be created between the existing building and the new screens. In addition one or two boreholes will probably need to be drilled within the garden that is between the new covered corridor and the boundary wall to the White Lion, and also another two boreholes between the new screens and the boundary wall.

The water from the boreholes will be run to the heat pump which will be located in the 2nd floor plant room of the existing building. This will increase the heat taken from below ground up to 45°C. The heating water will then be pumped around the building to provide heat where required.

The existing building will be heated by conventional wall mounted radiators. It will not be possible to heat the building from an underfloor heating system because the heat losses from the existing (listed) walls and windows will be too high. The radiators will need to run at 80°C to provide sufficient heat output. The ground source heat pump is not able to efficiently generate hot water at this temperature, therefore it will be more economic to provide heat to the radiators from a conventional boiler.

The GSHP will also provide heat to the hot water storage calorifier that will be located within the existing building. The gas boiler will also provide top-up heat to the hot water storage calorifier which will also be located in the 2nd floor plant room. This is required because the GSHP will only be able to heat the hot water to about 40°C. The hot water must be stored at 60°C to prevent Legionnaires disease.

The high efficiency condensing gas boiler will be located within the 2nd floor plant room within the existing building. The boiler flue will be run out through the roof, between the front and rear roofs so that it will not be visible from the ground.

All spaces will be heated to 21°C when it is -4°C outside.

All heating pipework will be copper. All pipework, except where it is contributing useful heat to the space, will be thermally insulated with mineral wool pre-formed sections.

T61 Cooling distribution

Cooling will be required for the cinema spaces. This is due to the high numbers of people and the density of occupation. Each person produces about 100W of heat whilst sitting still. So in the larger screen this will be similar to having a 10kW heater within the space. If the building were not cooled, then the screen would soon reach well over 35°C.

The cooling for the screens will be derived from a Ground Source Heat Pump (GSHP) which will extract coolth from the ground. By installing the GSHP to heat the building, the cooling system is provided for very little extra cost. The water from below ground will be at approx 10-12°C which will be cooled down to approx 7°C to cool the air before it is delivered to the screens. The system will be set up so that when the screens do not need full cooling the water will be used directly from below ground. This will cut out the heat pump and so make the system even more efficient.

If a ground source heat pump were not provided, then a cooling system would be required anyway, otherwise the cinema screens would get far too hot in summer. A conventional cooling system would consist of an external condenser which would extract coolth from the air and a heat pump type system would cool the water down to 7°C. This external condenser would be fairly noisy in operation because it contains fans and motors. The condenser cannot be hidden away because it needs to extract the coolth from the air.

The water from the boreholes will be run to the heat pump which will be located in the 2nd floor plant room. This will decrease the coolth taken from below ground down to 7°C. The cooling water will then be pumped to the two air handling units that serve the two cinema screens.

The cinema screens will be designed to be cooled to 23°C when it is 30°C outside.

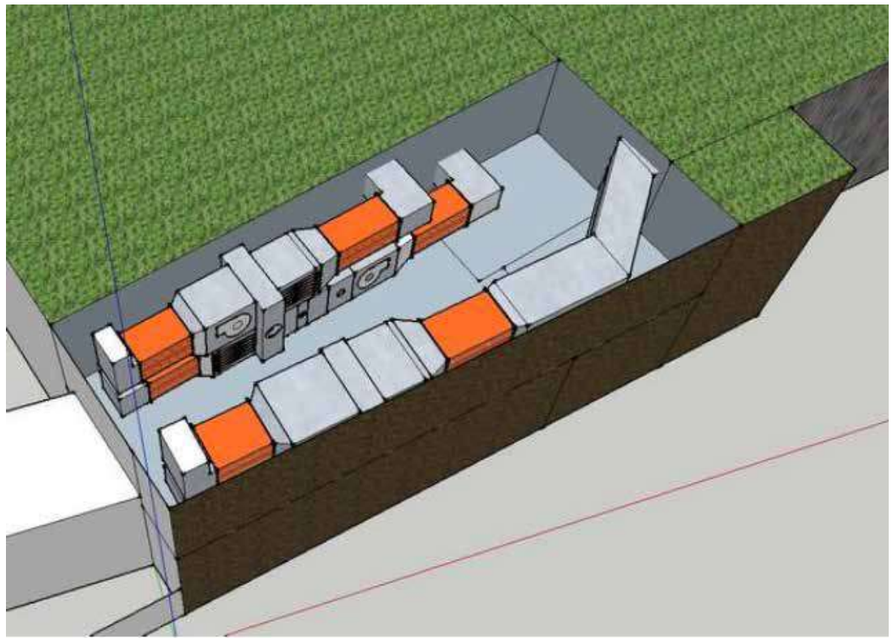
All cooling pipework will be copper. All pipework will be thermally insulated with mineral wool pre-formed sections.

U10 General ventilation

The two cinema screens will be mechanically ventilated by two air handling units. This is needed because of the number of occupants and the high density within the spaces. To comply with Building Regulations a minimum fresh air rate must be provided for each occupant. The AHUs will be located above the combined lobby of the screens. The lobby will be double story high creating a plant space under the roof.

The AHUs will deliver 100% fresh air. This requires a lot of heating or cooling to temper the incoming air. Therefore the intention will be to recover heat (or coolth) from the outgoing air and use that to pre-heat (or pre-cool) the incoming fresh air. This way the heat load of the incoming fresh air will be reduced by about 75%. The AHUs will be provided with filters, heater and cooler coils so that the air being delivered to the spaces is fully conditioned. The supply air flow rate to each screen will be controlled to minimise the amount of fresh air that is delivered. This will reduce the fan and heating energy required. Each AHU will be controlled directly by the screen that it is serving so that the internal temperature is maintained at the required condition.

The sketch below shows the two air handling units located within the plant space which is above the entrance lobby to the screens. The space is small, but adequate. The AHUs can be made to fit, as can the silencers that will be required to achieve the required noise level within the screens.



The basement bar will be mechanically ventilated. This will be sized to provide adequate ventilation for half of the occupants. If more people are in the space than that, then the window to the high street will need to be opened and rely on natural ventilation. We have settled on only supplying 50% of the air required (agreed with BFF) because that way the required services riser duct from the 2nd floor plant room is not too large. Otherwise there would be a significant loss of space from the ground and 1st floors of the building.

The supply air AHU for the bar will be located within the 2nd floor plant room. The fresh air will come from above the roof of the building. The heated air will be ducted down the main riser to the basement. Extract air will be taken from the other side of the room and discharged through the side wall in to the alley. This arrangement is needed to avoid the need for any distribution ductwork within the bar, as the headroom is so limited. The extract air will be taken through a run-around coil before it is exhausted. The heat from this will be piped up to the 2nd floor plant room where it will be used to pre-heat the incoming fresh air.

The other areas of the existing building will be naturally ventilated. This consists of the ground floor café, the kitchen store, the drinks store, the meeting room, the office and the staff welfare room.

U11 Toilet ventilation

Local extract fans will be installed to serve each toilet area, on the ground floor, first floor and the second floor of the existing building. Each toilet will be served by its own extract fan which will then be linked to the lights within the space to minimise the energy consumption. The duct from each fan will run up to the roof and will discharge in between the front and rear roof so that the outlet is not visible from the street. The fans themselves will be installed on the 2nd floor of the building.

U12 Kitchen ventilation

A mechanical extraction system will be provided from the first floor kitchen. This will exhaust its air through the roof of the building. This will be to minimise nuisance from cooking smells to the neighbours. The kitchen exhaust duct will be hidden in the valley between the front and rear roof of the building. The Planners and Historic England should be happy with this proposal. Because the kitchen is not that large the make-up air in to the kitchen will be provided by natural infiltration to the space. In extremis the window on to the high street can be opened to increase the amount of ventilation in the space.

V12 LV supply/Public utility supply

There is an existing incoming 3-phase elec supply from the high street in to the basement of the building. It is believed that this will have a capacity of 60A. This will probably need to be increased in site to 100A 3-phase to provide enough electricity to feed the new GSHP. Detailed calculations will need to be carried out during the later design stages of the project to confirm this assumption.

The incoming electrical supply will connect to a new 3-phase main distribution board which will be located in the same position as the existing supply. This is on the ground floor of the building next to the main entrance door.

Photovoltaic panels (PVs) will be installed on the roof and the rear wall of the cinema screens building. These will generate electricity which will be used within the building. If the panels are generating power when it is not needed within the building the power can be exported to Tenterden and a fee earned. The alternative would be to install batteries within the building and store the power from the time that it is generated to the time that it is required. Detailed calculations will need to be carried out during the later design stages of the project to determine if the inclusion of batteries will generate a worthwhile payback.

Photovoltaic panels could also be installed on the roof of the existing building. The panels will be limited to the inner roofs of the pitched roof so that they are not visible from the ground. We will need to check if the area of the roofs that is available is sufficient to justify the installation cost.

Unfortunately the PVs cannot be used to reduce the size of the required incoming electricity supply. This is because we have to assume the worst case which is a cold winter when there is not much sun. Heating is required, but there will be little power generation.

V20 LV distribution

New electrical distribution boards will be located around the building. These will be on the ground and second floor of the existing building and within the air handling plant room that is attached to the new screens. These will feed all electrical equipment.

V21 General lighting

New LED lighting will be provided throughout the building. In the new screens these will consist of discrete matt black LED downlighters. In the café and bar within the existing building the lights will consist of spotlights. In the staff areas on the upper floors of the existing building the lights will consist of more utilitarian lights.

The lighting will be dimmed where required, certainly within the screens. The intention will be to only install simple dimming rather than an expensive Lutron type dimming system.

V22 General LV power
Small power will be provided throughout the building fed from the local distribution boards. The electrical accessories will generally be white plastic throughout the building. The electrical accessories within the cinema screens will be mat black to avoid reflections.

V32 Uninterrupted power supply
This is assumed not to be required, apart from providing temporary back-up power so that the computer server can shut-down in an orderly fashion. It is assumed that this will be provided as part of the computer server hardware equipment.

V40 Emergency lighting
Emergency lighting will be provided throughout the scheme. This will consist of self-contained non-maintained light fittings within the existing building. Within the screens maintained emergency light fittings and exit signs will be provided. These light fittings will also contain their own internal batteries which will provide power for three hours in the event of a power failure. A central test facility will be provided for the emergency lights.

V41 Street/Area/Flood lighting
External lighting will be provided in the new rear courtyard and to the rear of the screens. This lighting will be limited in nature so that the neighbours are not disturbed. Controls will be provided so that the lights are only on during the hours of darkness and at times when they are needed.

W10 Communications
The existing incoming phone line and data connection will be re-used to provide an internet connection to the building. The client may need to upgrade the line to provide a fibre connection to the screens. This will run up to the new server room which will be located on the 2nd floor of the existing building. From here data cables will be run to all areas of the building. Wi-fi will also be provided throughout the existing building.

W15 Facilities for the disabled
A disabled toilet will be provided on the ground floor of the building. This will be provided with an emergency call system for the occupant. Induction loops will be provided with each new screen so that the hard-of-hearing can pick up the audio feed directly on their hearing aids.

W20 Radio/TV/CCTV
We assume that a CCTV system will be required within and around the building. The cameras will connect to a monitoring and recording unit which will be located within the staff areas on the 2nd floor of the building.

The Council and Tenterden Cinema Ltd is to confirm if a CCTV system is required, and also the scale and scope of the system.

W40 Access Control
This would consist of a video or audio call system from the front of the building to certain points within the building. The front door could then be remotely unlocked from these answer locations.

We assume that this is not required. The doors would simply be manually locked.

The Council and Tenterden Cinema Ltd. is to confirm their requirements during the later design stages of the project.

W41 Security detection and alarm
We assume that a security system would be required within the building. This would consist of movement detectors located within each space of the building. They would be linked to a central mains powered, battery backed, panel. The panel would be equipped with an auto-dialer which would send out a signal if the building is broken in to.

The Council and Tenterden Cinema Ltd. is to advise during the later design stages if a security alarm system is required.

W50 Fire detection and alarm
A new grade L1 fire alarm system will be installed throughout both the existing and new parts of the building. This will provide protection to all areas of the building. This will consist of a central mains powered, battery backed, fire control panel. From here wiring would be run to connect to each fire unit (detectors, sounders and call points). If the fire alarm is sounded, then the mechanical plant would be automatically stopped. The fire alarm panel would be equipped with an auto-dialer which would send out a signal if a fire is detected within the building.

There may also be requirements for a staged or voice evacuation system. This would be connected to the fire alarm system if it turns out to be necessary. The Council is to confirm their detailed requirements during the later detailed design stages.

W52 Lightning protection
There is no lightning protection system on the building at present. It would be prudent to add it to the building so that the historic fabric of the building is protected from a lightning strike. However this would probably mean adding lightning protection to the terrace of 2 houses. There would need to be metal tapes run down to the ground from the roof lightning tapes. The appearance of these down conductor tapes may not be acceptable to the Planners, or to Historic England.

The Council and Tenterden Cinema Ltd. to advise during the later design stages if a lighting protection system is needed.

W60 Mechanical Controls
A small BMS control system will be provided to control the plant and to make sure that it is operating as efficiently as possible.

All plant will be time clock controlled. Simple user controls are to be provided so that it is easy to alter the operating time of the plant. This is so that the plant is not left on unnecessarily if the show times vary.

The temperature with each screen will be individually controlled by return air sensors. The air flow rate to each screen will also be controlled by return air CO_2 sensors to minimise the amount of fresh air that is required. This will reduce the energy consumption of the fans as well as the amount of heating and cooling that is required.

The basement bar AHU is to have its own time clock control. It will also be controlled to maintain the

required temperature within the space.

The kitchen extract system will be locally manually controlled so that it does not run unnecessarily.

The other areas of the building will be controlled by simple thermostatic radiator valves or similar.

The hot water will be time clock controlled and temperature controlled. Controls are to be provided to maximise the heat taken from the GSHP system and only use the gas boiler top-up as required.

X10 Lifts
A new dumb waiter/goods hoist would be installed to connect the first floor kitchen to the ground floor café/bar. This would be a simple electrically powered traction hoist. It could be called from either level.

7.0 Structural Engineer's Report

7.1 Introduction

Burrell Foley Fischer architects have developed a design for creating a new cinema within Tenterden, Kent. The scheme involves the construction of a new building to house the cinema, as well as the refurbishment of an existing building within the site. This report considers the structural and civil feasibility of designing and building such a scheme, the constraints that the site provides and the next steps required in order to progress the design.

The following report is based on an initial site survey, desk study and past experience on projects of a similar nature.

7.2 The Site

7.2.1 General Description

The site is located within the centre of Tenterden at number 55 High Street. It comprises of an existing building to the front which faces onto the street, with a long, narrow stretch of gardens to the rear. The building is known locally as 'The Pebbles' with the 'Millennium Garden' behind.

The building is Grade II listed and appears to have originally been constructed as part of a semi-detached pair of properties. These two properties share the same structural form and central party wall; with both being three stories high plus a single storey basement. The building now lies within a terrace however the adjacent properties are of varying size and shape.

A number of buildings abut the rear garden, comprising both single and double storey structures. They appear to be of load bearing masonry construction, likely founded on brick corbel/concrete strip foundations. Where adjacent to the proposed new build structure the extent of these foundations will need to be confirmed as the project progresses.

7.2.2 Ground Conditions

Information from the British Geological Survey online maps indicates that majority of the site overlays the Turnbridge Wells Sand Formation; a stratum formed of interbedded sandstone and siltstone (shown light yellow on the map below). To the rear of the site the ground conditions change to the Wandhurst Clay Formation, formed of Mudstone (shown brown on the map below); however this appears to be outside the realms of the proposed building works.

Ground investigation works will be required in order to confirm the underlying strata as well as a number of other geotechnical properties including allowable bearing pressures, ground contamination and the presence of water. A scope will be provided for a specialist firm to undertake these works and to submit a report on their findings. The specialist will also be able to investigate the presence of adjacent building foundations to allow these to be factored into the design.

7.2.3 Existing Building

As noted, the existing building comprises three storeys above ground and a single storey basement below. The ground floor is currently used as a retail unit, accessed from High Street. The floors above were historically used as residential space, with part of the first floor being used by the shop for storage; however the residential space has been vacated due to water ingress through the roof, this has now been repaired and at the time of the visit there was no signs of ongoing ingress.

The building was built in a traditional form of construction; timber joists floors supported on load-bearing timber walls and columns that are in turn supported on brickwork footings. Loose cut timbers form the roof which treble butterfly which spans from the front to rear structural walls with intermediate support, most likely timber beams, to the two internal valleys. The building has settled and deformed in various ways historically resulting in uneven floor surfaces throughout. The basement is currently unused and has issues with water ingress and vegetation.

There is an existing single storey extension to the rear of the building, which appears to be of load bearing masonry construction with a timber flat roof. It is proposed that this is demolished as part of the works.

A site constraints plans showing adjacent structures is available with Appendix C of the report.

7.2.4 Existing Below Ground Drainage

The existing below ground drainage network appears to run through the passage that leads from the High Street to the gardens at the rear of the site, serving the existing rear extension. Two manhole covers are visible along the run. No current issues have been raised regarding blockages or inadequacy of the existing network however prior to prior to undertaking works it would be prudent to undertake a full CCTV survey. This will confirm the extent of the network, capacity and any issues; present or forthcoming. The requirement for the survey is included within Section 5 of the report.

7.3 Proposed Structural Works

The proposed structural works are split into two categories: new build works within the rear gardens and refurbishment works within the existing structure.

7.3.1 New Build

Sketches indicating an outline structural scheme are included within Appendix C of the report.

Substructure - Option 1

Ground bearing foundations in the form of reinforced concrete strips, pads or a raft will likely be feasible should the ground conditions be as anticipated based on the BGS map. A reinforced concrete box will form the below ground structure, supporting the vertical loads from the superstructure and restraining lateral loads from the ground. With this solution, underpinning may be required to the adjacent building which abuts the site. This will prevent our building from undermining their existing foundations and therefore limit settlement of the structure.

ADVANTAGES
- No specialist site equipment required (e.g. a piling rig)
- Fully designed by consultant engineer
- Efficient use of materials
- Only 1 additional form of waterproofing required

DISADVANTAGES
- Underpinning of adjacent building required
- Temporary works during excavation

Substructure - Option 2

An alternative solution would be to install a contiguous, secant or sheet piled wall around the perimeter of the proposed structure. Once installed, the ground could be safely excavated without the need to underpin the adjacent building. An RC lining wall would be cast against the piled box in order to create a waterproof environment internally.

ADVANTAGES
- Permanent works also forms temporary works
- No requirement for underpinning

DISADVANTAGES
- Specialist piling contractor required
- Increase in material cost
- 2 additional forms of waterproofing required

Superstructure - Option 1

The superstructure will likely comprise of a braced steel frame with a profiled metal deck roof insulated with a green finish. Steel beams and columns will support vertical loads with steel bracing provide the structural with lateral stability. This would result in the facade being a non load-bearing element comprising brickwork outer-leaf and light gauge steel or blockwork inner.

ADVANTAGES
- Rapid construction on site
- Off site fabrication of steelwork therefore good quality control
- Wall build-up flexible
- Flexible to future adaption
- Useful for hanging technical equipment for the roof structure

DISADVANTAGES
- Higher embodied carbon compared to timber
- Requires additional fire protection
- Structure not integral to acoustic performance

Superstructure - Option 2

An alternative solution would be to use RC frame construction instead of steelwork. This would increase the size of the structural elements but could be designed to provide inherent acoustic properties by including an RC and walls panels. This, however, would significantly increase the embodied carbon of the structure and may seem excessive for the scale of building that is proposed.

ADVANTAGES
- Workforce readily available
- Inherent acoustic properties
- Inherent fire protection
- Good thermal mass

DISADVANTAGES
- Larger section sizes to steel
- High embodied carbon
- Limits future flexibility of space

Sketches of the proposed structural works are available with Appendix C of the report. The sketches show Option 1 for both the sub and superstructure proposals as it is believed that these present the most economical solutions for the proposed scheme.

Walkway between New and Existing Buildings

The walkway between the new and existing buildings will be a steel framed structure with non load bearing infill, large sections will be glazed. Due to the glazing the steelwork will be portalised for stability. A sketch of this proposal is shown on the ‘Proposed Sections’ sheet available within Appendix C of the report.

7.3.2 Refurbishment of the Existing

The proposed works changes the upper floors of the building from residential to public use. This presents

a fundamental change in loading and therefore the existing structure will need to be assessed for the resultant change in load. Furthermore, the building classification in terms of disproportionate collapse changes 2A to 2B meaning sufficient tying must be present or otherwise put in place.

As noted within Section 2 of the report, a number of building defects were recorded during the initial site visit. A full timber survey will be required in order to define the extent of the defects as well as confirming the sizes and grades of existing structural elements. Additionally, the basement will require a new slab, cavity drain system and a sump pump in order to make it habitable.

The list below outlines the works that will likely be required to the existing building. Although these may be added to or removed throughout stage 2 and 3 as the survey works progress and the scope of works is refined, the list can be used to make an allowance for works at this stage.

- New 150mm thick basement slab with 200mm wide kerb around the perimeter
- Cavity drain system within the basement, including associated sump chamber. Sump to be connected to below ground drainage network
- Removal of basement columns results in need for strengthening to ground floor structure. All for strengthening of existing beams and additional joists between existing
- Strengthening of existing beams and additional joists added throughout upper floor levels
- Local repairs to building fabric where damaged or water leakage is present
- An allowance for repairing existing timber structure where water ingress has caused disrepair

7.4 Proposed Civils Works

The extent of the proposed below ground drainage works is subject to the condition of the existing network, its capacity and the resultant flow-rates from the above ground network and the invert level of the final manhole from the site and the level of the existing public sewer. The list below outlines various outcomes for the scope of works; ranging from the least (1) to the most extensive (3). At this stage it would be prudent to provide an allowance for option 2, with further development required through stages 2 and 3.

1. New connection into existing network only: existing below ground network is in good condition and has sufficient capacity
2. New connection into existing and local repairs/replacements where existing network is in disrepair or lacking capacity
3. Full replacement of existing network (this is unlikely if no current issues are present)
4. Sump pumps from all new drainage within the basement and cinema.

7.5 Site Investigations

A number of site investigation works will be required as the project progresses throughout Stage 2 and 3. These are to confirm any assumptions that are made within the design and to understand, as far as possible, the site and the existing structure. The below list outlines both structural and civil investigations that will likely be required; this list is not exhaustive and may be added to/reduced subject to requirements found during the design phase. The figure quoted within the bracket is a suggested budget for each of the works, based on similar works we've specified on past projects. Preliminary scopes for the ground investigation and CCTV survey are included within Appendix C of the report, with the rest to follow as the project progresses; these will allow a specialist contractor to tender for and ultimately complete the work.

Structural

- Ground investigation including foundations of adjacent structures (£10000 + VAT)
- Arboriculturalists survey
- Structural investigation of the existing building provided by a timber specialist for damp and fungal/ beetle infestation (£1500 + VAT)
- Dilapidation survey

Civil

- CCTV survey of existing drainage (£2250 + VAT)
- Below ground services survey (may be defined by M&E Engineer)

7.6 Construction Feasibility

With the new build construction in mind, the chosen contractor should carefully consider how the site will be set up; taking into account the available site access and constraints around. Concrete delivery wagons will be required during formation of the below ground structure, whilst large steel members will likely require craneage. The feasibility of these types of work in relation to the proposed site are discussed below.

7.6.1 Site Access

The existing building to the front of the site is relatively easily accessed from the High Street. Although this may not be available for site deliveries, the contractor may decide to build a hoarding that projects from the front elevation; providing access, a safe working area and storage zone for operatives.

The Millennium Garden shares its rear boundary with a car park, which is accessible from a road leading from the High Street just South-West of the site. The contractor may wish to use the rear of the garden for their site office, storage and welfare facilities therefore the car park would provide a reasonable unloading area. The access road is fairly narrow however and therefore would need further investigation to determine whether it's suitable for construction traffic.

7.6.2 Constraints

A site constraints plan is presented within Appendix C of the report.

In addition to site access (as described above) the most significant site constraint is that of adjacent buildings and public amenities. The constraints plan indicates where these buildings are located and notes the likely impact that the construction works will have on each. The majority will be relatively unaffected by the works, but may encounter noise and dust pollution issues.

One existing building will be directly impacted due to the proximity with the proposed new build construction. With this in mind, the proposed will look to minimise the disruption caused; both during and following completion of the construction works.

As shown on the plan, there is an existing carpark to the rear of the site. This may provide a useful turning zone and parking area for the contractor, subject to the frequency of use and agreement with the local authority/land owner. The rear of the site (within the boundary) may present a suitable area for the site compound. Access is available via the High Street and the area is free from proposed building works. There is a pinch point in the road that leads from the High Street that the contractor would need to consider; it may result in vehicle access being limited to a particular size.

7.6.3 Anticipated Programme

The below provides an estimated programme for the structural and civil works on site. It is based on past experience of projects of a similar size and scope although is subject to the contractor's preferred method of working, availability of work force and extent of fit out works. This will need to be further considered with the team in relation to the Cinema Focus Group's anticipated programme.

	MONTH									
ACTIVITY	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Site set up										
Ground works including underpinning and drainage										
Steel fabrication										
Steel erection on site										
External works										
Basement works to existing										
Upper floor works to existing										

7.7 Project Risks

A number of risks have been identified below with a rating estimated in brackets after. These risks should largely be reduced through site investigation works and design however some may not be fully resolved until works begin on site. These lists normally remain live throughout the project and can be added to or adjusted at each stage. We would recommend a risk register is maintained and reviewed throughout.

1. Existing building structure in worse condition than anticipated meaning additional remedial and/or strengthening works required (rating: medium)
2. Existing below ground drainage network has insufficient capacity for proposed work (rating: medium)
3. Building works cause damage or settlement issues to adjacent structures (rating: low)
4. Ground conditions vary and/or are not as defined by ground investigation report (rating: low)

7.8 Conclusion

To conclude, the proposed refurbishment and extension of The Pebbles and Millennium Garden in Tenterden is feasible from both a structural and civil perspective. A number of solutions can be adopted for the works and these will be fully defined throughout stage 2 and 3 following detailed design, costing and programming exercises. It is critical to undertake the investigation works defined within Section 7 of the report in a timely manner as these will help to reduce or mitigate the project risks.

8.0 Acoustic Consultant's Report

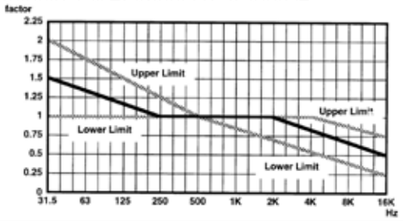
8.1 Introduction

The existing Grade II listed Pebbles building at 55 Tenterden High Street is to be redeveloped to provide two boutique cinemas and a bar.
Acoustically the project must:

- Provide excellent internal room acoustics for the cinemas and a comfortable environment in the bar.
- Control noise ingress and egress to the cinemas such that those in the cinemas and surrounding premises are not disturbed by one another.
- Control noise transfer between spaces internally such that they can function simultaneously.
- Control noise emission from new plant items associated with the redevelopment to meet the Local Authority Requirements.

8.2 Acoustic Criteria

Provisional acoustic criteria are proposed for the development as detailed below. The criteria are based on industry guidance, Local Authority requirements and Theatre Projects experience.

Acoustic Measure	**Target Criteria**
Cinema reverberation time	Screen 1 & 2: 0.35s RT @ 500Hz 
Cinema building services noise limit	NR25
Cinema noise ingress limit	L_{10} ≤ NR25
Sound Insulation Between Cinema Screens (Sound Level Difference Dw)	Dw 60dB
Noise egress from the cinema and bar	Local Authority Requirements: "For new entertainment premises the L_{Fmax} sound from amplified and non amplified music and speech shall not exceed the lowest L_{90} (5min), 1m from the facade of any sensitive receptor in all third octave bands between 63Hz and 8 kHz."
Plant noise emission limits	Local Authority Requirements: " 'Specific' sound level does not exceed 10dB below the representative L_{A90} background sound level at any time. The 'Specific', 'Rating' and 'Background' sound levels shall be calculated in full accordance with BS4142:2014+A1:2009."

8.3 Design Guidance

- Large spatial allowances are required for the walls of the cinemas to provide high levels of sound insulation. It is anticipated the external walls will require around 300mm and the separating wall 550mm. The roof must also provide a high level of sound insulation. An allowance of minimum 300mm for an insulated concrete roof should be made.
- The potential green roof noted on the drawings could be used to provide some of the sound insulation required for the roof as it provides useful additional mass.
- The two cinema floors will need to be isolated from each other's to mitigate against sound flanking. The inner leaf of the façade walls will then be constructed off the independent slabs in a box-in-box style arrangement.
- Internal sound absorptive finishes are required to control reverberation. An allowance of 200mm on the screen wall and 50mm on the sidewalls and the back wall should be provided. Sound absorption will also be installed under the acoustic barrier ceiling.

- It is understood that proprietary projector pods will be used to house the projectors in the cinema as opposed to separate projection rooms. Careful selection of a quiet projector will minimise any noise disturbance.
- Given the stringent Local Authority criteria, full mechanical ventilation is likely to be required in the cinema spaces. Additionally, in other bar areas and where people gather, mechanical ventilation is likely to be required.

8.4 Required Surveys

- An external noise survey is required to establish existing acoustic conditions – Local Authority planning guidance states that assessments should be undertaken to establish existing conditions and demonstrate that proposed development will comply with Local Authority criteria for noise egress and plant noise emission.
- The noise survey will likely consist of both attended measurements and unattended noise logging over a weekend period.
- It is important that the external noise survey is undertaken at the beginning of the next project phase to enable appropriate cost allowances for the cinema façade and to optimise the location of plant.

9.0 Quantity Surveyor's Report

The cost estimate for the scheme is included at Appendix D of this report.

9.1 Clarification on contents of cost plan and specific exclusions

Specific inclusions and exclusions are noted within the cost plan and should be read carefully to ensure the contents are fully understood.

In essence though the nature of the costing is to provide a completed "shell" for the scheme to be handed to an operator for final fit out Within the shell the following works will be completed:

To the Existing Building:

- All alteration, repair and structural works
  Works to bring the Basement back into use
- All partitioning, internal doors etc. to form the proposed layouts as shown
- All wall, floor and ceiling finishes (but excluding decorations and applied finishes such as wallpaper, timber boarding and the like)
- All Mechanical & Electrical installations (but excludes feature light fittings, AV Installations etc.)

To the Glazed Link and Screens Building

- Construction of the new Screens building complete (but excludes decorations and floor finishes to Screens and lobbies)
- Construction of the new glazed link complete including allowance for floor finish
- All Mechanical & Electrical installations including allowance for providing and installing the technical fit out cabling (but excludes feature light fittings, AV Installations etc.)

Externally

- Paving/soft landscaping within the vicinity of the buildings to the front and rear aspects
- Allowance for below ground drainage

It is envisaged that the operator will complete the fit out and that the operators' scope of works will include the following:

- Applied wall finishes (paper/boarding and the like) throughout where required
- Floor finishes to screens and screen lobbies
- All joinery to the Café/Bar and elsewhere (counters/backfittings/screens/fixed seating and the like)
- Feature light fittings throughout
- All AV installations (outside of the screens)
- Technical cinema fit-out (to include projection and enclosures, screens, sound and all technical equipment)
- Applied acoustic wall panelling to screens and lobbies
- Cinema seating
- Satellite dish
- Poster frames
- Till/EPOS equipment
- Ticket machines
- Catering installations (to servery & kitchen)
- Coffee machine
- Bar/Servery installations complete including any "cellar" fittings
- Signage
- Internal & External loose furniture

9.2 Comparison of previous and current cost plans

In June 2018 Greenwoods were part of the initial alternative site feasibility team. At this time a high-level cost plan was prepared on outline information to provide a 2-screen cinema with one screen in the footprint of the existing rear extension and one screen at an upper level in the existing building. This was in the sum of £1.22M (excl VAT and Fees). A further plan was developed in January 2019 for both screens to be located in a rear extension, this being in the sum of £1.445M (again excl VAT & Fees).

The current scheme is in the sum of £2.192M which represents an uplift over the January 2019 scheme of approx. £770,000.

The difference is due to the development of the scheme from the original plan to include availability of surveys and the participation of a full consultant team to include Architect, Structural & Civil Engineers and M&E Consultant. This has led to a different scheme that includes far more detail than was available originally. The biggest differences are as follows:

9.2.1 Screens building

This is not hugely different in terms of costs to the allowance made last time albeit there is significantly more information available now and the scheme is different. This did include a small link building last time (the main link is shown separately below now) which does skew costs slightly. The current proposal has revised to comprise a reinforced concrete "box" set 2m down into the ground (to reduce visual impact and provide the greater height required in a cinema screen) with a green roof to again reduce visual impact. Additional value (taking into account the notes made) approx. £25,000.

9.2.2 Glazed link

The scheme now includes for a fully glazed link building to connect the original Pebbles Building to the new Screen Building. Additional value approx. £200,000

9.2.3 M&E Installations

We now have far more detail on the proposed M&E installations. In addition, proposals now include for some initially high capital cost items such as a Ground Source Heat Pump system and PV panels. This scheme also includes for the technical wiring within the screens to be included in the "shell" package as the wiring needs to run behind wall linings which form part of the acoustic construction of the screen building and can't be disturbed once constructed hence the need to install wiring now. This will need to be done in conjunction with the operator to ensure the correct cabling is supplied and installed as required for the end user. Additional value approx. £455,000.

9.2.4 External works

The initial scheme did not include much in the way of external works but the developed scheme includes a considerable amount of paving and landscaping works. Additional value approx. £105,000.

9.3 Further Mechanical & Electrical Sustainable Options

The M&E Consultant has noted that there are several further possibilities that could be pursued in terms of sustainable technologies. For clarity the current figures include for the installation of a ground source heat pump installation to provide heating and cooling to the screens and to provide a heat source for the hot water throughout (backed up by a link to the conventional boiler within the existing building) and the underfloor heating to the link building, inclusion for LED lighting throughout and an allowance for a photo voltaic installation for limited electricity generation.

The various options that could be considered are noted in the M&E Consultants report. However, the following are possible additional items that could be included to improve the efficiency or sustainability of the building further:

- Improved thermal insulation (in particular to the new build parts of the scheme) – Approximate additional cost of circa £20,000
- Upgrading proposed M&E equipment to improve efficiency – Approximately £5,000 – 10,000 additional cost depending on scope
- Wind Turbine – A small wind turbine could be incorporated to generate electricity (subject to planning approval) – Approximately £25,000 additional budget cost
- Solar Thermal Collectors – These could be utilised, perhaps on the roof of the existing building (again subject to planning approval) and a typically used to heat water for use in the building - Approximately £15,000 additional budget cost for the installation although there may be further costs due to structural alterations for mounting and alterations to roof coverings etc.
- Air Source Heat Pump Installation – At present the scheme includes for a ground source heat pump. An alternative could be to use an air source heat pump. The disadvantage of this is that the efficiency of air source heat pumps is considerably lower than ground source heat pumps, in particular when utilised for heating in winter. As such they have much longer pay back periods – Approximate saving over the included ground source heat pump costs of circa £30,000 (but this would be lost over time in running costs due to the decreased efficiency).

Two further technologies noted in the M&E Consultants report, namely combined heat & power (CHP) and Biomass are not included here because they are felt to be wholly unsuitable for the project (please see the M&E Consultants report for clarification on these).

9.4 Cost Risks/Contingency

The project cost includes for an overall 10% contingency sum to allow for unforeseen costs. However, some specific risk should be noted as follows:

- Ground conditions – The Structural Engineer has made recommendations on a design for the Screens Building and Link Building but no ground condition survey has yet been undertaken. Should this reveal issues with the ground then costs could exceed those included
- Timber & Damp/Dilapidations – Neither survey has yet been commissioned and as such assumptions have been made at this stage on the existing condition of the building. Should this prove to be worse than envisaged further costs could be incurred.
- Below Ground drainage – A survey of the existing is yet to be commissioned and this may show issues/repairs that incur additional costs. It should also be borne in mind that only an allowance has been made for these works to date as no design currently exists at this stage.
- External Services – Allowances have been made for the anticipated upgrade of services. Final costs will only be borne out once actual requirements are determined and quotations received from the relevant companies. If the requirements present issues for the utility suppliers in terms of available capacity then costly infrastructure works may be required which could increase costs.
- Acoustic Survey – The acoustic consultant is yet to undertake acoustic surveys which may inform a revised construction specification. This could impact costs depending on the findings
- Availability of suitable contractors/programme/inflation – Costs are set at the current second quarter 2020. As the overall programme for the project is yet to be confirmed then other factors such as those mentioned here could have an effect on costs
- Covid 19 – The current Covid 19 pandemic is an unprecedented situation that will inevitably lead to economic impact throughout all aspects of life including the construction sector. At this time, it is not possible to predict what the possible impacts of this could be in terms of costs, possible revisions to construction methods, programme etc.
- A further risk that has been highlighted is the possible requirement to achieve fire separation between floors in the existing building. An allowance has been included in the cost plan to achieve this but until further opening up works are undertaken and agreements made with Building Control and the Fire Officer over final requirements this does remain as a cost risk to the project.

10.0 Cinema Business Consultant's Report

10.1 Introduction

The project aims to redevelop the Pebbles building, 55 High Street, Tenterden into a 2-screen cinema with café bar. The redeveloped Pebbles building will accommodate the entrance foyer, café bar, offices, toilets and stores while a new extension to the rear will house two new auditoria, provisionally with 102 and 56 seats. The building will be fully accessible.

10.1.1 Operators who have a known interest

During the 2018 pre-feasibility study two independent cinema operators in the south of England confirmed their interest in operating and investing in a cinema in Tenterden.

Kino Digital

The single screen Kino cinema in Hawkhurst opened in 2006 and was the UK's first all-digital cinema. It has 90 seats and a popular café bar. The company's second cinema opened in 2015 in Rye and features 2 screens (96 and 48 seats) as well as café bar and flexible space seating up to 25 people – suitable for

DVD and multi-media screenings. In 2017 Kino Digital acquired the former Shortwave cinema (48 seats) in Bermondsey.

In January 2018 Managing Director Matt Breckon confirmed his company's interest in the proposed new cinema in Tenterden. The new cinema would complement the cinemas in Hawkhurst and Rye which are currently the cinemas of choice for many Tenterden residents.

Contact:

Matt Breckon	T: 01580 755469
Managing Director	M: 07501 490529
Kino Digital	E: matt.breckon@kinodigital.co.uk
Rye Road, Hawkhurst	www.kinodigital.co.uk
Kent TN18 4ET	

Picture House Uckfield

The 3-screen Picture House is a family run cinema which has won several local and national awards including 'Cinema of the Year (24 screens and under)' in The Screen Awards 2018 and 'SME Business of the Year' at the East Sussex Business Awards (2019). In recent years Managing Director Kevin Markwick has invested heavily in the cinema and the high street restaurant directly opposite the cinema which is also owned by the family.

Kevin Markwick has confirmed that he is looking to expand his company with additional cinemas in the south of England, including in Tenterden.

Contact:

Kevin Markwick	T: 01825 766299
Managing Director	M: 07710 104168
The Picture House	E: kevinm@picturehouseuckfield.com
High Street, Uckfield	www.picturehouseuckfield.com
East Sussex TN22 1AS	

10.1.2 Other potential cinema operators

If neither Kino Digital nor Uckfield Picture House submit a satisfactory offer to invest in and operate the Tenterden cinema, then the following companies could be considered:

Really Local Group

W: https://reallylocalgroup.co.uk

Contact:

Preston Benson, Managing Director
E: preston@reallylocalgroup.co.uk
M: 07770 967153

The Really Local Group aims to create and restore cultural infrastructure through the regeneration and renewal of the UK's high streets. The 3-screen Catford Mews cinema in Lewisham opened in September 2019 and is their first venture. Redevelopment of a former vinyl record pressing plant in Haynes is their second project, again a 3-screen cinema.

Their model is to create bespoke venues with a mixture of:

- 3 or 4 screen cinema
- Live music & comedy programme
- Community spaces
- Coffee shop/bar
- 'Pop up' stalls for local food and products

The Pebbles building development is smaller than the Really Local Group are currently concentrating on but their founder and managing director Preston Benson has previously confirmed that he is interested in considering a wider range of developments.

Style of operation	Very local, trendy, hip places to go
Development activity	Second venue in development
Potential for Tenterden	Moderate

Trafalgar Cinemas

Contact:

Lyn Goleby, Managing Director
E: Lyn.goleby@gmail.com

A new company developing an independent, up-market cinema in Chiswick which is due to open in late 2020 (www.chiswickcinema.co.uk). The company is led by Lyn Goleby, a co-founder of the Picturehouse cinema circuit which is now owned by Cineworld.

The company is planning to develop more cinemas, probably in London and the south east of England. They are most likely to consider 4-6 screen venues with café bars but may be interested in the Tenterden cinema.

10.1.3 Local Authority investment in new cinemas

Local authorities have a long history of involvement in arts and cinema provision. In recent years investment in new cinemas has often been part of a town centre/high street regeneration initiative. In several instances these new cinemas are developed by a joint venture involving the local authority and a commercial developer.

- **Reel Cinema, Blackburn** – a £6.5m 8-screen cinema plus two food and drinks outlets. Developed by Darwen Council and leased to Reel Cinemas for 20 years. [Jan 2018]
- **The Light, Addlestone** – Led by Runnymede Borough Council, the development aims to 'retain local spend and attract new consumer expenditure to the town'. The scheme includes a 6-screen cinema (The Light), Waitrose, Premier Inn hotel, Costa Coffee, and a gym. The Council's development partner is Places for People, one of the UK's largest property development and regeneration companies with a strong track record in building sustainable communities and mixed-use developments. The £90m scheme is a partnership between Runnymede Borough Council and Bouygues Developments. [April 2018]
- **Empire, Basildon** – £20m scheme for 10-screen cinema (35,000 ft^2) and 6 restaurants (20,000 ft^2), part of town centre regeneration plans. The scheme is led by the Council's Regeneration & Environment Committee. [June 2018]
- **Picturehouse, Lambeth** – Council paying £3m out of total £6m scheme. A joint venture between the

Council and Picturehouse Cinemas (Cineworld). The development also includes a library. [July 2018]

- **Daventry** – District Council investing £8.2m from the Council's capital reserves for a new leisure development including a 3-4 screen cinema and 2 restaurants/bars. Led by economic, regeneration and employment committee. [Oct 2018]
- **Northallerton** – A 4-screen Everyman cinema is being developed within a £17m leisure development in Northallerton. The scheme is being delivered by the Central Northallerton Development Company (CNDC), a joint venture between Hambleton District Council and Yorkshire property developer Wykeland Group. [Announced Jan 2019]
- **Bridgwater (Somerset)** – Sedgemoor District Council will be funding a new 7-screen cinema as a regeneration scheme, as well as a long-term investment. The operator will be WTW Scott Cinemas. [Scheduled to open early 2021]
- **Sleaford (North Kesteven)** – 3 screen cinema with restaurant and food court. North Kesteven District Council providing £4 million to this Heart of Sleaford regeneration scheme. [July 2019]

10.2 Service level agreement for the incoming operator

10.2.1 Introduction

The proposed 2-screen cinema and café bar in Tenterden is intended to create a contemporary, mid-market, independent cinema which serves the local community and visitors to the town. The cinema should become a key leisure and cultural facility in the town, complementing cafes, bars, restaurants, retail outlets, and the facilities available at venues including St Mildred's Church.

10.2.2 Draft service level agreement

In entering into a Cinema Operator Agreement with Tenterden Cinema Limited (TCL), it is agreed that the Cinema Operator (the Tenant) shall in undertaking its role meet the following Service Level Requirements.

Management and reporting

Account management

TCL will require the appointed Cinema Operator to nominate a dedicated account manager who will act as the main point of contact for the duration of the Cinema Operator Agreement. This person shall have the authority to deal with all matters in relation to the Cinema Operator Agreement and be responsible for the satisfactory delivery of the services required.

Monitoring

The Cinema Operator will be expected to attend contract monitoring meetings with TCL at regular intervals as agreed. Annual audited accounts must be provided along with the provision of half-year [or annual] performance and monitoring reports, the proforma to be agreed prior to contract start.

Performance indicators

The following performance indicators are likely to be included in the Cinema Operator Agreement, the final set will be agreed with the selected operator. The performance indicators should be submitted to Tenterden Cinema Limited at agreed reporting intervals

[e.g. Monthly/Quarterly/Half-Yearly/Annual]:

- Admissions of specific groups such as Adults, Seniors, Students, Children, Unwaged, etc.
- Admissions details split between cinema films and event cinema performances
- Top 10 performing films for the period and top 3 event cinema performances
- Average ticket price for films and for event cinema performances
- Average retail/catering income per attendee
- Number of private hires of the venue, analysed by type. [For example: Commercial, Funded/public organisations, and Voluntary organisations].
- Number of people attending special screenings such as dementia or autism friendly screenings
- Number of people who have used audio description or hard-of-hearing equipment.

The Vision

The Tenterden Cinema aims to play a central role in the cultural, entertainment, social and business life of Tenterden and the surrounding area.

The Cinema Operator will work to provide residents and visitors with the opportunity to experience a high quality, wide-ranging programme of new release and cultural cinema and related activities, including regular 'event cinema' performances.

The Cinema Operator will achieve this by:

- providing a broad based, inclusive and accessible cinema and event cinema programme
- effective marketing of the Tenterden Cinema
- operating the Tenterden Cinema as an integral part of the local community
- working with local schools and colleges to provide an education programme for children and adults
- promoting the cinema's facilities for hire to local businesses, organisations, community groups and private individuals

The cinema should be open to the public 7 days a week throughout the year.

Programming Policy

The Tenterden Cinema aims to provide a cinema and cultural programme which is responsive to all sections of the Tenterden audience who seek the opportunity to see:

- mainstream and independent new release films
- films that are diverse in outlook or content
- films of historical and local interest
- live and recorded ('encore') event cinema performances

Elements of the programme policy are outlined below:

First run & current release films

- a diverse programme which balances new release mainstream films with independent and specialist films
- an inclusive pricing structure which aims to ensure attendance by all sections of the community including economically disadvantaged audiences

Special interest programmes

- a showcase for local film culture and film-making
- regular films for minority groups and communities from the local area
- where appropriate, presenting festivals and seasons of films, including touring packages of films curated by the British Film Institute Film Hub network

Accessible screenings
- provision of facilities and screenings for hearing impaired, deaf and sight impaired audiences
- provision of relaxed/autism-friendly/dementia-friendly screenings in the regular programme
- respond positively to local requests for screenings to suit specific audiences who experience difficulty attending regular public screenings. For example, parent and baby screenings.

Films for children
- provide a regular weekend programme specifically for children
- programme suitable films, events and workshops for school holidays

Event cinema programming
- regular screenings of live and encore (recorded) event cinema performances such as performances of classical and rock concerts, operas, theatre performances, ballet and other events.

Tourism and business
- develop links with local and regional organisations to support conferences, meetings and tourism initiatives.

Education
The Cinema Operator will work with local schools, youth organisations and adult education organisations to provide activities to develop local audiences.

The education activities are expected to be delivered in collaboration local schools, Into Film (the national film education organisation), Film Hub South East and other relevant organisations.

Strategic education objectives:
- Introduce new audiences to a range of films including independent and specialist films
- Introduce young people to film appreciation and film making, and help them develop an interest in the medium.

Marketing
The marketing activities for the Tenterden Cinema should include:
- printed and on-line programme information
- online and mobile ticket purchasing
- e-mail programme newsletters
- an active social media presence
- advertising in local print and broadcast media
- front-of-house displays to promote screenings and events
- provision of accessibility information, in print and online
- building regular attendance through a Membership or Loyalty Scheme (or similar)
- an annual customer survey to receive feedback and inform future developments.

Catering
The café bar aims to provide a service for various audiences and users including:
- Audiences attending a cinema screening
- Users attending a private hire of the Tenterden cinema
- Casual users/general public
- As part of the wider community role of the Tenterden Cinema, local suppliers should, where appropriate, be chosen and their businesses supported.

Private hires
The Tenterden Cinema is a key venue for the local community and the cinema's facilities are expected to be promoted and made available for hire to local businesses, organisations, community groups, and private individuals.

Monitoring
This SLA will be monitored by through an agreed process between Tenterden Cinema Ltd. and the Cinema Operator.

10.3 Business projections

10.3.1 Context

National cinema sector

Cinema trends
The UK cinema sector performed strongly in 2018 and 2019. Attendances were at the highest level for almost 50 years.

High quality venues
Since the introduction of digital projection technologies a decade ago there has been large scale investment in new and upgraded cinema venues, a trend which is continuing. New and upgraded cinemas have substantially improved the comfort of seating, delivered excellent technical presentation, and provided a higher quality of service compared to a decade ago. Food and drink facilities (cafés, lounges, restaurants) are now an integral part of the cinema business, complementing the traditional concession sales of confectionery and soft drinks.

Local cinemas
Many of the new cinemas are smaller neighbourhood cinemas – a trend exemplified by the rapid growth of the Everyman circuit of boutique cinemas. Audiences are increasingly rejecting travelling longer distances out of town: wanting instead to make cinema going part of a wider town centre experience including visiting restaurants and bars, or heading to the cinema straight after work.

Programme choice
The choice of films available to a cinema has also changed substantially. The number of films released in UK cinemas has doubled over the past decade and few films stay in cinemas for more than 2–4 weeks. The variety of films on offer – over 800 feature films per year are released in the UK – has been complemented by the arrival of event cinema performances (around 100 live or recorded broadcasts of pop and classical concerts, opera, theatre and other events are available each year to cinemas).

Independent sector characteristics
Independent cinemas emphasise their local connections, distinctive architecture, style of decoration, choice of programme, catering, and especially the friendly attitude of staff.

Independent cinemas vary considerably in their style of architecture, their facilities and the way they are managed. Examples of this type of cinema which have opened recently include:

- Depot, Lewes – cinema with restaurant and café bar and large open terrace
- Archlight Cinema, Battersea – located in three former railway arches
- Catford Mews, Lewisham – in redeveloped Poundland store, street food in foyer
- Everyman, Horsham – up-market boutique cinema with bar café
- Curzon, Canterbury – café bar and fresh pizza
- Tivoli, Bath – a new entrant to the sector, similar to Everyman

As a local independent cinema the Tenterden Cinema would appeal to many different audiences including children, young families, young adults and older audiences. It would offer an updated approach to leisure and entertainment in the town and would be a vital local business providing a service to all of the community.

Attendance at local independent cinemas
The pattern of attendance at local cinemas such as the Tenterden cinema is likely to differ from typical audience trends at Cineworld, Vue and Showcase multiplexes in a number of important respects:

- Across the UK about 60% of cinema admissions are generated on Friday, Saturday and Sunday. This emphasis on weekend attendances is less apparent at many local cinemas and mid-week screenings may often be more popular than those at weekends.
- Less emphasis on the 7:30/8:00pm evening performance. Older audiences and people travelling from rural areas often prefer daytime and early evening performances.
- Some major Hollywood 'tentpole' releases – typically action/fantasy/superhero films – are less important for an independent local cinema (the audiences for these films typically prefer to visit multiplexes such as those in Ashford or Tunbridge Wells).
- 'Event cinema' performances are often very well attended and may contribute 5% – 15% of box office income, as well as providing a broad cultural programme.

Café bar
Traditionally cinemas have provided a range of confectionery, soft drinks, popcorn and hot fast food (burgers, hot dogs, tacos) – referred to in the cinema trade as 'concessions' – which typically earning around 25% of cinema income. While these 'concessions' are still widely available, audiences now expect a broader and healthier range of food and drink at a cinema.

Café and bar facilities are an integral part of the modern cinema business and the cinemagoing experience. Cineworld has introduced Starbucks and a VIP lounge in many of their multiplexes, and Odeon has a partnership with Costa. Independent cinemas and the smaller cinema chains (Everyman, Picturehouse, Curzon, Tivoli) have developed their food and beverage facilities much further and may earn 40% – 50% of their income from these elements of their business.

The Tenterden cinema café bar would operate throughout the day and serve cinemagoers before or after screenings. It would also provide a relaxing café for non-cinemagoers, especially during summer months when the terraces will be particularly attractive places to meet friends and colleagues. The café bar would be capable of being sub-divided so that the basement area can be made available for events and private hires.

The first floor kitchen and associated stores would be suitable for the supply of light lunches or early evening meals as well as daytime coffees, teas, cakes, sandwiches, soft and alcoholic drinks. There is limited space at the sales point in the foyer so ordering via mobile phone apps may be encouraged to minimise congestion at the sales counter.

10.3.2 Competitors

Cinema competitors
Residents in Tenterden have four main cinema options which can be reached (by car) in under 30 minutes. The two Kino cinemas are excellent examples of small, independent cinemas with pleasant café bars. The Cineworld and Picturehouse in Ashford offer larger town experiences with a more branded range of food and drink options (e.g. Pizza Express, Nandos).

Cinema	Town	Distance from Tenterden	Facilities
Kino	Hawkhurst	11 miles 20 mins drivetime	1 screen, 91 seats, café Built in former village hall
Kino	Rye	11 miles 25 mins drivetime	2 screens, 98 & 46 seats Private function room. Café bar Built in former school building
Cineworld	Eureka Leisure Park, Ashford	13 miles 25 mins drivetime	12 screens, 62 to 344 seats IMAX screen and 4DX motion seats planned
Picturehouse	Elwick Place, Ashford	13 miles 25 mins drivetime	6 screens, 950 seats in total

Currently there are no new cinema competitors known to be in development within 15 miles of Tenterden.

Café bar competitors
Tenterden town centre has a good mix of cafés, bars and restaurants and offer several quite distinct options for cinema goers.

The White Lion hotel is adjacent to the Pebbles building and a Prezzo pizza restaurant is directly opposite on the other side of the High Street. A planning application (ref: 20/00117/AS & 20/00118/AS) has been submitted to convert 53 High Street – alongside the Pebbles building – in to a restaurant.

While there would undoubtedly be local competition for the cinema's café bar these neighbouring and nearby food and drink options are more likely to complement a cinema visit and make the Tenterden cinema an attractive option for residents and visitors.

10.3.3 Attendance estimate

Comparison with similar cinemas
The pre-feasibility study in 2018 indicated that annual admissions in the region of 70,000 could be expected for a 2-screen Tenterden town centre cinema with café bar.

The proposed redevelopment of the Pebbles building will provide two auditoria (102 and 56 seats) plus a café bar spread across five spaces with seating options including two outdoor terrace areas (a total of over 150 seats are possible). Additionally the basement café area may be hired for functions, events and meetings.

The overall configuration has similarities with the Kino in Rye which is understood to attract around 60,000 admissions per year. Tenterden is a larger town and the Pebbles building location is more prominent and accessible than the Kino venue, justifying a higher attendance estimate.

Estimate based on demographics
Updating the estimate in the pre-feasibility study to accommodate the population increase forecast for 2022 produces an attendance estimate of 61,000:

	Resident population (2022 forecast)	**Attendance per year per resident**	**Admissions per year**	**Reduction due to competition from Hawkhurst, Rye & Ashford**	**Total Estimate for a Tenterden cinema**
Tenterden	8,841	6	53,047	25%	39,785
Outer area*	14,139	3	42,417	50%	21,208
Total estimate	**22,980**		**95,463**		**60,993**

* The outer area is defined by a 15-minute drivetime boundary centred on the Pebbles building. (See the Pre-Feasibility study Section 4 and the accompanying CACI demographic analysis.)

A more detailed analysis of the potential catchment communities has been developed by Paul Hale. This analysis suggests annual attendances in the region of 75,941 per year could be expected based on towns within 18 miles of Tenterden.

Additional attendances may be attracted from communities which have an alternative, closer cinema but at this stage of development is may be prudent to base the attendance estimate on the towns and villages which are closer to Tenterden.

Estimate for budget purposes
Taking the comparison data and the demographic analyses into account together with the current design proposals, an estimated 75,000 annual admissions is utilised for budgeting purposes.

10.4 Outline budget

Operating budget
The budget in Appendix 1 illustrates the attendances, pricing, income and expenditure that can be expected for the proposed new cinema.

Overall ticket income accounts for 67% of income, food and beverage sales including concessions) account for 28%, and other income 5% screen advertising, facilities hire, etc). This split of income is similar to a typical Everyman cinema (61%/34%/5%) but with less emphasis on the food and beverage sales at the Tenterden cinema.

Ticket pricing
In 2019 the UK *average* ticket price was £7.21 including VAT. Admission prices at the competitor cinemas around Tenterden are relatively high and it is likely that similar prices would be charged at the new cinema. The table below shows the main ticket prices (before any membership discounts) for main evening performances at competitors along with the ticket prices incorporated in the draft operating budget for the Tenterden cinema:

Cinema	**Ticket type**	**Film**	**Event cinema**
Kino Rye	Adult	£13.50	£20.00
	Senior	£12.50	£18.00
	Child/Student	£9.50	£12.50
Picturehouse Ashford	Adult	£12.20	£22.00
	Senior/Student	£11.20	£17.50
	Child	£7.70	
Picture House Uckfield	Adult	£9.50	£15.00 - £20.00
	Senior	£7.50	
	Child	£5.50	
Tenterden Town Cinema	**Adult**	**£13.00**	**£20.00**
	Senior/Student	**£10.00**	**£17.50**
	Child	**£9.00**	**£15.00**

In the accompanying financial model the average ticket price at the Tenterden cinema would be **£10.70**. (Everyman Cinemas average ticket price in 2019 was £11.37).

Concessions, food and beverage
Sales of confectionery, ices, soft drinks and popcorn have traditionally accounted for approximately 25% of a cinema's income. Multiplexes such as Cineworld currently expect to earn around £2.25 per customer from concession sales. Independent cinemas blur the distinction between concession sales and other food and beverage sales and expect to earn 35% – 50% of their income from such sales. (Everyman Cinemas earn £7.13 per customer from F&B sales.)

The budget model is based on £4.50 F&B (including concessions) sales for film audiences and £6.50 for event cinema audiences who tend to spend more on soft and alcoholic drinks.

Staff costs
Modern digital cinemas can be highly automated and few have any specific projection staff although a technical manager may be employed if they also perform some duty management roles. The normal operation of a digital cinema is usually handled by the Manager or Duty Manager with on-line/on-call technical support, if required, from a remote technical support company. Minimising staff and overhead costs is essential for smaller, independent cinemas.

In common with many modern independent cinemas the staff will predominantly have experience in the hospitality sector and will be customer-focused.

Many 'head office' functions are anticipated to be handled by the company undertaking the management and operation of the Tenterden cinema. Approximately one full time equivalent staff post would be attributable to head office functions including operations, programming, marketing and catering support.

Rent
The rent included in the outline budget is the amount payable by the operating company to the Tenterden Cinema Company. This should be regarded as illustrative and will be subject to negotiation with the selected operating company.

10.5 Sensitivity

The table below summarises the operating budget (Target = 100%) along with the impacts of under or over performing in terms of admissions – the most important factor to affect the profitability of the cinema. A variation of ±15% is considered to be within the bounds of normal trading circumstances. A ±30% variation would represent an exceptional situation.

Sensitivity Analysis					
Trading Level	*70%*	*85%*	***100%***	*115%*	*130%*
Admissions	52,500	63,750	**75,000**	86,250	97,500
INCOME					
Ticket income	497,875	604,563	**711,250**	817,938	924,625
F&B income	205,625	249,688	**293,750**	337,813	381,875
Other income	34,926	42,410	**49,894**	57,378	64,862
Total Income	738,426	896,660	**1,054,894**	1,213,128	1,371,362
VARIABLE COSTS					
Film rental	252,097	306,118	**360,139**	414,160	468,181
F&B Cost of sales	65,800	79,900	**94,000**	108,100	122,200
Other costs	44,398	53,911	**63,425**	72,939	82,453
Total Variable	362,295	439,929	**517,564**	595,199	672,833
Fixed cost variation	*90%*	*95%*	***100%***	*105%*	*110%*
PAYROLL COSTS	212,681	224,497	**236,313**	248,128	259,944
OVERHEADS	182,250	192,375	**202,500**	212,625	222,750
Total Expenditure	757,226	856,801	**956,377**	1,055,952	1,155,527
Profit	(18,800)	39,858	**98,517**	157,176	215,835

Apart from cinema attendances, the critical factors for the operating budget are usually staff costs and the income from concessions, food and drink.

The variations in staffing costs and overheads are ±5% and ±10% to reflect the fact that while some adjustments will be made to these costs as a result of variations in trading level, it would not be possible – in the short term at least – to achieve large changes in these cost areas. For example, a 15% reduction in admissions cannot be automatically matched by a 15% reduction in staff costs or annual maintenance costs.

Risks
The risks associated with operating the Tenterden cinema are anticipated to be as follows:

Admissions and quality of the programme
The majority of the cinema's income depends on the admissions – ticket sales, concession sales, food and beverage sales, screen advertising. As a result the cinema is largely reliant on the popularity, quantity and quality of the films and event cinema performances which are programmed.

Food and beverage
Concessions and café bar revenues will be an vital part of the cinema's economy. The range of products offered should be regularly reviewed – especially given the local competition from cafes, bars and restaurants – and margins monitored on a regular basis to ensure profitability. The cinema should implement operational procedures to ensure compliance with all necessary regulations.

Seasonality
The cinema sector experiences seasonal peaks in attendance (often during school holidays) and some poorer months (often June and September). In recent years seasonal factors have been less pronounced than in previous decades but in contrast the success or failure of very high profile films has had a greater effect on monthly income for many cinemas. Programming a diverse schedule of films can partially mitigate these monthly variations.

Film licensing
The cinema's ability to license (rent) films on acceptable terms depends on its relationship with film distributors. Where the operator also runs other cinemas, or employs a film booking agent, there can be opportunities to negotiate more favourable terms compared to the those available to a single stand-alone cinema.

Film streaming and online services
These services are a new and potential source of competition for the cinema audience. However recent research has shown that for many cinemagoers these new services complement rather than detract from cinemagoing. Nevertheless, in order to mitigate this risk the cinema must deliver a high quality customer experience which is valued by Tenterden residents.

Staffing
Cinemas are part of the leisure economy and require skilful, knowledgeable and personable staff to provide a high quality customer service. Lack of management expertise, financial skills, marketing flair, or connections to the wider cinema sector can all adversely affect a cinema.

Key persons
The success or otherwise of an independent local cinema depends greatly on the quality and enthusiasm of key individuals. Procedures should be established which compensate for the short term or permanent absence of key personnel.

Property costs
The Tenterden cinema will combine a redeveloped High Street building with a completely new extension housing the two auditoria. Initially the cost of heating, lighting and associated costs will be estimates. There is therefore a higher level of risk associated with property costs during the initial 1–2 years of operation.

Financial costs
As a small, privately financed, independent cinema the cost of servicing debts and repayments to investors may compromise the sustainability of the cinema.

Theft and vandalism
The new cinema will be a high profile public building and may attract criminal behaviour. CCTV systems can monitor and deter such behaviour. Staff training should include awareness of such behaviour and procedures for rectifying any problems should they arise.

Piracy
Film piracy continues to be a threat to cinemas and cinema staff need to be vigilant, especially during quieter periods, to identify any suspicious behaviour by cinemagoers. Training should be provided to staff to assist with identifying potential illegal recording of films in the auditoria.

Extreme weather
Periods of abnormally hot, cold or wet weather can adversely affect cinema admissions. The Tenterden cinema has limited opportunities to counter exceptional weather although skilful management, programming and marketing can limit the impact.

Local economy
Changes in the strength of the local economy can impact on cinema's business. The new cinema should be managed in ways that are responsive to changes in local circumstances and local competition.

Tourism
While tourist visits to Tenterden and the cinema are expected to constitute a relatively small portion of annual admissions, changes in the number and type of tourist visits may potentially affect the cinema's business.

National or international special events
Major sporting events (Olympics, World Cup, etc), elections, or outbreaks of viruses may impact on cinemagoing.

Advertising
Screen advertising revenue is influenced by factors including the number of annual admissions to the cinema, advertisers assessment of the value of the local market, and broader socio-economic factors. The contract for supply of screen advertising will be with either Pearl & Dean or Digital Cinema Media (DCM) and will be tendered every 3–5 years to ensure that an advantageous contract is agreed.

Competition
Competition for the Tenterden cinema comes from: cinemas in Hawkhurst, Rye, and Ashford; on-line streaming services; local food and beverage outlets; and alternative uses of leisure time. To ensure its competitive position the Tenterden cinema should implement a programme of maintenance and, eventually, refurbishments so that the customer experience is maintained at competitive levels.

Key suppliers
The core suppliers to the cinema are the film and event cinema distributors. Developing and maintaining an excellent relationship with these companies may be assisted by employing a specialist film programming/booking agent but should also involve the cinema's senior staff. Local suppliers for food and beverage with a strong reputation would be important.

Reputation
The Tenterden cinema should aim to develop a new, strong, progressive, responsive and distinctive reputation in the town and surrounding district. The staff and management should focus on providing a high quality and friendly customer experience. A culture of partnership and respect for customers and suppliers should be fostered at all levels.

Legislation
Legislative changes may affect the operation of cinemas. For example, changes in the Performing Rights Society charges, or in waste disposal regulations, or in employment regulations can all have an impact on the viability of the cinema.

Technical
Digital technologies advance continuously and regular re-investment the cinema's projection, sound and marketing systems will be required to ensure that the Tenterden cinema can continue to present a varied and up-to-date programme.

11.0 Statutory considerations

The statutory considerations raised by the proposals are outlined below.

11.1 Planning Permission

An application for Full Planning Permission for change of use and for the development proposals, other than internal alterations will need to be made.

The following documents will need to be lodged in support of the application:

- Developed Design drawings, which will be prepared at the next workstage;
- Design and Access Statement;
- Noise survey and Assessment.

The scope and nature of any specialist reports required in connection with Archaeology will need to be discussed and agreed at the next stage with Kent County Council Archaeology and Ashford Borough Council.

The scope and nature of any specialist reports required in connection with Transport will need to be discussed and agreed at the next stage with Kent County Council.

The scope and nature of any specialist reports required in connection with Ecology will need to be discussed at the next stage with Ashford Borough Council.

11.2 Listed Building Consent

As the Pebbles Building is Listed Grade II, an application for Listed Building Consent will need to be made, in tandem with the application for Full Planning Permission. In addition to the documents required for the application for Full Planning Permission the following documents will need to be lodged in support of the application:

- A Heritage Statement, including a Heritage Impact Assessment.

11.3 Plan Approval under the Building Regulations

An application for Plan Approval under the Building Regulations will need to be made at the next stage. The application can either be made to Local Authority Building Control (LABC) or alternatively an Approved inspector can be appointed to confirm Plan Approval.

11.4 Construction Design and Management (CDM) Regulations 2015

A Principal Designer will need to be appointed at the next stage to manage Health and Safety relating to design, construction and maintenance. This is a statutory appointment.

11.5 Premises Licence

The operator will need to apply for a premises licence, in due course.

12.0 Project risks

It is recommended that a Project Risk Register is established at the next stage and updated as the project proceeds.

Key risks will include:

- Statutory consents, albeit that the pre-application process has reduced these to low;
- Funding gap between estimated construction cost and total project cost and available funding;
- Lack of operator interest, albeit that this has been reduced through early market testing that has identified two potential operators with a strong interest;
- Lack of funding to optimise the adoption of measures to deliver as low carbon a project as possible;
- The unknown financial and programme implications of the COVID-19 emergency.
- Archaeology

13.0 The next steps

A draft of the Full Building Feasibility Report was issued to Tenterden Town Council and Tenterden Cinema Ltd for review and comment at the end of March 2020 and comments received have been incorporated in the final report.

Tenterden Town Council and Tenterden Cinema Ltd may wish to further consider the project brief in the light of the estimated construction cost and estimated total project cost and in the context of the level of financial contribution from interested operators.

Tenterden Town Council and Tenterden Cinema Ltd may also wish to review whether there is scope to include further low carbon measures, additional to those included in the core scheme and reflected in the estimated construction cost for the shell contract. A costed list of additional low carbon measures which could be considered is summarised in the Quantity Surveyor's report in Section 9.0.

From the 'Route Map for Development of Pebbles Cinema' prepared by Tenterden Cinema Ltd it is understood that the next steps will include:

- Marketing the cinema opportunity to potential investors, funders and operators;
- Appointing a Project Manager;
- Appointing a Design Team to take the project forward from Developed Design to Completion;
- Lodging an application for Full Planning Permission and Listed Building Consent on completion of the Developed Design.

14.0 Conclusion

The conclusion of the Full Building Feasibility Study is that it is feasible to develop a high quality independent two screen digital cinema with a café bar within the existing Pebbles building and on land to the rear.

It is feasible to achieve this without harm to the historical and architectural significance of the Pebbles building (Listed Grade II) and without significant ecological impact.

Outside amenity space to the rear of the Pebbles building is maintained in the form of a courtyard garden between the Pebbles building and the new cinema screens and a soft landscaped garden to the south of the new cinema screens.

The current assumption in the "Route Map for Development of Pebbles Cinema" prepared by Tenterden Cinema Ltd is the construction period for the shell contract is 9 months. Based on the Structural Engineer's assessment of 8 months for the structural and civil works it is recommended that this is increased to 10 months.

The conclusion of the cinema business consultant's report is summarized below:

- It is envisaged that the cinema will be owned by Tenterden Cinema Ltd and leased to a suitably experienced cinema operator.
- Two well established cinema operators in the south of England have confirmed their interest in operating and investing in a cinema in Tenterden: Kino Digital (cinemas in Hawkhurst, Rye and Bermondsey) and the Picture House in Uckfield.
- The operation of the cinema will be managed through an operating lease incorporating a service level agreement to ensure that the objective of providing a high quality neighbourhood cinema is achieved.
- A noticeable trend in the cinema sector over the past decade has been the increasing number of new, distinctive, independent cinemas featuring high quality café bars and/or restaurants. These cinemas emphasise their local connections, distinctive architecture, style of decoration, choice of programme, catering, and friendly attitude of staff.
- The annual estimate of 75,000 admissions has been arrived at taking into consideration demographic factors, competitor cinemas within relatively easy reach of Tenterden, and comparisons with similar neighbourhood cinemas.
- The outline operating budget incorporates a provisional rental of £50,000 to be paid by the cinema operator to Tenterden Cinema Company. Taking the rent into account, the overall operator profit is nearly £100,000 per annum.
- A number of potential risks are indicated in the main report but the most important risk factor will be, in common with all cinemas, the number of annual admissions.

Appendix A

Architects Drawings

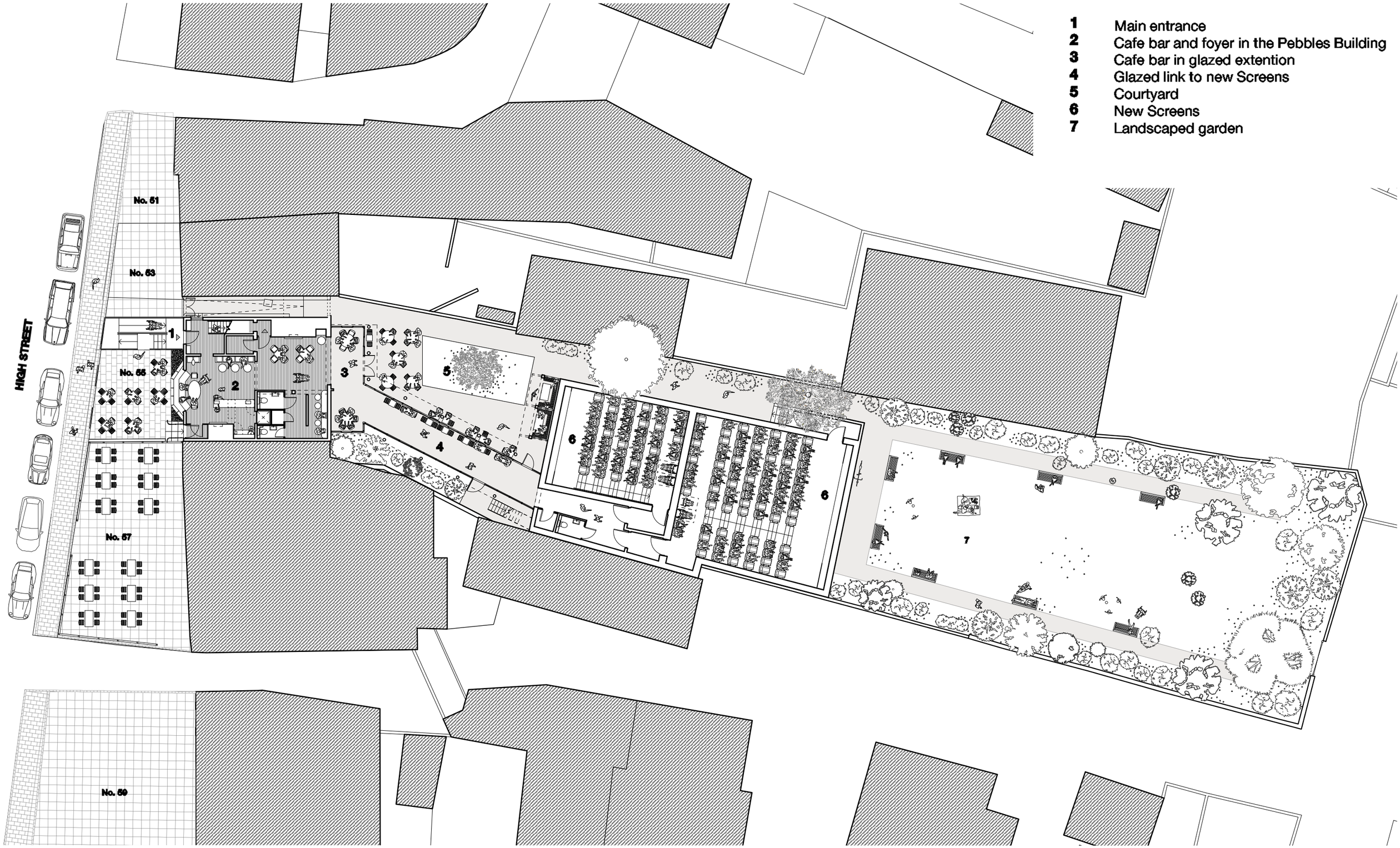
Appendix A1

As Proposed Drawings

PROPOSED SITE PLAN

KEY

1. Main entrance
2. Cafe bar and foyer in the Pebbles Building
3. Cafe bar in glazed extention
4. Glazed link to new Screens
5. Courtyard
6. New Screens
7. Landscaped garden



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1468 TENTERDEN CINEMA:

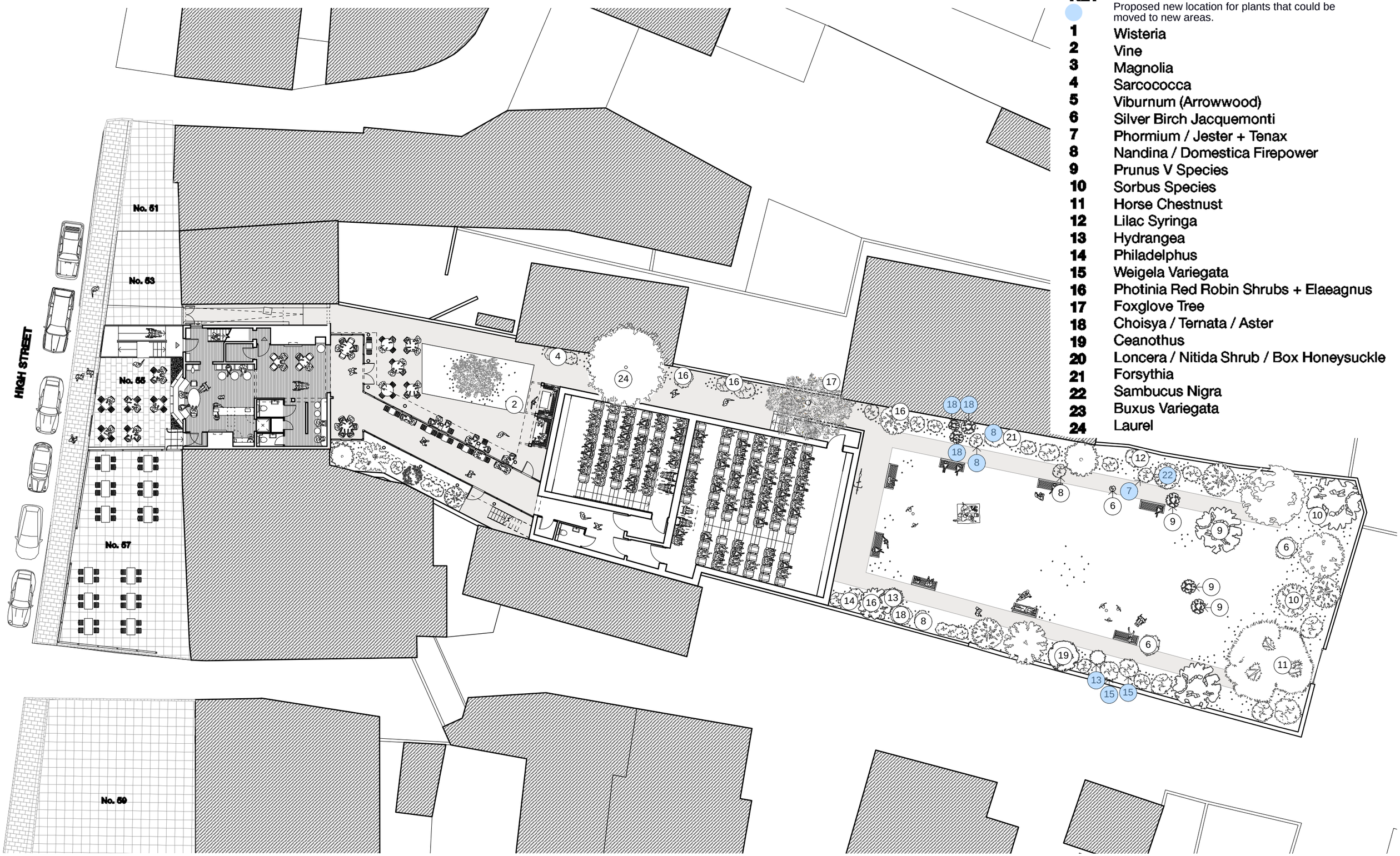
THE PEBBLES BUILDING
PROPOSED SITE PLAN

Scale Bar 0 1 2 3 4 5m

N

DATE: 24.03.20
DRAWING No: SK0200.P1
SCALE: 1:250 @ A3

PROPOSED SITE PLAN



KEY

Proposed new location for plants that could be moved to new areas.

1 Wisteria
2 Vine
3 Magnolia
4 Sarcococca
5 Viburnum (Arrowwood)
6 Silver Birch Jacquemonti
7 Phormium / Jester + Tenax
8 Nandina / Domestica Firepower
9 Prunus V Species
10 Sorbus Species
11 Horse Chestnust
12 Lilac Syringa
13 Hydrangea
14 Philadelphus
15 Weigela Variegata
16 Photinia Red Robin Shrubs + Elaeagnus
17 Foxglove Tree
18 Choisya / Ternata / Aster
19 Ceanothus
20 Loncera / Nitida Shrub / Box Honeysuckle
21 Forsythia
22 Sambucus Nigra
23 Buxus Variegata
24 Laurel

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1468 TENTERDEN CINEMA:

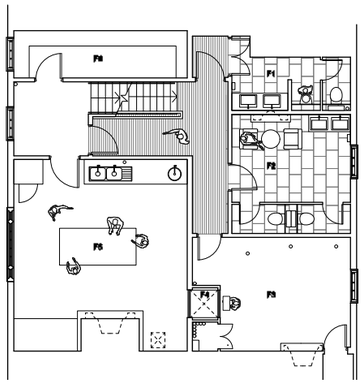
THE PEBBLES BUILDING
PROPOSED SITE PLAN WITH SOFT LANDSCAPING

Scale Bar 0 1 2 3 4 5m

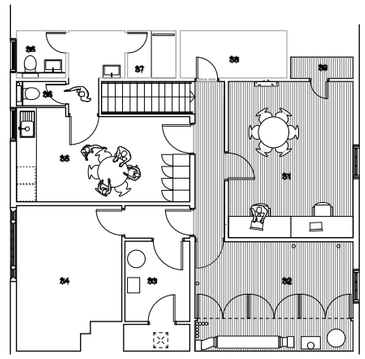
N

DATE: 24.03.20
DRAWING No: SK0211.P1
SCALE: 1:250 @ A3

CONCEPT PLANS



3 PROPOSED FIRST FLOOR PLAN



4 PROPOSED SECOND FLOOR PLAN

KEY

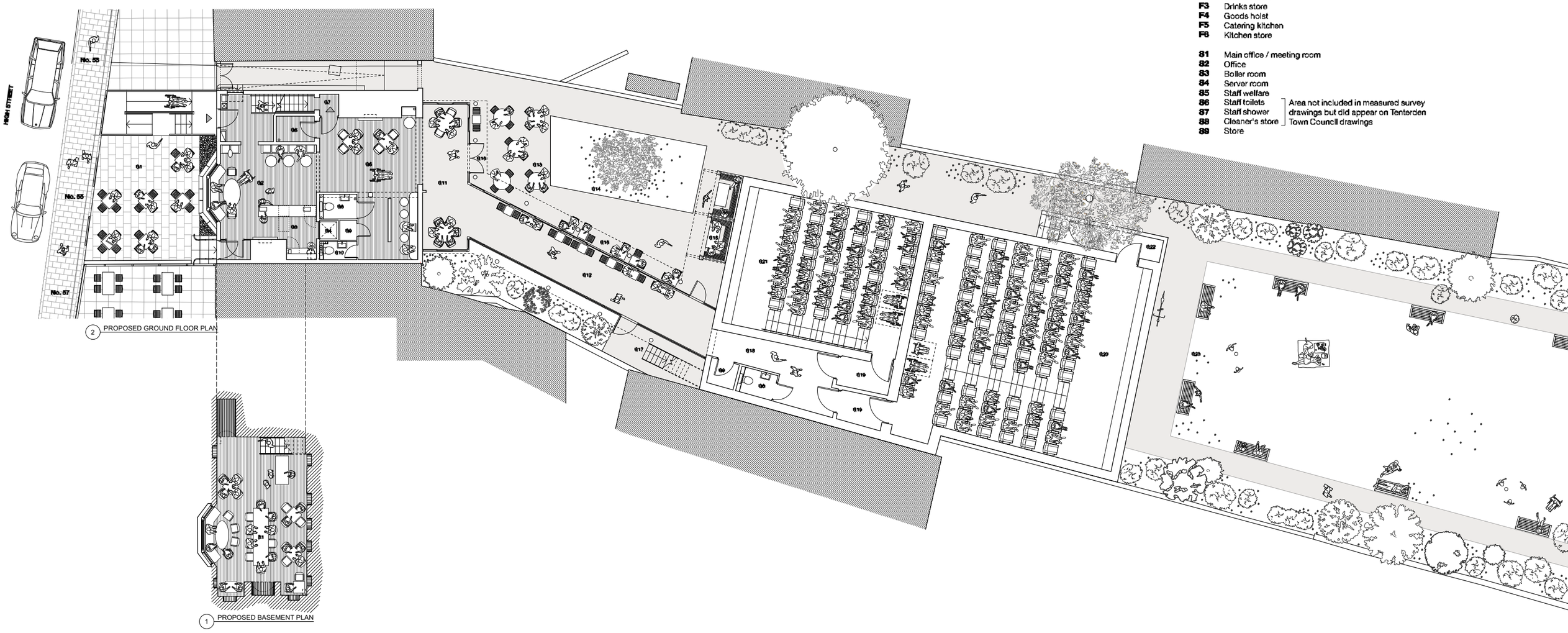
G1 Forecourt
G2 Entrance foyer and cafe bar
G3 Sales counter for tickets, food and drink
G4 Goods hoist
G5 Cafe bar
G6 Store
G7 Access to basement bar
G8 Unisex disabled toilet with baby change
G9 Cleaner's store
G10 Unisex toilet
G11 Glazed extension to cafe bar
G12 Glazed link to the cinema screens with cafe tables
G13 Terrace
G14 Courtyard garden
G15 Pergola with benches and tables
G16 Pergola to provide sun screening
G17 Access to plantroom
G18 Air handling units to Screens above lobbies
G19 Light and sound lobbies
G20 Screen 1 - 102 seats and 2 permanent wheelchair positions
G21 Screen 2 - 56 seats and 2 permanent wheelchair positions
G22 Emergency exit to Screen 1
G23 Landscaped garden

B1 Basement bar

F1 Gentlemen's toilets
F2 Ladies toilets
F3 Drinks store
F4 Goods hoist
F5 Catering kitchen
F6 Kitchen store

B1 Main office / meeting room
B2 Office
B3 Boiler room
B4 Server room
B5 Staff welfare
B6 Staff toilets
B7 Staff shower
B8 Cleaner's store
B9 Store

Area not included in measured survey drawings but did appear on Tenterden Town Council drawings



2 PROPOSED GROUND FLOOR PLAN

1 PROPOSED BASEMENT PLAN

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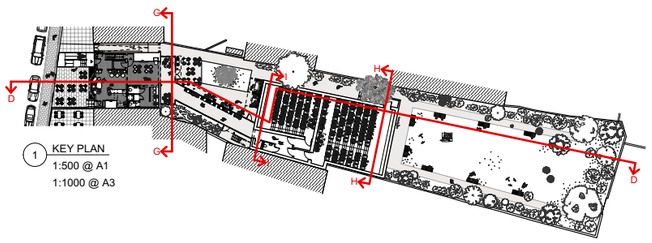
1468 TENTERDEN CINEMA:

THE PEBBLES BUILDING
PROPOSED PLANS

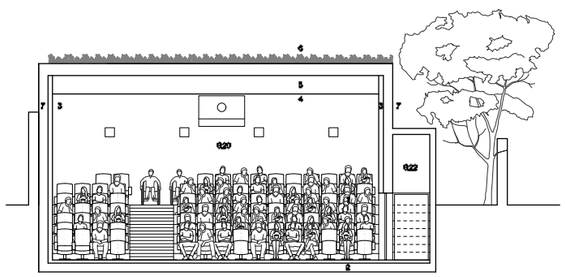
Scale Bar 0 1 2 3 4 5m

DATE: 19.03.20
DRAWING No: SK0201.P1
SCALE: 1:100 @ A1
1:200 @ A3

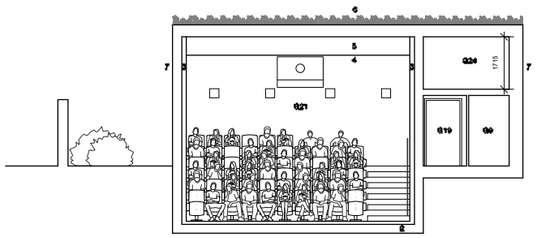


1 KEY PLAN
1:500 @ A1
1:1000 @ A3

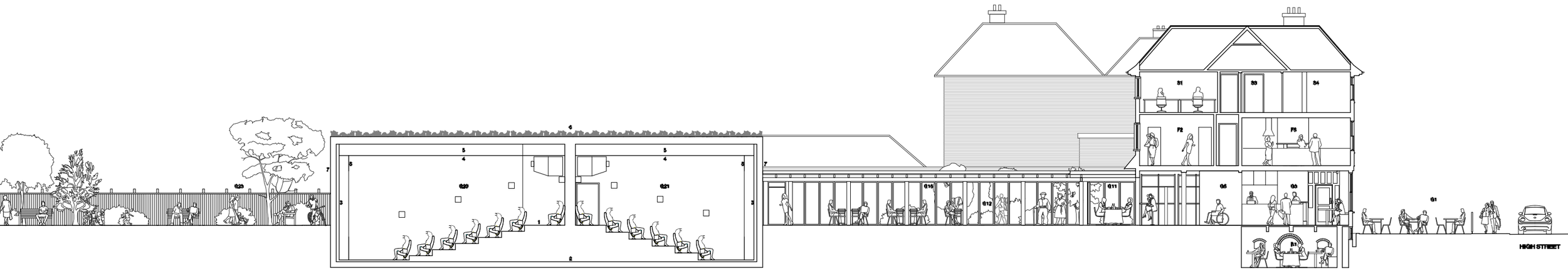
2 SECTION G-G



3 SECTION H-H



4 SECTION I-I



5 SECTION D-D

KEY

G1	Forecourt
G3	Sales counter for tickets, food and drink
G5	Cafe bar
G9	Cleaner's store
G11	Glazed extension to cafe bar
G12	Glazed link to the cinema screens with cafe tables
G15	Pergola to provide sun screening
G20	Screen 1 - 102 seats and 2 permanent wheelchair positions
G21	Screen 2 - 56 seats and 2 permanent wheelchair positions
G22	Emergency exit to Screen 1
G23	Landscaped garden
B1	Basement bar
F2	Ladies toilets
F5	Catering kitchen
B1	Main office / meeting room
B3	Boiler room
B4	Server room

CINEMA KEY

1	Tiering built off acoustically isolated floor.
2	Acoustically isolated floor on ground floor slab.
3	Line of acoustically isolated wall. Finished above 1.1m with acoustic wall panels to side walls and rear wall and black tissue faced Lamaphon behind the screen.
4	Line of acoustically isolated mass barrier ceiling.
5	Structural and services zone.
6	Green roof.
7	Masonry outer walls.
8	Screen frame, screen and masking.

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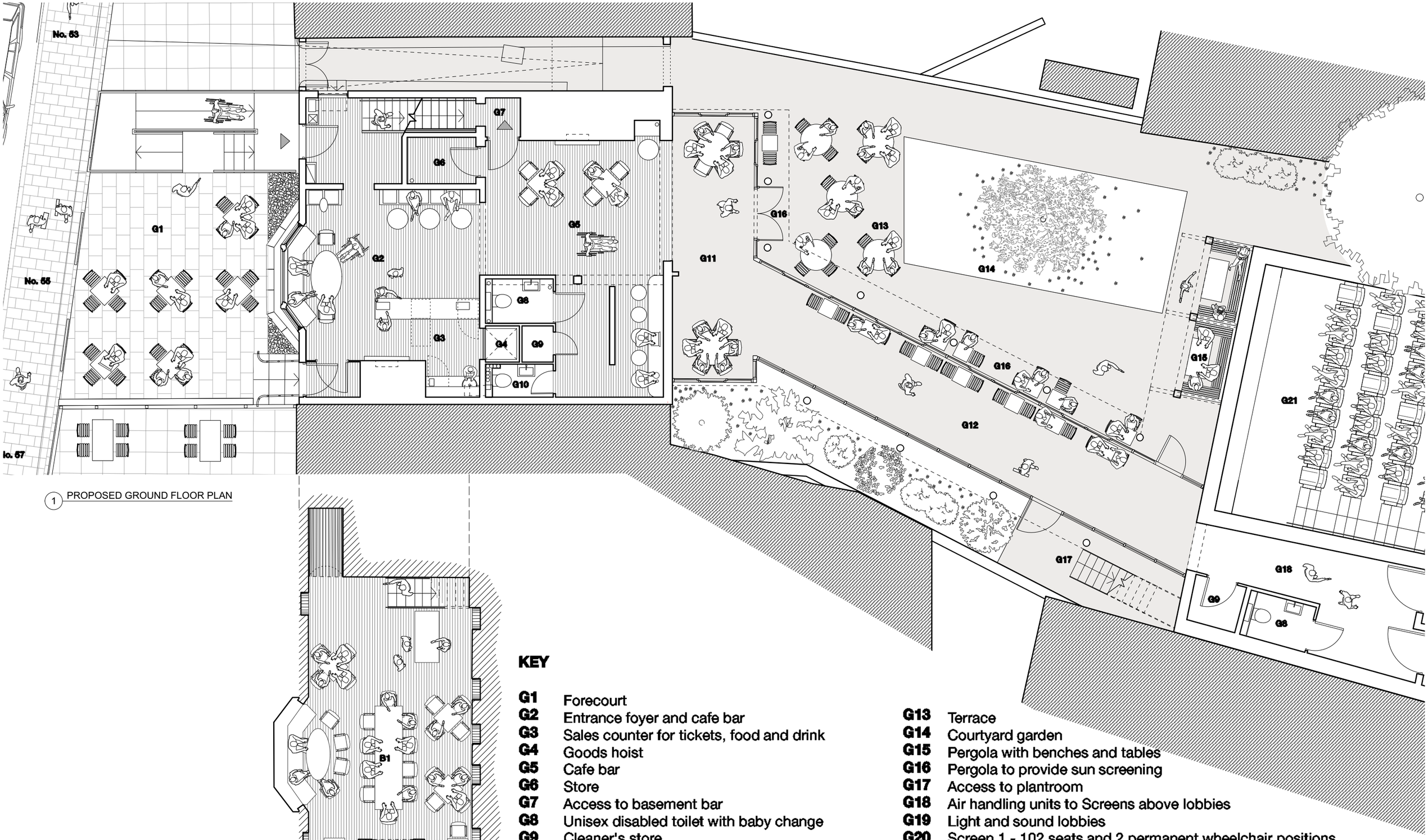
1468 TENTERDEN CINEMA:

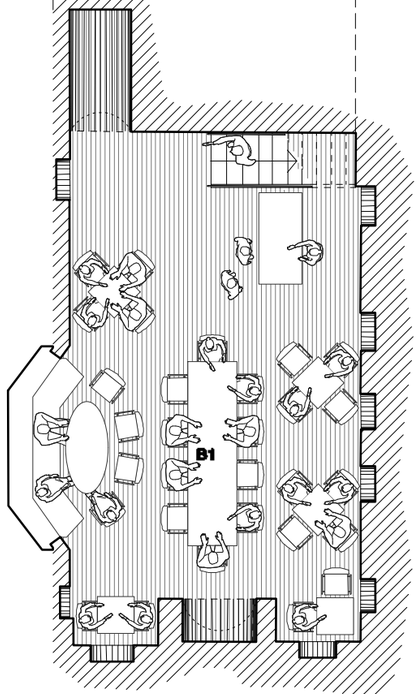
THE PEBBLES BUILDING
PROPOSED SECTIONS

Scale Bar 0 1 2 3 4 5m

DATE: 19.03.20
DRAWING No: SK0202.P1
SCALE: 1:100 @ A1
1:200 @ A3



1 PROPOSED GROUND FLOOR PLAN



2 PROPOSED BASEMENT PLAN

KEY

G1	Forecourt
G2	Entrance foyer and cafe bar
G3	Sales counter for tickets, food and drink
G4	Goods hoist
G5	Cafe bar
G6	Store
G7	Access to basement bar
G8	Unisex disabled toilet with baby change
G9	Cleaner's store
G10	Unisex toilet
G11	Glazed extension to cafe bar
G12	Glazed link to the cinema screens with cafe tables
G13	Terrace
G14	Courtyard garden
G15	Pergola with benches and tables
G16	Pergola to provide sun screening
G17	Access to plantroom
G18	Air handling units to Screens above lobbies
G19	Light and sound lobbies
G20	Screen 1 - 102 seats and 2 permanent wheelchair positions
G21	Screen 2 - 56 seats and 2 permanent wheelchair positions
B1	Basement bar

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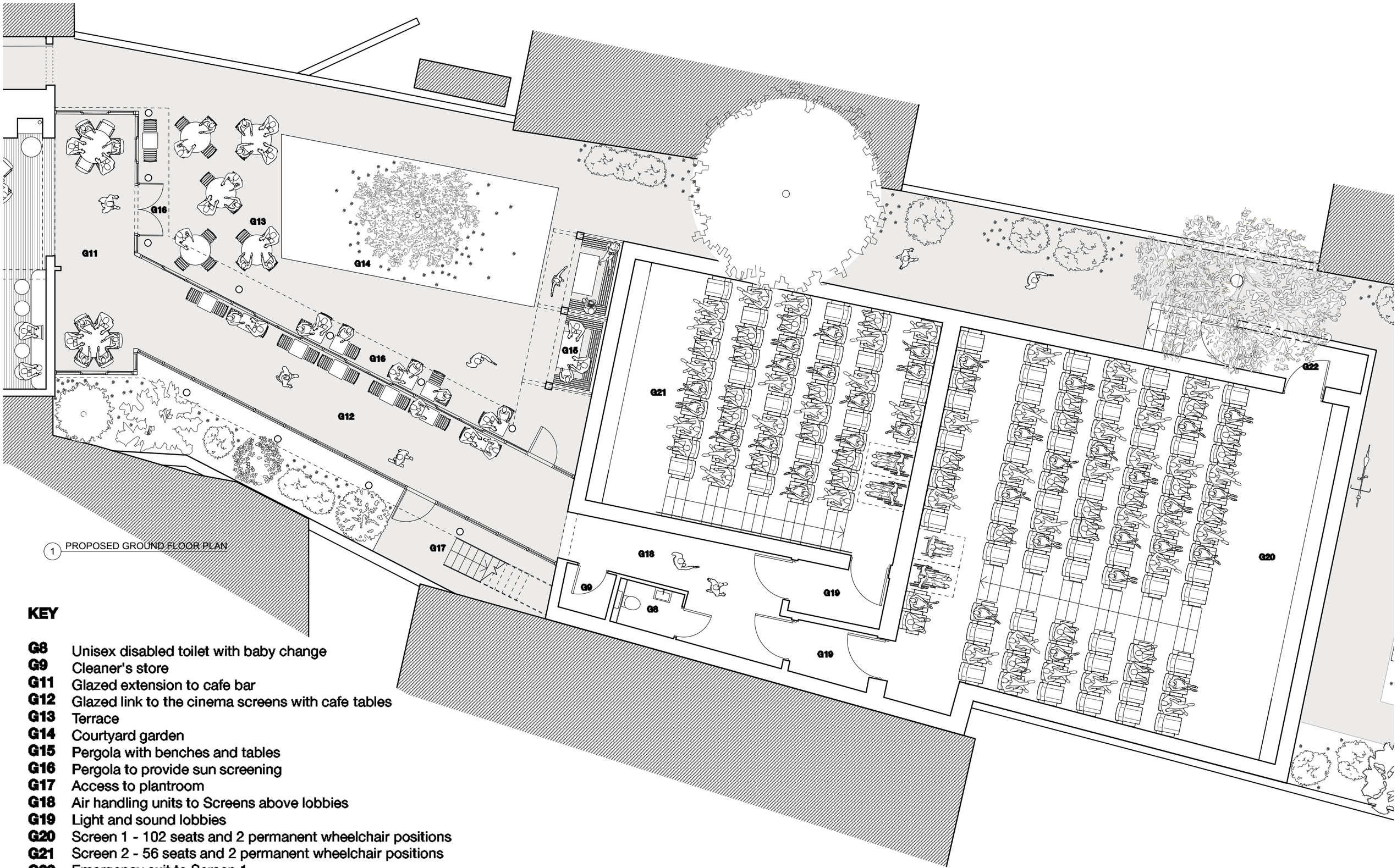
1468 TENTERDEN CINEMA:

THE PEBBLES BUILDING
PROPOSED PLANS: BASEMENT AND GROUND FLOOR PLAN

Scale Bar 0 1 2 3 4 5m

DATE: 19.03.20
DRAWING No: SK0203.P1
SCALE: 1:100 @ A3



1 PROPOSED GROUND FLOOR PLAN

KEY

G8 Unisex disabled toilet with baby change
G9 Cleaner's store
G11 Glazed extension to cafe bar
G12 Glazed link to the cinema screens with cafe tables
G13 Terrace
G14 Courtyard garden
G15 Pergola with benches and tables
G16 Pergola to provide sun screening
G17 Access to plantroom
G18 Air handling units to Screens above lobbies
G19 Light and sound lobbies
G20 Screen 1 - 102 seats and 2 permanent wheelchair positions
G21 Screen 2 - 56 seats and 2 permanent wheelchair positions
G22 Emergency exit to Screen 1
G23 Landscaped garden

BURRELL | FOLEY | FISCHER
ARCHITECTS AND URBAN DESIGNERS

1468 TENTERDEN CINEMA:

THE PEBBLES BUILDING
PROPOSED PLANS: FIRST AND SECOND FLOOR PLAN

Scale Bar 0 1 2 3 4 5m

N

DATE: 19.03.20
DRAWING No: SK0204.P1
SCALE: 1:100 @ A3

1 VOID ABOVE SCREENS

KEY

G17 Access to plantroom
G20 Screen 1 - 102 seats and 2 permanent wheelchair positions
G21 Screen 2 - 56 seats and 2 permanent wheelchair positions
G24 Plantroom

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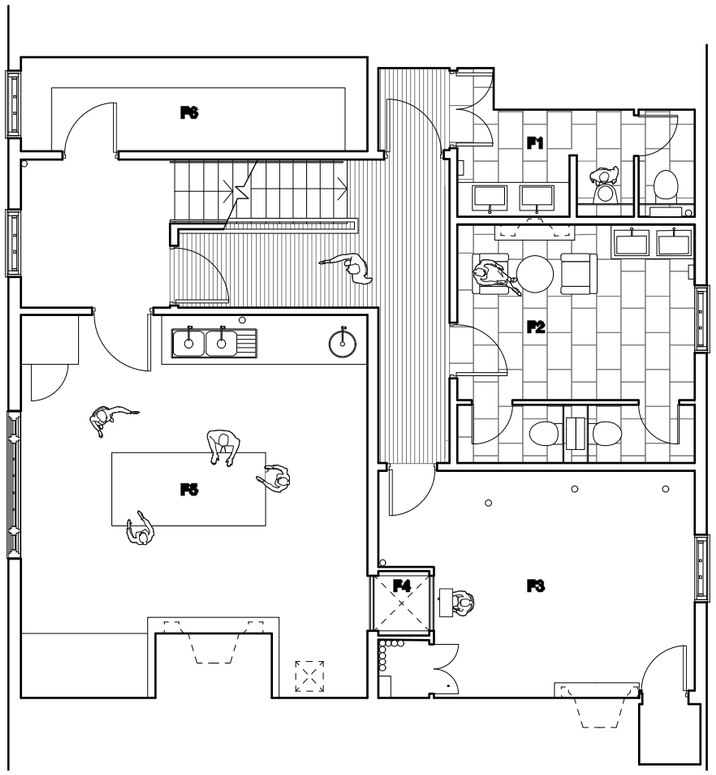
1468 TENTERDEN CINEMA:

THE PEBBLES BUILDING
PROPOSED PLANS: VOID ABODE SCREENS

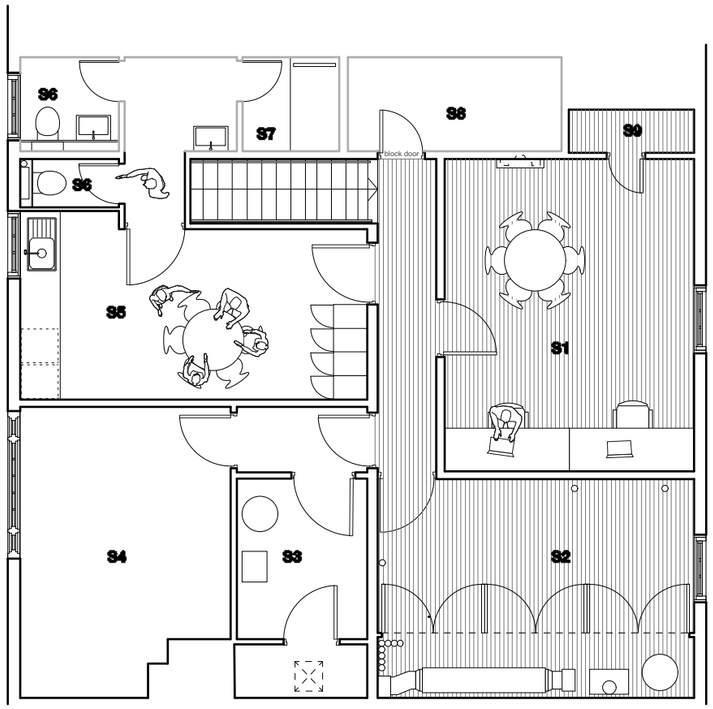
Scale Bar 0 1 2 3 4 5m

N

DATE: 19.03.20
DRAWING No: SK0205.P1
SCALE: 1:100 @ A3



1 PROPOSED FIRST FLOOR PLAN



2 PROPOSED SECOND FLOOR PLAN

KEY

F1 Gentlemen's toilets
F2 Ladies toilets
F3 Drinks store
F4 Goods hoist
F5 Catering kitchen
F6 Kitchen store

S1 Main office / meeting room
S2 Office
S3 Boiler room
S4 Server room
S5 Staff welfare
S6 Staff toilets
S7 Staff shower
S8 Cleaner's store
S9 Store

Area not included in measured survey drawings but did appear on Tenterden Town Council drawings

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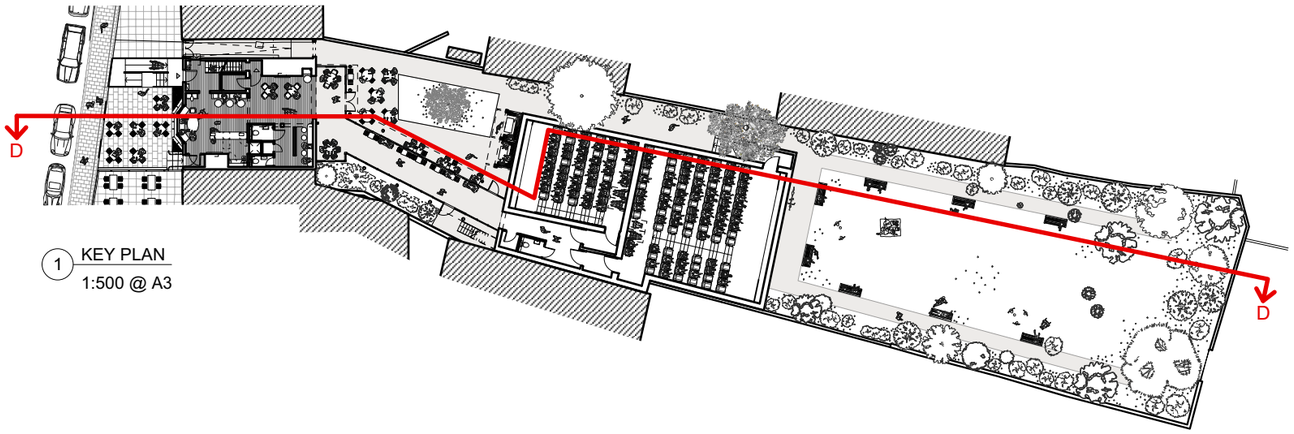
1468 TENTERDEN CINEMA:

THE PEBBLES BUILDING
PROPOSED PLANS: FIRST AND SECOND FLOOR PLAN

Scale Bar 0 1 2 3 4 5m

N

DATE: 19.03.20
DRAWING No: SK0206.P1
SCALE: 1:100 @ A3



1 KEY PLAN
1:500 @ A3

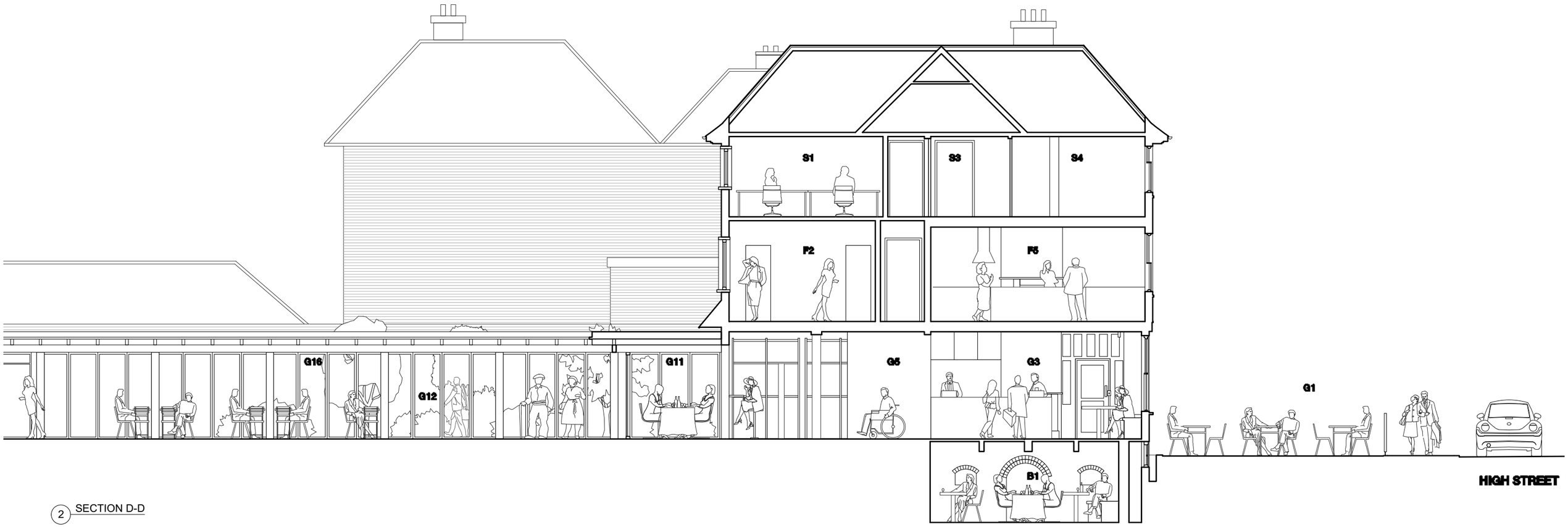
KEY

G1 Forecourt
G3 Sales counter for tickets, food and drink
G5 Cafe bar
G11 Glazed extension to cafe bar
G12 Glazed link to the cinema screens with cafe tables
G16 Pergola to provide sun screening
G20 Screen 1 - 102 seats and 2 permanent wheelchair positions
G21 Screen 2 - 56 seats and 2 permanent wheelchair positions
G22 Emergency exit to Screen 1
G23 Landscaped garden

B1 Basement bar

F2 Ladies toilets
F5 Catering kitchen

S1 Main office / meeting room
S3 Boiler room
S4 Server room



2 SECTION D-D

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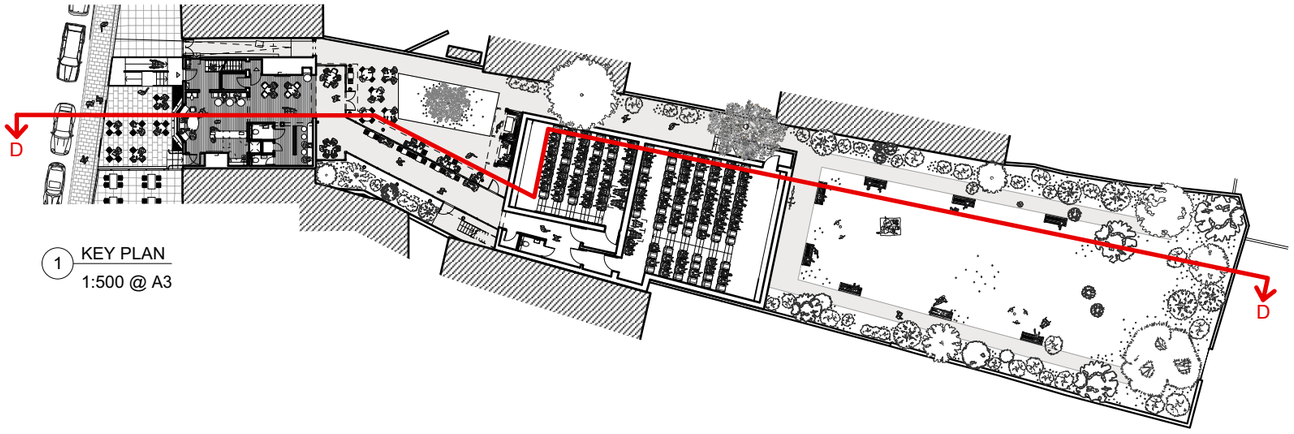
1468 TENTERDEN CINEMA:

THE PEBBLES BUILDING
PROPOSED SECTION: D-D

Scale Bar 0 1 2 3 4 5m

DATE: 19.03.20
DRAWING No: SK0207.P1
SCALE: 1:100 @ A3



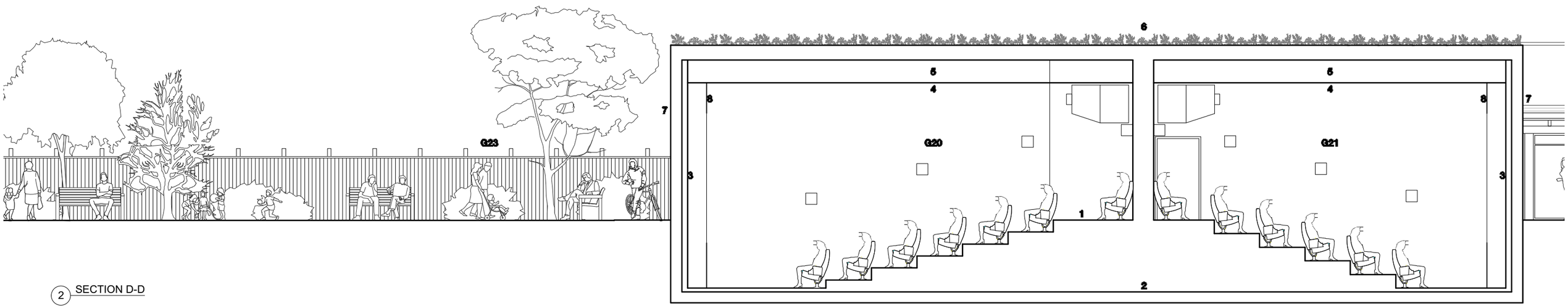
1 KEY PLAN
1:500 @ A3

KEY

G20 Screen 1 - 102 seats and 2 permanent wheelchair positions
G21 Screen 2 - 56 seats and 2 permanent wheelchair positions
G23 Landscaped garden

CINEMA KEY

1 Tiering built off acoustically isolated floor.
2 Acoustically isolated floor on ground floor slab.
3 Line of acoustically isolated wall. Finished above 1.1m with acoustic wall panels to side walls and rear wall and black tissue faced Lamaphon behind the screen.
4 Line of acoustically isolated mass barrier ceiling.
5 Structural and services zone.
6 Green roof.
7 Masonry outer walls.
8 Screen frame, screen and masking.



2 SECTION D-D

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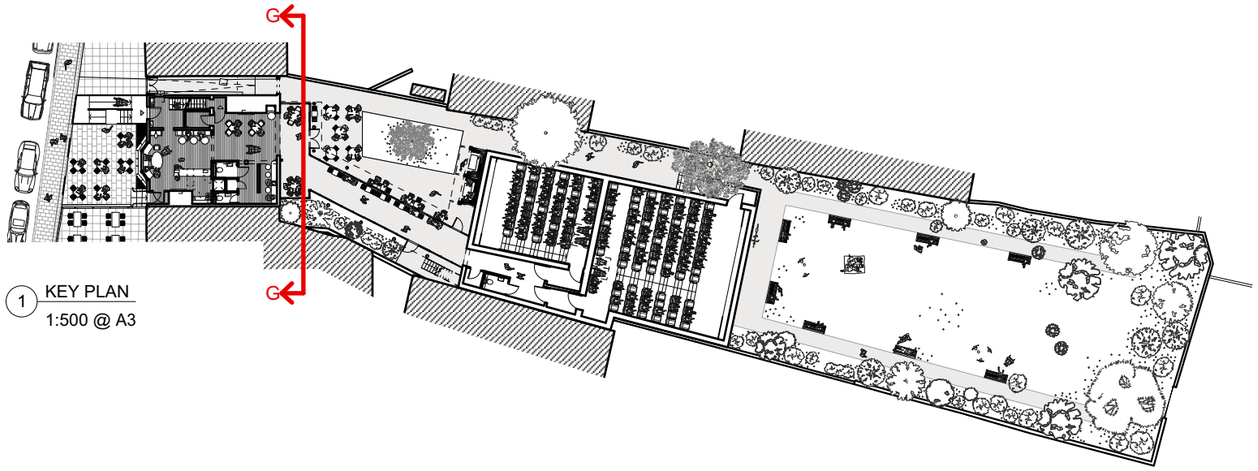
ARCHITECTS AND URBAN DESIGNERS

1468 TENTERDEN CINEMA:

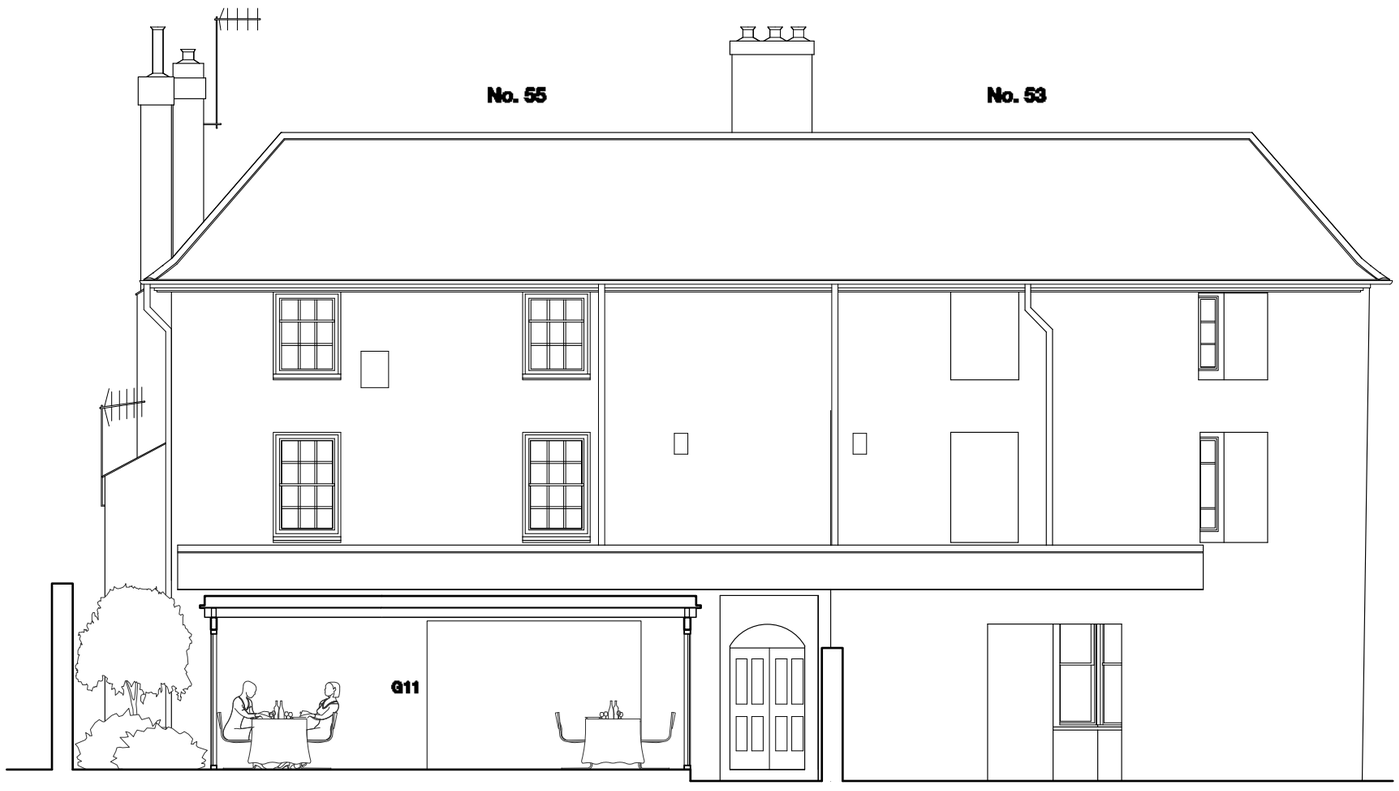
THE PEBBLES BUILDING
PROPOSED SECTION: D-D

Scale Bar 0 1 2 3 4 5m

DATE: 19.03.20
DRAWING No: SK0208.P1
SCALE: 1:100 @ A3



1 KEY PLAN
1:500 @ A3



2 SECTION G-G

KEY

G11 Glazed extension to cafe bar

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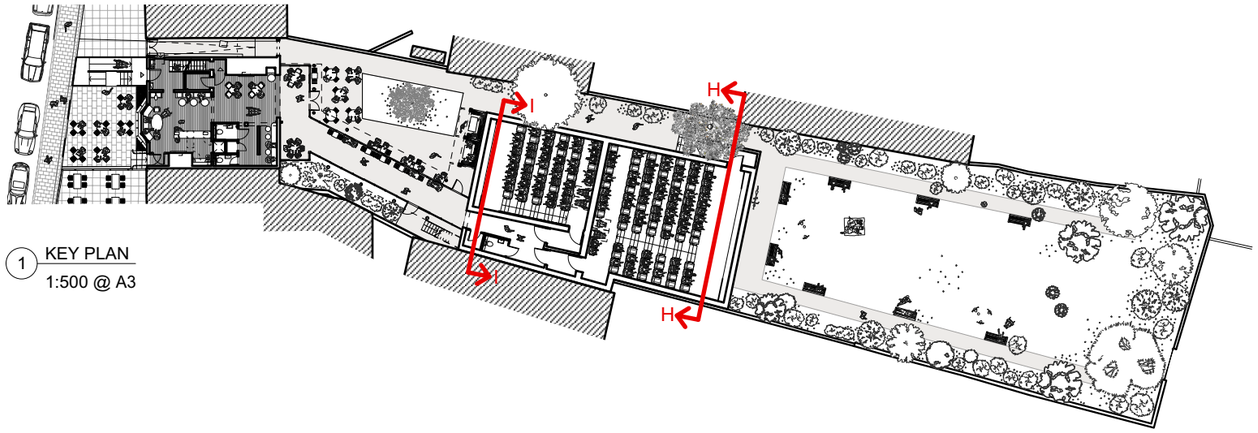
1468 TENTERDEN CINEMA:

THE PEBBLES BUILDING
PROPOSED SECTION: G-G

Scale Bar 0 1 2 3 4 5m

N

DATE: 19.03.20
DRAWING No: SK0209.P1
SCALE: 1:100 @ A3



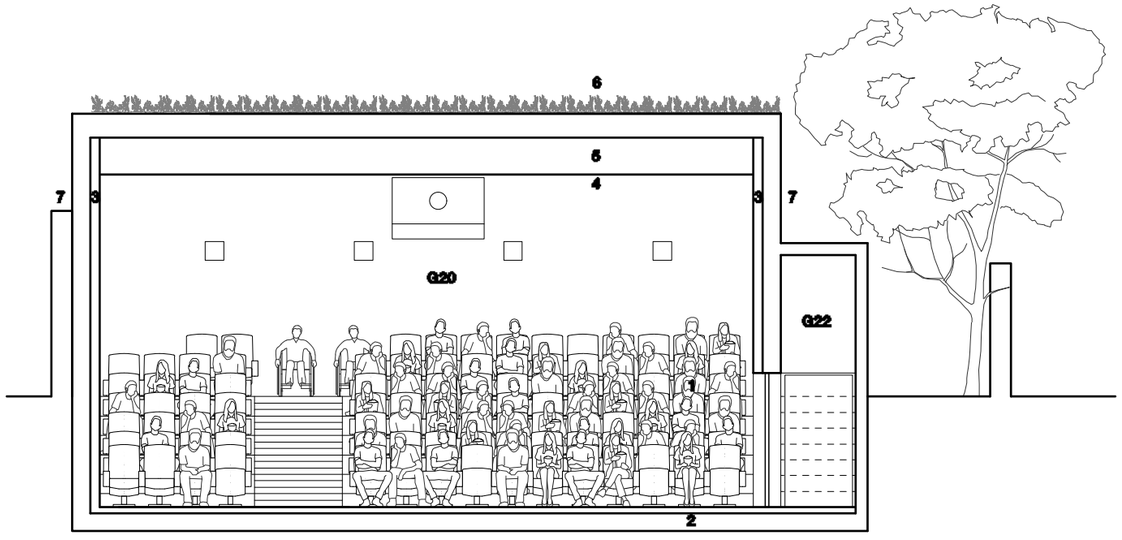
1 KEY PLAN
1:500 @ A3

KEY

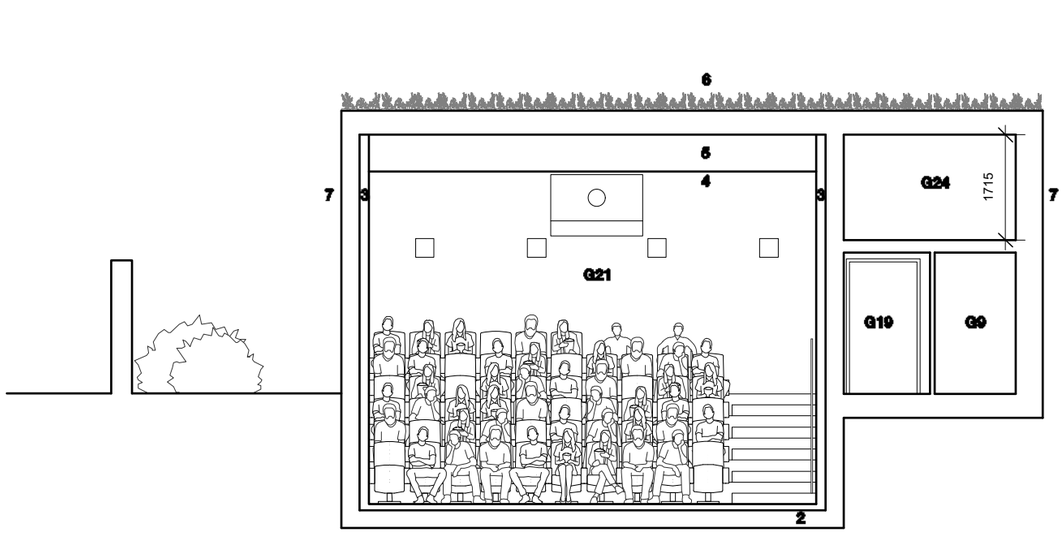
G9 Cleaner's store
G19 Light and sound lobbies
G20 Screen 1 - 102 seats and 2 permanent wheelchair positions
G21 Screen 2 - 56 seats and 2 permanent wheelchair positions
G22 Emergency exit to Screen 1
G24 Plantroom

CINEMA KEY

1 Tiering built off acoustically isolated floor.
2 Acoustically isolated floor on ground floor slab.
3 Line of acoustically isolated wall. Finished above 1.1m with acoustic wall panels to side walls and rear wall and black tissue faced Lamaphon behind the screen.
4 Line of acoustically isolated mass barrier ceiling.
5 Structural and services zone.
6 Green roof.
7 Masonry outer walls.
8 Screen frame, screen and masking.



2 SECTION H-H



3 SECTION I-I

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1468 TENTERDEN CINEMA:

THE PEBBLES BUILDING
PROPOSED SECTION: H-H AND I-I

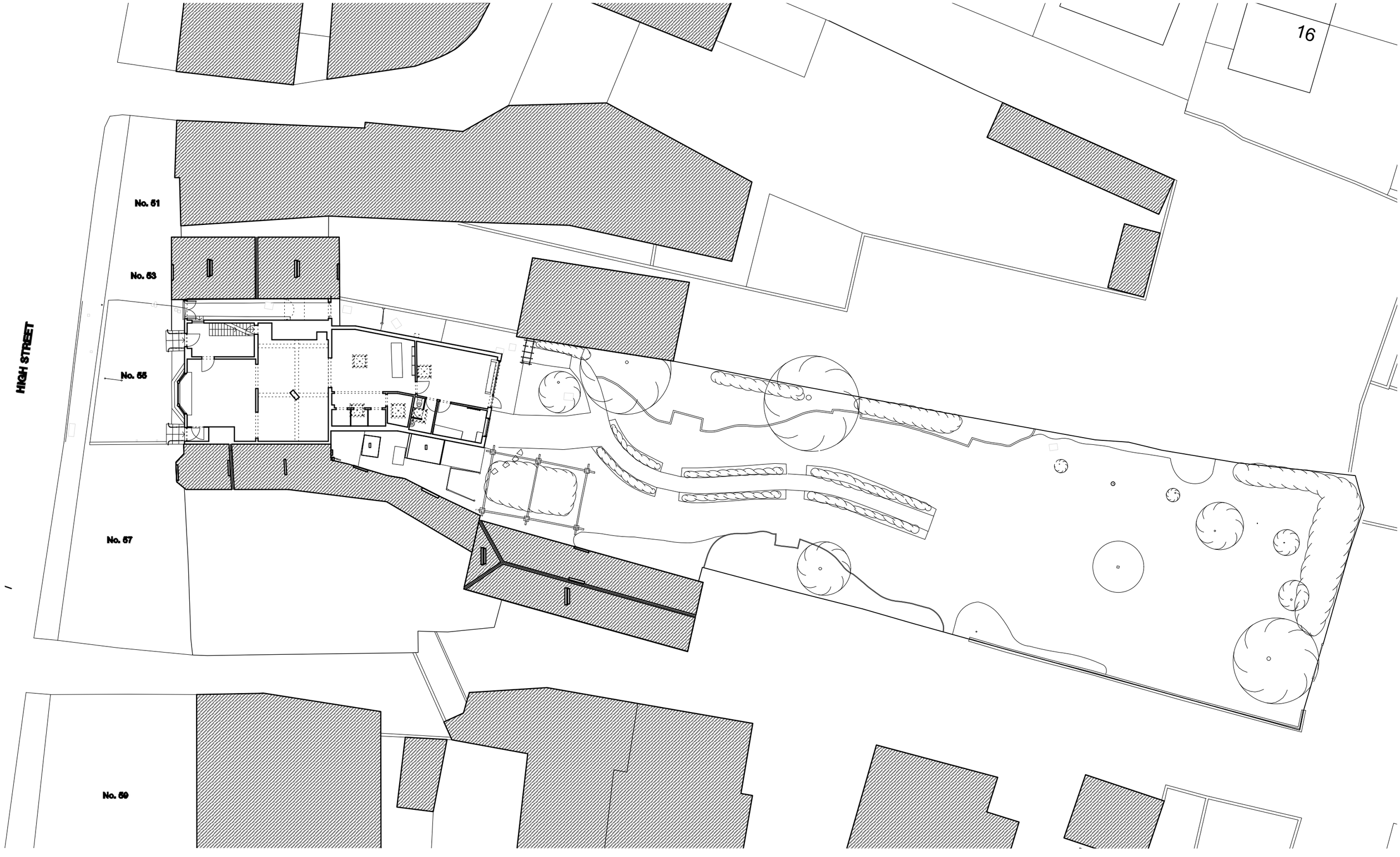
Scale Bar 0 1 2 3 4 5m

DATE: 19.03.20
DRAWING No: SK0210.P1
SCALE: 1:100 @ A3

Appendix A2

As Existing Drawings

EXISTING SITE PLAN



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ARCHITECTS AND URBAN DESIGNERS

1468 TENTERDEN CINEMA:

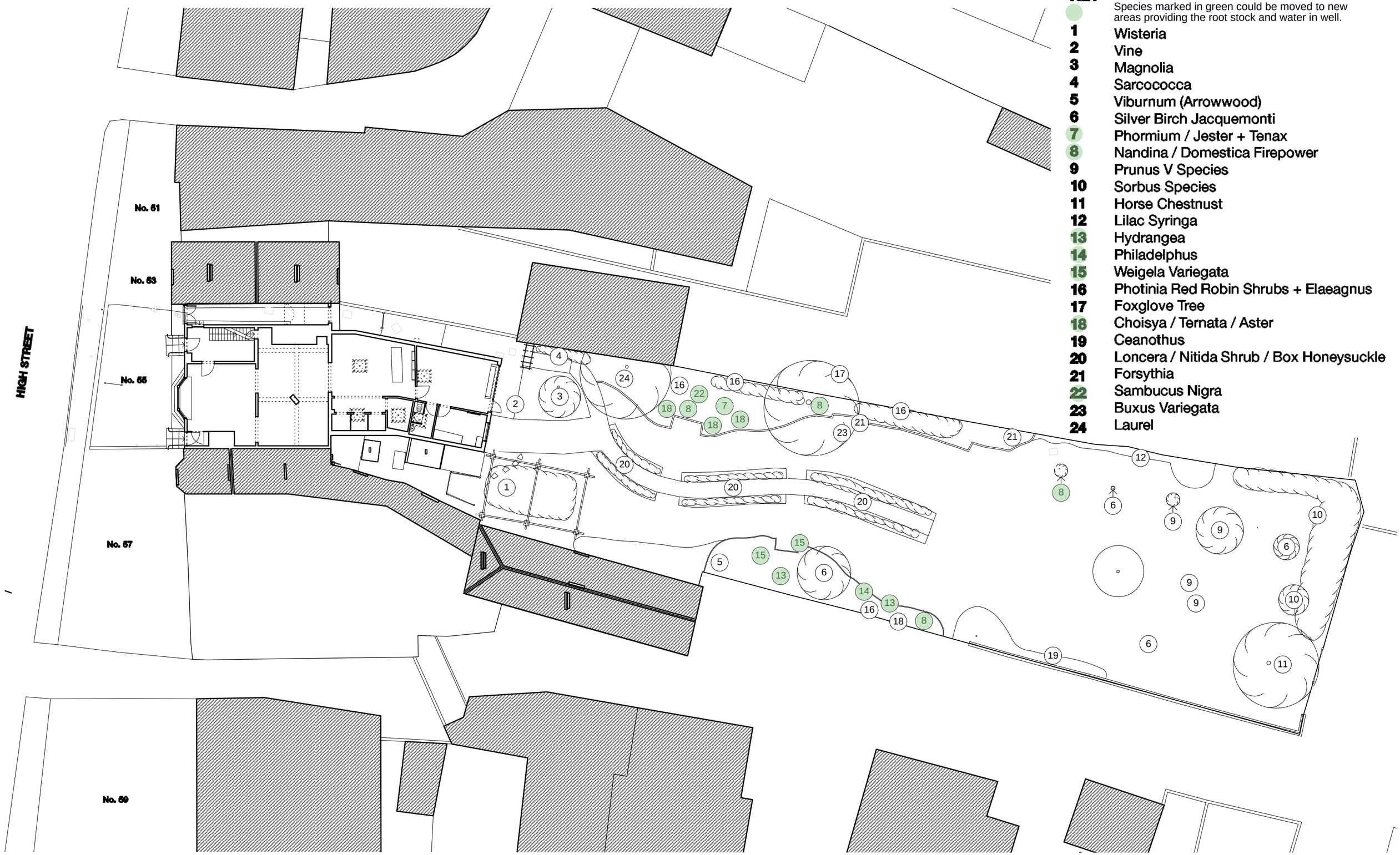
THE PEBBLES BUILDING
EXISTING SITE PLAN

Scale Bar 0 1 2 3 4 5m

N

DATE: 24.03.20
DRAWING No: SK0100.P1
SCALE: 1:250 @ A3

EXISTING SITE PLAN



KEY

Species marked in green could be moved to new areas providing the root stock and water in well.

1 Wisteria
2 Vine
3 Magnolia
4 Sarcococca
5 Viburnum (Arrowwood)
6 Silver Birch Jacquemonti
7 Phormium / Jester + Tenax
8 Nandina / Domestica Firepower
9 Prunus V Species
10 Sorbus Species
11 Horse Chestnust
12 Lilac Syringa
13 Hydrangea
14 Philadelphus
15 Weigela Variegata
16 Photinia Red Robin Shrubs + Elaeagnus
17 Foxglove Tree
18 Choisya / Ternata / Aster
19 Ceanothus
20 Loncera / Nitida Shrub / Box Honeysuckle
21 Forsythia
22 Sambucus Nigra
23 Buxus Variegata
24 Laurel

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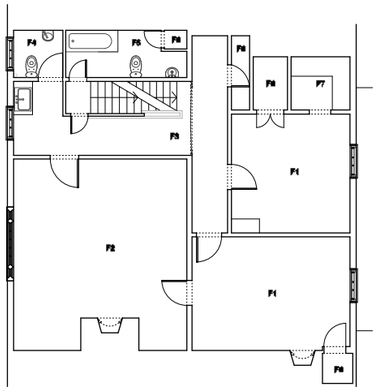
1468 TENTERDEN CINEMA:

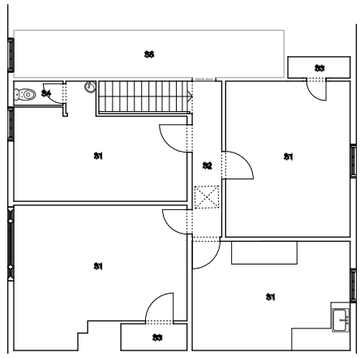
THE PEBBLES BUILDING
EXISTING SITE PLAN WITH SOFT LANDSCAPING

Scale Bar 0 1 2 3 4 5m

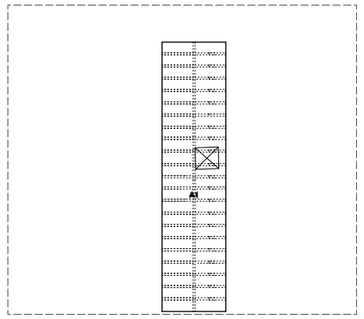
DATE: 24.03.20
DRAWING No: SK0112.P1
SCALE: 1:250 @ A3



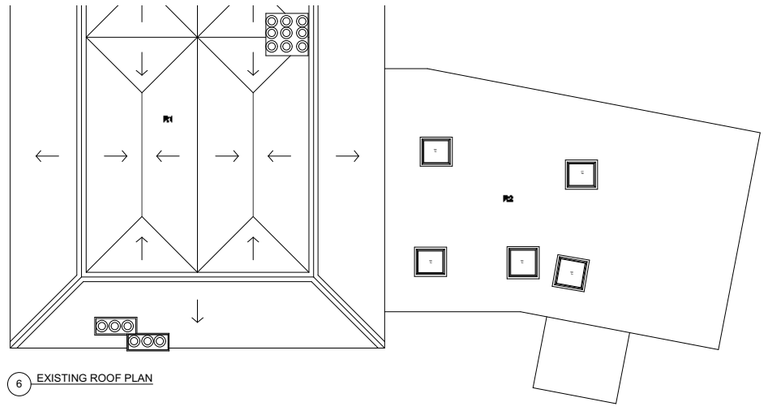
3 EXISTING FIRST FLOOR PLAN



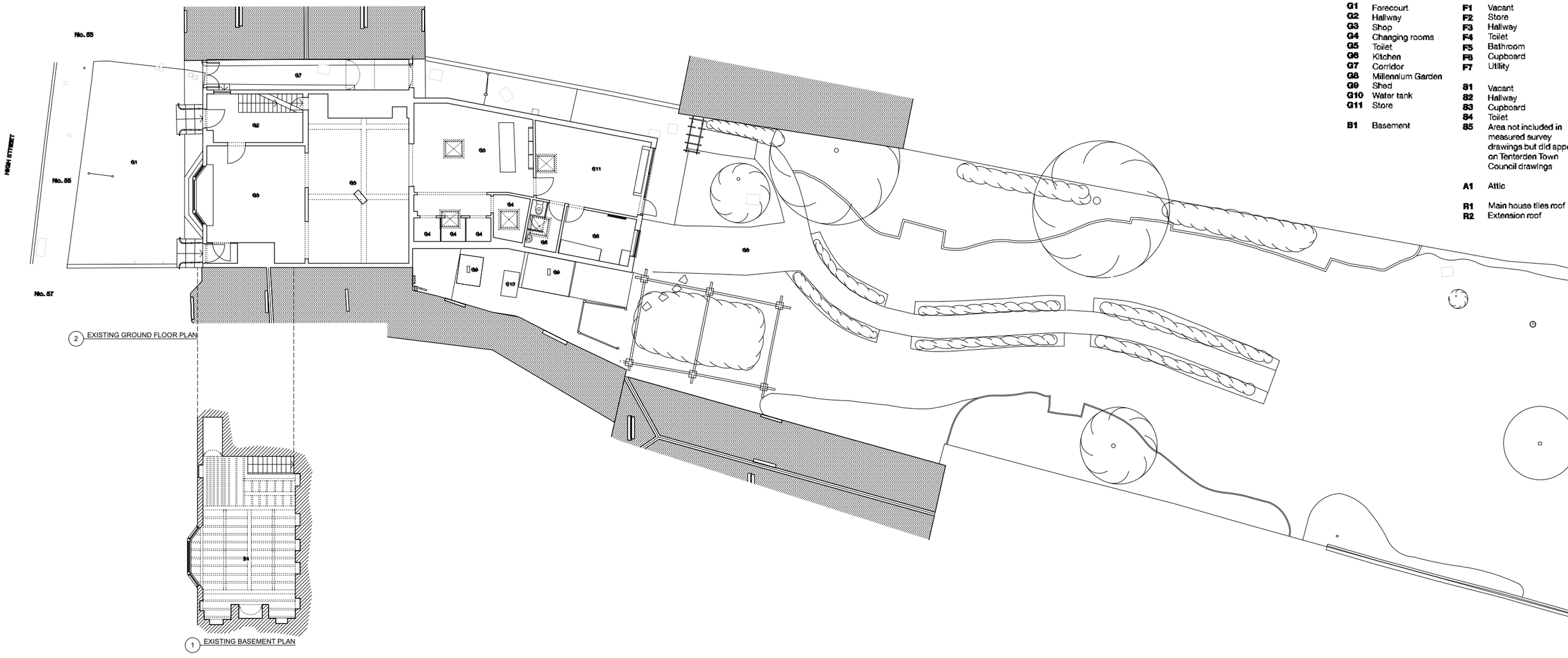
4 EXISTING SECOND FLOOR PLAN



5 EXISTING ATTIC FLOOR PLAN



6 EXISTING ROOF PLAN



2 EXISTING GROUND FLOOR PLAN

1 EXISTING BASEMENT PLAN

KEY

G1	Forecourt	**F1**	Vacant
G2	Hallway	**F2**	Store
G3	Shop	**F3**	Hallway
G4	Changing rooms	**F4**	Toilet
G5	Toilet	**F5**	Bathroom
G6	Kitchen	**F6**	Cupboard
G7	Corridor	**F7**	Utility
G8	Millennium Garden		
G9	Shed	**S1**	Vacant
G10	Water tank	**S2**	Hallway
G11	Store	**S3**	Cupboard
		S4	Toilet
B1	Basement	**S5**	Area not included in measured survey drawings but did appear on Tenterden Town Council drawings
		A1	Attic
		R1	Main house tiles roof
		R2	Extension roof

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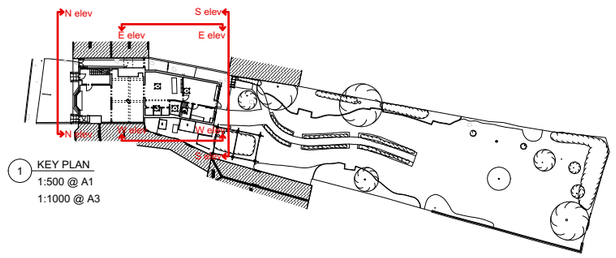
1468 TENTERDEN CINEMA:

THE PEBBLES BUILDING
EXISTING PLANS

Scale Bar 0 1 2 3 4 5m

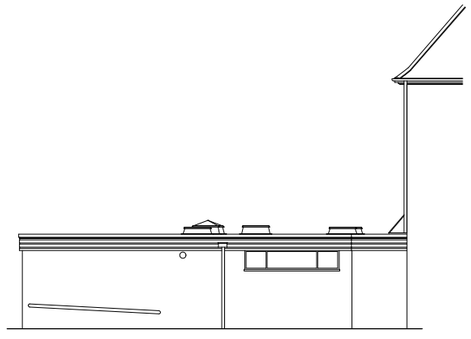
DATE: 19.03.20
DRAWING No: SK0101.P1
SCALE: 1:100 @ A1
1:200 @ A3



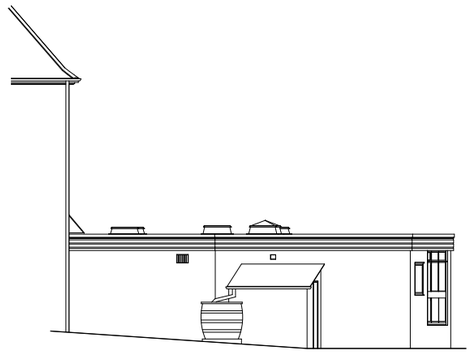
1 KEY PLAN
1:500 @ A1
1:1000 @ A3

2 NORTH ELEVATION

3 SOUTH ELEVATION



4 EAST ELEVATION



5 WEST ELEVATION

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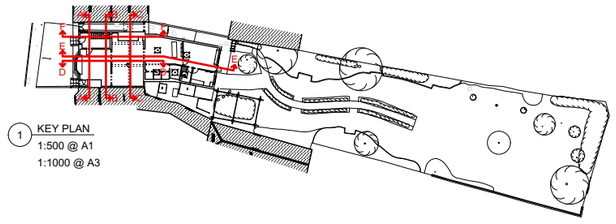
1468 TENTERDEN CINEMA:

THE PEBBLES BUILDING
EXISTING ELEVATIONS

Scale Bar 0 1 2 3 4 5m

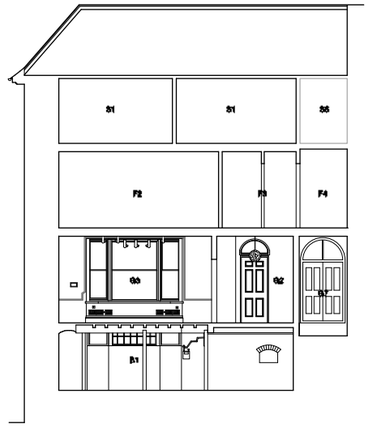
DATE: 19.03.20
DRAWING No: SK0102.P1
SCALE: 1:100 @ A1
1:200 @ A3



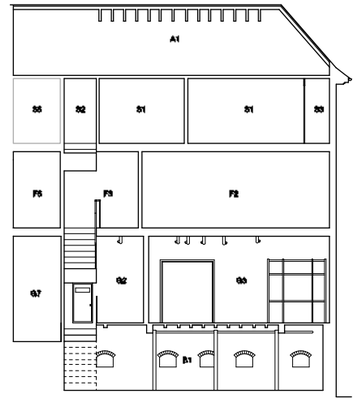
1 KEY PLAN
1:500 @ A1
1:1000 @ A3

KEY

G1	Forecourt	**F1**	Vacant
G2	Hallway	**F2**	Store
G3	Shop	**F3**	Hallway
G4	Changing rooms	**F4**	Toilet
G5	Toilet	**F5**	Bathroom
G6	Kitchen	**F6**	Cupboard
G7	Corridor	**F7**	Utility
G8	Millennium Garden		
G9	Shed	**S1**	Vacant
G10	Water tank	**S2**	Hallway
G11	Store	**S3**	Cupboard
		S4	Toilet
B1	Basement	**S5**	Area not included in measured survey drawings but did appear on Tenterden Town Council drawings
A1	Attic		
R1	Main house tiles roof		
R2	Extension roof		



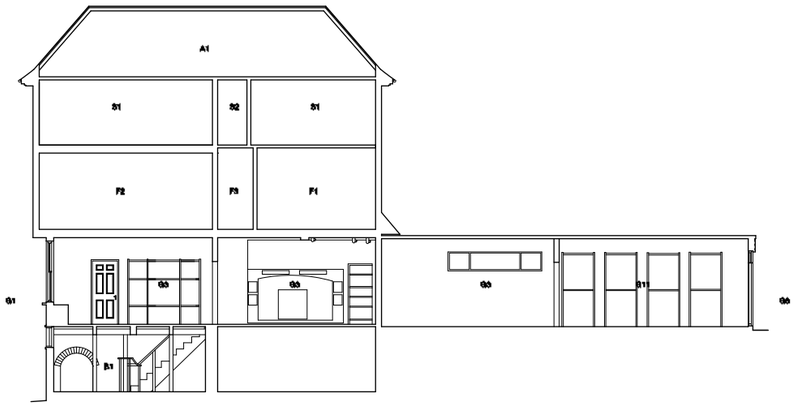
2 SECTION A-A



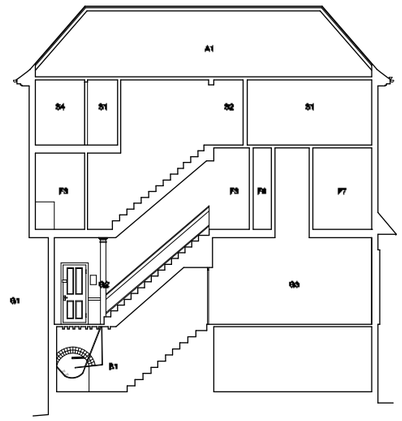
3 SECTION B-B

4 SECTION C-C

5 SECTION D-D



6 SECTION E-E



7 SECTION F-F

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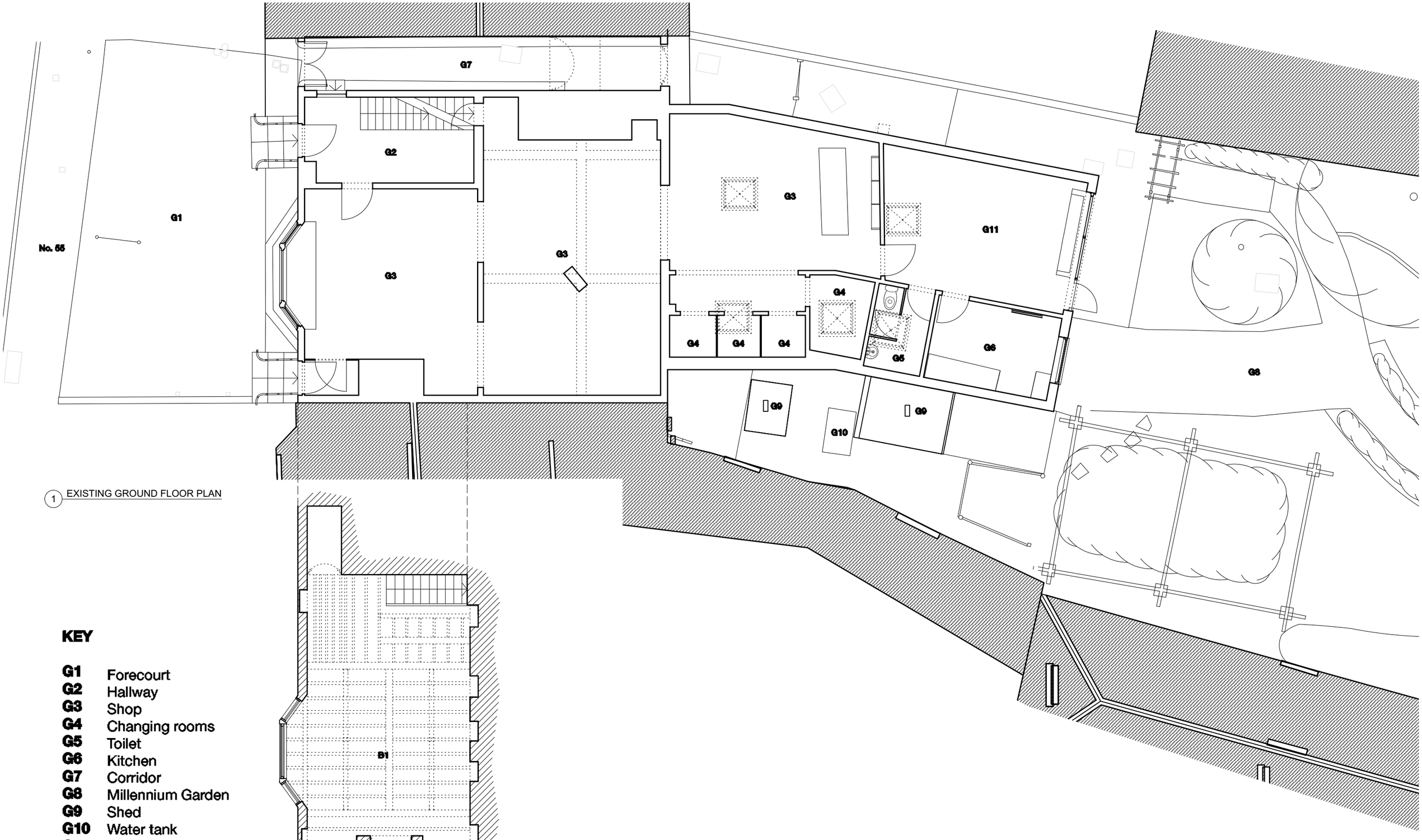
1468 TENTERDEN CINEMA:

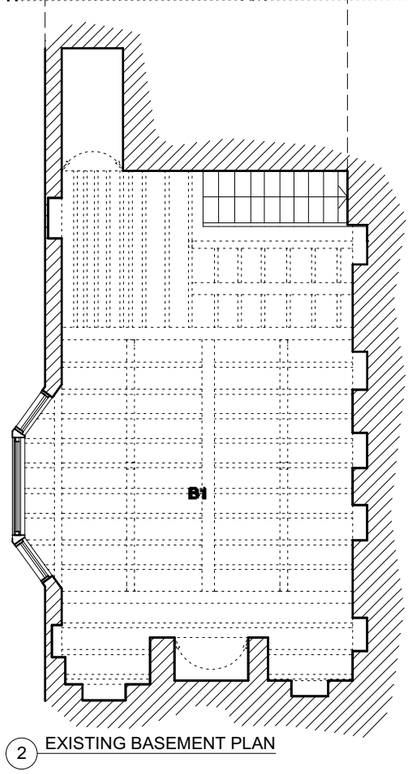
THE PEBBLES BUILDING
EXISTING SECTIONS

Scale Bar 0 1 2 3 4 5m

DATE: 19.03.20
DRAWING No: SK0103.P1
SCALE: 1:100 @ A1
1:200 @ A3



1 EXISTING GROUND FLOOR PLAN



2 EXISTING BASEMENT PLAN

KEY

G1	Forecourt
G2	Hallway
G3	Shop
G4	Changing rooms
G5	Toilet
G6	Kitchen
G7	Corridor
G8	Millennium Garden
G9	Shed
G10	Water tank
G11	Store
B1	Basement

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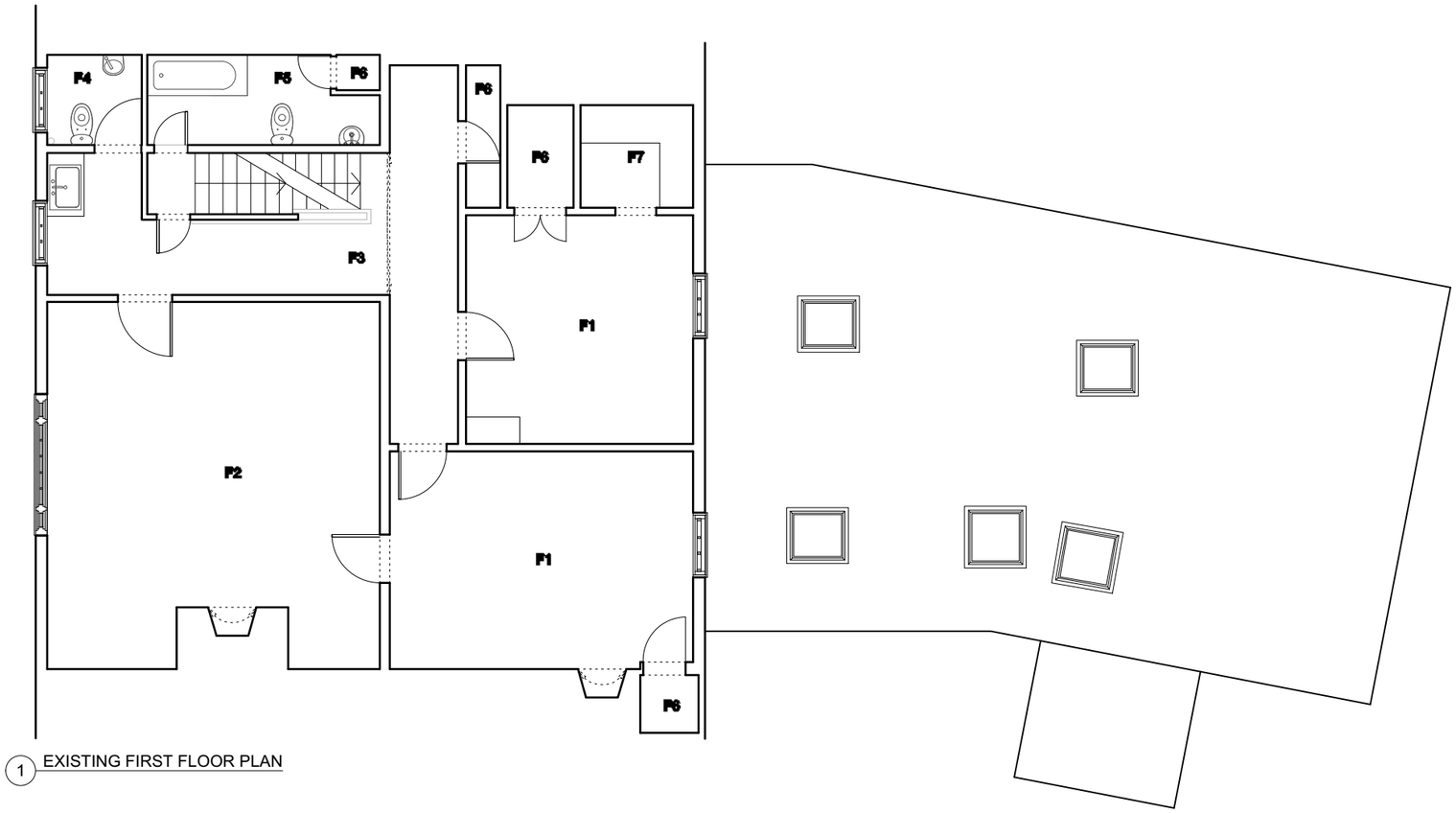
1468 TENTERDEN CINEMA:

THE PEBBLES BUILDING
EXISTING PLANS: BASEMENT AND GROUND FLOOR PLAN

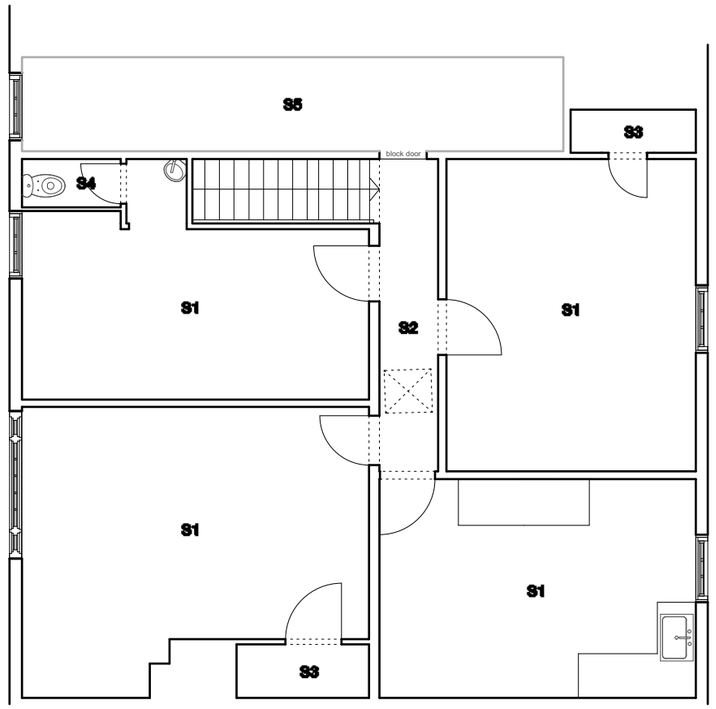
Scale Bar 0 1 2 3 4 5m

N

DATE: 19.03.20
DRAWING No: SK0104.P1
SCALE: 1:100 @ A3



1 EXISTING FIRST FLOOR PLAN



2 EXISTING SECOND FLOOR PLAN

KEY

F1	Vacant
F2	Store
F3	Hallway
F4	Toilet
F5	Bathroom
F6	Cupboard
F7	Utility

S1	Vacant
S2	Hallway
S3	Cupboard
S4	Toilet
S5	Area not included in measured survey drawings but did appear on Tenterden Town Council drawings

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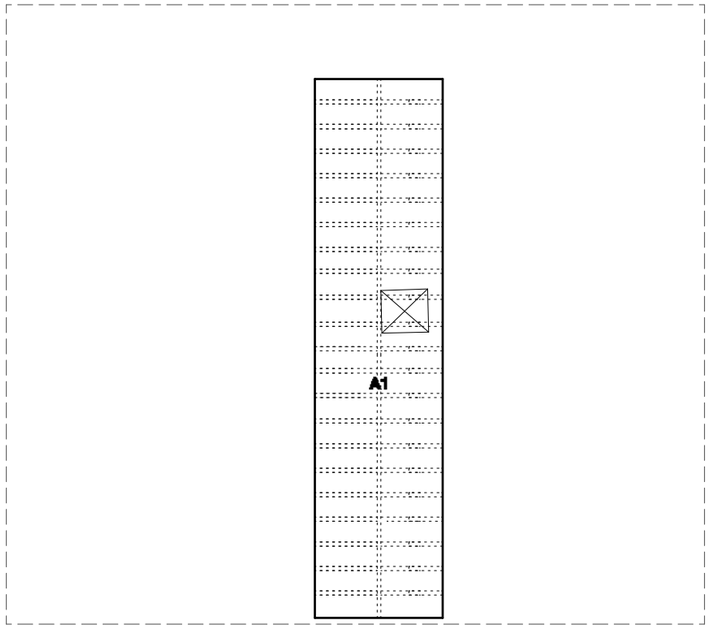
1468 TENTERDEN CINEMA:

THE PEBBLES BUILDING
EXISTING PLANS: FIRST AND SECOND FLOOR PLAN

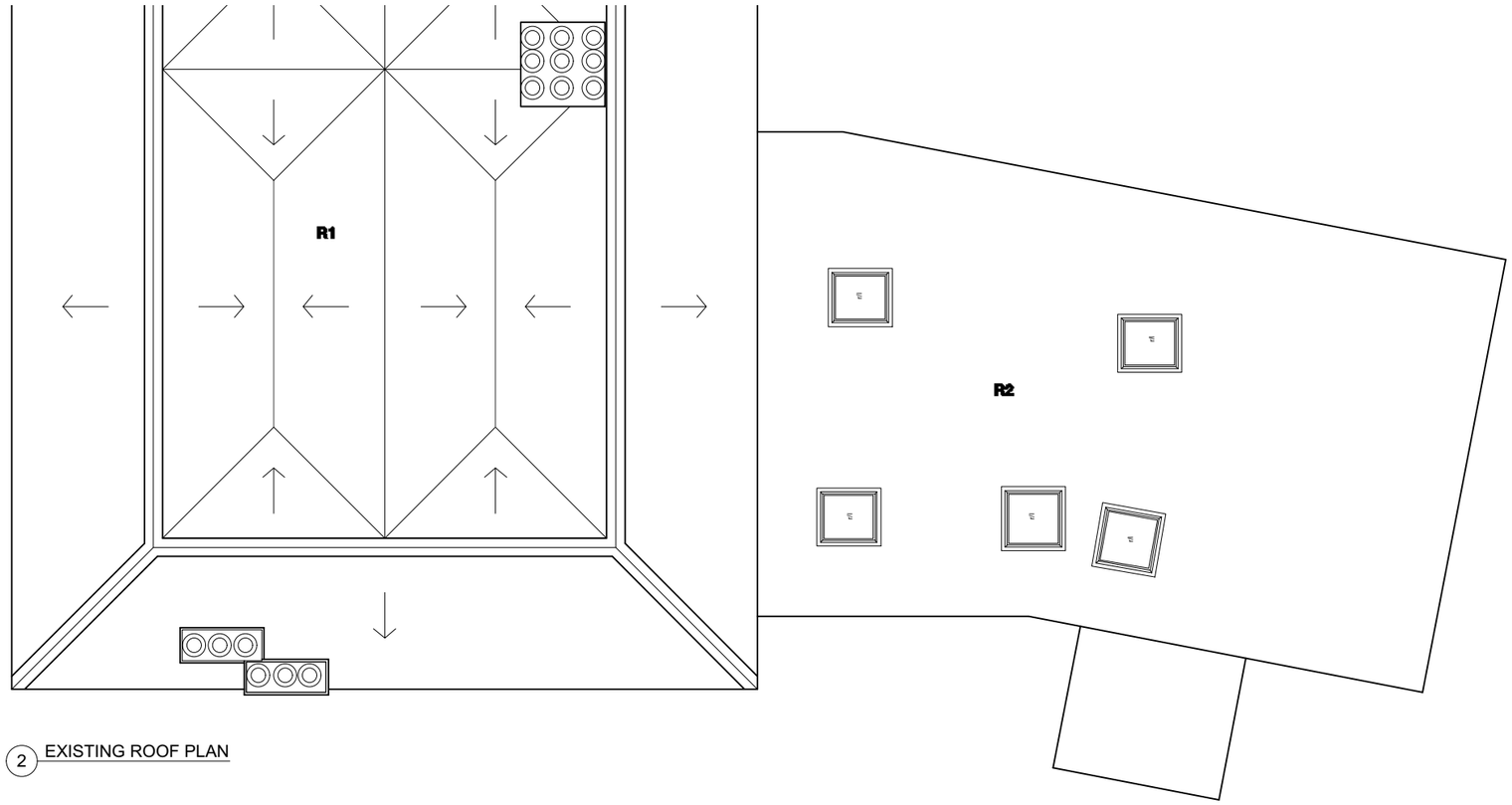
Scale Bar 0 1 2 3 4 5m

N

DATE: 19.03.20
DRAWING No: SK0105.P1
SCALE: 1:100 @ A3



1 EXISTING ATTIC FLOOR PLAN



2 EXISTING ROOF PLAN

KEY

A1 Attic

R1 Main house tiles roof
R2 Extension roof

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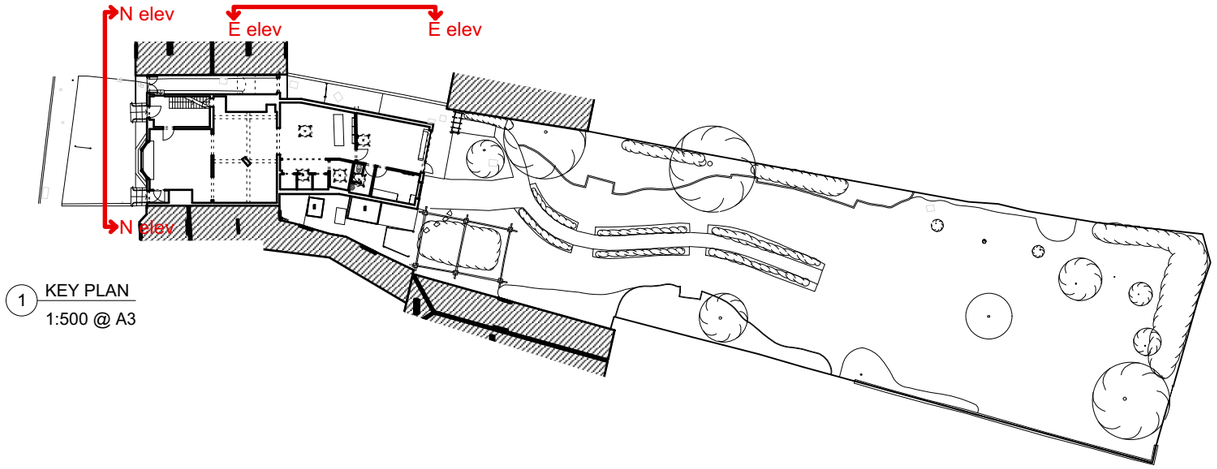
1468 TENTERDEN CINEMA:

THE PEBBLES BUILDING
EXISTING PLANS: ATTIC AND ROOF PLAN

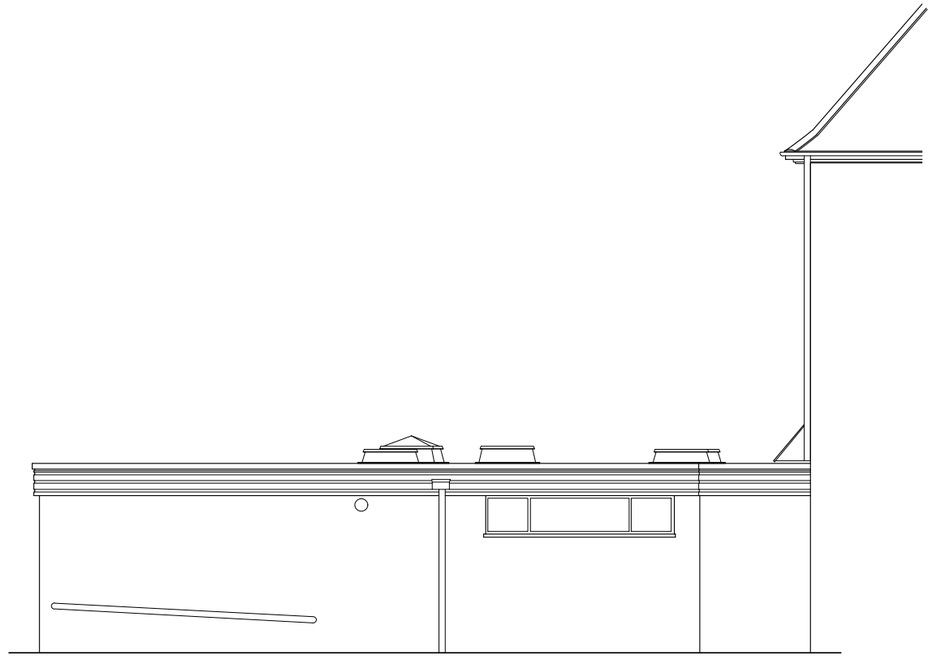
Scale Bar 0 1 2 3 4 5m

DATE: 19.03.20
DRAWING No: SK0106.P1
SCALE: 1:100 @ A3



1 KEY PLAN
1:500 @ A3

2 NORTH ELEVATION



3 EAST ELEVATION

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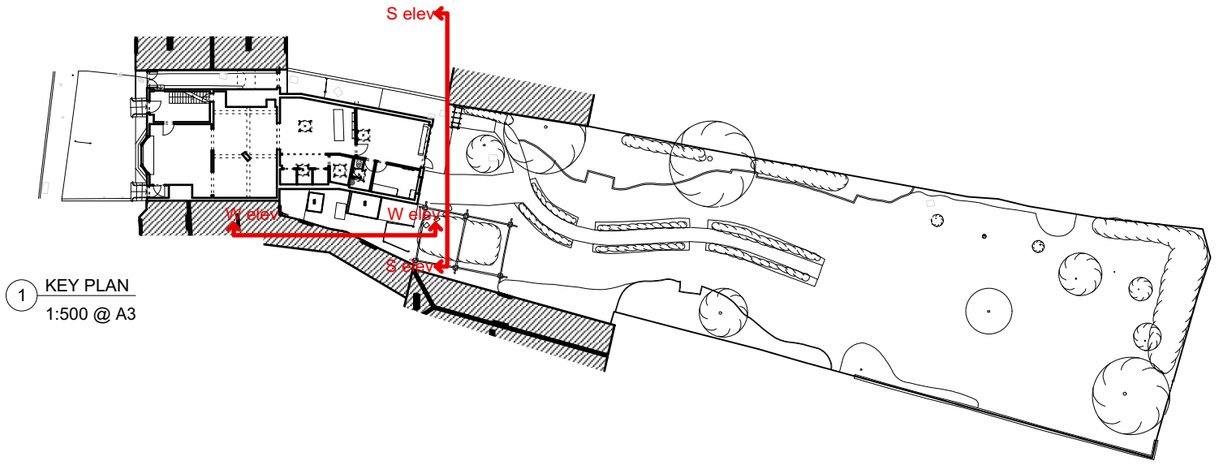
ARCHITECTS AND URBAN DESIGNERS

1468 TENTERDEN CINEMA:

THE PEBBLES BUILDING
EXISTING ELEVATIONS: NORTH AND EAST ELEVATION

Scale Bar 0 1 2 3 4 5m

DATE:	19.03.20
DRAWING No:	SK0107.P1
SCALE:	1:100 @ A3



1 KEY PLAN
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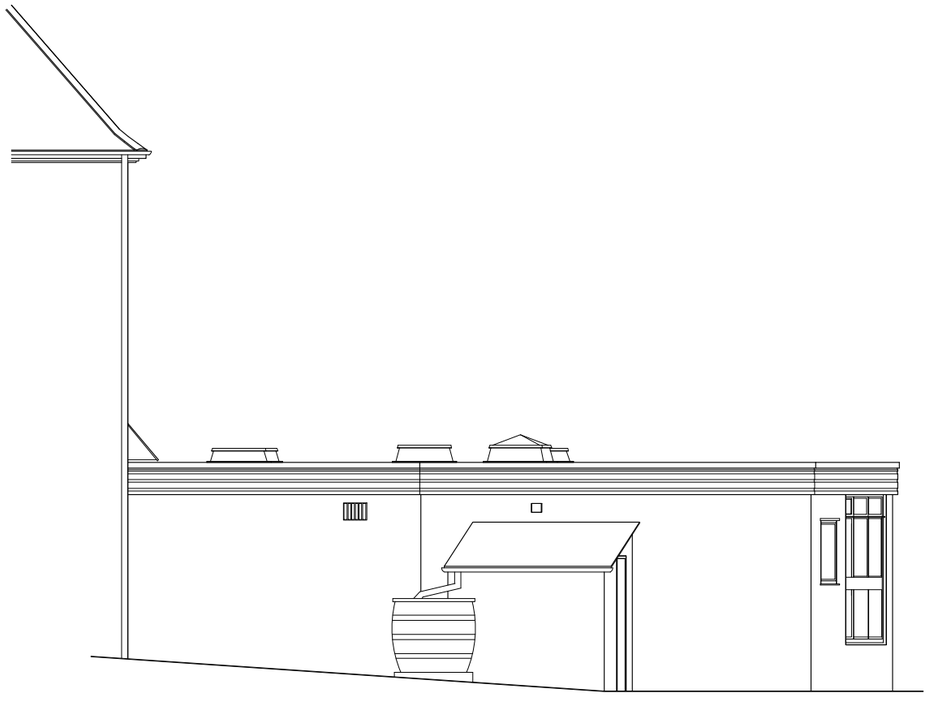
2 SOUTH ELEVATION



3 WEST ELEVATION

BURRELL | FOLEY | FISCHER
ARCHITECTS AND URBAN DESIGNERS

1468 TENTERDEN CINEMA:

THE PEBBLES BUILDING
EXISTING ELEVATIONS: SOUTH AND WEST ELEVATION

Scale Bar 0 1 2 3 4 5m

DATE: 19.03.20
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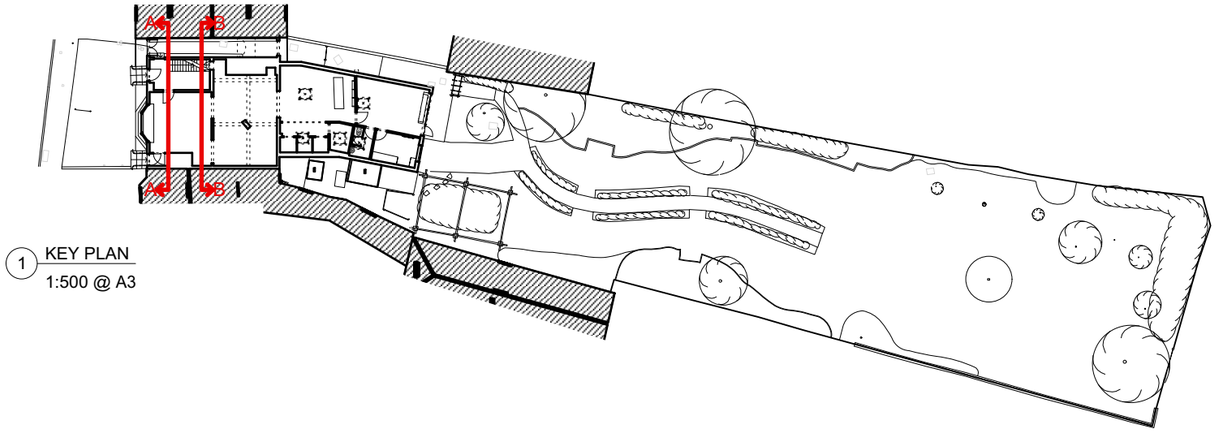


1 KEY PLAN
1:500 @ A3

KEY

G1 Forecourt
G2 Hallway
G3 Shop
G4 Changing rooms
G5 Toilet
G6 Kitchen
G7 Corridor
G8 Millennium Garden
G9 Shed
G10 Water tank
G11 Store

F1 Vacant
F2 Store
F3 Hallway
F4 Toilet
F5 Bathroom
F6 Cupboard
F7 Utility

S1 Vacant
S2 Hallway
S3 Cupboard
S4 Toilet
S5 Area not included in measured survey drawings but did appear on Tenterden Town Council drawings

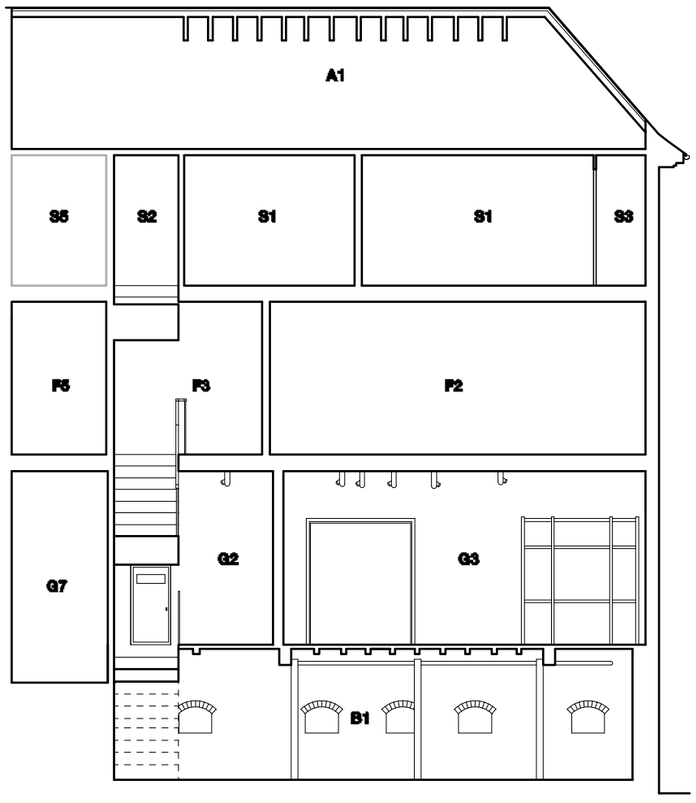
B1 Basement

S1 Vacant
S2 Hallway
S3 Cupboard
S4 Toilet

A1 Attic

R1 Main house tiles roof
R2 Extension roof

2 SECTION A-A



3 SECTION B-B

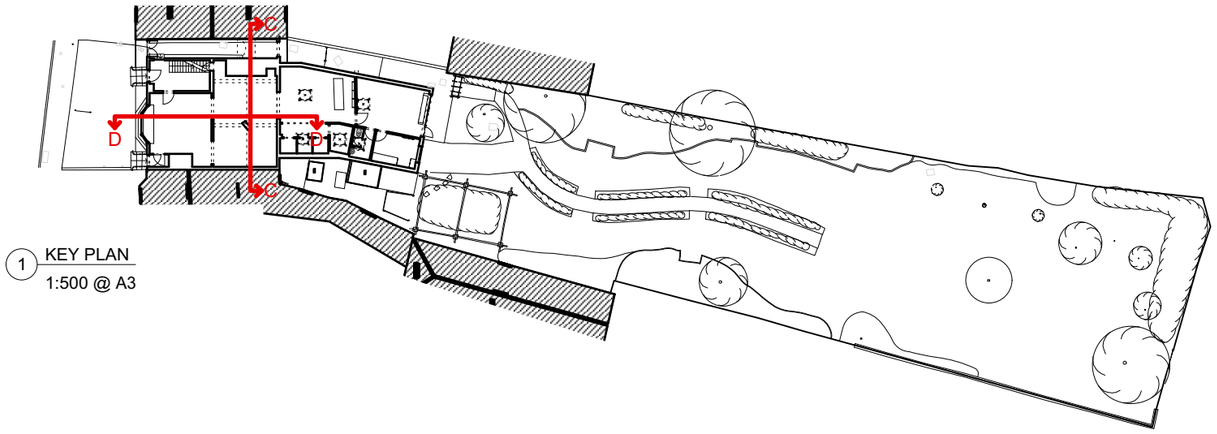
BURRELL | FOLEY | FISCHER
ARCHITECTS AND URBAN DESIGNERS

1468 TENTERDEN CINEMA:

THE PEBBLES BUILDING
EXISTING SECTIONS: A-A AND B-B

Scale Bar 0 1 2 3 4 5m

DATE: 19.03.20
DRAWING No: SK0109.P1
SCALE: 1:100 @ A3



1 KEY PLAN
1:500 @ A3

KEY

G1 Forecourt
G2 Hallway
G3 Shop
G4 Changing rooms
G5 Toilet
G6 Kitchen
G7 Corridor
G8 Millennium Garden
G9 Shed
G10 Water tank
G11 Store

F1 Vacant
F2 Store
F3 Hallway
F4 Toilet
F5 Bathroom
F6 Cupboard
F7 Utility

S1 Vacant
S2 Hallway
S3 Cupboard
S4 Toilet
S5 Area not included in measured survey drawings but did appear on Tenterden Town Council drawings

B1 Basement

S1 Vacant
S2 Hallway
S3 Cupboard
S4 Toilet

A1 Attic

R1 Main house tiles roof
R2 Extension roof

2 SECTION C-C

3 SECTION D-D

BURRELL | FOLEY | FISCHER
ARCHITECTS AND URBAN DESIGNERS

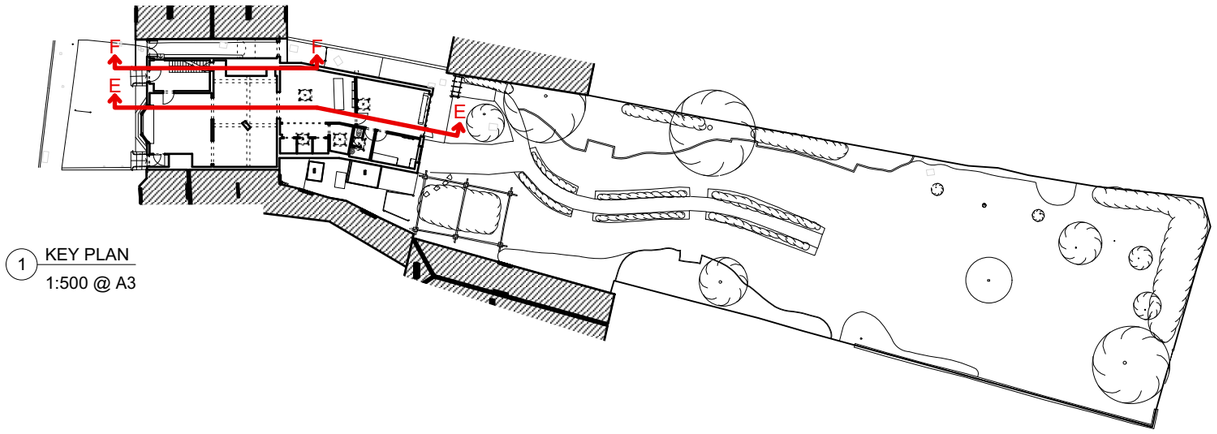
1468 TENTERDEN CINEMA:

THE PEBBLES BUILDING
EXISTING SECTIONS: C-C AND D-D

Scale Bar 0 1 2 3 4 5m

N

DATE: 19.03.20
DRAWING No: SK0110.P1
SCALE: 1:100 @ A3



1 KEY PLAN
1:500 @ A3

KEY

G1 Forecourt
G2 Hallway
G3 Shop
G4 Changing rooms
G5 Toilet
G6 Kitchen
G7 Corridor
G8 Millennium Garden
G9 Shed
G10 Water tank
G11 Store

F1 Vacant
F2 Store
F3 Hallway
F4 Toilet
F5 Bathroom
F6 Cupboard
F7 Utility

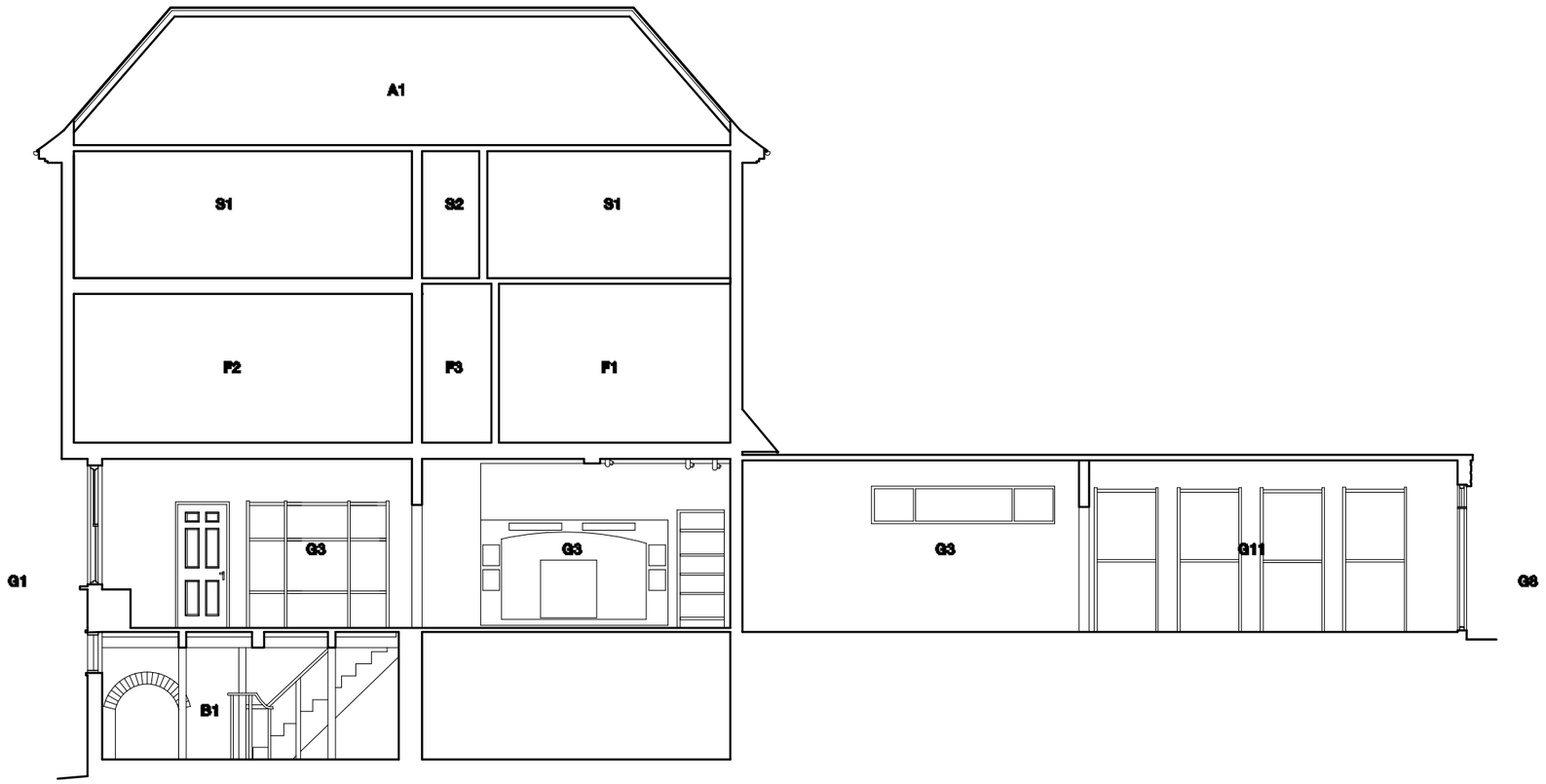
S1 Vacant
S2 Hallway
S3 Cupboard
S4 Toilet
S5 Area not included in measured survey drawings but did appear on Tenterden Town Council drawings

B1 Basement

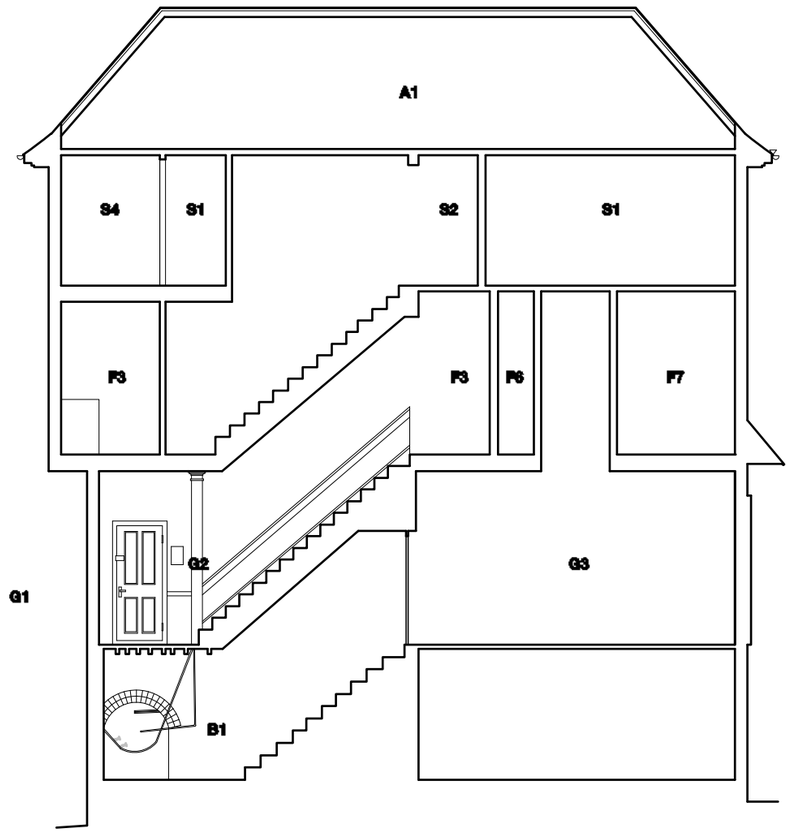
S1 Vacant
S2 Hallway
S3 Cupboard
S4 Toilet

A1 Attic

R1 Main house tiles roof
R2 Extension roof



2 SECTION E-E



3 SECTION F-F

BURRELL | FOLEY | FISCHER
ARCHITECTS AND URBAN DESIGNERS

1468 TENTERDEN CINEMA:

THE PEBBLES BUILDING
EXISTING SECTIONS: E-E AND F-F

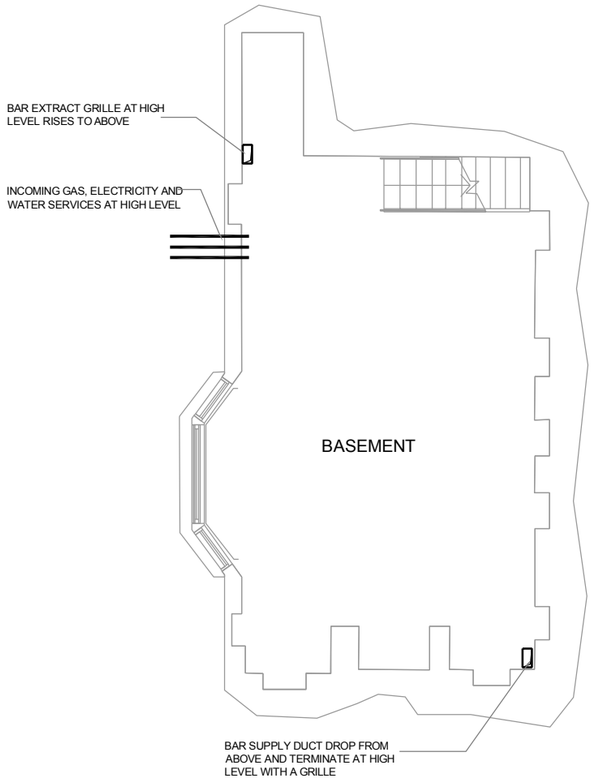
Scale Bar
0 1 2 3 4 5m

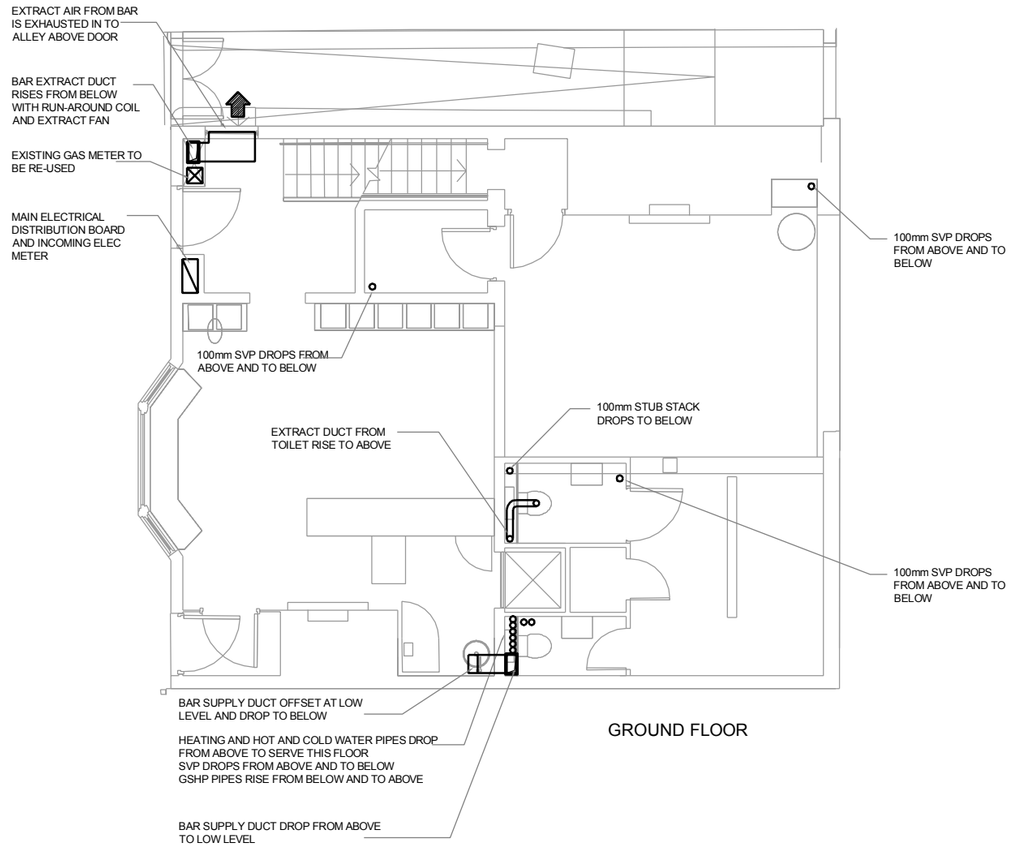
N

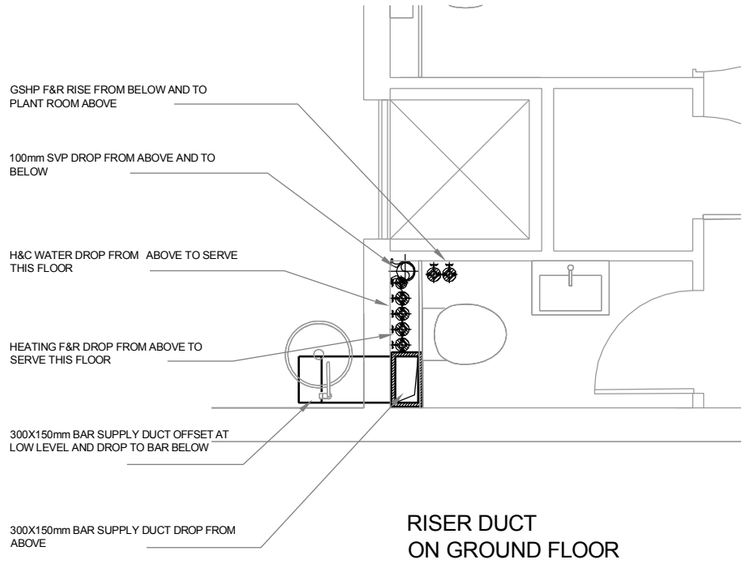
DATE: 19.03.20
DRAWING No: SK0111.P1
SCALE: 1:100 @ A3

Appendix B

Services Engineers Drawings







RISER DUCT
ON GROUND FLOOR

Rev	Date	Description
A	27/03/20	ISSUED FOR FEASIBILITY REPORT

SGA Consulting Ltd.

Unit 2, Pride Court, 80-82 White Lion Street
London N1 9PF
020 7100 7197
web. www.sgaconsulting.co.uk

Client
TENTERTEN TOWN COUNCIL

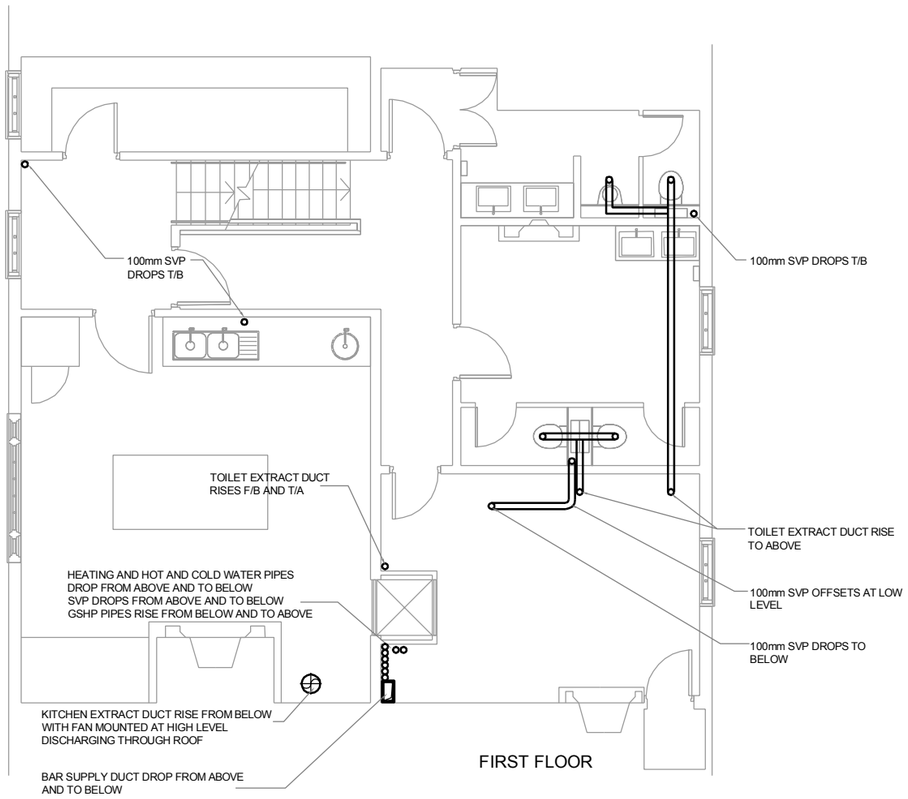
Architect
BURRELL FOLEY FISCHER LLP

Project title
TENTERDEN CINEMA

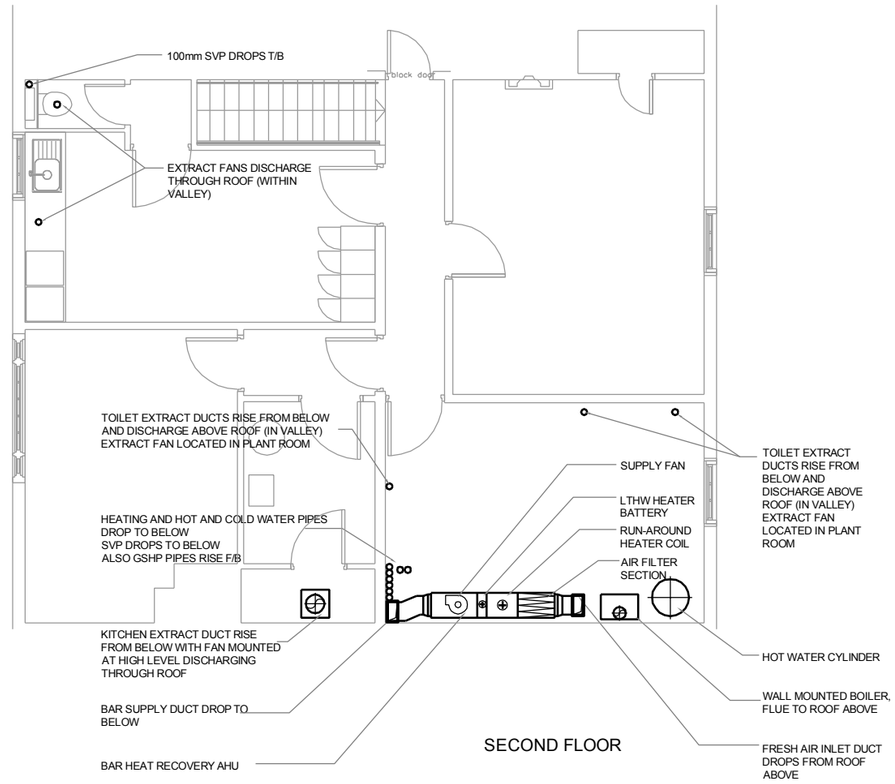
Drawing title
BASEMENT AND GROUND FLOOR
M&E SERVICES LAYOUT

Drawn by	Date	Scale (at A1)
EC	Mar 2020	1:50

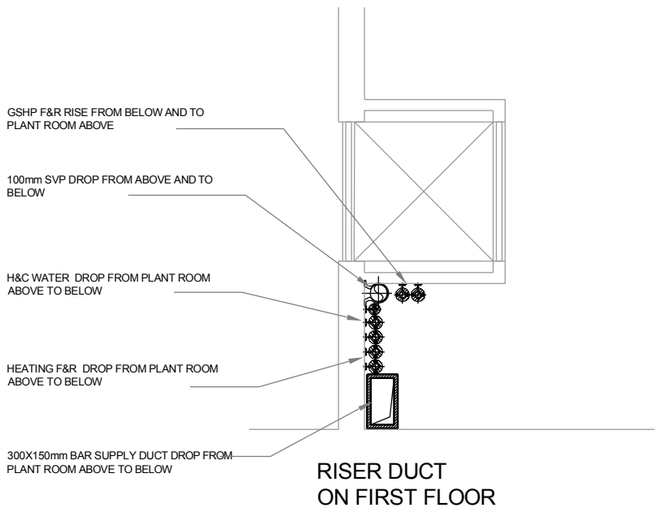
Job No	Drawing No	Rev
J1481	Z[10]-001	/ A



FIRST FLOOR



SECOND FLOOR



RISER DUCT
ON FIRST FLOOR

Rev	Date	Description
A	27/03/20	ISSUED FOR FEASIBILITY REPORT

SGA Consulting Ltd.

Unit 2, Pride Court, 80-82 White Lion Street
London N1 9PF
020 7100 7197
web. www.sgaconsulting.co.uk

Client
TENTERTEN TOWN COUNCIL

Architect
BURRELL FOLEY FISCHER LLP

Project title
TENTERDEN CINEMA

Drawing title
FIRST AND SECOND FLOOR
M&E SERVICES LAYOUT

Drawn by	Date	Scale (at A1)
EC	Mar 2020	1:50

Job No	Drawing No	Rev
J1481	Z[10]-002	/ A

Appendix C

Structural Engineers Drawings

KEY

POSSIBLE LOCATIONS OF SITE FACILITIES (OFFICES / STORAGE / WELFARE ETC.)

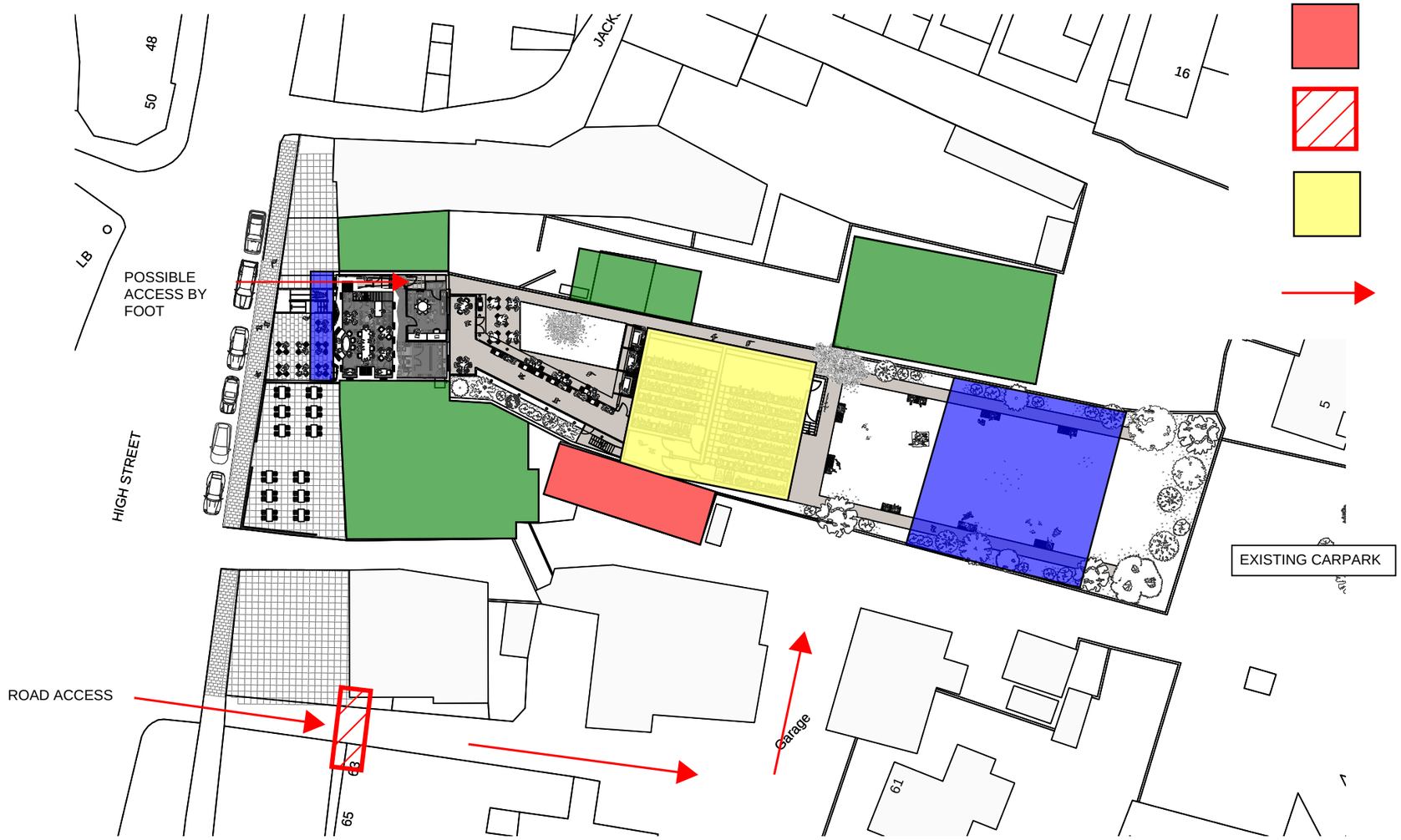
ADJACENT BUILDINGS, NOT DIRECTLY IMPACTED BY CONSTRUCITON WORKS. (MAY BE AFFECTED BY NOISE OR DUST POLLUTION)

ADJACENT BUILDINGS DIRECTLY IMPACTED BY CONSTRUCITON WORKS

ACCESS RESTRICTED BY EXISTING BUILDINGS / SIGNAGE. CONTRACTOR TO CONSIDER VEHICULAR ACCESS

PROPOSED CINEMA BUILDING

SITE ACCESS



conisbee
Consulting Structural Engineers
Consulting Civil Engineers
1-5 Offord St
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Fax 020 7700 6686
design@conisbee.co.uk
www.conisbee.co.uk

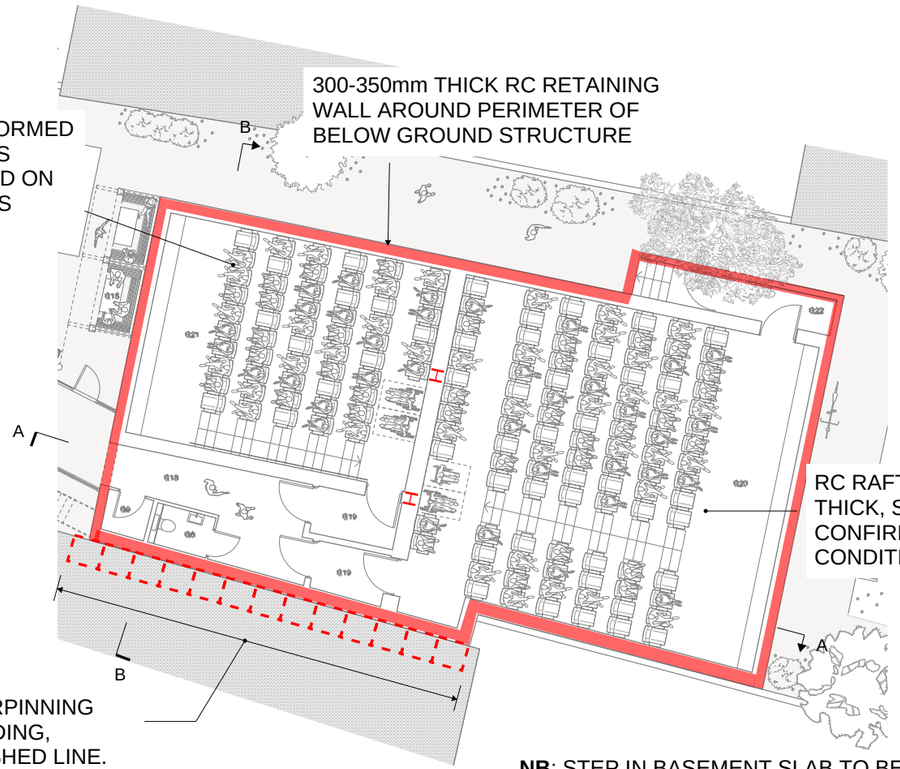
Project
TENTERDEN CINEMA

Title
CONSTRAINTS PLAN

Rev	Date	Description	Drawn	Check

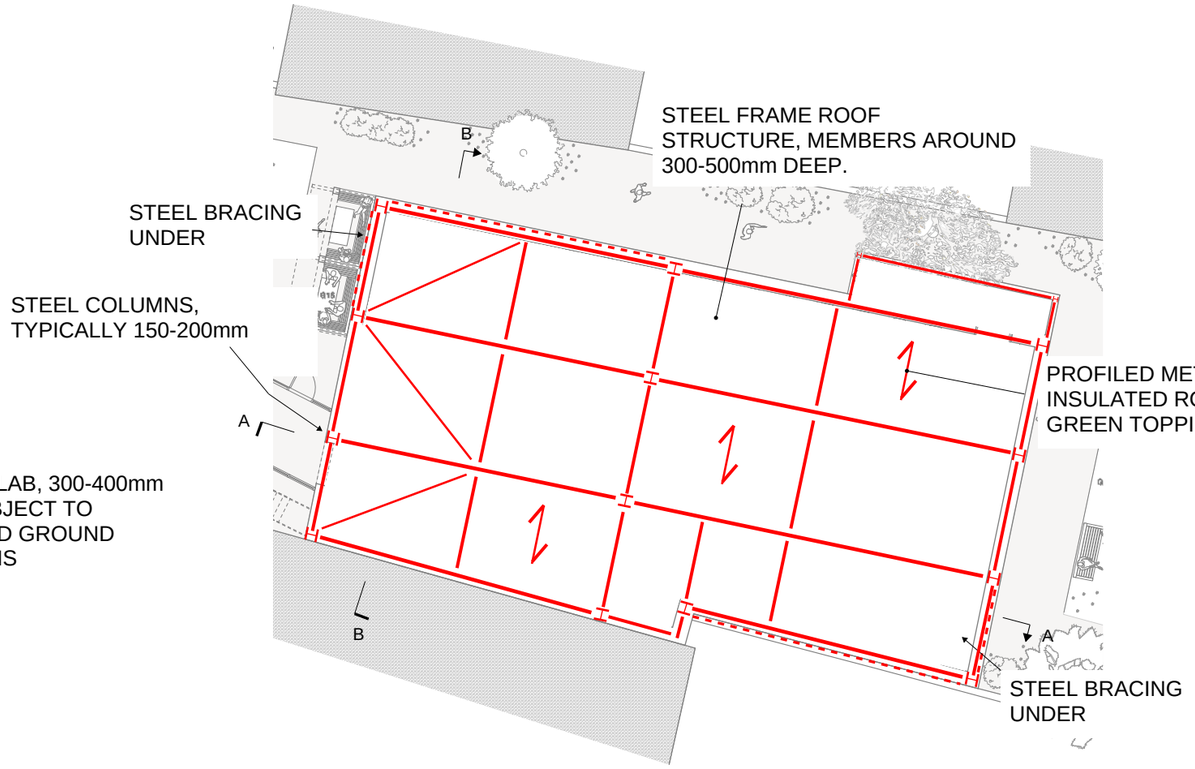
Drawing Status: FEASIBILITY
Project No: 1□0□6□
Date: 24.03.20
Drawn: GM
Drawing No:
Scale: 1:500 @ A3
Engineer: GM
Revision:

This drawing must be read in conjunction with the specification and all other relevant drawings. Do not scale from this drawing.



GROUND FLOOR PLAN

NB: STEP IN BASEMENT SLAB TO BE DISCUSSED WITH ARCHITECT - SEE SECTION DRAWING SHOWING TWO OPTIONS



ROOF PLAN

NOT FOR CONSTRUCTION

Rev	Date	Description	Drawn	Check

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Consulting Civil Engineers

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Fax 020 7700 6686
design@conisbee.co.uk
www.conisbee.co.uk

Project: TENTERDEN CINEMA

Title: PROPOSED PLANS

Drawing Status: FEASIBILITY

Project No: **190868**

Date: 24.03.20

Drawn: GM

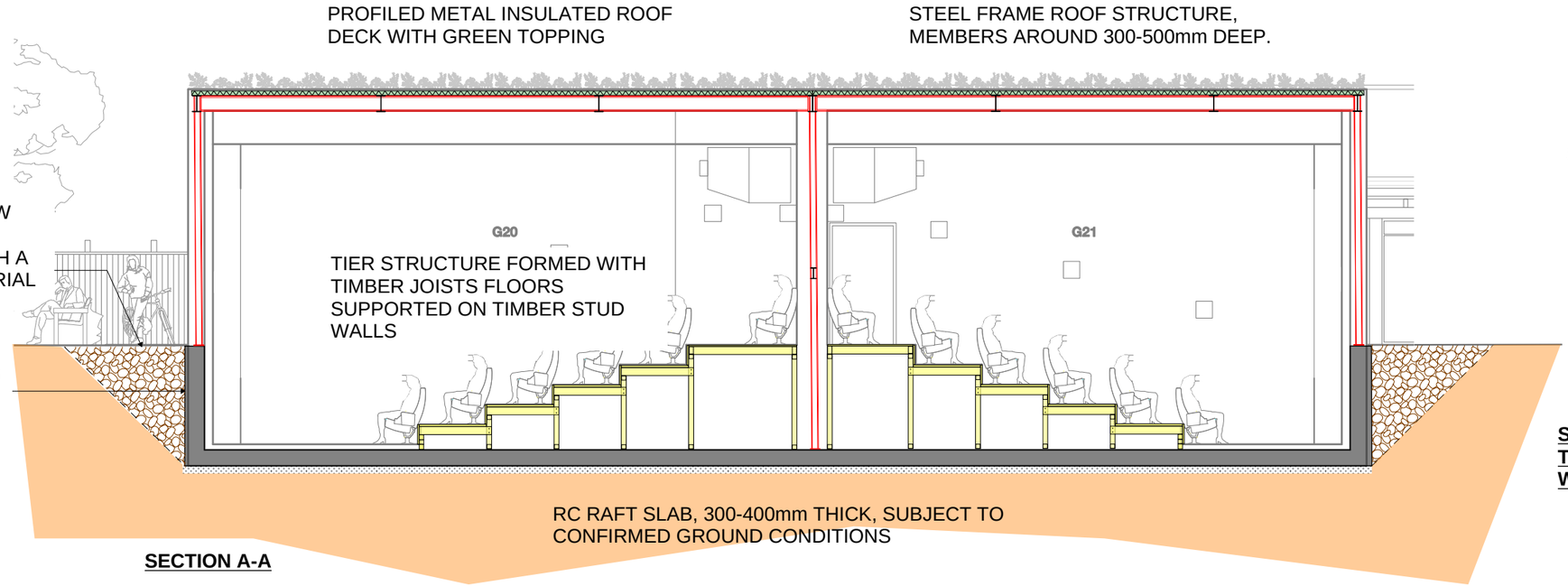
Drawing No:

Scale: 1:200 @ A3

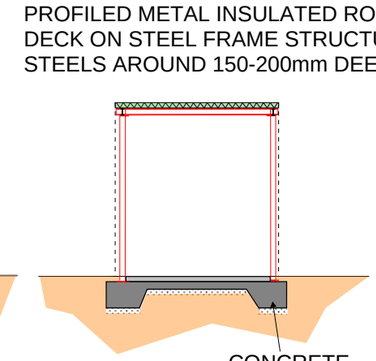
Engineer: GM

Revision:

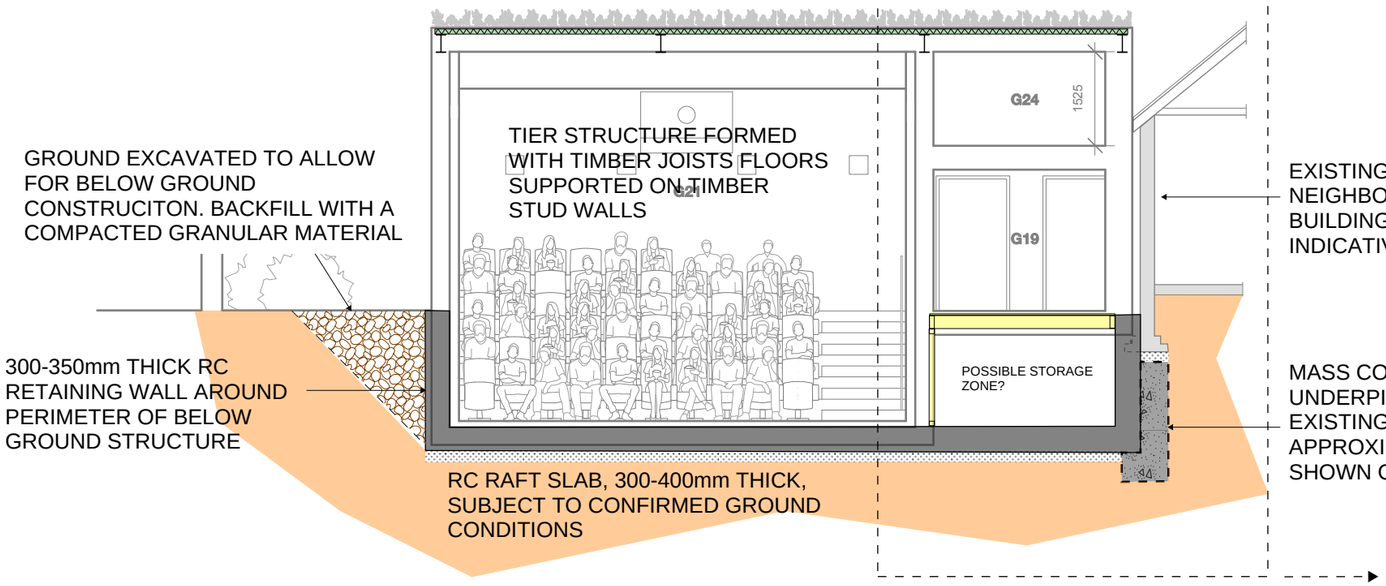
This drawing must be read in conjunction with the specification and all other relevant drawings. Do not scale from this drawing.



SECTION A-A

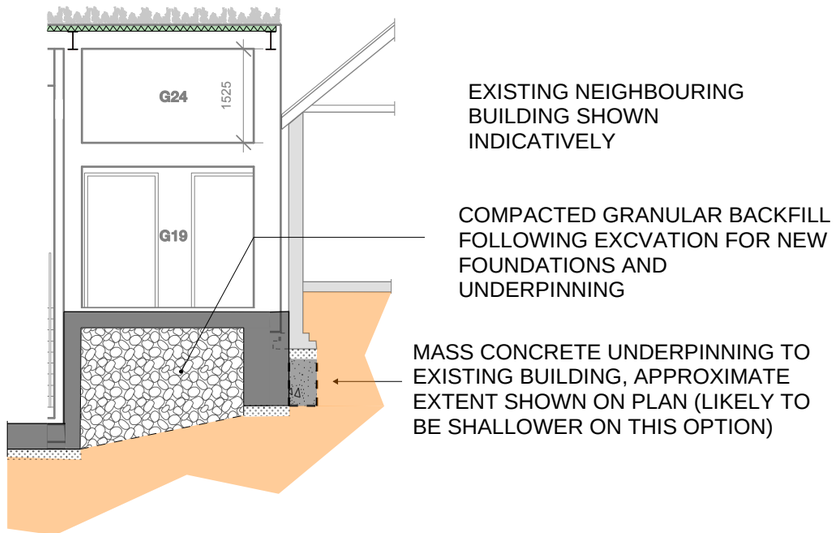


SECTION THROUGH LINK WALKWAY



SECTION B-B (OPTION 1)

NB: OPTIONS FOR STEP IN SLAB SHOWN FOR DISCUSSION. OPTION 2 WILL LIKELY REQUIRE SIMILAR EXCAVTION AND UNDERPINNING TO ALLOW NEW FOUNDATIONS TO BE FORED. OPTION 1 SUGGESTS UTILING THIS SPACE INSTEAD OF BACKFILLING WITH SOIL.



PARTIAL SECTION B-B
(OPTION 2)

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Consulting Civil Engineers

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Fax 020 7700 6686
design@conisbee.co.uk
www.conisbee.co.uk

Project
TENTERDEN CINEMA

Title
PROPOSED SECTIONS

NOT FOR CONSTRUCTION

Rev	Date	Description	Drawn	Check

Drawing Status: FEASIBILITY
Project No: **190868**
Date: 24.03.20
Drawn: GM
Drawing No:
Scale: 1:100
Engineer: GM
Revision:

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Consulting Civil Engineers

London
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London N1 1DH
Telephone 020 7700 6666

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Site Investigation Brief for

The Pebbles Cinema

55 High Street Tenterden Kent

Ref: 190686/N Nicholls
Approved By: NN
26.03.2020

1.0 INTRODUCTION

It is proposed to construct a new two screen cinema. A site investigation of the subsoil is to be carried out in accordance with BS 5930:1999, Code of Practice for Site Investigations", **(alternatively for projects to Eurocode the SI should be accordance with BS5930:2015 which cross refers to BS EN1997-2)** BS 10175: 2011+A2:2017 "Investigation of Potentially Contaminated Sites – Code of Practice" and BS 1377:1990, "Methods of Test for Soils for Civil Engineering Purposes". In terms of contamination, the investigation must follow the procedures defined in CLR report 11, and NHBC standards chapter 4.1. in order to provide an extended assessment of contamination in line with the National Planning Policy Framework.

To comply with these documents, the Contractor is required to undertake a desk study of the site in conjunction with a "Walkover Survey" and developing an initial Conceptual Site Model, which must be used as basis for defining the scope of the intrusive investigation. This process should be documented as a Preliminary Risk Assessment. As a consequence, the Contractor may have to submit modified proposals for the investigation once this initial phase of work has been completed, and liaison has taken place with the Local Authority and Environment Agency. However the quotation should initially be based on the performance requirements and provisional testing set out below.

2.0 LIAISON, QUALITY CONTROL AND SUPERVISION

The contractor must liaise with the Environmental Health department of the Local Authority and the Environment Agency to agree the regime and level of contamination testing. The contractor is to provide suitable qualified supervision of the site works by an engineer or chemist. The level of supervision to be provided should be set out in the quotation.

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The desk study should include all documented sources of information including fire plans and other databases where appropriate.

3.0 SITE INFORMATION

3.1 **Location** 55 High Street Tenterden

3.2 **Description of the Site and Proposed Development**

- The cinema is to located within a formal garden to the rear of the property
- Anticipated ground conditions taken from the British Geological Survey online maps indicates that majority of the site overlays the Turnbridge Wells Sand Formation; a strata formed of interbedded sandstone and siltstone.
- The proposed structure is an reinforced concrete semi basement structure with steel frame over.

3.3 **Site History**

- Contamination risk are minimal and the site
- Services and obstructions, UXO search, stats search and utilities and on-site services detection are not known

The contractor should scan all excavation locations for the possible presence of live services. In addition and particularly where no on-site services detection has been carried out, the contractor should hand dig shallow pits at borehole locations, and take all necessary precautions to satisfy himself that the risk of hitting buried services is minimal.

3.4 **Access Requirements and Restrictions**

Access to the site is from the public carp to the rear of the Gardens

4.0 INVESTIGATION

4.1 **Geotechnical Category**

The proposed development should be classified as GC2 under BS EN 1997-1:2004+A1:2013 (*Most of our buildings will be this category. GC1 should only be used for simple structures where we only require rules of thumb design values. GC3 will be needed for deep basements, piled rafts, tunnels, movement sensitive developments etc)*

4.2 **Purpose**

The aim of the investigation is to establish

- Foundation design
- Heave under basement excavations
- Parameters for retaining wall design
- Existing foundations and boundary conditions
- Obstructions
- The presence of asbestos in the ground from demolished buildings
- Effect of trees, amount of desiccation or heave potential
- Presence and impact of groundwater using standpipes
- The effect of any soil gas emissions in accordance with BRE212 and BS8485
- Chemical attack on materials
- Development of a conceptual site model from which potentially significant pollutant linkages can be determined. This model must include evaluation of all potential hazards including soil and groundwater contamination, hazardous ground gas, unexploded ordnance etc. and will be documented as a Preliminary Risk Assessment which should be used as the basis for the site investigation design for contaminated land purposes
- UXO risk
- clear direction on the contamination characteristics of material for disposal offsite in a manner that can be understood by the client receiving tip and the Environmental agency
- Soil pH value and contamination

4.3 **Minimum testing to be undertaken**

- 8 Number trial pits to determine the profile of the existing foundations and bearing strata
- 1 Number borehole to 15m
- Contamination testing

4.4 **Reinstatement**

- Make sure the site is left safe and spoil is removed
- Reinstate to match existing

5.0 REPORTING

An initial report of the desk study, comprising a walk over survey, comprehensive site history and environmental information, from public records titled a Preliminary Risk Assessment is to be provided. The preliminary site specific Risk Assessment should be completed before the physical site works commence to develop an initial Conceptual Site Model and inform, confirm or amend the proposed investigation and testing regime.

The risk assessment must include UXO risk and whether precautions need to be undertaken during the physical investigation and during future site operations.

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The final report should be set out in a format complying with BS EN 1997 EC 7 both a GIR and GDR but should be appropriate for the level and type of investigation being carried out.

The contractor should assume that a suitable contamination assessment will need to be provided to submit to the local planning authority, and the extent and content of this should be confirmed with the Local Authority before commencing work.

The report should include clear guidance on contamination, disposal and remediation.

The report should be issued electronically, by email if less than 8 megabites or by transfer or download if larger, in colour PDF format. The report should be factual and interpretive. The interpretation should address the purpose of the investigation, recommended foundations with design information, and any contamination including recommendations for remediation. If necessary the report should include recommendations for additional testing.

6.0 NOTE ON COMPLIANCE

The geotechnical investigation should be carried out in accordance with BS5930:2015 unless the client has specifically agreed to an investigation to the 1999 edition of the British Standard. Any limitations of the investigation in complying with the 2015 standard should be discussed in the interpretive report.

7.0 HEALTH AND SAFETY

The consultant shall employ trained operatives with the necessary certification to safely carry out all tasks that may be required to complete this commission.

8.0 AT LEAST 48 HOURS BEFORE COMMENCING ANY WORK THE CONSULTANT SHALL SUBMIT A SITE SPECIFIC RISK ASSESSMENT AND METHOD STATEMENT (RAMS) TO THE CONISBEE PROJECT MANAGER.

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Consulting Civil Engineers

The Pebbles Cinema

55 High Street Tenterden Kent

Exploratory Services Investigations

CCTV Camera Surveys of Existing Drainage

Scope of Works

Ref: 190686/N Nicholls
Approved By: NN
Date: 26.03.2020
Version: Draft

London
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Table of Contents

1.0 PURPOSE

The purpose of this document is to describe the extent, scope of works and requirements for the provision of the specialist sub consultancy service of CCTV Camera Surveys of existing below ground drainage.

This document should be read in conjunction with the UK Water Industry document Model Contract Document for Sewer Condition Inspection, May 1994. Any alterations, additions and clarifications to that document are included below.

The aim of the works is to provide a detailed survey of the location, depth, pipe diameters and condition of the existing sewers and manholes and where required provide the necessary advice on remedial repairs required to ensure longevity of the systems.

2.0 INFORMATION PROVIDED

1. Existing site survey in electronic format.
2. Water Authority plans TO BE APPLIED FOR

3.0 BACKGROUND

The existing shop and residential accommodation is to be refurbished to form a foyer and customer area to a new cinema which is to be constructed in the rear garded.

4.0 SCOPE OF WORKS

The scope of works requires the consultant to undertake CCTV camera surveys for the entire external below ground drainage to provide information on condition, flow and drainage patterns along with manhole record sheets giving coordinates and invert levels.

The detailed requirements for the provision of these services are described but not limited to the elements listed below:

1. All items of work required by the brief shall be reported in accordance with the recommendations and requirements of the Model Contract Documents referred to in 1 above.

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2. All necessary notices, permits, notifications and permissions shall be obtained directly by the consultant. Application for these notices shall be made if necessary to the authorities specified below.
3. Any costs associated with the above are the responsibility of the consultant.
4. The consultant should ensure that they have the relevant insurances for carrying out this type of work.
5. The consultant shall liaise directly with the Project Manager specified below if necessary to obtain access to the site.
6. All Traffic Management is the responsibility of the consultant and should be to the minimum standard of the Traffic Signs Manual Chapter 8 Traffic Safety Measures and Signs for Road Works and Temporary Situations and be approved by the Highway Authority if required.
7. Any damage caused to manholes and pipe works are the responsibility of the consultant who must inform the relevant authority immediately.
8. All sewers are to be pre-cleansed by jetting. In the case of blockages that cannot be jetted clear the consultant should inform the project manager and request whether the blockage is to be cleared. The consultant will need to be able to provide a quote for jetting the blockage as part of any decision to proceed. For Thames Water Sewers please call 0845 9200800. Thames Water undertake to clear sewer blockages within four hours.
9. Where manholes are surcharged, the consultant is to provide an extra over cost for suction and tankers to remove the water from site.
10. The location and storage of excavated material, including disposal of waste to a licensed landfill facility is the responsibility of the consultant. Disposal of solid waste of up to 1 tonne should be included for within the quotation.
11. The consultant shall confirm within their tender that they have the necessary and appropriate experience for undertaking these works.
12. The consultant is responsible for all costs and damages involved in recovering his equipment from any sewer forming part of the survey.
13. All cameras shall be positioned in such a way as to give clear undistorted images of the sewer to be surveyed.
14. All images should be in colour.
15. All camera recordings shall start from the face of the manhole to assess the whole sewer run including rocker pipes.
16. All Manholes lifted should be fully surveyed, recorded and reported.
17. Where manholes cannot be lifted either by hand or mechanical lifting equipment, the consultant is to inform the project manager for advice on whether the cover is required to be lifted. A quote will be required as part of any decision to proceed.

18. All linear measurements shall be recorded in at least tenths of a metre and be accurate to ± 1% and start from the centre of the manhole entered.
19. All chainages to junctions should be accurately recorded and these junctions should be shown on the accompanying plan.
20. All queries regarding issues encountered on site should be passed to the Project Manager for clarification immediately so that they can be resolved whilst works are in progress.
21. Colour A1 plans to an agreed scale of sewer locations are to be provided using AutoCAD version 2008 compatible software and be referenced to the topographical survey and grid provided.
22. The centres of all manhole covers are to be coordinated based upon the survey site grid. Manhole cover and invert levels for all pipes within the manhole are to be recorded in a manhole condition survey schedule to STC 25 standard.

5.0 DELIVERABLES

5.1 Quotation

After an initial review of documents and scope, the consultant will prepare a quotation to carry out the requirements of this brief.

This quotation shall be provided within 5 working days of receipt of this package.

Note: Any quotation received is assumed to be fully compliant with the terms and conditions within this brief. It is the consultant's responsibility to ensure that they comply.

5.2 Information requirements

The following information is required to be provided in electronic format (documents in PDF or Microsoft Word and plans in AutoCAD format) via email or CD-ROM:

1. A 3 Dimensional plan referenced to and the same scale as the one provided showing the sewers, junctions and connections as they appear in plan and on video /digital media in the locations surveyed.
2. The report shall be computer validated and machine printed and presented to the minimum standard laid down in the WAA/WRc "Manual of Sewer Condition Classification" Third Edition published 1993, complete with photos of defects where appropriate.
3. Manhole record sheets of every manhole and lamp hole lifted, indicating depth, diameter, construction and condition of the manhole and all connecting pipework.
4. Explanatory Report and other relevant information if required.

conisbee

5. One copy of the colour CCTV footage from the survey preferably on CD-ROM in '.avi' or '.wmf' format.

5.3 Delivery Programme

Works are to be completed and copies of all relevant drawing / reports and documents are to be provided to Conisbee as detailed below within 14 days of the consultant's quote being accepted.

5.4 Breakdown of Quotation

Please complete the table below.

Consultant	Item	Unit Rate	No. Units Required	Amount
	CCTV Survey			
	Jetting Unit			
	Copy of report			
	Provision of Plans			
Grand Total				
	Disposal of solid waste in excess of 1 tonne.		PC Sum	

6.0 VERIFICATION

Verification activities including internal checking and reviews shall be performed and documented. Conisbee reserves the right to carry out spot checks on drawings and reports as we see fit and to reject work not in accordance with the Scope of Works.

7.0 HEALTH AND SAFETY

The consultant shall have a robust Health and Safety Policy conforming to the Water Industry's National Joint Health and Safety Committee's publications (issued from time to time) and in particular Guideline No. 2 "Safe Working in Sewers and at Sewerage Works". In addition, the consultant shall recognise all local, national and European health and safety requirements. The consultant will employ trained operatives with the necessary certification to safely carry out all tasks that may be required to complete this commission.

At least 48 hours before commencing any work the consultant shall submit a site specific Risk Assessment and Method Statement (RAMS) to the Conisbee project manager.

8.0 KEY INTERFACES

8.1 General

The key interfaces are listed below:

1. Conisbee Project Manager:
2. Highway Authority:
3. Water Authority: Thames Water
4. Site Manager / Key holder:

9.0 PAYMENT OF FEES

The payment of fees shall be on submission of an approved invoice based upon the original quotation and any agreed variation. Invoices will not be considered for payment until the results of the survey have been received and approved as in accordance with this brief.

The invoice will be submitted to our Client for payment and paid directly by them.

Appendix D

Cost Estimate

Appendix D1

Estimated Construction Cost

FEASIBILITY COST PLAN

for

TENTERDEN CINEMA FEASIBILITY

at

THE PEBBLES BUILDING

GREENWOOD PROJECTS LTD.
Chartered Quantity Surveyors
The Mount
2 Trent Valley Road
Lichfield, Staffordshire
WS13 6EG

APRIL 2020

BASIS OF COST PLAN

General notes

This is a feasibility stage cost plan for the formation of a 2 screen cinema at The Pebbles Building, High Street, Tenterden and the adjoining Millennium Garden.

Basis of cost plan

The estimate is based upon the following information.

Burrell, Foley Fischer Architects:

- SK0101-A1 – Existing Plans
- SK0102-A1 – Existing Elevations
- SK0103-A1 – Existing Sections
- SK0104-A3 – Existing Plans 1
- SK0105-A3 – Existing Plans 2
- SK0106-A3 – Existing Plans 3
- SK0107-A3 – Existing Elevations 1
- SK0108-A3 – Existing Elevations 2
- SK0109-A3 – Existing Sections 1
- SK0110-A3 – Existing Sections 2
- SK0111-A3 – Existing Sections 3
- SK0112.P1 – Existing Site Plan With Soft Landscaping
- SK0201-A1 – Proposed Plans
- SK0202-A1 – Proposed Sections
- SK0203-A3 – Proposed Plans 1
- SK0204-A3 – Proposed Plans 2
- SK0205-A3 – Proposed Plans 3
- SK0206-A3 – Proposed Plans 4
- SK0207-A3 – Proposed Sections 1
- SK0208-A3 – Proposed Sections 2
- SK0209-A3 – Proposed Sections 3
- SK0210-A3 – Proposed Sections 4
- SK0211.P1 – Proposed Site Plan With Soft Landscaping
- Building Feasibility Report (contains Consibee and SGA information also)

Cost levels

Costs are based upon 2nd Quarter 2020 and no allowances for inflation have been included.

VAT

VAT has been excluded from the estimate.

Exclusions

- Site abnormals (e.g. contamination, methane gas, service diversions not stated, poor ground conditions)
- Professional & Statutory Fees
- Legal fees and the like
- Local Authority fees and licenses.
- Highways costs
- Finance charges
- Employers insurances
- S106 agreements (Costs and contributions)
- Environment Agency Fees
- Party wall agreement costs
- Any survey work
- Destructive plantlife (Japanese Knotweed etc.)
- Any works outside of the site boundary
- Aspects of cinema fit-out and completion works (deemed by others)
- Provision of new substation (within allowance for electrical supply upgrade figure)
- VAT
- Possible effects of Covid-19 pandemic

Notes

The scope of the costs includes for the works as shown on the drawings but excludes much of the fit out / equipping element of the project which would be undertaken by the operator.

COST PLAN ONE - PEBBLES CINEMA, TENTERDEN

Client Name : Tenterden Town Council
Project Title : Pebbles Cinema Feasibility Study
Project Nr : L757

				TOTAL £
0.0	Facilitating Works / Demolitions and Alterations			52,610
1.0	Substructure			250,960
2.1	Frame			62,000
2.2	Upper Floors			73,255
2.3	Roof			89,855
2.4	Stairs			11,500
2.5	External Walls			116,025
2.6	Windows and External Doors			90,375
2.7	Internal Walls			48,450
2.8	Internal Doors			34,650
3.1	Wall Finishes			28,925
3.2	Floor Finishes			50,245
3.3	Ceiling Finishes			59,110
4.0	Fittings, Fixtures and Furnishings			2,500
5.1	Sanitaryware			21,950
5.2	Mechanical & Electrical			584,850
8.1	Site Works			83,980
8.6	Drainage			25,000
8.7	External Services			3,000
	Other Works as noted below:			
A	Acoustic wall panels - BY OTHERS			-
B	Cinema projection / screens / sound - BY OTHERS			-
C	Satellite dish installation - BY OTHERS			-
D	Cinema seats - BY OTHERS			-
E	Poster frames - BY OTHERS			-
F	Tills / EPOS - BY OTHERS			-
G	Ticket Machines - BY OTHERS			-
H	Cavity drain system to Basement complete			15,000
I	Catering Kitchen Installation complete - BY OTHERS			-
J	Upgrade water supply			10,000
K	Upgrade electricity supply			15,000
L	Upgrade connection to Fibre			7,500
M	Signage - BY OTHERS			-
N	Café / Bar equipment and fittings - BY OTHERS			-
O	Coffee Machine - BY OTHERS			-
P	Cellar / drinks installations - BY OTHERS			-
Q	Internal furniture - BY OTHERS			-
R	External furniture - BY OTHERS			-
		CONSTRUCTION SUB-TOTAL		**1,736,740**
9.0	Preliminaries @ 16%			277,878
			SUB-TOTAL	**2,014,618**
12.0	Contingency @ 10%			201,462
			COST PLAN TOTAL	**2,216,080**

				TOTAL £
	Further Costs			
	Ground investigation survey			8,000
	Arboriculturalists survey	**say**		2,500
	Timber & Damp and Infestation Surveys			1,500
	Dilapidation Survey	**say**		2,500
	CCTV survey of existing drainage			2,250
	Below ground services survey			1,500
	External noise survey	**say**		3,500

COST PLAN ONE - PEBBLES CINEMA, TENTERDEN

Client Name : Tenterden Town Council
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Project Nr : L757

GREENWOOD PROJECTS

DEMOLITION AND ALTERATIONS

	Description	Quantity	Unit	Rate	Total
A	Allowance for general stripping out of all fittings, fixtures, rubbish and items no longer required internally	1	Item	12,000	12,000.00
B	Allowance for general stripping out of all M&E installations no longer required	1	Item	2,500	2,500.00
C	Pull down rear single storey extension complete including breaking up all slabs and bases, removing ancillary shed and water tank and making good as necessary	1	Item	17,500	17,500.00
D	Removing all garden structures, paving, hard standings, edgings, trees, shrubs and vegetation complete to the proposed line / area of the new link and screen buildings; making good as necessary	1	Item	7,500	7,500.00
E	Extra over for protecting all features / trees that are to remain	1	Item	1,500	1,500.00
F	Take out existing door and frame at base of staircase complete; make good opening	1	Item	50	50.00
G	Enlarge opening between spaces G2 and G5 at GF level (from 1700 to 2000 clear)	1	Item	2,000	2,000.00
H	Form new single door opening in existing wall to serve Store G6	1	Item	750	750.00
I	Enlarge opening between spaces G5 and proposed space G11 at GF level (to 3400 clear)	1	Item	5,000	5,000.00
J	Pulling down partitioning at FF not required	17	m2	30	510.00
K	Blocking up doorway (to former room F5 / F6 / F7)	3	nr	650	1,950.00
L	Altering and adapting existing opening to F6 to form new double door access to proposed Male WC's	1	Item	750	750.00
M	Cutting 800 wide x full height opening in partitioning between existing rooms F6 & F7 to facilitate new layout	1	Item	600	600.00
				SUB-TOTAL	**52,610.00**

COST PLAN ONE - PEBBLES CINEMA, TENTERDEN

Client Name : Tenterden Town Council
Project Title : Pebbles Cinema Feasibility Study
Project Nr : L757

SUBSTRUCTURES

	Description	Quantity	Unit	Rate	Total
	Existing Basement				
A	Lift existing floor complete	40	m2	40	1,600.00
B	Cast new 150 thick floor slab	40	m2	200	8,000.00
C	Extra over for kerb to perimeter	32	m	100	3,200.00
	New Screens Building				
D	Excavate and dispose of material off site to form reduced level complete	625	m3	60	37,500.00
E	Extra over for additional excavation, disposal and backfilling to perimeter (as Consibee sections)	130	m3	85	11,050.00
F	Extra over for temporary works	1	Item	10,000	10,000.00
G	Form 400 thick waterproof RC slab complete	260	m2	300	78,000.00
H	Form 350 thick waterproof RC walls to perimeter of building, approx 2m high	76	m	520	39,520.00
I	Allowance for underpinning to adjacent building as indicated on Conisbee drawings	13	m	1,500	19,500.00
	Glazed Link				
J	Excavate and dispose of material off site to form reduced level complete (allowance for average 1m dig necessary)	54	m3	60	3,240.00
K	Form assumed 150 thick RC slab complete to walkway	54	m2	175	9,450.00
L	Extra over allowance for edge thickenings to support glazing	36	m	150	5,400.00
M	Extra over pad foundations for column positions as shown	11	nr	1,500	16,500.00
N	Allowance for underpinning to existing Pebbles building on junction with new link	8	m	1,000	8,000.00
				SUB-TOTAL	**250,960.00**

COST PLAN ONE - PEBBLES CINEMA, TENTERDEN

Client Name : Tenterden Town Council
Project Title : Pebbles Cinema Feasibility Study
Project Nr : L757

FRAME

	Description	Quantity	Unit	Rate	Total
	New Screens Building				
A	Allowance for steel frame to building	16	T	2,750	44,000.00
B	Extra over for connections / plates and the like	1	Item	5,000	5,000.00
	Glazed Link				
C	Allowance for structure to link	1	Item	10,000	10,000.00
D	Extra over for connections / plates and the like	1	Item	3,000	3,000.00
				SUB-TOTAL	**62,000.00**

COST PLAN ONE - PEBBLES CINEMA, TENTERDEN

Client Name : Tenterden Town Council
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Project Nr : L757

UPPER FLOORS

	Description	Quantity	Unit	Rate	Total
	Existing Building				
A	Allowance for strengthening works to GF as Consibee notes	1	Item	5,500	5,500.00
B	Extra over for board replacement - say 25%	20	m2	50	1,000.00
C	Allowance for strengthening works to FF as Consibee notes	1	Item	7,500	7,500.00
D	Extra over for board replacement - say 25%	20	m2	50	1,000.00
E	Allowance for strengthening works to SF as Consibee notes	1	Item	4,500	4,500.00
F	Extra over for board replacement - say 25%	20	m2	50	1,000.00
	New Screens Building				
G	Concrete beam and block upper floor to form Plant Room G24	27	m2	65	1,755.00
H	Softwood / plywood tiered seating to Screens 1 & 2	136	m2	375	51,000.00
				SUB-TOTAL	**73,255.00**

COST PLAN ONE - PEBBLES CINEMA, TENTERDEN

Client Name : Tenterden Town Council
Project Title : Pebbles Cinema Feasibility Study
Project Nr : L757

ROOF

	Description	Quantity	Unit	Rate	Total
	Existing Building				
A	Allowance for repairs to structure and fabric as necessary	1	Item	5,000	5,000.00
B	Allowance for repairs / adaptations and the like to existing rainwater goods	1	Item	5,000	5,000.00
	New Screens Building				
C	Profiled metal deck roof, insulation and green roof topping complete	260	m2	195	50,700.00
D	Allowance for rainwater goods as required to deal with drainage of excess rainwater	1	Item	7,500	7,500.00
	Glazed Link				
E	Zinc standing seam roof, plywood, supplementary structure and insulation complete	73	m2	235	17,155.00
F	Allowance for rainwater goods	1	Item	4,500	4,500.00
				SUB-TOTAL	**89,855.00**

COST PLAN ONE - PEBBLES CINEMA, TENTERDEN

Client Name : Tenterden Town Council
Project Title : Pebbles Cinema Feasibility Study
Project Nr : L757

GREENWOOD PROJECTS

STAIRS

	Description	Quantity	Unit	Rate	Total
	Existing Building				
A	Allowance for works to existing staircases, handrailing and balustrades from Basement through to Second Floor as necessary	1	Item	3,000	3,000.00
	New Screens Building				
B	External metal staircase and balustrading complete to access Palnt Room G24	1	Item	5,000	5,000.00
C	Steps from fire exit to Screen 1	1	Item	3,500	3,500.00
				SUB-TOTAL	**11,500.00**

COST PLAN ONE - PEBBLES CINEMA, TENTERDEN

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Project Nr : L757

GREENWOOD PROJECTS

EXTERNAL WALLS

	Description	Quantity	Unit	Rate	Total
	Existing Building				
A	Allowance for repairs as necessary to existing external walls	1	Item	10,000	10,000.00
	New Screens Building				
B	Masonry outer walls complete	315	m2	185	58,275.00
C	Extra over allowance for lintels	1	Item	500	500.00
D	Acoustic inner lining to outer walls complete	315	m2	150	47,250.00
				SUB-TOTAL	**116,025.00**

COST PLAN ONE - PEBBLES CINEMA, TENTERDEN

Client Name : Tenterden Town Council
Project Title : Pebbles Cinema Feasibility Study
Project Nr : L757

GREENWOOD PROJECTS

WINDOWS & EXTERNAL DOORS

	Description	Quantity	Unit	Rate	Total
	Existing Building				
A	Allowance for repairs and redecoration to existing windows throughout the building complete	1	Item	15,000	15,000.00
B	Allowance for repairs, new ironmongery and redecoration of existing external doors to front elevation	2	nr	1,000	2,000.00
C	Infill to former door opening at base of stairs to include ventialtion louvre (from Basement ventilation) and solif infill panel	1	nr	1,500	1,500.00
	New Screens Building				
D	Single door, frame and ironmongery (Fire Escape from Screen 1 / Door to Plant Room)	2	nr	1,200	2,400.00
	Glazed Link				
E	Glazed curtain walling to Glazed Link complete	97	m2	675	65,475.00
F	Extra over for single door	2	nr	1,000	2,000.00
G	Extra over for double door	1	nr	2,000	2,000.00
				SUB-TOTAL	**90,375.00**

COST PLAN ONE - PEBBLES CINEMA, TENTERDEN

Client Name : Tenterden Town Council
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Project Nr : L757

GREENWOOD PROJECTS

INTERNAL WALLS

	Description	Quantity	Unit	Rate	Total
	Existing Building				
A	Stud partitioning at GF to form Stores / Hoist / Cleaners / WC's	34	m2	85	2,890.00
B	Stud partitioning at FF to form Male WC layout / Female WC layout / Hoist	19	m2	85	1,615.00
C	Stud partitioning at SF to form Boiler Room / Server Room layouts	11	m2	85	935.00
	New Screens Building				
D	Stud partitioning to form Store & WC	11	m2	85	935.00
E	Stud partitioning to form Light & Sound Lobbies G19 to Screens 1 & 2	9	m2	175	1,575.00
F	Stud partitioning to form main internal walls to Screens 1 & 2 (including formation of Plant Room G24)	135	m2	300	40,500.00
				SUB-TOTAL	**48,450.00**

COST PLAN ONE - PEBBLES CINEMA, TENTERDEN

Client Name : Tenterden Town Council
Project Title : Pebbles Cinema Feasibility Study
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GREENWOOD PROJECTS

INTERNAL DOORS

	Description	Quantity	Unit	Rate	Total
	Existing Building				
A	Refurbish existing single doors complete at GF (Basement Access)	1	nr	500	500.00
B	New single doors, frames & ironmongery complete at GF (Store G6 / WC G8 / Store G9 / WC G10)	4	nr	950	3,800.00
C	Single door, frame, glazed sidelights and ironmongery complete at GF (Inner Lobby to external access via steps only)	1	nr	1,750	1,750.00
D	Refurbish existing single doors complete at FF (Ladies WC F2 / Drinks Store F3 / Kitchen F5 / Kitchen Store F6)	4	nr	500	2,000.00
E	New single doors, frames & ironmongery complete at FF (Gents WC outer lobby / Gents WC cubicle (1 nr) / Ladies WC cubicles (2 nr) / Kitchen Lobby)	5	nr	950	4,750.00
F	New double doors, frames & ironmongery complete at FF (Gents WC inner lobby)	1	nr	1,200	1,200.00
G	Refurbish existing single doors complete at SF (Office S1 / Office S2 / Plant Room Lobby / Staff Room S5 / Stores (2nr))	6	nr	500	3,000.00
H	New single doors, frames & ironmongery complete at SF (Plant Room S3 / Server Room S4 / Staff Room WC lobby / Staff WC's & Shower (3nr))	6	nr	750	4,500.00
	New Screens Building				
J	Single doors, frames & ironmongery complete (Store G9 / WC G8)	2	nr	950	1,900.00
K	Screen inner and outer doors & Screen 1 escape door complete	5	nr	2,250	11,250.00
				SUB-TOTAL	**34,650.00**

COST PLAN ONE - PEBBLES CINEMA, TENTERDEN

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GREENWOOD PROJECTS

WALL FINISHES

	Description	Quantity	Unit	Rate	Total
	Existing Building				
	Basement				
A	Allowance for making good / sealing existing fair faced brickwork finishes to Basement Bar	60	m2	40	2,400.00
	Ground Floor				
B	Allowance for making good existing finishes to Entrance / Foyer / Café / Stores	166	m2	25	4,150.00
C	Allowance for tiling to WC's	32	m2	75	2,400.00
	First Floor				
D	Allowance for tiling to Gents WC's	39	m2	75	2,925.00
E	Allowance for making good existing finishes to circulation / Ladies WC / Kitchen Lobby / Drinks Store	158	m2	25	3,950.00
F	Allowance for hygienic linings to Kitchen / Kitchen Store	89	m2	60	5,340.00
	Second Floor				
G	Allowance for making good existing finishes to Offices / Circulation / Server Room / Boiler Room / Staff Room	204	m2	25	5,100.00
H	Allowance for tiling to Staff WC's / Shower	32	m2	55	1,760.00
	New Screens Building				
	Left as plastered finish (incl in external and internal walls)				
I	Allowance for tiling to WC	12	m2	75	900.00
				SUB-TOTAL	**28,925.00**

COST PLAN ONE - PEBBLES CINEMA, TENTERDEN

Client Name : Tenterden Town Council
Project Title : Pebbles Cinema Feasibility Study
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FLOOR FINISHES

	Description	Quantity	Unit	Rate	Total
	Existing Building				
	Generally				
A	Allowance for finishes and nosings to staircase from Basement to Second Floor	1	Item	3,500	3,500.00
B	Allowance for skirtings	1	Item	3,000	3,000.00
	Basement				
C	Allowance for brick paver floor to Basement Bar	41	m2	85	3,485.00
	Ground Floor				
D	Allowance for sanding and sealing existing floor to Entrance / Foyer / Cafe	64	m2	35	2,240.00
E	Extra over for Entrance Matting	5	m2	350	1,750.00
F	Allowance for vinyl finishes to Stores	3	m2	45	135.00
G	Allowance for tiling to WC's	5	m2	80	400.00
	First Floor				
H	Allowance for porcelain tiling to Gents WC's	7	m2	80	560.00
I	Allowance for sanding and sealing existing floor to Ladies WC's	14	m2	35	490.00
J	Allowance for finishes to Circulation	12	m2	55	660.00
K	Allowance for sheet vinyl finishes to Kitchen Lobby / Drinks Store / Kitchen / Kitchen Store	63	m2	45	2,835.00
	Second Floor				
L	Allowance for sheet vinyl finishes finishes to Offices / Circulation	44	m2	45	1,980.00
M	Allowance for sheet vinyl finishes finishes to Server Room / Boiler Room / Staff Room	41	m2	45	1,845.00
N	Allowance for tiling to Staff WC / Shower	10	m2	80	800.00

	New Screens Building				
	Finishes to Screens / Lobbies / Circulation by Others				
A	Acoustically isolated floating floor to slab in screens	183	m2	100	18,300.00
B	Allowance for finishes to Store / Plant Room	29	m2	45	1,305.00
C	Allowance for tiling to WC	3	m2	80	240.00
D	Allowance for skirtings	115	m	20	2,300.00
	Glazed Link				
E	Allowance for brick paved finish to Glazed Link	52	m2	85	4,420.00
				SUB-TOTAL	**50,245.00**

COST PLAN ONE - PEBBLES CINEMA, TENTERDEN

Client Name : Tenterden Town Council
Project Title : Pebbles Cinema Feasibility Study
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GREENWOOD PROJECTS

CEILING FINISHES

	Description	Quantity	Unit	Rate	Total
	Existing Building				
	Basement				
A	FR plasterboard ceiling to Basement Bar	41	m2	55	2,255.00
B	Extra over for Class O treatment of exposed beams	1	Item	3,500	3,500.00
	Ground Floor				
C	Allowance for retaining existing ceilings, repairing and leaving it ready to receive decoration to Entrance / Foyer / Café / Stores including decoration	72	m2	65	4,680.00
D	Extra over for upgrading of ceilings for fire resistance as required	72	m2	40	2,880.00
	First Floor				
E	Allowance for retaining existing ceilings, repairing and leaving it ready to receive decoration to Circulation / Kitchen Lobby / Drinks Store / Kitchen Store including decoration	65	m2	25	1,625.00
F	Extra over for upgrading of ceilings for fire resistance as required	65	m2	40	2,600.00
G	Hygienic concealed grid suspended ceiling to Kitchen	31	m2	60	1,860.00
H	Extra over for upgrading of ceiling over for fire resistance as required	31	m2	40	1,240.00
	Second Floor				
J	Allowance for retaining existing ceilings, repairing and leaving it ready to receive decoration	95	m2	25	2,375.00
K	Extra over for upgrading of ceilings for fire resistance as required	95	m2	40	3,800.00

	New Screens Building				
A	Allowance for MF suspended ceiling to Circulation / WC including decoration	19	m2	55	1,045.00
B	Soundbloc suspended acoustic ceiling on resilient hangers to Screens / Lobbies	191	m2	95	18,145.00
C	Matt black Ecophon suspended concealed grid ceiling to Screens / Lobbies	191	m2	55	10,505.00
	Glazed Link				
D	Allowance for plasterboard ceiling to Glazed Link including decoration	52	m2	50	2,600.00
				SUB-TOTAL	**59,110.00**

COST PLAN ONE - PEBBLES CINEMA, TENTERDEN

Client Name : Tenterden Town Council
Project Title : Pebbles Cinema Feasibility Study
Project Nr : L757

GREENWOOD PROJECTS

FIXTURES, FITTINGS & FURNISHINGS

	Description	Quantity	Unit	Rate	Total
	All fixtures and fittings by others unless noted below				
A	Restoring feature fireplace to Café Bar at GF (non-working)	1	Item	2,500	2,500.00
				SUB-TOTAL	**2,500.00**

COST PLAN ONE - PEBBLES CINEMA, TENTERDEN

Client Name : Tenterden Town Council
Project Title : Pebbles Cinema Feasibility Study
Project Nr : L757

GREENWOOD PROJECTS

SANITARYWARE

	Description	Quantity	Unit	Rate	Total
	Provide and install the following				
A	BTW WC complete	6	nr	650	3,900.00
B	Wall mounted basin and taps complete	4	nr	650	2,600.00
C	Single urinal installation complete including cistern and pipes	1	nr	1,000	1,000.00
D	Vanity unit complete including 2nr vanity basins and taps	2	nr	3,000	6,000.00
E	Doc M pack complete	2	nr	2,000	4,000.00
F	Cleaners sink installation complete including taps	2	nr	750	1,500.00
G	Staff shower installation complete	1	nr	1,750	1,750.00
H	Baby change unit complete	2	nr	600	1,200.00
I	Mirrors / WC roll holders / hooks and the like - by others				
				SUB-TOTAL	**21,950.00**

COST PLAN ONE - PEBBLES CINEMA, TENTERDEN

Client Name : Tenterden Town Council
Project Title : Pebbles Cinema Feasibility Study
Project Nr : L757

MECHANICAL & ELECTRICAL INSTALLATIONS

	Description	Quantity	Unit	Rate	Total
	Mechanical Installation				
A	Design / Specific Prelims etc.	1	Item	15,000	15,000.00
B	Ground Source Heat Pump installation complete	1	Item	55,000	55,000.00
C	Air Handling Units (3nr) to serve screens and basement bar including all ducting and the like	1	Item	70,000	70,000.00
D	LTHW gas fired boiler and heating system to suit existing building	1	Item	15,000	15,000.00
E	Cold water installations complete	1	Item	10,000	10,000.00
F	Hot water installations complete	1	Item	12,000	12,000.00
G	Above ground drainage installations	1	Item	6,000	6,000.00
H	Underfloor heating installation to Glazed Link	1	Item	7,000	7,000.00
I	WC extract ventilation installation	1	Item	17,500	17,500.00
J	Catering ventilation connection point (Hoods / ductwork etc. by others)	1	Item	3,500	3,500.00
K	Food Hoist installation complete	1	Item	15,000	15,000.00
L	Gas installations	1	Item	5,000	5,000.00
M	Controls	1	Item	20,000	20,000.00
N	Thermal insulation	1	Item	5,000	5,000.00
O	Testing / comissioning	1	Item	10,000	10,000.00
	Electrical Installation				
P	Design / Specific Prelims	1	Item	15,000	15,000.00
Q	Mains and sub-mains distribution	1	Item	20,000	20,000.00
R	Small power	1	Item	35,000	35,000.00
S	Catering power (to DB only - Distribution and second fix by others)	1	Item	3,000	3,000.00

	Electrical Installation / cont'd				
A	Mechanical power	1	Item	15,000	15,000.00
B	LED lighting installations (functional & general only; feature fittings by others)	1	Item	60,000	60,000.00
C	LED emergency lighting installations	1	Item	20,000	20,000.00
D	External lighting installations	1	Item	20,000	20,000.00
E	Data / limited FO installations	1	Item	20,000	20,000.00
F	Disabled alarm installations	1	Item	3,000	3,000.00
G	Induction loop installation	1	Item	3,000	3,000.00
H	Specialist screen cabling provision, installation and termination	1	Item	25,000	25,000.00
I	Cable link for satellite dish (dish by others)	1	Item	5,000	5,000.00
J	Audio / AV installations (generally - excludes screens) - By others	1	Item	-	-
K	CCTV installations (to be developed with input from Client and Operator)	1	Item	3,500	3,500.00
L	Security alarm installation (to be developed with input from Client and Operator)	1	Item	3,000	3,000.00
M	Fire alarm installation	1	Item	18,000	18,000.00
N	PV installation	1	Item	17,500	17,500.00
O	Testing / comissioning	1	Item	5,000	5,000.00
	Builders Works In Connection with M&E Installations				
P	Allowance for builders works in connection with M&E installations @5% of M&E costs	1	Item	27,850	27,850.00
				SUB-TOTAL	**584,850.00**

COST PLAN ONE - PEBBLES CINEMA, TENTERDEN

Client Name : Tenterden Town Council
Project Title : Pebbles Cinema Feasibility Study
Project Nr : L757

GREENWOOD PROJECTS

SITE WORKS

	Description	Quantity	Unit	Rate	Total
	Forecourt				
A	Removal of Tenterden signage within proposed forecourt (repositioning assumed by others)	1	Item	250	250.00
B	Take out existing front entrance steps and baluastrading complete	1	Item	500	500.00
C	Construct new ramp and steps to front entrance complete	1	Item	15,000	15,000.00
D	Retain and make good existing steps and balustrading to secondary entrance	1	Item	1,000	1,000.00
E	Clean off and make good existing pavers to forecourt	42	m2	35	1,470.00
F	Railings / balustrading to provide separation to adjacent forecourt and pavement line	10	m	450	4,500.00
	Side Access				
G	Clean off and make good existing pavers to side access	16	m2	35	560.00
H	Allowance for brickwork / soffit repairs as necessary to side access	1	Item	2,500	2,500.00
I	Make good double access doors including adaptation for emergency exit purpose	1	Item	2,000	2,000.00
	Rear Courtyard				
J	Pavings to form rear courtyard, around Screens building and to form paths to rear of garden	200	m2	125	25,000.00
K	Making good to existing boundary walls as necessary	1	Item	10,000	10,000.00
L	Soft landscaping to form central tree feature	1	Item	2,500	2,500.00
M	Soft landscaping between Glazed Link and adjacent building	1	Item	1,200	1,200.00
N	Fixed booth benches adjacent screen building - By others	2	nr	-	-
O	Allowance for planting	1	Item	7,500	7,500.00
P	Cycle rack to rear of Screens building - By others	1	Item	-	-

	Millenium Garden				
A	Allowance for making good to Millenium Garden following completion of works including relocated planting	1	Item	10,000	10,000.00
				SUB-TOTAL	**83,980.00**

COST PLAN ONE - PEBBLES CINEMA, TENTERDEN

Client Name : Tenterden Town Council
Project Title : Pebbles Cinema Feasibility Study
Project Nr : L757

DRAINAGE

	Description	Quantity	Unit	Rate	Total
A	Allowance for repairs to existing drainage as necessary (scope unknown)	1	Item	5,000	5,000.00
B	Allowance for installation of new drainage complete	1	Item	20,000	20,000.00
				SUB-TOTAL	**25,000.00**

COST PLAN ONE - PEBBLES CINEMA, TENTERDEN

Client Name : Tenterden Town Council
Project Title : Pebbles Cinema Feasibility Study
Project Nr : L757

EXTERNAL SERVICES

	Description	Quantity	Unit	Rate	Total
A	Allowance for works as necessary to facilitate new and altered external services installations (scope unknown)	1	Item	3,000	3,000.00
				SUB-TOTAL	**3,000.00**

Appendix D2

Estimated Total Project Cost

BURRELL | FOLEY | FISCHER
ARCHITECTS AND URBAN DESIGNERS

The Pebbles Cinema 27 April 2020

Estimated Total Project Cost (Core Scheme excluding cost of operator fit out and low carbon options which are reported separately)

	Budget Head	Estimated cost £	To summary £
1	**Construction Cost**	2,216,080	2,216,080
2	**Surveys and Investigations**		
a	Ground investigation including foundations of adjacent structures	8,000.00	
b	Arboriculturalist survey	2,500.00	
c	Structural investigations of the existing building provided by a timber specialist for damp and fungal/beetle infestation	1,500.00	
d	Dilapidation survey	2,500.00	
e	CCTV survey of existing drains	2,250.00	
f	Below ground services survey	1,500.00	
g	External noise survey	3,500.00	
	Total	21,750.00	21,750.00
3	**Professional fees**		
	Project Manager Principal Designer Architect with cinema and conservation expertise Structural Engineer Services Engineer Acoustic Consultants Quantity Surveyor		
	Estimated fee for team of 18% of 1. Construction cost	398,894	398,894
4	**Archaeological works**		
a	Further archaeological assessment (scope to be agreed with the statutory authorities)	TBC	
b	Archaeological watching brief	TBC	
	Total		
5	**Ecological report (scope to be agreed with ABC)**	TBC	
6	**Transport report if required**	TBC	
7	**Statutory fees**		
a	Fee for application for Full Planning Permission (note no fee is payable for an application for Listed Building Consent)	TBC	
b	Fee for Plan Approval under the Building Regulations and Inspection fee under the Building Regulations	TBC	
	Total		
8	**Highways costs**	Excl	
9	**Employers insurances**	Excl	
10	**S106 Agreements**	Excl	
11	**Party Wall agreements costs**	Excl	
12	**Legal fees**	Excl	
13	**Non recoverable VAT**	Excl	
14	**Financing costs**	Excl	
	TOTAL	2,636,724	2,636,724

Carried forward from P1	2,636,724	2,636,724

Costs it is assumed will form part of the operator fit out

	Budget Head	Estimated cost £	To summary £
1	**Cinema technical**		
a	Supply and installation of screens	15,000*1	
b	Supply and installation of sound system	40,000*2	
c	Supply and installation of projectors and projector pods	130,000*3	
d	Supply and installation of satellite disc	5,000	
e	Supply of cinema seats	39,500	
	Total	229,500	229,500
2	**Floor finishes**		
a	Carpets to cinema screens and their lobbies	17,500	17,500
3	**Wall finishes**		
a	Acoustic wall panels to cinema screens	30,000	
b	Decorations generally	15,000	
	Total	45,000	45,000
4	**Ceiling finishes**		
a	Decorations generally (Note the acoustic tiles in the new screens and metal suspended ceiling in the catering kitchen are included in the Construction Cost)	5,000	5,000
5	**Catering kitchen**		
a	Fit out of finished shell with capped off services	30,000*4	30,000
6	**Sales point**		
	Fit out of counters and equipment and final connections to capped off services	30,000	30,000
7	**Furniture**		
a	Any fitted furniture e.g. banquette seats	5,000	
b	Any loose furniture and fittings to internal and external areas	30,000	
	Total	35,000	35,000
8	**Second fix services**		
a	Feature lighting	5,000	
b	ICT	5,000*5	
	Total	10,000	10,000
9	**Toilet accessories**	5,000*6	5,000
10	**Signage and display**	10,000*7	10,000
11	**Ticket sales system**	10,000	10,000
	TOTAL	3,063,724	3,063,724

Enhancements to the core scheme

	Budget Head	Estimated cost £	
1	**Low carbon measures** (Refer to QS Report in Section 9.0)		

*1 Assumes floating screen with no moveable masking
*2 Dolby 7.1 systems in both screens. Hearing loop systems
*3 2 x RGB laser projectors + 2 x ArtTech or Omnex pods + 2 x servers + 2 x accessories
*4 Basic steel shelves, benches, whb, etc. No appliances
*5 3 x PCs, 1 x colour laser scanner/printer, 1 x b/w laser printer
*6 Includes hand driers
*7 4-5 Large screen video displays

Appendix E

Appendices to Cinema Business Consultant's Report

Appendix 1 – Draft operating budget

PROJECTED ATTENDANCE			
	Seats	Capacity/Week	Annual Admissions
Screen 1	102	9.00	48,000
Screen 2	56	9.25	27,000
Total	158		75,000

PROJECTED PRICING			
	£ Inc VAT	**£ Exc VAT**	% of Sales
Adult Peak	13.00	10.83	30%
Adult Off-peak	11.00	9.17	20%
Children	9.00	7.50	15%
Senior/Student	10.00	8.33	25%
Family (ave. per person)	10.00	8.33	5%
Kids Cinema Club	5.00	4.17	5%
Cinema screenings			100%
Ave Ticket Price	**10.70**	**8.92**	
Ave Concession & Café Bar Sales	4.50	3.75	
Event Cinema Performances			
Ave Cinema Ticket Price	17.50	14.58	
Ave Concession & Café Bar Sales	6.50	5.42	

TOTAL INCOME			Ex-VAT
Box Office Income - Film			601,875
Box Office Income - Event Cinema			109,375
Screen Advertising	3.5% of ticket income		24,894
Booking Fee Income	No charge for online booking		0
Concession & Café Bar sales - Film			253,125
Concession & Café Bar sales - Event			40,625
Room hires & catering			15,000
Sundry Revenue inc Membership & Hires			10,000
		Total Income	**1,054,894**

VARIABLE COSTS			Ex-VAT
Film booking services			0
PRS / PPL	1%	of Box Office	7,113
Marketing (Print, Online, Ticketing)	5%	of Box Office	35,563
Online ticketing (per ticket fee)	£0.30		18,750
Training			2,000
Film Hire	50%		300,938
Film Hire - Event Cinema	50%		54,688
Film Delivery	1.5%	of Film Hire	4,514
Concession & Café Bar stock	32%		94,000
		Total Variable Costs	**517,564**

PAYROLL COSTS			Ex-VAT
Management fee			25,000
Salary - Staff			175,000
NI, SSP, SMP, Holiday, Pension	15%		26,250
Payroll contingency allowance	5%		10,063
		Total Payroll Costs	**236,313**

TOTAL OVERHEADS		Ex-VAT
Rent		50,000
Business & Water Rates		30,000
Contract cleaning & Cleaning materials		5,000
Heat & Light		20,000
Broadband, IT, Telephone		15,000
Contract Services (projection service, IT, compliance, M&E service, etc)		25,000
Repairs & Renewals (inc maintenance supplies)		15,000
Insurance		10,000
Bank Interest, Costs, Audit & Accountancy		7,500
Consumables and Disposables	Toilet supplies, printing, stationery etc	10,000
Legal & Professional (HR, legal fees, etc)		5,000
General Expenses, Uniforms, Trav Licences, Subscriptions		10,000
	Total Overheads	**202,500**

Trading Profit	**98,517**
Profit/Turnover %	9.3%

Appendix F

Concept plans prepared for Public Consultation

Concept Plans

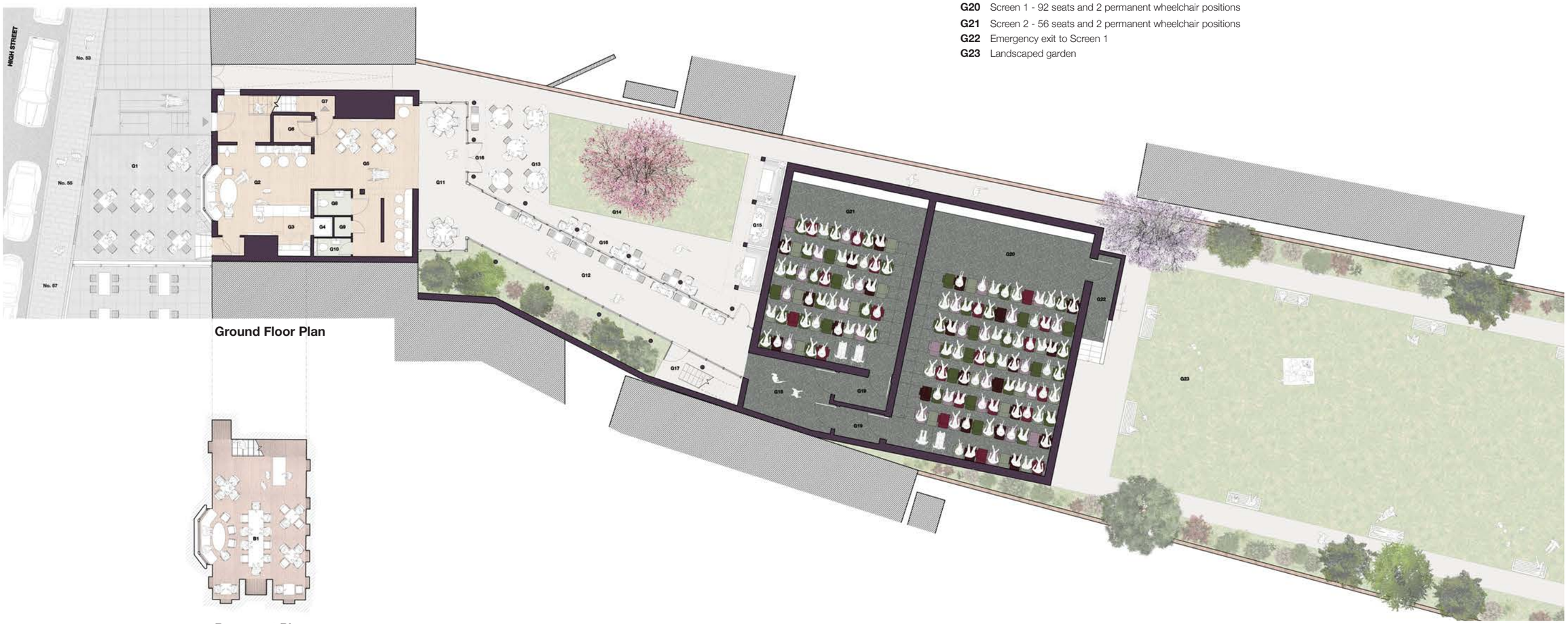
First Floor Plan

Second Floor Plan

Key

G1	Forecourt
G2	Entrance foyer and cafe bar
G3	Sales counter for tickets, food and drink
G4	Goods hoist
G5	Cafe bar
G6	Store
G7	Access to basement bar
G8	Unisex disabled toilet with baby change
G9	Cleaner's store
G10	Unisex toilet
G11	Glazed extension to cafe bar
G12	Glazed link to the cinema screens with cafe tables
G13	Terrace
G14	Courtyard garden
G15	Pergola with benches and tables
G16	Pergola to provide sun screening
G17	Access to plantroom
G18	Air handling unit to Screens above lobbies
G19	Light and sound lobbies
G20	Screen 1 - 92 seats and 2 permanent wheelchair positions
G21	Screen 2 - 56 seats and 2 permanent wheelchair positions
G22	Emergency exit to Screen 1
G23	Landscaped garden

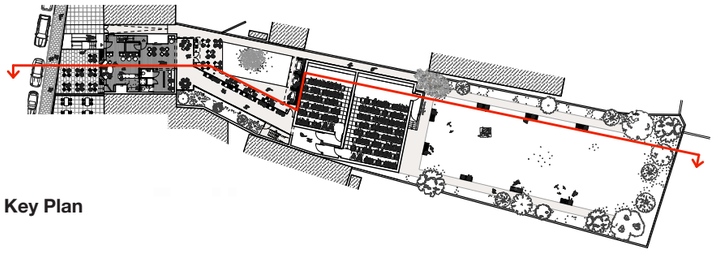
B1	Basement bar
F1	Gentlemen's toilets
F2	Ladies toilets
F3	Drinks store
F4	Goods hoist
F5	Catering kitchen
F6	Kitchen store
S1	Main office/meeting room
S2	Office
S3	Boiler room
S4	Server room
S5	Staff welfare
S6	Staff toilets
S7	Staff shower
S8	Cleaner's store
S9	Store



Ground Floor Plan

Basement Plan

Concept Section



Key Plan

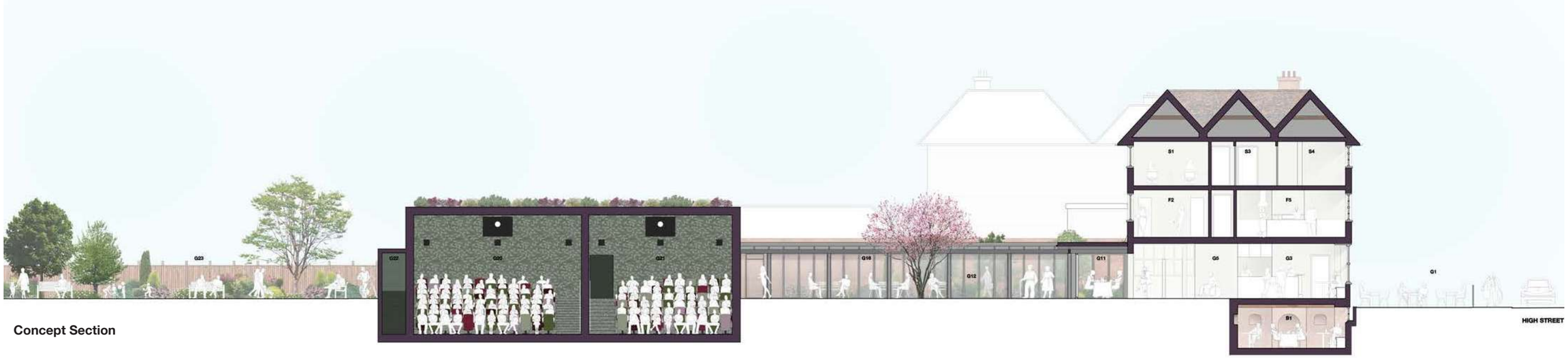
Key

G1 Forecourt
G3 Sales counter for tickets, food and drink
G5 Cafe bar
G11 Glazed extension to cafe bar
G12 Glazed link to the cinema screens with cafe tables
G16 Pergola to provide sun screening
G20 Screen 1 - 92 seats and 2 permanent wheelchair positions
G21 Screen 2 - 56 seats and 2 permanent wheelchair positions
G22 Emergency exit to Screen 1
G23 Landscaped garden

B1 Basement bar

F2 Ladies toilets
F5 Catering kitchen

S1 Main office/meeting room
S3 Boiler room
S4 Server room



Concept Section

Scale Bar 0 1 2 3 4 5m

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