

AMY DICKSON

FIRST CLASS BSc(Hons)

ARCHITECTURAL TECHNOLOGY

GRADUATE

PORTFOLIO



ABOUT ME



Currently a First Class Honours Graduate at Edinburgh Napier University in BSc(Hons) Architectural Technology seeking new opportunities within industry.

With a keen and active background in the Built Environment with my current roles within the sector and my experience over the last five years I have been involved in many projects and work experiences. Beginning in 2014 I studied a HND at college in Architectural Technology until 2016, graduating with a B.

Progressing on I undertook a year in industry with a large architectural firm, HTA LLP, as a Project Assistant until September 2017 when I returned to education, equipped with my new experiences and values, I began my second year at Edinburgh Napier University as a student studying Architectural Technologist.

During my time at university I have been involved as a student assistant, teaching assistant, a student mentor as part of the Widening Participation Team within Edinburgh Napier University and since early 2019 a research fellow as part of the Edinburgh Napier University Built Environment team and more recently the Events lead for the newly founded Architectural Technology Society in my final year.

I have a keen interest in accuracy to detail, retrofit, U-Value and Energy calculations and regulations. I am currently looking for any opportunities to allow me to use my new degree and continue my learning whilst gaining new knowledge and continuing to grow.

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SKILLS AND ATTRIBUTES



RESEARCH PAPER - Most recent building I assisted on near Aberdeen

The image shows the Edinburgh Napier University logo, which consists of a red triangle containing the letters 'AT @ ENU'. Below the logo is the university's name 'Edinburgh Napier UNIVERSITY' and a horizontal line. Underneath the line is the text 'EVENTS MANIFESTO' and 'Spring 2020'.

AT SOCIETY- Events Manifesto



HTA LLP - Greenford Green Block 5

Throughout my working career and my time at university I have worked on a wide variety of projects including: Domestic, Non-Domestic, Commercial and Retrofit including Technical details, Layouts, Conceptual Designs, Final Designs, Material Choices, U-Value checks, alignment alongside Technical Scottish Building Standards and Material Retrofit.

During my time at HTA LLP I worked on a number of Domestic and Non-Domestic projects. My biggest project I worked on whilst working as a Project Assistant was on the BIM Level 2/Revit model for Greenford Green, Greystar in Ealing. A new mixed-use neighbourhood featuring over 1900 new homes, shops, cafés and accommodation for a new primary school and health centre. My role was primarily on Block 5, a block of apartments within the site. HTA LLP was awarded AJ100: Business Breakthrough of the Year during the development of this project.

Whilst at University I took on a number of other roles and jobs alongside being a student. Throughout my time at University I have always been heavily involved in mentoring through the Widening Participation team within the university mentoring and assisting students coming from college direct entry into University, just like I did. And in my fourth year I began assisting in lectures and tutorials with third year Architectural Technology students helping students with any questions and queries and later marking their work and presentations in their final stages. I gained a lot from these roles I undertook. I worked with a lot of different people and I made a lot of connections gaining not only educationally but personally in myself.

A job I largely worked on over the last year was part of Edinburgh Napier's Built Environment Research team investigating pre and post installation of EPS Beading retrofit into the cavity of pre-1919 buildings. I would visit homes to set up equipment and take measures and values, returning two weeks post installation and taking results. With this role I utilised my people skills meeting home owners and those involved with the scheme, using the appropriate equipment, working with a company using AutoCAD drawings for air tightness testing and finally creating a literature review for the housing association with results, research, evidence and graphs.

Later into my last few months at University, alongside other students and the programme lead, an Architectural Technology society was founded in order to provide a group and community for all those within the programme currently and those to join in the future. I put myself forward for the Events Lead within the society where myself and small team of us would run and organise events including CPD's, industry talks and workshops for students on topics they would like to further their knowledge on.

WORK & PROJECTS

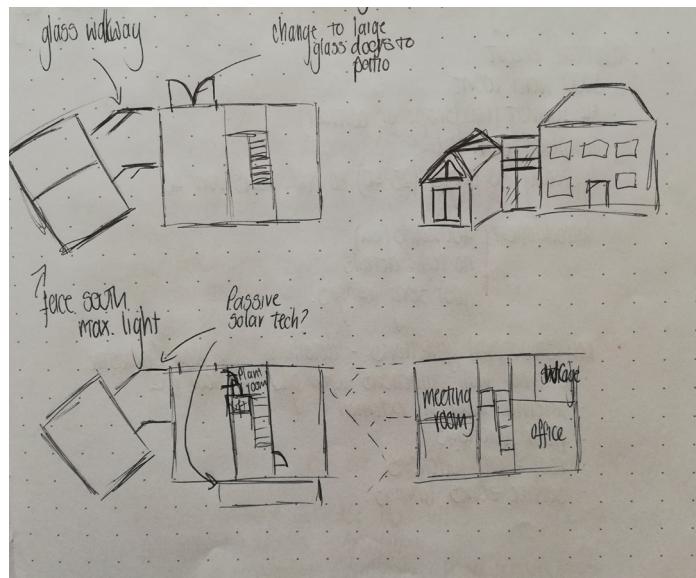


CONCEPT DESIGNS
FINAL DESIGNS
TECHNICAL DETAILS
TECHNICAL REPORTS
VISUALISATIONS

CONCEPT DESIGNS

This section covers all of my most recent projects whilst at University highlighting my progression from Project Brief to an initial Concept Design and so on.

Some of my concept designs I have chosen to highlight have been carried out through hand-drawn sketches, Revit models and AutoCAD drawings.



ARCHITECTURAL TECHNOLOGY 4

4th Year **Retrofit Farmhouse**

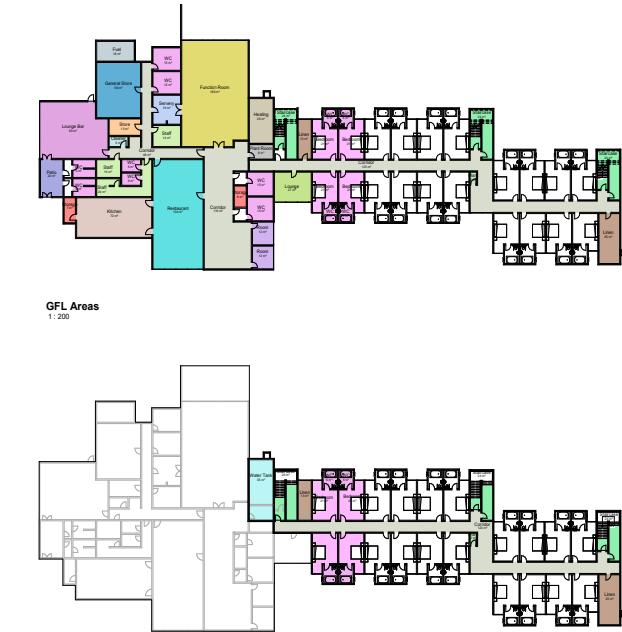
This project was a culmination of the design elements of my trimester 1 of my final year in 'Project Evaluation' and my overall programme. This project was to provide a Non-Domestic solution encompassing retrofit and sustainable approaches where possible and provide technical solutions aligned to the Technical Standards Non-Domestic as of December 2019.



ARCHITECTURAL TECHNOLOGY 4

4th Year **Apartment Complex**

This project was a culmination of the design elements of my trimester 1 of my final year in 'Project Evaluation' and my overall programme. This project was to provide a Domestic solution encompassing off-site approaches where possible and provide technical solutions aligned to the Technical Standards Domestic as of December 2019.



ARCHITECTURAL PRACTICE AND MANAGEMENT

4th Year

For this project the brief was to assume the role of a Technical Director responsible for design and project management for my practice. The project was a five star boutique hotel in Edinburgh. I was to prepare a report to a Board of Directors and an outline bid including recommendations, costings and research and evidence, alongside the report a full redesign of the previously proposed hotel design was to be completed.

This section covers all of my most recent projects whilst at University highlighting my progression from Concept Design to the Final Design.

Some of my final designs I have chosen to highlight have been carried out through Revit and AutoCAD with Elevation visualisations optimising Adobe Photoshop.

FINAL DESIGNS

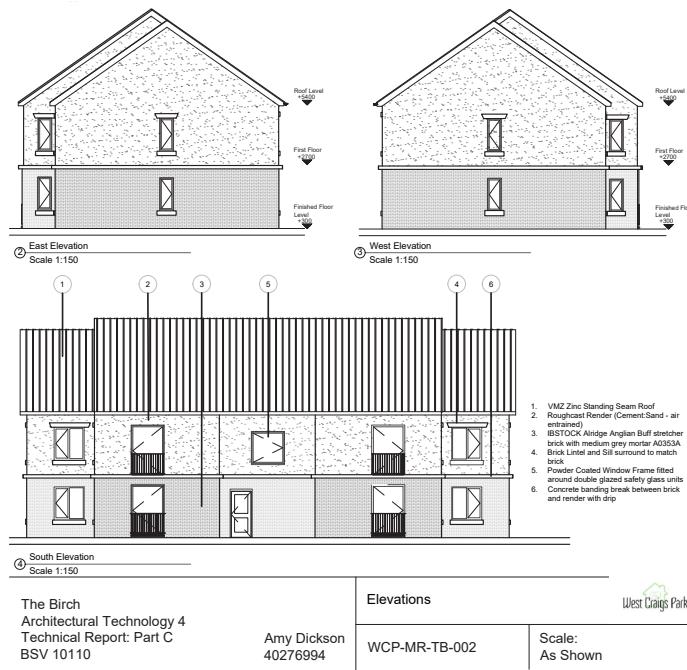
Please get in touch with me for more details and images of my final designs.



ARCHITECTURAL TECHNOLOGY 4

4th Year **Retrofit Farmhouse Grade: B**

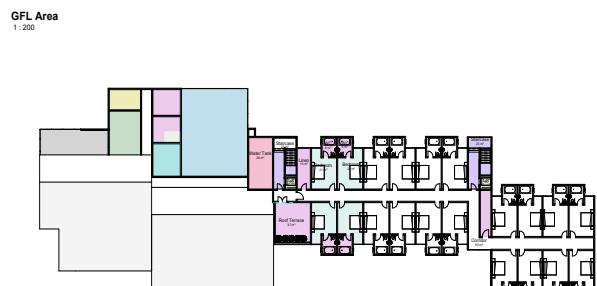
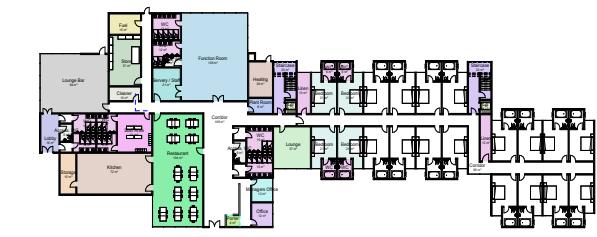
For my final design I completed a full retrofit of the existing Farmhouse and created and designed an additional extension to the Farmhouse to further accentuate the use of the building. The building is commissioned to be a community centre with small library and cafe at the centre of the site.



ARCHITECTURAL TECHNOLOGY 4

4th Year **Apartment Complex Grade:B**

For my final design I further developed the initial sketch in Project Evaluation working more with the shapes of the apartment building, inclusivity and flexibility of the spaces focusing on creating a 'lifetime home.'



ARCHITECTURAL PRACTICE AND MANAGEMENT

4th Year **Grade: A+**

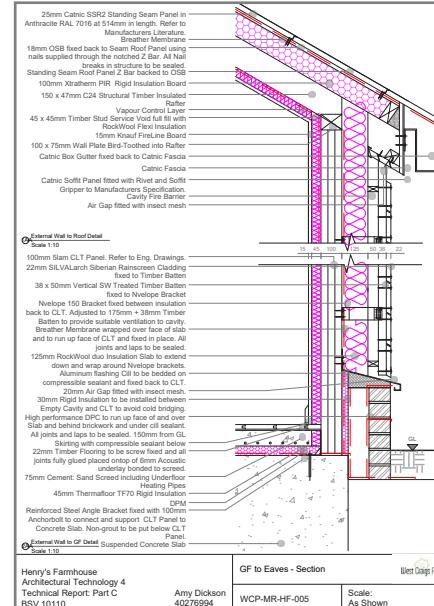
For my final design I decided to: remove the furthest staircase after carrying out appropriate fire strategy calculations, alternate the overall shapes of the rooms for a greater level of flow and create a new lean-to roof to create a more aesthetically pleasing design.

TECHNICAL DETAILS

This section covers all of my most recent projects whilst at University highlighting my progression from Final Design to Technical details and how the projects will be undertaken and constructed.

I have selected three Technical details to showcase my technical detail ability. The three I have chosen were from my final project in my final year, *Architectural Technology 4*, with a mix of Domestic and Non-Domestic buildings and a mixture of materials and techniques including off-site Timber Frame Closed Panel construction with a brick / render exterior, Cross Laminated Timber core structure with Timber cladding and retrofitting of a pre-1919 Sandstone Farmhouse building. A list of the details I have included within this portfolio have been outlined to the right of this section.

Please contact me for any further details and for my complete final project portfolio. All of my contact details can be found at the beginning of this document.

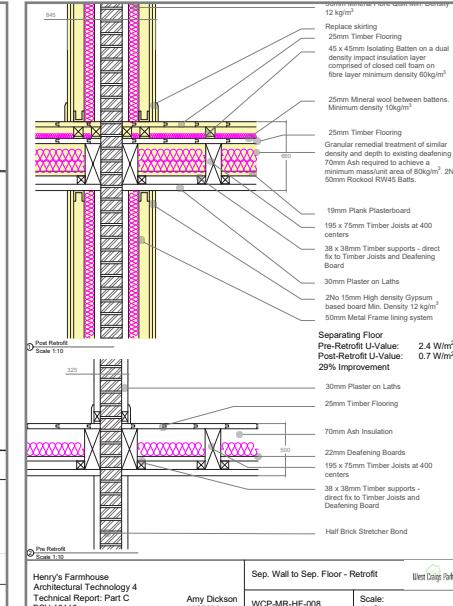


Detail 1

Detail 1 Final Project AT4

Detail 2 Final Project AT4

Detail 3 Final Project AT4

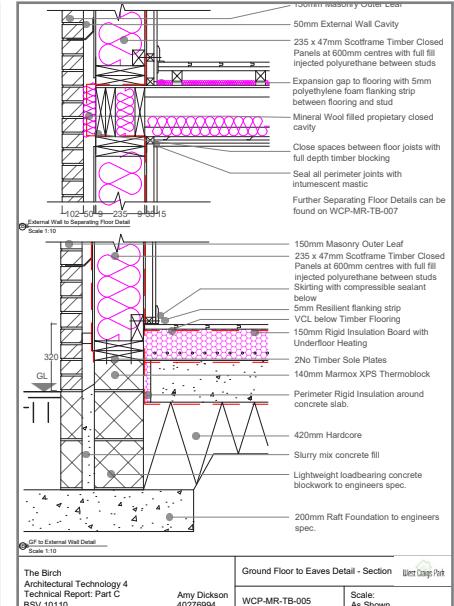


Detail 2

Farmhouse CLT Construction

Farmhouse Retrofit

Apartment Closed Panel Construction Ex. Wall - Sep.Floor



Detail 3

GF - Eaves Section

Sep.Floor - Sep.Wall

25mm Catnic SSR2 Standing Seam Panel in Anthracite RAL 7016 at 514mm in length. Refer to Manufacturers Literature.

18mm OSB fixed back to Seam Roof Panel using nails supplied through the notched Z Bar. All Nail breaks in structure to be sealed.

Standing Seam Roof Panel Z Bar backed to OSB

100mm Xtratherm PIR Rigid Insulation Board

150 x 47mm C24 Structural Timber Insulated

Rafter

Vapour Control Layer
Service Void full fill with RockWool Flexi Insulation

15mm Knauf FireLine Board

100 x 75mm Wall Plate Bird-Toothed into Rafter

Catnic Box Gutter fixed back to Catnic Fascia

Catnic Fascia

Catnic Soffit Panel fitted with Rivet and Soffit Gripper to Manufacturers Specification.

Cavity Fire Barrier

Air Gap fitted with insect mesh

①A External Wall to Roof Detail
Scale 1:10

100mm 5lam CLT Panel. Refer to Eng. Drawings.
22mm SILVALarch Siberian Rainscreen Cladding

fixed to Timber Batten
38 x 50mm Vertical SW Treated Timber Batten
fixed to Nvelope Bracket

Nvelope 150 Bracket fixed between insulation back to CLT. Adjusted to 175mm + 38mm Timber Batten to provide suitable ventilation to cavity. Breather Membrane wrapped over face of slab and to run up face of CLT and fixed in place. All joints and laps to be sealed.

125mm RockWool duo Insulation Slab to extend down and wrap around Nvelope brackets. Aluminum flashing Cill to be bedded on compressible sealant and fixed back to CLT.

20mm Air Gap fitted with insect mesh.

30mm Rigid Insulation to be installed between Empty Cavity and CLT to avoid cold bridging.

High performance DPC to run up face of and over Slab and behind brickwork and under cill sealant. All joints and laps to be sealed. 150mm from GL Skirting with compressible sealant below

22mm Timber Flooring to be screw fixed and all joints fully glued placed ontop of 6mm Acoustic underlayment bonded to screed.

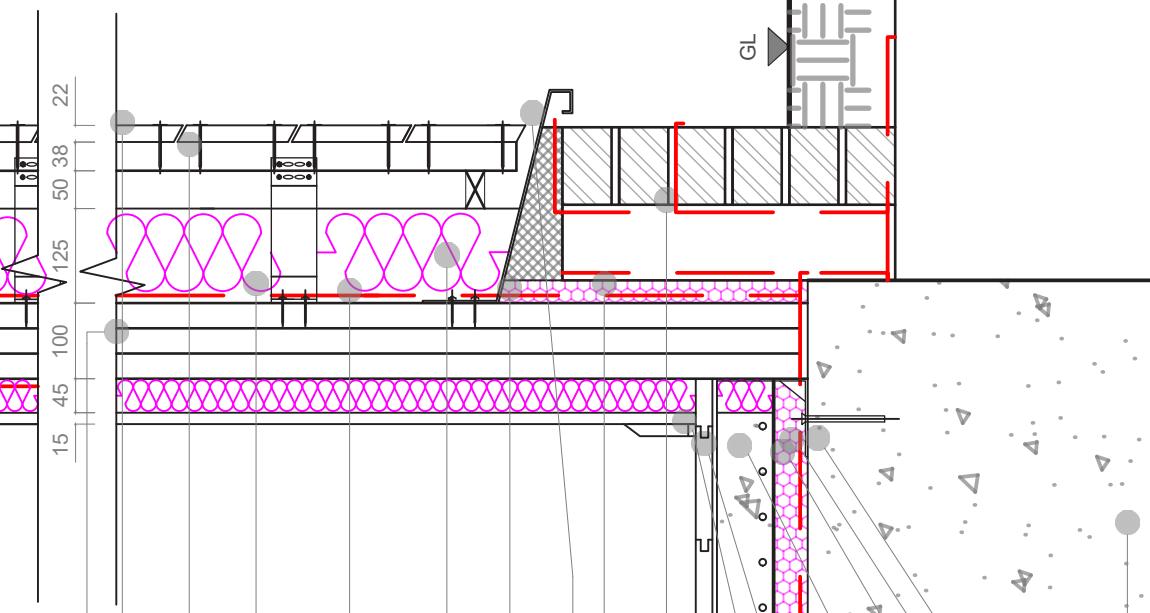
75mm Cement: Sand Screed including Underfloor Heating Pipes

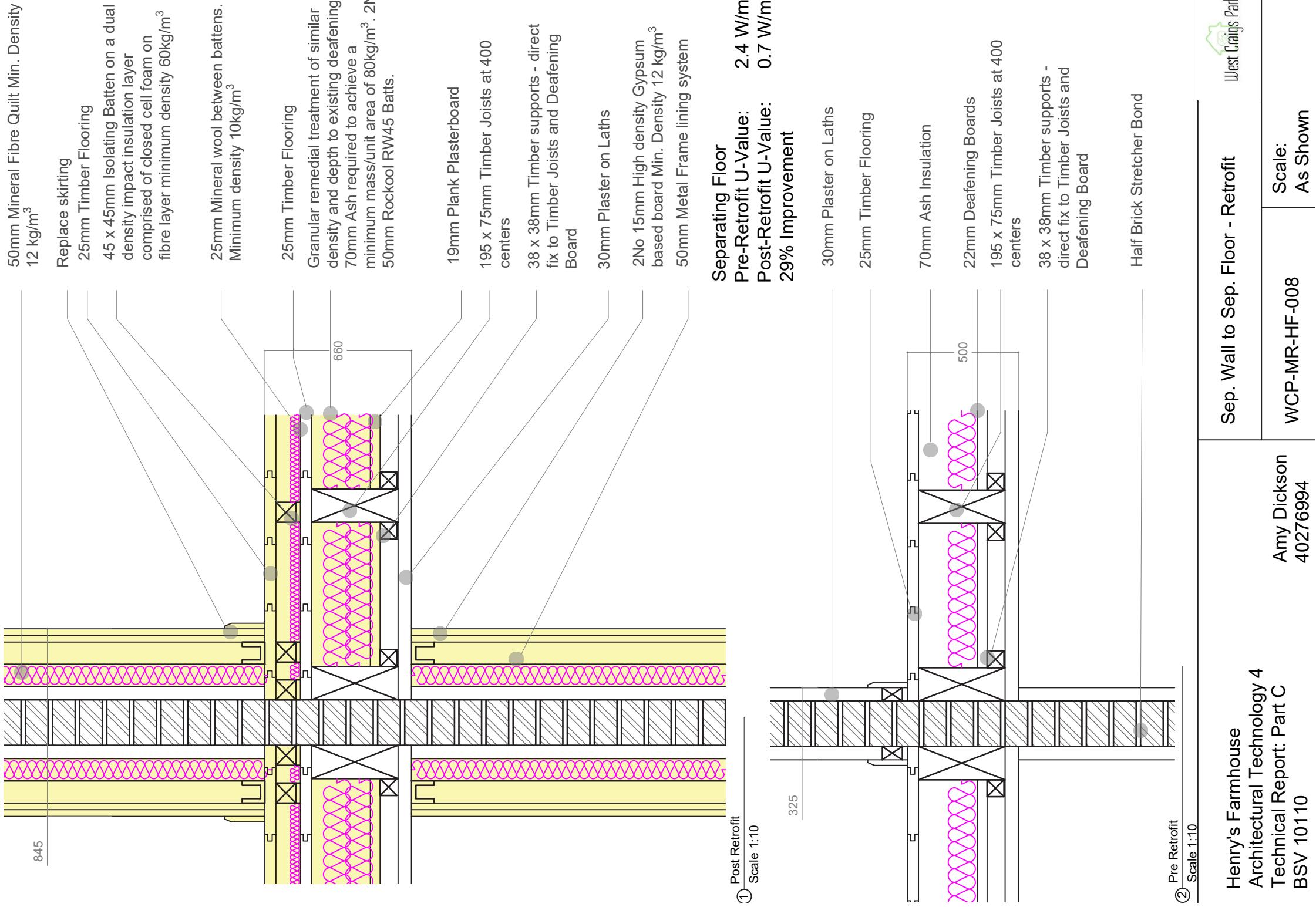
45mm Thermalfloor TF70 Rigid Insulation

DPM
Reinforced Steel Angle Bracket fixed with 100mm Anchorbolt to connect and support CLT Panel to Concrete Slab. Non-grout to be put below CLT Panel.

External Wall to GF Detail Suspended Concrete Slab

②A External Wall to GF Detail
Scale 1:10





150mm Masonry Outer Leaf

50mm External Wall Cavity

235 x 47mm Scotframe Timber Closed Panels at 600mm centres with full fill injected polyurethane between studs

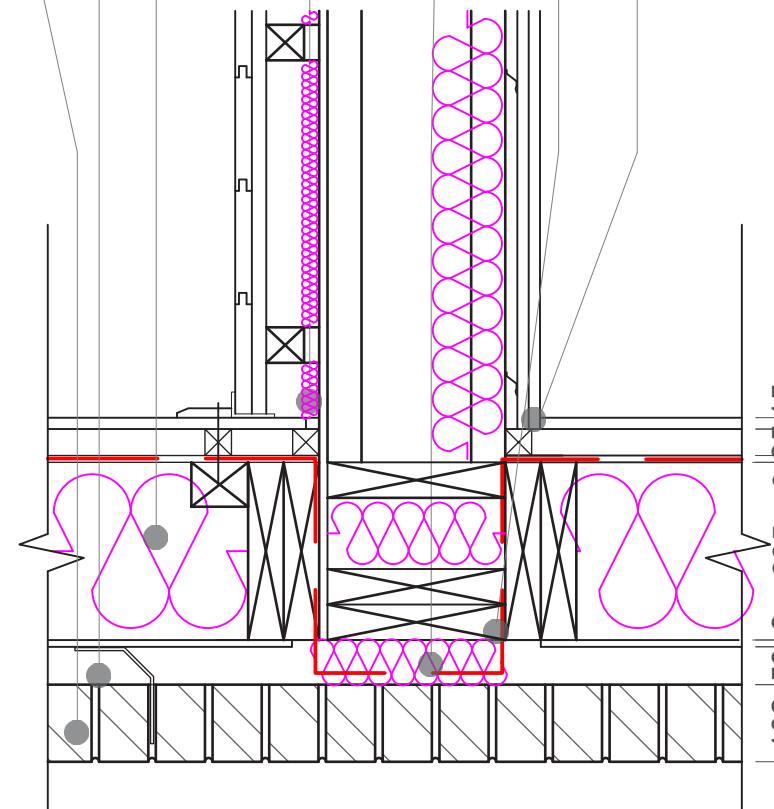
Expansion gap to flooring with 5mm polyethylene foam flanking strip between flooring and stud

Mineral Wool filled proprietary closed cavity

Close spaces between floor joists with full depth timber blocking

Seal all perimeter joints with intumescent mastic

Further Separating Floor Details can be found on WCP-MR-TB-007



External Wall to Separating Floor Detail

Scale 1:10

150mm Masonry Outer Leaf
235 x 47mm Scotframe Timber Closed Panels at 600mm centres with full fill injected polyurethane between studs
Skirting with compressible sealant below
5mm Resilient flanking strip VCL below Timber Flooring

150mm Rigid Insulation Board with Underfloor Heating
2No Timber Sole Plates
140mm Marmox XPS Thermoblock

Perimeter Rigid Insulation around concrete slab.
420mm Hardcore
Slurry mix concrete fill
Lightweight loadbearing concrete blockwork to engineers spec.

420mm Hardcore

Slurry mix concrete fill

Lightweight loadbearing concrete blockwork to engineers spec.

200mm Raft Foundation to engineers spec.

GF to External Wall Detail

Scale 1:10

The Birch
Architectural Technology 4
Technical Report: Part C
BSV 10110

Ground Floor to Eaves Detail - Section

WCP-MR-TB-005

Scale:
As Shown

West Craig Park

West Craig Park

Amy Dickson

4027694

Scale:
As Shown

TECHNICAL REPORTS

This section covers all of my most recent projects whilst at University and projects I have been involved with outside of University, highlighting my strong capability for my involvement in Technical reports and report writing.

All of my reports highlighted have incorporated elements from Word, Excel, InDesign, Photoshop and Mendeley.

Please get in touch with me for more details and complete final reports.



executiveOne

TECHNICAL DIRECTOR COURSEWORK

BSV10112 ARCHITECTURAL PRACTICE AND MANAGEMENT

40276994 AMY DICKSON



U-VALUE IMPROVEMENT RESEARCH PAPER

Research Assistant EnergyStore Paper

This report was a four month process beginning with testing in a number of homes pre-installation and post-installation of EPS beading to the cavity of a pre-1919 building. The completed report included comparison of results and effective conclusion, evidence and research into similar research papers.

ARCHITECTURAL PRACTICE AND MANAGEMENT

4th Year Technical Director Report Grade: A+

For this project the brief was to assume the role of a Technical Director responsible for design and project management. The project was a five star boutique hotel in Edinburgh. I was to prepare a report to a Board of Directors and an outline bid including a schedule of works, risk analysis and costing.

ARCHITECTURAL TECHNOLOGY 4

4th Year Technical Report Grade: B

This project was a culmination of my two designs of my final project. This technical report included a Domestic and Non-Domestic solution encompassing retrofit, sustainable approaches where possible and technical solutions aligned to the Technical Standards as of December 2019.

VISUALISATIONS



ARCHITECTURAL TECHNOLOGY 4 - Final Project

Visual of Henry's Farmhouse Internal Library
Utilised Twin Motion and Photoshop



ARCHITECTURAL TECHNOLOGY 4 - Final Project

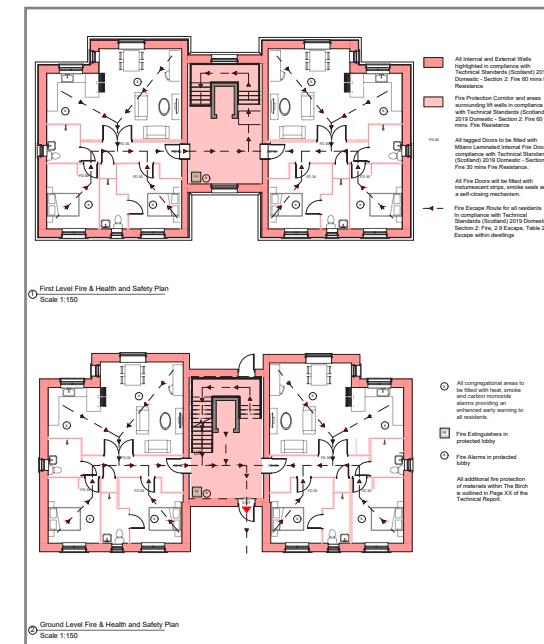
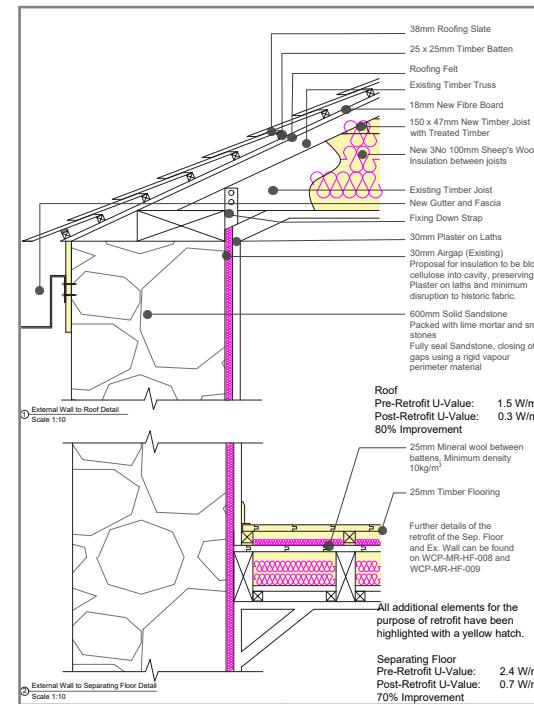
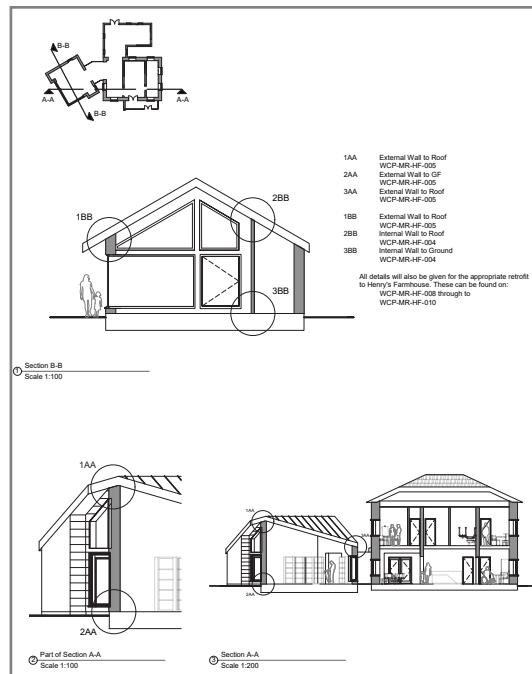
Visual of Henry's Farmhouse Externally
Utilised Twin Motion and Photoshop



ARCHITECTURAL TECHNOLOGY 4 - Final Project

Visual of The Birch Apartment Complex Internal
Utilised Twin Motion and Photoshop

If you would like to see a further example of any of my work including drawing details, fire strategies, energy and U-Value calculations or technical reports please contact me on any of my platforms and I will be happy to send out any documents. Thank you for taking the time to read over my work and portfolio.



AMY DICKSON