

Ark Environmental Consultancy Limited
 c/o Bradshaws Charter Court,
 Well House Barns
 CH4 0DH

February 2024

To whom it may concern,

Site: GREENSHIRES, MAIN ROAD, KEAL COTES, SPILSBY, PE23 4AG
 Scheme: Replacement dwelling

Removes all sleeping on the ground floor & results in flood future proofed dwelling

Flood Risk Statement: including for NPPF & PPG for 2024

The scheme is a replacement dwelling within EA FZ2 tidal partly defended. It is within a low to medium hazard in the EA surface water risk scenarios. It is at low risk from all other potential sources of flooding.

We provide the evidence below to support this assessment statement:

NPPF Flood Risk Posed to the Site / Scheme:

The site is wholly in EA Flood Zone 2 at the edge of the principally tidal floodplain.

NPPF Flood Sources	Site Status	Comment on flood risk posed to / from the development
Fluvial / Tidal	The site is located in EA FZ2 tidal The SFRA confirms the site is in FZ2 and is not in SFRA FZ3a or FZ3b (1in30year) or any of the climate change allowances extents in the updated SFRA mapping however a worse case is used as if the site were in the climate change allowances	Scheme is a replacement dwelling. Scheme is a betterment: changes a bungalow to a two storey; flood future proofed and resilience betterment. Full height resilience for the ground floor. Removes all sleeping on the ground floor. No further assessment required Low risk
Groundwater	SFRA indicates site is not in an area of groundwater flooding / incidents at the surface	The proposed development will not increase the risk of groundwater flooding. No further assessment required: Low Risk
Artificial Sources	Site is not within EA Reservoir Flood Warning area: managed and maintained to appropriate standards No other artificial sources with likely flowpaths that could reach the site	Low Risk Not relevant to the scheme as residential use at the site is not in question
Surface Water / Sewer Flooding	Site is not located in a Critical Drainage Area but there is a small low hazard in the EA's low risk surface water flood extents from the council and the EA	Scheme is a change of use and the equestrian landuse is compatible with a low hazard surface water risk No additional drainage assessment required Low Risk
Climate Change: new allowances	Included in the SFRA flood modelling extents usually; other data sources / uplift if flood levels are required / available	Low risk posed to and from the development
Historic Flooding	Included in the EA / council data where appropriate	Site is not in an area of historic flooding based on available data

EA, SFRA Data & LLFA Data

The EA do not have relevant site specific flood levels.
 The SFRA has been reviewed.
 There are no additional source of flood risk posed to the scheme identified by the SFRA.
 The LLFA also do not have data which suggest additional sources of flood risk posed to the site.
 The scheme as a change of use is compliant with SFRA and LLFA policies and plans.

EA Flood Map for Planning (rivers and seas but not climate change) (2024)



EA Surface Water Hazard Mapping (2024)



Flood Risk Posed from the Site / Scheme:

The scheme is a replacement dwelling with a flood future proofed betterment; the new house will be 2 storeys rather than 1 storey (bungalow). (Appendix B)

Utilise existing connections where appropriate and maximise porous / permeable areas.

There are no works that require additional drainage or SUDS assessments.

NPPF Sequential and Exception Tests

The scheme is a replacement dwelling in FZ2: no sequential test required.

No Exception Test is technically required given the FZ2 setting but as a worse case given climate change allowances, even if the site were in FZ3, this replacement dwelling is considered to establish the required betterment:

- Establish an upper storey above the extreme flood event for the lifetime of the scheme
- No sleeping on the ground floor
- Full flood resilience for future flood proofing
- Slight raise in ground floor to address residual surface water / tidal flood risk

It is considered therefore that the scheme can pass the Exception Test.

Flood resilience for new build dwelling

The below are recommendations that will need to be addressed by the final design / contractor and will be secured by Building Regs / planning condition as is standard.

- Electrics to be installed top-down
- Plasterboards will be installed in horizontal sheets rather than conventional vertical installation methods to minimise the amount of plasterboard that could be damaged in a flood event
- Wall sockets will be raised to as high (minimum of 450mm above existing ground levels) as is feasible and practicable in order to minimise damage if flood waters inundate the property
- The ground floor will be concrete in order to minimise damage and reduce the turnaround time for returning the property to full operation after a flood event
- Any wood fixings on ground floor will be robust and/or protected by suitable coatings in order to minimise damage during a flood event
- Airbricks will be raised to as high as is feasible and practicable
- The Damp Proof Membrane will be installed above the main floor slab and tied in to the existing walls where appropriate, to reduce the turnaround time for returning the property to full operation after a flood event.

Summary

There is no scope or need for additional flood risk assessment or drainage assessment for this scheme triggered by planning.

This is a suitable FRA statement proportionate to the site and scheme as per the NPPF / PPG and local policy.

If additional information is required, please contact on 07954357588 or email: office@floodriskassessment.net.

George @
Ark Environmental Consultancy Ltd

Appendix A

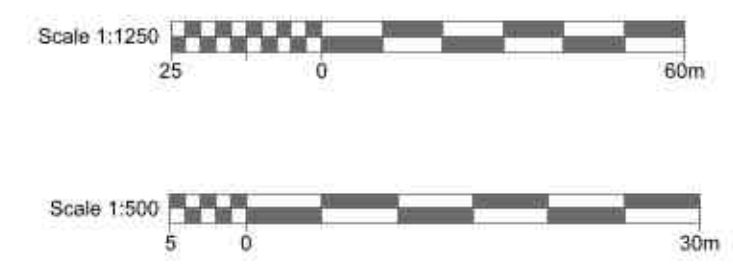


Site Location

1:500

All Dims in millimeters unless otherwise stated.
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Val Pelovski

DRAWING NUMBER:
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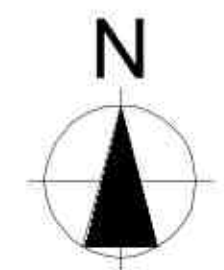
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Mike Cano

REVISION: C
29/01/2024
Val Pelovski



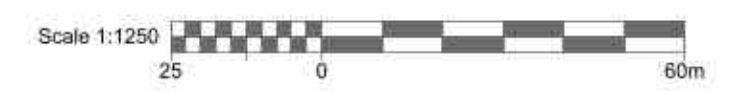
Site Location

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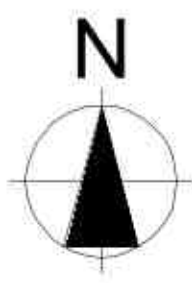
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Appendix B



Proposed Site Layout

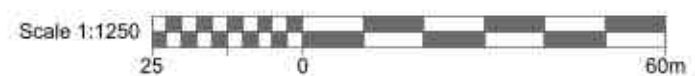
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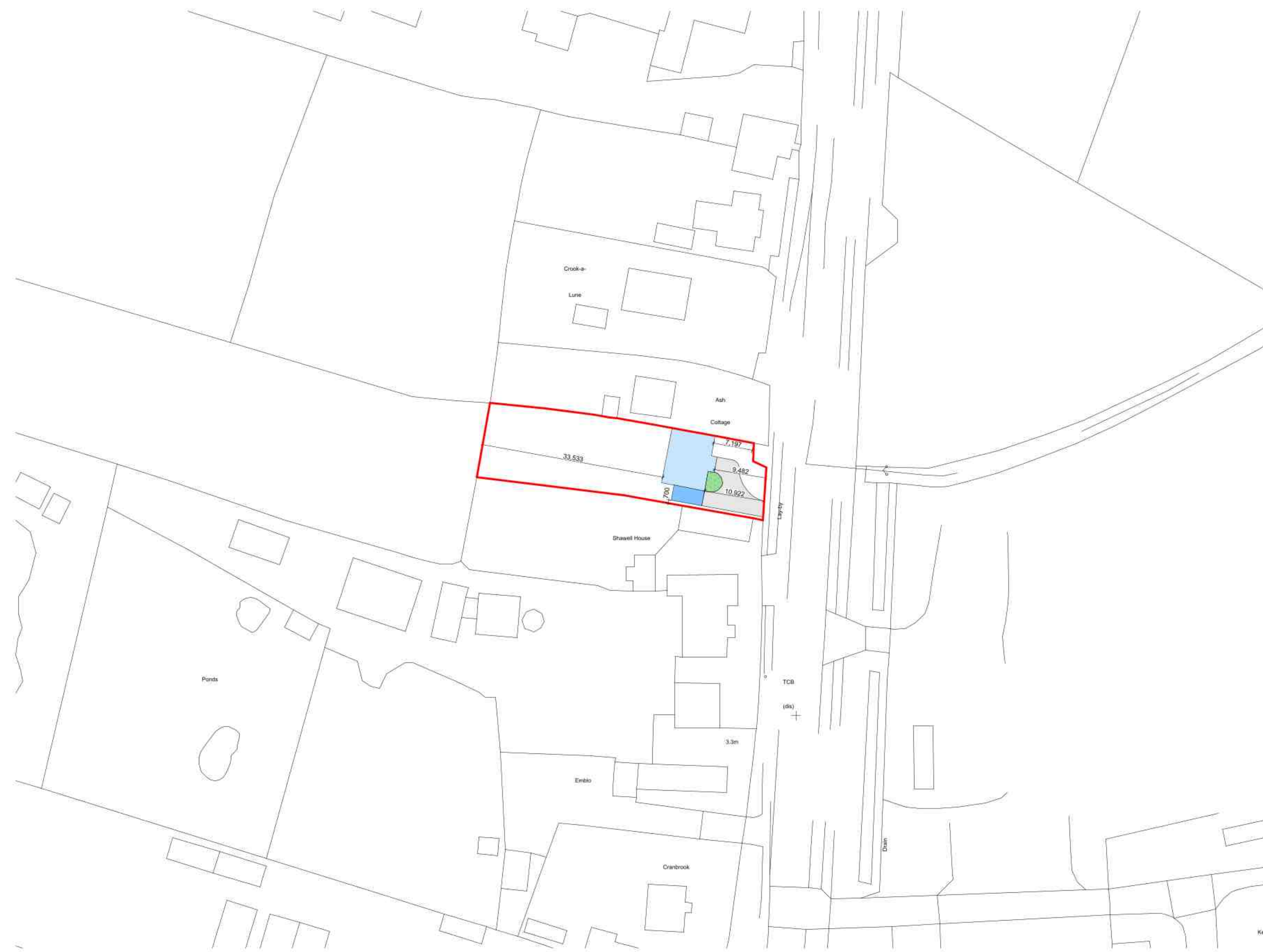
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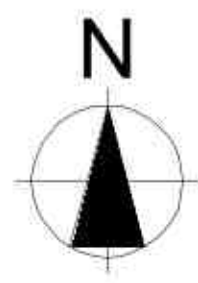
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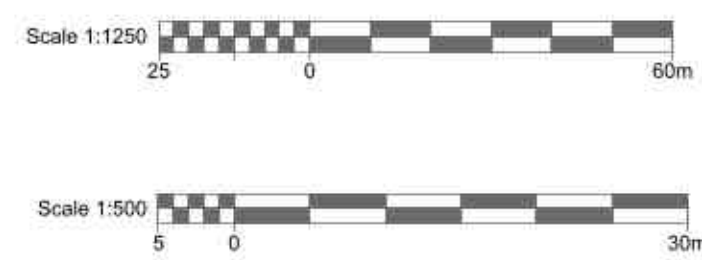
Proposed Site Layout

1:500



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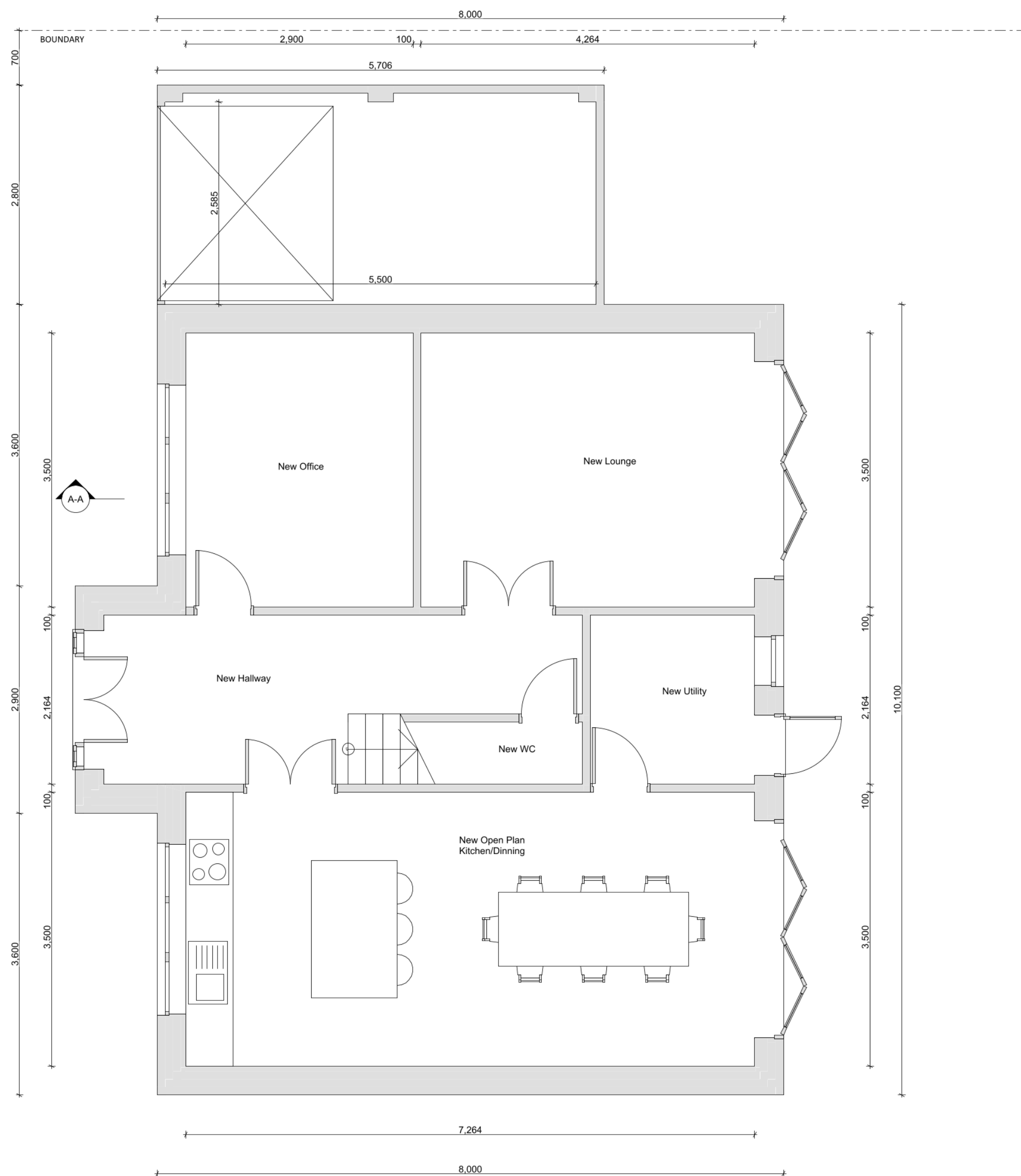
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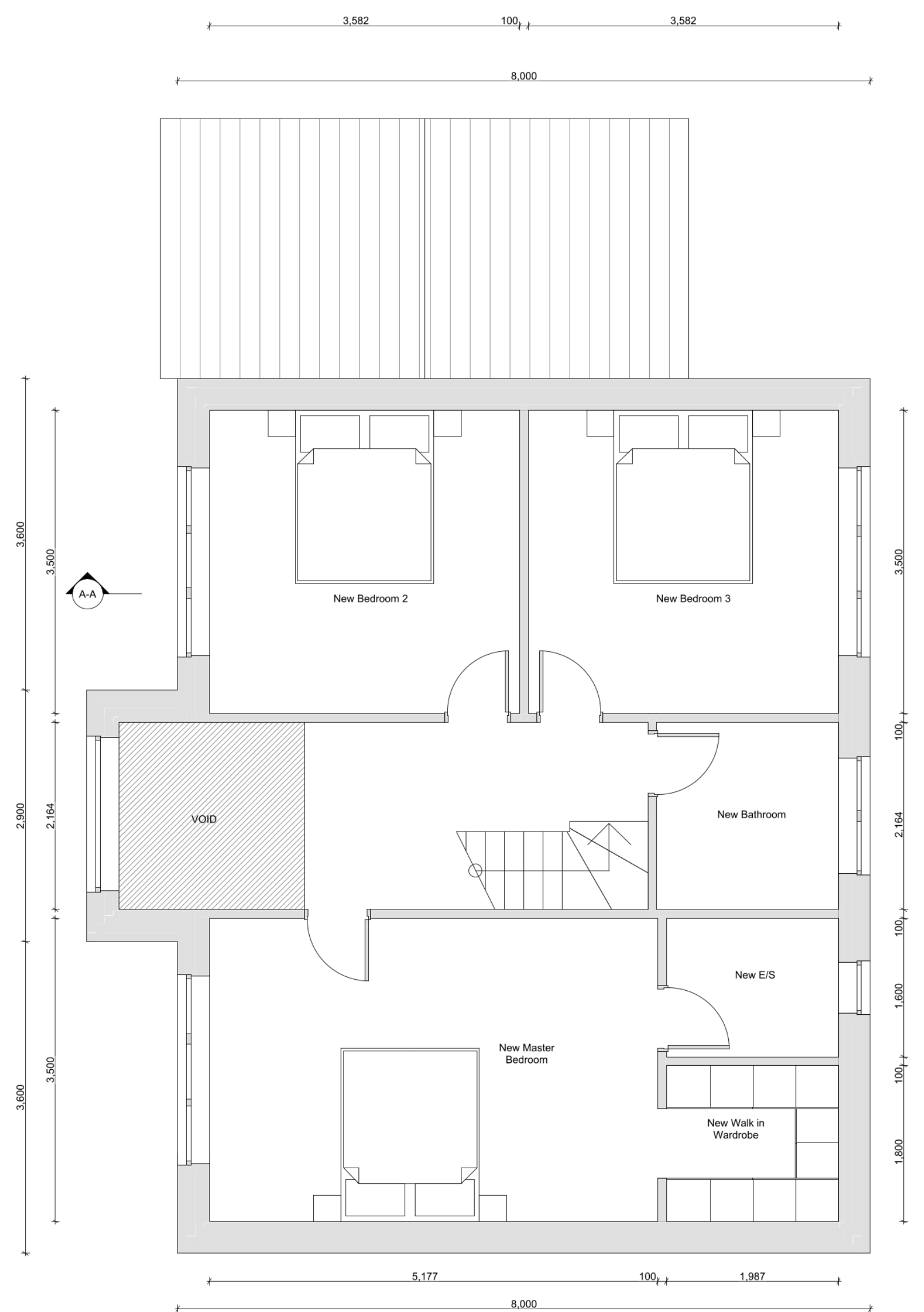
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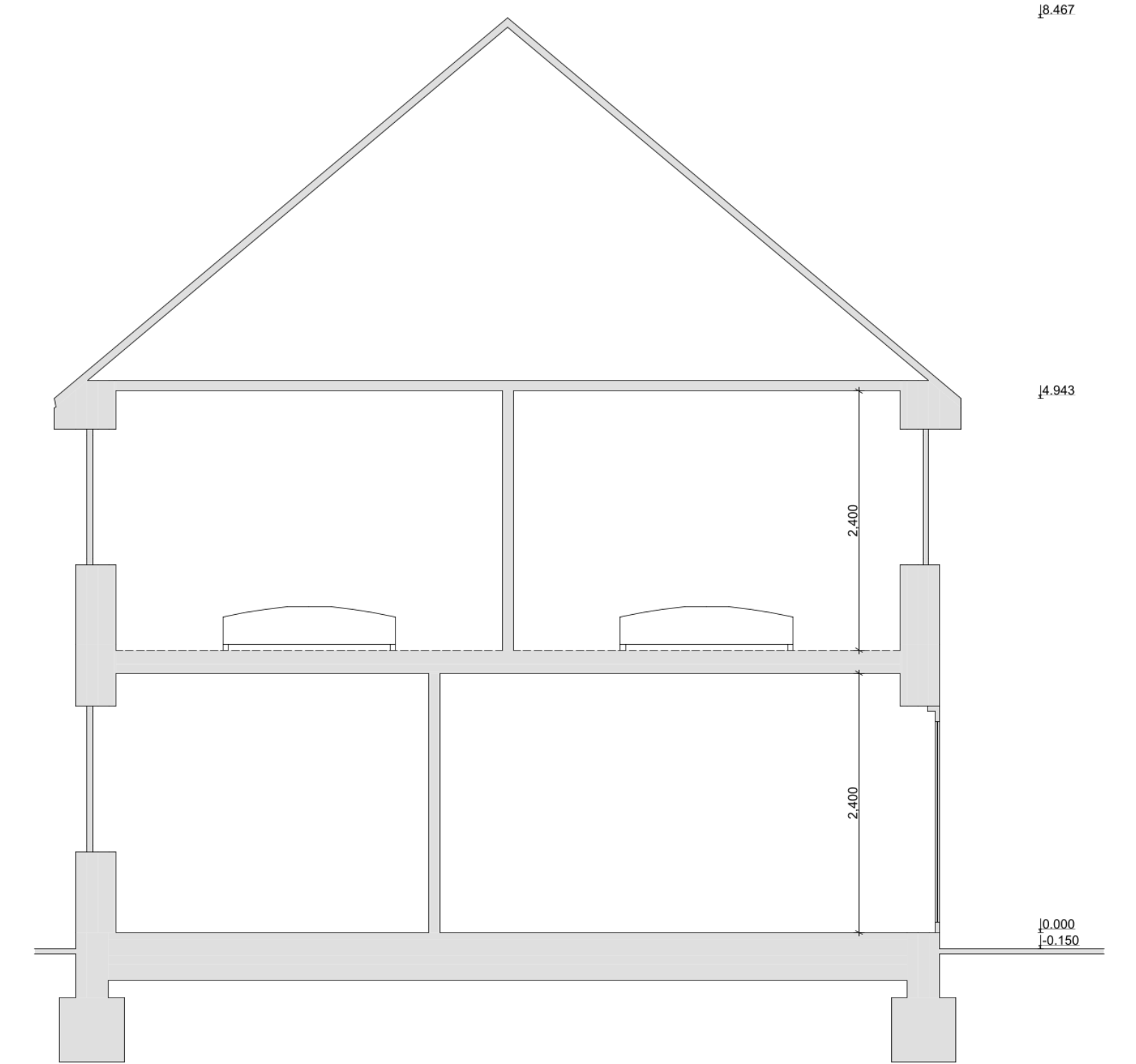
+00-Ground Floor Plan - Proposed

1:50



+01-Finished First Floor - Proposed

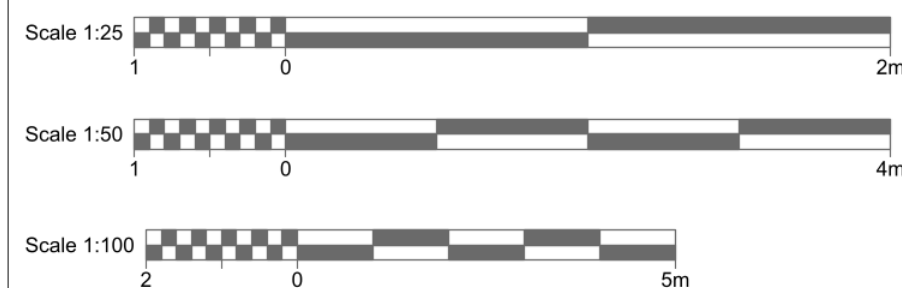
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Section A-A

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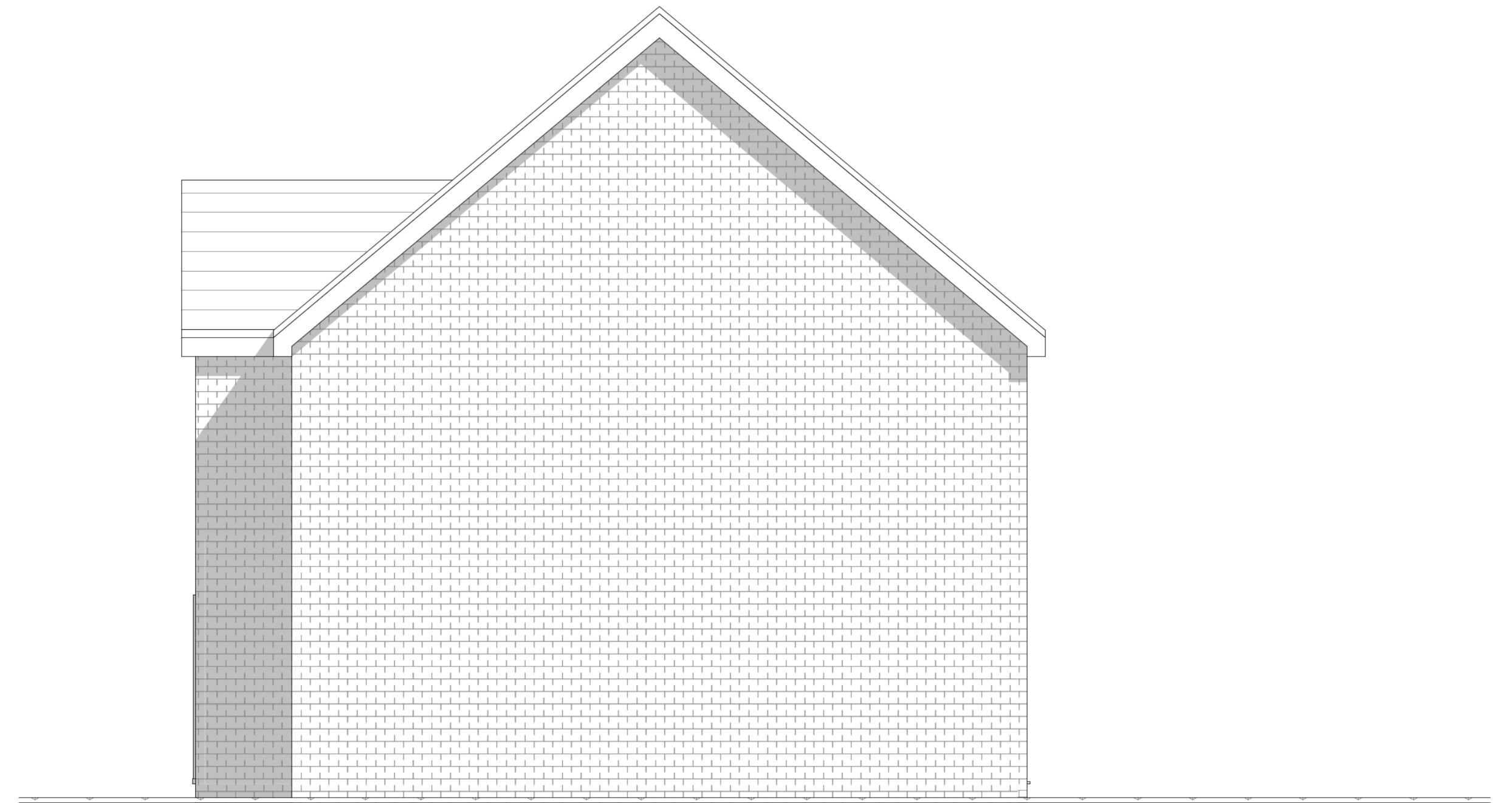
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Proposed Front Elevation

1:50



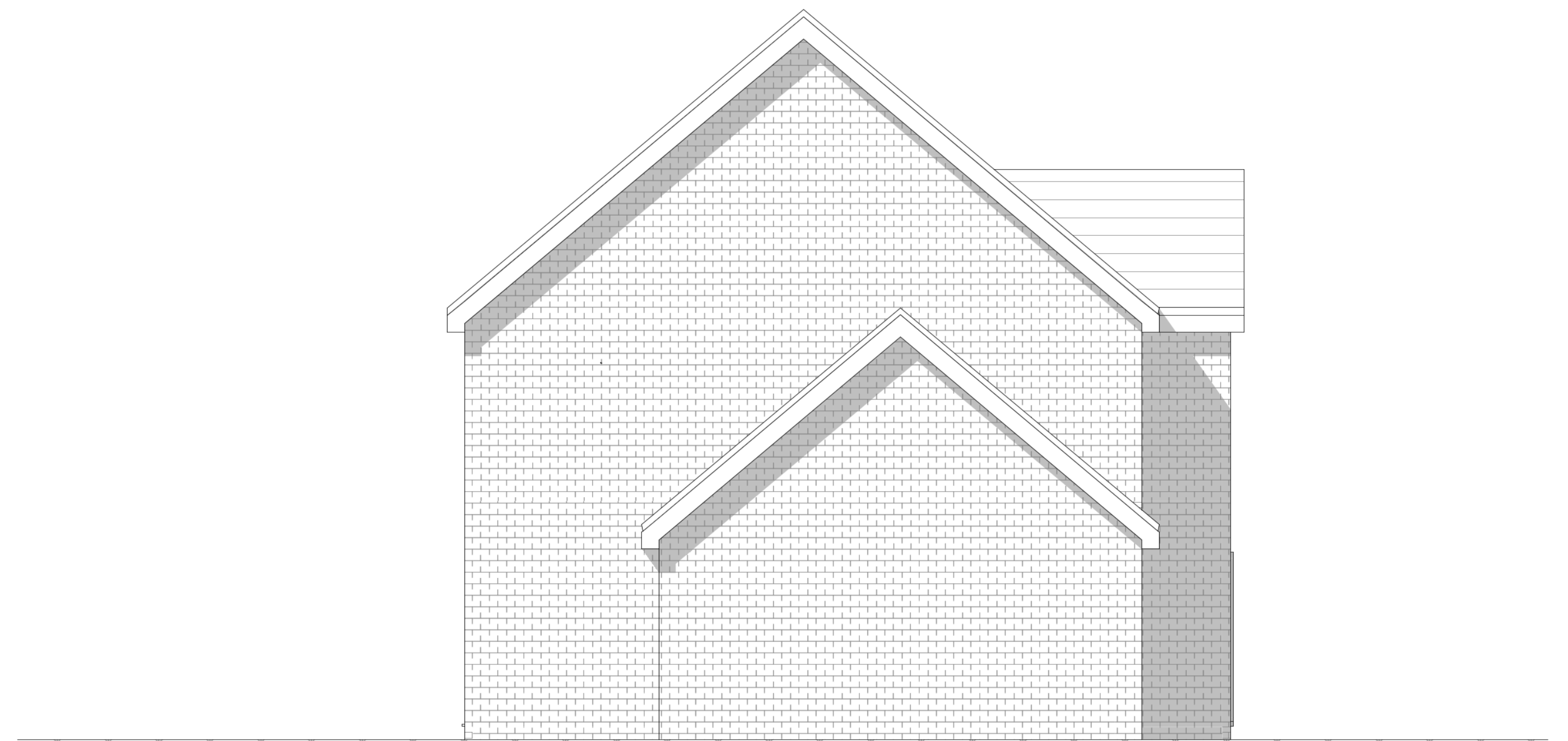
Proposed Side Elevation

1:50



Proposed Rear Elevation

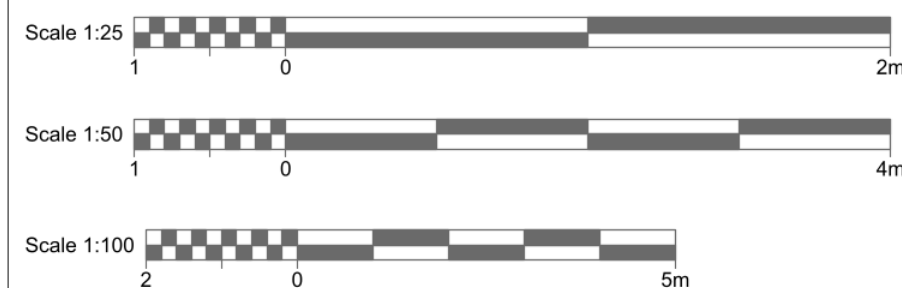
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Proposed Side Elevation

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