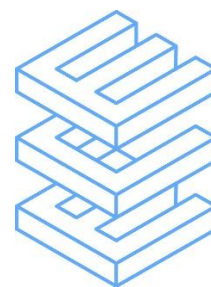


Client	Lake Investments Ltd		
Site	Jacksons, Hammerpond Road, Plummers Plain, Horsham, RH13 6PE	Revision	A
Date	22 December 2025		
Author	S Lower	Checked	C Barker



Whilst this statement/report was originally prepared in reference to a scheme comprising eight dwellings, the proposals have since been revised. The content and conclusions of this statement/report have been reviewed in full by ECE Planning and are considered to remain robust, relevant, and valid in respect of the revised scheme comprising **four residential units only**.

This approach has been discussed with officers at Horsham District Council, who have confirmed that the findings of this statement/report are acceptable and may be relied upon in support of the revised four-unit proposal.

For the avoidance of doubt, this statement/report is submitted solely in support of the current four-unit scheme, and all assessments, findings, and conclusions are considered appropriate and proportionate to this reduced scale of development.

MS07260/DS

Lee Goossens
Stonehouse Farm Developments Ltd
Nutbourne Lane,
Nutbourne,
West Sussex
RH20 2HS

By e-mail

17th January 2025

Dear Lee,

**Structural Appraisal of Proposed Conversion of 2 Barns at Stonehouse Farm,
Hammerpond Road, Plummers Plain**

Further to our meeting & site visits regarding the proposed conversion of the above barns, please find below a Structural appraisal of the concrete portal frame barn & steel framed barn which are proposed to be converted following our site visits on the mornings of Thursday 14th November & Wednesday 18th December 2024. The report is to be read in conjunction with attached over marked Structural plan layouts & trial hole findings. The weather during the visits was cool and overcast.

General Site layout

The complex of barn outbuildings was set to the south side of Hammerpond Road within the Stonehouse Farm site. The proposal is to convert buildings 1 & 5 into domestic accommodation and remove buildings 2, 3 & 4. Building 1 was a precast concrete portal frame barn set approximately 12m to the south of Hammerpond Road. It was previously used as a cattle milking barn with cattle bays still in place. Building 5 was a steel portal framed barn erected around 15 years ago set to the east side of Building 1. This barn was also located approximately 12m from the edge of Hammerpond Road and was used for farm equipment storage. There were a number of beech trees and oak trees between the barns and Hammerpond Road.

Precast concrete frame barn (Building 1) - Existing Structural Condition

This barn consisted of a main single storey precast concrete portal frame spanning approximately 18m east to west with lean too precast concrete principal rafters supported off the outside of the main concrete posts spanning approximately 4.5m on the west side and 8m on the east side making the total east to west barn dimension of approximately 30.5m. There were 6 portal frames set at approximately 4.6m centres forming 5 bays with a total north to south barn dimension of approximately 23m.

The main precast concrete portal frames were formed with 150 x 400 precast concrete posts with precast concrete duo-pitched portal frame beams spanning the 18m between the posts. Trial holes showed the main precast concrete posts to be supported on insitu concrete pad foundations approximately 1m square on plan and 800mm thick set approximately 1000mm deep to underside. To the west side of the main portal frame were 100 x 230mm deep precast concrete tee shaped rafters supported on the main frame posts and 150 x 200mm precast concrete posts on the west side of the barn. Similarly, on the east side were 100 x 380mm deep precast concrete rafter tee beams supported on the main portal frame posts and 150 x 200mm precast concrete posts on the east elevation. A trial hole indicated the 150 x 200 posts were supported on approximately 600mm x 600mm x 450mm deep mass concrete pad footings set around 900mm deep into the silty Clay subsoil. There were precast concrete purlins spanning between the precast concrete frames at approximately 1300mm centres which were supporting a corrugated fibre cement roof sheeting. The precast concrete frame and purlins were generally in a good condition with little sign of damage or movement. There was some spalling to the concrete in isolated areas to the principal rafters as indicated on the attached over-marked plans. There was also some damage to the eaves tie beams on the east side of the barn and a missing eaves tie beam on the east side, however, we understand the intention would be to reduce the barn width on the east side. Between the main adjacent portal frame 150 x 400 precast posts were tie beams, these appeared to have been removed in 3 locations, however, the proposed new internal wall panels to sub-divide the spaces will overcome any loss of tying action from these missing ties.

The sides of the barn were generally open with open slatted timber cladding to the south gable and with sections of 215mm thick 1.5m high blockwork panels on the south & north elevations. There were some full height infill 215mm thick blockwork walls forming storage room to the north west corner of the barn with a section of timber mezzanine floor over and some steel framing supporting water tanks. These are not integral to the main structure of the barn and could be removed as necessary.

The majority of the barn had a stepped concrete floor laid out in bays with stall arrangements for the milking bays.

Steel Portal frame barn (Building 5) - Existing Structural Condition

This barn was formed with duo pitched steel portal frames spanning 16m east to west. The 6 sets of steelwork portal frames were set at around 6m centres making the full north to south length of the barn approximately 30m. The north and south ends of the barn were gable ends with 2 intermediate 203 x 133 UB steel posts spanning from ground level to the portal frame rafters.

The main portal frame posts were 305 x 165 UB steel section. A trial hole was excavated on the east side of the barn showing these posts were supported on 1m x 1m x 700mm deep mass concrete pads set around 900mm below ground level. Attached is a soil sample test result indicating the subsoil is low plasticity clay.

Diagonal steel tubular CHS bracing ran between the two portal frames at the north end of the building in the roof and walls.

Timber purlins spanned between the steel portal frames at approximately 1300mm centres supporting corrugated fibre cement roof sheeting.

There were horizontal timber cladding rails running around all sides of the upper section of the barn walls supporting vertical metal cladding. On the north side and parts of the east and west sides were precast concrete wall panels infilling between the posts for the lower sections of the walls but these panels were not present on the south elevation of the barn.

The condition of the steelwork was generally very good with only some minor areas of rusting and some slight damage to the 203 x 133 UB posts on the south elevation where they are likely to have been hit with farm equipment. The cladding had been damaged in a few locations but this would be removed and replaced as part of the conversion works.

The ground floor of the barn was an insitu concrete slab cast in bays and was generally in a good condition although was only partially visible due to stored materials within the barn.

Summary

We consider the existing precast concrete barn and steel portal framed barn are structurally sound and suitable for conversion with only minor existing defects noted to the main structures.

The precast concrete frames of Building 1 are in a good condition with only some minor repair work required for spalling concrete in a few isolated locations. We understand the existing fibre cement corrugated roof sheeting would be removed and replaced with a similar light weight cladding and new infill perimeter walls and internal walls would be formed on new strip footings to sub-divide the space into domestic units. The existing foundations for the precast concrete frame posts are a reasonable sized mass concrete pad footings set into the low plasticity silty Clay subsoil of the Upper Tunbridge Wells Sand formation. The ground floor slab would need to be removed and re-laid level to allow for insulation, screed and damp proofing given the existing stepped slab arrangement.

The steel portal frames of Building 5 are in a good condition with little repair work required and only some minor surface corrosion to be treated. We understand the existing fibre cement corrugated roof sheeting would be removed and replaced with a similar light weight cladding and new infill perimeter walls and internal walls would be formed on new strip footings to sub-divide the space into domestic units. The existing foundations for the steel portal frame posts are a reasonable sized mass concrete pad footings set into the low plasticity silty Clay subsoil of the Upper Tunbridge Wells Sand formation. It is likely the ground floor slab would need to be removed and re-laid as a suspended floor to allow for the clay subsoil with new insulation, screed and damp proofing.

Please do not hesitate to contact us if you have any queries or require any further information.

Yours Sincerely

D C Simmonds MICE CEng BEng (Hons)
Director
McCarey Simmonds Limited

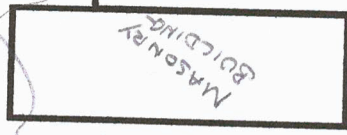
MS07260

OAK &
BEECH TREES

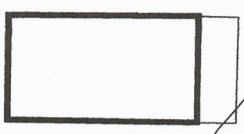
Silo



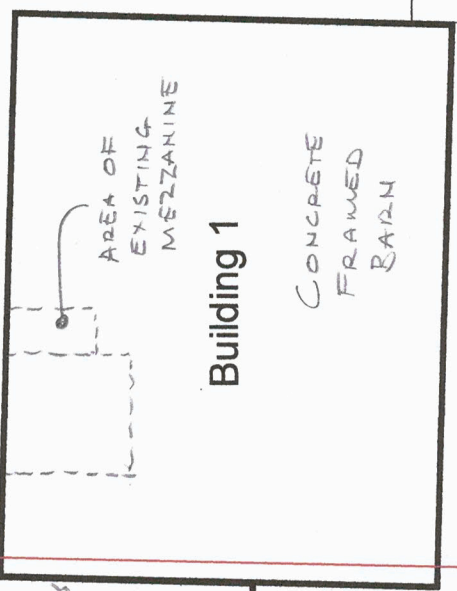
Building 3



Building 2

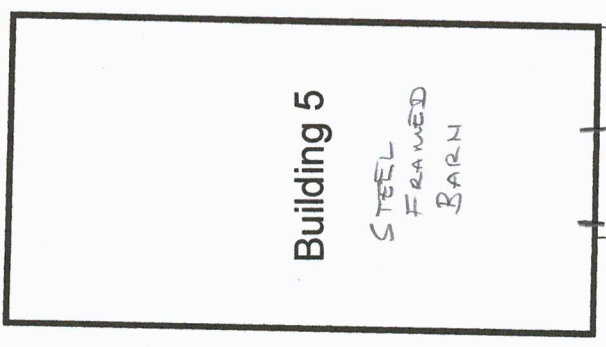


Building 4



Building 1

CONCRETE
FRAMED
BARN



Building 5

STEEL
FRAMED
BARN

OPENING

Jackson's
Farm



SITE PLAN NOTES

CAL TIMBER
CLADDING
ABOVE

150x200 PRECAST
CONCRETE
POSTS

SLIGHT SWELLING
SPALLING OF
PC POWER RATED
AT BEARING

Local

SPALLING
CONCRETE TO
PC RAFTER BEAM
EXPOSING REINFORC

PRE CAST
CONCRETE
BEAM / GUTTER
DROPPED
OFF
BEARING &
DAMAGED

TRIAL HOLE (8)

EAVES BEAM/
GUTTER SECTION
MISSING IN THIS
BAY

SLIGHT SPALLING/
CRACK TO PC PURLIN
AT BEARING

LOWER PLTIE BETWEEN
COLUMNS MISSING
FROM THIS BAY

REINFORCED CONCRETE FLOOR
SLAB WITH STEPS / RAISED AREAS

Buildings 1 & 2 - Floor Plans As Existing

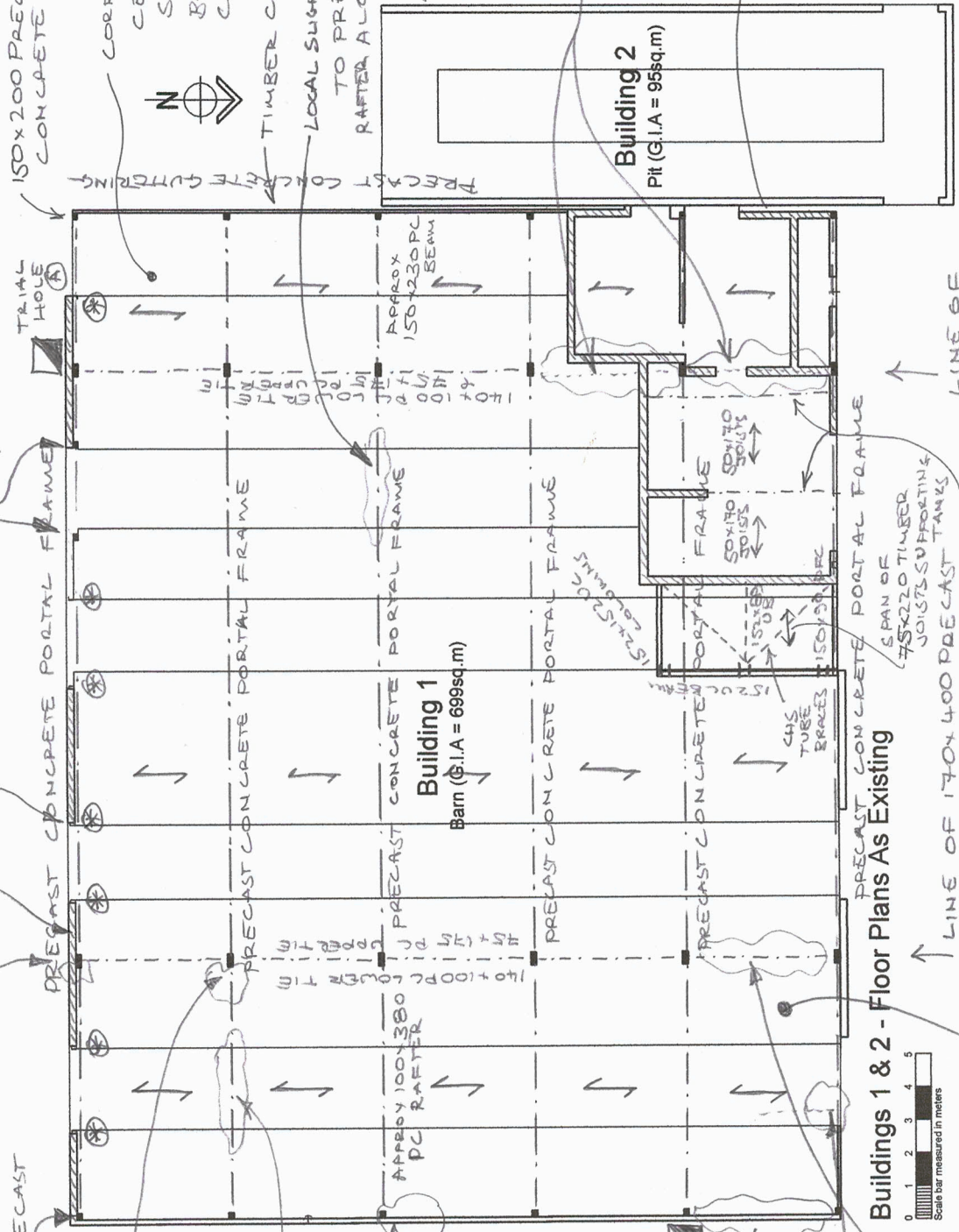
LINE OF 170x400 PRECAST
CONCRETE POSTS

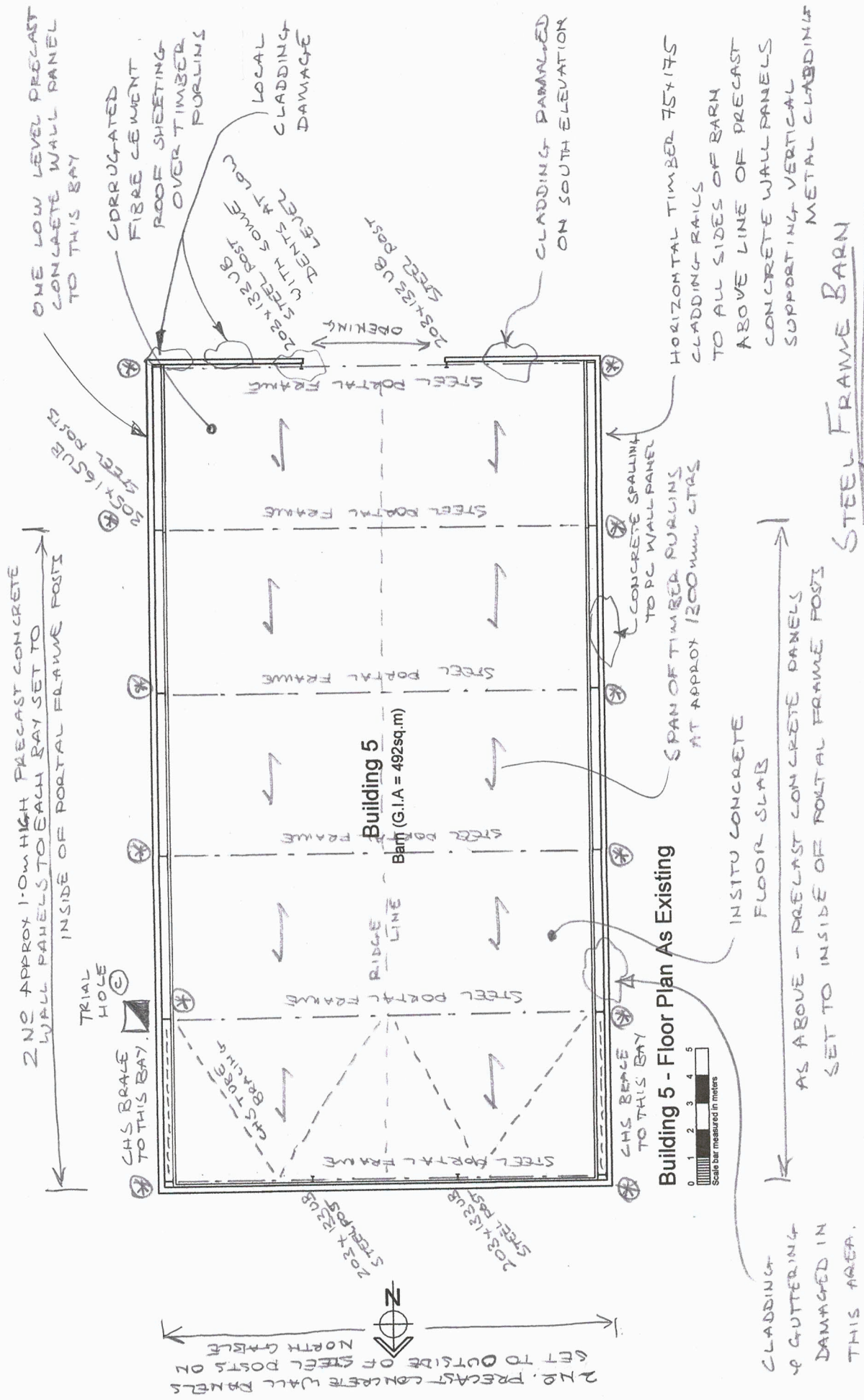
TANKS
RUSTED
254x146
UB STEEL
BEAMS

LINE 6E
170x400
PRECAST
POSTS

PRECAST CONCRETE BALCH

SITE NOTES - BUDG 1

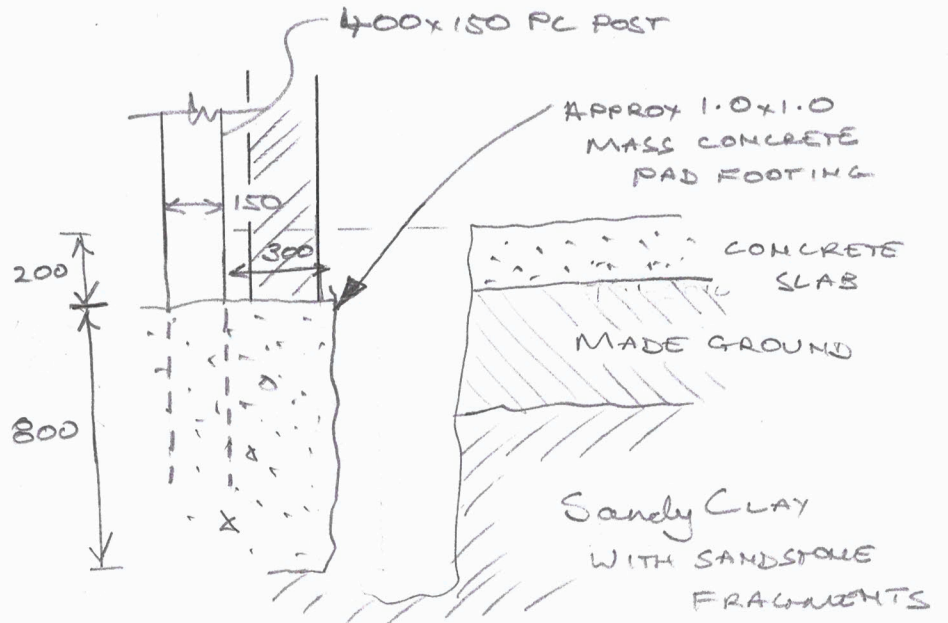




STEEL FRAME BARN

SITE NOTES - BUILDING 5

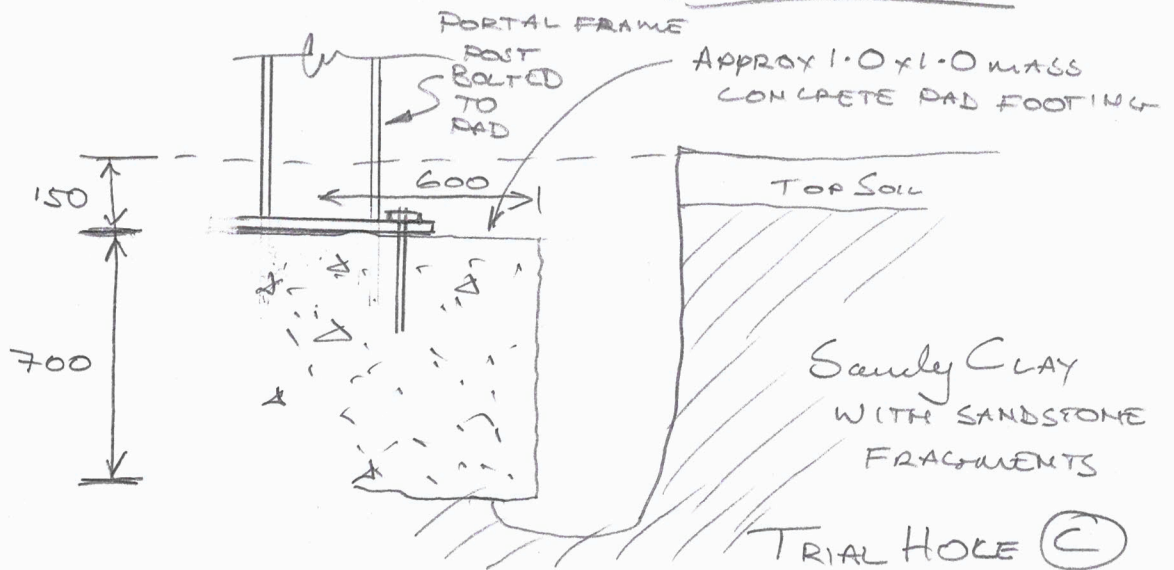
JOB TITLE Farm barns, Stonehouse Farm, Plummer		DATE Jan 2025
ITEM Trial Hole Sections	JOB NO. MS07260	SHEET NO
PREPARED BY DS		CHECKED BY SA



TRIAL HOLE (A)



TRIAL HOLE (B)



Site: Keepers Barn, Stone House Farm, Plummers Plain

Project Ref: LT16977

[illegible]

Test Method: Classification Tests BS1377: Part 2: 1990: Method 4.4, 5.3 and 5.4

Sheet No. 1

* Consistency index based on natural moisture content and not the equivalent moisture content.