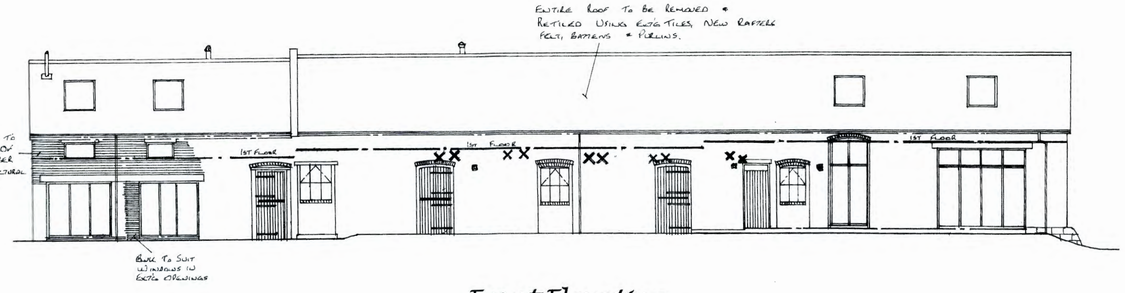
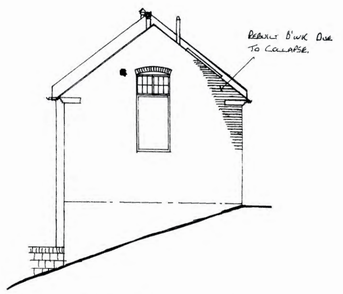


Side Elevation



Front Elevation



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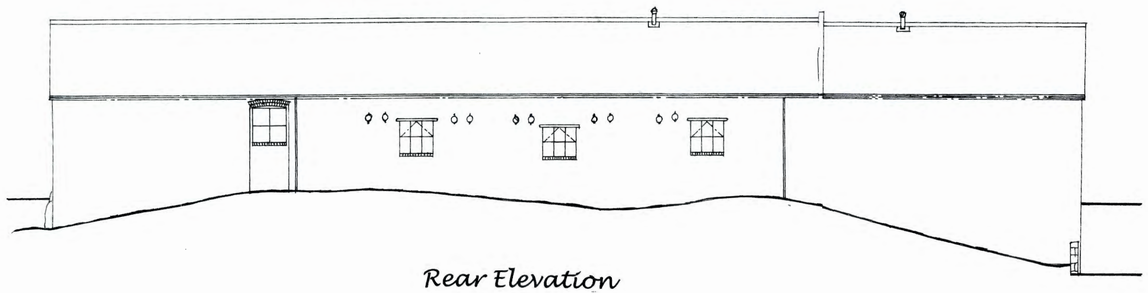
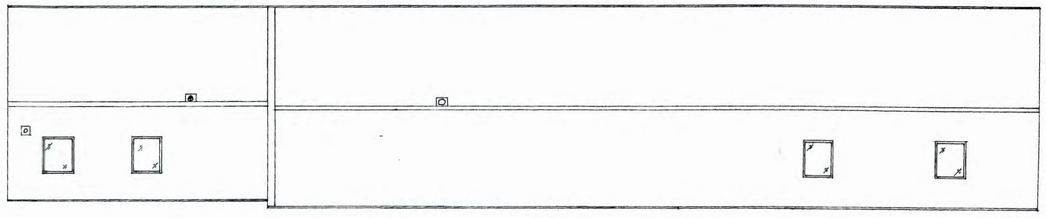
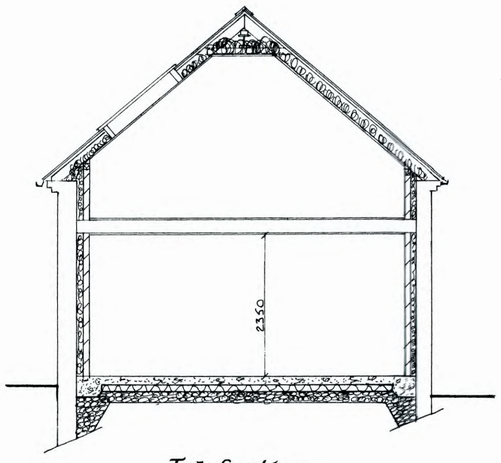


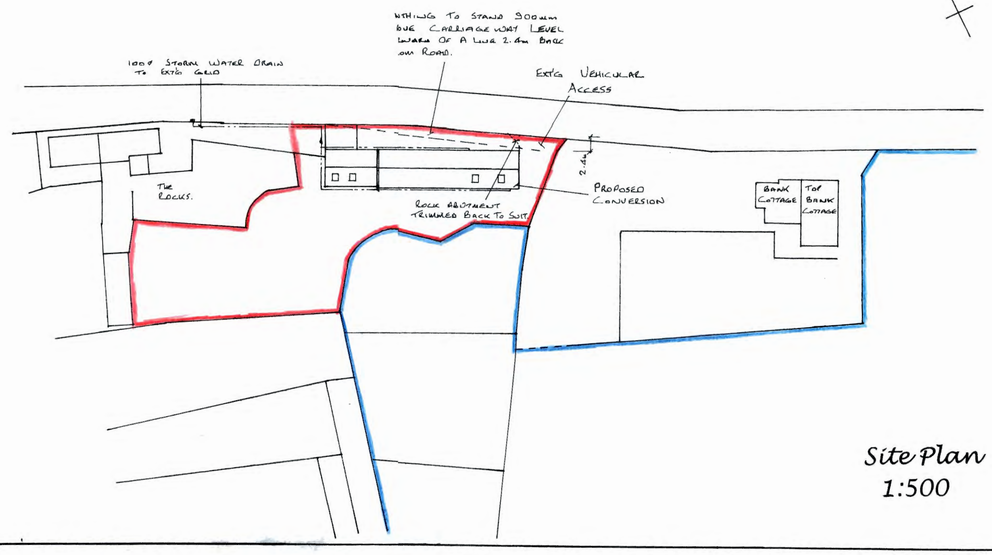
Rear Elevation



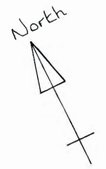
Roof Plan

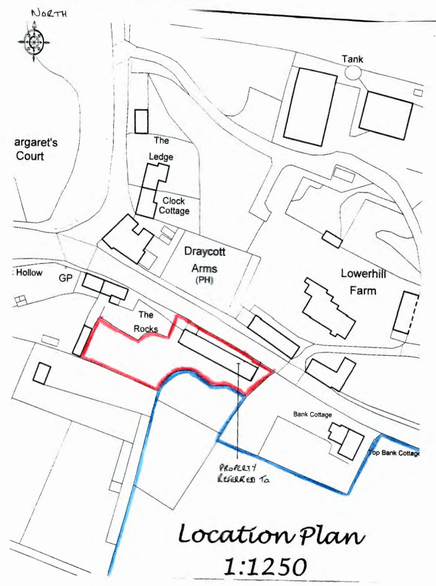


Typ Section



Site Plan
1:500





Location Plan
1:250

Cowshed And Barn Refurbishment Notes.

Complete roof to be removed including 3no steel trusses and to be replaced using existing Staffordshire blue tiles on 38mm x 25mm thk tanalized battens on 1 layer tyvek or similar breathable membrane installed in accordance to manufacturers recommendations on 150 x 47mm C24 rafters at 40° pitch at 400mm centres with rafters birdsmouthed to 100 x 75mm wallplate and steel ridge beam designed by structural engineers HBL Associates. Wallplate strapped down at 2 metre crs with 30 x 2.5mm galvanised steel straps. Each rafter strapped to brickwork using 30 x 5mm galvanised steel straps and turned over walls.
Lateral support to AD Part 1 para 1C37.
Existing timber tie beams to be removed one at a time and to be replaced with steel universal beams which are to be cladded to suit. Beam sizes to be designed by structural engineers HBL Associates.
Fit 4no 1500 x 100 conservation style Velux roof windows or similar to provide natural lighting positioned between doubled up rafters, box around opening using 75 x 50 timber incorporating 75mm celotex and finished with 25mm insulated plasterboard and skim. Roof windows to be fitted with permanent trickle vent to provide 10000mm sq background ventilation. Provide vent tile to top and bottom of window.
125mm thk celotex insulation between rafters with a further 25mm insulated plasterboard and skim below.
Visqueen sheets between plasterboard and joists.
300 thk rockwool rollbatts in 1 layer of 150mm and 1 layer of 150mm at 90° to each other in roof void.
"U" value of roof =0.16w/m²k.
90mm cavity totally filled with rockwool cavity batts to be linked to roof insulation and to continue to full height of gable wall, 100 thk 650kg/m celcon solar blocks or similar to all external walls.
Insulated dpc around all openings and insulated catnic lintels above openings.
Walls to be plastered internally in 2no coats 13mm thickness.
Provide dpc to all walls min. 150 above ground level and to be continuous with dpc to floor slab.
All walls to be repointed with all damaged brick's replaced. "U" value of external walls = 0. 30w/m²k.
Staircase constructed in accordance with part K building regulations to be made by specialists. 1500mm wide stone stairs at 42° pitch, 12 risers of 216.8mm, going 240.8mm, Handrail to be continuous and minimum of 900mm above pitch line. No part of stairs to allow a sphere of 100mm to pass through it. Stair clearances :- 2000mm measured vertically.
First floor construction to be of block and beam design.
Grub up existing floor and relay comprising superior floor finish on 50mm sand/cement screed on 100 thk conc (thickened out to 250mm thk for solar blockwork internal skin) on 500 gauge vapour barrier above 100mm thk kingspan floor grade insulation board with 25mm thk kingspan upstand at perimeters of ground floor slab on 1200 gauge visqueen damp proof membrane linked to inner leaf dpc on 50 thk sand on 150 layer of sulphate free hardcore. Damp proof course to be provided by specialists.
Foul drainage – 100dia flexible jointed supersleve pipes laid on pea gravel bed to 1:40 falls and back-filled with selected excavated material to septic tank min 5m from building.
2no 475 dia polypropylene inspection chambers.
112 hr pvc gutters, 63 dia downspouts to soakaway constructed to BRE 365 via btg's.
Provide mechanical extractor fans in en-suites, utility and bathroom (30 litres/sec), include 2no low level energy efficient light fittings to Para 1.54 Approved Document L1, install an interlinked mains operated smoke detection and alarm system. Electric sockets at be positioned at a height of 450mm and switches at a height of 1200 above floor level.
Waste pipes to comprise 100 dia upvc soil and vent pipe, 40 and 32 dia wastes with 75 deep seal traps to BS5572:1978.

General Notes

1. Drains laid to falls & to the satisfaction of the building inspector. Where drains pass close to foundations the foundation should be taken down to the lowest level of the existing adjacent drains or the drains should be encased in conc. to the underside of the foundation concrete.
2. Where existing foul drain passes under building the drain is to be encased in 150mm concrete with precast concrete lintels over line of drain where passing through walls.
3. U value of dwelling to achieve a max of 0.28w/m²k for external walls, 0.16w/m²k for roof.
4. Cross ventilation to roof in accordance to reg F2, diagram 6.
5. Electrical work to IEE standards with the design, installation, inspection and testing of the electrical installation to be carried out in accordance with BS7671:2001 and the certification to prove this.
6. Steel calculations are to be provided to the Building Inspector by the structural engineer.
7. Walls & ceiling finishes to reg B2.
8. First floor internal walls to be 75mm x 50mm timber studding with 12.5mm plasterboard and skim both sides with 100mm mineral wool in between for sound insulation.
9. All lintels over ground floor openings to be exposed and replaced if deemed to be unsuitable to carry additional loadings.
10. Structural timber to be of C16 grade except where stated otherwise.
11. Wall ties to be stainless steel to DD Type 4, AD Part A and to be spaced at 750mm horizontally and 450mm vertically.
12. Kitchen to have mechanical extract ventilation of at least 60 litres/sec (30 litres/sec if in cooker hood)
13. En-suites, utility and bathroom to have mechanical extract ventilation of at least 30 litres/ sec.
14. Water supply to kitchen, wc, utility and en-suites to comply with regs G1 and G3.
15. Habitable rooms to have background ventilation of at least 10000mm by trickle ventilators to windows or through the wall ventilation.
16. Non habitable rooms to have background ventilation of at least 5000mm.
17. External lintels to be filled with fibre glass insulation.
18. Glass in critical locations to comply with BSEN12150.
19. All new external frames to be pointed in mastic internally and externally.
20. All new double glazed windows to comprise 2no 4mm panes with a 20mm air space incorporating Low E glass to achieve a U value of 1.6w/m²k. windows to be "A" rated.
21. Rapid ventilation should be at least 1/20 of the floor area of all habitable rooms.
22. Closures to all windows and doors should be via propriety insulated reveals achieving a U value of 0.45w/m²k.
23. All new radiators to be fitted with thermostatic valves.
24. Provide energy efficient lighting to para 1.54 Approved Document L1.
25. Provide interlinked smoke detection system to BS5839-6:2004 Grade D Category LD3 to be mains operated with a battery back up to hall and landing.
26. Escaped windows to have a minimum opening of 450mm x 750mm, 1100mm max from floor level to window bottom.

Conversion Of Redundant Cowshed And Barn To Dwelling Opposite The Draycott Arms Car Park, Uttoxeter Road, Draycott, Staffs Moorlands For Mr. G. Plant.

Drg No 165/61/2

Date :- May 3rd 2017.

Scale :- Elevations And Roof Plan 1:100 Sections