Kef: Fred Building over Yard + Midden Farm building complex Lady Hall Lane Thwaites.

'Rockland' Lady Hall Millom Cumbria LA18 5HR

06/10/2020

Flood Risk Assessment.

Enclosed : (showing features mentioned later in the assessment)

- · Copy of O.S. Map, scale 1:2500 showing:
 - A) Position of existing complex, a proposed building identified RED
 - 8) 05 level 7,3 (23") located at centre of highway, colonned PINE
 - c) Levels taken from the above 7.3, to highway edge adjustent access, & Existing yard - coloved of ANGE
 - D) Access road (Lady Hall lane) coloured your
- · Copy of Environment Agency" flood map for planning, showing:
 - =) Proposed building within existing complex identified RED
 - Area being Flood Zone 3, benefitting from flood defences.
-) From the OS level 7-3 AOD, on the highway north of Low Boy House, levels have been taken which show the west side of the same highway opposite the field gates (across to proposed) is at 7:35 AOD. * the existing yeard (or whole building complex) - being concrete floored, at 6.19 AOD.
- 2) From previous environment agency correspondance, the flat calm tidal flood levels in this area are as quoted below
 - In 100 year undefended modelled flood level = 5.97 AOD
 - 1 in 200 year n was the second = 6.22 AOD
 - 1 in 1000 year = 6:63 AOD.
- + one model result, allowing for dimate change, predicted for the year 2115,
 - 1 in 200 year indefended modelled flood level = 7-0 AOD
- 3) The flood defences mentioned on the E.A. map, consist of a coastal embankment which was completed in 1963 a extends from Million to Diddan Bridge with the only large interuption being where the Black Beck enters the estrany at given Road station (the embankment neturning both sides of the beck inwards as far as the rankway line embankment) This embankment is believed to have been constructed by the owners of Lowther estates" + is aprox 7.0 A.O.D.
- 4) AN draws/gutters flow into main gutters running inward , parralled to the embankment, - exit inder the embankment in stinear into the estrong
- 5) During prolonged spells of rain the Relds throughout this land plane have water standing in hollows of the gutters do PM up, exparably when tides compide of the stuces are closed, causing backup' but never causes water to enter the building complex.

6) The embankment hight of aprox 20 AOD is in line with the 2115 modelled I in 200 plat calm plood livel predicted hight of 20 AOD, but present day wind/gale brocked high tides can cause local averlapping. This embankment was breakled in 2 places near Lady Hall dimining Feb 2002

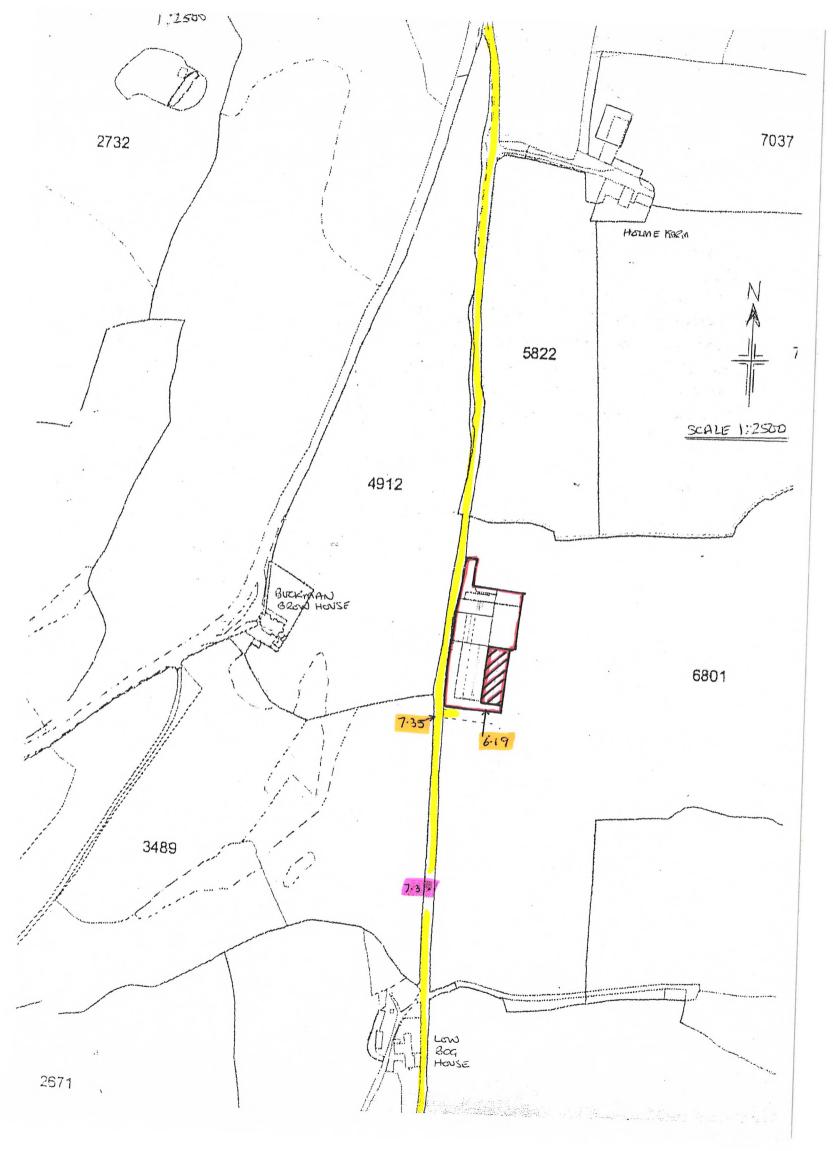
7) All the existing form buildings a yards within this complex are in a similar plane, all concreted. The proposed building is within this existing complex, with the fard level becoming the floor. The use of the area isn't changing from its existing use, only that it provides dry midden storage, a shelter for sheep.

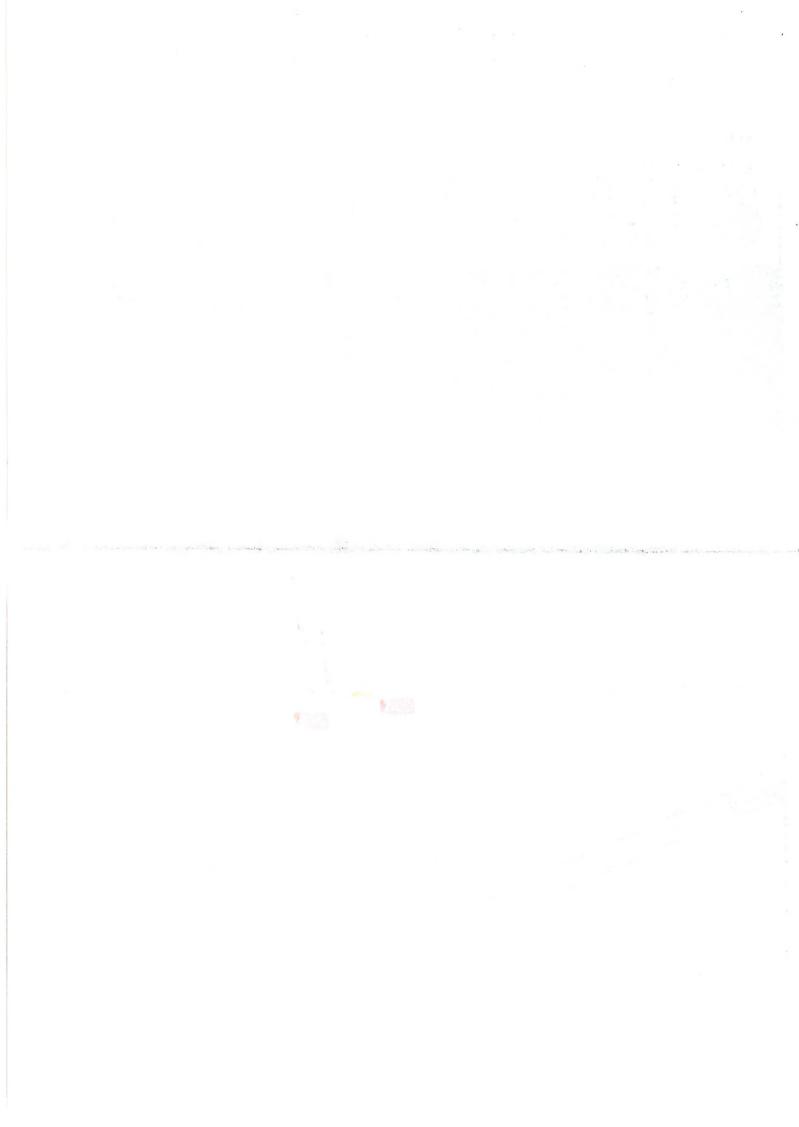
The existing rain water drained onen remains the same, only that it

is deaner, so thouse no changed to the drainage system.

8) The applicant his farmed here all his working life, following on from his father, is amone of the possibility of flooding. Stock can be moved accoss the road to much higher ground, or the highway adjacent (Laely Hall Lane) at 7.3 AGD can provide a Sofe haven. Flood water will be allowed to enter + exit freely in all the existing doors/gates.

RA WALKER







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