

## 22. Roof Removal & Replacement (Pitched Roof)

### Method of works

- WMS will erect warning signage or barriers to segregate the working area from access by other building users. WMS to ensure the welfare is available as described in CPP.
- The pre –works information and asbestos survey are to be read and understood. Ensure there are no ACM's or ACM debris present within the roof space that may be affected by the works.
- If any further suspect ACM's are identified as works progress works to stop and the contracts manager contacted before works continue.
- If the existing roofing tiles or under cloak to verge detail has been confirmed to be asbestos containing within the asbestos survey, then an approved asbestos removal contractor will remove this under strict accordance with Control of Asbestos Regulations 2016.
- WMS to ensure there are no trip hazards and that residents are not put at any risk.
- The works are to be carried out working from a scaffolding, erect by an approved competent subcontractor scaffolding company in accordance with TG20:21. See CPP for more detail.
- Scaffolding to be equipped with mechanical hoist and rubbish chute or an extended heavy duty platform for storing materials/rubbish where a BUMPA tile & brick lift can be used as a means of safely lifting the new roofing materials up to the working platform and also move removed/ waste down to ground level.
- WMS operative's/ representatives are to wear PPE at all times when undertaking these works i.e. safety boots/ steel toe cap boots, gloves and safety glasses.
- The operative is to wear P3 filter half face dust mask which the operative has been face fitted for when cutting tiles due to silica dust release.
- The roof is to be stripped off with removing the ridge & hip tiles. If these are to be re-used then these are to be cleaned off and set aside.
- If there is a chimney or the roof is tied in the an adjoining property, the leadwork flashing is to be carefully lifted avoiding any damage (unless this is to be replaced)
- The main roof tiles will be stripped off working from the top stripping down to eave detail. All removed tiles are to be taken down level via rubbish chute where they will be loaded in the general waste skip. Strip off an elevation at a time. Care to be taken if the property is adjoined to a neighbouring property.
- Once all tiles are removed, the existing felt and batten will be stripped off and disposed of as spoil.
- The existing timber rafters/trusses are to be de-nailed and cleaned off ready for new roofing materials to be installed.
- If felt/eave support trays are to be installed as part of the works then, these are to be fixed to the eave locations nailing to fascia board running the width of the roof. (to be lapped 150mm)
- Depending on the specification for how the roof is joining into the neighbouring property if a bonding gutter try is to be used then this is to be installed and fitted as per manufacturer's guidance.

- If necessary mineral wool to be installed over party wall to form firebreak.
- Any other trims/ profiles that are to be installed/ replaced are to at this point. I.e. valley boards & valley lead trays or soakers to adjacent property/ chimney.
- Starting at the bottom (Eave) at one side of the roof, run new breathable roofing membrane out the whole width and hold in place at end fixing to rafters with small clout nails. Continue up to ridge board lapping felt over a minimum of 150mm each run.
- Leave small drape in breathable membrane to allow water to rub under batten and disperse at bottom of roof to gutter.
- Once felted, work out batten spacing/ gauge based on tiles being used or manufacturer's guidance. Leaving adequate overlap at verge detail and eave detail for dispersal of water.
- Space new tanalised roofing batten (correct size for tiles) and fix to existing rafters using appropriate clout nail fixings. Continue up to ridge leaving correct gap for hanging lip of tiles.
- Soakers, valley gutter leadwork and other associated leadwork/ profiles are to be re-dressed or replaced.
- Once all roofing batten is fixed in place, the tiles can be lay out fixed to the batten using galvanised ring shank nails that penetrate through the tile into the batten but not through the roofing membrane. Tiles are to be fixed twice whether this drilled and nailed or nail and fixing clips.
- Tiles are to be cut to adequate size to work with wet verge/ dry verge system using a disc cutter in conjunction with dust extraction. Dust suppression techniques. Ideally with high profile part of the tile is at the end.
- When all tiles are fixed in position, lead flashing and other finishing profiles can be re-dressed/ fixed into position.
- Fit new dry verge cap system to counter batten installed and associated finishing profiles, (varies slightly dependant of manufacturer) starting at eave working up to ridge fixing in place using nail or stainless steel screw fixing. Clip sections of dry verge together and mechanically fix as per manufacturer's guidance.
- Once the verge caps are fixed in place. The ridge tiles are to cut to size and fixed into position whether this wet bed with cement or a dry fix ridge tile system (as per manufacturers guidance)
- The correct shaped dry verge ridge cap is to then be clipped into place and mechanically fixed at apex.
- Once complete, any areas of making good to be completed.
- On completion of the works, the working areas and below are to be cleaned up using an M-type vacuum cleaner.
- The scaffolding is to be dismantled and the site cleared of all equipment and left clean and tidy.

### See additional docs

Working At Height  
PPE  
Manual Handling

## Risk Assessment

Hazard	Control Measures
Falls from height	See Working At Height
Slips Trips and Falls	The site will remain tidy at all practicable times. All designated access/egress routes shall be kept free of slip and trip hazards, and obstructions. All equipment is switched off and/or isolated when unattended. All material that could potentially cause injury is either secured behind barriers or removed from site. The need for good housekeeping is to be explained in the site induction.
COSHH	When using any chemicals or substances hazardous to health, the COSHH safety data sheet will be followed to ensure that the safe working practice is followed. This includes storage and use, including the correct use of PPE. Common material sheets are within this document. Additional MSDS may be required for extra chemicals/substances on this contract.
REG 8	Care is to be taken when working near any flues. WMS and subcontractors are to ensure that no flues/ventilation points are blocked (ie taped off/netted etc), and that Reg 8 Gas Safety is adhered to at all times. Any damage at the time of working to any flue/air duct –terminal or debris entering the flue/air duct, condensate pipework, gas installation pipework, gas meter & housings or any part of the heating installation must be reported: Turn off the effected appliance / installation /energy supplies and make safe. After all work is completed re-inspect all flue terminals / installations for damage.
Manual Handling	Correct lifting techniques/ equipment are to be used at all times when moving equipment, materials or any heavy loads. Paying particular attention when lifting (stable stance, good grip, keep load close to your waist and do not flex your back).
Electrical	Only battery operated or 110v tools to be used All electrical equipment is to be PAT tested. The equipment is to be inspected prior to use to check for defaults or any other issues that could cause harm when the item is used.
Hygiene	Good personal hygiene is a necessity washing of hands prior to any breaks (food – ingestion).
Vibration	If there are any tasks with expected high levels of vibration. WMS shall use vibration calculator to work out if operatives are likely to exceed action levels. WMS have assessed these site and there are no excessive vibrating works that are likely have trigger times that will exceed the HSE 100 points. Subcontractors will also assess in their RAMS. Regular breaks between works involving high levels of vibration shall be taken.
Noise	If high levels of noise are expected, ear defenders and control measures are to be introduced if lower noise action value is expected to be exceeded (80dB weekly average or 135dB peak). If there are concerns that noise levels are above this, further investigation will be carried out.
Respirable Dust	Control measures are to be implemented when any operations are being undertaken that could give rise to respirable dust. Particular attention is to be made to silica dust. When cutting tiles, dust extraction is to be used to ensure operatives are not working above the 8hr control limit (0.1mg/m3) and FFP3 masks that have been face fitted to the individual are to be worn.
Asbestos	All operatives are to be Asbestos awareness trained. Asbestos surveys are to be sourced and reviewed before any works commence. Tradesmen are to remain vigilant at all times when onsite and if any additional suspect materials are identified, site manager is to be informed immediately.

Vulnerable persons	Appropriate signage must be used. Due to the area of the works, working overhead. WMS shall temporarily cordon off the area of work using cones and barrier tape.
Vermin – droppings	Site is to be clean any edible waste is to be removed from site, as not to encourage vermin. Gloves are to be worn and hands cleaned prior to lunch breaks.
Inclement Weather	<p>Regular checks of the weather forecast are to be carried out by the contracts supervisor.</p> <p>No works to be undertaken in high winds as the works are to be carried out using a scaffolding and the materials will act as a sail.</p> <p>When working in wet conditions (washing down – no painting in wet conditions), suitable waterproof clothing must be provided. Electrical equipment must be checked to ensure that it is not at risk of water ingress. If this is the case, it must be isolated until conditions improve.</p> <p>In times of high UV radiation workers are obliged to use sun screen protection. Workers are not permitted to 'strip off'. Minimum dress code is to wear a T-shirt. Anything less and the person/s must be ordered to cover up, or, on refusal to do so, removed from site. WMS are to check wind protection to ensure resident's possessions are not damaged.</p>

## PPE



If there are works being undertaken above you please also wear a Hard hat.