

Our Ref: 01C100699/NT11
Your Ref: Ref

15 September 2021

Ms Jo Glenn
Facilities Officer
DEFRA
Rivers House
East Quay
Bridgwater
Somerset
TA6 4YS

Dear Jo,

Roof Inspection – Rivers House, East Quay, Bridgwater

Further to your recent enquiry we are pleased to provide you with our letter report following your request for a pitched roof inspection and recommendations to be undertaken by Avison Young at Rivers House, East Quay, Bridgwater. The inspection was completed on Thursday 12 August, at which time the weather was overcast with light rain.

1. Background

The property comprises of a two-storey office facility which is constructed of faced brickwork with pitched, hipped and gable end roofs over the main offices. The pitched roofs comprise of concrete interlocking tiles with half round concrete ridge tiles to the hips and main ridge line of the roof. The roof has sarking felt underlay below the concrete tiles. The valley gutters are formed with a GRP type liner, suggesting remedial repairs have been undertaken previously. Roof drainage is by means of external half round uPVC rainwater gutters and circular down pipes. Lichen growth is evident across the tiles to the roof. The roof covering is commensurate with the age and condition of the building, which we understand was constructed in circa 1990.

Internally, water staining was evident in various locations at first floor level to the suspended ceiling finishes throughout the office demise. The locations of the leaks generally correspond with the roof gable features and valley gutters.

2. Findings

In general, the main pitched roofs are all generally noted to be in fair condition. However, there are a number of issues that need to be addressed in the short term to prevent the risk of continuing water ingress to the offices at first floor level.

The valley gutters to the pitched roofs were all generally noted to be full of debris at high level due to bird infestation. The cement fillet to the roof tiles adjoining the valley gutters were also noted to be missing, cracked or defective in numerous locations. At times of heavy or prolonged

rainfall, water will back up due to the debris within the valley gutters enabling it to enter the building under the roof tiles at the sides of the valley gutters and accessing the building through the felt underlay.

The valley gutter lining material was generally noted to be fair but becoming embrittled due to UV degradation. A coating has also been applied to the liner in some locations.

The drip detail, sarking felt to the underside of the roof tiles, has also degraded. Flashband repairs have been undertaken in locations.

A section of concrete fillet to the verge detail over the main entrance was also noted to be cracked and loose at the time of inspection. Although this remained in position at the time of inspection this was noted as a Health and Safety risk and was highlighted with you while on site.

A slipped roof tile was also noted to the front elevation overlooking East Quay. This is also a potential H&S risk and should be addressed urgently.

Isolated cracked or broken roof tiles were also noted to the roofs. Again, these should be replaced as part of any package of works undertaken.

The rainwater goods to the perimeter of the roof were generally noted to be in fair condition. We understand these have only recently been cleaned out although some debris was still evident in locations.

Within the roof void, the sarking felt generally appeared in good condition, where safe access was available to the centre line of the roofs. No obvious signs of roof leaks were present.

The site also has significant bird issues with old and defective bird deterrent spikes in various locations to ridge and hip tiles to the roof. Pigeons were evident to be roosting under the PV panels located on the roof overlooking the side car park. The bird infestation is also part of the cause of the build-up of debris to the valley and perimeter gutters.

3. Recommendations

We consider remedial works are required in the short term in order to resolve the water ingress from the roof into Rivers House. We recommend the clearance of all debris from the valley gutters is undertaken immediately to enable rainwater to drain to the perimeter rainwater gutters and discharge accordingly and not back up causing water ingress. This could be done from a suitable access hoist in the first instance.

A package of works should also be considered to carefully lift the roof tiles either side of the valley gutters to ensure the existing valley linings are all correctly dressed and fixed. At the time of inspection we did not identify any significant defects with the valley lining material but consideration should be given to replace it as part of any remedial works. All tiles should then be replaced to the valley and repointing of all tiles adjoining the ridge be completed to prevent water ingress into the roof void.

The drip detail at the roof edge will also require remedial repairs and replacement in the medium to long term. This can be addressed by inserting a new drip detail below the bottom two courses of roof tiles and lapping below the existing sarking felt to ensure any water that does run down the felt, discharges into the rainwater gutter.

The section of cracked mortar to the gable over the main entrance should be removed and repointed to prevent the risk of falling material onto occupiers entering or leaving the building.

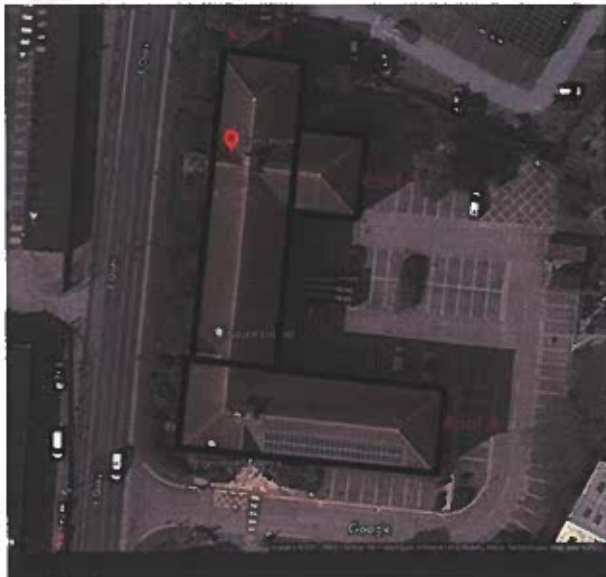

The slipped roof tile to the front elevation should also be replaced in the short term to prevent this slipping and falling during inclement weather.




The isolated cracked and broken roof tiles should also be considered for replacement as part of the package of works to undertake repairs to the valley gutters.




Due to the bird situation, we also recommend all valley and rainwater gutters are cleaned and all debris removed at least once a year to prevent the build up and risk of water backing up in these locations.




Subject to the above works being undertaken in the short term we consider the roof to be in satisfactory condition and will continue to operate for a further 15-20 years before a significant overhaul and repairs will be required.




Photographs




| Photo No | Photograph Description | Photograph |
|----------|--|--|
| | Externals | |
| | Location Plan | |
| |  | |
| | Roof A | |
| 1. | Missing mortar pointing to edge of valley gutter and poor quality flash band repairs to pitched roof drip detail, valley over main entrance. |  |



| Photo No | Photograph Description | Photograph |
|----------|--|--|
| 2. | General view of debris to valley gutter. Cracked verge pointing evident to gable end over main entrance. |  |
| 3. | Cracked pointing to verge over main entrance that is loose and requires removal and re-pointing. |  |
| 4. | Typical example of build-up of debris to valley gutter over main entrance. |  |

| Photo No | Photograph Description | Photograph |
|----------|---|--|
| 5. | Typical example of lichen growth to roof with minor defective pointing to top of hip. |  |
| 6. | Typical example of debris to valley gutter at junction of Roof A and Roof B. |  |
| 7. | Cracked tile adjacent to valley gutter on rear elevation. |  |

| Photo No | Photograph Description | Photograph |
|----------|---|--|
| 8. | Minor debris to valley gutter, East Quay elevation. Note slipped roof tile to bottom course of tiles, requires refixing. Valley gutter also appears to have received a coating. |  |
| 9. | Slipped tile to East Quay elevation. |  |
| | Roof B | |
| 10. | Blocked valley gutter to gable feature roof, East Quay elevation with a liquid coating evident to the valley gutter. |  |

| Photo No | Photograph Description | Photograph |
|----------|---|--|
| 11. | Debris build up within valley gutter to East Quay elevation. Lichen growth evident across the roof. |  |
| 12. | Cracked and missing pointing to valley gutter. Poor quality application of mastic sealant to areas of defective pointing. |  |
| 13. | Build-up of debris to valley gutter. |  |

| Photo No | Photograph Description | Photograph |
|----------|---|--|
| 14. | Build-up of debris to valley gutter at high level to junction of Roof B and C. |  |
| 15. | Defective pointing to junction of valley gutter and roof tiles. |  |
| 16. | Blocked valley gutter and missing pointing to edge of tile at junction of Roof B and C. |  |

| Photo No | Photograph Description | Photograph |
|----------|--|---|
| 17. | Missing pointing to edge of tiles to valley gutter, East Quay elevation. |  |
| | Roof C | |
| 18. | Missing drip detail to edge of Roof C. |  |

