Remote Verification Inspection (RVI) Case Study

Local Authority
Building Standards
Scotland

LABSS

> This is a series of case studies, written by verifiers, for verifiers, identifying good practice and opportunities for remote verification to contribute to the safe and reasonable inquiry into the compliance of buildings with building standards. This is a partnership between LABSS and Building Standards Division of the Scottish Government.

RVI – Responding Practically to the Covid-19 Pandemic

In this case study, Midlothian Building Standards Team's Steven Fleming explains how turning to RVI as Covid-19 restrictions impacted on the freedom to visit construction sites, helped them with service delivery.

Background

Back in December 2019 when the Chinese authorities first alerted the World Health Organisation (WHO) of pneumonia cases in Wuhan City, not many within Building Standards would have realised the impact it would have on our ways of working. Indeed, it wasn't until March 2020 that the UK officially went into lockdown. Even then, no one could have imagined that we would still be adapting to different working practices as a result of the Pandemic in July 2021.

During the peak of the pandemic, when physical inspections were not possible, local authorities across Scotland embraced the use of technology in order to carry out Remote Virtual Inspections (RVI).

As a result of a successful vaccination programme, there is hope that a return to more normal ways of working is in the horizon. However, going forward, many in Building Standards are keen to retain a RVI process. In particular, Building Standards Managers, will be keen to retain the obvious financial savings offered by a remote inspection process.

Moreover, Surveyors and Inspectors will be keen to retain the significant time savings on offer by omitting travel time from the inspection process.

RVI Practice

As a Building Standards Surveyor with Midlothian Council, I have been asked to share my experience of the RVI process during the pandemic. I have carried out a significant number of virtual inspections over the last 16 months utilising common applications such as Zoom, Microsoft Teams and WhatsApp for video inspections. I also utilise the submission of photographs as a remote inspection method in certain circumstances.

Prior to booking inspections, Midlothian Council ask that all relevant paperwork be submitted by site agents/applicants for review. Reviewing these submissions can be a time consuming process. Often key documents are omitted, forms have been completed incorrectly, and documents have been cropped or bundled together incorrectly. These documents have to be corrected and put into a presentable order before it can be inserted into the Document Management System (DMS). Going forward, the creation of a mobile application that would allow site agents and/or applicants to quickly submit all required documents is a consistent manner directly to our DMS would be of real benefit.

Experience

The most obvious benefit is the reduction in travel time. At one point during the pandemic we had an inspector in Fort William carrying out live video inspections of completed dwellings in Dalkeith. Conversely, I found myself connecting remotely to a building site that was a five minute walk from my new working location in my home office. Although probably uncommon, the time reduction offered in the latter of these two scenarios is less of a benefit.

Connectivity was a concern to many when remote inspections were first intimated. When inspecting building sites remotely we are reliant on the mobile 3G/4G networks and the equipment available to site agents. On most, if not all, of the sites I have been working with the site agents have had to utilise their personal mobile phones to connect to arranged inspections as their employer issued phones are not capable of connecting to video calls. I also have one site where the 3G/4G signal is weak and video calls are not possible and have continued to service this particular development with physical inspections as a result.

In the main, when the call has been connected, the inspection process has run smoothly and I have been able to direct the site agent to what I would like to see. I am able to compare what I am seeing on my inspection screen with the approved warrant drawings on the adjacent monitor and am able to readily pick up discrepancies, areas of concern and areas of non-compliance.

Inspecting

I have attempted to witness drain test during video calls and have found this to be impracticable. It is just too difficult to view the level of water on the gauge and have an understanding of the surroundings. In Midlothian, for sites that are not utilising certifiers of construction, we have allowed drain tests to be self-certified using our alternative evidence form declaring that they have witnessed the test and that it has passed satisfactorily. If the widespread use of RVI is to be retained going forward it would be beneficial to encourage house builders to use approved certifiers of construction for the drainage works.

For one off inspections of extensions to houses, and other minor domestic works, the experience has been similar. Connectivity is less of an issue when inspecting the internal works as the homeowner is generally connected to their home Wi-Fi network offering a more stable connection. Unfortunately, on occasion, the connection drops out when attempting to inspect externally and follow up photographs have to be requested to finalise the inspection process.

We initially had concerns that the use of technology may prove difficult for older customers. However, this has proven not to be the case (especially when we use WhatsApp, which is considerably easier to use and more widely utilised on mobile phones compared to the other available mobile streaming solutions). We also created a Midlothian Guide to RVI document which has been a useful tool in preparing customers on what to expect during the virtual inspection process.

Final thoughts

To summarise, there is no doubting that the introduction of RVI has been invaluable during the pandemic. I am of the opinion that they could be retained and would be a useful tool for Building Standards going forward in carrying out our process of reasonable inquiry. If this is to happen then the creation of a mobile submission application for inspection paperwork would be of a real benefit. Moreover, we would require major house builders to ensure site managers be provided with appropriate equipment and training for the purposes of remote inspections. A wider use of the existing approved certifiers of construction scheme should also be encouraged.

Building Standards

Remote virtual inspections

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Guidance on remote virtual inspections (RVIs)

1. INTRODUCTION

Under the Building (Scotland) Act 2003, all Building Standards sections throughout Scotland must undertake reasonable inquiry to check that building works comply with the minimum standards set out in the Building Regulations.

The CCNP (Construction Compliance and Notification Plan) we issue with each Building Warrant lists all the key stages of a building project that need to be inspected by Midlothian Building Standards. You (or your agent or your builder) are responsible for notifying us when each key stage in your CCNP is ready to be inspected on site. Notifications can be via telephone, email or letter to the case surveyor. Contact details are on your CCNP.

When all the work is complete, a Completion Certificate - Submission form should be submitted, along with all the supporting documents listed on the CCNP.

2. USING ALTERNATIVE EVIDENCE

Due to the Covid-19 situation, we are currently not routinely undertaking physical site inspections, other than for immediately dangerous buildings.

Following Scottish Government guidance on using alternative evidence, we will undertake the CCNP key stage inspections as follows:

Alternative evidence options your case surveyor may select for your key inspections

Key Inspection Stage	Written submission, email or report	Certification from approved scheme	Midlothian template form	Remote virtual inspection by	
				Photographs	Video
1. Start of work	●	-	-	-	-
2. Foundation	●	○	-	○	○
3. Drainage	-	●	●	○	○
4. Superstructure	○	○	-	●	○
5. Fire safety	●	-	-	●	○
6. Completion	○	●	○	○	●

● = standard, ○ = optional