

Navan Road Community Council

Pat,

The level crossing attendant's cottage is not in danger, nor would I propose any works that might endanger it for heritage reasons. Its foundations extend below the level of the water in the base of the lock, well below the proposed cutting.

The building itself is of Granite ashlar construction and engineered to remain stable in the presence of vibrations from passing trains. It is deliberately engineered to be an extremely robust structure. It was actually designed to be a structural buttress to the wall of the lock, which would otherwise be susceptible to dynamic lateral loading from the vibrations induced by passing trains.

The lock itself was well known from the time of its construction to have been structurally weak due to unstable ground (the first canal company went bankrupt as a result). Given that well-publicised knowledge at the time, the engineers for the railway would have been aware of the need not to rely on any restraint from the lock in constructing the granite railway cottage. Its foundations are therefore likely to extend to well below the 4.8m proposed for the cutting and may even extend to below the bed of the canal. This would give it a base of foundation ("formation level") of approximately 6.0m below the level of the proposed Ashtown Road, some 1.2m BELOW the track level of the proposed cutting.

Railway engineers are now, and would then have been, keenly aware of the potential for water leakage from the canal into the surrounding ground, which, when vibrated by the action of a passing train, could combine to weaken adjacent foundations. It is therefore predictable that a uniquely robust foundation is in place to support this cottage. Such a robust granite foundation is also amenable to further reinforcement, should this be required during the course of the works.

The building has stood for almost 2 centuries in this location without evidence of cracking as the size, weight, speed and number of trains passing has increased. The number, speed and weight of trains is set to increase further with the electrification of the Maynooth line. Meanwhile, the Ashtown Road and the rail bed has sunk repeatedly around it and required regular maintenance and re-levelling. This is eloquent testimony to the robustness of the foundation design supporting this cottage and confirms its role as a buttressing structure to the adjacent lock wall.

04 OCT 2023
LTR DATED _____ FROM _____
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