

# The FOBC on excavation adjacent to party walls

by Angelo Xuereb

**M**ORE THAN 16 months have now passed since the Federation of Building and Civil Engineering Contractors (FOBC) submitted its final recommendations on the proposed amendment of the law relating to excavation and party walls to the Building Industry Consultative Council (BICC).

The initiative was discussed at length within the construction industry and received widespread support. This notwithstanding, the law remains unchanged, and the FOBC has learnt that the draft legislation may change due to political reasons rather than for practical ones.

In this article I shall try to explain in layman's terms the consequences of the 2.5-foot (76 cm) retention during excavation next to third party walls which our current law stipulates as well as the reasoning behind the FOBC's stand on this issue.



The present law on the retention of two and a half feet from the adjacent third party wall was introduced in 1868. The main reason for this law was to protect individual wells cut into the rock.

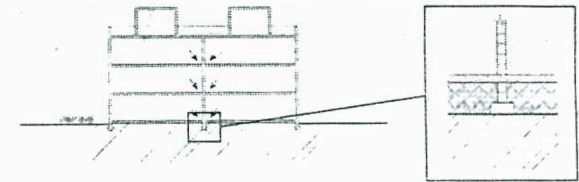
The five-foot (152 cm) distance between one well and the other was intended to retain the structural stability of the wells' walls and to avoid water theft by a neighbour.

This argument is strengthened by the fact that in those days land was relatively inexpensive and abundant, and developers did not opt to excavate basements in rock, due to additional costs and water seepage. One has to keep in mind that in those days damp-proofing of walls was nonexistent.

By time, especially after the Seventies, land for building became more scarce and expensive. More efficient rock-cutting equipment and

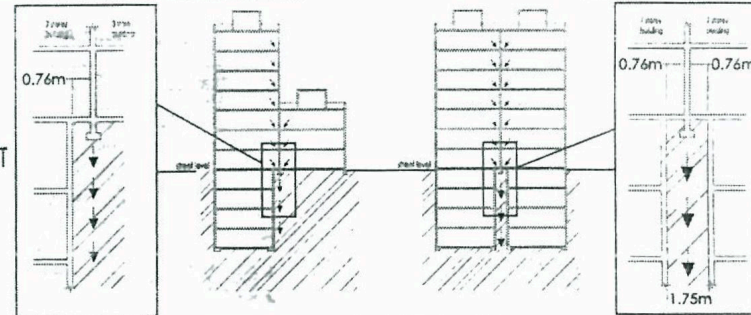
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TYPICAL SECTION PRIOR TO RE-DEVELOPMENT  
(on any type of ground formation)



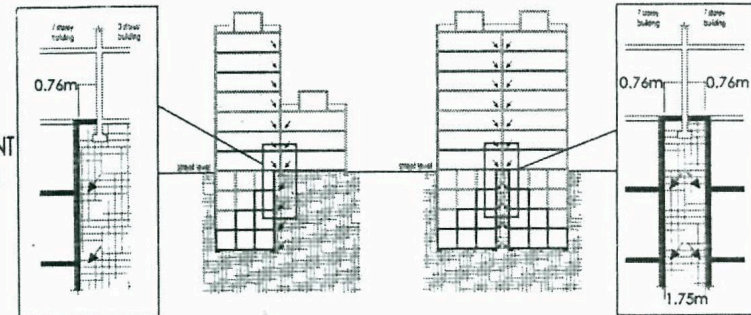
SCENARIO 1

RE-DEVELOPMENT  
OVER FISSURED  
ROCK



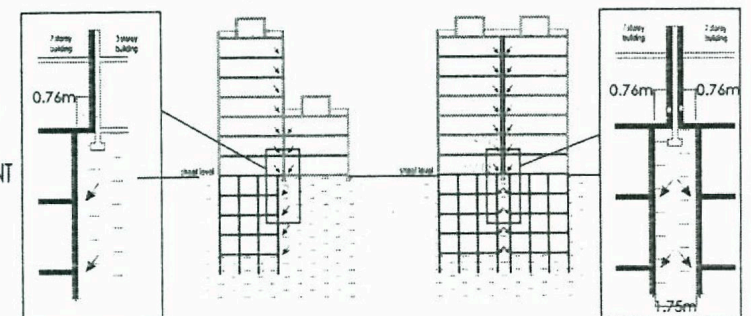
SCENARIO 2

RE-DEVELOPMENT  
OVER BROKEN  
ROCK  
(TURBAZZ)



SCENARIO 3

RE-DEVELOPMENT  
OVER CLAY



THREE SCENARIOS explaining the possible instability of foundations

# Decision to be taken on practical, not political grounds

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adequate waterproofing materials were introduced.

These facts therefore have resulted in the need to excavate the rock, to accommodate more building space. This in return has indirectly created a structural instability in the rock formation when a neighbour decides to carry out deep excavation works.

Over the past few years excavation has been going deeper and deeper, which results in more serious problems.

This problem is further aggravated by the fact that the rock and ground formation varies substantially from hard rock to soft ground or clay. In the absence of other measures a 2.5-foot protection may not

be enough in the case of soft rock, while well over 100 feet (30 metres) would be needed in the case of clay.

This is proof that to retain the law, with a protection of 2.5 feet, does not make sense.

**T**he FOBC strongly feels and recommends that each development must have its own separate and independent structure from the neighbouring structure.

Each developer would have to appoint a structural engineer who, together with a geological engineer, would assess the ground formation and the adjacent building structures. They would then design the new independent structure to minimise the risks of collapse or other damages to neighbouring buildings.

Before any works are taken in

hand, a method statement would be submitted at MEPA for any interested party to view and comment on. Upon completion of the building, a set of structural drawings should also be deposited with MEPA or another specifically designated office.

This is essential so that whenever the neighbour decides to develop and excavate his plot, his engineers would have a better understanding of the structure and would design the new development after considering pressures over the foundations of the neighbouring building.

The present law permits the excavation, say five storeys deep, next to a party wall of an existing block of apartments without taking into consideration the ground formation, being fissured rock, soft rock (*turbazz*) or clay.

or clay.

This means that one can construct a four-storey basement and leave 2.5 feet from an adjacent five-storey block of apartments without a legal obligation for further protection.

To aggravate matters, so as not to lose any valuable land, certain developers first construct their basement up to the level of the adjacent foundations: they then either construct the party wall exactly adjacent to the other building, or else make use of half of the party wall, which may have been constructed a long time previously without the adequate measures to take additional loadings.

The accompanying sketches explain clearly the possible instability of the foundations, should the existing 2.5-foot space prevail.

I am excluding the fact that certain developers and engineers, on their own initiative, take additional precautions to make the structure more stable than explained in these sketches, but the fact remains that the present law does not impose this.

**Scenario 1** shows three-storey adjacent buildings over fissured rock, which is the most common case in Malta. Without a proper analysis of the ground formation, the rock may slip away.

When one of the owners decides to develop his site with, say, a seven-storey building above ground and four levels of basement, he is only obliged to leave 2.5 feet of rock. On completion and when the neighbour decides to construct a development similar to that of his neighbour, this may result in an unutilised area in the basements of five feet (172 cm) with load-bearing walls or columns on this unstable, slender piece of rock, which is left between the two adjacent buildings.

**Scenario 2** shows three-storey adjacent buildings over soft ground formation (*turbazz*). If the same procedures are applied, as explained in scenario 1, this may end up with the collapse of the whole building or into a massive and unjust cost to the latter developer, since he has to take all the necessary precautions to protect the adjacent third party wall.

**Scenario 3** explains the same procedures over a clay ground formation. If not properly planned, it may end up in a disaster as there are many more complications.

The sketches demonstrate that the use of a nine-inch party wall as a common wall is dangerous and the FOBC is proposing that, unless there is a contractual agreement which is registered in the National Archives, this should not be allowed. In fact, the use of the nine-inch party wall is not according to law and has become a practice by default.

It could also be dangerous. As an example, imagine a seven-storey building with a nine-inch party wall where the two adjacent parties chase the wall horizontally from their respective sides to pass their services. This would mean that all the load of the building is borne by a mere four-inch (10 cm) party wall!

Furthermore, it also demonstrates that, as things stand, the developer of the second property sometimes has to incur substantial additional costs to support the loading of the third party wall.

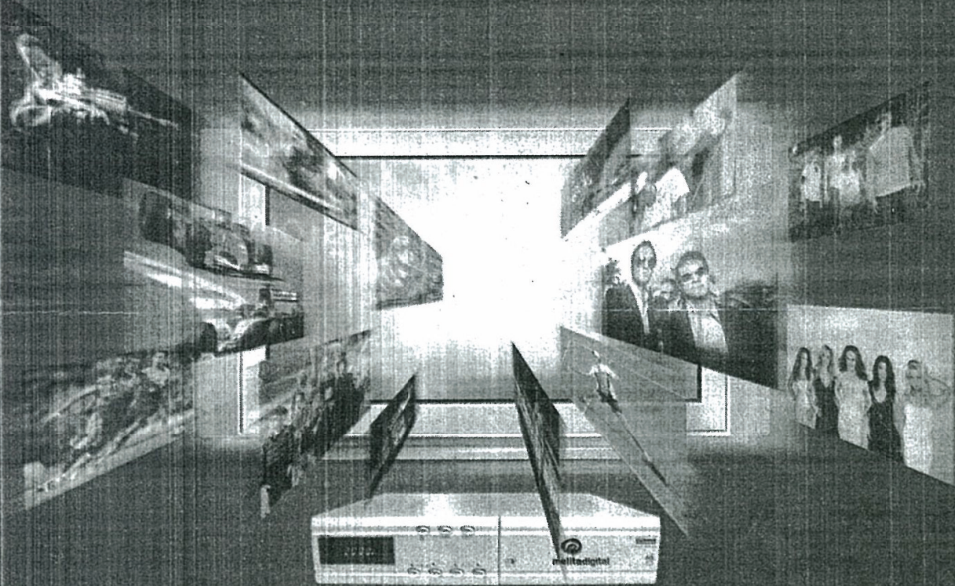
The FOBC calls for an urgent revision of this law, making each developer responsible for his own building while protecting neighbouring structures.

The method of excavation and construction has changed dramatically over the past 30 years, and the legal framework has to change too to keep up with these changes.

The FOBC is formed of experienced main Building and Civil Engineering contractors and has debated this issue in great detail. These recommendations are therefore based on practical, not political, issues.

*Mr Xuereb is president, FOBC.*

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## Health and safety course

THE Foundation for Human Resources Development, in partnership with the Institute of Health and Safety, is holding a course entitled 'Controlling risks in the workplace' on January 15, between 9 a.m. and 12.30 p.m. at the FHRD's premises at 1, Triq il-Kampanella, San Gwann.

The course will cover legislation, risk assessment, prioritising controls, and developing a practical approach.

It is targeted at people interested in the control of risk, and those who will be expected to make an active contribution to health and safety in the workplace.

Chris Hudson will be the trainer.

For a registration form click [www.fhrd.org/RegistrationForm.pdf](http://www.fhrd.org/RegistrationForm.pdf).