

Greetings,

This submission may be made public along-side my name associated details.

Please note that this reply is written from the perspective of the officer responsible for the management of bridges for a local government agency.

As such, of all the proposed changes, it is change No. 14 (LIFD Schedule Part 4, Item 2) that is of the greatest concern.

ASSET MANAGEMENT

The management of bridges, as with many assets, is directed by a Risk Management process. Budgets and costs are evaluated relative to the risks to both the public and the structure itself.

With the unconsidered addition of third-party assets, the risk profile of a bridge can be dramatically altered.

Costs of both maintenance and replacement of assets dramatically increased, requiring either vastly increased funding or an acceptance of a lower standard of safety.

For example:

A project that was recently investigated was the \$30,000 replacement of a pedestrian bridge at the end of its useful life.

The bridge itself did not meet any current design standard, for strength or safety, and was becoming increasingly difficult to maintain.

Due to the presence of several telecommunications assets on the bridge, its replacement would have required a \$700,000 upgrade of these lines.

As there was no budget available for such a task, the project was abandoned, with the existing sub-standard infrastructure is being maintained as best as practicable in the hopes that a viable alternative will be discovered in the near future.

These sorts of changes in the risk profile of an asset are something that is very difficult to either account for or justify using most budgeting or asset management practices.

If similar burdens could be placed on any bridge, at any moment, without prior consultation, it would dramatically impact the ongoing management and safety of all bridges.

CLEAR SPACE

Most bridges are designed to allow the passage of water, pedestrian traffic or both to happen safely under the bridge deck.

When installing assets around bridges, it is unlikely that any consideration would be given to the height that is required by the bridge over the void that it is spanning.

In the case of passing water under a bridge, the unconsidered installation of a telecommunications line can result in the blockage of a waterway.

For a bridge that provides a pedestrian underpass, the conduit itself may be so low that it prohibits the safe passage of pedestrians.

STRENGTH

An additional potential impact on a bridge is that many structures have a very limited capacity to carry the required load.

While the lines, conduits and other infrastructure associated with telecommunications has a relatively minor weight, it still reduces the capacity of a structure to carry its intended traffic.

Further complications arise when the methods used to secure the telecommunications infrastructure to a bridge frequently compromise its strength.

Examples of this include:

- Welding to the tension members on the underside of a bridge (stresses are induced by the heating during the weld and poor welding practices can directly damage the steel)
- Screwing or bolting across a timber beam (this concentrates the stresses in the timber and allows failures to propagate much more readily)
- Smashing a hole through a concrete beam to allow passage for a conduit (dramatically reducing its strength)

ALTERNATIVE OPTION

While the rest of this submission has intended to highlight the reasons that the suggested alteration would not result in an ideal outcome, allow me now to suggest a potential alternative:

If a telecommunications authorities wishes to attach any assets to a bridge without consulting the managing authority for that structure, they should be liable for any additional costs associated with the proper management of the structure due to the presence of the telecommunications facility. Ideally, this clause would also be extended to existing telecommunications infrastructure, where it can be demonstrated that it was not constructed in accordance with the standards that applied at the time.

Thank-you for the opportunity to comment on these proposed changes.

Regards,

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