

IDC REFERENCES	REQUIREMENTS/ SPECIFICATION	UTF COMMENTS / FEEDBACK
DS-1 GENERAL PROVISIONS		
DS-1.17	The required easement widths for underground infrastructure is to be determined by the designer, and is a function of maintenance and replacement access, health and safety, and protection of people and property.	Please refer to the attached technical memorandum provided by Lysaght Consultants Limited summarising the issues with DS-1.7
DS-4 TRANSPORTATION NETWORK		
DS-4.7.1	The IDC allows for concrete strips for private accessways.	Please refer to section 2.0 of the attached Lysaght Consultants Limited memorandum summarising the issues with DS-4.7.1
DS-5 STORMWATER		
DS-5.4, DS-5 Appendix E	Nested storms profile must be used for hydrodynamic modelling	The use of nested storms for smaller sites, infill developments and sites with attenuation will necessitate larger and more expensive infrastructure (pipes, attenuation, etc.) than what would be required if temporal storm patterns were used. The Opus 2005 temporal patterns are more representative of real world storms than nested patterns and are being accepted by TCC staff, so this should be reflected in the IDC.
DS-5.4	Rational method may be used for catchment areas up to 50ha where there is no significant attenuation storage upstream of the point of investigation.	The rational method is not appropriate for larger sites or complex catchments. The maximum catchment area where the rational method is appropriate should be reduced, and the use of hydraulic modelling should be encouraged. For reference, the RITS limits the rational method to sites less than 8 Ha in area.
DS-5.4.2	90% storm depth consistency	DS-5.4.2 states the 90% rainfall storm for Tauranga is 33mm. BOPRC's Stormwater Management Guidelines discuss design events and in section 7.3.3 recommends ' <i>in areas where the 90% storm is greater than 30mm, WQ treatment will use 30mm of rainfall for design purposes</i> '. Given many sites requiring significant water quality design would require consents from both TCC and BOPRC (for example, a wetland or a pond), we recommend there should be consistency between TCC and BOPRC design standards.

DS-5.4.2b	Clarity of Sea Level Rise	DS-5.4.2b states that stormwater management systems must take into account sea level rise, but is not clear on what assumptions are to be made with regard to sea level rise. Multiple sea level rise scenarios in previous reporting (eg. NIWA's models include both 1.25m and 1.6m scenarios, among others).	
DS-5.4.5	Freeboard above design flood level consistency	For habitable dwellings, DS-5.4.5 requires 500mm freeboard from the top water level to the 'building platform', which is taken as the subgrade, equivalent to the underside of slab for a typical concrete foundation. The finished lot level is typically 150mm to 200mm above this to allow for topsoil respread, requiring considerable height between berms and finished lot levels in many cases. The City Plan requires freeboard from the top water level to the 'finished floor level', as does E1 of the NZ Building Code. Section DS-5.4.5 acknowledges this difference, and notes that the IDC requirement is ' <i>to ensure the future owner can meet the freeboard requirements during the building consent stage</i> '. There has been cases where 500mm freeboard has been provided to the building platform as part of the development works, then the site cut-down significantly as part of future building works as NZ Building Code E1 typically only requires 150mm freeboard to FFL, which is a waste of resources. We recommend the IDC should be updated to be more consistent with the City Plan and Building Code. This could be by using 'finished floor level' as the determining factor in the IDC, or be updated so that the developer must demonstrate how freeboard compliant with the City Plan and/or Building Code can be achieved as part of the DWA application.	
IT-4 TRANSPORTATION NETWORK			
IT-4.8	AP40 materials and testing requirements do not correlate to commonly used NZTA M/4 material specification.	For simplicity, TCC's AP40 material specifications should match that of NZTA M/4. This would greatly simplify the testing required of quarries and roading projects.	

IT-4.9.5d and IT-4.9.5e	NAASRA roughness testing is required on all roads	<p>This is an unnecessary test for local roads, when considered in the context of all other testing that is required, and adds unnecessary cost. Further, in recent experience TCC is not requiring this testing to be done for all sites in practice. The IDC should reflect this, and allow the test to be waived where relevant. Further, in research report 090 (available on the NZTA website here: https://nzta.govt.nz/assets/resources/research/reports/090/090-Some-operational-limitations-of-the-naasra-roughness-meter.pdf) concludes that NAASRA testing is not accurate in determining the true roughness of roads.</p>	
IT-4.10.1	Falling Weight Deflectometer testing is required on all roads.	<p>This is an unnecessary test for local roads, when considered in the context of all other testing that is required (beam testing, proof rolls, etc.), and adds unnecessary cost.</p>	



Tauranga City Council
21 Devonport Road
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RE: IDC Triennial Review – Easement and Access Concerns

Attention: Bodo Hellberg

1.0 EASEMENTS OVER PIPE INFRASTRUCTURE

Through the subdivision or land use consent process (not the building consent process), TCC have been demanding easements in gross over both existing and proposed infrastructure (including pipes, manholes, rodding eyes), and existing single house connections (serving other private properties) running through the subject property.

TCC have been quoting the IDC as the mechanism for this, specifically:

“DS-1.17.3 Sizing and Location of an Easement

The designer shall demonstrate how the easement size has been calculated to allow for:

- a) Maintenance and operations in terms of practical access.*
- b) Replacement of the infrastructure.*
- c) Health and safety of persons performing these tasks.*
- d) Protection of people and property in general.*

This ensures that the infrastructure achieves its function and remains cost efficient over its lifetime. Particular attention shall be given to deep installations e.g. deep pipes, support piles etc. based on the above considerations.”

We have discussed work on mains with several contractors, and they have confirmed that they can work in areas as narrow as 2.0m wide with a small excavator, and 2.5m with a larger excavator. Several techniques are available other than the typical battered 45 degree trench excavation to allow such work to be done in narrow spaces. Trench shields (inflatable shields being particularly useful in smaller works areas), shoring techniques, and excavation-less technologies can all be used to safely maintain and replace infrastructure while protecting people and property, thus fulfilling the requirements of DS-1.17.3.

In the past, we have been able to justify smaller easement widths based on realistic consideration of the points set out in DS-1.17.3 above. TCC now don't accept any easement with less than 3.0m in width, regardless of the specifics of the infrastructure and the site, and have adopted the following (without this being fully justified or specified anywhere):

"Easement widths shall be the minimum of 3.0m wide or twice the depth of the pipe (whichever is greater)."

We don't consider this position to be reasonable, as evidenced by the examples below. On multiple occasions we have requested narrower easement widths by demonstrating compliance with DS-1.17.3 above, but have not had any success.

1.1 Example 1

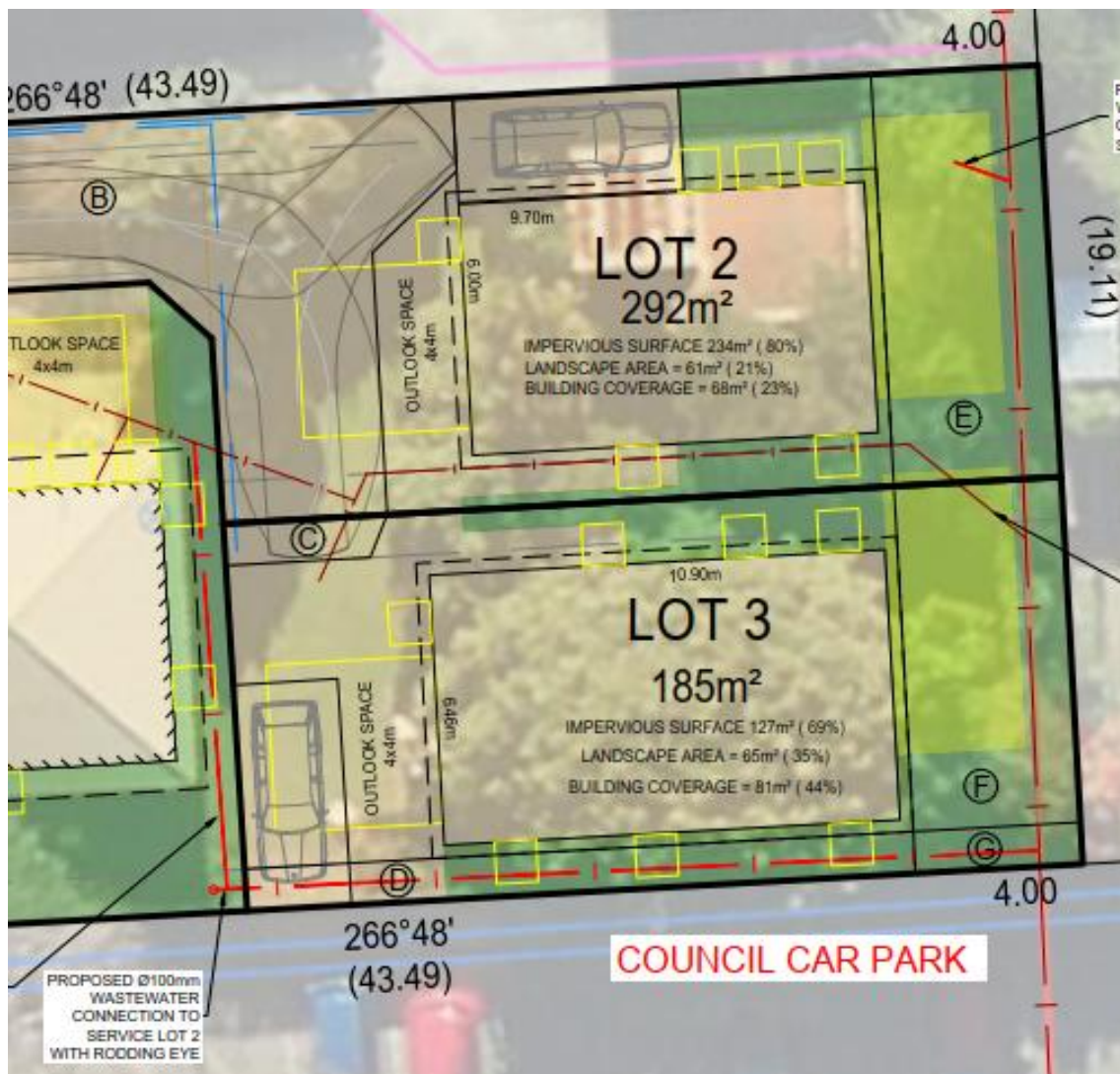


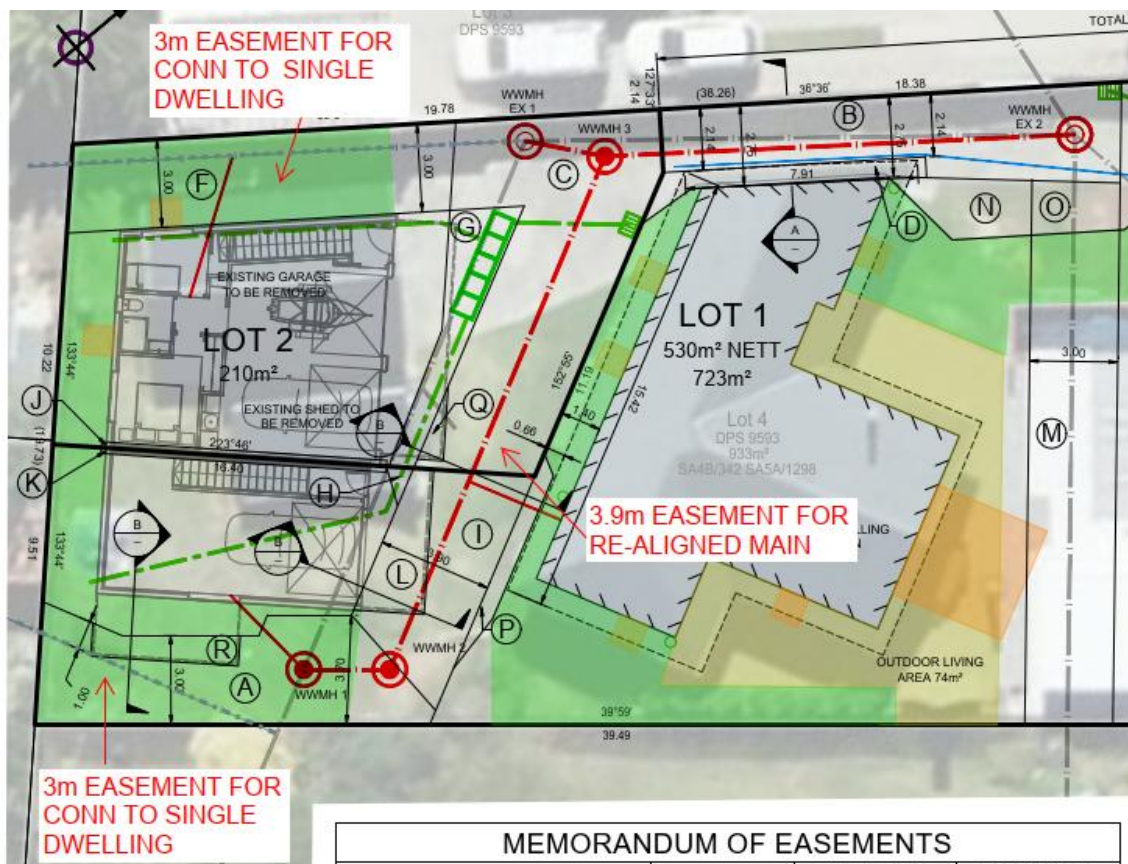
Figure 1: Example of TCC requiring wide easements over infrastructure. The wastewater main running within easements E, F, and G at the right of the image is approximately 2m deep and 1.0m off the boundary. TCC have insisted on the provision of a 4m wide easement, as shown.

The wastewater pipe at the right of Figure 1 is approximately 2m deep, and approximately 1m from the existing site boundary. TCC insisted on the 4m wide easement shown in the figure, significantly compromising the available land to build on. If a subdivision or land use consent hadn't been required, a dwelling could have been built 1m from the outside of the pipe under the building code, and easements would not have been demanded. If a dwelling were to be constructed 1.5m from the pipe, an easement of 2.5m wide could be created. That would be sufficient to allow a contractor to operate safely on any necessary maintenance or replacement works.

Further supporting our argument was the presence of a TCC-owned carpark facility (part of the Otumoetai Pool and Tennis Club property at Bellevue Park), which provides a considerable staging area to support any necessary construction work within the subject site.

Council considered reducing the width slightly, but required the entire section of pipe between manholes to be relined. In this (and most other cases) instance, the manholes are located in other private properties, so consent is required from the owners of the adjacent properties. This is not likely to be forthcoming, and often times landowners demand compensation. Relining the pipe is also costly in terms of both time and money.

1.2 Example 2



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Figure 2: Example of TCC requiring wide easements over infrastructure without justification. There are private wastewater connections servicing only single dwellings in easements F and A/R respectively. In each case, those connections are only 1.0-1.5m. TCC have insisted on the provision of 3m wide easements as shown, which has forced this three-lot development to be scaled back to two lots.

There are private connections to single properties in easements F and A/R (at the top and bottom left of Figure 2, respectively). In both cases the pipes are only 1.0-1.5m deep. Council have requested 3.0m wide easements over both. There is no practical need for those easements to be so wide, and TCC's insistence on them has forced this development to reduce the lot count from three to two.

In both examples above (and others not explicitly listed here) TCC have requested 4m wide easements in situations where access to these easements through these properties is less than 3m in width. In extreme cases, the only available access route to the wastewater main is along the side of a dwelling in the 1.5m side yard, and yet TCC still require 4m wide easements. This approach shows no regard for the practicalities of carrying out maintenance or replacement works.

Some councils in the region allow buildings to be constructed over mains in special situations. In particular, the RITS (used by all Waikato councils and Rotorua Lakes Council) allows that to occur, provided mains are replaced prior to the construction works proceeding, structural design is done to ensure the longevity of the main, and CCTV inspections are carried out before and after works.

In practice the width of the easement is likely to be irrelevant in most situations. Easement instruments, allow access to the easement with whatever machinery is required and to do the work (irrespective of the easement width). The work and equipment to do the work can operate outside of any easement where necessary.

2.0 PRIVATE ACCESSWAYS

Clause DS-4.7.1a)v) of the IDC reads:

“Private ways serving up to three dwellings can be served by concrete strips.”

That is a clause that we support, however the City Plan clause 4B2.15 “Access Requirements” states the following (abridged for clarity):

“a. ii.: Where an accessway length is greater than over 20.0m from the road boundary, the minimum vehicle carriageway is 4.0m.

b. iv.: Accessways with a length of between 30m and 50m shall include one passing bay at or near the mid-point along that length.

b. v.: In addition to the passing bay required under clause iv, accessways with a length that exceeds 50m shall include one additional passing bay per each additional 50m.

b. vi.: Where the accessway length exceeds 50m from the road boundary, a formed and sealed turning head suitable to accommodate at a minimum an 8.0m medium rigid vehicle shall be provided.”

We understand that these rules were included in the city plan to allow emergency vehicles to pass along the entire length of a private accessway. We have discussed this rule with FENZ on multiple occasions and in almost all cases they don't require onsite vehicle access, therefore the rule is onerous and unnecessary. Non-compliance with these rules currently requires a land-use consent, which incurs unnecessary cost and delay.

We appreciate your consideration of these issues.

Kind Regards,

A handwritten signature in black ink, appearing to read 'Andrew Martin', with a stylized flourish at the end.

Andrew Martin

Partner & Senior Surveyor
Licensed Cadastral Surveyor

LYSAGHT