Central Coast Council Development Engineering Design Notes -

Water Reticulation and Water Services Construction

1. Construction of water reticulation mains and water services shall be in accordance with the Sydney Water Edition 2014 of the "Water Supply Code of Australia" WSA03-2011 (Version 3.1) with Central Coast Council Supplements. These notes specify Central Coast Council's particular requirements in these documents in relation to the construction of water reticulation mains and residential property services. Central Coast Council Supplements can be found on Council's Water and Sewer Development website.
2. Connection of new water reticulation mains to existing Council reticulation mains shall be carried out by the Developer's contractor under Council inspection unless specified otherwise. The contractor is to liaise with Council's Water and Sewer Development Engineer with minimum 6 weeks notification to organise a Council shutdown of the existing water rectiulation main. Fees may apply for costs incurred due to shutdowns.
3. The Developer's contractor shall be responsible for the care and maintenance of all existing utilities and services, to the satisfaction of the relevant Authority or owner. This may include arranging or performing relocation, temporary diversion or support of the service. All cost incurred by the Developer's contractor in verifying the location of utilities and services, providing for their care and maintenance shall be borne by the contractor.
4. Water services on new mains are to be installed by the Developer's Contractor. A single water service, each tapped from the main, generally where shown on the design drawings is to be provided for each proposed lot. The contractor is to follow the guidelines set out in Council's Water Service Installation Requirements document with reference to standard drawings WAT-1106 and WAT-1108.
5. Trench details for installation of new water mains in other than poor ground conditions or under existing road carriageways shall be in accordance with standard drawings WAT-1250-s and WAT-1251-S. Embedment materials shall be in accordance with WSA-03 Clause 16.2 Embedment Materials and Council's WSAA Water Supply Code of Australia Supplement.
6. Thrust blocks shall be provided at all tees, bends, and tapers generally in accordance with standard drawing WAT-1205 for pipe sizes up to DN 375. Thrust blocks dimensions in stable ground are to satisfy the requirements for stiff clay/medium dense clean sand unless in sound rock in which case sizing appropriate to sound rock may be used. Details for thrust blocks shall be provided by the design consultant in ground conditions that do not provide the bearing equivalent to stiff clay/medium dense clean sand. Concrete to be pre mixed to required slump, 80mm-120mm, before placement in thrust block formwork. 'Bagged' concrete put in place and watered in is unacceptable.
7. Thrust and anchor blocks for valves and vertical bend shall be provided in accordance with standard drawing WAT-1207 for pipe sizes up to DN 375. Details for thrust blocks shall be provided by the design consultant where ground conditions do not provide the bearing equivalent to stiff clay/medium dense clean sand.
8. Hydrants and valves shall be located where shown on the drawings and shall be installed in accordance with standard drawings WAT-1300 series.. Stop valves shall be anti-clockwise closing. Hydrants shall be spring hydrants. Maximum distance between hydrants is 60 metres in residential areas and 120 metres in rural areas.
9. Only flushing bend hydrants are to be used to terminate a water main.
10. A water service conduit terminating at the road boundary with a riser for a meter connection, shall be extended by the developer the full length of the battle-axe or easement for services to the body of the proposed lot. All work to be carried out by a licensed plumber in accordance with NSW Code of Practice and AS 3500 and inspected by Council's Plumbing and Drainage team. All pipework and fittings shall be appropriately marked with material specifications.
11. Carry out field compaction testing in accordance with WSA-03, Clause 19.3 Compaction Testing. Submit copy of test documentation to council as part of acceptance testing.

12. Surface restoration and pavement restoration shall be in accordance with the requirements of Central Coast Council's Civil Works Specification.
13. Acceptance testing of water mains,water services and temporary water mains for the provision of water supply shall be arranged by the Contractor. Acceptance testing shall be in accordance with WSA-02 Part 3 Section 19 and 20 and include:
    a. Hydrostatic pressure testing - Test pressure to be 1000kPa unless shown otherwise on the design drawings and comply with NATA standards for hydrostatic pressure testing A NATA Certified contractor is required to carry out this work.
    b. Bacteriological Test - All new water mains and temporary water mains are to satisfy Council standards for disinfection and bacteriological testing. Satisfactory results are required before connection to Council assets is permitted. Water services are to be purged, capped and the main cocks left open for hydrostatic testing. Follow the guidelines set out in Council's Water Main Chlorination and Commissioning Process document.
14. Work as Executed (WAE) drawings shall be prepared using the Council approved design drawings and in accordance with Central Coast Council's Work as Executed guidelines. Submitted plans must be in AutoCAD digital format and PDF (no red pen markups). In addition to providing WAE level information, location and junction information shall be provided. WAE plans to be submitted to waterandsewerworks@centralcoast.nsw.gov.au maximum one month post construction for review.
15. Evidence of the Contractor's experience and references from other Water Agency type organisations shall be provided to Central Coast Council prior to a Contractor being accepted by Central Coast Council as being suitable to construct the required sewerage works. All Contractors shall carry appropriate levels of Public Liability Insurance.Requirements for trench stops and bulkheads shall be as specified on the design drawings and in accordance with standard drawings WAT-1209 and WAT-1210. For pipes up to DN300 with excavations greater than 1.5m in height, trench stop and bulkhead can cease at height of first benching. Bulkheads adjacent to kerb and gutter and at the shoulders of sealed roads as shown on standard drawing WAT-1209 may be replaced with trench stops where the pipe grade is less than 15 percent.
16. Pipe fittings are to be ductile iron unless shown otherwise on the design drawings. Pipes to be used in mine subsidence areas shall be certified by the pipe supplier to be suitable for the predicted ground strains as advised by the Mine Subsidence Board.
17. Install kerb markings and posts for all valves and hydrants. Refer to standard drawing WAT-1352-S. Marker posts to be type "A". Post embedment to be 450mm into the ground with a 10mm diameter anti-turn key, 300mm long approximately 100mm from the lower end of the post. Post material to be solid plastic or hardwood generally 100mm x 50mm in section. Posts to be white in colour with lettering in Homebush Red. Lettering may be moulded or machined into the post face. Posts shall be located 150mm off the property boundary. The distance to and size of the main are to be clearly stencilled on the post in 25mm high text using blue exterior enamel. Reflective pavement markers are not required.
18. Clarification of construction requirements should be obtained from Council's Water and Sewer Development Engineer where requirements are not clear on the approved design drawings, these notes and/or the Sydney Water Version of WSA-02 and/or Central Coast Council Supplement to the WSA Code document.

EROSION AND SEDIMENT CONTROL NOTES

1. Disturbed areas to be kept to a minimum.
2. Control clean water from above the site, through the site or around the site.
3. Keep clean water separate from dirty water.
4. Conserve all topsoil, stockpile and protect for re-use on site.
5. Protect all disturbed areas from erosion.
6. Minimise sedimentation.
7. Maintain all erosion and sediment control measures until complete rehabilitation is achieved.

8. Erosion/Sediment Control measures to conform with Erosion and Sediment Control Plan for Subdivision works.
9. WARNING
   Unless notified to the contrary in writing, the applicant shall be held responsible for any breaches of the Protection of Environment Operations Act 1997. Pease note: Failure to implement or maintain appropriate erosion/sediment control measures is a breach of the Act. Such a breach is liable for a on-the-spot fine and/or penalty.