

UNDERGROUND SERVICES 62 CHAUNCEY ST, LANCEFIELD VIC 3435

1. TRACEABILITY OF SERVICE MATERIAL TYPES. The ability to locate underground services using electronic (radio) detection is heavily dependent on the type of material a given underground service is made from. To summarise, metallic pipes and electrical cables can often be identified as these are conductive materials suitable for locating using electronic detection. Conduits (encasing non-conductive cables e.G. Fibre optic), sewer pipes and storm water pipes do not themselves conduct electricity. To locate these types of materials a conductive tracing rod is fed into the underground service and the signal emitted from the rod or tracing head (sonde) is then located. A limitation of electronic detection is when an underground service is made from non conductive material such as polyvinyl chloride (pvc) or polyethylene (poly) etc and where the service is also under pressure i.E., cannot be opened or accessed like a conduit or drainage pipe. Examples of these are pvc water pipes, poly irrigation pipes, poly gas pipes, sealed and flooded gravity fed storm water harvesting systems and pressurised rising sewer mains. Without the presence of an accessible trace wire, accurate plans or capability to isolate and access the service, ability to locate

these services is limited. 2. INFORMATION REGARDING UNDERGROUND SERVICE DEPTHS. Depths of services provided on this drawing are obtained using electronic detection (ql-b) unless otherwise stated. Accuracy of these readings is highly dependent on the environment. Depths should be taken as a guide only and service depths should be proven manually on site when excavating within the vicinity of the service. 3. INFORMATION REGARDING DEPTHS OF STORM WATER AND SEWER PIPES. Depths of storm water and sewer pipes are provided in various manors on this plan. Unless otherwise stated, depths of pipes (measured from pit access points/man holes) are noted from top of pit to pipe invert level (il) in mm. In some cases australia height datum (ahd)

noted as x.Xxil/ahd. 4. METHODS OF OBTAINING DEPTHS FOR STORM WATER &

levels are provided. This can be used to derive the il/ahd of

the pipe. In some cases this may already be calculated and

· depth measured using electronic detection: the method of determining the il at specific points along any given pipe is obtained using electronic detection. An in-depth explanation of how this is achieved is as follows; a tracing rod is fed into the pipe from an access point, for example a junction pit or manhole. The tracing rod has a locating sonde attached to the head. The rod is fed into the pipe so the head is directly below the specific point with the transmitting sonde sitting on the bottom of the inside of the pipe. Electronic depth is obtained and noted at approximately xmm below the surface level. Additionally if required and if not already provided; surface levels are then measured using a topcon roving surveyor's gps. Electronic depth is then subtracted from the measured gps surface level ahd to ascertain an approximate invert level

depth measured using inferred depth: this method assumes consistent and linear fall on a pipe. First, depth is obtained using depths measured at access points for the pipe, for example at 2 separate junction pits or manholes. Approximate depth can then be derived for a particular point along the pipe by considering calculated grade, invert levels and surface level ahd at the given point. 5. We are not licensed surveyors therefore certified levels can only be attained by exposing the utility by excavation and having it surveyed by a licensed surveyor. 6. Depending on the nature of the works, reason for survey and field conditions determines if and what method will be used and how much information is provided. Every attempt will be made to provide all relevant information however, should additional information be required subsequent site visits and/or techniques may be needed.

Notes regarding quality levels, taken from as/nzs 5488 2013 quality level is defined as "a classification reflecting the precision and accuracy of utility location and attribute information." quality levels will be represented on the line type as a single letter (a,b,c or d) in brackets proceeding the utility descriptor. See

LV(A) — Quality Level A – potholing to prove a utility location. LV(B) — Quality Level B – use of locating equipment/electronic detection to locate a utility. — LV(C) — Quality Level C – using features above the

surface to make alignments. For example, fire hydrants, utility — LV(D) — Quality Level D – from plans, anecdotal evidence. Where the whole line segment cannot be verified by line of sight, quality Level A shall not be attributed to the line segment between validated points. Quality levels may vary on separate sections of a single

subsurface utility, depending on the source information available

for each section.





services to what is already documented on this services plan be found or newly installed during future ground works, please contact Jake at Macedon Ranges Locating Service to have these surveyed and added to this master plan.



WARNING
ACCURACY OF UNDERGROUND SERVICES INFORMATION UNDERGROUND SERVICES SHOWN ON THIS PLAN HAVE BEEN LOCATED TO THE QUALITY LEVEL INDICATED IN THE LINE TYPE DESCRIPTOR. THE LOCATION AND DEPTHS STATED SHOULD BE TREATED AS APPROXIMATE AND CAN ONLY BE VERIFIED VIA PROVING METHODS (MANUAL EXPOSURE/NON-DESTRUCTIVE DIGGING; QL-A) OF WHICH, UNLESS OTHERWISE AGREED UPON, IS THE RESPONSIBILITY OF THE CONTRACTOR. THERE IS NO GUARANTEE ALL SERVICES THAT EXIST IN THE AREA COVERED ON THIS PLAN ARE SHOWN. THIS PLAN DOES NOT REPLACE BEFORE YOU DIG PLANS

PROJECTION: MGA2020 MGA ZONE 55 HEIGHT DATUM: AHD FIELD WORK: JAKE SUTHERLAND DRAWN: JAKE SUTHERLAND DATE: 27/07/2024 SHEET: 1/6 (COVERSHEET)

























