

# DEPARTMENT OF BUILDING UNVERSITI TEKNOLOGI MARA (PERAK)

# THE INSTALLATION OF UNDERGROUND PIPE FOR WATER RETICULATION SYSTEM

Prepared by:
FARISHA FIRZANAH TAJUDDIN
2016782747

## **ABSTRACT**

Water reticulation system is the terminology used referring the piped water network. When it turns on the tap it has instinct access to a pure and clean water supply. To be explained generally about Water Reticulation System this is basically the water distribution network and once the water has been collected and treated it needs to get to the consumer. Commonly water is supplied through an infrastructure of pipes. These pipes are most commonly constructed from plastic, metal or concrete. Water is delivered by making use of the scientific principles of pressure and the energy created delivers the water to its destination. This report was conducted at industry area, Jalan Ipil, Tanjung Langsat. The objective of this report is to identify the method of installation underground pipe for water reticulation system. The explaining involves method of installation underground pipe for water reticulation system. The second objective is to identify the water pressure test for the final step of water reticulation system being process. Water reticulation system is to deliver water to consume with appropriate quality, quantity and pressure. The facilities used to supply water from its source to the point of usage. Water reticulation systems can be either gravity flow or pressurised or a combination of both gravity flow and avoids any potential equipment failure in a pumped system.

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#### CHAPTER 1.0

### INTRODUCTION

# 1.1 Background and scope of study

Water reticulation system is the terminology used referring the piped water network. When it turn on the tap it have instinct access to a pure and clean water supply. Commonly water is supplied through an infrastructure of pipes. These pipes are most commonly constructed from plastic, metal or concrete. Water is delivered by making use of the scientific principles of pressure and the energy created delivers the water to its destination. (Resotec Water, 2017)

The water delivery systems are mostly owned by local government and these networks are part of the planning when communities or municipalities set up residential areas. It requires design and planning and city planners, civil engineers and consultants that are be hired to work out all the details before crews start the construction. Factors come into account like pipe size, location, future expansion, possible leakage, pressure factors and access for the fire department. (Resotec Department, 2017)

A water reticulation system is vital in getting water all the way from the source to the consumer. Working together with local governments or municipalities, IWK, Resotec Water, plays a fundamental role, consulting on methods that ensure such systems work in the most beneficial way possible.

The benefit of a good reticulation system which is to provide a reliable supply of water in adequate quantity and good quality, a good number of other benefits are met in the optimization of reticulation systems already in place or those yet be implemented. Such include the cost benefit in protecting and prolonging the physical and economical investment placed in the setup of the fundamental service. (Hydroserv, 2019)

For the scope of study, this report will gain many information and knowledge about construction of the project which is the installation and method that been used for water reticulation system at Industrial area Tanjung Langsat, Johor Darul Takzim.