

## **7.0 Conclusion**

Through this project, we were given the chance to further understand different types in building services. Building services consist of several complex system which requires various components to operate a in a building. In Summit USJ Mall, the types of services include Mechanical Ventilation, Air Conditioning System, Fire Protection System and Vertical Transportation System. The components within these systems need regular maintenance and checking to ensure all systems are functional and operational. Maintenance in the components increases the performance of each system and increase the lifespan of various components.

On the other hand, it has been concluded that it is important for architects and engineers to study and implement different UBBL requirements in the buildings system. UBBL 1984 aims to standardize building regulations in Malaysia, also to ensure the safety of users within the building. Standardization aids to provide clear references to approved regulation regarding various building services systems.

In conclusion, it is crucial to develop a basic knowledge towards different aspect of building services. On behalf of the team, it is truly beneficial to carry out a research study regarding building services towards the Summit Mall in USJ as it helps us to understand more with in-depth details regarding the building services system of public spaces.

## 8.0 Reference

- Joshua Lee, Student at Taylor's University Sdn Bhd Follow. (2016, June 10). UBBL 1984 pdf. Retrieved May 1, 2017, from <https://www.slideshare.net/JoshuaLee68/ubbl-1984-pdf>
- Coetzee, J. (n.d.). Export orders for industrial doors. Retrieved May 2, 2017, from <https://www.specifile.co.za/specifier/windows-doors-and-accessories/773-export-orders-for-industrial-doors>
- Posted on Aug 27, 2016 11:35am PDT. (n.d.). 23 FIRE SPRINKLER PARTS YOU SHOULD GET TO KNOW. Retrieved April 29, 2017, from <http://www.capitolfire.com/blog/2016/august/23-fire-sprinkler-parts-you-should-get-to-know.aspx>
- GRUNDFOS. (2016, June 22). Retrieved April 26, 2017, from <http://www.grundfos.com/service/encyclopedia-search/sprinkler-alarm-valve.html>
- Using Gypsum Board for Walls and Ceilings Section I. (2011, December 02). Retrieved May 07, 2017, from <https://www.gypsum.org/technical/using-gypsum-board-for-walls-and-ceilings/using-gypsum-board-for-walls-and-ceilings-section-i/#fire>
- GRUNDFOS. (2016, June 22). Retrieved May 07, 2017, from <http://www.grundfos.com/service/encyclopedia-search/sprinkler-alarm-valve.html>
- Elevators & Escalators - MITSUBISHI ELECTRIC. (2016). Mitsubishielectric.com Retrieved 27 November 2016, from [http://www.mitsubishielectric.com/elevator/overview/elevators/b\\_operations04.html](http://www.mitsubishielectric.com/elevator/overview/elevators/b_operations04.html)

- (2016). Retrieved 4 December 2016, from Cdn.kone.com URL:  
<http://cdn.kone.com/www.kone.ca/en/Images/kone-elevator-site-requirements.pdf?v=1>
- (2016) (1st ed.). Retrieved from  
[http://www.kone.us/Images/KONE-Escalator-AutoWalk-Planning-Guide\\_tcm25-18783.pdf](http://www.kone.us/Images/KONE-Escalator-AutoWalk-Planning-Guide_tcm25-18783.pdf)
- J.T.A.JONES Follow. (2009, May 12). Fire Detection and Alarm Systems. Retrieved April 29, 2017, from  
<https://www.slideshare.net/J.T.A.JONES/fire-detection-and-alarm-systems>
- (n.d.). Retrieved April 28, 2017, from  
<http://www.hse.gov.uk/comah/sragtech/techmeasfire.htm>
- Automatic Fire Sprinkler Systems - Principle of Operation | Firewize. (2016). Firewize.com. Retrieved 7 May 2017, from  
[tp://firewize.com/blog/2010/04/automatic-fire-sprinkler-systems-principal-operation](http://firewize.com/blog/2010/04/automatic-fire-sprinkler-systems-principal-operation)
- General Principles of Fire Hydrant System. (2016). Ackrutisafety.com. Retrieved 7 May 2017, from <http://ackrutisafety.com/index.php/welcome/generalprinciples>
- What is a Jockey Pump? (with pictures). (2016). wiseGEEK. Retrieved 29 November 2016, from <http://www.wisegeek.org/what-is-a-jockey-pump.htm>
- The fire control room, The fire control room, Encyclopedia\_Shared Encyclopedia\_et97.com. (2016). Et97.com. Retrieved 29 November 2016, from  
<http://www.et97.com/subview/1240459/1240459.htm>
- <http://www.enggcyclopedia.com/2011/11/fire-sprinklers/>
- How sprinklers work - Fire Sprinkler Initiative. (2016). Firesprinklerinitiative.org. Retrieved 7 May 2017, from  
<http://www.firesprinklerinitiative.org/advocacy-tools/fact-sheets/how-sprinklers-work.aspx>

- *JKK Technologies Pte Ltd - Fireman Intercom System. (2016). Jkktech.com. Retrieved 7 May 2017, from <http://www.jkktech.com/index.php/fireman-intercom-system>*
- *KONE EcoSpace™ low-rise elevator. (n.d.). Retrieved May 05, 2017, from <http://www.kone.us/new-buildings/elevators/ecospace/>*
- *Basic Elevator Components - Part One. (n.d.). Retrieved May 05, 2017, from <http://www.electrical-knowhow.com/2012/04/basic-elevator-components-part-one.html>*
- *Basic Elevator Components - Part Two. (n.d.). Retrieved May 05, 2017, from <http://www.electrical-knowhow.com/2012/04/basic-elevator-components-part-two.html>*
- *Escalators Basic Components - Part One. (n.d.). Retrieved May 06, 2017, from <http://www.electrical-knowhow.com/2012/04/escalators-basic-components-part-one.html>*
- *Escalators Basic Components – Part Two. (n.d.). Retrieved May 06, 2017, from <http://www.electrical-knowhow.com/2012/04/escalators-basic-component>*