

Physical Security Audit — Mohawk College Library

Project Owner: Unnati Pandya

Assessment Type: On-site Physical Security Review

Location: Mohawk College Library (H-Wing)

Objective

- Identify physical security risks related to access, surveillance coverage, and asset protection, and deliver actionable improvements

Scope

- Entry & exit points
- Public reading areas
- Staff-restricted zones
- Surveillance coverage
- Emergency signage & exits
- Book return machine

Method

- Direct walk-through
- Observational analysis
- Risk rating by severity & impact

NOTE:

This audit is prepared for academic demonstration only!

It does not contain or reflect confidential Mohawk College data!

Site: Mohawk College, H wing Library

location: H wing, 135 Fennell Ave W, Hamilton, ON L8N 3T2



Introduction.

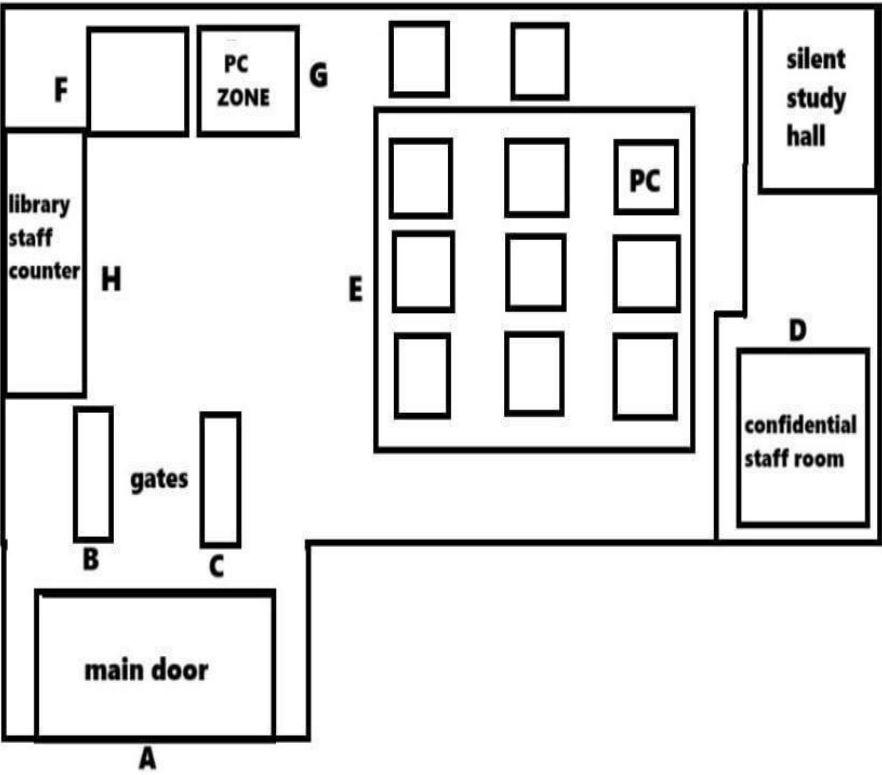
I chose Mohawk College Library as my site for the physical site assessment survey. It is in Hamilton and since it is a college library, it has several numbers of visitors including students daily and is a top destination for students on routine to have Study resources, Research support or provides huge area for Working/Studying space.

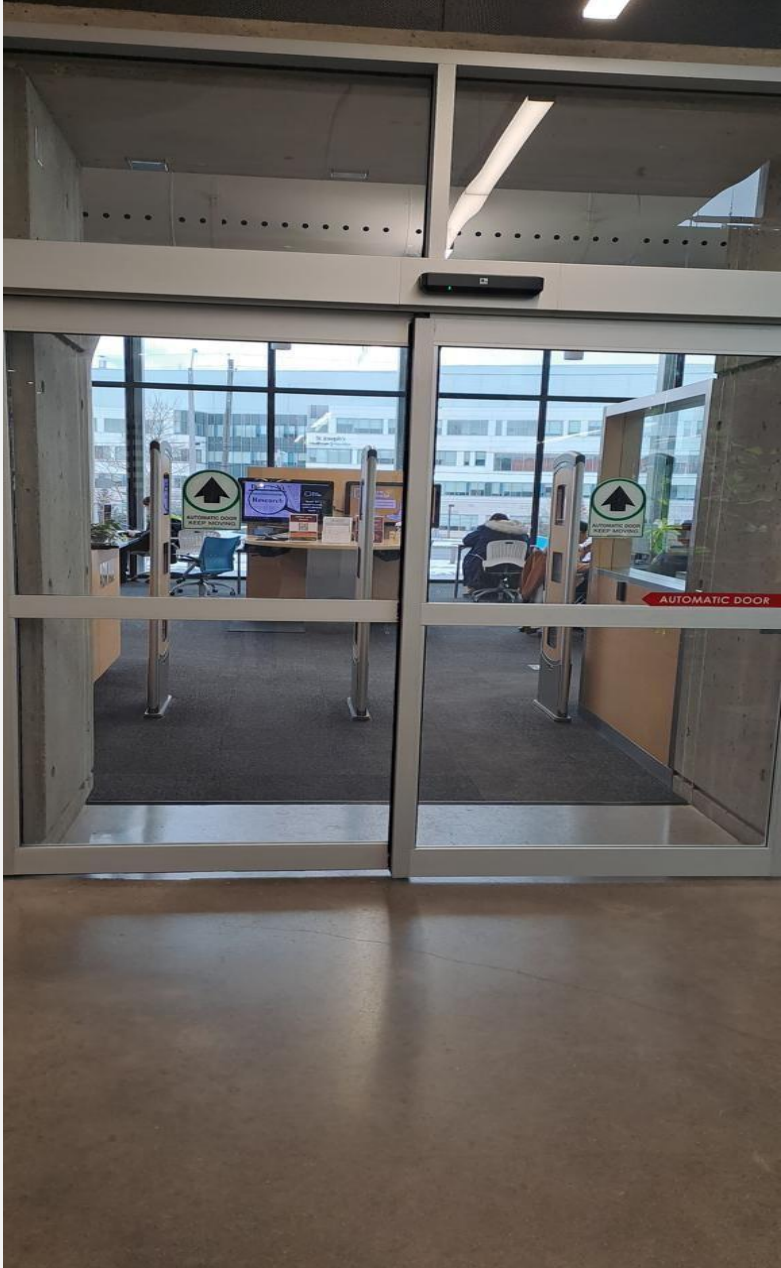
It is a widely used and visited area, it has many valuable assets and has equal threat to those assets too such as damage, theft, or unauthorized access to computers. As discussed with Library attendant (staff), there are many security technologies installed to maintain the integrity and compliance policies. In terms of my observations there were many equipment's such as Door locks, access points, security cameras, computer protection system, card readers, fire extinguishers and alarms, Secure book returning area. Let's dive into the assets and discuss further about its properties, safety measures and study the Security concern with its area followed by some recommendations that could be implemented as well.

Procedure.

To survey the onsite security assets, the foremost thing I did was I met the library attendant staff and ask for the permission to survey the site. Having done that, I went back in through the front door and looked at the entrance area and what is the very first step of security asset as everyone enters the library which is entrance main door then I observed the security surveillance cameras and book return area, roam around and looked for the computer access and fire alarms and exits, what were the types of lock system and how everything was secured in case of any theft or unusual activity, how things were restricted and discussed with staff about how they protect their valuable resources that we will see in our table below in depth on how the system compliance and regulations of those assets worked. In addition to that, I had a conversation on some soft asset security on how the computer access works and how they catch some illegal activities on their Library computers because that's the hardest to catch rather than physical assets and she said our mohawk colleges computers are constantly monitored and have an endpoint security software installed. Let's dive into more physical assets and its point of interest to be discussed below.

Sketch of Location:



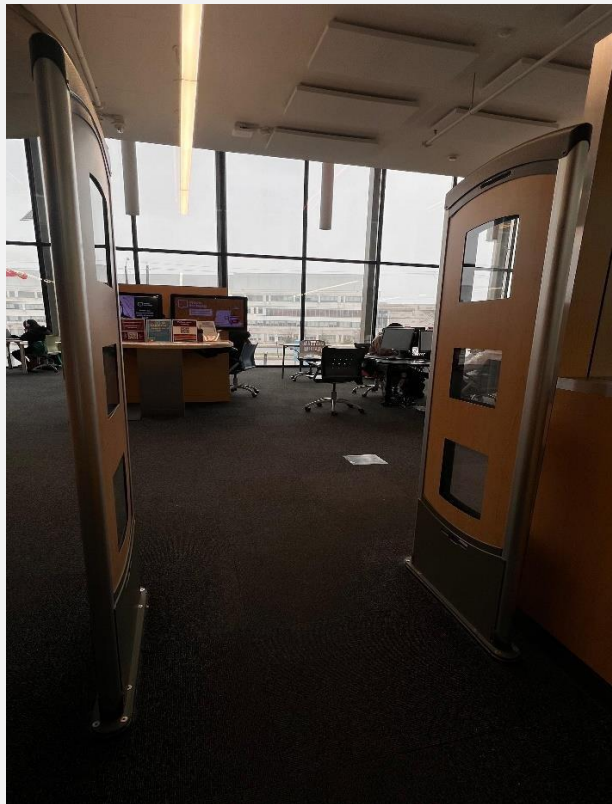
| Label | Description | Photo |
|-------|--|---|
| A | <p>Front Door/Main Entrance – It is a Security sliding glass door which has motion sensors which detect the movement in front of the door and activates the sensors and open the door with those mechanism. It is an automated sensor mechanism door.</p> <p>This mechanism involves Deter and Detect physical security control.</p> <p>On addition to that, as you can see the photograph, just after entering the main entrance through sliding glass door, there are two gates like in a positioned manner after the main sliding door entrance, which are</p> |  |

called “**access gates**”, these are to control the flow of people entering the library.



Security Concern:
High risk – Sliding doors can be easily exploited by Bypassing sensors or Lock picking tool method.

Security Control:
Partially effective – the reason here is that there is no restriction to person, whoever can enter through these doors which can provide unauthorized access as well.



B Secure Book Returns – This allows consumers to return the borrowed or issued valuable books, materials or assets taken from library in a secured manner through this **designed structure** for easy **return access**. without disrupting the security policies. It is called the “**secure drop slot**”.



This method uses to **Deny** physical security control from the physical access to this point from unauthorized person from stealing or tempering the asset.

These keeps the **material safe after deposited** through this secured drop slot and no one can

retrieve the asset even after it handed over to the library back and keeps the **unauthorized activities blocked.**

In addition to that, after the dropping is done. In the library's system it shows the **notification** of returned item **successfully processed**, that way they know the asset is given back to the library. They are made in such a way that **prevents intrusion** from happening.

Security Concern:

Low risk – It ensures security endpoints, and nobody can access these endpoints as they hold security measure like locks and surveillance monitoring by Library department.



Security Control:

Effective – It is most effective way for its reliability

and convenient manner, there is no breakthrough points or tempering with materials which such kind of secured book returns operation system.

C Limited Access Area – This is a separate study room which has limited access authority, this door has a **Security Astrigal** which has latch / striker plate attached to a **tumbler lock**.

This mechanism involves **Deny** physical security control from deny unauthorized entries at this point.

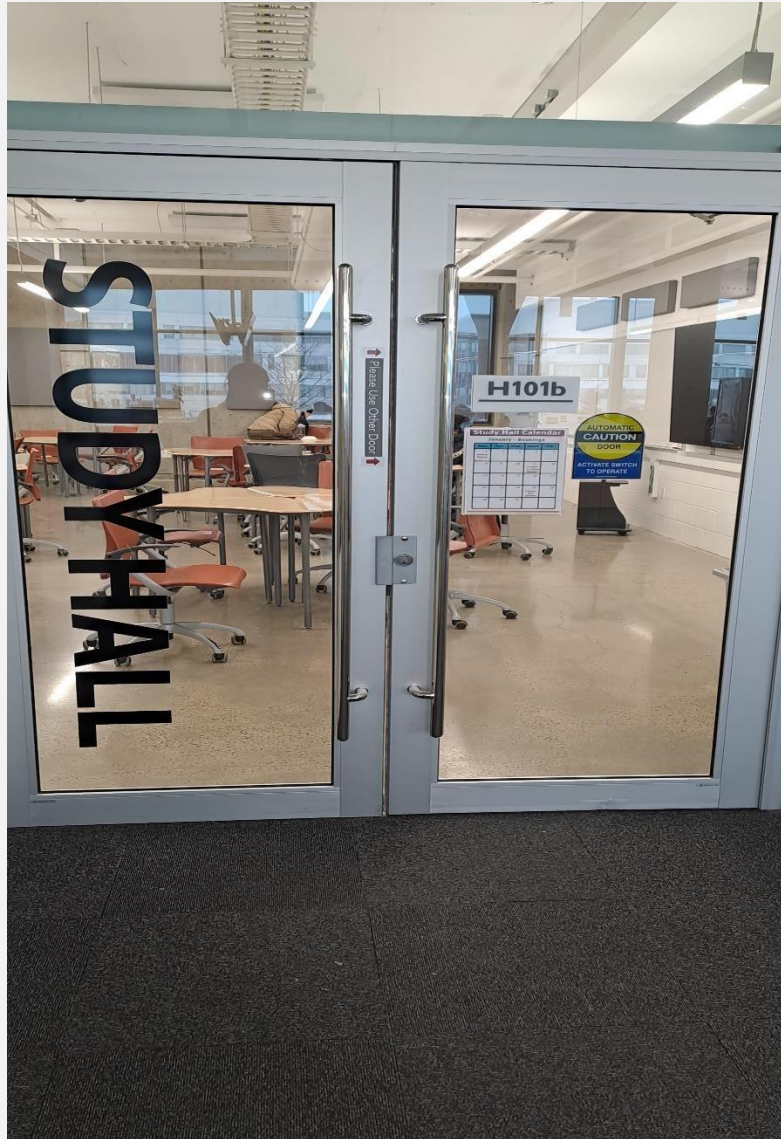
It is a tumbler lock security control which is only accessed by Library staff member **and authorized person** by using a **key**.

This can also be



considered as a
“**Deadbolt lock**”,
combination of
latch mechanism
with a tumbler
lock.

(Please use the
other door sign is
temporary and it
was supposed be
get removed few
weeks ago as
discussed with
library staff, it is
still accessible for
them with a key, so
it counts in point of
entry.)



medium risk *Security Concern:*

-

Latch with a tumbler lock can be intruded by lock picking tool and bypassing the access entry point as well. But it prevents tools such as shims from being inserted to manipulate the latch.

Security Control:

Partially Effective

– As this door can be intruded by stealing key or lockpicking method.

D Emergency Exits –

In case of **fire evacuation or emergency evacuation** scenario occurring in school, emergency door exits are **crucial part** of physical security asset which are mandated by safety standards. These exits are **Detect** and **Deny** type of security control.

These college systems are designed to detect the smoke, fire or other alarming signals provoking the evacuation.

It is designed to evacuated by using these safe emergency exits and while pushing these **emergency exits Crash Bars** an alarming sound will be activated and redirected to

911.



Security Concern:

Low risk – It is considered low risk as they are regularly tested and well maintained as it is in highly populated zone which is the school and libraries.

Security Control:

Effective – It is effective as it allows safe exits in case of emergency evacuation of the building because of college safety compliance and life-threatening events.

E **Library Access Control (ID card tapping) –**

Upon tapping on this **Access card control**, the users or patrons of the **library user account details** pops up on a staff's computer system. This system is designed because when a user wants **to issue** any book or material any physical asset from the library or borrow. It is a **detect** kind of security control.

This way the staff knows what asset is been **going out from library** and when it is to be returned by knowing its **status**, account holder details and that way the asset has been **monitored** and kept a track record of.



Security Concern:

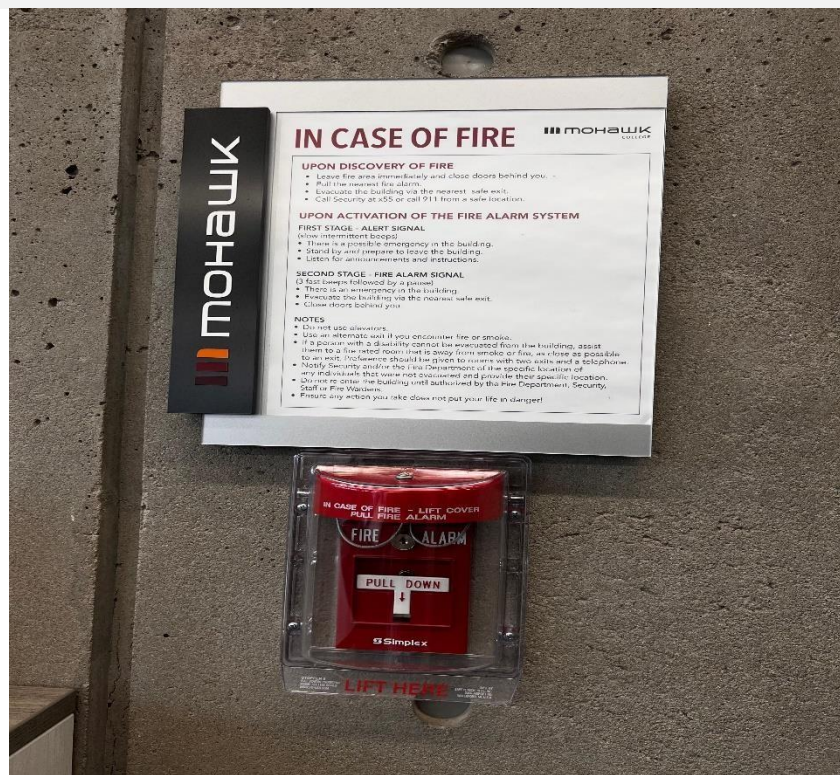
Low risk – It is been monitored and accessed only by authorized staff members and no one else can have access to it.

Security Control:

Effective – Highly effective way keeping track of records of issued person, assets with all data monitored.

F Fire Alarm Pull Station – A fire pull station activates the fire alarm system. This system is used to alerting the occupants in case of fire emergency. It is like notifying for evacuation and signaling and ensures everyone about an emergency.

It is **Detect** type of security control.



Security Concern:

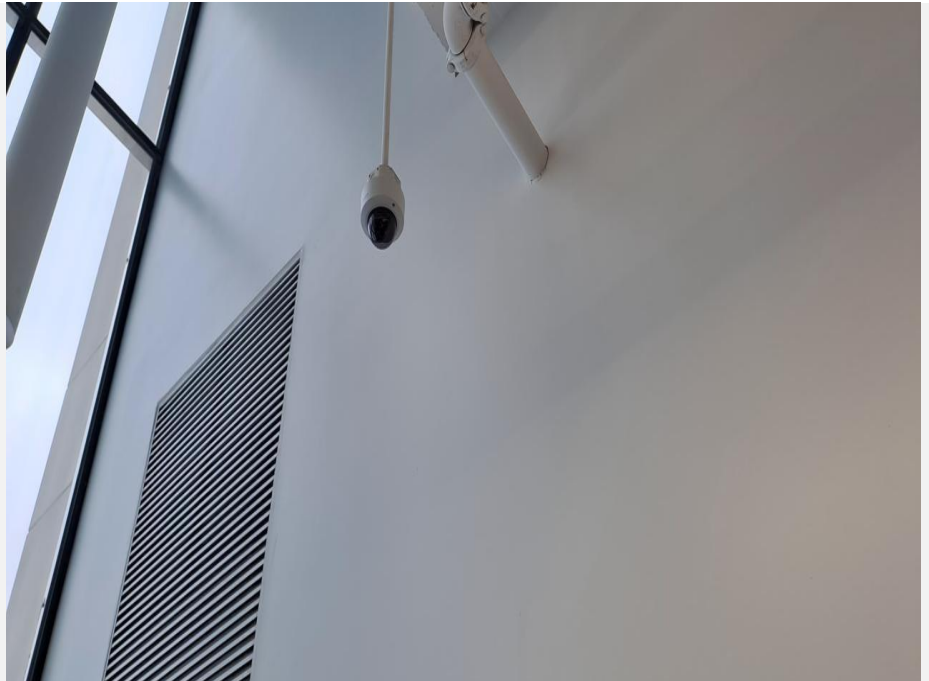
Low risk – It has constantly been tested and is never tempered falsely.

Security Control:

Effective – Fire pull stations are crucial aspect of physical security asset which is a must have in such high occupancy areas and it facilitates timely evacuation.

G 360 Camera – It's a type of surveillance camera which covers 360 degrees of image capturing. It is a **Detect** and **Deter** kind of security control. It can capture and cover 360 rotating wide's coverage.

This can record all activities occurring in library with wide angle and help




detecting from
unauthorized
activities happening
in libraries and
catches who did it.

Security Concern:

Low risk— These 3dimension 360 capturing camera
are not easily accessible to anyone unless
authorized.

Security Control:

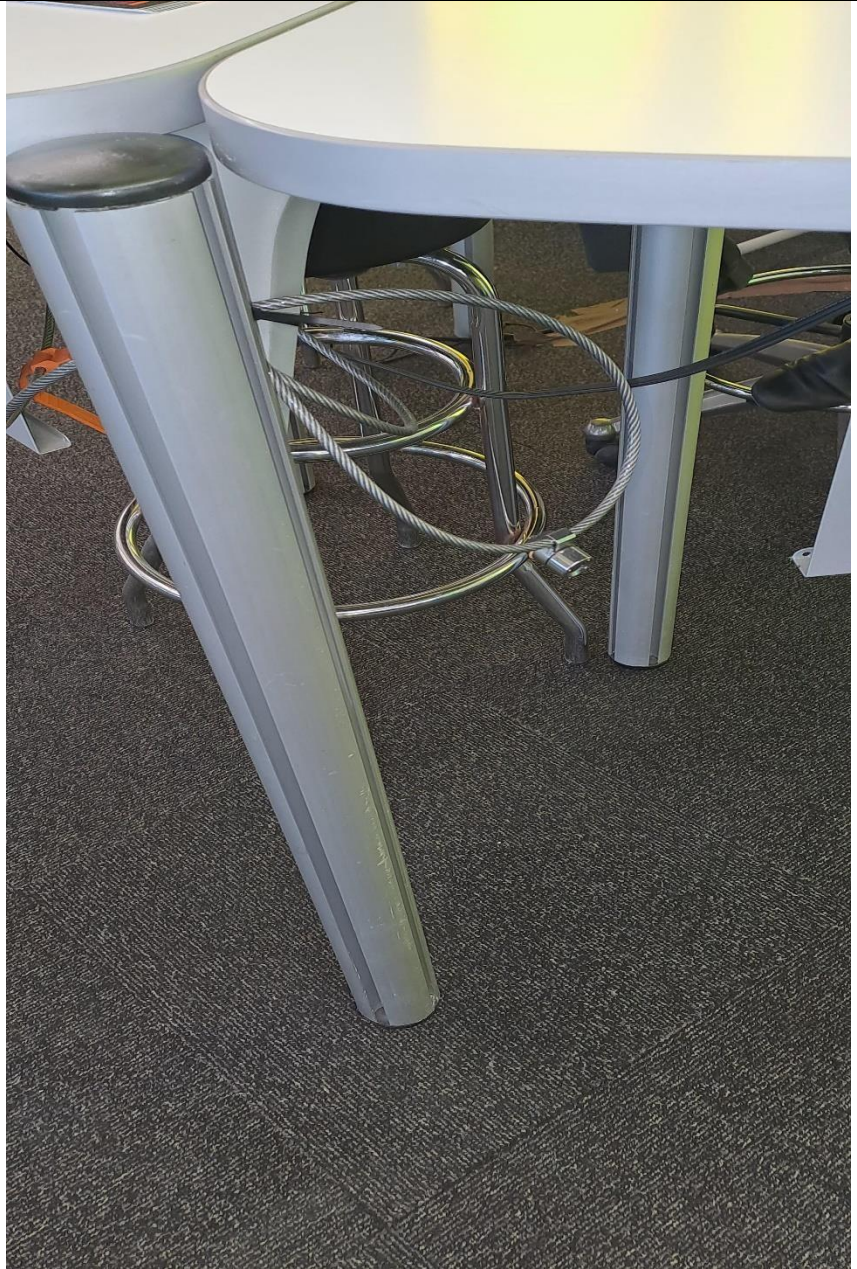
Effective— It is
considered highly
effective as it
suspects unusual
activities even if
the normal
surveillance camera
fails to capture.


| | | |
|-----------------|---|--|
| <p><i>H</i></p> | <p><i>Surveillance Camera -</i> It is a Security camera that is a Detect type of physical control.</p> <p>This camera are to monitor and record all activities that are been constantly monitored. In case of any unauthorized entry of someone steal the data of the library, we can track them by this surveillance camera which are been monitored by staff member.</p> <p><i>Security Concern:</i> Low risk - These cameras are not accessible to anyone except the staff member.</p> <p><i>Security Control:</i> Effective -These camera has constantly been under monitoring by a team of library staff and is effective to catch the fellow person.</p> |  |
|-----------------|---|--|

I

Computer Security Bollards – These are generally found in schools or highly activated libraries, also called **computer lockdown**. It is a **Deter** kind of security control.

These provide **physical protection** to computers in the library and are secured. These also covering soft physical security control and physical hard security control aspect. It prevents any unusual activities from occurring.



| | |
|--|---|
| <p><i>Security Concern:</i> medium risk – It does prevent from unauthorized access to happen, but someone can create a copy key or fake key or use lock picking method.</p> <p><i>Security Control:</i> Partially effective</p> <p>–</p> <p>Not changing the password and only depending upon the physical asset can be dangerous.</p> |  |
|--|---|

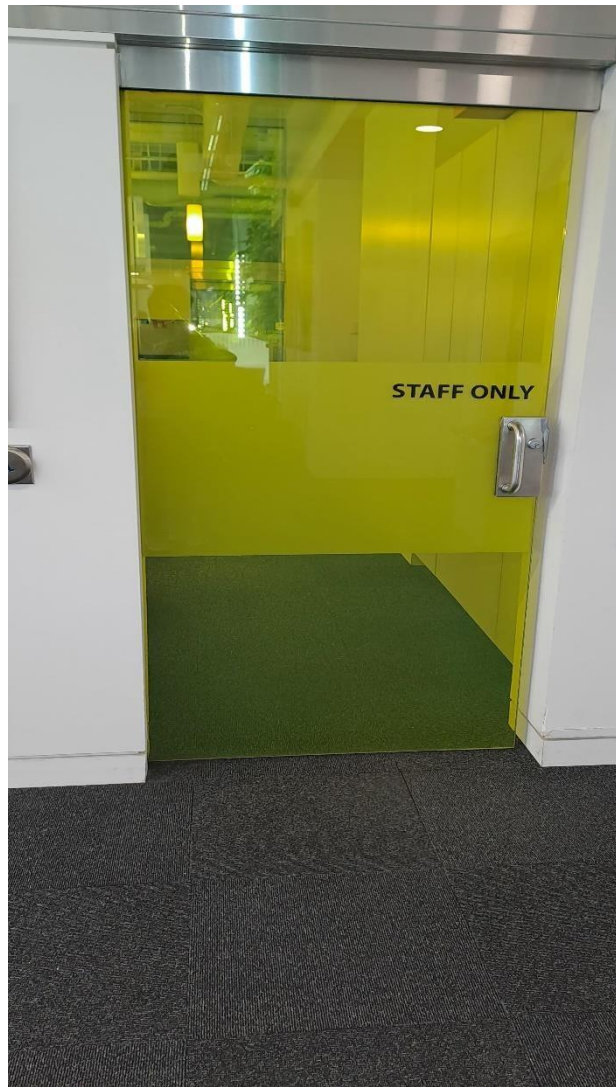
J **Staff Only Zone –**

These are only and only been accessed by staff members and is a **Tumber Lock** which key is used by library authorized staff only. It is a **Deny** type of security control.

These rooms are maintained for **confidential data** and assets which have private assets and material. We can also say confidential room. It contains all sensitive information and data of all users, staff and assets as well.

Security Concern:
High risk – As tumbler locks are easily intruded by lock picking or creating fake key and gain access, as this door lock is very unreliable for such confidential room.

Security Control:
Partially effective
– Partially because anyone can access once they have the Key and access to it and can also enter being the fake



| | | |
|--|--------------------------------------|--|
| | person as a library attendant/staff. | |
|--|--------------------------------------|--|

Recommendations.

In accordance with the security controls over the highly visited premises which is our Mohawk's library, they should consider some of these suggestions for the physical security control to offer higher security in some area which can be easily breached if some skilled hacker or attackers gains the library access. He can even hack the system we never know when such incident can happen right? There may be many financial, confidential losses and the college's reputation may go under risk. Let's see what I learned in my physical site survey and what control measure I feel can be implemented:

- ***RFID System (Radio Frequency Identification):*** It is a highly visited place and is active all the time. It will improve the security of the library. There are RFID Tags attached to the books, system logins and sitting area in many public big libraries which will read and scan of the tags on material and user issuing the place which prevents from thefts from occurring and this way you can keep your assets more secure rather than only depending upon lock security assets.

Medium to High Cost - High risk reduction.

- ***Electromagnetic Lock at "only staff zone":*** Electromagnetic locks are versatile and most effective physical security locks, It is an electromagnetic plate consisting with a plate attached to the door very tightly and which makes it hard for intrusion. It is reliable and highly recommended as I have seen such in banks and ATMs area machine building.

Moderated to High Cost - High risk reduction.

- ***RFID Reader on main entrance Door:*** It uses radio frequency to read any type of card or any access fob key, as in my building where I stay these has been implemented and without a fob key no one can enter the premises. I feel the library has been easily accessed by anyone and any unauthorized person who intends to do some unusual activity can also be entered and steal any soft or hard asset as well without knowing. Only after a student scans his student or Library ID card on this RFID scanner then the sliding doors should open and permission should be granted.

Moderated to High Cost - High risk reduction.

- ***Latch Deadbolt at Confidential and Restricted area:*** Lastly, I feel latch attached deadbolt would be a good suggestion in some area in the library such as accessing books or that confidential area, as it is designed to make remain the door closed, it *Denies* the intruder to manipulate the latch. This can also be implemented where all sensitive data is kept.

Moderated to High Cost - High risk reduction.

Conclusion:

In summation with my physical site assessment survey, the degree of security breaches is low to medium risk. As we have seen from the infrastructure of physical security control of our site assessment survey, there are many advanced and enhanced security measures implemented preventing threats and attacks. With anticipatory measures our site can be turned into a more fortified place.

Although, we addressed and identified some suggestions on how our site can implement more security protocols with areas of improvement, such as RFID ID card reader, latch bolt lock system, confidential room needs something stronger and more resilient system. Furthermore, we dived into our area of risk from high to low and security concern effectiveness and went through our physical security controls with some forward-thinking initiatives as our recommendations and studied how the physical security is been worked in this highly advanced technology of modern world where has become the most important asset of our life! And there are many hackers who are only looking for a chance to steal our confidentiality, we rigorously studied and analyzed our physical security assets data.
