

A nighttime architectural rendering of the Capital Place Office, showing two tall, modern glass skyscrapers illuminated from within. The scene includes a busy street with cars and city lights in the background under a dark blue sky.

# CAPITAL PLACE OFFICE

**Lecture tour and content**

# CAPITAL PLACE OFFICE

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Green Office according to the LEED standard



## WHAT IS LEED?

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**LEED**, or Leadership in Energy and Environmental Design, is the most widely used green building rating system in the world. Available for virtually all building, community and home project types, LEED provides a framework to create healthy, highly efficient and cost-saving green buildings. LEED certification is a globally recognized symbol of sustainability achievement.



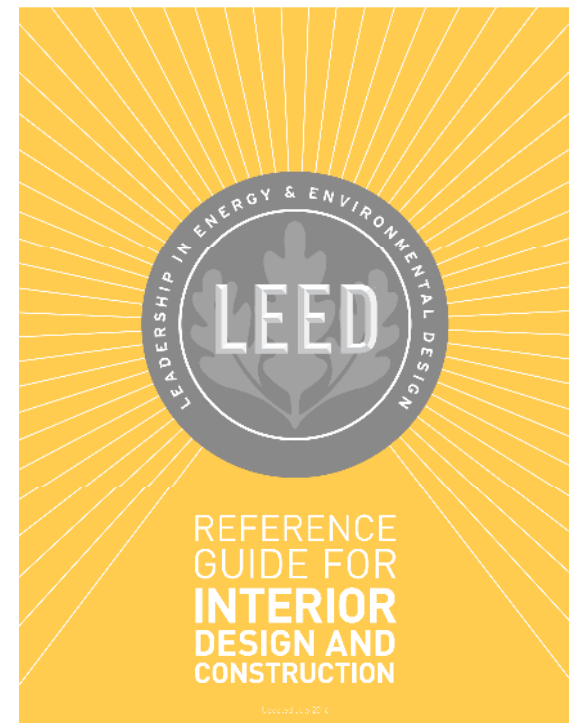
## What is LEED ID+C rating system?

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LEED-CI is the rating system that is focused on internal elements and designed primarily for tenants of buildings whose control over their space is primarily limited to portions of the interior of the facility.

LEED-CI enables tenants and designers to work within the confines of a building's interior, encouraging spaces that are healthy for both its occupants and the environment.

LEED-CI covers all interior elements such as floors and walls, finishes, lighting, furniture, mechanical systems and individual comfort.



# LEED CERTIFICATION REQUIREMENTS

In order to achieve LEED certification, projects must earn points in these categories:




**Innovation**



Introduction of novel features and procedures

**Indoor Environmental Quality**



Use of natural light and efficient air conditioning

**Materials and Resources**



Responsible construction waste management and sustainable sourcing of materials

**Location and Transportation**



Land protection and access to public transportation and green vehicles

**Sustainable Sites**



Sufficient green open space and light pollution reduction

**Energy and Atmosphere**



Optimizing sustainable energy production and metering

**Water Efficiency**



Indoor and outdoor water reduction



## Lecture tour (History and Schedule)

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- v This educational program aims to a wide range of target audience such as Public Media, Professionals and students in construction industry, Project's Suppliers, etc.
- v An educational outreach or our program is a good place to leverage what CAPITAL PLACE OFFICE already done in preparing sign boards and case studies, to do additional outreach.
- v A schedule of education tour including lectures has been made since the project's early stage. During the project, a number of education activities and presentation have been organized and delivered to various types of stakeholders.



## Presentation to Group management and Sub-contractors

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### *04-08-2021 – Presentation to Group management and Sub-contractors*

Title: LEED 's concept and application in the project


Presenter: Ms. Thu Nguyen

Time: 09:00 am – 11:00 am

Location: Online Meeting

Content: why apply LEED ID + C, Level Gold for Project, and use energy efficiency for water efficiency and HVAC system to save energy, etc.

### *Key attendants:*

1. Mr. Ngo Anh Dung / Company: Owner's Representative / Title: Construction Manager
  2. Mr. Nguyen Hoang Phuong / Company: G-i Corporation / Title: Project Manager
  3. Team project members
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## Presentation to Group management and Sub-contractors

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### *21-08-2021 – Presentation to Group management and Sub-contractors*

Title: LEED 's concept and application in the project

Presenter: Ms. Linh Nguyen

Time: 02:00 pm – 04:00 pm

Location: Online Meeting

Content: why apply for LEED ID + C, Level Gold for Project, and use energy efficiency for zero emission, water efficiency and HVAC system to save energy, etc.

### *Key attendants:*

1. Ms. Linh Nguyen / Company: Capital Place Office / Title: Head of People Engagement
2. Mr. Nguyen Hoang Phuong / Company: G-i Corporation / Title: Project Manager
3. Mr. Nguyen Anh Tuan/ Company: Capital Place Office / Title: Head of Technical
4. Staffs



## Credit summary on DESIGN and CONSTRUCTION stage

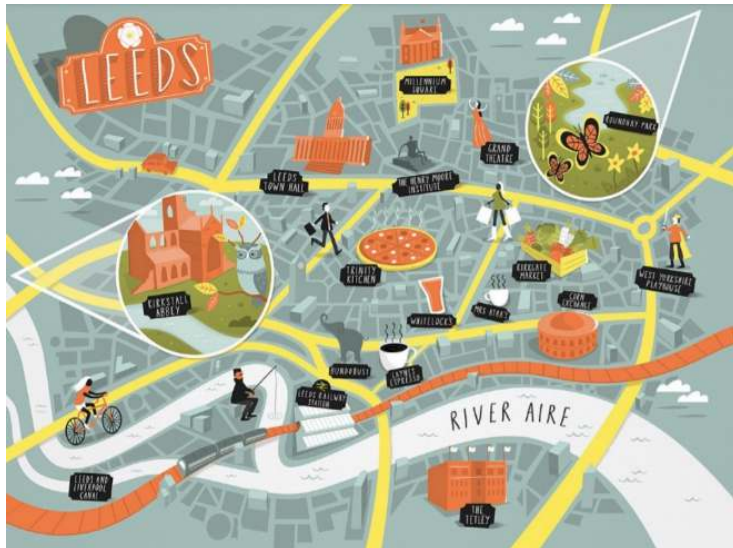
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No.	Category	Design stage	Construction stage
1	Integrative process	0	
2	Location and transportation	14	
4	Water efficiency	8	
5	Energy and atmosphere	26	4
6	Materials and resources		2
7	Indoor environment quality	4	1
8	Innovation	1	2
9	Regional Priority	2	1
<b>Total point for each stage</b>		<b>55</b>	<b>10</b>
<b>TOTAL POINT</b>		<b>65</b>	

## BENEFIT OF LEED OFFICE

### LOCATION AND TRANSPORTATION





The project is developed in an area that the surrounding density around the project is highly developed and transportation choices.



# BENEFIT OF LEED OFFICE

## WATER EFFICIENCY

*Higher efficiency fixtures and together with high performing*

1	Water closet		TOTO CW823NW/F	3-4.5L per flush	3	Lavabo faucet		TOTO DLE105AN	1.5L per minute.
2	Urinal		TOTO DUE113UPK	0.5L per flush	4	Kitchen faucet		RIGEL W3-R-CY119K	3.5L per minute

**Water saving: 47.38 % reduction from baseline**

## **BENEFIT OF LEED OFFICE**

### **ENERGY**

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#### **ENERGY SAVINGS**

Energy cost saving of 28.5%

#### **HVAC**

Installing the water-cooled chiller system with high efficiency supplies cooling to base building.

The benefits of using water-cooled chiller system:

- Better environmental stability
- Longer Lifespan and Quiet Operation
- No Open Space Needed
- Use R-134 refrigerant to reduce ozone depletion

## **BENEFIT OF LEED OFFICE**

### **BUILDING ENVELOPE**

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#### **GLAZING**

Using energy efficient glasses to contribute reducing absorbed solar radiance from outside to inside of building, therefore getting benefit in reduction investment cost for Air conditioning system, and operation cost for electricity bill.

Using Solar control-glazing glass with U-value=1.24, SHGC=0.2

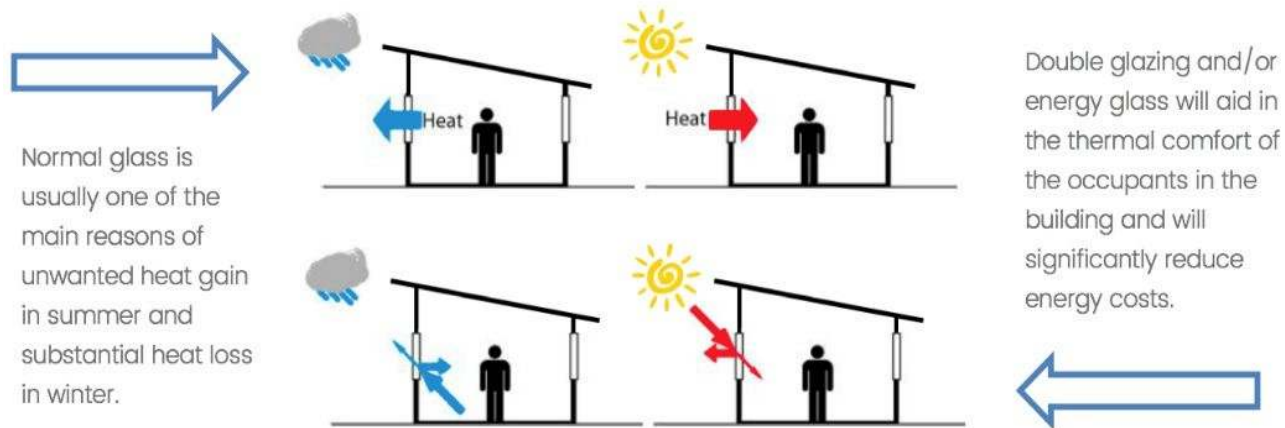
Using the high-efficiency water fixtures/fittings.

# BENEFIT OF LEED OFFICE

## BUILDING ENVELOPE

### OUTSIDE WALL

Using brick wall with U-value <math>< 1.8</math> to reduce the heat transferred from outside to inside of the building.



Normal glass is usually one of the main reasons of unwanted heat gain in summer and substantial heat loss in winter.

Double glazing and/or energy glass will aid in the thermal comfort of the occupants in the building and will significantly reduce energy costs.



## **BENEFIT OF LEED OFFICE**

### **ENERGY - LIGHTENING**

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All lighting of building use LED light to save energy and ecologically friendly. Using timer switch and occupancy sensor to automatically turn lighting off in all spaces, exceptionally spaces work in 24/24h.



LED TUBE 18W



LED DOWNLIGHT 9W





# BENEFIT OF LEED OFFICE

## SOCIAL ENVIRONMENT

### WASTE MANAGEMENT

Provide dedicated areas accessible to waste haulers and building occupants for the separation, collection, and storage of recyclable materials (mix paper, corrugated cardboard, glass, plastics and metals), hazardous waste area, organic waste area

Take appropriate measures for safe collection, storage, and disposal.



## BENEFIT OF LEED OFFICE

### **SOCIAL ENVIRONMENT**

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#### NO SMOKING POLICY

Prohibits smoking by all occupants and users both inside the building and outside the building.

The base building has the smoking areas located at level 1, at least 25 feet (7.5 meters) apart from all entries, outdoor air intakes, and operable windows.



## BENEFIT OF LEED OFFICE

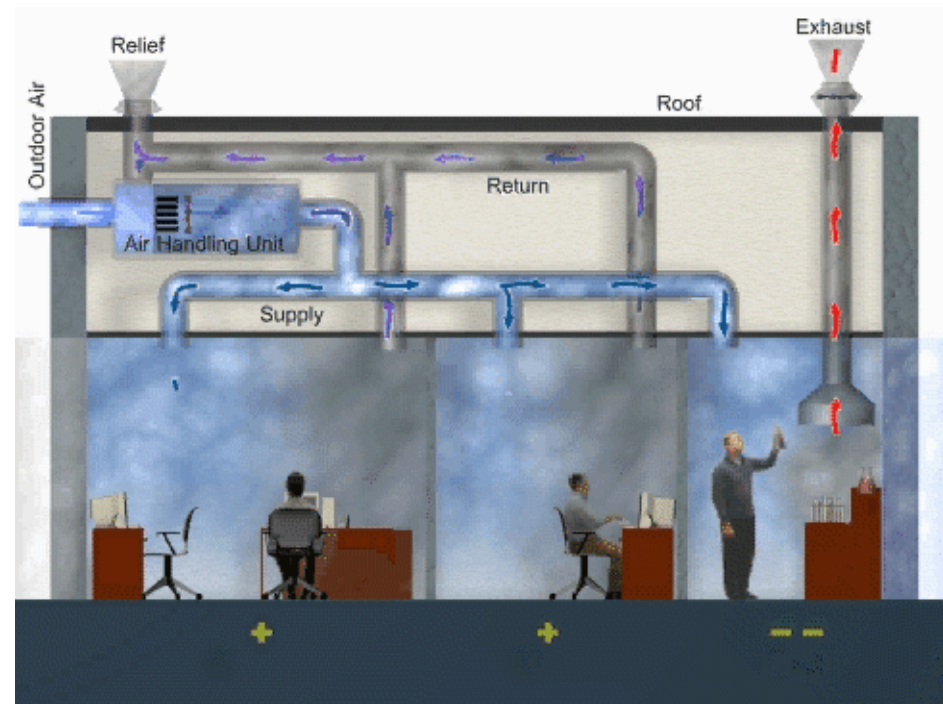
### INDOOR ENVIRONMENTAL QUALITY

#### PROVIDING FRESH AIR

The PAU on roof of base building supplies outdoor air for office spaces with heat recovery and G4F8 filter. The air quality inside the Office spaces will be controlled by the AHU and VAV boxes.

#### ENCREASING FRESH AIR

Our project designs for effective Indoor Air Quality, install CO2 sensors for densely occupied spaces.



THANK YOU!

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