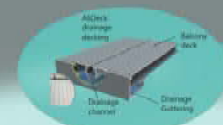
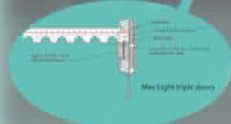




Friars Point

Whitmore Bay

The site is a 1.14 acre located on the shore side of Friars Point. Access to the site is possible via the walking road to Friars Point. The site is highlighted in red.



The system used for the Friars Point building is a Capstone® system. This system will be located on level 0 above entrance in a dedicated plant room. The unit is 1.5m by 2.3m and 2.2m high. The comfortably within the plant room as the floor to ceiling height on level 0 is 2.1m greater than that of the rest of the building.

- The unit contains 3 Ductless and has a rating of B2B2B
- Net Heat Rate (19178.8 kWh/year) (13.56 kWh/kWh)
- Electrical Efficiency (LFE) 21%
- Outdoor Temperature (20°C, 23/27)
- Combined Heat and Power Efficiency (40 to 90%)
- Estimated Gas Power (4.5 kWh/8.5 kWh)
- Volume (0.85-0.90 m³)
- Weight (600-650 kg)
- Frequency (50/60 Hz)
- Compatible Fuels (Natural Gas, Liquid Fuel)
- Compliant (BSI, CE, EN 15130, EN 15131, EN 15132, EN 15133, EN 15134, EN 15135, EN 15136, EN 15137, EN 15138, EN 15139, EN 15140, EN 15141, EN 15142, EN 15143, EN 15144, EN 15145, EN 15146, EN 15147, EN 15148, EN 15149, EN 15150, EN 15151, EN 15152, EN 15153, EN 15154, EN 15155, EN 15156, EN 15157, EN 15158, EN 15159, EN 15160, EN 15161, EN 15162, EN 15163, EN 15164, EN 15165, EN 15166, EN 15167, EN 15168, EN 15169, EN 15170, EN 15171, EN 15172, EN 15173, EN 15174, EN 15175, EN 15176, EN 15177, EN 15178, EN 15179, EN 15180, EN 15181, EN 15182, EN 15183, EN 15184, EN 15185, EN 15186, EN 15187, EN 15188, EN 15189, EN 15190, EN 15191, EN 15192, EN 15193, EN 15194, EN 15195, EN 15196, EN 15197, EN 15198, EN 15199, EN 15200)



The roof is a 7 foot (2.1m) PV panel mounted on 45 degree trapezoidal roof. Each panel has a solar panel of 1.6m x 1.0m and will be used for energy storage for the project. The solar panel will be used for energy storage for the project. The solar panel will be used for energy storage for the project.



Perimeter ventilation system (roof system) - The roof is a 7 foot (2.1m) PV panel mounted on 45 degree trapezoidal roof. Each panel has a solar panel of 1.6m x 1.0m and will be used for energy storage for the project. The solar panel will be used for energy storage for the project.



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Aluminum system (Al) - The aluminum system is an aluminum system. The aluminum system is an aluminum system. The aluminum system is an aluminum system. The aluminum system is an aluminum system.



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Multiple system - The multiple system is a multiple system. The multiple system is a multiple system. The multiple system is a multiple system. The multiple system is a multiple system.



Double apartments have been planned in an end-to-end arrangement. There is many benefits to this arrangement. Each of these bedrooms are close to the main living area. The living area will be used more than the bedrooms being the living area on the upper floor allows for greater views over the beach, also a spacious balcony which extends over the bedrooms entrance.



Both the floor and the ceiling are supported on the same aluminum system. The floor is supported on the same aluminum system. The ceiling is supported on the same aluminum system. The floor is supported on the same aluminum system. The ceiling is supported on the same aluminum system.



Heating is distributed using LPS Superflex plant. This system provides an even consistent transfer of heat, using the thermal mass of the floor to regulate the heat. Using underfloor heating also has the advantage of not needing radiators. There is more internal space. It changes are to be made to internal walls then cladding will not enter.



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A set of 100mm (4") is used for cladding level 1 and the rest is used for level 2. The grey concrete (100mm) is used for cladding the second floor. The effect of the rest of level 1 is a separation between the second floor cladding plant. Highlighting the junction creates an architectural feature.

The structural frame is not visible from the outside. The frame is not visible from the outside. The frame is not visible from the outside. The frame is not visible from the outside.





South

Aesthetically the south elevation is the most pleasing, the south elevation will be visible to passing pedestrians using the busy point foot path and visible from within the town. The use of brick ties in with the existing architectural style in Barry. The colour palette is neutral a range of light grey cladding in contrast with the dark red brick. The rock panel cladding is used to clad the majority of the external facade; however, the corner section left continuous. The light grey stone effect cladding panel is repeated at each floor with a dark grey stone panel to give the effect of an exposed slab edge. This style was designed as it incorporated well with the building due to the amount of cantilevered balconies and balconies. Rock panel woods clad the extrusions giving the building a modern pattern of which looks random but organized which combines with the spirit of the building. The wood effect top used as timber cladding is prominent within Barry. Due to the height of the building exceeding 18 metres timber cladding was not an option as part of the building regulations prevents timber being used in any part of the external wall build up of a building of this size. Therefore, the Rockwood panel was a suitable non-combustible panel made from volcanic, basalt rock.



Motor oil with cladding rail system
 Rockwood Cavity Feet 20mm, BS EN 13163, Fire Classification Euroclass A1 (S1, D1, E1) 1001-11
 Rockpanel Rockwoods cladding finish
 Rockwood Cavity Feet 150mm, BS EN 13163, Fire Classification Euroclass A1 (S1, D1, E1) 1001-11
 Acorn insulated air connection
 Metal deck
 Rockwood cladding supported ceiling Silver White, Class A1
 Rockwood Cavity Feet 150mm, BS EN 13163, Fire Classification Euroclass A1 (S1, D1, E1) 1001-11
 Dashing board 15mm
 Metal oil with Cornin back up future system
 Cornin brick slip tiles



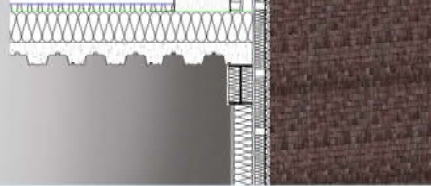
Looking at the building from the North, East and West the appearance remains continuous. The cladding materials are the same as that of the south however with a less complex arrangement. From the North elevation the idea was to highlight the entrances. Using the red brick also for all floors of the stair core highlighted the position of the stairs. Windows are at a minimum on the North elevation. Due to the heavily glazed South elevation the windows on the North elevation provide security overlooking the carpark and also cross ventilation.

Ventilation is important within the building, being a light weight construction that is heavily glazed on an exposed site, it is at risk of overheating. To prevent this MHRV controls the internal environment throughout the entire building. MHRV recovers heat from air that is being exhausted out of the building and uses it to preheat air being vented back into the building. However MHRV can also be used to maintain a comfortable temperature. If the building is getting too hot then the exhausted hot air is released without preheating the air that is vented back into the building, reducing to internal temperature.



East

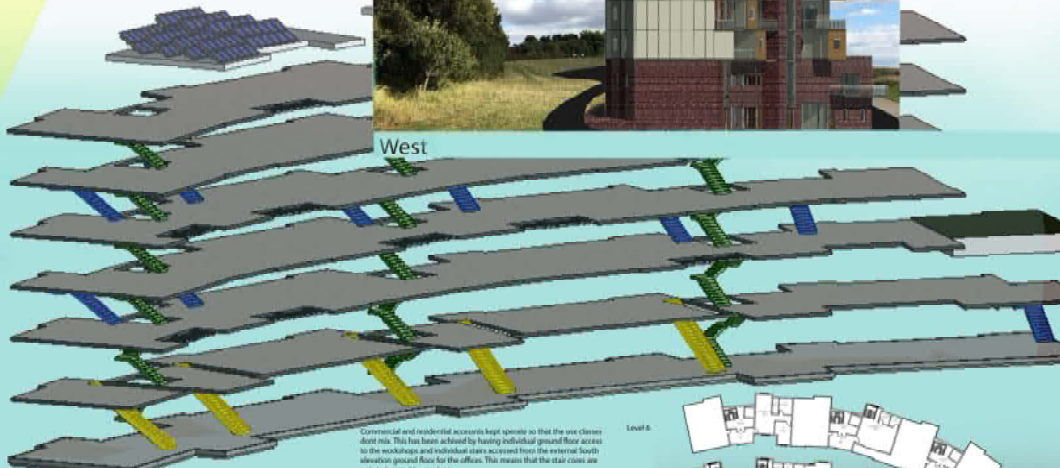
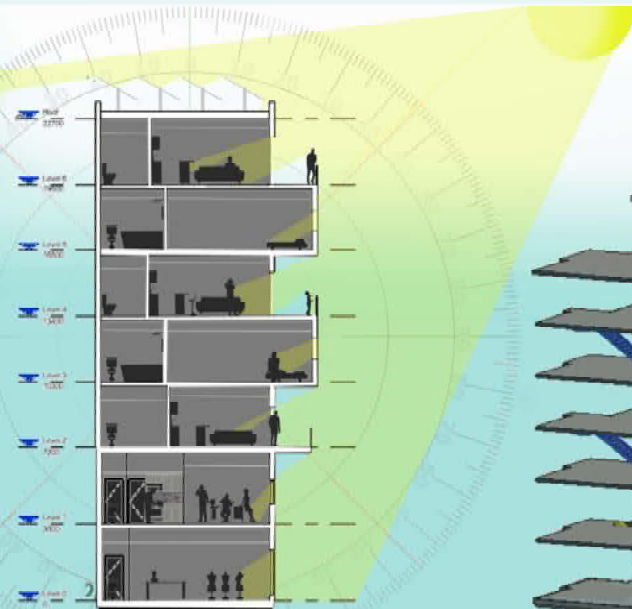
Maximising the use of soft landscaping helps to reduce the visual impact that the building has on the site. The lower level roof on the East side of the building level 2 is visible from the footpath from these points. The roof hosts an extensive green roof, aesthetically this gives a natural appearance to the building and helps to fit into the site.



Being the only visible roof it is the only roof that hosts a green roof, the other roof host photovoltaic panels.



North



West

Commercial and residential accounts kept separate so that the use classes don't mix. This has been achieved by having individual ground floor access to the works and individual access from the entrance. South elevation ground floor for the offices. This means that the stair cores are only to be used by residents.

