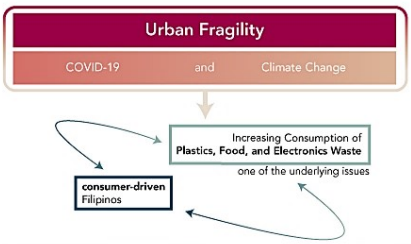
ZERO-WASTE IN & OUT

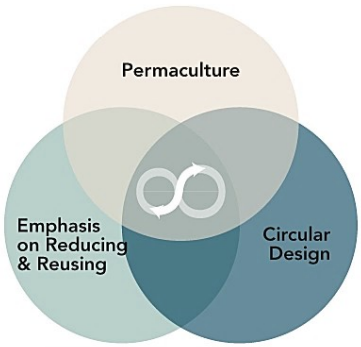
Refocusing the **Mall** as a Circular Economic Space

Mall Approach Perspective

Project Brief and Design Approach

Because Filipinos are generally consumer-driven, commercial activity in the country has been drastically increasing, whether it be through online or physical transactions. This, then, sheds light to the underlying issue of an **overwhelmed waste management system** here in the country as the consumption of products immediately results in **commercial waste**.





Considering the surface-level implementation of existing environmental legislation in the commercial setting, human engagement remains subpar and limited as these legal provisions have **no profound impact in our overall consciousness for our retail purchases** in every commercial establishment we go to.

With this, this thesis proposal addresses the issue of a **lack in a design-based approach *in the implementation of waste mitigation and regulation measures* in typical commercial spaces such as malls** with special attention to the integration of community-engaging efforts in altering our perception and use for packaging in the commercial setting.

This requires the need for design approaches that follows a strict **zero-waste core principle** in typical commercial spaces such as shopping malls.

The design approaches, as enumerated below, are integrated together to form a **sustainable ecosystem** that recycles and renews needed resources for the mall building systems while also transitioning neglectful consumerist behaviors to more environmentally responsible efforts through the mall's user experience.

Permaculture

Emphasis on Reducing and Reusing

Circular Design

Site Development

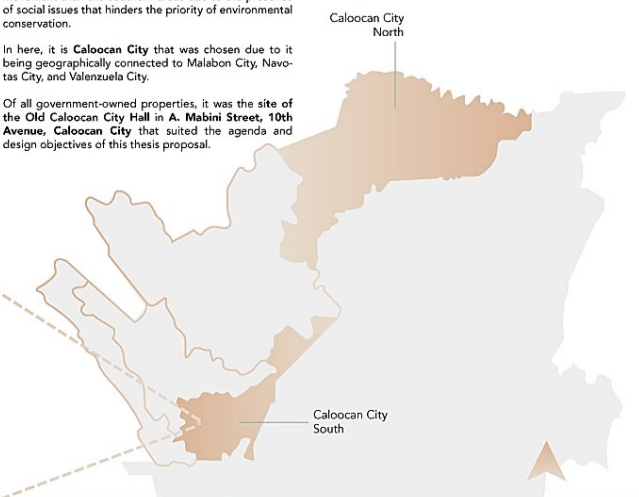
Site Analysis

Zero-Waste Intervention

Based on the general Metro Manila demographic, it is the **CAMANAVA region** that requires more focus on such an movement than the southern areas due to the presence of social issues that hinders the priority of environmental conservation.

In here, it is **Caloocan City** that was chosen due to it being geographically connected to Malabon City, Navotas City, and Valenzuela City.

Of all government-owned properties, it was the **site of the Old Caloocan City Hall** in **A. Mabini Street, 10th Avenue, Caloocan City** that suited the agenda and design objectives of this thesis proposal.



Circulation Analysis

high moderate low

A. Mabini Street, 10th Avenue, and Libis España Street are the busiest streets within the vicinity. Among all these, it is A. Mabini and 10th Avenue that are both pedestrian and vehicular heavy in circulation c/o public transportation. Libis España is more pedestrian heavy as it houses markets and stores that nearby residents can traverse to by foot.

Wind and Sun Paths

The area's wind path is generally mapped from the coming of the yearly monsoon winds Habagat and Amihan.

On the other hand, the sun path of the area shows the yearly reflection of sunlight received by the site through the diagram illustrated above.

Contour Lines

5 meters 13 meters 15 meters 16 meters 19 meters 21 meters

The site's elevation varies as it is within bounds of varying contour lines that dictate its steep sloping.

The site's west-end is the lowest in elevation while its east-end is the opposite.

Arch 199.2 Architectural Design X
Professor Olivia Alma Sicam
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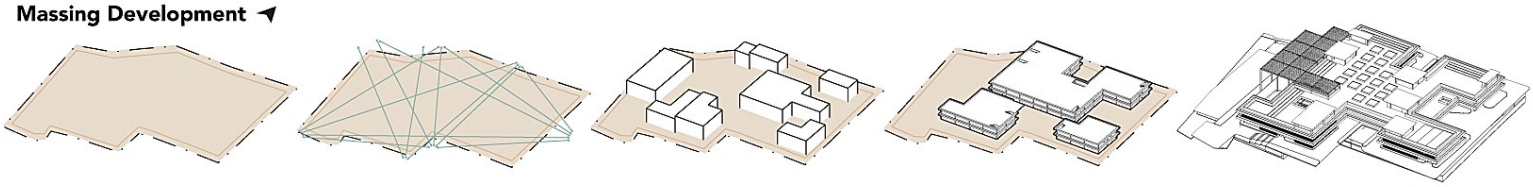
Massing Development



Setback Placement
A setback of 5 meters on the sides where the major road right-of-ways are are placed.

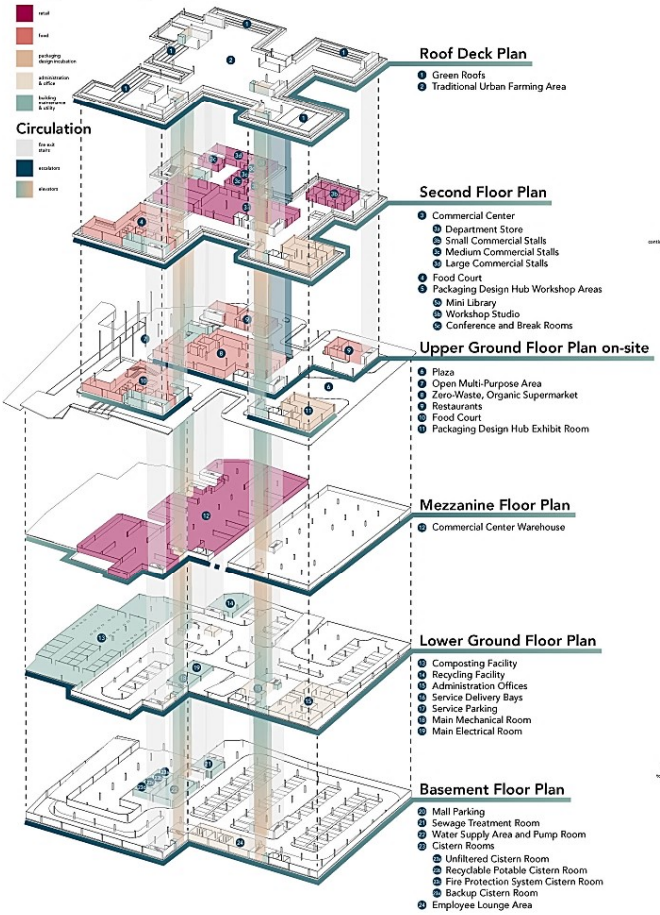
Connections and Isolation
Pathways through the site are determined to identify areas to be isolated as buildable space.

Extrusion
The buildable areas are extruded from and are to correspond to all the important programs of the mall.

Zoning Rearrangement
The zoning of all the programs are rearranged based on the transport of waste within the mall.

Views and Bridging
Views into the site are then taken into consideration in the design of the exteriors. All spaces are also bridged for more consistent wayfinding within.

Programming Overview



Roof Deck Plan
1. Green Roofs
2. Traditional Urban Farming Area

Second Floor Plan
3. Commercial Center
   - 3a Department Store
   - 3b Small Commercial Stalls
   - 3c Medium Commercial Stalls
   - 3d Large Commercial Stalls
4. Food Court
5. Packaging Design Hub Workshop Areas
   - 5a Mini Library
   - 5b Workshop Studio
   - 5c Conference and Break Rooms

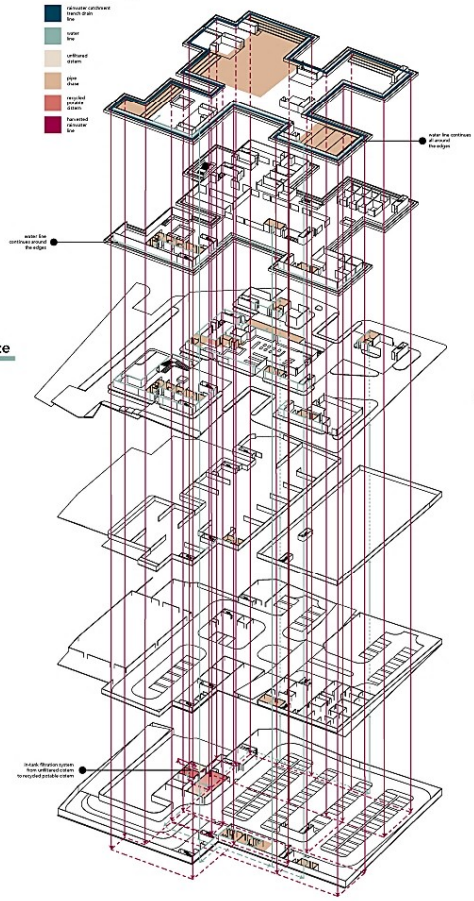
Upper Ground Floor Plan on-site
6. Plaza
7. Open Multi-Purpose Area
8. Zero-Waste, Organic Supermarket
9. Restaurants
10. Food Court
11. Packaging Design Hub Exhibit Room

Mezzanine Floor Plan
12. Commercial Center Warehouse

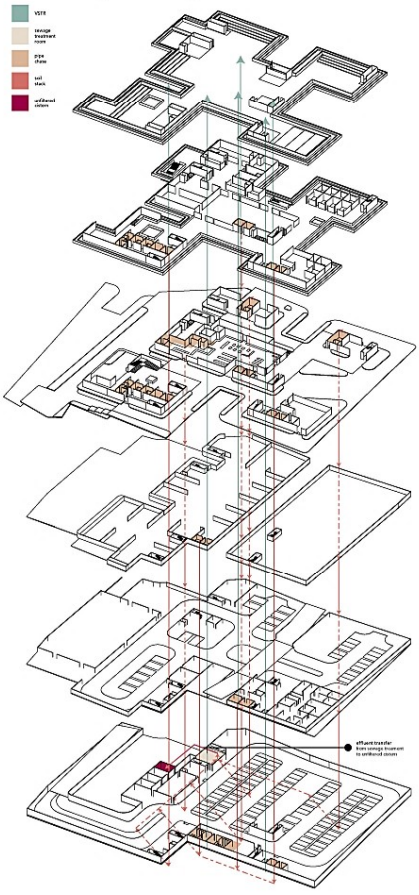
Lower Ground Floor Plan
13. Composting Facility
14. Recycling Facility
15. Administration Offices
16. Service Delivery Bays
17. Service Parking
18. Main Mechanical Room
19. Main Electrical Room

Basement Floor Plan
20. Mall Parking
21. Sewage Treatment Room
22. Water Supply Area and Pump Room
23. Cistern Rooms
    - 23a Unfiltered Cistern Room
    - 23b Recyclable Potable Cistern Room
    - 23c Fire Protection System Cistern Room
    - 23d Backup Cistern Room
24. Employee Lounge Area

Plumbing Water Line



Plumbing Sanitary Line




Workshop Studio


Roof Deck Green Roof


Food Court


Hydroponics Farming Area

Elevations


Front (East) Elevation

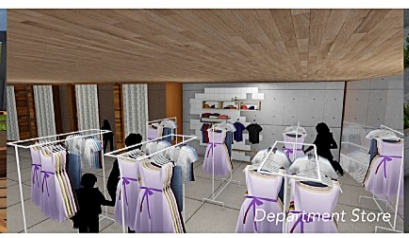

Rear (West) Elevation


South Elevation


North Elevation


Sample Commercial Stall


Traditional Urban Farming Area


Department Store


Outdoor Planter Boxes