

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

Name:
Institution:
Professor:
Course:
Date:

Monte-Plex
A Proposed Satellite Self-Sustaining Urban Complex
San Jose Del Monte, Bulacan

A Thesis Proposal Presented to the
College of Architecture
Adamson University

In Partial Fulfillment
Of the Requirements of the Degree
Bachelor of Science in Architecture

By

ABSTRACT

Urban complexes are the hub of society because of the range of services they offer. The main goal of reinventing the idea of conventional center malls is to create a location that is universal and will cater to all social groups. With modular features that are accessible to everybody, the design aims to create a flexible and inclusive spatial environment. It also incorporates architectural solutions that are tailored to the social contexts of various user categories.

The proposed project aims to develop a satellite self-sustaining commercial complex in accordance with SJDM's City Development Plan (CDP). This project aims to close the gap in SJDM's economic environment by carefully putting the required elements in place in accordance with the city's CDP, encouraging local entrepreneurship, creating job opportunities, and drawing investors. The intended commercial complex ultimately seeks to advance SJDM toward sustainable economic growth while enhancing the city's economic prospects and offering its citizens respectable job opportunities.

Instead of directly competing with or imitating already-established commercial enterprises like SM, Starmall, WalterMart, etc., the project aims to enhance them by offering unique services and support systems targeted at encouraging local entrepreneurship and economic progress.

Keywords: urban complexes, services, inclusive, universal

Table of Contents

ABSTRACT	IV
THE INTRODUCTION	1
1.1. BACKGROUND OF THE STUDY	1
1.2. STATEMENT OF THE PROBLEM	6
1.3. OBJECTIVES OF THE STUDY	8
1.4. SIGNIFICANCE OF THE STUDY	9
1.5. CONCEPTUAL FRAMEWORK	12
1.6. PROJECT SCOPE, LIMITATIONS & DELIMITATIONS	13
1.7. DEFINITION OF TERMS	13
THE LITERATURE REVIEW	17
2.1. REVIEW OF THE LITERATURE	17
2.2. CASE STUDIES	17
2.3. SYNTHESIS	31
THE RESEARCH METHOD	32
3.1. RESEARCH DESIGN	32
3.2. DATA GATHERING	32
3.3. DATA PROCESSING	37
NATIONAL BUILDING CODE COMPUTATIONS	
PROBABLE COST	
THE CLIENT/PPP PARTNERS	
SITE JUSTIFICATION	
• ZONING REQUIREMENT	
• ACCESSIBILITY OF TARGET USERS/CATCHMENT AREA	
• AVAILABLE UTILITIES	
• TOPOGRAPHICAL DATA	
• CLIMATE	
• SOIL PROFILE	
• SITE PICTURES	
PRELIMINARY DESIGN CONCEPT	

REFERENCES



CHAPTER 1

THE INTRODUCTION

Given the variety of services they provide, community centers have been the throbbing center of society. A universal space that will serve all societal groups is the prime intention of redefining the concept of traditional center malls. The concept seeks to create an inclusive, flexible spatial environment with modular elements accessible to everybody while incorporating architectural strategies that match the social context of different categories of users.

In the context of San Jose Del Monte, the MSMEs ranges from manufacturing, wholesale and retail trade, up to other service activities. According to the breakdown in graph (Figure 1), Wholesale and Retail Trade (3,114) ranks first with a percentage of 46%, this segment is the largest. includes merchants of school supplies, general items, pharmacy, agri-supply stores, bakeries, and sari-sari stores, among other food and beverage facilities.

The second largest MSME business is Manufacturing (1,133) which makes up 17% of the local economy. It includes a range of industries, including food service and restaurant operations, water refilling stations, machinery and fabric, handicrafts, upholstery, production of glass and aluminum, and space rents. The third largest is the Other Service Activities (689) which is 10% of the businesses.

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

It comprises of salons, tailoring shops, plumbing services, carwash, laundry services, and repair shops to name a few.

Administrative and Support Service Activities (390) - 6%.

Financial and Insurance Activities (331) - 5%.

Construction (300) - Comprising 4% of the enterprises. incorporates commerce and building.

Real Estate Activities (232) - 3%.

Professional, Scientific and Technical Activities (151), and Education (104) make up the 2% of the businesses.

Transportation and storage (71), Information and Communication (71), Human Health and Social Work Activities (51), and Arts, Entertainment and Recreation (62) represents 1% of the businesses.

The last two businesses which make up 0% of the businesses are Electricity, Gas, Steam, And Air Conditioning Supply (4), Accommodation and Food (25), and Water Supply; Sewerage, Waste Management, And Remediation Activities (1).

This variety of MSMEs highlights the growth, diversity, and resilience of San Jose Del Monte's economy by presenting a complex of businesses that all work together to further the expansion and advancement of the city.

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

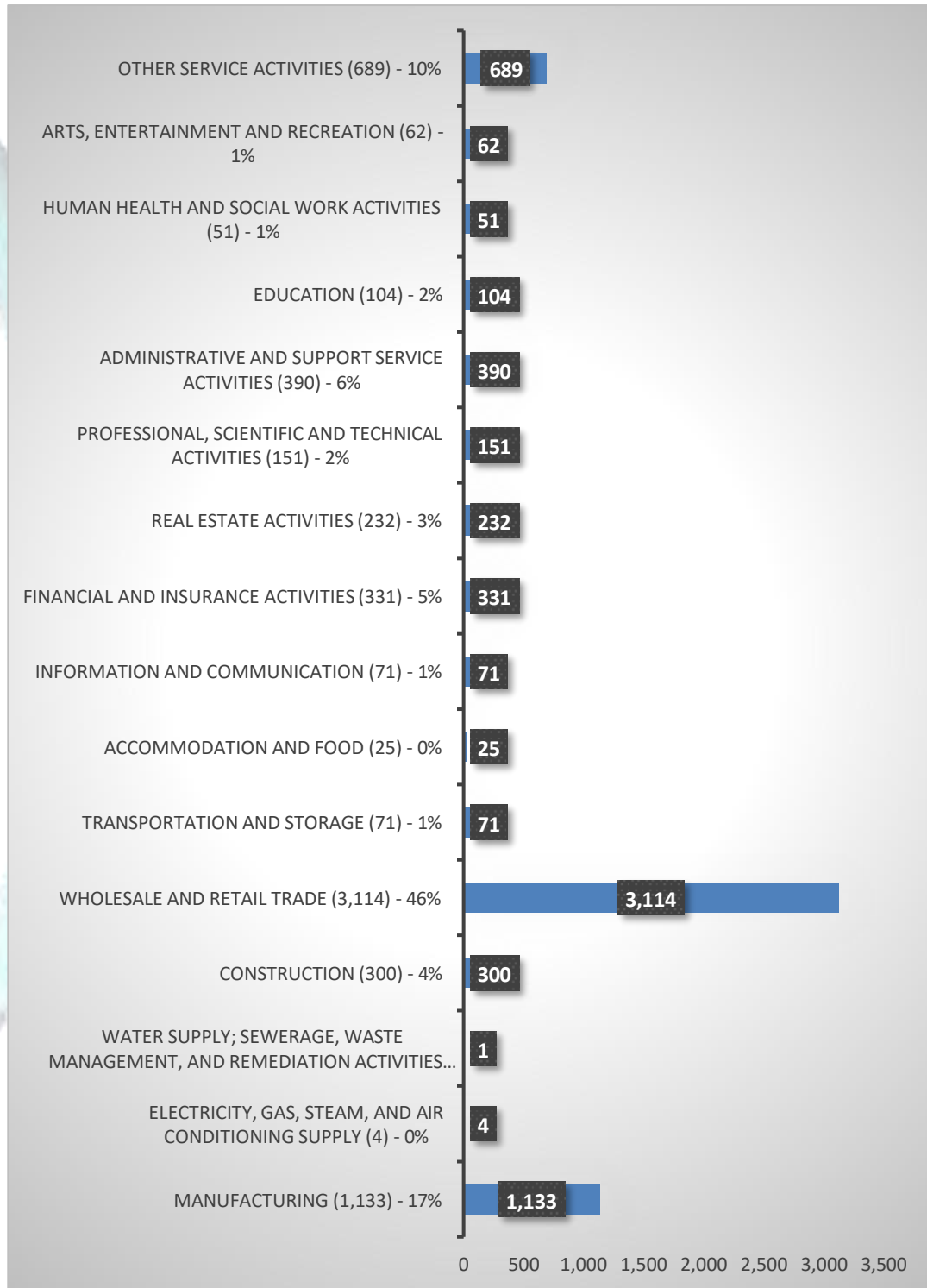


Figure 1: List of MSME in San Jose Del Monte, Bulacan as of 2022
(SOURCE: CSJDM GOVPH)

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

1.1. BACKGROUND OF THE STUDY

The City of San Jose del Monte in Bulacan is a first class income class city that has a vibrant population and economic activity despite having a sizable workforce despite the fact, it is devoid of revenue-generating infrastructure that would support the local economy.

The financial condition of the City of San Jose Del Monte for 2022 with comparative figures for 2021 are as follows:

Particulars	2022	2021	Increase (Decrease)	
			Amount	%
Financial Condition				
Assets	₱4,458,008,327.46	₱3,765,334,638.49	₱692,673,688.97	18.40%
Liabilities	628,628,522.53	664,666,222.64	(36,037,700.11)	(5.42%)
Government Equity	3,829,379,804.93	3,100,668,415.85	728,711,389.08	23.50%
Results of Operations				
Revenues	2,969,210,289.51	2,155,159,203.69	814,051,085.82	37.77296%
Expenses	2,189,157,845.10	2,115,331,687.66	73,826,157.44	3.49%
Surplus/(Deficit) from Current Operations	780,052,444.41	39,827,516.03	740,224,928.38	1858.58%
Sources and Application of Funds-General Fund and Special Education Fund				
	Budget	Actual	Difference	Percentage
Revenue and Receipts	2,913,415,683.00	2,969,031,289.51	(55,615,606.51)	(1.91%)
Expenditures	3,350,098,252.48	2,650,679,952.75	699,418,299.73	20.88%
Surplus (Deficit)	(₱436,682,569.48)	₱318,351,336.76	(₱755,033,906.24)	172.90%

Figure 2: Executive Summary of San Jose Del Monte 2021-2022 (SOURCE: COA)

The retail scene of the city is influenced by established businesses like SM, Sarmall, WalterMart, Savemore, and others. Nevertheless, the city noticeably

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

lacks essential public or LGU-owned infrastructures created especially to draw in and assist Micro, Small, and Medium-Sized Enterprises (MSMEs).

The lack of a center designed expressly to promote the expansion of MSMEs is a major factor in the lack of local economic infrastructure. Despite being sizable, the city's workforce finds few or no job possibilities inside SJDM and frequently commutes to other cities in search of employment and income. This scarcity of job opportunities within the city confines forces a significant portion of its labor force to seek employment elsewhere, adversely impacting SJDM's economic growth and potential.

San Jose del Monte City was renowned as a quickly developing city for its advancements in infrastructure, residential growth, and urban development. Although small, the manufacturing, retail, and service sectors were driving the city's rising economic activity. The city was always expanding its public transportation system, road systems, and business buildings. In order to increase the city's livability and provide its citizens with more economic prospects, the local government was engaged in a number of projects.

Moreover, SJDM, while not declared as a highly urbanized city (HUC) during the last Sangguniang Kabataan (SK) Elections back in October 30, 2023, carries a deliberate choice to avoid such a classification, mindful of the potential negative repercussions. A declaration as an HUC could lead to substantial increases in

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

taxes, land rates, and various other expenses, despite the inadequacy or absence of infrastructural developments catering to the residents' needs.

1.2. STATEMENT OF THE PROBLEM

The city of San Jose del Monte (SJDM), situated in Bulacan, faces a critical challenge of lacking income-generating infrastructure crucial to fostering local economic growth and sustainability. Despite the presence of commercial giants like SM, Starmall, WalterMart, Savemore, and similar establishments, SJDM notably lacks LGU-owned or public infrastructures designed explicitly to incentivize and support Micro, Small, and Medium Enterprises (MSMEs) within the city.

This absence of specialized infrastructure catering to the needs of MSMEs is a significant concern. These enterprises, often the backbone of a thriving local economy, require dedicated spaces and supportive environments to flourish. The current absence of such facilities within SJDM creates a void in the local economy, hindering the city's potential for robust economic development.

A crucial contributing factor exacerbating this issue is the disparity between SJDM's substantial workforce and the limited employment opportunities available within the city. Despite the sizeable labor pool, a significant portion of the populace opts to seek employment opportunities in neighboring cities,

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

commuting regularly due to the scarcity or absence of suitable job offerings within SJDM. This pattern adversely impacts SJDM's economic growth, as residents spend their resources outside the city, contributing to the economic prosperity of other localities.

Furthermore, SJDM deliberately avoided classification as a highly urbanized city (HUC) in the recent SK election/plebiscite due to apprehensions about the potential adverse effects of such a designation. The anticipated consequences of becoming an HUC, including increased taxes, land rates, and other expenses, create a scenario where SJDM lacks the necessary infrastructural support despite the potential burdensome financial obligations associated with an HUC classification. This anomaly becomes more pronounced when compared to other HUC cities such as Valenzuela, San Fernando, and Angeles, which had already established themselves as self-sustaining economic hubs before attaining HUC status, boasting numerous job opportunities and attracting investors.

In summary, the study aims to identified problems revolve around the following:

1. Absence of income-generating infrastructure tailored for MSMEs, as an amenity, for the economic development of the city.
2. Scarcity of job opportunities for the substantial SJDM workforce,

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

3. Potential mismatch between anticipated benefits and lacking infrastructural support associated with a highly urbanized city classification.

The proposed project seeks to rectify these issues by establishing a comprehensive commercial complex aligned with SJDM's developmental goals, aiming to stimulate economic activity, generate employment, and foster a sustainable economic environment within the city.

1.3. OBJECTIVES OF THE STUDY

The focus of the proposed project, is to conceptualize and establish a satellite self-sustaining commercial complex aligned with the City Development Plan (CDP) of SJDM. By strategically implementing the necessary components in alignment with the city's CDP, this project seeks to fill the void in SJDM's economic landscape, fostering local entrepreneurship, generating employment opportunities, and attracting investors. Ultimately, the envisioned commercial complex aims to propel SJDM towards sustainable economic growth while providing its residents with viable career options and bolstering the city's economic prospects.

1. To create a complex that aims to serve as a pivotal hub, integrating various income-generating facilities proposed by the local government, including an LGU-owned training and assessment center, livelihood development

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

center, business one-stop-shop (BOSS), and a modern, eco-friendly public market, among others.

2. To establish a complex that will contribute to the economic development of the city
3. To create a quality designed commercial complex which is sustainable, socially, economically and environmentally appropriate for the site and its users

1.4. SIGNIFICANCE OF THE STUDY

The significance of establishing a commercial complex in San Jose del Monte, Bulacan, cannot be overstated due to several critical reasons that underline the current deficiencies within the city's economic infrastructure. Despite the presence of well-known commercial entities like SM, Starmall, WaltherMart, Savemore, and others in SJDM, the absence of locally owned or public income-generating infrastructures tailored to incentivize Micro, Small, and Medium Enterprises (MSMEs) is striking. This void hampers the city's ability to foster local entrepreneurship and sustainably drive economic growth.

One of the foremost reasons for this vacuum is the lack of infrastructure initiatives aimed explicitly at nurturing the growth of MSMEs within SJDM. While the city houses a substantial workforce, a significant portion does not find suitable employment opportunities within SJDM. Consequently, many residents commute

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

to other cities in search of work due to the limited or absent job offerings in their hometown. This exodus of workers has a detrimental effect on SJDM's economic potential and local development.

Another pertinent consideration is the deliberate choice of SJDM to avoid being classified as a highly urbanized city (HUC). This choice, made evident in the recent SK election/plebiscite, reflects an understanding of the potentially adverse effects associated with an HUC status. The repercussions of such a classification, including increased taxes, land rates, and other expenses, could burden the residents. The incongruity of attaining an HUC status without the necessary infrastructural support further accentuates the critical need for strategic development planning in SJDM.

By drawing comparisons to other highly urbanized cities like Valenzuela, San Fernando, and Angeles, it becomes evident that the absence of a well-established infrastructure plan is a crucial differentiating factor. These cities achieved self-sustenance and attracted numerous jobs and investors even before being declared as HUCs. Their proactive approach to economic development underscores the importance of infrastructural preparedness in facilitating sustained growth and attracting investment.

The significance of this initiative lies in its potential to transform SJDM into an attractive destination for MSMEs, fostering local entrepreneurship, and generating employment opportunities. It aligns with the city's long-term economic

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

sustainability goals and addresses the shortcomings highlighted by the absence of income-generating infrastructures. Ultimately, the successful implementation of a satellite self-sustaining commercial complex could catalyze SJDM's economic growth, enhancing the livelihoods of its residents and solidifying its position as a thriving and self-reliant city.



ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

1.5. CONCEPTUAL FRAMEWORK

INPUT	PROCESS	OUTPUT
<p>IDENTIFYING THE GAP IN INFRASTRUCTURE -the absence of LGUowned/ public infrastructure catering to MSMEs hampers the city's potential to foster local entrepreneurship and retain its workforce, which forces its residents to seek employment opportunities in other cities due to limited or unavailable job opportunities in SJDM</p>	<p>COMMUNITY INVOLVEMENT AND COLLABORATION - active community involvement and collaboration between the LGU and stakeholders</p>	<p>MONTE-PLEX - A Proposed Satellite Self-Sustaining Urban Complex</p>
	<p>ENVISIONED IMPACT - to provide viable job opportunities for the local workforce, attract investments, nurture entrepreneurship, and ultimately propel the city towards self-sustainability</p>	
	<p>LEARNINGS FROM SELF - SUSTAINING HUC - In order to attract more investment opportunities in San Jose Del Monte and generate more job opportunities, must follow the precedent set by other highly urbanized cities such as Valenzuela, San Fernando, and Angeles by highlighting the success of producing self-sustaining economies before acquiring the HUC status</p>	

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

1.6. PROJECT SCOPE, LIMITATIONS & DELIMITATIONS

PROJECT SCOPE - The primary goal of this project (P3) is to design and develop a comprehensive commercial complex within the San Jose del Monte (SJDM) area in Bulacan. The complex aims to address the absence of income-generating infrastructure within the city by integrating various facilities and services aimed at promoting local businesses, enhancing employment opportunities, and fostering economic growth.

Components:

- 1. LGU-Owned Training and Assessment Center:** This facility's goals are to increase the employability of the local labor force by providing skill development and vocational training, as well as to make it easier for MSMEs (micro, small, and medium-sized enterprises) to grow within SJDM.
- 2. Livelihood Development Center:** devoted to supporting and nurturing local business owners by giving them mentorship, guidance, and resources to start and expand their businesses, thereby encouraging community economic empowerment.
- 3. Business One-Stop-Shop (BOSS):** a consolidated platform that streamlines the process of registering businesses, obtaining licenses, and obtaining permissions. Its objective is to attract more investors and streamline the administrative procedures for both startup and established businesses.

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

4. **Eco-Friendly Public Market:** A modern marketplace that supports eco-friendly initiatives, supports sustainability, adapts to community needs, and provides a venue for local manufacturers to advertise their products.

Limitations:

- The project's size and scope may be impacted by financial limitations, which can necessitate phased execution or the priority of particular components depending on available resources.
- The project's schedule and execution may be impacted by outside variables like shifts in the economy or in regulations.
- Reliance on collaboration and backing from diverse stakeholders and the local administration to guarantee smooth implementation and enduring viability.

Delimitations:

- The project's sole goal is to create the proposed commercial complex in SJDM in order to solve the area's lack of infrastructure that generates revenue.
- Recent plebiscite results have brought attention to the potential negative consequences on taxes, land, and other expenses, thus the study does not seek to redefine the city's legal status as a highly urbanized city (HUC).

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

- The project seeks to complement already-existing commercial enterprises such as SM, Starmall, WalterMart, etc. by providing distinctive services and support systems aimed at promoting local entrepreneurship and economic growth, rather than to immediately competing with or copying them.

By addressing the identified limitations and working within the specified delimitations, the project endeavors to create a robust framework for a self-sustaining commercial complex that aligns with the city's development goals while overcoming existing challenges in SJDM, Bulacan.



ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

1.7. DEFINITION OF TERMS

MONTE - SPANISH TRANSLATION OF THE WORD "MOUNTAIN"

PLEX – DERIVED FROM THE WORD "COMPLEX"

SATELLITE - SOMETHING THAT IS SEPARATED FROM OR ON THE PERIPHERY OF SOMETHING ELSE BUT IS NEVERTHELESS DEPENDENT ON OR CONTROLLED BY IT.

SELF-SUSTAINING - ABLE TO CONTINUE IN A HEALTHY STATE WITHOUT OUTSIDE ASSISTANCE.

URBAN - OF, RELATING TO, OR CONSTITUTING A CITY OR TOWN. LIVING IN A CITY OR TOWN.

COMPLEX - CONSISTING OF MANY DIFFERENT AND CONNECTED PARTS.

URBAN COMPLEX - MEANS AN URBAN CENTER AND TWO OR MORE MUNICIPALITIES WITHIN THE SURROUNDING METROPOLITAN PLANNING AREA THAT EXHIBIT A STRONG INTER-MUNICIPAL RELATIONSHIP, BASED ON SOCIO-ECONOMIC FACTORS AND PUBLIC FACILITIES AND SERVICES, THAT IS DEFINED, INTEGRATED AND COORDINATED THROUGH A STRATEGIC REVITALIZATION PLAN.

HIGHLY-URBANIZED CITY - MEANS THAT THE CITY HAS EXPERIENCED SIGNIFICANT GROWTH AND DEVELOPMENT, WITH A HIGH CONCENTRATION OF POPULATION AND ECONOMIC ACTIVITY.

CHAPTER 2

THE LITERATURE REVIEW

This chapter includes all types of materials reviewed, conceptual literature which came from books. Related studies both local and foreign consisting mainly of peer reviewed journals. Your aim is to show **how** the present study relates to the existing knowledge and previous studies in terms of both similarities and differences. The formal sub-sections for this chapter are;

2.1. REVIEW OF THE LITERATURE

A. Bonifacio High Street



Figure 3: Bonifacio High Street (SOURCE: Ianfulgar)

The fourth project is Bonifacio High Street, a mixed-use development in Bonifacio Global City. This building, which combined restaurants, shops, and art

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

pieces with an outdoor park-like environment, completely changed the way people think about buying. This unique urban form guarantees a successful real estate model by drawing both customers and great tenants.

The Ayala Triangle Gardens Tower is a commercial building that features environmentally friendly architectural features like rainwater collection systems, energy-efficient lighting, and a heat-reducing glass curtain. It also features such as beautifully designed park with blossoming flowers, calm pathways, and an abundance of greenery can be found in Bonifacio Global City inside a contemporary shopping complex. The business center's buildings are visible in the backdrop, contrasting sharply with the surrounding landscape. By drawing in major firms and upscale tenants who are dedicated to sustainability, these elements save operating costs and boost the building's profitability.

These business endeavors highlight how crucial commercial space design is to the Philippines' development of successful real estate business models. Each project exemplifies the value of creating commercial spaces that cater to consumer preferences, the corporate environment, and the broader cultural context through its unique design and thoughtful use of space.

B. Ayala Center Cebu



Figure 4: Ayala Center Cebu (SOURCE: Ianfulgar)

Another example is the Ayala Center Cebu, which was built by Ayala Land and is a testament to the successful combination of strategic planning and well-thought-out architecture in commercial space. Seen at night, Ayala Center Cebu is a bustling shopping center full with brilliant lights and bustling activity.

Building lights and throngs of people signify a thriving nighttime business. The complex's design concept is derived from regional aesthetics, incorporating indoor and outdoor spaces with tropical accents to capture the essence of Cebu's dynamic island lifestyle. It honors the distinctive local culture while capturing the energy of contemporary Cebu. More broadly, creative commercial

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

space design can play a big role in the expansion and prosperity of Philippine companies.

With this kind of setup, companies may effectively communicate their brand ethos to consumers and give them a concrete understanding of the company's identity and values. Furthermore, well-designed commercial buildings can attract premium tenants, increasing property prices and generating steady rental income. This trend highlights the revolutionary potential of commercial space design by producing more viable real estate models.

2.2. CASE STUDIES

LOCAL CASE STUDY

A. Maharlika Livelihood Center



ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

One of the most prominent buildings in Baguio City, the Maharlika Livelihood Complex was built in the early 1980s and is a tribute to the city's architectural and functional legacy.

Under the direction of former first lady Imelda Marcos, the government originally purchased this complex, which has grown to become a well-known landmark in the city, enticing visitors with its colorful selection of handicrafts, souvenirs, woodcarvings, and priceless silver jewelry.

Its prime location at the end of the well-known Session Road in Baguio City and close proximity to the thriving public market allow it to blend in perfectly with the city's urban landscape. The subtle change from the market to Maharlika may easily lead one to believe they are still in the same complex, demonstrating a skillful fusion of architecture and function.

Maharlika is a unique destination for souvenir hunters and collectors, offering a wide variety of products from basketball team jerseys to military uniforms, while the nearby market features local vegetables and specialties. Its transformation into a bustling retail center from a haven for traders fleeing the devastating 1970 fire that destroyed the original Baguio stone market represents its ongoing relevance in the city's economic and cultural scene.

However, its officials now feel a sense of urgency due to Maharlika's anticipated transfer to Baguio City in 2025. The government-owned Human Settlements Development Corp. (HSDC), which is in charge of managing the complex, is

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

confronted with urgent legal and financial issues that need to be resolved quickly in order to avoid the land leasing rights expiring on April 27, 2025.

Constructed on a 3-hectare government land, Maharlika's complex narrative weaves together with the history of the city and the memory of Imelda Marcos.

Originally intended to accommodate displaced traders, it has since evolved into a bustling retail attraction. The building's architectural homage to Ifugao's breathtaking rice terraces solidifies its reputation as a local icon and a symbol of resiliency and cultural diversity.



Figure 5: Souvenirs items displayed on Maharlika Livelihood Center

(SOURCE: [freakofnaturezz.blogspot](https://freakofnaturezz.blogspot.com))



Figure 6: Stores displaying basketball jerseys and military uniform inside Maharlika Livelihood Center (SOURCE: freakofnaturezzz.blogspot)

As the changeover date draws near, more work is being done to overcome legal and financial obstacles in order to preserve Maharlika's history and recognize its significance to Baguio City's tourism and heritage scene.

B. Livelihood Center in Medellin, Northern Cebu



Figure 7: Exterior view of the Livelihood Center

(SOURCE: ILO - International Labour Organization)

One of the 16 most severely damaged municipalities in the northern region of the province of Cebu was Medellin. This led to the disruption of numerous livelihoods and the abandonment of houses and schools months after Super Typhoon Haiyan. As a result of the area's need for construction and restoration projects, Child and World Cebu Empower, Inc. (CWCE) suggested taking on project management duties overall. In order to carry out the project successfully, CWCE will collaborate with the local community and utilize labor from already-existing local associations in the designated locations.

The Department of Social Welfare and Development (DSWD) and the International Labour Organization (ILO) collaborated to select and identify the

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

target beneficiaries from the communities. The training and enterprise centre will be maintained by the LGU of Barangay Kawit while its operations will be managed by the Kawit (Medellin) Women's Livelihood Association (KWLA).



Figure 8: Inauguration of the Livelihood Center

(SOURCE: ILO - International Labour Organization)

On September 8, 2015, the KMWA training and enterprise center was officially opened. Attendees included representatives from the ILO, a sponsoring garment firm, and LGU partners. The building will give organization members a place to sew, process food, and engage in other revenue-generating activities.



Figure 9: Sewing training facility inside the Livelihood Center

(SOURCE: ILO - International Labour Organization)

A clothing firm in Cebu City supplied high-speed sewing machines. The center is planning to train people in the creation of clothing, and the company plans to hire the trained individuals as employees.

FOREIGN CASE STUDY

A. THE GROVE IN LOS ANGELES, CALIFORNIA, USA



ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

The 575,000-square-foot shopping center opened its doors 21 years ago, combining elements of the best Southern California institutions: the enchantment of an amusement park, the imagination of a studio set, and the astute capitalistic cleverness of a mall. Despite being close to Television City and LA's celebrity-focused West Hollywood area, it is designed to resemble a charming village main street. The millionaire owner of the property, Rick Caruso, is a current candidate for L.A. mayor, claimed he based it on King Street in Charleston, South Carolina. It even includes a little park, a town square straight out of a storybook, and a tram with a bell-ringing conductor.



Figure 10: Pedestrian view of The Grove

(SOURCE: Town and Country Magazine)

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

Like so many beloved institutions, the Grove strong-armed its way into the city's embrace. After all, the Beverly Center, with its Pompidou-like facade, was a mere stone's throw away. Plus, it was encroaching on the territory of a long-time establishment, the much-adored outdoor foot court and grocers known as the Original Farmers Market.

The Grove pushed its way into the heart of the city, just like a lot of other cherished establishments. After all, the Pompidou-esque Beverly Center was only a short distance away. Besides, it was taking over the beloved outdoor foot court and merchants known as the Original Farmers Market, a longstanding landmark.

The Grove opened at a perfect moment, coinciding with US Weekly and Perez Hilton's transformation of celebrity shopping from a routine errand into an adrenaline sport. All of a sudden, everyone were talking about Paris Hilton or Lindsay Lohan on Robertson Boulevard or at the Grove. Since social media and e-commerce were still a ways off, The Grove provided the ideal platform for people to realize their aspirational goals. Additionally, because it's in the center of Los Angeles and appears to be a set, it has played host to scenes from Dancing With the Stars and Extra. Even the growth and collapse of some retail empires may be traced through the Grove; the first casualty of the toy store's bankruptcy was FAO Schwartz, one of the original anchors. Abercrombie & Fitch suffered a

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

same fate. These days, Brandy Melville, Nike, and the Apple Store have taken their place.

The Grove is a temple to capitalism, it appears artificial, and other criticisms were made in one review. However, the same might be said about L.A. its own.

Furthermore, mall culture—particularly outdoor mall culture—has long been an integral aspect of our city's cultural landscape, as any decent Angeleno is aware.

B. Westfield London



Westfield London is a cutting-edge retail and recreational hub for dining, meeting, and shopping. Within the architecturally magnificent center are over 265 luxury, premium, and high street businesses from over 15 different nations, including M&S, Zara, House of Fraser, and Waitrose.

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

A hive of eateries line the pedestrian boulevard of dining, known as the Southern Terrace. The 13 counters on The Balcony, where fresh cuisine is made quickly and to order, are characterized by their open kitchens.

Shopping and dining are just as important as gathering places at Westfield London. Under a magnificent glass canopy, a comprehensive calendar of artistic and educational activities is held in a breathtaking central atrium that is unique in all of London. There is also a 14-screen state-of-the-art cinema, gym and spa. Westfield London is now the UK's most connected shopping destination thanks to new transportation connections. An overland station can take you from Clapham Junction and Willesden Junction to Westfield London in less than ten minutes, four subterranean stations offer an average of five minutes' worth of tube service, and two bus stations offer an average of one bus each minute. The transit image is completed with 4,500 parking spaces located beneath Westfield London, cycle bays, and safe pedestrian paths.

2.3. SYNTHESIS

The studied pieces of literature of the existing commercial complexes and livelihood centers provide an overview of the real overall condition of the economic standpoint of the City of San Jose Del Monte.

The study of the commercial complexes and livelihood centers, therefore, concludes that there is a need for a proposal like this, a satellite self-sustaining urban complex for the City of San Jose Del Monte, as this infrastructure is crucial to the economic improvement of the city. The city has already laid out City Development Plans towards the creation of economic infrastructure such as the LGU-Owned Training and Assessment Center, Livelihood Development Center, Business One-Stop-Shop (BOSS), Eco-Friendly Public Market. The study can now, therefore, proceed with the analysis of spaces and other considerations related to the project.

CHAPTER 3

THE RESEARCH METHOD

3.1. RESEARCH DESIGN

The research will provide a survey where there would be participating respondents that are essential to the data gathering for the study in order to give a broad and wider understanding on the particular matter and know the different perspectives people have regarding the Proposed Satellite Self-Sustaining Urban Complex. The research design will also adopt the concepts and policies implemented in the following pertinent laws.

PERTINENT LAWS

An overview of the relevant rules and regulations that were examined in advance of the proposed project's design process is provided in the written statement that follows. The appendices section contains the specific guidelines for the minimal standards and specifications that will be applied in the suggested project.

1. APPROVING THE MICRO, SMALL AND MEDIUM ENTERPRISE (MSME)

DEVELOPMENT PLAN 2017-2022, EXECUTIVE ORDER NO. 50

The sectoral plan for the growth and advancement of the MSME sector. It was developed in consultation with various stakeholders from the private sector, academia, and government agencies. It is aligned with the Philippine government's goal of boosting employment, business, and livelihood or

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

“Trabaho, Negosyo, Kabuhayan” translating to “Malasakit”, “Pagbabago”, at “Patuloy na Pag-unlad” of the Philippine Development Plan (PDP) 2017-2022.

Relevance:

As part of the proposed project's consideration, the use of the Executive Order No. 50 ensures the development of MSMEs. The Executive Order No. 50 will serve as the foundation for the design will choose the minimal specifications and requirements for the suggested project.

2. “GO NEGOSYO ACT” OTHERWISE KNOWN AS THE REPUBLIC ACT NO. 10644

The “Go Negosyo Act” was passed with the goal of "encouraging the establishment of micro, small, and medium enterprises to foster national development, promote inclusive growth, and reduce poverty." To this end, the Act approved the creation of Negosyo Centers in every province, city, and municipality in the Philippines. The Act seeks to promote competitiveness, entrepreneurship, and innovation, especially among MSMEs. Understanding the requirements of this Act could have an impact on the complex's operation and design for an architectural thesis that focuses on a commercial complex in order to meet the demands of small enterprises and aspiring entrepreneurs.

Relevance:

The Act's objectives may be supported by taking into account areas or facilities that facilitate co-working spaces, business development centers, startup incubators, or flexible lease arrangements. This could include communal workspaces, adaptable

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

retail spaces, or specific locations inside the complex designed to house small businesses. Furthermore, adding affordable and sustainable design aspects can help these companies remain financially viable.

3. NATIONAL BUILDING CODE OF THE PHILIPPINES (P.D. 1096)

The National Building Code of the Philippines (NBCP) serves as foundation guidelines for architects, engineers, and developers to conform to the Implementing Rules and Regulations (IRR) of the code. The purpose of the code for the proposed project is to serve as a guideline for standards in commercial design. This is to ensure the safety and security of users will be considered through responsible planning and design.

Relevance:

The proposed project will adhere to the National Building Code of the Philippines (NBCP) Rules 7 and 8 in terms of site planning, programming, and the application of standards necessary for hospital design. This is to guarantee that the project's design and development will adhere to the code's Implementing Rules and Regulations (IRR).

4. THE LAW TO ENHANCE MOBILITY OF DISABLED PERSONS (B.P. 344)

The Batas Pambansa Blg. 344, also known as an act to improve the mobility of disabled people, requires specific buildings or establishments to install facilities and other accessibility-promoting devices. The goal of B.P. 344 for the proposed project is to make sure that disabled people have the same rights as other citizens to use the same health care facilities.

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

Relevance:

Regarding this, Batas Pambansa Blg (BP) 233. The proposed project will be carried out in accordance with the Implementing Rules and Regulations (IRR), which provide the minimal specifications and requirements. This is to guarantee that the planned project's development would adhere to the temporary legislation regarding the mobility of individuals with disabilities.

5. REVISED IMPLEMENTING RULES AND REGULATIONS OF FIRE CODE OF THE PHILIPPINES 2019: DIVISION 11 HEALTH CARE OCCUPANCIES (R.A. 9514)

The Fire Code of the Philippines has the purpose of securing the public safety of people and promoting the professionalization of the fire services as a profession by preventing and suppressing all types of fire hazards. The rules of the fire code will be used as a minimum standard to make sure that the proposed project is safe and secure.

Relevance:

The project's implementation of the Fire Code of the Philippines' Implementing Rules and Regulations (IRR) offers the minimal specifications and standards required to integrate safety and security. The proposed project would specifically take into account the provision of fire escapes, a fire suppression system, and high-quality materials that can withstand fire exposure at a predetermined hourly rate. The necessary elements will be met by adhering to the code's mandated criteria.

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

6. REVISED NATIONAL PLUMBING CODE OF THE PHILIPPINES AND ITS IMPLEMENTING RULES AND REGULATIONS (R.A. 1378)

The Revised National Plumbing Code of the Philippines has the primary purpose of preventing sewage backflow from contaminating food, water, sterile items, and other materials. In the case of the proposed project, it is necessary to ensure that the facility is away from any source of disease spread. Aside from that, the code explains how important it is to plan and use plumbing utilities in a building correctly.

Relevance:

As part of the proposed project's consideration, the use of this code ensures sanitation and keeps the regions free from contamination. Aside from that, it will be useful to figure out how many plumbing fixtures each individual needs and where the equipment should be placed. The code that will serve as the foundation for the design will choose the minimal specifications and requirements for the suggested project.

3.2. DATA GATHERING

The researcher will conduct online surveys to various professionals that have a better understanding in this line of field so that they could give necessary information for the development of the study. These professionals and persons would give an insight to the existing problems and needs of the target users of the researcher.

3.3. DATA PROCESSING

Synthesis, Data Analysis or Mode of Analysis

After compiling all of the data required for the study, the researcher tabulates the data and evaluates the issues raised by the findings. By means of assessment, the investigator proceeds to an appraisal of the obtained data; additionally, this will provide a more comprehensive viewpoint on the investigation, enabling consideration of the project's shortcomings.

NBC COMPUTATIONS

Total Lot Area (TLA) = 23,140 sqm

Percentage of Site Occupancy (PSO)

PSO = 50%, PSO x TLA

50% x 23,140 = 11,570 sqm

IMPERVIOUS SURFACE AREA (ISA)

ISA = 20%, ISA x TLA

20% x 23,140 = 4,628 sqm

UNPAVED SURFACE AREA (USA)

USA = 30%, USA x TLA

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

$$30\% \times 23,140 = 6,942 \text{ sqm}$$

TOTAL OPEN SPACE WITHIN THE LOT (TOSL)

$$\text{TOSL} = \text{ISA} + \text{USA}$$

$$4,628 \text{ sqm} + 6,942 \text{ sqm} = 11,570 \text{ sqm}$$

ALLOWABLE MAXIMUM BUILDING FOOTPRINT (AMBF)

$$\text{AMBF} = \text{TLA} - \text{TOSL}$$

$$23,140 \text{ sqm} - 11,570 \text{ sqm} = 11,570 \text{ sqm}$$

MAXIMUM ALLOWABLE CONSTRUCTION AREA (MACA)

$$\text{MACA} = \text{PSO} + \text{ISA}$$

$$11,570 \text{ sqm} + 4,628 \text{ sqm} = 16,198 \text{ sqm}$$

BUILDING HEIGHT LIMIT (BHL)

$$\text{BHL} = \text{Commercial C2 (6-18M)}, \text{ PUD ON LAND (36-180M)}$$

Floor Area Ratio (FLAR)

$$= \text{TLA (FLAR Designation of Commercial 2 (Com-2))} / \text{AMBF},$$

$$= 23,140 \text{ sqm (3.60)} / 11,570 \text{ sqm}$$

$$= 7.20 \text{ sqm}$$

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

TOTAL GROSS FLOOR AREA (TGFA)

= AMBF (FLAR)

= 11,570 (7.20)

= **83,304 sqm**

PROBABLE COST

On the Construction Cost Handbook of the Philippines 2023, the total BUILDING/CIVIL WORKS and M& E service cost for a commercial building.

Formula and Solutions

Minimum Wage of San Jose Del Monte X Arcadis Construction Cost/Minimum Wage of Region III

- a. **Minimum wage for establishment with 10 or more workers under Retail/Service – Php 449.00**
- b. **Out-of-town shopping centre, average standard (Arcadis Construction Cost) – Php 41,820.00-52,105.00**
- c. **Minimum wage for Region 3 (WO No. RBill-23) – Php 460.00**

$$\text{Php } 449.00 \times 41,820 / 460 = \mathbf{40,819.95 \text{ min.}}$$

$$\text{Php } 449.00 \times 52,105 / 460 = \mathbf{50,859.01 \text{ max.}}$$

Total Probable Minimum Construction Cost - Min. Cost x TGFA

$$\text{Php } 40,819.95 \times 83,304 \text{ sqm} = \mathbf{\text{Php } 3,400,456,784.4}$$

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

Total Probable Maximum Construction Cost - Max cost x TFGA

Php 50,859.01 x 83,304 sqm = **Php 4,236,758,969.04**

THE CLIENT/PPP PARTNER(S)



Figure 11: LGU of San Jose Del Monte

The LGU of San Jose Del Monte aims to create Municipal CBD in the area of the site will be located near the MRT-7 station of San Jose Del Monte. The area will eventually become a mixed-use transit-oriented development project located at Brgy, Tungkong Mangga, City of San Jose del Monte, Bulacan which aims to upsurge the productive capacity of the economy, create jobs, increase income, and support the investment climate leading to sustained inclusive growth. Along with the future establishment of the MRT-7 end station, this project will comprise commercial, institutional, residential, and office buildings as well as an intermodal transport terminal that will ultimately provide one-stop entrée to facilities and deliver ease of access amongst nearby cities initially for the benefit

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

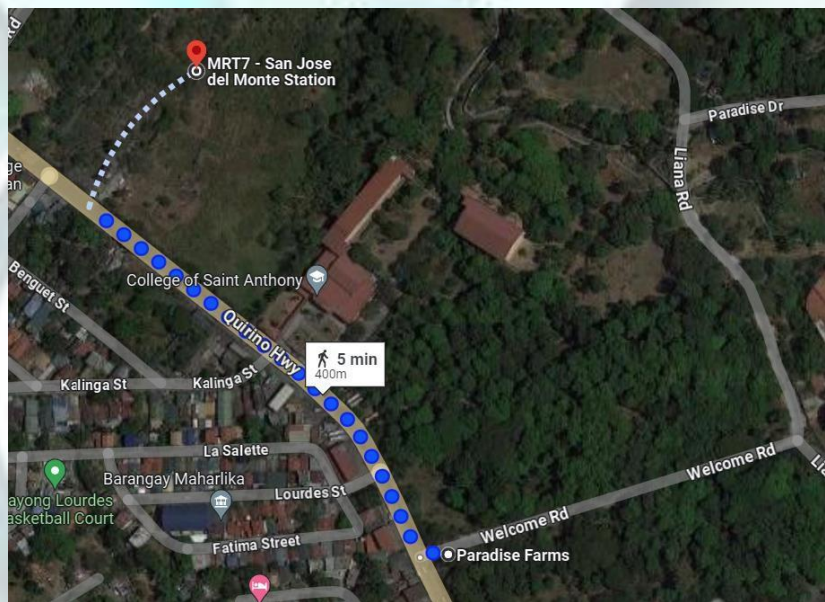
of the residents of San Jose del Monte and for people who live in neighboring cities/municipalities.

AyalaLand

As for the PPP Partner, the researcher chose AyalaLand since they are one of the biggest and leading property developers in the Philippines. Their projects are known to have massive greeneries and landscaping. Their sustainability practices have transformed from primarily addressing risks and efficiency issues to tackling areas that provide more value and opportunities to the business, society, and the environment.

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

support uses, and integrated transportation hub. The Special Development Zone for Mixed Used Development comprises portions of Barangays Sapang Palay Proper (Manila New Town), Tungkong Mangga (barangay where the site for the Proposed Satellite Self-Sustaining Urban Complex is located) and Kaybanban and Sto. Cristo and portion of Dulong Bayan and Ciudad Real.



The site's strategic location near the future MRT-7 station in San Jose del Monte promises to greatly increase the area's revenue generating potential, bringing new opportunities and economic growth to San Jose del Monte.

With its strategic and central location, and with main transportation links to connect the City to the Province and the Region, this Hub will become the new 'face' of the City and will serve as a main anchor.

According to the Zoning Ordinance of San Jose Del Monte, this type of zoning allows residential, commercial, institutional, parks and recreational use and uses.

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

In other words, the site is suitable for the Proposed Satellite Self-Sustaining Urban Complex.

ACCESSIBILITY OF TARGET USERS/CATCHMENT AREA

Population of Tungkong Mangga: 16,324 (2020 Census of Population and Housing)

San Jose Del Monte Land Area: 105.53 km²

= 16,324 (Population) / 105.53 km² (Land Area)

= **155 people per km²**

For 1km = (π x 1 sq. km.)(16,324 persons / sq. km.) = 51,284 persons

For 2km = (π x 2 sq. km.)(16,324 persons / sq. km.) = 102,568 persons

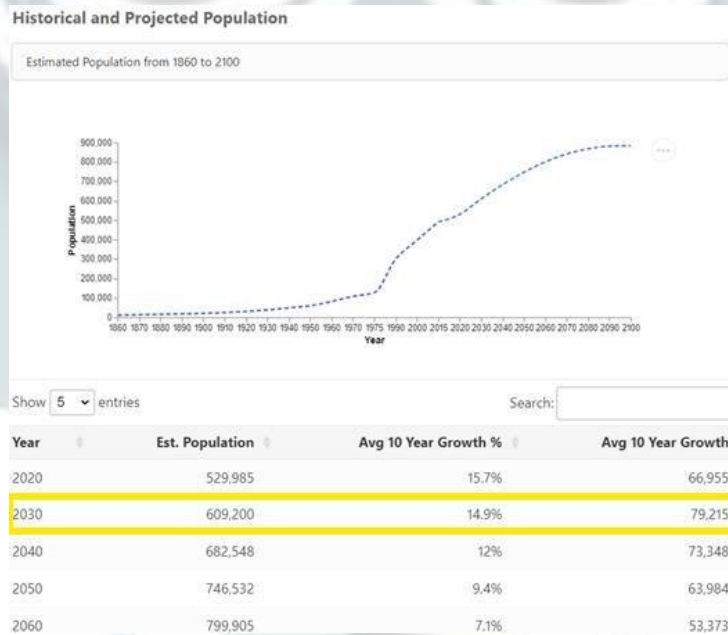


Figure 13 Projected Population of San Jose Del Monte, Bulacan (SOURCE: CityFacts)

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

Estimated Population (2030) ÷ 11 commercial centers in SJDM, Bulacan	609,200 ÷ 11	55,382 persons
---	--------------	----------------

List of Commercial Centers in San Jose Del Monte, Bulacan

1. SM San Jose Del Monte
2. Starmall
3. TM centerpoint
4. Skyline Drive
5. EB Town Center
6. St. Vivian's Plaza
7. Simplicity Square
8. Smaxs Shopping Center
Muzon
9. 7Mart
10. Primark Center, SJDM
11. Victory Town Center

Presently, there are eleven separate commercial hubs that function independently, which could result in uneven job possibilities and fragmented economic growth.

The proposed integrated center aims to centralize economic activities, potentially creating a hub for job opportunities and supporting holistic city development.

It's crucial to remember that while this study offers a broad perspective, real impacts may vary depending on a number of variables, including management, implementation, policies, and community and stakeholder support.

AVAILABLE UTILITIES

A. Power Supply

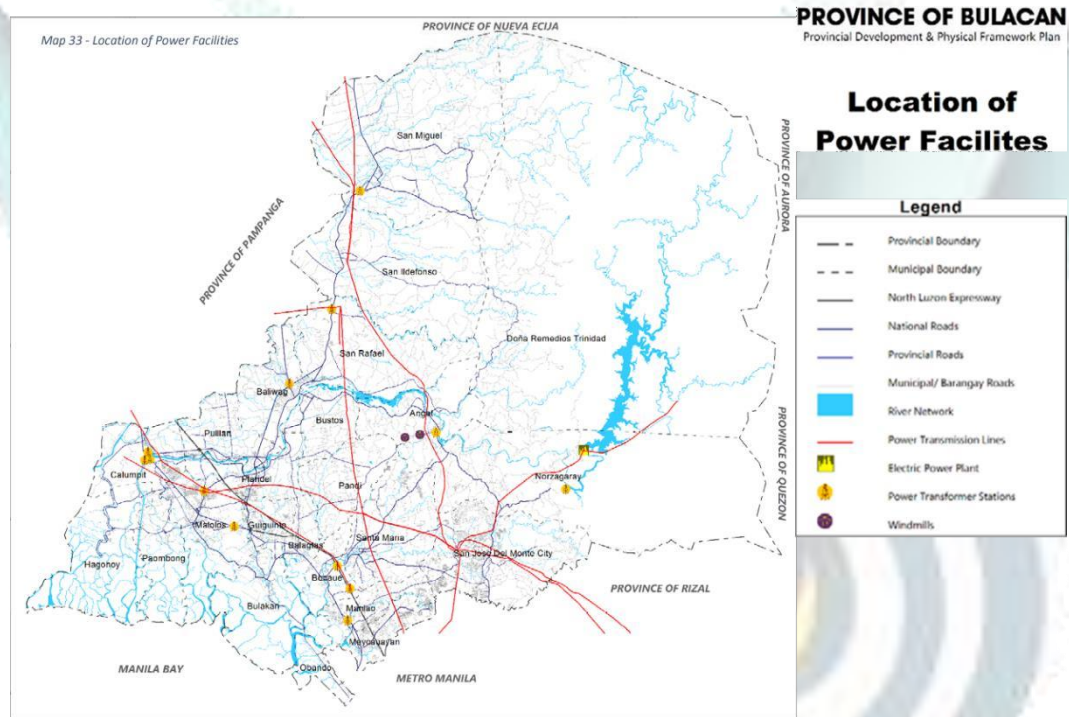


Figure 14: List of Power Facilities in Bulacan

(SOURCE: Provincial Development & Physical Framework Plan)

The National Power Corporation (NAPOCOR), which generates power through the hydropower plant in Angat Dam for distribution by utility companies or cooperatives like the Manila Electric Company (MERALCO), is the only company involved in power generation in Bulacan. At the moment, the Province has thirteen (13) MERALCO substations.

B. Water Supply

Water and Sanitation Facilities

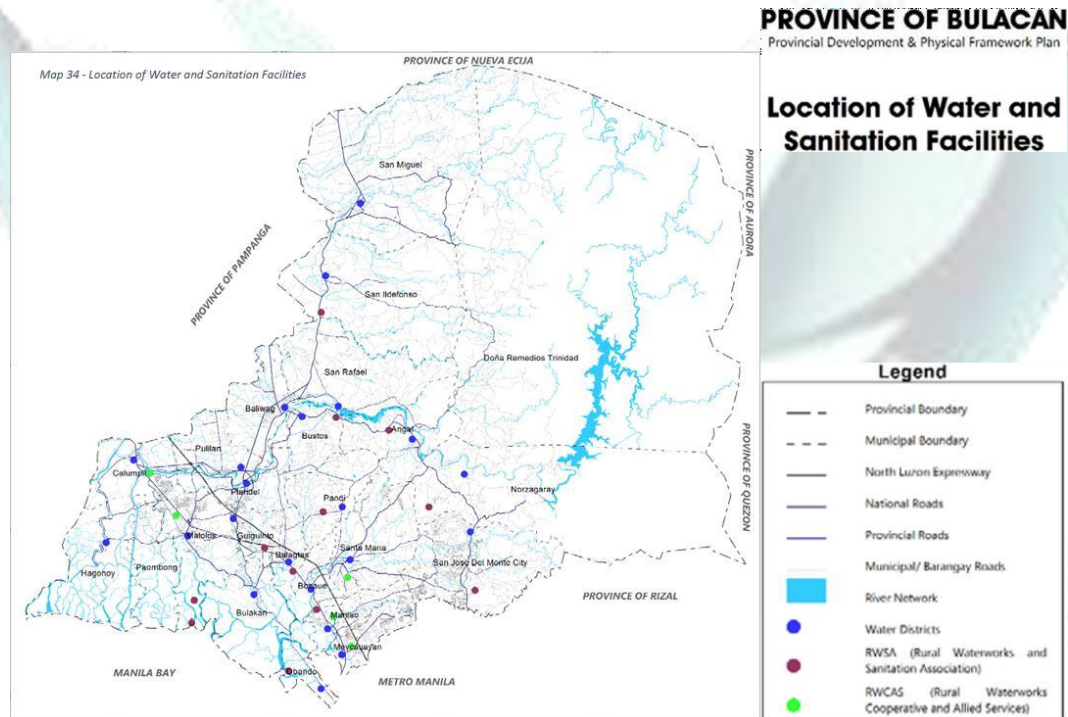


Figure 15: Location of Water and Sanitation Facilities

(SOURCE: Provincial Development & Physical Framework Plan)

One component of economic growth is the improved health of the population. Among the factors that could determine the health condition is the accessibility of each household to safe water. The continuous increase of the population correspondingly increases the households demanding for access to safe water. The status of water and sanitation in the province shows that 84.9 percent or 8 out of 10 households have regular access to safe water. While almost all households with 93.27 percent or 9 for every 10 households have access to sanitary toilet facilities.

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

Bulacan has sourced its domestic water from the underground through the (22) water districts, seventeen (17) Rural Waterworks and Sanitation Association (RWSA), water refilling stations, and public/private deep and shallow wells. Approximately, the water districts can only cover more than half of the population. The rest of the population is supplied with potable water by the other abovementioned sources. In terms of water tariff, the Meycauayan City and Obando water districts have higher rates compared to the other water districts in the province and even in Central Luzon. This is because the treated bulk water needed by the two (2) water districts is supplied by Maynilad Water Services, Inc. compared to the other water districts, which directly sourced their raw.

Sanitation and wastewater treatment infrastructure are still insufficient. Third-placed Central Luzon has 91.84 percent of its households with sanitary toilets, as per the DOH data from 2018.¹⁰ While this figure is higher than the national average of 83.93 percent, it still falls short of the national objective, which is set at 97 percent by 2022 and 100 percent by 2030. With 96.64 percent of houses having toilets, Bulacan has the highest percentage, followed by Pampanga. 93.55 percent. With 84.52 percent, Zambales had the lowest proportion; it was higher than the 83.93 percent national average, but still lower than the average for the area. Access to hygienic facilities lowers disease-related illness and mortality, improving health, reducing poverty, and

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

spurring economic growth. It was noted that local government projects including sanitation facilities received little attention. Furthermore, the advantages of better sanitation are not well recognized or appreciated by the general people. The accessibility level for the safe water and sanitary toilet of the province had the same degree on the regional at 84 percent and higher by six percent as compared to the national average.

COUNTRY/REGION/PROVINCE	HH WITH ACCESS TO SAFE WATER (%)	HH WITH SANITARY TOILET (%)
Philippines	86	78
Central Luzon	84	84
Bulacan	91	84

Source: Field Health Service Information System, DOH; Provincial Public Health Office, Bulacan

The SJDMC Water District



The primary supplier of clean, drinkable water in the City of San Jose Del Monte, Bulacan, is the San Jose Water District. The business is semi-private. Its previous placement on private property close to a sanitary landfill raised questions about potential water pollution and issues with the occupants' health and safety. However, its treatment facilities were moved, and Lot 9, Blk is now

where they are. Brgy. 19, Rd. Minuyan.

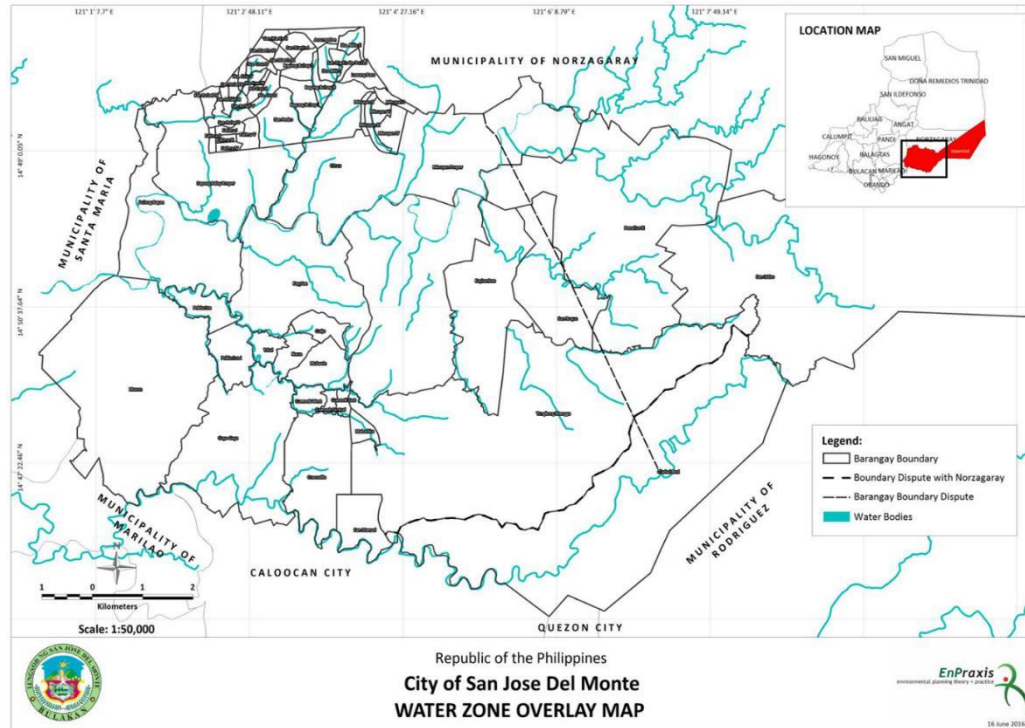


Figure 16: Water Zone Overlay Map

San Jose Water uses groundwater from certain city locations as well as surface water from the Angat River. The two water treatment plants owned by San Jose Water handle surface water from the Angat River. Equipped with state-of-the-art machinery and technology, they can handle up to 50,000 cubic meters of water per day. Modern chlorination equipment runs concurrently with the pump in groundwater-served areas to guarantee high water quality. Additionally, San Jose Water gathers water samples every hour from concessionaires who are chosen at random for testing on turbidity and chlorine residual. Water samples from randomly chosen locations are sent to DOH-accredited labs once a month

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

for bacteriological analysis. Twice a year, a water sample is also taken at the source for chemical and physical examination. Every sample that was gathered complies with the national drinking water standards of the Philippines.

C. Solid Waste Management

The issue on waste is directly related to human health. A clean environment is not only conducive to settlement but attracts economic investors to establish business and employment opportunities as well. Thus, the solid waste management must be strictly monitored and implemented.

The daily volume of waste generated in the province is 2,031.48 cubic meters or 507,870 kilograms per day. The top three contributors of large volume of wastes are the three component cities of Meycauayan, Malolos, and San Jose Del Monte. These wastes are collected by dump trucks hired by each local government units. However, out of 569 barangays in the province only 66 percent or 376 barangays are being served by the waste collection system.

D. Transportation

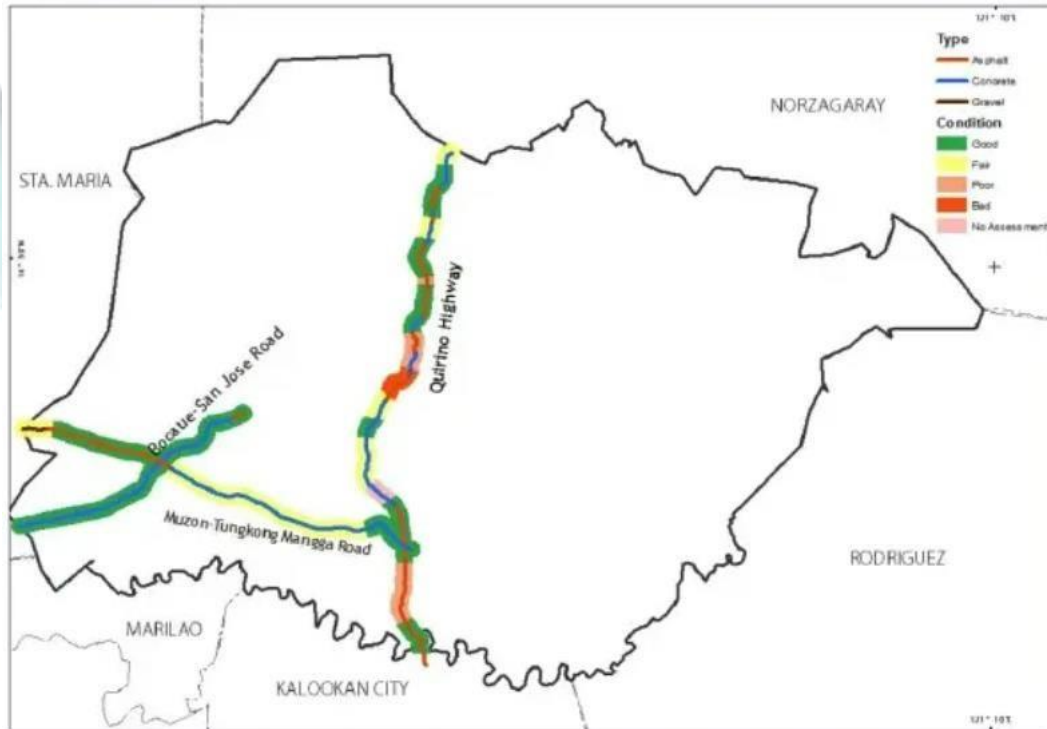


Figure 17: Existing Road Condition in San Jose Del Monte

San Jose del Monte has diverse transportation modes crucial for its bustling urban life. The city relies heavily on jeepneys, tricycles, and buses as primary modes of public transportation. Traditional jeepneys and modern jeepneys are stationed all throughout the city mainly on central business districts. Their destinations mostly head up to many parts of Quezon City such as MRT GMA Kamuning Station, SM Fairview, and Cubao Farmer's Market to name a few. Buses also caters journeys with longer routes with destinations similar to that of in the jeepneys but also added Manila and PITX as their last stops. Lastly, Tricycles, offer convenient short-distance travel within local areas of the city.

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

They are mostly scattered through the city and are usually stationed near residential areas and main roads. In the context of the site, modes of public transportation such as modern and traditional jeepneys, UVs, air-conditioned and regular buses, and soon the MRT-7 are available to the site since it is located along Quirino Highway

TOPOGRAPHICAL DATA



Figure 18: Topographical Section of the Site

The area is rated as highly suitable for urban development with friendly slopes (0-5% Range) and without flooding hazard.

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

CLIMATE

Atmospheric Temperature

The city falls under the Type I climatic category of the Modified Corona climatic Classification System. This suggests that San Jose del Monte's and the province's dry season typically lasts from December to April. The wet season, on the other hand, lasts from May to November. While the rainy season is linked with afternoon thunderstorms and tropical storms, the dry season often features cooler temperatures.

The Koppen-Geiger climate classification for the city is AM, which denotes a tropical climate. This indicates that while the dry season is somewhat shorter than the rainy season, there is sufficient rainfall for the majority of the year. The city has mean monthly temperatures that range from 25.6°C in January to 29.6°C in May, with an average annual temperature of 27°C. 2,637 mm of precipitation are produced annually as a result of the climatological processes that cause such temperature patterns.

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

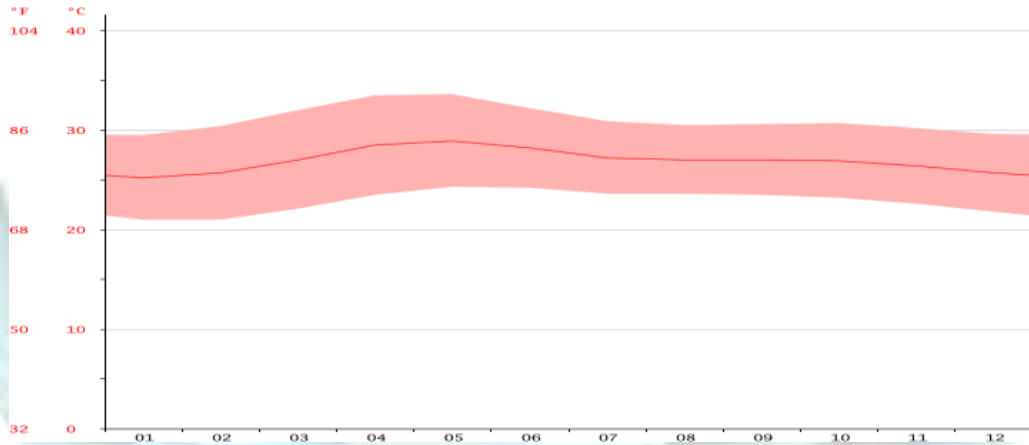


Figure 19: Temperature Graph in San Jose Del Monte

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Avg. Temperature (°C)	25.2	25.7	27	28.5	28.9	28.2	27.2	27	27	26.9	26.4	25.7

Figure 20: Temperature Matrix of San Jose Del Monte

Relative Humidity

The mean annual relative humidity is 75 percent. The highest level is normally during August to September with a monthly mean of 83 percent and the lowest is in April with only 66 percent.

Cloudiness

Light conditions have an impact on a plant's growth and development, especially in the process of photosynthesis, which converts carbon dioxide into oxygen.

Some crops produce less when there are extended gloomy periods. The San Jose del Monte has the most and the least number of clouds, respectively, in June.

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

The city has more clouds than the rest of Bulacan because it is situated along the Sierra Mountain Range.

Rainfall

Typhoons typically provide the most precipitation to the area. In the province of Bulacan, rainfall data from 14 climatological stations reveals that February has the least monthly mean rainfall (2.0 mm) and August has the greatest monthly rainfall mean (253.0 mm). Tropical typhoon season typically runs from June through December. Approximately 16% of all tropical cyclones that pass through the nation do so in this region. Typhoons are among the most frequent and destructive natural disasters that our country is susceptible to, along with its accompanying hazards like strong winds, storm surges, and floods.

The area often receives the highest precipitation during typhoons. The month of February in the province of Bulacan has the least monthly mean rainfall (2.0 mm), and the month of August has the most monthly mean rainfall (253.0 mm), according to rainfall data from 14 climatological stations. The usual tropical typhoon season lasts from June through December. This area is where about 16% of all tropical cyclones that hit the country make landfall. Along with its attendant dangers including powerful winds, storm surges, and floods, typhoons are among the most frequent and destructive natural disasters to which our country is vulnerable.

SOIL PROFILE

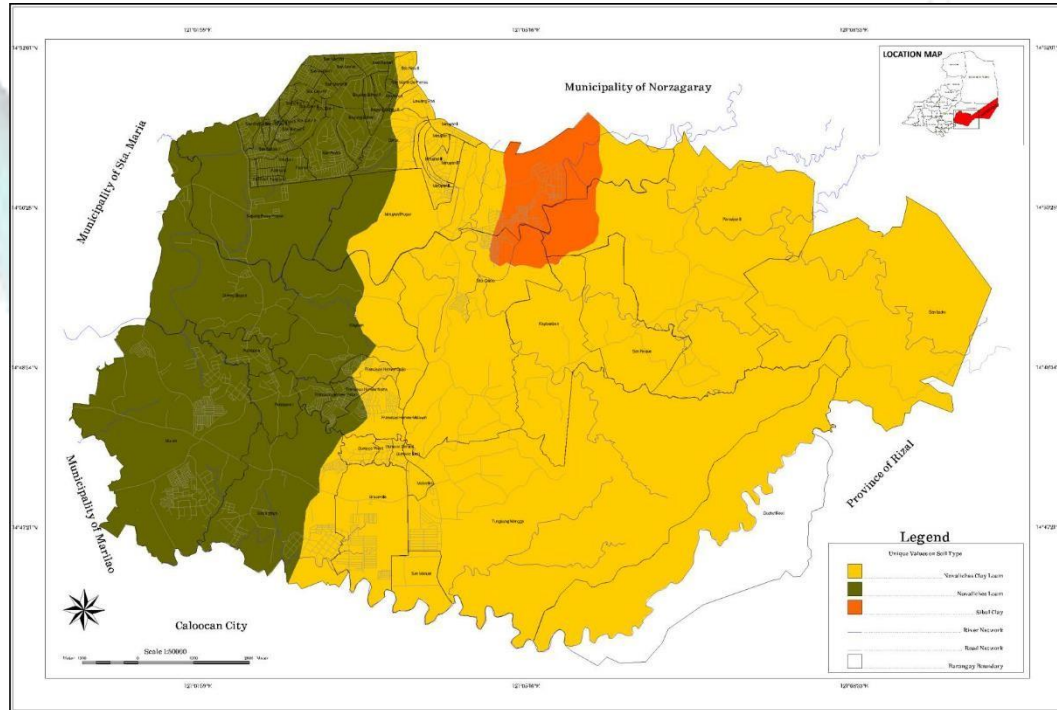


Figure 21: Soil Map of San Jose Del Monte

(SOURCE: Ecological Profile of San Jose Del Monte 2018)

The dominant soil type of the site is from the Novaliches Loam series, popularly known as “adobe”. Adobe soil is described as highly strong, compact and intact. Figure 12. Novaliches Clay Soil Composition shows the soil characteristics and composition of the Novaliches Loam or Clay series, or Adobe. The Novaliches Clay Loam is extensively distributed and covers almost 75% of the land area. About 20% of the land area is covered by Novaliches Loam, which may be found along with the relatively flat areas in the western section. Sibul Clay coincides with limestone deposits in Minuyan Proper. This makes the site, as

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

well as the majority of San Jose Del Monte, immune from any observed lowering of the ground surface, or what is commonly called “Soil Subsidence”. The Adobe type of soil of San Jose Del Monte is heavily responsible for making most of the city protected from soil subsidence since Adobe is a loam and clay combination mixed with coherent rock and few coastal sediments.

SITE PICTURES



Figure 22: Vantage Points of the Site for the Proposed Project



Figure 23: (A) View from Quirino Highway



Figure 24: (B) View from the intersection of Welcome Road and Quirino Highway



Figure 25: (C) View from Welcome Road

PRELIMINARY DESIGN CONCEPT

The design concept for the proposed project is derived from the idea of openness. By openness it means the permeation of the natural environment such as sunlight, greenery, and air through these spaces. Taking the natural environment into account, an identity in the design will be formed and will be evident on the structures of Plaza Del Monte. This concept that the proposed project is anchored upon intends to provide a facility showcases the harmonious relationship between the architectural elements while it reflects the people and the environment itself.

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

REFERENCES

- A guide to DTI's Negosyo Centers for msmes. RSS. (n.d.).
<https://www.firstcircle.ph/blog/guide-to-dti-negosyo-centers-msmes>
- Beyond the usual Baguio Sunday session. marc7 travels. (n.d.).
<https://www.marc7travels.com/marc7-travels-blog-entries/beyond-the-usual-baguio-sunday-session>
- Cabreza, V. (2023, June 23). Baguio to take over da-run "maharlika." INQUIRER.net. <https://newsinfo.inquirer.net/1792074/baguio-to-take-over-da-run-maharlika>
- Central Luzon – Regional Development Plan 2023-2028. NEDA 3 Central Luzon. (n.d.). <https://nro3.neda.gov.ph/central-luzon-regional-development-plan-2023-2028/>
- Comprehensive Land Use Plan of City of San Jose Del Monte, (2016-2025)
- Comprehensive Development Plan of City of San Jose Del Monte, (2021-2026)
- Ecological Profile of San Jose Del Monte 2018
- Fulgar, I. (2023, July 10). The Art of Commercial Space Design in the Philippines. Architect in the Philippines into New Designs & Land Ventures. <https://www.ianfulgar.com/architecture/the-art-of-commercial-space-design-in-the-philippines/>

ADAMSON UNIVERSITY COLLEGE OF ARCHITECTURE

The Grove has always been the shopping destination L.A. deserves. (n.d.-b).

<https://www.townandcountrymag.com/leisure/real-estate/a39489125/the-grove-los-angeles-shopping-20-anniversary-tribute/>

Livelihood Centre inaugurated in Medellin, Northern Cebu. Inauguration of Livelihood Centre: Livelihood Centre Inaugurated in Medellin, Northern Cebu. (2015, September 8).

[https://www.ilo.org/manila/eventsandmeetings/WCMS_412769/lang--en/index.htm](https://www.ilo.org/manila/eventsandmeetings/WCMS_412769/lang-en/index.htm)

Mario. (n.d.). Maharlika Livelihood Complex. Maharlika Livelihood Complex ~.

<https://baguocityplace.blogspot.com/2016/05/maharlika-livelihood-complex.html>

MSMED Plan. Department of Trade and Industry Philippines. (2023, February 21).

<https://www.dti.gov.ph/negosyo/msme-resources/msmed-plan/>

Press releases. 120 Bulacan Microenterprises receive Livelihood Assistance from

DTI | Negosyo Center. (n.d.). <https://dtinegosyocenter.online/news/120-bulacan-microenterprises-receive-livelihood-assistance-dti>

Westfield London - shopping centre - visitlondon.com. (n.d.-c).

<https://www.visitlondon.com/things-to-do/place/3903607-westfield-london>