

Republic of the Philippines
Professional Regulation Commission (PRC)
Professional Regulatory BOARD of ARCHITECTURE (PRBoA)
Architecture Licensure Examinations (ALE)

SUBJECT : **ARCHITECTURAL DESIGN AND SITE PLANNING**
DATE : **July 1, 2007** (Sunday, 8:00 a.m. through
6:00 p.m.)

**WARNING: If there are conflicts between a stated word and the number/
amount/ figure described, the stated / spelled word shall prevail. Should there
be conflicts between two (2.0) stated quantities, the higher figure shall prevail.**

I. PROJECT TITLE (and General Description):

A Proposed Low-Rise (WALK-UP) APARTMENT Project
[development with Basement (optional parking)
component on a site having a 5.0% slope]

II. STATEMENT OF THE PROBLEM:

A development company has decided that its two thousand
square meter (2,000.0 Sq.M.) property located somewhere in the
better parts of Quezon City shall be developed to host a low-
rise (walk-up) apartment building (the "Project").

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Only two (2.0) types of apartment units shall be provided by the Developer and these are:

- 1) **Studio-Type** units with a thirty square meter (30.0 Sq.M.) Gross Floor Area (GFA); and
- 2) **One (1.0) - Bedroom (BR)** units with a **GFA** of fifty (50.0) Sq.M.

For greater market acceptance, the minimum parking requirements for the Project under the 2004 Revised Implementing Rules and Regulations (**R-IRR**) of the National Building Code of the Philippines (**NBCP**, otherwise known as PD 1096 of 1977), should be exceeded.

III. DESIGN OBJECTIVES:

- a. To design a **low-rise (walk-up) residential apartment (R-3)** building, marketable and attractive to middle-income renters/ lessees;
- b. To design the apartment building in a way that can maximize profits for the Developer; the ratio of saleable versus non-saleable spaces be as follows:
 1. up to eighty percent (80.0%) of the **GFA** per floor shall consist of rentable/ leasable spaces (the apartment units);
 2. the remaining twenty (20.0)% GFA per floor shall consist of non-rentable/ non-leasable (common) areas such as elevator lobbies, utility rooms, stairs, fire exits and the like; and
 3. the overall rentable/ leaseable areas for the building shall be at approximately seventy five percent (75.0)% of the Total Gross Floor Area (TGFA), **which excludes the floor area at the basement, if introduced.**
- c. To design a building that shall serve as a landmark in the Project area.

IV. DESIGN CONSIDERATIONS:

- a. Function and efficiency;
- b. Vertical and horizontal circulation patterns;
- c. Architectural character and form;
- d. Aesthetics and landmark quality;
- e. Solar, wind, noise, odor and view orientations;
- f. Amenities, Facilities, Services and Utilities (AFSU) introduced;
- g. Security and Safety Features;
- h. Compliance with prevailing laws on high density low-rise residential development **i.e.** including the NBCP, the Fire Code and the Accessibility Law;
- i. natural and artificial ventilation where applicable; and
- j. the Developer's market research group has determined that the building exterior shall be along **classical**,

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neo-classical or stylized classical lines combined with modern features.

V. PROJECT SITE FEATURES:

The **2,000.0** Sq.M. Total Lot Area or **TLA** (reference **Figure 1**) is rectangular and is an **inside** (or **regular**) lot. It is located along a fifteen meter (15.0 m) wide **street** i.e. the road right-of-way or **RRROW**. The lot (or Project site) has a forty (40.0) m wide frontage that faces the south and a depth of fifty (50.0) m. The lot slopes **at five percent (5.0%)** towards the street [with two point four (2.4) m wide sidewalks on either side]. The surface of the sidewalk adjoining the lot shall be considered as elevation 0.0 m.

To the left of the Project site is a private high school building. To its right is a residential condominium building and directly across the street are two (2.0) videoke bars and a restaurant-bar with live band performances. To the rear of the Project site are two (2.0)-storey single-detached residences.

VI. APPLICABLE DEVELOPMENT CONTROLS:

The following development controls apply to the Project site:

- a. zoning classification is **R-3** (high density residential);
- b. based on Developer-imposed restrictions (mainly arising from market research results) and partly based on the **1977 NBCP and its 2004 R-IRR**, the Project site has the following development limitations:
 1. a Building Footprint of fifty five percent (55.0%) of the **TLA**; the desired minimum setbacks at ground floor are at six (6.0) m at the front of the lot and three (3.0) m at the sides and rear of the lot; the same setbacks apply for all **basement** levels if introduced;
 2. a Building Height Limit (**BHL**) of **sixteen (16.0) m**, measured from the surface of the sidewalk adjoining the lot; a maximum six (6.0) m **tall** spire or tower may still be erected above the roof for a total structure height of twenty two (22.0) m;
 3. a desired Maximum **TGFA** (enclosed spaces only) of only **five thousand five hundred (5,500.0) Sq.M.** i.e. inclusive of all **AFSU** areas but **excluding the floor area at the basement if introduced;** and
 4. one (1.0) pooled parking space/slot as a minimum for every six (6.0) **apartment** units with a **GFA** of 23.0 - 50.0 SqM; or a maximum of one (1.0) parking slot for each **apartment** unit; these may be located at the basement level, if introduced.

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VII. IDENTIFIED DEVELOPMENT POTENTIAL:

Based on the Developer's self-imposed restrictions and partly on the BHL, the Project site has the following development potentials:

- a. up to **two (2.0) basement** levels at two point eight (2.8) m floor to floor height;
- b. a maximum five (5.0) level development i.e. at three (3.0) m floor to floor height.

Note that compliance with the TGFA of 5,500.0 Sq.M. (excluding basement and deck roof levels) and the BHL of 16.0 m are major requirements to be satisfied by the Architect.

VIII. DESIGN REQUIREMENTS:

The stated Project requirements are as follows. Should the requirements **ex**ceed the development controls and potentials under items VI and VII above, the necessary adjustments have to be made to fully comply with the stated development controls.

- a. **Basement** level/s (only if introduced):

1. Facilities

- i) parking (below grade or lower than the elevation of the sidewalk/ street); driveways, ramps, etc.;
- ii) common toilets (male and female);
- iii) Apartment Superintendent's quarters; and
- iv) fire exits;

2. Service Areas

- i) Building Administration office;
- ii) Building Safety and Security office; Safety/Security Staff Quarters, Locker & Shower; and
- iii) Building & Common Facilities/ Amenities maintenance room & workshop.

3. Utilities

- i) domestic water cistern;
- ii) fire reserve tank;
- iii) utility rooms (electrical, machine, pump, etc.);
- iv) garbage chute room and solid waste storage; and
- v) sewage treatment plant (STP).

- b. **Ground** floor:

1. Amenities (concessionaire-operated commercial or recreational spaces for lease):

- i) cafeteria for thirty (30.0) persons;
- ii) convenience store/s;
- iii) business center;
- iv) internet café (20 stations);
- v) gym;
- vi) laundry service;
- vii) groom shops (barbershop and/or beauty parlor);
- viii) bar for twenty (20.0) persons; and
- ix) gameroom for twenty (20.0) persons.

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2. Facilities
 - i) parking (grade/ ground level); driveways, ramps, etc.;
 - ii) main lobby, reception area elevator lobby and service stairs;
 - iii) common toilets (male and female);
 - iv) wells for natural light and ventilation (as applicable); and
 - v) fire exits.
3. Utilities
 - i) generator room;
 - ii) transformer room;
 - iii) utility rooms (electrical, mechanical, etc.);
 - iv) garbage chute room;
- c. **Second (2nd) through Fourth (4th) Floors:**
 1. the **30.0 Sq.M. Studio-type Apartment units** shall each contain the following:
 - i) living area which shall double as the sleeping area;
 - ii) dining area/ dinette;
 - iii) toilet and bath (T&B);
 - iv) kitchen area/ kitchenette;
 - v) utility area;
 - vi) balconies are optional but considered part of the 30.0 Sq.M. GFA; and
 - vii) drying terrace also possible but considered part of the 30.0 Sq.M. GFA.
 2. common areas such as corridors/ hallways, lobby and service stairs; common balconies are optional but considered part of the GFA for the common areas;
 3. utility rooms (electrical, mechanical, etc.);
 4. fire exits;
 5. garbage chute room; and
 6. wells for natural light and ventilation (as applicable).
- d. **Fifth (5th) Floor:**
 1. the **50.0 Sq.M. GFA 1.0-BR Apartment units** shall each contain the following:
 - i) living area which may be combined with the dining area;
 - ii) bedroom;
 - iii) toilet and bath (T&B);
 - iv) kitchen;
 - v) utility area;
 - vi) balconies are optional but considered part of the 50.0 Sq.M. GFA; and
 - vii) drying terrace also possible but considered part of the 50.0 Sq.M. GFA.

IX. DRAWING REQUIREMENTS:

- a. **Site Development Plan** at scale **1 : 200 Meters (M)** and showing the following key information:
 1. outline of the building footprint;

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2. accessibility features (provisions for the disabled);
 3. site perimeter security features e.g. perimeter wall/ fence, gate, pedestrian/ vehicular barriers, guard outpost (as necessary), etc.;
 4. pedestrian access systems;
 5. open parking, driveway and parking ramps (as needed);
 6. ground-mounted signage locations (if any);
 7. call out/indicate areas to be landscaped (hard-scape and soft-scape);
 8. the area of the building footprint and its percentage with respect to the 2,000.0 SqM TLA;
 9. the street, particularly the sidewalks and street furniture (at the front of the building);
 10. the adjoining land uses; and
 11. indicate the northing and the directions of the sunpath, the major winds (*habagat* and *amihan*), sources of noise and odors and available views (if any are clearly identifiable).
- b. Ground-level (man's eye view) **Exterior Perspective** at any convenient scale;
- c. **Unit Floor Plans** at scale **1 : 50 M**; furniture/equipment layouts are **required**; highlight access to or location of fire exits;
1. Typical Plan of a **1.0-BR Apartment** unit; and
 2. Typical Plan of a **Studio-Type Apartment** unit.
- d. **Floor Plans** at scale **1 : 200 M**; provide furniture/equipment layouts **only as necessary**; if rooms/areas are typical, provide furniture layout only for a representative room/area to **save time**; highlight all introduced accessibility features and fire exits;
1. Typical **Basement** Level Plan (Parking Spaces, Services and Utilities only), **only if introduced**;
 2. **Ground** Floor Plan;
 3. **5th** Floor Plan (showing all **1.0-BR Apartment** units); do not detail the individual plans to save time;
 4. Typical **2nd through 4th** Floor Plan (showing all **Studio-Type Apartment** units per floor); do not detail the individual unit plans to save time; and
 5. Roof Plan showing position of overhead domestic water supply tank and overhead fire reserve tank.
- e. **Longitudinal Section** (at long axis of the building) at scale **1 : 200 M** (referencing the 0.0 m sidewalk elevation adjoining the Project site); and
- f. Finished floor-level (worm's eye view) **Architectural Interior Perspective** at any convenient scale for the following areas:
1. Main Lobby;
 2. Living-Dining area of the **1.0-BR** Apartment Unit; and
 3. Bedroom of the **Studio-Type** Apartment Unit.
- g. Detail Plan, Elevation and Section of Kitchen/Kitchenette of the **Studio-Type** Apartment Unit at scale **1:20 M**.

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- h. Detail Plan, Elevation and Section of the Closet of the **Studio-Type** Apartment Unit at scale **1:20 M.**
- i. Detail Plan, Elevation and Section of the Toilet and Bath (T&B) of the **Studio-Type** Apartment Unit at scale **1:20 M.**
- j. Detail Plan, Elevation and Section of the Standard Partition between the **Studio-Type** Apartment Units at scale **1:20 M.**
- k. Typical Architectural Interior Details for mouldings, door casings and other trim/ millwork for the **Studio-Type** Apartment Units at scale **1:10 M.**
- l. **Total Gross Floor Area (TGFA) Computations/Breakdown (show tabulation on the tracing paper only):**
 - 1. Parking (open and covered, if introduced);
 - 2. Total Gross Floor Area (TGFA) covering all **enclosed** areas at all floors; provide a **separate** computation for the basement level(if introduced).

X. BASES OF GRADING (IN ORDER OF PRIORITY):

- a. **Functionality** (including full satisfaction of the prescribed building use/s per floor or level, the provision of vertical and horizontal access systems, proximities, **TGFA** compliance and the like), **space planning** (including furniture or equipment layouts if/ where required, **TGFA** and parking computations and the like) and **inter-relationships of exterior and interior activity areas** (including orientations, relationship/s between the road right-of-way (RROW), yards and the building, treatment of transition spaces such as sidewalks and yards, general environmental design solutions and the like);
- b. **Full conformity to examination instructions** (where non-compliance/s by the examinee can result in point deduction/s), **completeness of the plan and design solution/s** (showing all of the prescribed/ required architectural and/ or engineering and allied design elements) and **completeness of drawing requirements** (with no extra drawings which shall not be awarded points);
- c. **General compliance with accepted architectural plan and design standards** (including height clearances, door and window sizes, parking slot sizes, corridor and ramp widths, toilet and kitchen layouts and the like), **site development planning standards** (including building foot-printing/ basement-printing as prescribed/ roof-printing as applicable, setbacks and yards, sidewalk and carriageway elements/dimensions, turning radii, ramp inclines, use and placement of trees and greenery, use of slopes, street furniture where applicable, drainage/ waste management features, security/ safety features and the like) and **building construction standards** (includes material selection, modular material sizes and the like);

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- d. **Architectural character** (includes matching the required architectural character with the intended use/ function) and **aesthetics** (includes the good use of form/ scale/ proportion/ balance, the general satisfaction of basic architectural design principles and the like);
- e. **Structural concept** (including bay sizes, framing and alignment of columns, beams or other structural members, creative and workable use of non-conventional structural forms/ solutions and the like); and
- f. **Compliances with national building laws that are in full effect**, including:
 - 1. the 2004 Revised Implementing Rules and Regulations (R-IRR) of the 1977 National Building Code of the Philippines or NBCP (otherwise known as P.D. No. 1096);
 - 2. the Law to Enhance the Mobility of Disabled Persons (otherwise known as B.P. No. 344) and its IRR; and
 - 3. The Fire Code (otherwise known as P.D. No. 1185) and its IRR.

Figure 1. Lot Plan

(refer to page 9)

*Scratch Papers on pages 10 through 16 follow
(to be returned together with pages 1 through 9).*

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