

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 : **January 20, 2008** (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):

**Proposed Exclusive/ Upscale Family Compound
Project [consisting of 135.0 Sq.M. and 150.0
Sq.M. Two and One-Half (2.5)-Storey to Three
(3.0)-Storey Single-Detached Residential
Prototypes cum Site Planning Project on a site
having a four (4.0%) slope]**

II. STATEMENT OF THE PROBLEM:

A development company has decided that its four thousand two hundred thirty seven point five square meter (**4,237.5** Sq.M.) property located somewhere in the better parts of Quezon City shall be developed to host an exclusive/ upscale **family compound project** (the "**Project**").

The development concept involves the construction of several residential structures that shall house related families i.e. families of siblings and the like, hence the use of the term "family compound". The development is intended to be secure, child/elderly/disabled-friendly and shall be generally pedestrian-oriented.

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The proposed residential buildings shall both be **two (2.0)-storey exclusive/ upscale developments**, with a **maximum** total Gross Floor Area (TGFA) of approximately **one hundred and thirty five (135.0) Sq.M.** (the **Model 1 TGFA**) or of approximately **one hundred fifty square meters (150.0) Sq.M.** (the **Model 2 TGFA**). The TGFA's only refer to **enclosed or indoor** floor areas above grade (or natural ground) level and **excludes** all other floor areas, if these are to be introduced.

The **135.0 Sq.M.** residence may be sited on a lot with a **minimum Total Lot Area (TLA)** of approx. **one hundred and seventy (170.0) Sq.M. (Model 1 TLA)** while the **150.0 Sq.M.** residence may be sited on a lot with a **maximum TLA** of approx. **two hundred and fifty (250.0) Sq.M. (Model 2 TLA)**.

The open space and minimum parking requirements for the Project under the 2004 Revised Implementing Rules and Regulations (**R-IRR**) of the 1977 National Building Code of the Philippines (**NBCP**, otherwise known as P.D. No. 1096), should be **exceeded** if possible.

III. DESIGN OBJECTIVES:

- a. To plan and design two (2.0) prototype **exclusive/ upscale, low-rise single-detached residential (R-1)** buildings; and
- b. To plan and design a **closely-knit** residential community that may serve as a model and 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 the planning and design of residences i.e. including the 2004 R-IRR of the 1977 **NBCP** (P.D. No. 1096), the Fire Code (P.D. No. 1185) and the Accessibility Law (B.P. 344);
- i. natural and artificial ventilation where applicable;
- j. a **pedestrian-oriented** site development plan;
- k. resident and visitor open parking spaces shall be directly accessible from the RRWs;
- l. internal service road for the Project shall be a **no-parking zone**;
- m. driveways (for individual carport access by residents) shall be **no-parking zones**;
- n. property lines shall be defined by soft-scaping e.g. greenery rather than by fences or perimeter walls;

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- o. the residences shall be along **tropicalized American country home** architectural lines, drawing largely from **American country exterior and interior architectural elements**, combined with **modern** styling, **Filipino spatial solutions** and **tropical architectural features** that go with the humid Philippine climate.

V. PROJECT SITE FEATURES:

The **4,237.50 Sq.M. Grand** Total Lot Area (**GTLA**) making up the Project site (reference Lot Plan in **Figure 1**) is a rectangular **corner** lot. It is located along the main **fifteen meter (15.0 m)** wide **street** i.e. the road right-of-way (**RRROW**) of a newly opened residential community project. The minor street is only **twelve (12.0) m** wide.

The Project site has an **eighty five (85.0) m** wide frontage that faces the south and a depth of **fifty (50.0) m**. The configuration of the property and the prescribed use may still necessitate the introduction of an internal service road cum turn-back space within the Project site.

The lot slopes at **four percent (4.0%)** evenly towards the tree-lined main street [with two point four (2.4) m wide paver-lined sidewalks on either side]. The surface of the sidewalk adjoining the lot shall be considered as elevation 0.0 m.

To the left and the right of the Project site are other **upscale** residences. Directly across the street is a pre-existing private international graduate (masters) school building whose expatriate working student population bring with them a large number of cars in the late afternoons and at night. These young to middle-aged students and their cars are a constant source of noise and congestion the entire school year. To the rear of the Project site are other 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-1** (single-detached residential land use only; absolutely **no firewalls allowed**);
- b. based on developer-imposed restrictions and partly based on the 1977 **NBCP** and its 2004 **R-IRR**, the Project site has the following development limitations:
 1. a desired Building Footprint of approximately **forty percent (40.0%)** of the **TLA** in the case of the **135.0 Sq.M.** residence (**Model 1**) and of approximately **twenty five percent (25.0%)** of the **TLA** in the case of the **150.0 Sq.M.** (**Model 2**); the desired setbacks

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at ground floor shall comply with the 2004 R-IRR of the 1977 NBCP;

2. a Building Height Limit (BHL) of **ten (10.0) m**, measured from the appropriate reckoning points at the service road (inside the Project site) or at the nearest RROW.

VII. IDENTIFIED DEVELOPMENT POTENTIAL:

Based on the developer's self-imposed restrictions and partly on the BHL of 10.0 m, the Project site has the following development potential: approximately **six (6.0)** units of the **135.0 Sq.M. (Model 1)** residences with approximately **eight (8.0)** units of the **150.0 Sq.M. (Model 2)** residences.

Please note that compliance with the desired maximum TGFA's of 135.0 Sq.M. and 150.0 Sq.M. and the BHL of 10.0 M are major requirements to be satisfied by the Examinee.

VIII. DESIGN REQUIREMENTS:

The stated Project requirements are as follows. Should the requirements exceed 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. The approximately **135.0 Sq.M. (Model 1)** residence must have the following minimum spaces:

Total Enclosed Gross Floor Area (GFA) at +/- 135.0 Sq.M. broken down as follows:

1. **Ground Floor indoor** components (at +/- 68.0 Sq.M.)
 - i. Kitchen/ Living/ Dining Areas at +/- 40.0 Sq.M.;
 - ii. Maid's Room at +/- 6.0 Sq.M.;
 - iii. Toilet and Bath (T&B) 1 at +/- 4.0 Sq.M.;
 - iv. Bedroom 1 at +/- 11.5 Sq.M.;
 - v. Storage at +/- 3.0 Sq.M.; and
 - vi. Stairs at +/- 3.5 Sq.M.
2. **Second Floor indoor** components (at +/- 38.0 Sq.M.)
 - i. T&B 2 at +/- 4.0 Sq.M.;
 - ii. T&B (Master Bedroom) at +/- 4.0 Sq.M.;
 - iii. Common Area at +/- 3.0 Sq.M.;
 - iv. Master Bedroom 1 at +/- 18.0 Sq.M.; and
 - v. Bedroom 2 at +/- 9.0 Sq.M.
3. **Attic Level indoor** components
 - i. T&B 3 at +/- 4.0 Sq.M. (at +/- 29.0 Sq.M.)
 - ii. Common Area at +/- 7.0 Sq.M.;
 - iii. Bedroom 3 at +/- 9.0 Sq.M; and
 - iv. Bedroom 4 at +/- 9.0 Sq.M.

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Total Semi-Enclosed Floor Areas at +/- 95.0 Sq.M.
broken down as follows:

1. **Ground Floor outdoor** components (at +/- 102.0 Sq.M.)
 - i. Laundry/ Service Area at +/- 33.0 Sq.M.;
 - ii. Carport at +/- 17.0 Sq.M.;
 - iii. Green Area at +/- 37.0 Sq.M.; and
 - iv. Driveway at +/- 15.0 Sq.M.
 2. **Second Floor outdoor** components
 - i. Balcony/ Deck at +/- 15.0 Sq.M.
- b. The approximately 150.0 Sq.M. (Model 2) residence must have the following minimum spaces:

Total Enclosed Gross Floor Area (GFA) at +/- 150.0 Sq.M. broken down as follows:

1. **Ground Floor indoor** components (at +/- 62.0 Sq.M.)
 - i. Kitchen/ Living/ Dining Areas at +/- 40.0 Sq.M.;
 - ii. Maid's Room at +/- 7.0 Sq.M.;
 - iii. Toilet and Bath (T&B) 1 at +/- 3.5 Sq.M.;
 - iv. Bedroom 1 at +/- 9.0 Sq.M.; and
 - v. Stairs at +/- 2.5 Sq.M.
2. **Second Floor indoor** components (at +/- 50.0 Sq.M.)
 - i. T&B 2 at +/- 5.0 Sq.M.;
 - ii. T&B (Master Bedroom) at +/- 4.0 Sq.M.;
 - iii. Walk-in Closet at +/- 6.0 Sq.M.;
 - iv. Hallway at +/- 5.0 Sq.M.;
 - v. Master Bedroom 1 at +/- 16.0 Sq.M.; and
 - vi. Bedroom 2 at +/- 14.0 Sq.M.
3. **Third Floor indoor** components (at +/- 38.0 Sq.M.)
 - i. T&B 2 at +/- 4.0 Sq.M.;
 - iv. Hallway & Common Area at +/- 8.0 Sq.M.;
 - vi. Bedroom 3 at +/- 13.0 Sq.M.
 - vi. Bedroom 4 at +/- 13.0 Sq.M.

Total Semi-Enclosed Floor Areas at +/- 203.0 Sq.M.
broken down as follows:

1. **Ground Floor outdoor** components (at +/- 188.0 Sq.M.)
 - i. Laundry/ Service Area at +/- 40.0 Sq.M.;
 - ii. Carport at +/- 32.5 Sq.M.;
 - iii. Green Area at +/- 6.0 Sq.M.;
 - iv. Patio at +/- 17.0 Sq.M.;
 - v. Garden/ Front Yard at +/- 88.5 Sq.M.; and
 - vi. Pathway at +/- 4.0 Sq.M.
2. **Second Floor outdoor** components
 - i. Balcony/ Deck at +/- 15.0 Sq.M.

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IX. DRAWING REQUIREMENTS:

- a. **Statement of the Design Philosophy** (in one paragraph of 250.0 words or less) and **Statements of the General and Specific Plan and Design Concepts** (at one paragraph of 250.0 words or less for each); graphics to help understand the philosophy and concepts are encouraged; the required text (and/or graphics) are to be written on one-half (1/2) of the surface area of the tracing paper to be provided; the other half shall contain the site development plan;
- b. **Site Development Plan** at **minimum scale 1 : 200 Meters (M)** and showing the following key information:
1. outline of the building footprint;
 2. accessibility features (provisions for the disabled to comply with B.P. No. 344);
 3. site perimeter security features e.g. pedestrian/vehicular barriers, guard outpost (as necessary), etc.;
 4. pedestrian access systems;
 5. open parking, service road/ driveway;
 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 **4,237.5 Sq.M. TLA**;
 9. the street (RROW), particularly the sidewalks and street furniture;
 10. the adjoining land uses; and
 11. indicate the northing and the directions of the sun-path, the major winds (*habagat* and *amihan*), sources of noise and odors and available views (if any).
- d. Ground-level (man's eye view) **Exterior Perspective** for both **Models 1** and **2** at any convenient scale (2 drawings total);
- e. **Floor Plans (Ground, Second and Third Floors or Attic level and Balcony/ Deck Levels, if introduced)** for both **Models 1** and **2** at scale **1 : 100 M** - 6 drawings total; highlight all introduced accessibility features and fire exits;
- f. **Furniture layouts for all rooms/ areas** for both **Models 1** and **2** at scale **1 : 100 M** (to be combined with floor plans);
- g. **Longitudinal and Cross Sections** (at long and short axes for both **Models 1** and **2**) at scale **1 : 100 M** (referencing the appropriate reckoning points along RROWs) - 4 drawings total; and
- h. Finished floor-level (worm's eye view) **Architectural Interior Perspective** for both **Models 1** and **2** at any convenient scale for **both Ground and 2nd floors** (4 drawings total).

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

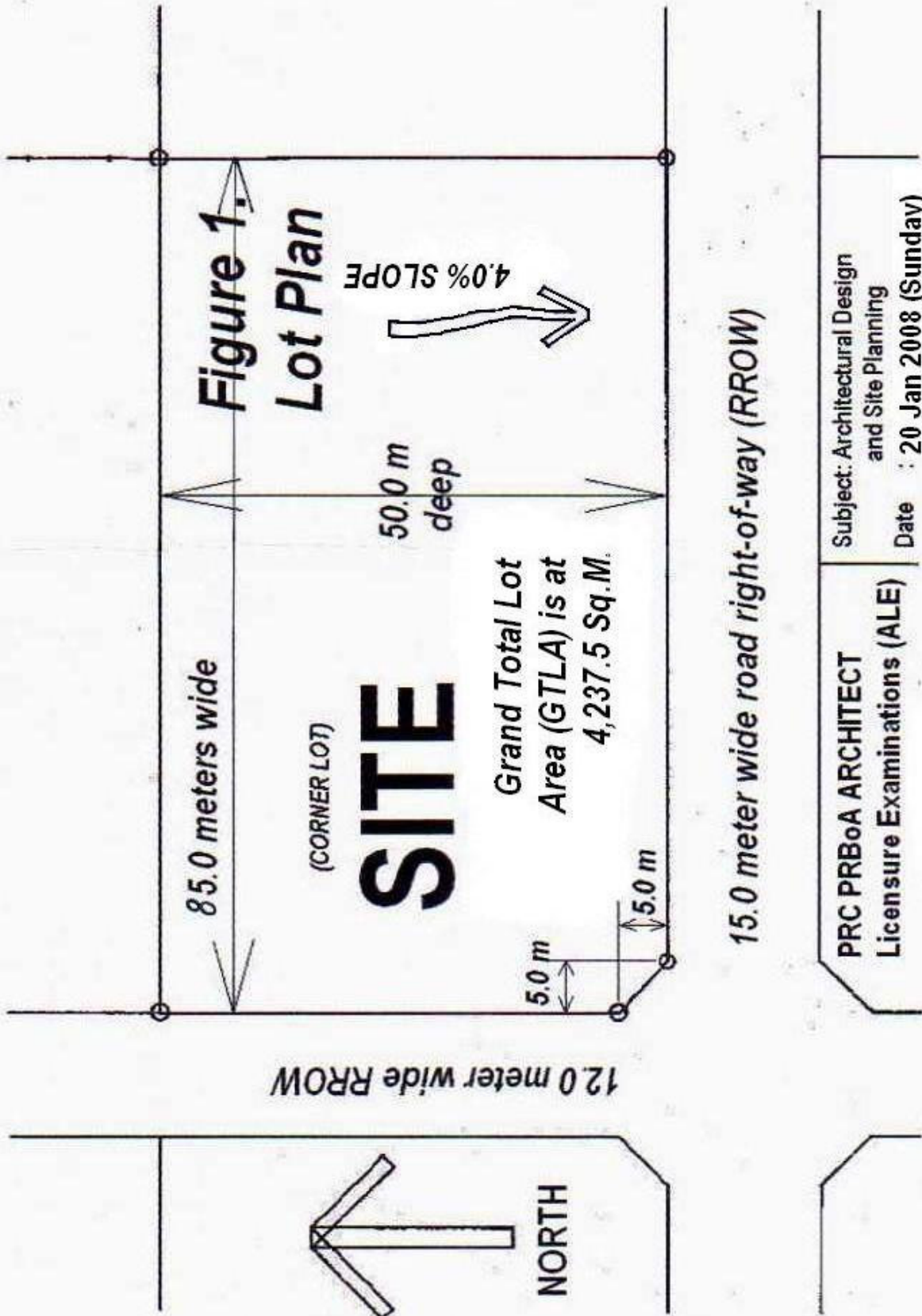
- a. **Functionality** (including full satisfaction of the prescribed building use/s per floor or area, the provision of vertical and horizontal access systems, proximities, **TGFA** compliance and the like), **space planning** (including furniture or equipment layouts if/ where required, **TGFA** and parking locations 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 residences, 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, hallway and ramp widths, toilet and kitchen layouts and the like), **site development planning standards** (including building foot-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);
- 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 8)

Scratch Papers on pages 9 through 10 follow
(to be returned together with pages 1 through 8).

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