



ANNEX C - ARCHITECTURAL DESIGN PARAMETERS & SPECIFICATIONS

I. Codes and Standards

The Architectural Works shall be in accordance with the following Laws, Codes and Standards:

• **Laws and Codes:**

1. National Building Code of the Philippines and its Latest and Amended IRR
2. RA 9266 or Architecture Law and its Latest and Amended IRR
3. BP 344 or Accessibility Law and its Latest and Amended IRR
4. AO 35, s. 1994 or AO Pertaining to the Control of Radiation Hazards
5. RA 9514 Fire Code of the Philippines
6. Existing Local Codes and Ordinances.
7. And other Laws that applies to the project

• **Standards:**

1. Bureau of Product Standards (BPS)
2. Philippine National Standards (PNS)

II. General Drawing Guidelines

1. General

- All drawings shall be computer-drafted. Drawings shall be submitted both in printed and electronic copies.
- Keep the same orientation for all plans. The north orientation shall be indicated in all architectural floor plans. The orientation of the architectural plans shall be consistent with all the engineering plans.
- Existing buildings and new works shall be clearly indicated and labeled in the site plans.
- Detailed plans shall have a scale not smaller than 1:50 meters.
- Spot detailed plans, elevations, and sections shall have a scale not smaller than 1:10 meters.
- Avoid notes such as 'see architectural detail' or 'see structural'. Always refer with a callout to the specific detail drawing and sheet number.

2. Site Plans

- The site plans shall have a scale not smaller than 1:400 meters.

3. Floor Plans

- All plans shall be 1:100 meters. The same scale shall be used for the rest of the architectural, structural, sanitary, plumbing, electrical and mechanical plans, except for each trade's site plan, detailed plans and spot details.



- Elevation callouts shall be indicated on the floor plans and shall be consistent with the elevation drawing.
- Section line callouts on the floor plans shall be consistent with the section drawing.
- Floor plans shall be indicated with boxed room callout numbers, including the callout for floor finishes and wall finishes.
- Floor elevations shall be indicated in the floor plans. This shall be in reference to the natural grade line or the established finished floor lines of the adjoining existing buildings.
- The location of mechanical equipment, e.g. air conditioning shall be indicated in the floor plans. This shall be consistent with the mechanical and electrical plans.
- Door callouts shall be circles with the proper numbering, e.g. D-01.
- Window callouts shall be hexagons with the proper numbering, e.g. W-01.

4. *Elevations and Sections*

- Finish floor lines and top of truss lines shall be consistent in all the elevations, sections and structural plans and details.

5. *Reflected Ceiling Plans*

- Reflected ceiling plans shall be indicated with boxed room callout numbers, including the callout for ceiling finishes and lighting fixtures.
- Ceiling height relative and in reference to the finish floor line shall be indicated in the reflected ceiling plans in each room with boxed dimensions. This is to ensure that the ceiling heights of all rooms are established whether or not reflected in the sections.
- The description and location of the fixtures, e.g. lighting, air-condition vents, exhaust fans, in the reflected ceiling plans shall be consistent with the electrical and mechanical plans.

6. *Roof Plans*

- Location of all downspouts shall be indicated in the roof plans.

7. *Doors and Windows*

- Door and window schedules shall indicate the type of door or window, the number of sets, the location/s of the door or window, the materials and accessories included and other special specifications, e.g. color or finish.

8. *Details*

- Provide spot detail plans, elevations and sections of a scale not smaller than 1:10 meters for special designs with aesthetic treatment and ornamentation.



- Provide detail plans of a scale not smaller than 1:50 for all areas needing tile pattern, e.g. lobby, corridor, entrance walk, showing the position and pattern of tiles.
- Centerline location of plumbing fixtures shall be indicated in detail plans with lines of reference and its corresponding dimensions. This is to indicate the exact locations of the plumbing/sanitary roughing-ins.

III. Site Works

- The Master Site Development Plan of the Academic Building shall include the following:
 - a. Reference location and footprint of existing buildings, with the corresponding building names and dimensions, including distances between adjacent buildings, and distances between buildings and the nearest property line
 - b. Reference location of utilities, e.g. water reservoirs, septic tank, wastewater treatment plant, powerhouse, transformers, waste storage area, security outposts
 - c. Road network and curbs and sidewalks
 - d. Parking spaces
- In limited lot areas, buildings should at least be spaced four (4) meters apart to allow natural light and ventilation.

IV. Building Architectural Works

1. Floor Plans

- The structural, sanitary, plumbing, electrical and mechanical designs are required to refer to the architectural plans and specifications in case of discrepancies. If an engineering design will have any possible conflict or interference on the architectural design, the latter may be adjusted provided that the aesthetic value will not be compromised.
- The architectural and engineering plans shall be consistent all throughout in terms of dimensions and locations of columns, beams, walls, roof line, conduits, ducts, pipes, and fixtures, among others. Column and beam grid lines shall also be consistent in all the architectural and engineering plans.
- Verify and coordinate floor plans with the mechanical, electrical and sanitary design with regard to the requirements for mechanical rooms, AHU rooms, electrical rooms, pipe chase, and other engineering requirements.
- Public toilets shall have provisions and fixtures for persons with disability as required by BP 344. If enough space allows, toilets specially made and designated for persons with disability is preferable.

2. Walls

- Exterior and Interior walls shall be 150mm. thick. This is indicative of the finished wall thickness including the plastering and tile works.



- Toilet wall tiles will be 200mm. x 250mm. for areas of six (6) square meters or below (or better). Toilet wall tiles will be 300mm. x 300mm. (or better) for areas above six (6) square meters.
- Layout and work on wall and floor tiles must be aligned, plumb, level, and square.
- All edges, corners and intersections of toilet tiles, including the top-most tile not reaching the ceiling shall be provided with polyvinyl chloride tile trims.
- Tile color and design shall be approved first before installation.

3. *Floors*

- Hallways, lobby and corridor floor tiles shall be provided with 600mm. x 600mm synthetic granite tiles. Indicate the tile pattern.
- The office and meeting room at the fourth floor shall be provided with 600mm. x 600mm synthetic granite tiles. Indicate the tile pattern.
- The size of the toilet floor tiles will be 200mm. x 200mm. for areas of six (6) square meters or below. Toilet floor tiles will be 300mm. x 300mm. for areas above six (6) square meters. Indicate the tile pattern.
- Layout and work on wall and floor tiles must be aligned, plumb, level, and square.
- All edges, corners and intersections of toilet tiles, shall be provided with polyvinyl chloride tile trims.
- If floor tiles in two adjacent rooms with different material, color or design meet at the door opening, the cut shall be located middle of the door thickness when in closed position. Provide details in the floor pattern design.
- Floors at the openings of toilets for persons with disability shall be sloping. Indicate in the plans and sections.
- Tile color and design shall be approved first before installation.

4. *Ceiling Works*

- The minimum ceiling height shall be 2700mm.
- Ceiling height for areas with special aesthetic treatment, e.g. lobby, major conference room, auditorium, executive office, shall be proportional to the area or room or as required by the designer. However, this shall not be lower than 2700mm. Provide details.
- If acoustic boards on aluminum T-runners would be used for the ceiling, layout should be on center and avoiding cut pieces. If the remaining perimeter of the ceiling is less than 600mm. wide, it shall be designed complimentary with fiber cement boards on light gauge metal furrings. Likewise with acoustic boards in big areas, e.g. offices, and wards, shall be designed in a way to break the redundancy. Provide details.
- Soffit of exterior beams and slabs shall have drip moulds to prevent damage due to water sipping into the eaves or ceiling. Section details shall be required to show the drip mould. (optional)



5. *Doors and Windows*

- Major rooms that require security shall have sturdy doors e.g. wood panel, and flush (with view window).
- Minor rooms that do not require security shall at least have wood flush doors, using 2"x6" Door Frames.
- Toilets and other wet areas shall have polyvinyl chloride doors or marine flush type doors on 2"x4" Door Frames and door opening of at least 0.70m.
- Fire escape doors, should be provided with panic hardware and door closers, and shall conform to the requirements of the Fire Code of the Philippines.
- Aluminum frames of glass doors shall be powder-coated.
- Door finish and color shall be approved first before application.
- Window sills shall be slightly sloped outwards to prevent damage to windows and paint due to water sippage. Section details shall be required to show this slope.
- All doors of a high-occupancy room shall swing outwards and as required by the Fire Code of the Philippines.
- Door jambs with no moulding/casing installed on concrete walls shall have construction grooves all around. Provide details.
- All doors and windows shall have reinforced concrete lintel beams. Provide details.

6. *Stairs, Ramps and Corridors*

- Ramps for persons with disability shall have a slope not higher than 1:12. Handrails and clearances shall conform with the requirements of BP 344. (optional)
- Regular stairs shall have risers at 150mm. high and treads at 300mm. wide. Fire stairs could have a maximum riser at 200mm. and tread at 250mm. Handrails shall be 1100mm. high. Clearances shall conform with the requirements of the Fire Code of the Philippines. (optional)
- Corridors shall have a minimum unobstructed width of 2450mm. This shall be measured clear from the surface of the finished wall and not on-center of the rough CHB wall.
- Corridors shall not be areas for temporary or permanent storage of stretchers, wheelchairs, trolleys, food carts, oxygen tanks or other movable hospital equipment. Storage or parking spaces shall be provided for these.
- Corridors and exit doors shall conform to the requirements of Fire Code of the Philippines.

7. *Electrical and Plumbing Fixtures and Accessories*

- Three-way electrical light switches shall be provided at the foot and the top of the stairs per floor. Likewise at both ends of a long corridor.
- Electrical light switches shall be located by the knob side of the door.
- Electrical switches and outlets shall be installed plumb and level.
- Public toilets shall always be provided with stainless steel handrails in conformity to the requirements of BP 344.



- A drainage line shall be provided for window-type air conditioners. Likewise, split-type air conditioners located in the interior part of the building shall be so located adjacent to areas with drainage lines, e.g. toilets, downspouts, balconies.

8. Roofing Works

- The section of the roof gutters shall be designed, in case of a clogged downspout, so that the overflow of water will be directed outside of the building and not towards the eaves or interior ceiling to prevent any damage. Provide details.
- Avoid valley or inside gutters in roof design. But in cases required in aesthetic design, valley or inside gutters shall be in stainless steel or concrete gutters with membrane-type waterproofing, and the section shall be designed with a capacity for big volume to prevent any damage due to overflow. Provide details.
- Parapets, designed as a roof protection from the winds, must be designed to satisfy the preceding parameters. Provide details.
- The slope of the roof shall not be less than 30 degrees.

9. Painting

- Painted ceiling shall be in flat latex finish, while cornices and mouldings shall be in gloss enamel finish.
- Painted interior wall shall be at least in semi-gloss latex finish for ordinary rooms, e.g. offices, unless specified to a higher type of paint.
- Painted exterior wall shall be at least in moisture-resistant/water-repellant solvent-based paint finish, textured or smooth, unless otherwise specified.
- Paint color and shade shall be approved first before application.

V. Furniture and Fixtures

- All rooms of the proposed building, when completed, shall be provided with all the necessary and appropriate furniture and fixtures to serve their purposes as intended, defined and designed. All furniture and fixtures shall be made of durable and sturdy materials. The Contractor shall provide a schedule of furniture and fixtures, with specifications, for approval by the KASC.
- Student chairs shall be Uratex Classmate M2 or an equivalent product in terms of dimensions and durability.
- A combined whiteboard and black(green)boards shall be provided in all classrooms.

VI. Specific Requirements

- Provide spot detail plans and sections of the following:
 - a) Gutter, eaves
 - b) Ceiling - cove-light, special connections and design, mouldings, valances
 - c) Stairs - handrail, and baluster design (optional)



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- d) Ramps - handrail design and floor pattern
 - e) Doors and windows
 - f) Special Architectural Treatment and Design, e.g. façade design, special window and door, counter/nurse station counter
 - g) Special Carpentry Works, e.g. partitions, cabinetry
 - h) Other details as may be required
- Provide the following drawings of the Proposed Four (4) Storey Academic Building:
 - a) floor plan and sections
 - b) roofing and ceiling plan
 - c) structural, electrical, sanitary/plumbing and mechanical designs

VII. Summary of Materials

- Materials to be used shall be fire-resistant, non-toxic, moisture-resistant and termite-resistant, e.g. fiber cement board, light-gauge steel frame, polyvinyl chloride ceiling panels.
- For areas that usually get wet, e.g. comfort rooms and toilets, use non-skid/non-slip vitrified ceramic floor tiles.
- Heavy traffic areas, e.g. lobby, and corridor shall use heavy-duty seamless synthetic granite floor tiles or an equivalent type of floor material.
- Vinyl floor tiles for all classrooms and faculty rooms shall be homogenous and not less 2mm. thick. (optional)
- Ramps and stairs shall use non-skid/non-slip floor tiles, materials as specified.
- Aluminum T-runners shall be powder coated.
- Metal rod hangers with adjustable clips, and/or galvanized iron wires, shall be used to support and suspend the aluminum T-runners and light gauge metal furrings.
- Roofing sheets shall be Ga.# 26 aluminum-coated, pre-painted, and pre-formed.

VIII. Drawing Requirements: See attached KSU checklist of drawings.