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རྫོང་ཁག་བདག་སྐྱོང་དགའ་ས།

ROYAL GOVERNMENT OF BHUTAN
DZONGKHAG ADMINISTRATION, GASA



Drawings required for the building construction approval.

1. **ARCHITECTURAL DRAWINGS** – Architects certificate attached.
2. **STRUCTURAL DRAWINGS** – Structural/Civil engineer's certificate attached.
3. **ELECTRICAL DRAWINGS**- Electrical engineer's certificate attached.
4. **PLUMBING AND SANITATION DRAWINGS**- Architects/Civil engineer's certificate attached.

ARCHITECTURAL DRAWINGS REQUIREMENTS:

The CDB Registered Certificate signed by the Architect shall be attached. It shall also contain Architect's contact number. Each pages of the drawing shall be signed by the Architect as well as the Owner.

- Site plan showing detailed measurement of the plot, external building dimensions, detailed layout (from corner of the building to the corners of plot, right angled dimensions from building corners to the plot). Site plan shall also show the Building entry, vehicular entry to the plot, pedestrian entry and parking spaces are mandatory unless specified in the DCR otherwise.
- All detailed plans (Basement if any, Floor plans, Jamthog plan, Roof plan) showing detailed dimensions and measurements.
- If there is Basement in marshy areas, there shall be detailed drawings for waterproofing. If basement is not provided, the ground floor shall show the DPC/waterproofing layer details.
- A minimum of 2 DETAILED sections through critical areas (1 from staircase) shall be submitted.
- A minimum of 4 DETAILED elevations shall be submitted.
- Site development works including retaining walls and its details if required (depending on the topography of the site).
- Detail drawings for the following shall be submitted in a suitable scale, preferably 1:10.
 - i. Toilets
 - ii. Staircase
 - iii. External wall detail.

Water supply and Sanitation drawings:

Each pages of the drawing shall be signed by the Architect as well as the Owner.

Plumbing and sanitation drawings shall include details as follows:

- Site plan showing the location of the septic tank and soak pit.
- Kitchen, bathroom and WC outlets;
- Toilets shall have waterproofing details/sunken slab or flat slab details.



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- The location of the septic tank and soak-pit or sanitary pipe layout to the nearest sewer line, including any manholes;
- Drainage layout, showing connection to the nearest storm water drain;
- Materials and size of pipe lines; and
- The sewer design, showing compliance with applicable plumbing codes of practice.
- Layout plan of the internal plumbing system of each floor, with details of pipe sizes and material;
- Water meters provided for each dwelling unit;
- Plumbing design, showing compliance with applicable plumbing codes of practice; and
- Materials and sizes of pipe lines.



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STRUCTURAL DRAWINGS:

Structural engineer's certificate shall be attached with his/her sign and contact number. Each pages of the drawing shall be signed by the Engineer as well as the Owner. Structural drawings shall include the following:

- Design calculation notes;
- Design codes (listed on the drawing);
- Material properties (listed on the drawing);
- Assumed soil bearing capacity or soil investigation report (as an attached document);
- Details of foundations, including:
 - i. A foundation plan
 - ii. Foundation details, including depth of the foundation and plinth level;
And
 - iii. In the case of foundations on different levels – retaining details;
- Details of beam and slab layout plan of each floor, showing clearly the staircase opening, shaft opening and any other openings and depressions;
- Concrete and reinforcement details of foundation, beams, slab, staircase, lintel, cornice, projections, zhu and rabsel, wall and other features;
- Truss elevations and connection details showing the holding-down details;
- Details and location of separation gaps;
- Details of splice locations and splice length for beams, columns, slab and staircase;
- For load-bearing walls – details of plinth band, lintel band and roof band, including vertical bars at corners, opening jambs and wall junctions;
- Electronic copies of STAAD Pro file.
- The dimensions of all structural members, including:
 - i. Anchorage of beam bars in an existing beam – column junction; and
 - ii. Column ties and beam stirrup details.



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ELECTRICAL DRAWINGS

Electrical engineer's certificate shall be attached with his/her sign and contact number. Each pages of the drawing shall be signed by the Engineer as well as the Owner. Electrical drawings shall include the following:

- Single line diagram of the total electrical system, showing the incoming terminal point and distribution network;
- An electrical layout plan, showing the position of light points, power points and any other outlets, switches and a wiring diagram;
- Earthing and its details;
- Tapping off junctions, switchboards and distribution circuits for power and lighting from SDB and (in the case of multi-phase installations) phase distribution;
- Sub distribution boards, showing circuits and load and protection devices;
- For multi-storey buildings - power distribution boards showing floor-wise distribution from the main control board and incoming power line;
- For multi-storey and complex buildings – design calculations;
- For compound electrification work – the following information:
 - i. Fixture and fitting specifications;
 - ii. Foundation details for support poles and similar structures;
 - iii. Terminal box details;
 - iv. The size and type of cables proposed to be used; and
 - v. A single line diagram, showing connections, phase distribution and circuitry.
- The electrical drawings shall include details of telephone connections, showing (by use of symbols and legend) all points, junctions, route ducts and telephone terminal cabinets.



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Annexure I:

Documents and drawings required for the building construction approval.

1. Two sets (A3) of **Architectural, Structural, Electrical, Water supply and Sanitation drawings** duly **signed** by the designers and plot owner on all the pages. The format shall also contain the name, Registration number and sign of the Designers.
2. **Valid Certificate with original signature of the designers** attached.
3. Copy of the latest **Lag Thram/ Land Ownership Certificate**
4. Copy of latest **Site Plan** and **Site Plan money Receipt**.
5. Duly filled **Planning Permit and Building Permit**.
6. Copy of **Annual Land Tax Receipt**.
7. **Power Clearance**.
8. Telecom Clearance (If required).
9. Copy of CID and 2 nos. passport size photographs.
10. A Ground floor plan showing complete building profile dimensions, set back lines, plot boundary, the access road/footpath, location of drains, location and dimensions of existing buildings, trees and car parking spaces, layout dimensions from building corners to plot corners shall be submitted in the Architectural drawing set.

Failure to submit any one of the above mentioned requirements shall result in the return/rejection for further approval.

Documents available online (www.gasa.gov.bt >> Dz. Engineering & Human Settlement Sector):

1. Building and Planning Permits
2. DCR for Gasa Thromde
3. All Construction forms and drawing requirements
4. BBR-2018

Failure to submit any one of the above mentioned requirements shall result in the return/rejection for further approval.



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**Approval process for construction of house/building in Samtse, Gola and and other
planned areas/towns:**

1. Application to Dzongdag requesting for Site plan.
2. Surveyor >> preparation of site plan and the applicant shall be informed on the completion of site plan.
3. Site plan along with Planning and Building permits to be collected by the plot owners from Dzongkhag engineering and human settlement sector.
4. Preparation of Drawings >> *Architectural, Structural, Electrical, Water supply and Sanitation drawings.*
5. After completion of the drawings, the owner shall submit an application to Dzongdag requesting for construction approval. This stage shall contain the entire set of documents mentioned in *Annexure I*.
6. Endorsed application from the Dzongdag shall be submitted to Dzongkhag engineering and human settlement sector with the complete set of documents as stated in *Annexure I*.
7. Drawings shall be checked and scrutinized and the owners shall be informed about the approval/rejection. In case the drawing of rejection, the owner shall rectify the drawings and resubmit for approval.
8. The plot owner shall sign a Construction Agreement with the Municipal Authority and proceed for the final approval.
9. Final Approval: Letter to be issued by the Dzongdag.
10. Layout for Gasa town shall be done by the Municipality.

Note: If in-case the process is represented and carried out by a relative/representative and not the legal plot owner, he/she shall submit authorization letter to the authority duly signed with legal stamp by the legal owner.

Upon completion of the building, it shall be checked and verified by the technical team from the Municipality. If all works are up to standard and completed as required, occupancy certificate shall be issued.