**GRASSROOTS**

INTRODUCTION

With the increasing demand for green buildings, it is vital to understand the right approach towards constructing such structures that would minimize the detrimental impacts of construction on the planet, while creating a healthy and comfortable living/working environment with zero or minimal incremental cost.

A green building has lower resource consumption as compared to conventional buildings, while enhancing the overall health and well-being of the users. There are a number of tangible and intangible benefits offered by green buildings. Green buildings consume 40% to 60% (depending on the range of measures adopted) lesser electricity as compared to conventional buildings. This is primarily because they rely on passive architectural interventions in the building design, with highly efficient materials and technologies in the engineering design. For meeting the energy needs, they attempt to work towards on-site energy generation through renewable energy utilization. For instance, solar thermal systems can help generate hot water and replace the conventional electrical geyser in the buildings. Solar PV (photovoltaic) panels or Building-Integrated Photovoltaics (BIPV) can help generate electricity which can reduce the buildings dependence on grid power. They consume 40% to 80% (depending on the range of measures adopted) less water as compared to conventional buildings. By utilizing ultra-low-flow fixtures, dual plumbing systems, waste water recycling systems, and rainwater harvesting, these buildings not only reduce their demand for water but also consider on-site supply options to cater to their internal and external (landscape) water demands.

Additionally, green buildings generate less waste, lesser air, water, and soil pollution both during construction and operation. It also accounts for proper safety, health, and sanitation facilities for the construction workers (during construction) and the occupants (while in use). It restricts the use of high Ozone Depleting Potential (ODP) substances in their systems as well as in the interior finishes.

The return on investment in green buildings is fast, by virtue of lower maintenance and energy costs as compared to the conventional buildings and offer branding opportunities and an edge over others in the market.

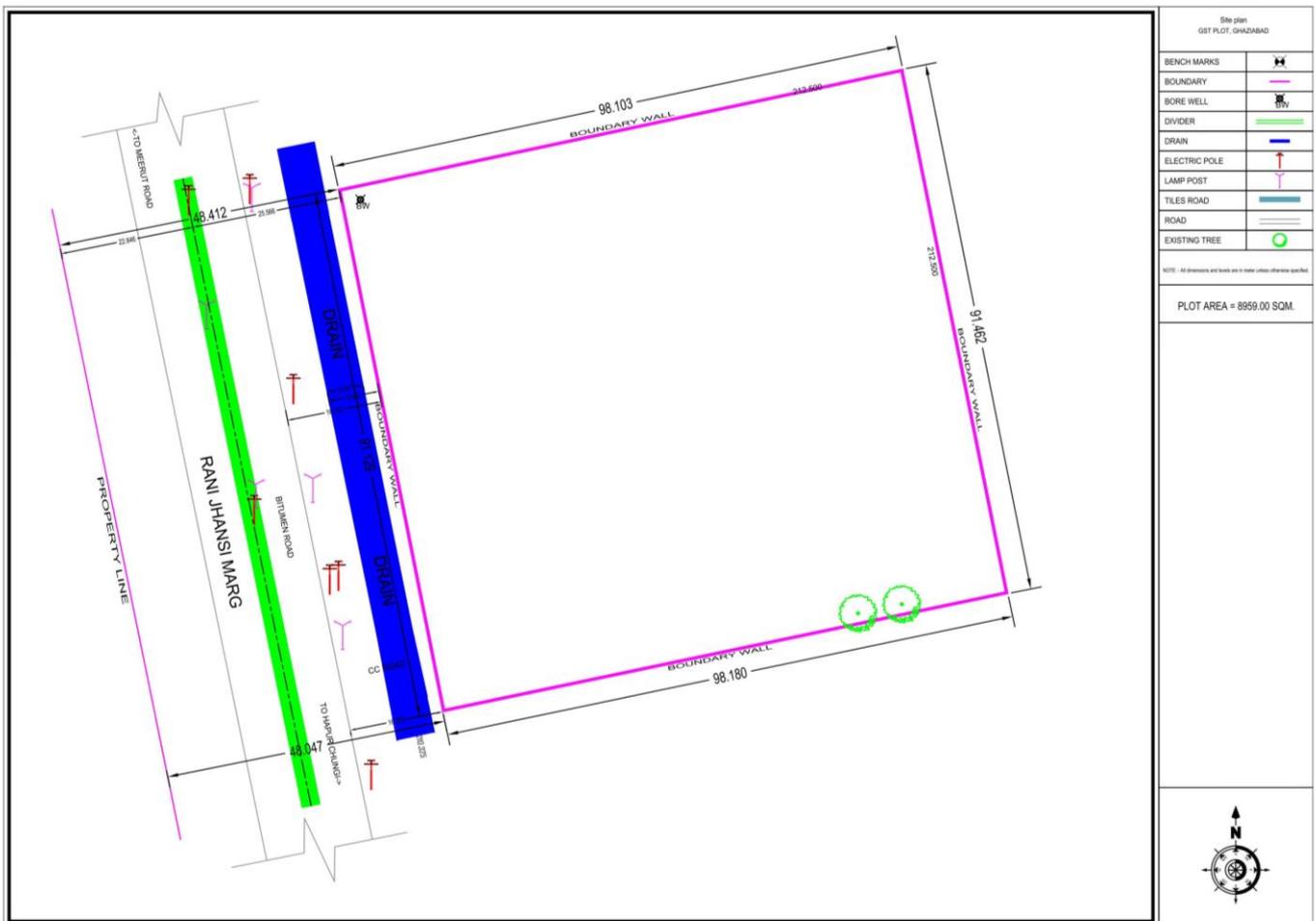
DESIGN BRIEF

A GST Building in Ghaziabad (Commercial) has to be designed for Experion Developers. The design should be in accordance with GRIHA v2019 Rating System.

1. Design development highlighting an iterative approach and integration of strategies.
2. Design concept highlighting the climate responsive and passive/ active features of the proposal.
3. Design concept highlighting water and waste management strategies.
4. Design concept highlighting strategies for improving occupant comfort and wellbeing, universal accessibility, safety and security, environmental awareness and social impact.
5. Area statement and zoning plan highlighting passenger movement and any sustainable strategies if incorporated.
6. Building layout plans and Site layout plans with details.
7. Detailed LCC calculations with concept note of strategies adopted (Use of software is desirable).
8. The submission should include -
 - Site plan and layout plan
 - Concept plan, Plans, Elevations and Sections
 - Views, perspective and any other means may be used to explain the design proposal.
 - Building Design Simulations

Location	GST Building, Kamla Nehru Nagar, Ghaziabad (U.P.)
Site Area	8959.1 m ²
FAR	1.50
Maximum Ground Coverage	50%
Maximum Height	12.5 m
Front Set Back	9m
Rear Set Back	6m
Set back on other sides	4.5m

SITE PLAN



NATIONAL ASSOCIATION OF STUDENTS OF ARCHITECTURE
GRIHA TROPHY | 2021-22
GRASSROOTS



SUBMISSION REQUIREMENTS

The submission shall be done in 2 stages, in the following manner:

- Stage 1:
 - The project should be expressed within a maximum of 12 A2 size sheets.
 - Authentication Letter
 - Declaration Letter
- Stage 2:
 - A presentation (PowerPoint/pdf/any other audio-visual format) of NOT more than 15 slides or running time of 5 minutes.
 - Editable format of the sheets.

JURY PROCESS

The evaluation shall be done in 2 stages, in the following manner:

- Stage 1: Closed jury of all valid entries, declaration of the shortlisted entries.
- Stage 2: Open jury with online presentation of already submitted sheets and presentation by the shortlisted entries.

The entries will be evaluated on the basis of

- Innovation in architectural design
- Resource management and sustainability
- Contextual and aesthetic impact
- Presentation of the scheme
- Delivery of the scheme

PRIZE MONEY

Prize money of 1.5 lakhs INR is allotted by the GRIHA Council to the trophy and it will be divided according to the number of the Citations and Special Mentions.

IMPORTANT DATES

- Release of Brief: **8th September 2021, Wednesday**
- Registration Deadline: **10th November 2021, 1800 hours, Wednesday**
- Queries Deadline: **23rd October 2021, 1800 hours, Wednesday**
- Stage 1 Submission Deadline: **1st December 2021, 1800 hours, Wednesday**
- Stage 2 Date: **Will be Announced along with Shortlisting.**

SUBMISSION GUIDELINES

Failing to comply with any of the guidelines may lead to disqualification at the discretion of the executive council.

- **Maximum One (01) Number of Entries Will Be Accepted Per College.**
- **There is no limit to the number of participants per entry.**
- The format of the sheets should clearly mention the name of the trophy followed by the year i.e. **“GRIHA Trophy 2021-2022”**
- Sheets file size should not exceed **25Mb**, maximum size for Authentication and Declaration Letters is **5Mb**.
- The scale is left to the discretion of the participant(s) to the condition that the scale should be in the metric system and all the drawings should be clear and legible.

GENERAL TROPHY GUIDELINES

- All text should be in English.
- The file name should strictly be the registration code itself.
- Presentation submission should be a google drive link, with permission set to anyone with the link.
- The format of the sheet should contain a square box of **25mm*25mm** at the bottom right hand corner, next to the NASA INDIA logo which should have the unique registration number allotted to the participants after registrations.
- Manually rendered entry should be scanned at least in **300*300dpi** (dots per Inch) resolution.
- The soft copy (non-editable format) of the sheets, and if any, report/video link, along with authentication letter, declaration letter and any other required documents prescribed in the submission requirements should be uploaded on the website by the submission deadline.
- The soft copy file of the sheets should not be corrupted or incomplete or in low resolution.

- It is mandatory to produce the original copy of the Authentication Letter for each entry (entry code should be mentioned if allotted) with the name of participant(s) and stating the unit will abide by whatever may be the final results and also agree that this entry is a property of both the institute and NASA India.
- The Authentication Letter should be signed by the HOD/Principal/Director.
- It is mandatory for the colleges to produce the original copy of the Declaration Letter for each entry (entry code should be mentioned if allotted) signed by the participants stating the work submitted is genuine and they have endorsed copy-rights for the same and to adhere by all the rules and regulations, jury process and the results.
- The Prize Money Authenticating Letter signed by the Director/ Principal / HOD in the college letter-head specifying the account details (Account Name, Account Number, Bank Name, IFSC Code, PAN attached to the account) in which the money is to be credited for each entry (entry code should be mentioned if allotted) shall be collected at a later stage.
- 30% of the prize money shall be deposited as TDS to the Income Tax Dept. of India and can be taken as rebate in ITRs.
- The working files in editable formats of the Shortlisted Entries should be submitted to the Council, failing which, the submission requirements would be deemed incomplete leading to the prize money being withheld.
- Shortlisted Entries with manual hand-done sheets should submit the content in a word document, failing which, the submission requirements would be deemed incomplete leading to the prize money being withheld.
- Any misconduct such as exposing identity through college name/ stamp participant(s) name or college code on the sheets or the video will be disqualified.
- Registration, queries and submission shall be through the website only - <https://nasaindia.co/Trophy?groupid=3>
- The Participants shall be registered through the website prior to the submission and the list should concur with the Authentication and Declaration

NASA INDIA LOGO GUIDELINES

Failing to comply with any of the guidelines may lead to disqualification at the discretion of the executive council.

- NASA India Internal Logo shall always be placed on the right-hand bottom corner of the sheet.

- NASA India logo should not be merged, overlapped etc. with any sort of text, graphic, image, etc.
- NASA India logo should be in true black with a perfectly white background.
- **FOR A2 SHEET NASA INDIA LOGO SIZE SHOULD BE 43.75MM X 25MM WITH 10MM CLEAR BORDER ON ALL 4 SIDES.**
- The logos are available at <https://www.nasaindia.co/>.

ANNEXURE 1

ABOUT EXPERION DEVELOPERS

Experion Developers is a reputed developer committed to sustainable development.

Experion Developers Vision:

- To deliver positive, engaging and memorable experiences to our patrons and partners and continuously strive for innovation in product design and processes with integrity and transparency.

Experion Developers values:

- **SEE TRANSPARENCY IN A NEW LIGHT**
We give an open book access to our clients through our dedicated Customer Portal. Through our ERP system we ensure systematic filing of records to make sure everything is transparent and in plain sight in real-time.
- **BUILT THROUGH INTEGRITY**
Integrity. A tenet that allows us to create inseparable bonds with you, our partners in positive living. Guided by our comprehensive Standard Operating Procedures, we are able to lay down a foundation on which to build healthy relationships.
- **WELCOME TO A WORLD OF INNOVATION**
Here, the keen minds of structural engineers and visionary architects come together to create an environment crafted to your needs. Be it themed gardens of exotic foliage or an ingenious sky-walk towering at the seventh level, every space has been thought-out and then thought through.

- INVOLVEMENT THROUGH HANDS-ON APPROACH

We approach each of our business deals with one single outlook; to be approachable. No matter what the business transaction, our involvement is always a hundred per cent. Our robust team of Customer Relationship Managers is ever eager to interact with you.

ANNEXURE 2

BRIEF ABOUT LIFE CYCLE COSTING (LCC)

Life cycle costing (also known as an economic pillar) is an estimation of the future costs of assets. In the construction sector, it is used to measure the cost of whole buildings, systems, or building components and materials through their entire life cycle. It plays a pivotal role in the 'sustainable building' space. The many benefits of standardized life cycle costing that provide opportunities for robust financial 'analysis, evaluation and comparison' of different design scenarios, as discussed so far, becomes extremely handy in sustainability endeavours.

The primary intent of introducing life cycle costing is for the building industry to recognize the business case for sustainable buildings and optimize a whole life value of their building 'design and system selection' over the life cycle of the building and ensure economic sustainability of their building's business case.

The project must demonstrate the following to illustrate incorporation of LCC:

1. LCC study as per GRIHA V. 2019 for the following section and criteria-
 - a) Section 3: Energy Optimization
 - Criterion 7: Energy Optimization
 - Criterion 8: Renewable Energy Utilization
 - b) Section 5: Water Management
 - Criterion 13: Water Demand Reduction
 - Criterion 14: Wastewater Treatment
 - Criterion 15: Rainwater Management
 - c) Section 7: Sustainable Building Materials
 - Criterion 20: Reduction in GWP through Life Cycle Assessment

2. Cost to be taken into consideration should be the landed cost on the construction site.

Any innovative material, energy, and water management strategy should also be included in this study for assessment of individual payback and as a part of the whole building life cycle assessment.