

Case Study

# Inform Retrofit Decisions

The Beck Group Identifies Energy Savings at Half the Cost Using the  
bui<sup>l</sup>dee<sup>®</sup> Software Platform



## Introduction

Commercial building owners today are faced with high utility operating costs, tenant demands for sustainable properties, mandated reporting of their performance, and climate action plans. Building stakeholders, including owners, operators, and energy managers, seek to invest in their properties to reduce operating expenses, remain competitive with tenants and increase sales value.

- 22% of building operating expense is on Energy<sup>1</sup>
- Commercial Property represents \$57 billion of wasted generation, emissions, and building operating expenses every year<sup>2</sup>
- 70% of urban emissions come from buildings<sup>3</sup>
- 80% of Commercial Real Estate is 25 years or older<sup>2</sup>

This case study presents how The Beck Group, an integrated architecture and construction firm, used buildee® software to overcome the challenges of high utility operating costs, tenant demands for sustainable properties, mandated reporting of their performance, and climate action plans to more efficiently make lasting and meaningful energy

recommendations and solutions to Gateway Church in Frisco, Texas. The Beck Group offers

sustainability consulting for building owners who want energy efficient retrofit projects to reduce their building's energy and operational costs. With the use of buildee, The Beck Group provided a building upgrade plan that would save \$11,000 annually while simultaneously improving the quality of the space in terms of thermal comfort, lighting, and air quality.

***"There's no other product in the market that merges energy audit results and energy modeling to evaluate building performance"***

*- Sustainability Manager & Energy Engineer at The Beck Group*

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<sup>1</sup> Enervise.com

<sup>2</sup> Commercial Building Energy Consumption Survey (CBECS) 2012

<sup>3</sup> U.S Green Building Council

## Challenge

The Beck Group values sustainability as a core principle of their business practices. In order to bring this value to bear on large-scale architectural projects, it needed to conduct both qualitative and quantitative assessments of existing building performance and make recommendations for changes. The process of conducting these evaluations was time intensive and reliant on extensive data collection. The Beck Group sought a method to streamline this process at Gateway Church to make it easier to deliver results and recommendations that would maximize usefulness for building owners in a way that was scalable.

## Solution

Using buiidee provided multiple positive experiences for The Beck Group that made its assessment and recommendations much more efficient. With the use of buiidee, The Beck Group delivered a detailed analysis of existing energy usage and provided recommendations for improvements. These recommendations included:

- Replacing outdated lighting with high-performing LEDs
- Using bipolar ionization air cleaning to reduce the need for ventilation
- Installing occupancy sensors in areas with significant periods of low occupancy
- Installing roof-mounted solar panels
- Updating kitchen equipment

Most importantly, The Beck Group delivered these recommendations in a detailed format that laid out cost savings in a clear, actionable way, empowering the building owner to make decisions about updates that are economical, informed, and logical.

***"buiidee has helped  
The Beck Group scale  
our new service and  
make it more  
economical to  
complete detailed  
existing building  
performance  
assessments and save  
our clients' money"***

## Results

The use of buildee provided the following broad benefits to The Beck Group:

- Savings of \$11k identified with payback of less than 1.5 years
- Collaboration, accessibility and analysis of data among team members
- Auto-generation of accurate energy models from on-site field data collection, saving close to 20 hours of work
- Analytics minimizing the need for invasive and time-consuming wall and roof insulation inspection with accurate thermal performance data.
- Integration with SketchUp/Open Studio software reduced the need for complex transfer of information across platforms, resulting in a reduction of 10-20 hours of project work time.

## Conclusion

The Beck Group's analysis of Gateway Church using buildee software resulted in a proposal that would produce \$11,000 of annual energy savings and more efficient and effective performance of energy systems across the building. With buildee, The Beck Group conducted the assessment and analysis in  $\frac{1}{3}$  the time, with greater accuracy, while providing a thorough report of recommendations and cost savings. The firm's ability to assess, model, collaborate on, and analyze this data using buildee played a crucial role in producing the final report.

"Overall, buildee reduces field auditing and energy modeling costs by close to 50% each", explained the Beck Group. "The Beck Group looks forward to continuing implementation of buildee into our existing building performance evaluations to help owners identify opportunities to reduce operational costs and improve tenant/occupant satisfaction."

**Utilize buildee to inform retrofit decisions today. Contact us – [inquiries@buiLdee.com](mailto:inquiries@buiLdee.com)**