



BIM EDITION

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CONSTRUCTIONTECHREVIEW.COM

## Top 10 BIM Consulting/Services Companies - 2020

**B**uilding Information Modeling has become an invaluable tool for the construction industry with an array of benefits. It supports optimization of building designs in order to aid the selection of alternative design elements and materials before they are constructed. The construction participants hope to know the visual building model through 3D appearance previously. Also, it is helpful to communicate with the owner, architect, and contractor, then reduce building design errors or variation orders.

As BIM becomes more advanced, the value it can add to projects continues to increase. In addition to providing a visual representation of a project, it is becoming an essential collaborative tool, which is

invaluable to cost managers, contractors, designers, facilities managers, and the client alike. The tool helps in improving efficiency and cost-effectiveness in the construction industry.

In order to help construction companies who struggle to adopt and implement BIM technology, the current edition of Construction Tech Review brings you “Top 10 BIM Consulting/Services Companies - 2020.” BIM Services offered by these companies help to get customized solutions for designing to building the final layout of structures with accuracy, quick turnaround time, and cost-effective solutions. These companies play a significant role for many construction companies to attain completed BIM Models in timely deliverables and high-quality.



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**Company:**  
Pro Mechanical Services

**Description:**  
By using VDC and BIM, the company helps building owners reduce project costs, improve project delivery, and optimize building efficiency

**Key Person:**  
Jon Vanos,  
President & Owner

**Website:**  
[pro-msi.com](http://pro-msi.com)

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# SOLUTION PROVIDER OF THE YEAR



Jon Vanos,  
President &  
Owner

## Pro Mechanical Services

### Helping the Commercial Building Industry Work Smarter

Construction costs including material and labor costs, continue to rise. Considerable time is wasted during various phases of construction, such as pre-planning, pre-design, and pre-engineering. This results in considerable delays with respect to team coordination and collaboration and manual checking. Essentially, idle time and unwarranted delays make traditional designing processes inefficient. As such, adopting an effective design approach for time and cost containment is imperative.

To this end, Pro Mechanical Services leverages BIM as a foundational, intelligent model-based process for business and industry practices transformation and makes the entire process of design, construction, and management seamless and efficient. The company's pre-construction process that leverages BIM helps building owners gain visibility into the status of their ongoing construction projects.

#### Bringing Efficiency through BIM

"Through BIM, Pro Mechanical Services provides deep insights on numerous aspects of the project, including cost, schedule, and constructability. This helps save time during the entire course of the construction," says Vanos. Moreover, the project managers become aware of whether the timelines they set forth are achievable as they can foresee the hurdles even before project implementation. Pro Mechanical Service acts as a partner to their clients and unifies the entire construction project together holistically. The company expands its scope of services to other areas of construction as well, to make the process smart and efficient.

**A**midst the countless economic challenges that undermined the construction industry, Jon Vanos, President and Owner of Pro Mechanical Services, has been successful in growing his business and diversifying it to new areas. He says, "Among a multitude of tools and technologies we have leveraged to diversify our business, Building Information Modeling (BIM) has helped us thrive and grow." Under Vanos' supervision, the company grew from being a subcontracting firm to a partner that helps its customers deploy the best solutions for electrical wiring, sheet metal fabrication, building automation, and HVAC. BIM enabled the company and its customers to bring a holistic approach towards improving the process of design, construction, and operation and consequently increased value creation across all the life cycle stages of construction. Pro Mechanical Services offers BIM/VDC (Virtual Design and Construction) as a complete service offering and goes beyond leveraging it merely as a tool— helping building owners reduce project costs, improve project delivery, and optimize building efficiency.

During the design phase, BIM can quickly iterate on design elements, including building form, sustainability, client requests, municipal regulations, budget, and more. Vanos illustrates the effectiveness of BIM in the design phase with an example. “One of our clients created 100 visualizations for a church and adjusted the shape of the building to appear curved, but with flat glass, saving over one million dollars on glazing, and 1,000 hours of design time,” he says. Sustainable building design is yet another hurdle during pre-construction. Through BIM, the company can estimate energy consumptions. Further, when it comes to creating design documentation, Pro Mechanical Services enables its clients to create a building model and complete set of design documents in an integrated database, where everything is interconnected, and there is real-time coordination of information.

to manage facility operations better. Besides, the services also enable the management staff to optimize resources and reduce waste and lower lifetime maintenance and operations costs. By making use of intelligent 3D models, the company helps manage space and perform spatial validation to prevent tenant chargeback.

## Exemplary Success Stories and Promising Roadmap

Vanos illustrates the practicality and applicability of their BIM software with a customer success instance. One of their clients, a legal cannabis firm, approached them for setting up their facility. The client required services ranging from building design to electrical and HVAC. As it was a design-build project and the requirements were unique and new, they adopted



The company extends its BIM services to the construction phase as well. To enhance collaboration among multiple teams, they link various phases, including planning, simulation, visualization, and digital fabrication together. Given creating cost estimates for each phase of the construction is a tedious and error-prone process, they make use of software to prepare the same and make it error-free. Vanos mentions that more than 60 percent of major capital programs fail to meet the cost and scheduled targets, and for that reason, the company’s services allow project managers to deliver more projects on time and also within the budget constraints. They also make use of BIM and allow pre-fabrication and modular construction methods to improve the project schedule, reduce cost and material waste, and improve site safety. Pro Mechanical Services also helps plumbers, and electricians execute their tasks fast and proactively.

Further, the company extends the value of BIM to help their facility management staff plan efficiently and manage the building scientifically. They can reuse building models and data

a soup to nut approach while catering to the client. “There were no guidelines to design the grow rooms for marijuana plants, and this made the designing part challenging,” recalls Vanos. By using live modeling, the company addressed these challenges effectively and brought significant savings to the client. The company designed and installed dedicated electrical circuits, including an emergency back-up system and CCTV cameras for the facility.

Such success stories stem from the company’s 32 years of experience that enabled them to execute and lead various phases of building construction effortlessly and efficiently. Moving ahead, Vanos states that the company plans to change the way the construction industry has been functioning so far by implementing BIM across the entire construction lifecycle. Additionally, the company plans to invest more in technology to incorporate CNC machines into construction. Pro Mechanical Services also plans to integrate even the construction manufacturing processes with BIM in the coming days. <#>