

vConstruct Private Limited

Office No. 659, Level 6, Pentagon P-2,
Magarpatta City, Hadapsar, Pune – 411013, India
Fax: +91 20 6628 0011

VDC (Virtual Design and Construction) Engineer

vConstruct is seeking a VDC Engineer with at least 2 years of commercial construction experience.

The VDC Engineer creates Building Information Models (BIMs), i.e., 3D/4D/5D computer models / simulations for commercial construction projects using Virtual Construction and Design (VDC) tools and methods.

Principal Responsibilities Include:

1. Develop schematic level and detailed models based upon libraries of parametric or solid objects which may include structure, interior and exterior architectural elements, and building systems like mechanical, electrical and plumbing systems.
2. Perform Model based coordination amongst different building systems using tools like Navisworks Clash Detection, Tekla, etc. Run BIM enabled coordination meetings between different trades (MEPF, Skin, Structures, Interiors, and Site). Produce clash detection reports to notify the coordination team.
3. Perform Model Based Quantity Takeoff and Costing. Integrate BIM with cost data base to automate model based costing process using tools like Vico, Innovaya etc. Calculate quantities from 3 D models for material orders and crew work planning. Develop modeling protocols and standards to specify modeling criteria for BIM to be used for costing process.
4. Produce dimensioned drawings for layout and pre-fabrication from the models.
5. Prepare Shop Drawing level 3D models such as concrete forms and wall frame detailing for use by DPR crews or subcontractors.
6. Prepare, monitor and update 4D simulations of Master and Phase Schedules (using scheduling applications such as Microsoft Project & Primavera and 4D applications like Synchro, Navisworks).

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7. Develop high end renderings and walk through of 3D and 4D BIM for the purpose of pursuit of new work (proposals), construction site logistics visualization.
8. Ability to perform various Quality Checks on the Models to validate models for things like:
 - Model completeness
 - Alignment with basis of design and design documents
 - Model sanity: no duplication of data, no errors and omissions, continuity of systems between the different points of connection.
9. Ability to compare 2D and 3D data between the different versions to identify what has changed over a period of time between the files.
10. Ability to take progress reports (e.g. Daily Progress Reports) and feed the information in the model to visualize progress in 3D and to validate quantity complete and billing information
11. Ability to perform standard document control practices like:
 - Maintaining record set of drawings (good for construction drawings)
 - Linking RFI's and change orders to the record set of drawings.
12. Ability to add information and link documents to BIM for various purposes like:
 - Facilities Management
 - Costing and progress tracking
13. Develop 3D models to illustrate contractor questions and possible solutions .
14. Ability to setup and manage BIM content to be viewed on mobile hand held devices like iPads etc.
15. Generated Surface Model from Laser Scan point cloud data.

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16. Ability to capture as-built information from equipment like Total Station and compare it with BIM to verify alignment and Quality Checks on construction put in place.
17. Ability to export points from models for it to be used for field layout purposes
18. Ability to analyze and modify data from BIM in tools like MS Access Database, Excel spreadsheet, XML editors.
19. Flexibility to meet and communicate with project teams based in USA during evening hours (7:30 – 11:30 pm IST) on an as-needed basis.

Skills and Qualifications:

We are looking for a flexible, detail-oriented team player with the ability to manage multiple tasks, produce quality work, and consistently meet deadlines. The successful candidate will possess:

- Bachelor's degree or higher in Civil Engineering, Architecture, Construction Management or closely related field.
- At least 2 years of experience in virtual design and construction.
- Basic understanding of mechanical, electrical, plumbing, architectural, structural and civil construction documents
- Proficiency with BIM Authoring and Analysis tools
 - 2+ year experience in Revit Suite of products (Revit Architecture, Revit Structure, Revit MEP)
 - 2+ year experience in Navisworks
 - 2+ year experience in AutoCAD based products (AutoCAD architecture, AutoCAD MEP)
 - Proficiency in BIM software like:
 - Tekla, Synchro, Solibri, Google SketchUp, Vico, Innovaya
- Proficiency in rendering tools:
 - Adobe Flash, Adobe After Effects and Adobe Photoshop
 - Autodesk 3Ds Max
 - Autodesk Maya
- Knowledge of construction management issues
- Ability to work independently with minimal supervision.
- Excellent listening skills and have strong communication skills.
- Ability to identify and resolve complex issues.
- Effective participation in team environment
- A strong work ethic and a “can-do” attitude.

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About vConstruct:

vConstruct specializes in providing high quality Building Information Modeling and Construction Technology services geared towards construction projects. vConstruct is a wholly owned subsidiary of DPR Construction.

About DPR Construction:

DPR Construction is a national commercial general contractor and construction manager specializing in technically challenging and sustainable projects for the advanced technology, biopharmaceutical, corporate office, and higher education and healthcare markets. With the purpose of building great things—great teams, great buildings, great relationships—DPR is a truly great company. For more information, please visit www.dpr.com.