

Mahmoud Ahmed El-naggar

Technical Office Engineer - Infrastructure & BIM Specialist

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A highly accomplished Technical Office Engineer - Infrastructure & BIM Specialist with over 10 years of experience in designing and delivering large-scale infrastructure projects, including roads, utilities, and stormwater systems. Expertise in Navisworks, BIM modeling, Civil 3D, and Autodesk tools, coupled with advanced skills in quantity surveying, shop drawings preparation, and clash detection. Proven excellence in project management, strategic reporting, and producing high-quality technical documentation. Demonstrated leadership in driving the success of major projects such as Mehwar Al Mosher and Middle Ring Road, optimizing workflows, and ensuring precision in design and execution.

KEY COMPETENCIES

- BIM Coordination
- Civil 3D
- Revit
- BIM Modeling
- Quantity Surveying
- AutoCAD
- Navisworks
- Shop Drawings Preparation
- Sewer and Water Systems
- Dry Utility Coordination
- Project Management
- Technical Documentation
- Leadership
- Communication
- Problem-Solving

PROFESSIONAL EXPERIENCE

Technical Office Engineer - Infrastructure & BIM Specialist | Saudi Pan Kingdom Company – SAPAC **Apr 2024 – Present**
Project: The extension of Al-Taif Street up to Qiddiya City, with a length of 16 km

- Lead the preparation and review of road and infrastructure designs, including sewer, water, stormwater, and irrigation systems, utilizing Civil 3D and advanced BIM methodologies.
- Design and develop comprehensive BIM models and precise shop drawings, ensuring seamless coordination across multiple infrastructure disciplines such as Dry Utilities (ITS, Telecom, Street Lighting, Duct Banks), Irrigation, and Stormwater Networks.
- Conduct detailed quantity surveying for earthworks (cut-fill), oversee subcontractor payments, and manage related documentation processes.
- Collaborate with project managers and design teams to ensure the accurate implementation of design intent, resolving technical issues and enhancing project efficiency.

Technical Office Engineer & BIM Coordinator | Madkour EPC **May 2021 – Mar 2024**

- Managed the design and coordination of infrastructure systems (roads, sewer, water, stormwater, irrigation, and dry utilities) with a focus on BIM integration.
- Developed accurate BIM models and detailed shop drawings using Civil 3D, ensuring alignment with project specifications.
- Coordinated quantity surveying, ensuring accurate measurement, tracking, and seamless collaboration across teams.
- Streamlined BIM workflows, ensuring efficient communication and integration across multiple disciplines.
- Maintained comprehensive technical documentation, ensuring compliance with project standards and client requirements.
- Oversaw subcontractor billing processes and managed client documentation to ensure timely approvals.

Technical Office Engineer (Roads & BIM) | GAMA Constructions **Jul 2019 – May 2021**

- Led the design and development of road infrastructure systems, integrating BIM methodologies to ensure design accuracy and efficiency.
- Utilized Civil 3D to create detailed road models, alignments, and cross-sections for project execution.
- Coordinated BIM processes across road design teams, ensuring seamless integration with other infrastructure disciplines.
- Managed technical documentation, including shop drawings and design specifications, ensuring compliance with standards.

Technical Office Engineer | South Valley Company **Jan 2017 – Jul 2019**

- Directed the design and execution of key road projects (Mehwar Al Mosher, Middle Ring Road), ensuring effective coordination and technical excellence throughout all phases.
- Led the design of infrastructure and road intersections, producing detailed technical documentation and maintaining compliance with project requirements.
- Compiled and presented progress reports, closely monitoring project timelines and deliverables.

- Supervised construction and technical office operations for the Road Alfarag project (36 km), ensuring the successful delivery of the project within scope and schedule.
- Managed the design and execution of infrastructure projects, ensuring technical quality and alignment with project specifications.
- Coordinated project activities between various departments, ensuring smooth execution and adherence to timelines.

CERTIFICATIONS

- **API Course Includes:** C++, Civil 3D, CAD
- **Dynamo Course**
- **Navisworks Course**

MEMBERSHIPS

- **Member, Saudi Engineering Association**

EDUCATION

Bachelor of Civil Engineering

Higher Technological Institute, 10th of Ramadan City, Egypt | 2015

LANGUAGE

Arabic: Native

English: Professional Working Proficiency