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NEWSLETTER





UNDERSTANDING VIRTUAL DESIGN AND CONSTRUCTION (VDC)

WHAT IS VDC?

Virtual Design and Construction (VDC) is an integrated process that utilizes advanced digital tools and technologies to plan, design, and manage construction projects. It involves creating comprehensive 3D models and simulations to optimize project delivery and enhance collaboration among stakeholders. Simply, VDC means building the project once digitally and working out the big problems, then building it more efficiently in the physical world.

WHY IS VDC USED?

VDC is used in construction to improve accuracy, efficiency, and collaboration. It helps in visualizing complex designs, detecting potential issues early, reducing errors, and managing resources more effectively. By integrating all aspects of a project from design to operation, VDC ensures smoother project execution and better outcomes.

VDC vs. BIM

Building Information Modeling (BIM) focuses on creating and managing digital representations of the physical and functional characteristics of places. While BIM is a key component of VDC, VDC extends beyond BIM by integrating all project processes and stakeholders. VDC uses BIM data to enhance collaboration, project management, and overall efficiency, ensuring that all project elements work harmoniously together.

BENEFITS OF VDC

Enhanced Collaboration and Communication:

VDC fosters a collaborative environment where architects, engineers, contractors, and clients can work together seamlessly. The use of digital models allows for real-time sharing of information, ensuring that everyone is on the same page and reducing the likelihood of miscommunication.

Improved Accuracy and Efficiency:

With VDC, detailed 3D models and simulations enable precise planning and design. This reduces errors and rework, leading to significant time and cost savings. Additionally, the ability to visualize the project in a virtual environment helps in making informed decisions and fine-tuning the design before construction begins.

Risk Mitigation:

By identifying potential issues and clashes in the virtual model, VDC allows for proactive problem-solving. This early detection and resolution of problems minimize delays and disruptions during the construction phase, ensuring a smoother and more efficient project delivery.

Sustainability and Resource Management:

VDC supports sustainable construction practices by optimizing material usage and reducing waste. The ability to simulate different scenarios helps in choosing the most efficient and environmentally friendly options, aligning with the commitment to sustainability.

Lifecycle Management:

VDC is not limited to the design and construction phases. It extends to the operational phase of the building, providing valuable data for facility management and maintenance. This holistic approach ensures that the building performs optimally throughout its lifecycle.



HOW VDC ADDRESSES CONSTRUCTION'S BIGGEST CHALLENGES

Complexity Management: Construction projects are inherently complex, involving numerous stakeholders, detailed plans, and tight schedules. VDC helps manage this complexity by providing a centralized, digital platform where all aspects of the project can be visualized and coordinated.

Cost Efficiency: By identifying potential problems and conflicts early in the design phase, VDC reduces the likelihood of costly rework and delays. This proactive problem-solving approach translates into significant cost savings over the course of the project.

Improved Accuracy: Traditional construction methods often rely on 2D drawings, which can lead to misinterpretations and errors. VDC's 3D models provide a more accurate and detailed representation of the project, minimizing errors and ensuring that the final construction matches the design intent.

Enhanced Collaboration: VDC fosters a collaborative environment where architects, engineers, contractors, and clients can work together seamlessly. This collaborative approach ensures that all parties are aligned and working towards the same goals, reducing misunderstandings and enhancing overall project cohesion.

Sustainability: With growing emphasis on sustainable construction practices, VDC plays a critical role in optimizing material usage, reducing waste, and improving energy efficiency. By simulating different scenarios, VDC helps choose the most sustainable options, contributing to environmentally friendly construction.

Risk Mitigation: By allowing for detailed simulations and clash detection, VDC helps identify potential risks and issues before they arise on-site. This early detection minimizes disruptions and ensures a smoother construction process, enhancing overall project safety and reliability.

REQUIREMENTS FOR IMPLEMENTING VDC

Technology Infrastructure: Invest in BIM software (e.g. Autodesk Revit) and high-performance hardware. Utilize cloud solutions for real-time collaboration and data storage.

Skilled Personnel: Train staff in VDC tools and hire or develop VDC specialists. Foster interdisciplinary teams for effective collaboration.

Organizational Change: Integrate VDC processes into standard workflows. Promote a culture of collaboration and open communication.

Data Management: Establish data standards and ensure robust security measures to protect sensitive information.

Financial Investment: Allocate budget for initial set up, including technology and training, and ongoing maintenance costs.

Virtual Design and Construction (VDC) represents a significant advancement in the construction industry, offering a comprehensive approach to project management that enhances accuracy, efficiency, and collaboration. By integrating advanced technologies and fostering a culture of cooperation among stakeholders, VDC addresses many of the industry's biggest challenges and sets the stage for more innovative, sustainable, and successful projects.

As companies continue to adopt and refine VDC practices, the benefits will become even more pronounced, leading to higher-quality constructions delivered on time and within budget. Embracing VDC is not just about keeping up with technological trends; it's about fundamentally transforming how we build and manage the built environment, ensuring that the future of construction is bright, efficient, and resilient.

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WISSAM KADDAH
Business Development,
Pre-Sales & Marketing
Director

BELIEVE ACHIEVE

As we embrace the opportunities of another vibrant month, I wanted to take a moment to share some reflections on our journey so far and look ahead with renewed vigor and optimism.

Each of you has contributed significantly to our collective achievements. The challenges we have faced have tested our resilience, yet we have emerged stronger. Your dedication and hard work have been cornerstone of our success, and I commend you for your relentless efforts.

While it's natural to have moments of frustration, especially when expectations are high, I urge you to focus on the progress we have made. Let's embrace the mindset of seeing the cup as half full, recognizing that each day brings new opportunities for growth and improvement.

This is also a time to reflect on personal growth. How can we better ourselves, not just as professionals but as individuals? Continuous learning and self-improvement are key to staying ahead in a rapidly evolving industry. I encourage you to seek out new skills, take on challenging projects, and push the boundaries of what you think is possible. Believe in your potential and the power you have to shape your future.

Remember, our journey is a marathon, not a sprint. Every step forward, no matter how small, is a step towards achieving our larger goals. Let's support each other, celebrate our successes, and learn from our setbacks.

Together, we can create a future where every team member feels values, motivated, and empowered. Thank you for your unwavering commitment and for being an integral part of our journey.



COSHH SAFETY CAMPAIGN AT KAFD

This month, our team at King Abdullah Financial District (KAFD) participated in a COSHH (Control of Substances Hazardous to Health) safety campaign. The training focused on educating our employees about the safe handling and storage of hazardous substances. Through interactive workshops and hands-on training, our team enhanced their knowledge and commitment to maintaining a safe work environment.









HEAT STRESS CAMPAIGN

AT SHURA ISLAND PO6 PROJECT





Our team at Shura Island P06 project recently implemented a comprehensive heat stress campaign to ensure the well-being of our team during the hot summer months. The campaign included several key initiatives:















- Heat Stress Awareness Meeting: Informative sessions to educate employees on the dangers of heat stress and prevention methods.
- Multi-Language Heat Stress Signages: Clear, accessible signage in multiple languages to ensure all team members understand guidelines.
- Heat Stress Awareness Flag System: A visual system to communicate the current heat stress risk level to the entire site.
- Heat Stress Drill: Practical exercises to prepare the team for potential heat stress incidents.
- Provision of Water Coolers and Fans: Ensuring easy access to cool water and ventilation to keep employees hydrated and cool.
- First Aider Training: Training sessions to equip selected team members with the skills to provide first aid in case of heat stress.
- Daily Health Screening: Regular health checks to monitor employees for early signs of heat stress.
- Daily Weather Temperature Checking: Constant monitoring of weather conditions to adjusts work practices as needed.

We are committed to the health and safety of our team and proud of their proactive participation in this campaign.



NEW MURABBA STADIUM A VISIONARY EPICENTER FOR SPORTS AND ENTERTAINMENT



New Murabba Development Company unveiled the design of New Murabba Stadium, an architectural marvel with a capacity of 45,000. The stadium will be a central pillar of "New Murabba" that transformative downtown destination in Riyadh.

Inspired by the layered overlapping planes and peeling planar texture of the native Acacia tree, the New Murabba Stadium's design is a testament to the fusion of tradition and innovation that defines New Murabba. The stadium will feature cutting-edge sporting technology, creating an immersive and personalized fan experience.

With completion anticipated by the end of 2032. This venue promises to become a symbol of Riyadh's transformation, attracting tourists, fostering community spirit, and solidifying Saudi Arabia's position as a leader in sports and entertainment.





Faces of First Fix:

Meet Gouse Pasha

This month, we are highlighting Engineer Gouse Pasha, a Senior Quality Assurance Engineer at First Fix. Gouse joined First Fix in November 2018 and is currently working on several projects at King Khalid International Airport (KKIA) including the Cargo Expansion project, Rehabilitation of the Irrigation Network, Rectification of two sewage lines (Terminal 4 Airside Fate 405 and 407), Transfer Areas T3 & T4, Arrival Area in A3 & A4, and Duty-Free areas at TR3 & TR4.

Can you describe your role at First Fix and what a typical day looks like for you?

I am a Senior Quality Assurance Engineer at First Fix. In my role, I prepare project deliverables to commence projects by writing QA/QC plans, method statements, inspection test plans, and all quality-related documents and reports for the projects. My responsibilities include performing internal and external audits, issuing internal NCRs, corrective action reports, and quality surveillance reports. I also follow up on activities from the quality control, planning, technical, and commercial teams.

Communication and collaboration are crucial aspects of my job. I coordinate with consultants, suppliers, subcontractors, clients, and First Fix management. I participate in client/contractor meetings to discuss and resolve QA/QC issues. Maintaining comprehensive QA/QC records is essential as they provide a clear status of the projects, helping us identify areas of concern and progress. This enables us to analyze problems, make informed decisions, avoid delays, and ensure timely project completion. Our goal is to meet client requirements, achieve customer satisfaction, and secure company benefits, leading to successful project handovers and future opportunities.





What has been one of your favorite moments or experiences since joining First Fix?

One of the most fulfilling professional experiences was leading the KKIA - WP 10 project as a Senior QA Engineer. The remarkable teamwork and dedication demonstrated of the QA/QC Department were instrumental in our ability to efficiently tackle the challenges we faced. We delivered on time, meeting all quality and project requirements, and received appreciation from both the consultant and the client.

Outside of work, what are some of your hobbies and interests?

Outside of work, I enjoy reading books and stories, traveling, and meeting people who share similar interest and vibes







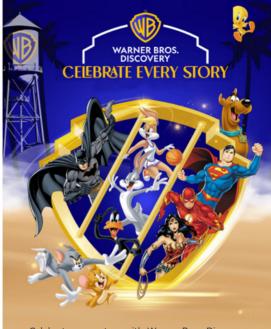
Detoxing can help cleanse your body of toxins, improve your overall health, and boost your energy levels. Here are some key benefits of detox:



DETOXING RECIPES:

- Lemon and Ginger Detox Water: Add slices lemon and a small piece of ginger to 1-2 liters of water and drink throughout the day.
- Green Smoothie: Blend 1 cup of spinach, 1 cup kale, 1 green apple, fresh squeezed lemon with water and enjoy as a healthy snack.
- Herbal Teas: Drink 1-2 cups daily of green tea or peppermint tea to aid in digestion and detoxification.
- Fruit-Infused Water: Add any combination of sliced fruits and herbs (e.g. strawberries
 and mint, orange and blueberries) to a pitcher of water and let it sit for a few hours
 before drinking throughout the day.
- Detox Salad: Toss some mixed greens (kale, spinach, arugula), cucumber, avocado and chia seeds and drizzle with lemon juice, olive oil, salt and pepper.

If you are interested in a more structured detox program, consider checking out Cleanse and Glow, a place dedicated to providing comprehensive detox plans tailored to your needs. Remember to consult with a healthcare professional before starting any detox regimen. Stay healthy and energized!



Celebrate every story with Warner Bros. Discovery this Jeddah Season! A one-of-a-kind celebration connecting all of your favorite Warner Bros. Discovery brands and characters together under one roof! Join us from 28 June to 16 August at Jeddah Season to share unforgettable moments and immerse yourself into this unique event and discover a variety of fascinating worlds!

YOU CAN BUY
YOUR TICKET HERE



An awesome journey awaits you through new worlds in the "Museum of Illusions", an incredible adventure on the planet Alphatar in the "Fairy Tale Forest Museum", and an opportunity to experience the seven senses in the "Museum of Feelings". 3D images of memories can come to life! Hand-painted by the best artists in the world.

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