



## PROJECT PROFILE

**Application/Building Type:** Auditorium & Training Center, Educational Facility

**Name:** Jubail Industrial College Support Facilities

**Location:** Jubail, Eastern Province, Kingdom of Saudi Arabia

**Contractor:** APTC Contracting Co. Ltd.

**Featured Products:** USGBoral Sheetrock

All-Purpose Joint Compound

USG Drywall Ceiling

**“USGBoral’s Dome design fulfilled our requirements and we are happy to deal with USG Boral team. USGBoral team gave the right solution and helped us overcome the obstacles we were facing.”**

Walid Sidki,  
Project Manager  
APTC Contracting Co. Ltd

### GREAT DOMES DEMAND THE HIGHEST STANDARDS.

Royal Commission for Jubail & Yanbu is constructing some supporting building at Jubail Industrial College in Jubail, Eastern Province, Kingdom of Saudi Arabia. The scope of work includes: Auditorium & Training center, Mosque, Commercial units (7 nos.), Guard house.....

USG Boral’s team has designed and supplied the material required for the installation of a 25 m or 81.4 feet diameter gypsum Dome with its steel suspension system and a finished surface area of around 540 m<sup>2</sup> or 5800 ft<sup>2</sup> in the Auditorium and training center of the project’s support facilities.

Complicated projects are not new to USGBoral, which has supplied products to many prestigious projects in the world and GCC such as Kingdom Tower, KAPSARC, BURJ Khalifa, Cleveland Clinic.....

### Pre-Engineered Drywall Suspension System Simplifies Ceiling Installation: Reduces Labor and Material Costs

Two-thirds of all drywall ceilings are framed with conventional ceiling framing systems consisting primarily of carrying channel and hat channel connected with tie wire and suspended with hanger wire. Before seeking USGBoral’s assistance, the contractor had two options. The first option was using the conventional ceiling framing system which was very labor intensive and very slow progress. The second option was fabricating the Dome’s suspension system at a workshop and then bringing the skeleton to install it on site. This approach was very labor intensive, considering the Dome diameter was about 25 m. with 2865 linear meter or 9400

linear feet of framing members. The end result for both options would be completely dependent on the accuracy and knowledge of the labors. Moreover, the Project Manager from APTC Contracting Co. Ltd mentioned that the fabrication of the Dome suspension system in the workshop would have gave an ugly result on site when installed.

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Project Manager  
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### **A Pre-Engineered, Customized Solution**

The USG drywall suspension system offered a precise and efficient solution. The USG drywall suspension system is a pre-engineered system that allows contractors to create unique, curved, domed and conventional flat drywall ceilings without cutting or curving support structures in the field. Since it is easy to install, a lower-skilled workforce were required to install it, while still achieving a high-quality finish.

The hanging system was composed mainly of wire hangers, however threaded rods were custom made and installed as well to give the structure more rigidity and stability in order to achieve structural integrity. Hangers were anchored to the top concrete dome structure with special accessories. The installed hangers carried the curved main tees and other parts of the dome.

USG Boral Sheetrock® All Purpose Joint Compound was used to finish the joints of the installed wallboard.

### **Solution Values**

- Installation guideline provided a great tool for on-site training for installation crews
- Quality finish by using USG Boral Sheetrock® All Purpose Joint Compound
- Lighter-weight solution
- Design, engineering and commercial support provided to the contractor over a period of 1 yr
- Pre-engineered factory-curved solution significantly reduced field labor

The resulting feature is one of the largest domes created using a drywall suspension system and USG Boral Sheetrock® All Purpose Joint Compound in the country. The resulting feature will hopefully impress thousands of visitors.

