

ST. ANDREW'S UNITED METHODIST CHURCH

PLANO, TEXAS



YEAR COMPLETED:
2017

OWNER:
St. Andrew United Methodist Church

ARCHITECT:
GFF

CONSTRUCTOR:
Balfour Beatty

RLG SERVICES:
Structural Engineering

PROJECT DESCRIPTION /SCOPE:

RLG Consulting Engineers, in partnership with GFF and Balfour Beatty, provided structural engineering services for St. Andrew United Methodist Church's renovated sanctuary. In the fall of 2016, the church held a town hall meeting to announce that attendance was spiking, and with growth projections of Plano and Collin County areas continuing to rise, the church needed to expand to meet the growing needs of the community. As a result, the church launched a capital campaign to fund a 30-year master plan that would help accommodate the congregation's growth. The master plan reflects the church's ongoing ministry strategy, centered on four areas of church life: worship, connect, serve, and give.

Worship, the focus of the first phase of the master plan, is a \$6.5 million renovation of the church's sanctuary, which has a capacity of 1,500. The existing sanctuary was originally built in 2001 but required renovations to keep up with the growing population of Plano. The renovated and adaptable sanctuary has the capability to transition between traditional and contemporary styles of worship..

Renovations in the sanctuary include new lighting, video, and sound systems, with two new 12' by 20' HD LED side screens; a new 21' by 39' LED center screen that drops down in front of the choir loft as the backdrop for the band for contemporary services; four new projectors in the ceiling, adding environmental projection; and an updated video production room. To improve tone and quality, the audio system has been upgraded to a line array system with subwoofers and acoustic treatment has been added to reduce hard surfaces in the room. Multiple overhead lighting fixtures have also been changed to LED fixtures allowing less energy to power, producing less heat, and giving the option of color changes. New moving lights on the stage and ceiling will provide a new visual experience.

RLG's team of structural engineers provided engineering services for the sanctuary's interior renovations, which included new steel framing in the existing steel building in order to accommodate the LED main screen, LED side screen, lighting truss, speakers, and other miscellaneous items needed to support the new stage modifications. In order to overcome any challenges associated with working with the existing building, RLG conducted multiple site visits to determine the best solution for the owner, architect, and steel erector. RLG developed an appropriate path for steel to be brought in safely and was able to detail beam splices to reduce length of certain beams.