Steel Framing Alliance™

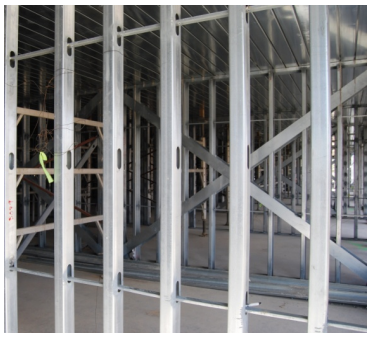
steel success stories

Park 4200
Dallas, TX

Cold-formed steel framing used for structural members in 9 story mid-rise condo/parking structure

Projects costs $4.22/SF less than concrete

Project completed 3 months sooner than using concrete, 16% off original construction schedule

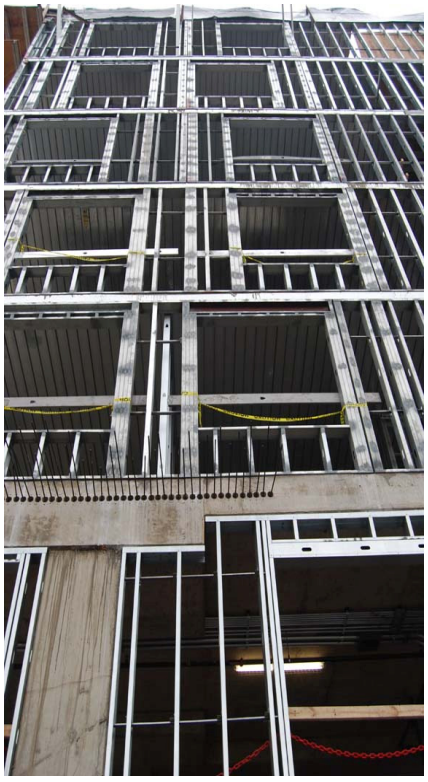


Park 4200 is a six story apartment project built over a three story parking garage. Located in Dallas, Park 4200 has over 99,000 square feet of interior floor space. The parking stories are built of reinforced concrete that would have traditionally been the choice for the entire building in the past. However, the general contractor, Galaxy Builders, Ltd. of San Antonio, realized that in this competitive economy, every dollar counts. Standing pat on traditional approaches was not an option. Especially when an option as attractive as cold-formed steel, traditionally relegated to non-bearing partition walls, emerged to offer significant benefits.

It is well known that cold-formed steel, or CFS, dominates the market for curtain walls and partitions in commercial construction due to its light weight, high strength, non-combustible nature, and ease of installation. What is becoming known more and more in the past few years is that these and other benefits make CFS an excellent and cost competitive choice for structural applications on buildings as high as 9 stories. Park 4200 is one shining example.

CFS Use At Park 4200

Building codes limit the use of combustible wood framing to four stories or less. As an alternative to more costly heavy construction, Galaxy Builders teamed up with NUCONSTEEL of Denton, Texas, and the structural engineering firm of AG&E Associates of Addison, Texas, to design Park 4200 using light weight, cold-formed steel for the majority of the structure. The first three stories are traditional cast-in place concrete, used primarily for parking. The next six are built using CFS.



Project completed in 2009

The frame of the building was constructed by NUCONSTEEL using a state-of-the-art roll-forming system where the walls are framed offsite as panels. The panels are shipped to the site and installed, negating the need for space to build and store the materials on site. The floor system is comprised of a CFS pan system with a reinforced concrete overlay.

After construction of the structural frame was completed, traditional interior steel stud partition walls were installed to complete the framing for the individual units.

Cost Versus Competition

Galaxy Builders was impressed with the potential of CFS framing for a number of reasons, although none may be more important than the dollar savings they realized. Comparing their costs of an all concrete building to the building as finished using six stories of CFS, Galaxy Builders was able to save $4.20 per square foot. This amounts to over $400,000 for this 99,000 square foot building. According to Galaxy Builders, there were additional significant savings beyond the hard cost of construction due to shorter cycle time associated with the CFS framing.

Construction Cycle Time

Park 4200 was completed in three months less time using CFS framing compared to the schedule for an all concrete structural frame. This is equivalent to a 16% reduction in time to construct the building. According to Ryan Penlerick of Galaxy Builders, “by reducing the time for construction of the project, the owner can reduce the interest on their loan and they can begin to realize the revenue from the operations of the project. Additionally, shorter construction time will reduce the hard costs of the project by reducing the General Contractor’s project overhead or general conditions.”

Penlerick estimated the general conditions for a project of this size will typically be in the range of 8-12 percent of the total project costs. The time savings Galaxy realized in a project of this size will result in savings in the “hundreds of thousands.”

Further Information And Project Participants

- Project Owner, Throckmorton, L.P. 12750 Merit Drive # 1175, Dallas, TX 75251
- Project Architect, WDG Architecture Dallas, PLLC, 325 N. Saint Paul, Suite 3800, Dallas, TX 75201, Phone: (214) 969-5311
- Project Engineer of Record, AG & E Associated, P.L.L.C., 16901 N. Dallas Pkwy. Suite 214, Addison, TX 75001, Phone: (214) 520-7202
- General Contractor, Galaxy Builders, Ltd., 4729 College Park, San Antonio, TX 78249, Phone: (210) 493-0550
- Steel framing manufacturer/installer, NUCONSTEEL, 525 South Locust, Denton TX 76201, Ph: (940) 891-3050