We are quickly approaching most kids’ second favorite holiday – Halloween. Aside from the scary costumes, pumpkin carving, house decorating, cider drinking, and of course, the mountains of candy, there is a visible change that occurs at this time of the year. As the leaves begin their transformation from shades of green to their varied pallet of vibrant colors and the days grow shorter, we are once again reminded that our surroundings are in a state of flux. The differences we observe are not just in the changing seasons however, but also in the approach that the precast concrete industry has undertaken to dynamically improve the ways and means of building our nation’s multi-family homes.

Innovation in the construction field can sometimes be best defined by not a “revolution of ideas”, but rather an adaptation of principles and concepts that have worked before in other types of systems and now are tweaked, adjusted to fit, and then combined in an advanced methodology of building. Utilizing a total precast systems approach to economically build a high quality, life safe, and energy-efficient structure has become more popular than ever, as the advancements in precast systems continue to outpace other building materials. But there are many great ideas to be gleaned from practical observance of form and functionality of the whole construction process.

Such is the case with several multi-family housing projects currently under construction in the Chicagoland area. The owners expressed a strong desire to have the quiet and safety of precast concrete floors but really liked the concept of hiding ductwork in ceilings—commonly done with wood-truss flooring. To achieve both, a hybrid was developed, building on the knowledge and practicality of a variety of successful methods and materials while still delivering speed of construction and increased interior clear ceiling height. Specifically, these buildings are utilizing an innovative long-span precast concrete “Single-floor” plank in combination with the usual stalwarts of precast—insulated panels, double tees, beams, and columns.

The new precast floor has a smooth finish on the top surface that does not require a leveling course after the panel is installed. The underside of the Single-floor has a series of steel trusses that easily accommodate mechanical runs, canned lighting, and plumbing openings and eliminates the need for “dropped” ceilings and perimeter soffits that are required with typical concrete flooring systems. This has effectively opened these owners’ eyes to the increasing versatility of precast systems to help them reduce building construction time and ensure a finished product that best suits their needs. In our ever-evolving building industry, this surely is one change for the better.