Kirkwood School Renovations
A large, enthusiastic crowd was gathered at Mike Duffy’s Pub in downtown Kirkwood on Election Day, November 2010. Suddenly the room erupted in spontaneous applause as word came down that Proposition 1 of Kirkwood’s $33.5-million school bond issue had passed. Scott Stream, president of the local board of education, stood up and proclaimed, “Now we can do things we have only dreamed of for years.”

Thanks to voters, the Kirkwood School Board would now be able to offer tuition-free, all-day kindergarten to residents with funding furnished through Proposition 1. New classrooms and kindergarten support facilities would be constructed and enhanced safety and security measures were going to be put into place at district elementary schools, according to their needs.

KEYSOR AND ROBINSON
The renovations and additions for the district’s Keysor (pronounced “Kaiser”) and Robinson Elementary Schools are examples of the range of changes made possible by the vote.

The two schools were originally constructed in 1929 and 1930 from designs by William B. Ittner, who has been described as the most influential man in school architecture in the United States. Ittner designed over 430 schools nationwide with 35 buildings on the National Register of Historic Places. In his plans for Keysor and Robinson, Ittner featured an “I” configuration, a popular school design of the period.

Kirkwood-based Dickinson Hussman Architects was selected as the project architect for the renovations, having earlier created a schools masterplan for the Kirkwood Board of Education. According to the architectural firm’s project plan, both Keysor and Robinson would receive new two-story academic wings containing classrooms, student lavatories, and gymnasiums as well as cafeteria and kitchen facilities. The schools’ former gyms, which were added in the 1950s, would be converted into library media centers. In keeping with today’s emphasis on security in modern school construction, the plan featured measures that would increase the safety of students, teachers and staff through the creation of new centrally located main entryways on the front façade of each school. These would both enhance school security as well as provide a more visually impactful appearance than the original small entries located off to one side of each school’s front elevation. To further enhance school security, the architect’s plan also included moving the administrative offices to the front of each building, in effect creating a more effective control point by giving administrators a clear view of approaching visitors.

In keeping with the existing Ittner-designed buildings, the walls of the additions would feature load-bearing CMU with brick and limestone facades replicating the original brick masonry in terms of patterns, color, proportions and design details.

SECURE ENTRYWAYS
“The (existing) door surround and entablature on the old entryways were really the beginning of the detailing of the new vestibules,” said Dickinson Hussman architect Bob Buckman, who designed the new entryways for Keysor and Robinson.

ONE OF THE MAIN CHALLENGES OF THE RENOVATIONS WAS TO REPLACE THE ORIGINAL MAIN ENTRIES LIKE THIS ONE AT KEYSOR ELEMENTARY WITH MORE SECURE, CENTRALLY LOCATED ENTRANCES.
Buckman called for Indiana Limestone for the new entryways, the closest match he could find for the Missouri Limestone of the existing entries. He chose a white Lannon stone from Wisconsin to match the original rubble base.

The classic detailing on the new Robinson entry vestibule includes twin Doric colonnades while the unique font carved above the original entry is meticulously replicated in the new construction. The proportions of the new entryways had to be calibrated very carefully to closely approximate the proportions of existing details on the front façades.

**BRICK MATCHING**

Since every school building offers a unique brick palette, matching the existing materials is critical to success and often relies on the expertise of the masonry suppliers involved. “Don Marquess (Missouri Brick) and Gregg Roby (Kirchner Block & Brick) bent over backwards to help match the brick,” said Don Hussman, principal of the design firm. As a result of their efforts “you can stand (in front of adjoining walls) and you can’t tell the difference (between the new and the existing materials).”

**MEETING GOALS OF BUDGET AND SCHEDULING**

For Chris Hastings, project director for ICS Construction Services, Keysor and Robinson were large masonry jobs requiring “a lot of manpower” and expertise, a daunting challenge further exacerbated by a winter schedule. “Smith Masonry (John J. Smith Masonry Co.) manned (the construction) well to get it up and out of the ground,” said Hastings. “Their foremen and supervisors were very knowledgeable. It was a real team effort with the masons, Bricklayers’ Union Local #1 of Missouri, the steel guys and (ICS) to get this thing to come together as well as it did.”

John Smith, Jr., president of the masonry firm that is now one of the nation’s largest, was clearly impressed by the general contractor’s approach. “Both (ICS) site superintendents were well qualified and did a lot of homework before we started,” Smith said. “They were very familiar with our work and did a great job of coordinating the work on two relatively tight sites as well as coordinating the work around the children who were present since school was in session.”

**SUMMARY**

The finished work on Keysor and Robinson elementary schools has garnered a wide range of public approval, including merit awards from the Kirkwood Landmarks Commission for the quality of the project’s design and construction. District school officials, of course, are pleased that their vision for the renovations has been realized. The board wanted the additions to look seamless with the existing buildings, like they dated back to the 1930s. “They didn’t want them to look modern or to look like additions,” said Hussman. “We get a lot of comments that those entrances look like they’ve always been there. And that’s exactly what we were trying to accomplish!”

Now, more than eighty years after initial construction, Keysor and Robinson are primed for decades more of service. “These are Ittner schools with quality masonry construction,” said Buckman. “As an architect in St. Louis, it’s really an honor to work on solid masonry renovation projects like these that provide so much inspiration in their design and detail. It’s a real testament to masonry that these buildings still exist after all these years.”

**NEW ADDITION ON THE NORTH AND WEST SIDES OF KEYSOR ELEMENTARY. BOTH KEYSOR AND ROBINSON ELEMENTARY SCHOOLS WERE ORIGINALLY DESIGNED BY FAMED ARCHITECT WILLIAM B. ITTNER IN THE LATE 1920s.**

**THE NEW ADDITION AT ROBINSON WAS FUNDED BY A PROPOSITION PASSED IN 2010 ENABLING THE KIRKWOOD SCHOOL DISTRICT TO OFFER TUTION-FREE, ALL-DAY KINDERGARTEN TO RESIDENTS. THE ADDITION INCLUDES NEW CLASSROOMS AND OTHER FACILITIES MAKING THE PROGRAM POSSIBLE.**

**THE NEW ADDITION IS FROM THIS LINE, OVER.**

**NEW GYMNASIUMS WERE ADDED AT BOTH KEYSOR AND ROBINSON SCHOOLS. THE EXTERIOR OF THE ROBINSON ADDITION IS PICTURED HERE.**
It’s easy to imagine a horse drawn coach clattering through the porte cochere of this magnificent 15,000-sq. ft. English Country Manor house in west St. Louis County. It’s just so, well, English.

Four chimneys ranging from 42- to 48-ft. in height decorate the residence. The central chimney was built before the roof was constructed. Then, given the steep pitch of the roof, masons attached plywood boards that enabled them to erect their scaffolding.

The liberal use of stone walls (not a veneer) and arches in the interior creates the stately ambience of a castle.
Built by The Roentz Company and designed by architect Dick Busch, this regal 17-room residence is an embodiment of the Cotswold style, named for a region of England famed for its forests and classical country homes and palaces. With an abundance of honey-colored limestone, an assortment of gables and a steeply pitched roof, this singular home echoes a centuries-old architectural tradition, despite a two-lane, distinctly non-British bowling alley in the basement.
There are tight schedules and then there are REALLY tight schedules. But no matter how challenging the timeline, it’s up to the general contractor to assemble a construction team that can deliver the project competently within even the most demanding schedule.

“Anybody can build these new Menards if they have a year to do it, but the company wants these things done in an 18-22 week time span,” said Ron Rousse, project manager as well as Vice President of Estimating and Major Projects for T.V. John & Son. T.V. John is a Wisconsin-based general and specialty trade contractor that has built a string of Menard superstores, including the St. Peters unit.

When word about the St. Peters project first came down, both Heitkamp Masonry and JDS Masonry were already looking at a backlog of work ready to go. But Jeff Schmidt, president of JDS Masonry, and Mike Heitkamp, president of Heitkamp Masonry, remembered when their companies had teamed up in the past on a very similar project, a large Costco all-block unit with a very tight schedule.

“(Menards) was an almost identical situation,” Schmidt recalled. “(Costco) built a steel skeleton and that way they could get the roof on while the exterior walls were going up.” The more Schmidt and Heitkamp considered partnering again, the more the idea appealed to them. So they put together a joint bid, which turned out to be the winner.

At a time when most big-box retailers are shrinking their footprints, Menards has been going in the opposite direction. Located at 151 Spencer Road, the St. Peters Menards is a relatively huge addition to its category. With more than 200,000-sq. ft. of floor space, including a full-service lumberyard and warehouse, the new superstore — as well as the company’s new store in O’Fallon, Illinois — is almost double the size of a Home Depot and Lowe’s, Menards’ chief competitors.

The challenge for the two masonry companies was clear: Show that masonry can be put up even on tight critical path schedules. Heitkamp’s crew started laying block in one
direction while JDS’s masons headed in the other, each team laying a tan, 12-in. split faced block to construct their share of the single wythe wall. A five-course band of painted smooth face block would provide detailing.

Both mason contractors maintained crews of 12-16 from the Bricklayers’ Union Local #1 of Missouri, laying block so quickly that they ended up actually propelling the construction. “About every fourth day we had to push to get more foundation poured or to ask for the iron workers to get a few more columns up so we could keep going,” said Schmidt. “Whenever they needed us to jump to a different elevation or skip over certain sections to accommodate other trades, we did so with no problems. It’s kind of fun when you’re the driving force on the job and you’re showing what masonry can do.”

But what about all the rain they encountered? “There had been a drought before we started but on our second day on the job it just poured, so the site conditions were pretty tough,” recalled Schmidt. “Menards supplied their own block and with the site conditions so muddy sometimes there would be four to six tractor trailers sitting out in the median of Mid-Rivers Drive and we were responsible for all the blocks coming in. Throughout the project, all the bricklayers and the mason tenders really came through!”

In the end, the masons’ ability to meet schedule and budgetary targets were a source of pride for the general contractor. “(Heitkamp and JDS) more than conquered the challenges we were dealing with,” Rousse concluded.

“With JDS and Heitkamp there were four or five crews at any given time. I would say over a four-five week span — this was a 100 percent masonry building — they had 80 to 90 percent of the masonry complete. Despite 20-26-inches of rain, they more than met the schedule. They did a great job!”

ARCHITECT — MENARDS STORE PLANNING
STRUCTURAL ENGINEER — MENARDS
STORE PLANNING
GENERAL CONTRACTOR — T.V. JOHN & SON
MASON CONTRACTORS — HEITKAMP MASONRY,
JDS MASONRY
BRICK, BLOCK — MENARDS
MORTAR — QUIKRETE/SPEC MIX
MISCELLANEOUS — IRWIN PRODUCTS
Fields Foods, the new downtown grocery, originally was planned to be a tilt-up building. But as we all realize, sometimes plans change. In the case of Fields Foods, as concepts evolved it became evident that tilt-up construction wasn’t going to work. There was an answer of course, we call it “Masonry to the Rescue.”

As long time area dwellers know, downtown St. Louis has been known as a “food desert” for years. Although the city’s downtown residential population has been growing steadily, until recently there was only one area grocery store, the Culinaria at 9th and Olive.

Enter Fields Foods, a $15 million, 37,000-sq. ft. building that also houses a food distribution and processing center. This rare combination allows the operation to focus on bringing in fresh foods from small and mid-size regional farmers, while offering retail shoppers a tantalizing array of seafood, cheese, meat and prepared food, even a wine bar!

Located two miles south of downtown at 1500 Lafayette Ave. in the Peabody Darst Webbe neighborhood, the operation was projecting a staff of 100 full- and part-time workers. The marketing plan for the grocery wing was to attract customers from the growing downtown residential base as well as the store’s nearby neighborhoods. The operation also believed it would be able to pick up traffic from downtown office workers before and after business hours since the store is very close to entrance ramps for Interstates 44 and 55.

But as they say, even the best laid plans have a way of changing. “Originally it wasn’t going to be a full-blown grocery store,” explained Dan Hotop, project manager for general contractor BSI Constructors. “It was going to be more of a distribution area. Then as the basic idea evolved and turned into a grocery store, we priced up several different scenarios with tilt-up. But since they were talking about polished concrete floors and a number of other elements, it was turning into being more suitable for CMU instead of tilt-up.”

As the concept of the project evolved, the architects realized that tilt-up construction wasn’t flexible enough to meet the challenges that kept popping up. For one, tilt-up couldn’t handle all the floor drains. For another, there was the problem of trying to cast the floor slabs with all the necessary underground mechanical electrical stub-ups for the refrigerated cases and the check stands. As if these weren’t crippling enough, the
Construction site was very tight given the building’s planned footprint. This meant there wasn’t sufficient access around the building to set the tilt-up panels from the exterior, so BSI was going to drive a crane onto the floor slabs to set up the panels. But then the building’s floor was switched to polished concrete and plans for driving a crane across the floor surface disappeared and with them the viability of going with tilt-up.

Faced with virtually a whole new ballgame, BSI called Mike Heitkamp, president of Heitkamp Masonry, and asked him to put together a masonry alternative. After analyzing the architectural drawings, Heitkamp created a package consisting of single wythe, load-bearing masonry walls detailed in the area’s vernacular of cast stone quoins, arches and brick veneer. Key to the bid were the single wythe masonry walls, which go up very fast and are known for being highly cost efficient. As a result, Heitkamp’s bid fit well within the project’s budgetary parameters.

While numerous issues had eliminated the tilt-up option, Heitkamp’s union masons (Bricklayers’ Union Local #1 of Missouri) were able to solve the challenges they encountered by utilizing their experience and training. “It was a pretty tight site so we did a couple of walls from the inside,” Heitkamp elaborated. “We erected scaffolding on the inside and built them over the wall. We had to work fast because it’s a masonry load-bearing building and we had to get the masonry up so they could set the steel for the structural roofing.”

Construction of the building got underway in January 2013 and the masonry was completed last fall. The store opened this January and given the success of the construction team and the pace of business, project backers are looking for other sites to expand their concept. Now, thanks to innovations like Fields Foods and cost-efficient masonry construction, it appears that St. Louis’s days as a food desert may finally be coming to an end.
CarMax believes in speed. Twenty years after opening its first store, the Virginia-based car retailer has rocketed to the number one position among used car retailers with 126 stores in 63 markets. Its new St. Peters unit at 4990 North Service Road is yet another story about speed — speed of construction.

Work on the St. Peters store was slated to begin in the spring of 2013, but the area suffered a freakish season of monsoon-like rains. For Corey Noder, Holland Construction Services project manager, the heavy downpours — estimated at more than 25-inches — and the project’s flood plain location combined to create nightmarish working conditions. It took 40,000 cu. yards of trucked-in dirt to raise the pad six feet so work could proceed. Even then, working the site was a struggle.

“I was so wet they just couldn’t keep the soil in there,” recalls Rick Swanson, president of Swanson Masonry, masonry subcontractor on the job. “It would start to dry out and then it would rain again. One night there was about six-inches of rain but we never missed a minute. We kept a Bobcat skid-steer on site for making our own roads in and never shut down one time.”

For Swanson, the rains combined with a tight schedule magnified his company’s challenge. “When the general contractor hired us, they gave us 20 working days to put up this building.” Although the rains delayed the start of the wall construction on the 54,000-sq. ft. structure, the day the footings were dug “we started masonry and continued until it topped out. We actually did the building in 19 days.” CarMax’s preference for load-bearing single wythe masonry proved to be a key to meeting the challenge set for Swanson’s masons.

Single wythe wall can be erected quickly by experienced union masons, which means it fits well in a project’s critical pathway. The one story (24-ft.) building required approx. 62,000 block, 70 percent were load-bearing. The rapid progress of Swanson’s 20-man crew despite the incredibly bad weather conditions amazed the general contractor.

“It really blew us away how fast they were able to go,” said Noder. “The 19 working days weren’t ideal working days either. With the mud and the amount of rain that we had, the access around the building was terrible. I don’t know where I would stop complimenting Swanson’s guys and what they did out in very poor working conditions.” With a strong assist from the speed of the Swanson crew from Bricklayers’ Union Local #1 of Missouri, Holland was able to complete the overall project a week ahead of schedule. “Everyone at Holland was very, very happy with what they had done,” Noder said. “Even CarMax owner’s rep told me, ‘Your mason really made this schedule work for you.’”

With two new stores, there’s also a unit on S. Lindbergh, CarMax is already proving to be a valuable addition to the St. Louis-area community. Although only open a few months, its CarMax Foundation has already provided $10,000 grants to both the Boys & Girls Clubs of Greater St. Louis and Youth in Need.

Community oriented, sold on masonry. CarMax: welcome to St. Louis.
Darrell’s Corner

In this spring issue we celebrate the addition of several new masonry projects to the Greater St. Louis market. CarMax, the nation’s largest retailer of used cars, has debuted two units over the past few months. The biggest story from a masonry perspective concerns the larger St. Peters store where both CarMax and the general contractor, Holland Construction Services, were amazed at how fast Swanson Masonry was able to get the masonry up; a bullet-fast 19 days. Corey Noder, project manager for Holland told us that his firm was “very, very happy with what (Swanson) had done.” CarMax’s site representative was equally impressed, bragging that “your mason contractor really made this schedule work for you.”

Speed was also a highlight of the construction of the new Menards St. Peters Superstore, where Heitkamp Masonry and JDS Masonry partnered to put up the walls of the 200,000-sq. ft. unit. Turns out that the masonry crews were working so fast that they were driving the pace of construction, furnishing further proof that masonry construction can be included on even the tightest critical path schedule. Downtown, at the new St. Louis Field’s Food grocery, Heitkamp Masonry demonstrated some of masonry’s advantages over tilt-up construction by taking on the project after the original plan for tilt-up hit the proverbial wall. While the initial plan called for tilt-up, the combination of a tight site and a grocery format forced a switch to masonry.

Finally, in this issue we spotlight the renovation of two William B. Ittner-designed elementary schools in the Kirkwood School District. Dickinson Hussman Architects Don Hussman and Bob Buckman walk us through the renovation process and the important steps they took to upgrade the security at the two treasured buildings.

While John Smith, Sr. has been a leader in the local and national masonry industries for decades, he has always devoted time and energy to give back to the community. Over time, Smith Masonry has risen to become one of the country’s top specialty contractors thanks in part to Smith’s enduring spirit of service. Congratulations, John, on this well-deserved award.

Following his father’s example of service to the masonry industry, John J. Smith, Jr., president of John J. Smith Masonry Co., has wrapped up his term as chairman of the Masonry Contractors Association of America in ceremonies at the World of Masonry convention held in Las Vegas last January. Prior to his term as the organization’s chair, Smith served the MCAA as Region E Vice President and in other key positions.

In remarks at the convention, Smith summed up his goal of service with MCAA: “I hope that in my years of service, I have made a difference in the masonry industry.” Given John, Jr.’s leadership role in the industry, both locally and nationally, it’s clear that the younger Smith has learned his father’s lessons well. At the Masonry Institute we wish John Jr. continuing success as president of his nationally recognized masonry company.

The St. Louis Mason Contractors Association has announced the election of its governing board for 2014-15: President – Tom McDonnell (George McDonnell and Sons Tuckpointing Co.); Vice President – Rick Swanson (Swanson Masonry); Secretary – John Jahnson (Jahnson Masonry Construction); Treasurer – Martin Heck (Martin Heck Brick Contracting Co.). Elected as to positions as Trustees: Gary Beirith (Beirith Masonry); Dan Dwyer (E.C. Landers Brickwork);

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Darrell’s Corner  CONTINUED FROM PAGE 11

Brad Grant (Grant Contracting Co.); Luke Siebert (Heitkamp Masonry); Brian Smith (John J. Smith Masonry Co.). Arbitration Board members: Rick Frisch, Jr. (Frisch Masonry); Brian Grant (Grant Contracting Co.); Jeff Schmidt (JDS Masonry); John Smith, Jr. (John J. Smith Masonry Co.); Ken Westhoff (Leonard Masonry).

Last year saw the passing of Josh Siedel, co-owner of Caliber Cast Stone, and Jim Koch, co-owner of Allied Waterproofing, two leaders of our local masonry industry. Our condolences go out to their families and friends. They will be missed.

The 16th New Products Forum in February was a success in spite of the snowy weather. I would like to thank our exhibitors/contributors as their generosity is the real driver of our annual event: Caliber Cast Stone, Carter-Waters, Enloe Enterprise, Goedecke, Graymont, Hilti, Hohmann and Barnard, Kirkwood Material Supply, Luna & Associates, Midwest Block & Brick, Midwest Cast Stone, Oldcastle Architectural, Pittsburgh Corning, Quikrete/Spec Mix and Richards Brick. Refreshment sponsors: Mortar Net, Quikrete/Spec Mix and Trenwyth Industries. Thank you all.

Finally, I want to thank all of those who helped plan our programs and events for the 2013-14 year. You’re an essential ingredient to our efforts at the Institute and we need your continuing help to make sure we can provide all the information you need to make your masonry projects successful. There are still a handful of programs left in our seminar series. I hope we’ll be seeing you soon at the Institute...your source for everything masonry.