

Where Schools Are Change Agents

An overhaul within the school system is building a better Detroit.

By Jennifer Zirkle and Rachel Lynn

The startling decline of the city of Detroit — of its manufacturing sector, local economy, and residential population — is now a familiar story. Less known is the recent turnaround engineered by Detroit Public Schools, which began with a 2009 bond initiative — Proposal S, as in "school" — a \$500.5 million public works project intended to rejuvenate the city's school system and start to restore its neighborhoods.

Once the country's fifth largest city, with a population of 1.8 million residents in 1950, Detroit descended into a state of upheaval that would more than halve its population to 713,777 residents 60 years later. Echoing the city's turmoil, Detroit Public Schools, Michigan's largest school district, underwent a drastic upheaval of its own. The school system, which reached peak enrollment in the 1967–68 academic year with 297,000 students, dropped to a mere 94,000 students by 2009.

In the decade leading up to Proposal S, the city's population contracted by a staggering 25 percent, while the school district saw its rolls decline by a corresponding 50 percent, impacted not only by the city's deepening troubles but by growing competition from a burgeoning charter school market as well as suburban school systems. Declining population eroded the tax base that funds operations and capital investments.

Students attended antiquated school buildings aggravated by deferred maintenance. As students fled DPS, the number of available seats began to exceed the student population, resulting in schools that operated at only a fraction of capacity. More than 100 schools — totaling seven million square feet of educational space — have been shuttered since 2000. Enrollment projections at the time of the bond referendum anticipated an overall student population of just 50,000 by 2015 if action was not taken to stop the bleeding.

Turning the tide



Hopeful for change despite historic trends that suggested otherwise, Detroit residents solidly backed Proposal S in the November 2009 bond referendum, with over 60 percent of voters approving the measure for strategic capital investment in the city's schools. In terms of capital investment alone, the \$500.5 million infusion — the largest in the city's schools since the passage of a \$1.3 billion bond in 1994 — was slated to build eight new school buildings, renovate 10 more, and fund improvements to the district's aging security and information technology infrastructure.

Practically, however, the bond helped DPS begin to reshape its school district and combat the related forces of population loss and urban decline. Investment was intended to be swift given a three-year sunset provision attached to the bonds upon their sale, and the impact — on the city, on the schools, on the students — would be immediate.

Proposal S generated bond revenue at no additional cost to Detroit residents and instead extended the term of the existing city millage originally initiated through the previous bond program to fund planned improvements. Federally backed Build America Bonds and Qualified School Construction Bonds, which were established through the Obama administration's federal stimulus program, allowed the district to finance the slated projects.

Half of the program's cost was financed through the Qualified Schools Construction Bonds program with no interest over a 15-year payback period. The remaining pool, financed through the Build America Bonds at zero to two percent interest, offered a federal rebate on taxable interest paid over the 30-year payback period, again reducing the cost of borrowing in order to maximize investment in the city's schools.

Schools as anchors

In coordination with local community development corporations, DPS identified neighborhoods that were targeted for revitalization. District leadership envisioned the impacted bond schools as cornerstones of their respective communities, providing 21st century learning environments to their

students while also serving as assets that could be leveraged for community services and activities. Newly constructed high schools, for instance, would include health clinics that serve students as well as provide services to the surrounding communities.

To choose which schools would receive bond funds, DPS considered several criteria, weighing student population and facility condition against the projected costs of modernization versus new construction. Strategic allocation of bond funding followed a comprehensive review of excess inventory to identify those schools slated for consolidation or closure based on building conditions and demographic data. By maximizing the number of projects that could be funded through the bond, DPS also boosted the number of students who would benefit from learning in a new or renovated school building.

With Proposal S, Detroit voters equipped DPS to tackle problems that had plagued the city for decades. Deteriorated school buildings that operated below capacity, inefficiently siphoning off scarce resources, would close, their student populations consolidated in newly renovated or constructed facilities. In coordination with an overall district-wide closure plan to right-size the district, a total of 11 school buildings were closed through the bond program, giving way to five newly constructed facilities.

Neighborhoods desperate for renewal after years of population loss and attendant decline would receive significant physical investment. And Detroit residents, confronted with the city's stubborn unemployment rate, would benefit from a needed infusion of construction jobs and on-site training opportunities into the sagging local economy.

The budget and schedule parameters of Proposal S challenged DPS not only to maximize bond dollars for project work and leverage funding to make its greatest impact but also to complete the program before the bonds sunset three years after their sale to the public.



Accelerated schedule

To achieve the goals of the bond program and comply with bond terms, DPS implemented an innovative construction delivery method that would control project costs and meet schedule constraints while maximizing project funding.

With a typical design-build contract, an owner expedites a project by contracting with a single entity for both design and construction of a facility, but the method employed by DPS further accelerated the project delivery. Using project-specific bridging documents detailed to an enhanced schematic level, DPS targeted a guaranteed maximum price by conveying intent of building design; spatial layout; and mechanical, electrical, and plumbing systems. This approach also condensed the design schedule and thereby the project schedule as well.

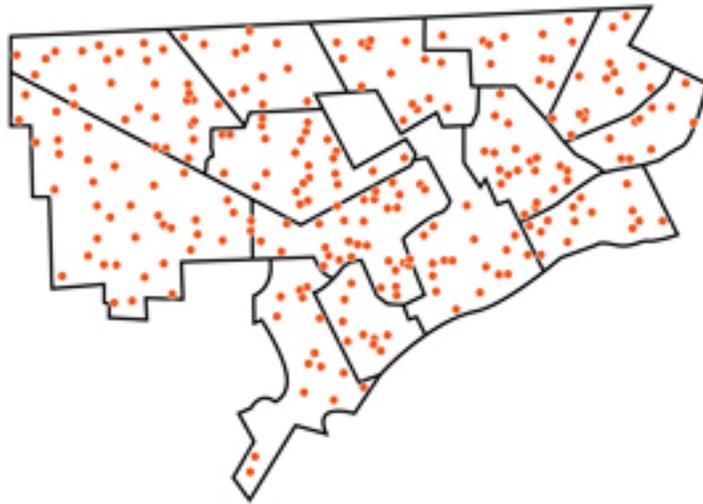
The \$51.6 million Martin Luther King Jr. Senior High School, one of the new construction projects first delivered through the program, was designed and built in just over 14 months, a process that would typically take 24 to 30 months through design-build delivery and 36 months using traditional design-bid-build delivery. The 245,000-square-foot facility, designed to accommodate 1,500 students, features four academic wings, an athletic wing that includes a gymnasium and natatorium, a community clinic, student commons, and an amphitheater.

The new high school is currently seeking LEED certification with a goal of achieving Gold status. All new construction projects within the program were mandated to achieve a minimum LEED Silver level of certification from the U.S. Green Building Council, although select design-build teams opted to exceed that goal.

How did DPS implement a half-billion-dollar program within three years? In part, it employed a third-party program manager to augment existing staff. Three firms were invited, and Detroit-based

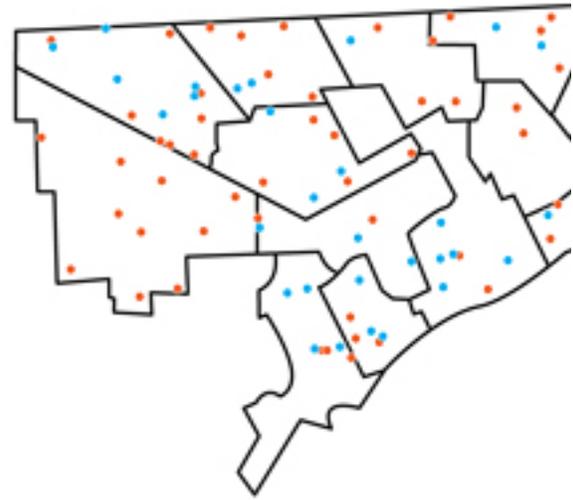
Walbridge Joint Venture became the program manager. Walbridge brought more than 30 staffers to the project, managed the implementation of the bond program, and oversaw each phase of the program: procurement, design, construction, and close-out.

UNIVERSITY OF MICHIGAN



Schools 2000

- Early childhood, adult education, alternative education, elementary school, elementary/Middle School, Special Education, Career/Technical
- High school zones



Schools 2012

- New and renovated facilities
- Early childhood, adult education, alternative education, elementary school, elementary/Middle School, Special Education, Career/Technical
- High school zones

Outcomes

To improve neighborhoods, DPS strategically implemented the bond program projects to stem population loss and retain students, allocating over 90 percent of bond dollars to project costs by holding administrative costs to a minimum. By improving 2.4 million square feet of facilities while pulling 11 inefficient and deteriorated schools offline, thus placing 19,300 students in new or renovated learning environments, DPS's facility inventory is now stronger than it has been in years. The buildings that were left behind were sold or leased to external entities, demolished, or remain vacant today.

Finally, Proposal S put Detroiters to work, with more than 10,000 new jobs created directly or indirectly by bond program projects. It also provided an additional 350 internships for DPS students, and enhanced job skills and training among Detroit workers that will carry forward.

As with any development project, some stakeholders resisted. Parents, faced with transitioning their children to new school buildings, teachers, and classmates, expressed concerns ranging from shifting bus routes to the details of school operations. Community members voiced reservations about the implications of the new schools on their neighborhoods, namely management of construction noise and debris as well as new vehicular and foot traffic surrounding the schools.

In response, representatives from DPS and the program management team met regularly with these stakeholder groups throughout the course of the bond program to field questions and provide answers. The aim was to quell concerns and prepare the school communities for the changes ahead.

Specific neighborhoods benefited as well. Southwest Detroit, an engaged, mostly Hispanic community, received a \$31.6 million renovation as well as a new \$24 million Amelia Earhart Elementary Middle School, which consolidated two of the neighborhood's schools. Henry Ford High School, whose curriculum emphasizes sustainable design and technology, received a \$19.7 million renovation that encouraged hands-on learning by students who helped to build a courtyard featuring photovoltaic panels, vertical wind turbines, a bioswale, and pervious pavement.

Signs of Detroit's recovery are emerging slowly but surely. By improving the learning environment for thousands of students, providing additional job opportunities, and serving as a catalyst for

change, the investment in Detroit Public Schools, its students, and the residents of Detroit through Proposal S has contributed greatly to the momentum of Detroit's recovery.

Despite the staggering population loss reported in the 2010 census, the number of college-educated residents under the age of 35 now living in the downtown area has increased by 59 percent since 2000. Major companies are moving operations to downtown Detroit: Quicken Loans, DTE Energy, and Blue Cross Blue Shield of Michigan, to name a few. And in July 2012, Detroit saw a one percent increase in home values, the largest one-year increase among 20 major cities. With these positive changes and many more to come, Detroit's comeback is on the horizon.

Jennifer Zirkle and Rachel Lynn are project managers at Brailsford & Dunlavey, a national program management firm. As members of the program management joint venture that implemented the DPS Bond Program, they oversaw the implementation of \$280 million in project costs across new construction, renovation, and demolition projects.

Resources

Images: Top — Students at the new Amelia Earhart Elementary. Bottom — The \$51.6 million Martin Luther King Jr. High School was designed and built in 14 months. Photos courtesy Detroit Public Schools, www.detroitk12.org.