

2018 CONCRETE AWARDS



CONCRETE BUILDING MICHIGAN

FEBRUARY 22, 2018
THE INN AT ST. JOHNS
PLYMOUTH, MI

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DIVIDED HIGHWAYS

**Winner: I-75 and Square Lake Road Interchange
Design-Build Reconstruction, Coolidge Road to South
Boulevard, Oakland County**

**OWNER:
MDOT
OAKLAND TSC**

Paving Contractor: Ajax Paving Industries

Testing Company: TTL Associates

Engineers: AECOM, Bergmann Associates

Owner: MDOT – Oakland TSC

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After nearly 20 years of planning, Segment 1 of the I-75 Corridor Modernization was bid in June 2016 as a Design-Build, Alternate Bid project. MDOT short-listed three bidders for the project, and of those short-listed, all three utilized concrete pavement. Asphalt was only used as a temporary pavement.

The successful team of Ajax Paving, Dan's Excavating, AECOM, and Bergmann Associates along with a host of subcontractors were handed the task to design, realign, and reconstruct I-75 mainline and ramps including a future High Occupancy Vehicle lane and replacing bridge structures at Square Lake, Adams and Squirrel Roads.

This stretch of I-75 through Oakland County has an average daily traffic count of 116,500 vehicles. Because of this heavy daily traffic, MDOT assessed a user delay cost of \$100,000 per calendar day of contract time. Through an aggressive schedule and total commitment by all parties involved, the project was completed 20 days ahead of schedule and in time for the Labor Day holiday weekend. This project has set the bar high for the next two segments of the I-75 Modernization.

In total, Ajax crews installed over 340,000 square yards of 10-inch concrete pavement, produced over 104,000 cubic yards of concrete, achieved 4.4% out of a possible 5% PWL incentive, and supplied MDOT and the motoring public a long-lasting pavement with superior ride quality.



ARTERIALS - LARGE URBAN

Winner: M-1 Woodward Avenue Rail and Pavement,
Larned St. to Chandler St., Detroit

OWNER:
MDOT
METRO REGION

Paving Contractor: Angelo lafrate Construction Co.

Concrete Supplier: McCoig Materials

General Manager: Stacy and Witbeck, Inc.

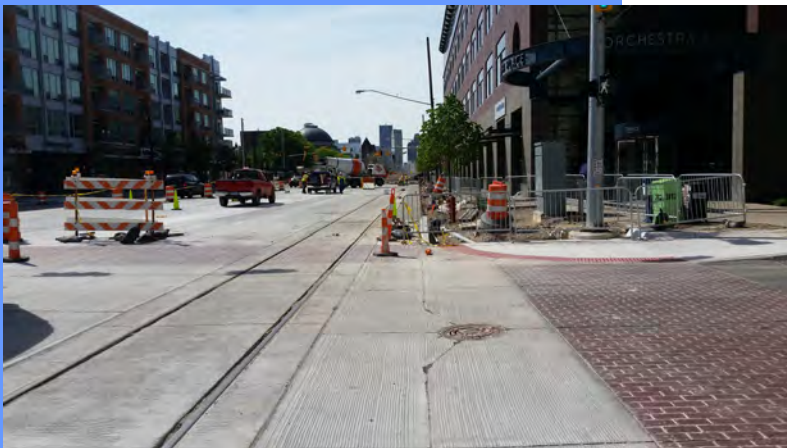
Owner: MDOT – Metro Region

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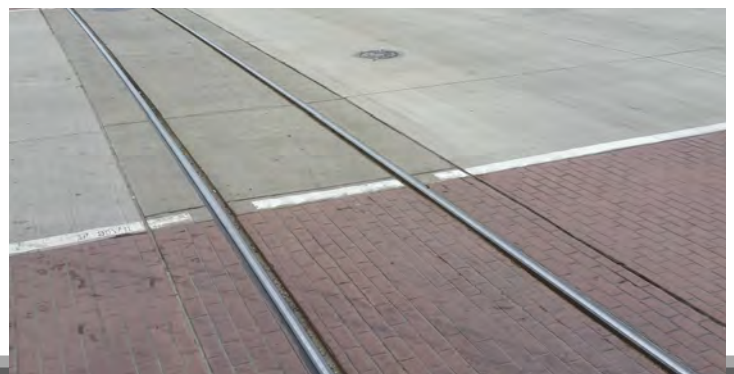
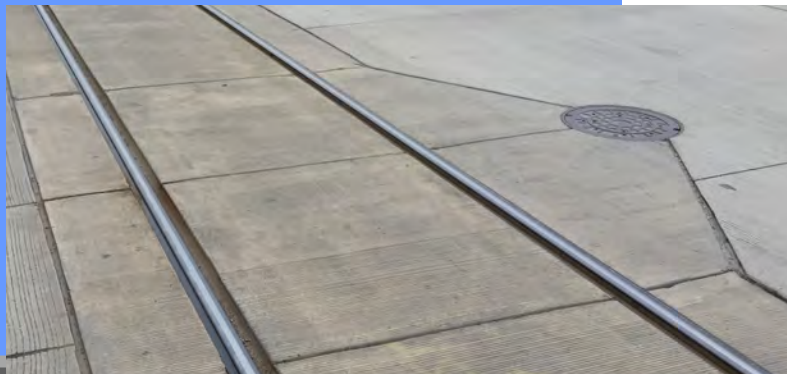


The three-year-long reconstruction of M-1 (Woodward Ave.) included the construction of Michigan's first ever light rail system, now called the Q-Line, which connects downtown Detroit with the growing Midtown area for a total of 3.3 miles. This project helped revitalize the Woodward corridor by bringing in new businesses and providing an enhanced public transportation system which is critical to Detroit's future growth and success.

The reconstruction of the road had to deal with thousands of utility and underground structure conflicts, including old streetcar lines, gas lines, watermain, sanitary sewer, storm sewer, communications lines, and more. The concrete paving of the road was unlike any other typical reconstruction project in that lafrate had to pave adjacent to the light rail track being constructed in 540-foot sections at a time. Numerous gaps for drive-ways and intersections were required, as well as steel plates on top of the rails to maintain access to businesses along the route.



lafrate paved most of the 118,000 square yards of high performance concrete pavement with roller screeds, including cold weather concreting during the winter of 2016 using ground heaters and blankets. McCoig supplied over 35,000 cubic yards of pavement concrete on the project, which is already promoting a rebirth of the Midtown corridor and Detroit along with it.



ARTERIALS - SMALL URBAN

Winner: Lahser Road, Civic Center Drive to 11 Mile Road, Southfield

OWNER:
***ROAD COMMISSION
OF OAKLAND COUNTY***

Paving Contractor: Florence Cement Co.
Concrete Suppliers: Florence Cement, McCoig Materials
Design Engineer: AECOM
Owner: Road Commission for Oakland County
Sponsor: City of Southfield

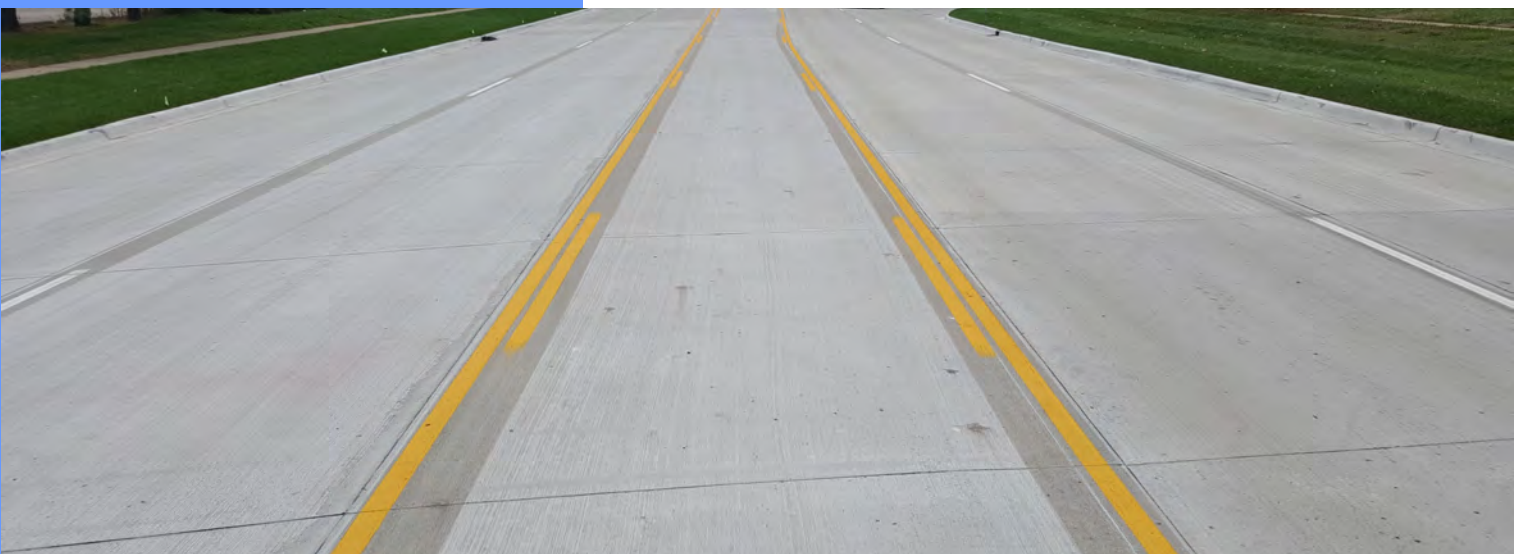
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Construction on this stretch of Lahser Road in the City of Southfield started July 26, 2017 with a total road closure on the south end of the roadway between Civic Center Drive and eastbound Northwestern Highway service drive. This allowed Florence Cement crews to replace all of the existing pavement with a smooth-riding, 10-inch-thick plain concrete pavement with skewed transverse joints.

The north end of the project, from Northwestern Highway to 11 Mile Road, received concrete slab replacement and was accomplished with five phases and one lane of traffic maintained in each direction. Utility coordination was key to getting the phases complete in a timely manner. Interchange ramps with M-10 and I-696 were allowed to be closed for only 5 days at a time, requiring a quick turnaround for repairs at these areas.

After only seven and a half weeks, the entire project was substantially completed and opened to traffic on September 16.



RURAL ARTERIALS

Winner: B Drive North, Michigan Ave.
(M-199) to 750 feet west, Calhoun County

OWNER:
***CALHOUN COUNTY
ROAD DEPARTMENT***

Concrete Contractor: Isabella Corporation

Concrete Supplier: Shafer Redi-Mix

Engineer/Owner: Calhoun County Road Department

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In April of 2017, the Calhoun County Road Department (CCRD) was awarded an MDOT Transportation Economic Development Fund (TEDF) Category A grant totaling \$98,934 to rebuild the roadway leading to the Anderson's Albion Ethanol plant in Sheridan Township. This funding supported a \$105 million expansion of the plant, resulting in increased truck traffic on the B Drive North roadway in front of the plant. When seasonal weight restrictions are in effect, commercial vehicles must haul reduced loads to and from the facility, leading to an increased number of commercial vehicle trips and higher shipping costs. As a result, CCRD engineers decided to use concrete to carry the load.

Existing HMA pavement was removed and replaced with 8 inches of concrete, with dowels at the transverse joints. Concrete shoulders add to the pavement structure and widen out to allow for a turn lane into the ethanol facility. This new section of road should perform well under the heavy truck traffic that it will see for years to come.



OVERLAYS

Winner: I-75 Linwood Concrete Overlay
Bay County

OWNER:
MDOT
BAY CITY TSC

Paving Contractor: Toebe Construction LLC

Concrete Supplier: TTL Associates

Construction Engineer: Spicer Group

Design Engineer: OHM Advisors

Owner: MDOT – Bay City TSC

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Bids were due for this lane-rental concrete overlay project December 2 of 2016, with just under 100,000 square yards of 6.5-inch concrete overlay paving to be completed in the 2017 construction season. To help the flow of traffic, Toebe submitted a Value Engineering Change Proposal and received approval to construct a temporary two-lane median roadway to allow the project to maintain two lanes of traffic in each direction throughout construction.

Toebe paved the 24-foot mainline on each bound with a GOMACO 2800 Paver and the shoulders and ramps were paved with a GOMACO Commander III, all of which were equipped with Leica Geosystems stringless paving software that utilized robotic total stations. Concrete for the project was produced by a Rex Model S concrete batch plant that was located on site.

The overlay project also contained six reconstruct areas, four at the beginning and end limits of the job, and also under the Linwood Road bridge. The overlay section was also used to correct inadequate cross slope and superelevation. In one of the superelevated areas, the overlay concrete reached a thickness of about 15 inches which created some productivity challenges that were overcome by Toebe's experienced paving crew. Both northbound and southbound I-75 were open to traffic on the new 1.86 miles of mainline overlay on October 16, 2017.



CONCRETE PAVEMENT RESTORATION HIGHWAYS

Winner: M-140 Pavement Repairs,
Napier Ave. to Dan Smith Rd. and 32nd Ave. to I-196,
Berrien & Van Buren Counties

OWNER:
***MDOT
KALAMAZOO TSC***

Concrete Contractor: C&D Hughes, Inc.

Concrete Supplier: Consumers Concrete Corp.

Engineer/Owner: MDOT – Kalamazoo TSC

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The thing that stands out on this 9.75-mile, \$1.1 million project is that nothing stands out now that the project is finished. The almost one-month project was smooth from start to finish. Over 2,400 cubic yards of consistent concrete was produced by Consumers Concrete starting in late July, and placed and finished by C&D Hughes patching crews into 9-inch repair areas totaling almost 10,000 square yards.

Good communication between Consumers Concrete, C&D Hughes and MDOT's Coloma office kept the project going smoothly until it was completed in August. The end result is a smooth-riding, on-time, and under-budget project that will serve the people of Berrien and Van Buren counties well for many years.



CONCRETE PAVEMENT RESTORATION LOCAL ROADS

Winner: 12 Mile Road Pavement Preservation,
Farmington Hills, Oakland County

OWNER:
***ROAD COMMISSION
FOR OAKLAND COUNTY***

Concrete Contractor: Florence Cement Company

Concrete Supplier: McCoig Materials

Design Engineer: Mannik & Smith Group

Engineer/Owner: Road Commission for Oakland County

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This project involved the rehabilitation and restoration of almost three miles of concrete pavement on 12 Mile Road from Haggerty Road to Farmington Road in the City of Farmington Hills. The project was funded in cooperation with MDOT, RCOC, Farmington Hills and Oakland County general government. Florence Cement replaced over 15,000 square yards of concrete pavement slabs, and this was done while one lane of traffic remained opened during construction.



STRUCTURAL - TRANSPORTATION

Winner: M-25 over Mill Creek Bridge Replacement,
Sanilac County

OWNER:
MDOT
HURON TSC

Concrete Contractor: Anlaan Corp.

Concrete Supplier: High Grade Port Huron

Engineer: ROWE Professional Services Co.

Owner: MDOT – Huron TSC

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After more than 80 years in service, the existing bridge carrying M-25 over Mill Creek in Worth Township in Sanilac County needed full replacement. And because M-25 serves as a route to cottages, cabins, and other summer vacation destinations in the Thumb area, MDOT engineers wanted to minimize the duration of a full closure to replace the bridge. So the decision was made to use precast, decked box beams to quickly span Mill Creek, near the Village of Lexington. This is now the third time this type of bridge construction has been used in Michigan.



In planning the construction schedule, MDOT worked with the local community during the design phase and determined that a fall construction best fit the community's needs, to minimize impact to the higher amount of summer seasonal vehicle traffic. The \$2.6M project also included scour countermeasures, relocating the adjacent water main to accommodate the wider bridge, and approach work.

Precast, prestressed box beams were cast at Peninsula Prestress and then transported to Anlaan's yard in Grand Haven. There, the beams were mocked up on temporary abutments that simulated the final abutment elevations. The deck was poured with block-out areas between the segments. Once the decked beams were trucked to the other side of the state and then placed on the bridge abutments, the diaphragms and closure pours were placed onsite. The precast segments were post-tensioned together through ducts left in the diaphragms and backwalls to make the deck and beams composite.



The contract documents allowed the contractor to diamond grind up to a half-inch of concrete from the deck surface to achieve ride quality. Anlaan's close attention to detail and construction methods resulted in a deck that only needed to be ground at the closure pours. Diamond grinding of the entire deck was not required. The finishing touch was an epoxy overlay, to seal the deck surface.

STRUCTURAL - INDUSTRIAL

Winner: Arauco Particleboard Plant
Grayling

OWNER:
ARAUCO
NORTH AMERICA

Concrete Contractor: Barton Malow Company
Concrete Supplier: LC Materials
Testing Company: SME
Engineer: Amec-Foster-Wheeler (Wood Group)
Owner: Arauco North America

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Arauco, the world's second largest producer of wood panels, is investing in the \$400 million construction of a new particleboard plant with a planned capacity of 800,000 square meters per year in Grayling, Michigan. The plant will feature one of the largest particleboard presses in the world, at 10 feet wide and 52.5 meters long, and will manufacture particleboard panels intended almost exclusively for furniture production.

Concrete is a significant element featured in the new plant, with over 16,000 cubic yards of concrete and 1,350 tons of reinforcing steel used for the on-site powerplant, truck receiving, bark hog, bark silo, scalper, log chipping, conveyors, chip handling and storage, and press pit.

Four different forming systems were used due to the complexity of the formwork and scheduling of the pours, with many of them custom built and some used only once.

Concrete elements are widely varied in size throughout the site, including base slab foundations from 16 inches to 5 feet thick; walls from 8 inches to 4 feet thick; and shored decks from 8 inches to 3 feet thick. Some of the concrete walls are 32 feet tall, and others include complex forming requirements for integrally cast corbels, pilasters, and fins.

The new facility is expected to provide a significant stimulus to the local and regional economy and place Grayling on the map as a hub of premium panel products. Hundreds of families, dozens of communities, local schools, and existing businesses stand to benefit from this new manufacturing operation, and concrete is an integral part of the operation.



STRUCTURAL - INDUSTRIAL

**Winner: Arauco Particleboard Plant
Grayling**

**OWNER:
ARAUCO
NORTH AMERICA**

**Concrete Contractor: Barton Malow Company
Concrete Supplier: LC Materials
Testing Company: SME
Engineer: Amec-Foster-Wheeler (Wood Group)
Owner: Arauco North America**

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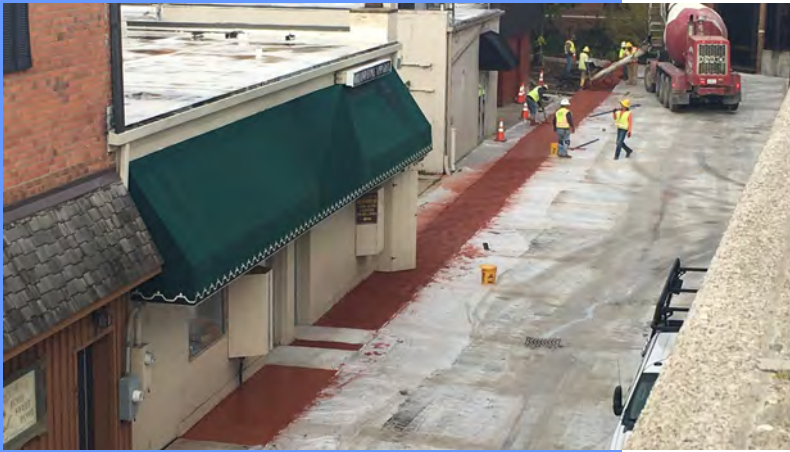
FLATWORK - MUNICIPAL

**Winner: Infrastructure Improvements
City of Plymouth 2016**

**OWNER:
*CITY OF PLYMOUTH***

**Concrete Contractor: GM & Sons, Inc.
Prime Contractor: Pro-Line Asphalt Paving Corp.
Concrete Supplier: Messina Concrete
Testing Company: SME, Inc.
Engineer: Wade-Trim
Owner: City of Plymouth**

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In an effort to improve and enhance the aesthetics and functionality of the Fleet Street alleyway in downtown Plymouth, a major project took place during 2016 that included construction of a new concrete roadway and decorative stamped colored pavement. Fleet Street serves as an access point to several buildings and businesses that line the quaint downtown area of Plymouth's Main Street as well as to its main parking structure. Speed of construction, coordination and cooperation with the businesses, and detail to the quality of work were all key elements to GM & Sons' success.

This project had many challenges, including traffic that had to be maintained during construction so that businesses could continue to receive daily deliveries and patrons could access the parking structure. The alleyway itself provided for a tight work space and required working around more than 50 existing structures. In addition, GM & Sons had to carefully coordinate with Consumers Energy who provided new gas service lines and meters as part of the project.

Together with their supplier, Messina Concrete, GM & Sons was able to coordinate multiple concrete pours while keeping business access open and the construction zone clean and safe for downtown patrons. The result is a new concrete pavement for the City of Plymouth that not only has improved the aesthetics of Fleet Street, but also provides a long-term, durable solution.



FLATWORK - COMMERCIAL

**Winner: Mopar Parts Distribution Warehouse,
Romulus**

**OWNER:
ARCO
*DESIGN/BUILD***

Concrete Contractor: Albanelli Cement Contractors

Concrete Supplier: Superior Materials

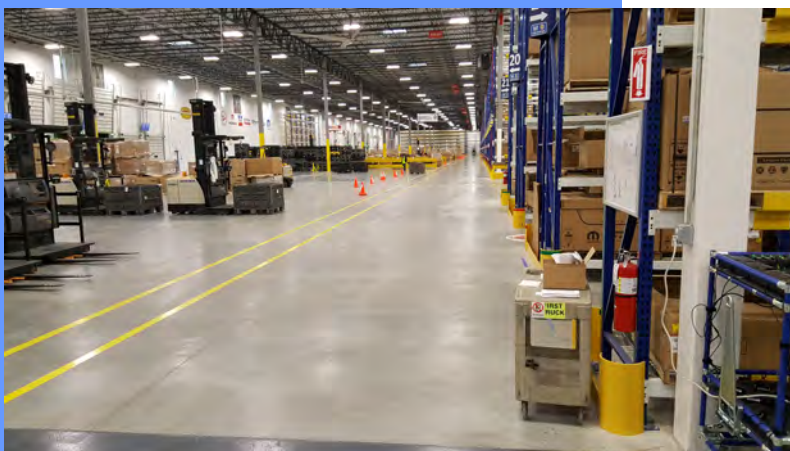
Design/Build Company: Arco Design/Build

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Mopar's new \$10 million Romulus parts distribution center is designed to handle approximately 45 million parts annually. Each day, the facility accepts more than 30 inbound trailers and dispatches about 40 outbound trailers, with two shifts of workers operating the new facility.

To provide the space necessary to house and organize all those parts, Albanelli crews placed over 500,000 square feet of 7-inch exposed concrete floor in 21 different pours using their Somero 420 Laser Screed. The floor then received a ride-on trowel finish. The floor averaged flatness numbers of FF 77 and levelness numbers of FL 41, which are considered super flat! The racking supplier commented that virtually no steel shims were needed to level and adjust the storage racks, which is very unusual but attests to a high quality concrete floor.



Superior Materials' ready mix truck drivers assisted with the placement of the floor by accurately placing the concrete on the prepared grade. Albanelli crews also completed the exterior sitework for this project which included an additional 2,500 cubic yards of concrete.

Before the first yard of concrete even arrived on site, however, a number of pre-pour planning meetings were held to make sure the owner, the contractor and the testing company were all on the same page. All parties involved were apprised of the schedule that needed to be followed to make sure the building was delivered as promised.



AIRPORTS

Winner: Airfield Pavement Rehabilitation/Modification
Detroit Metropolitan Wayne County Airport

OWNER:
WAYNE COUNTY
AIRPORT AUTHORITY

Paving Contractor: Interstate Highway Construction

Testing Company: CTI and Associates

Construction Engineer: RS&H

Design Engineer: Kimley-Horn of Michigan

Owner: Wayne County Airport Authority

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Detroit Metro (DTW) has served more than 32 million passengers annually over the last 10 years. To ensure the quality of the airfield and safety of the traveling public, continuous maintenance and repairs of the airfield pavement is essential. In 2015, a three-year pavement rehabilitation and maintenance contract was issued to Interstate Highway Construction, Inc. (IHC) by the Wayne County Airport Authority (WCAA).

Major highlights of this project included: replacement at 20 terminal aircraft gate positions; 135,000 square yards of concrete comprising one new taxiway and reconstruction of two other taxiways; and full-depth replacement of four infield grass islands to increase the pavement surface area for necessary aircraft lane capacity and parking.



A project-specific Contractor Quality Control Plan, including testing and inspection, was administered by a full-time CQC manager. Pavement acceptance was based on strength, straightedge smoothness, profile smoothness, edge slump, joint face deformation, thickness and air content. These checks were performed daily by both IHC personnel and IHC's PCC testing subcontractor. Optimized Gradation adjustment were performed daily, and adjustments were made to the concrete mix design to maximize the workability, strength, and air content. The plant operator and paving foreman worked closely together to ensure delivery and placement of a good uniform mix. Daily coordination between the QC and QA personnel ensured that all test results were within a percentage of one another. The FAA does not offer incentives, but they track Percent Within Limits (PWL) to rate multiple quality measures and to establish a combined net disincentive. The average PWL achieved was 105, well above the 90 required, ensuring the project received no PWL penalty.



INDUSTRIAL ROADS

**Winner: Amrhein Road Reconstruction
Livonia**

**OWNER:
*CITY OF LIVONIA***

Concrete Contractor: Florence Cement Company

Concrete Suppliers: Florence Cement; McCoig Materials

Engineer(s): Hubbell, Roth & Clark; OHM Advisors

Owner: City of Livonia

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Amazon's newest southeast Michigan location opened in October 2017 and is located at 13000 Eckles Road. This new 1-million square foot warehouse employs approximately 1000 workers and specializes in shipping larger items such as household décor, sports equipment and garden tools, mostly throughout the Midwest. It is a vital part of Amazon's plan to add a cluster of large and small distribution centers in southeast Michigan as it aims to push Prime subscriptions and reduce the time it takes to get packages to customers.

This nearly \$90 million facility is located on former General Motors property in Livonia. As part of a deal with the State of Michigan and the City of Livonia, tax incentives were offered to Amazon to build at this location. Wayne County joined in and spent close to \$1.6 million on traffic and road improvements which include the reconstruction of Amrhein Road to facilitate the increase in truck traffic in the area.



Florence Cement Co. was up to the challenge and the expedited schedule that was required to rebuild the roadway. Together with the design team from HRC and the field construction engineers from OHM Advisors, this project which consisted of 9 inches of plain concrete pavement on 8 inches of new aggregate base was completed on time and now is ready to take the loading and traffic generated by Amazon and neighboring businesses.

Amazon already has a small center in Brownstown and others are slated to open in Hazel Park, Romulus and Shelby Township, which will bring Amazon's workforce in Michigan to more than 3,500. Several more examples of concrete building Michigan!

INTERSECTIONS

**Winner: W.P. Rosso Highway & Jefferson Ave.
Intersection Improvements, Harrison Township
Macomb County**

**OWNER:
MACOMB COUNTY
DEPARTMENT OF
ROADS**

Concrete Contractors: GM & Sons, Inc., Doan Construction

Concrete Supplier: Superior Materials

Engineer/Owner: Macomb County Department of Roads

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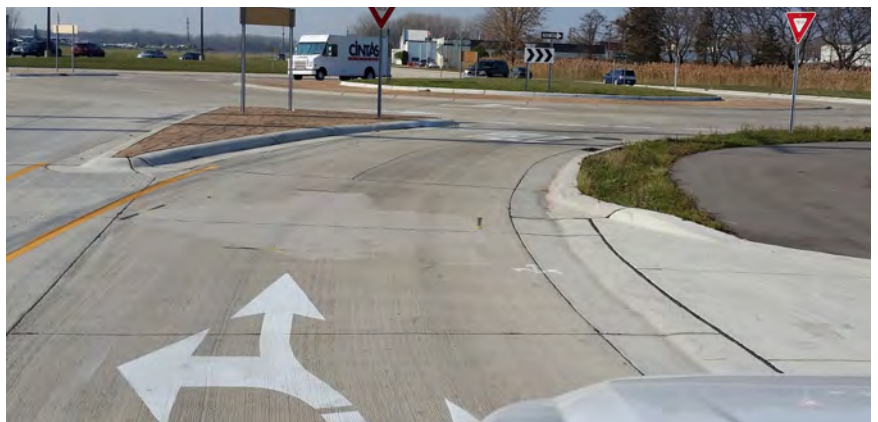


The intersection at W.P. Rosso Highway & Jefferson Ave., located adjacent to the entrance to Selfridge Air National Guard Base, received a significant upgrade in 2016/17 after a new concrete roundabout was constructed. The Macomb County Department of Roads (MCDR) designed the intersection which also included new approaches, curb and gutter, and drainage improvements. Stamped decorative concrete was also installed in the splitter islands and truck apron in the circle to provide additional aesthetic and safety elements.



The project was built by GM & Sons in three phases in order to maintain traffic throughout construction. This was critical since the entrance to Selfridge Air National Guard Base was significantly impacted. Mainline pavement consisting of 9 inches of non-reinforced concrete was installed, followed by slipform curb and gutter and decorative concrete. Traffic was then moved onto the earlier phases so the remaining curb and gutter and pavement gaps could be completed.

One of the challenging parts of the project was the development of the joint layout plan. The joint layout for the roundabout required special attention due to the multiple lanes, tapers and skewed joints that were part of the design. Strong collaboration between MCDR inspectors, the prime contractor, MCA and GM and Sons was required to ensure that the project went smoothly.



COLLECTORS

Winner: Canton Center Road, Michigan Ave. (US-12) to Geddes Road, Canton, Wayne County

OWNER:
WAYNE COUNTY DPS

Concrete Contractor: Florence Cement Company

Concrete Supplier: Florence Cement Company

Owner: Wayne County DPS

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This busy half mile section of Canton Center Road serves as part of a major collector for Canton Township residents wishing to access the many commercial business along the Michigan Ave. corridor. In 2017, a much-anticipated project to reconstruct Canton Center Road from Michigan Ave. north to Geddes Road finally took place. Florence Cement Company was awarded the \$1.2 million project to reconstruct the road and provide a new 10 inch nonreinforced concrete pavement. In addition, the project also included improvements to sidewalk ramps, installation of new storm sewers, new signage and pavement markings.

Because of the impact on the local business, it was essential that Florence complete the project efficiently and on time. Wayne County DPS allowed the road to be completely shut down during construction, so that Florence could optimize their work schedule and limit the amount of traffic disruption.

The final product is a new and improved concrete pavement for the residents of Canton that help will move traffic safely and efficiently through this busy community.



DECORATIVE - COMMERCIAL

Winner: Whole Foods, Birmingham

OWNER:
WHOLE FOODS

Concrete Contractor: Albanelli Cement Contractors, Inc.

Concrete Supplier: Superior Materials

Engineer: C.E. Gleeson Constructors

Owner: Whole Foods

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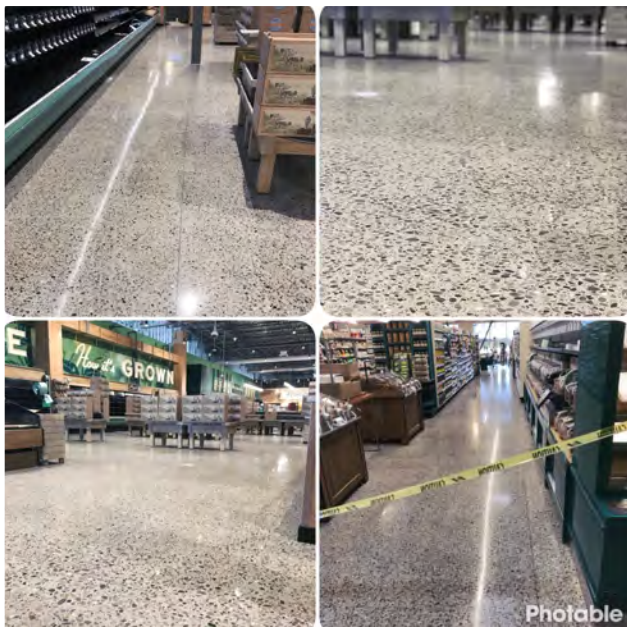


Whole Foods Market, the world's leading natural and organic supermarket, opened a new 46,000 square foot store in Birmingham, MI in 2017. This store is the seventh Whole Foods store to open in Michigan and offers many great amenities that make the location a destination spot for shoppers in Birmingham, Troy, Clawson, and other neighboring communities.

The Whole Foods Birmingham project included a high exposure polished concrete floor that was the product of experience, proper planning and teamwork. After the successful completion of its store in East Lansing in 2016, Whole Foods decided they would again use the project team to complete their store in Birmingham. The team of C.E. Gleeson, Albanelli Cement, Superior Materials, and Applied Flooring took the opportunity to even further improve upon the process they used in Lansing, which also produced an extraordinary floor.

The project team work closely with the owner to make sure their goals and expectations were met. Before any concrete was placed, all control joints were strategically placed in locations that would be covered by a wall or cooler so that the sales floor looked like a seamless flow of concrete. The 31,000 square foot polished concrete sales floor was placed in one day with 480 cubic yards of concrete placed. Prior to the polished concrete area being poured, a test slab was placed and polished to ensure the final project was acceptable to the owner.

One of the major complexities of constructing a polished floor is addressing utilities such as floor sinks, trench drains and cleanouts that are embedded in the floor so that they tie in seamlessly. The team was able to work together and devise a method to cover the utilities so that Applied Flooring could precisely grind the floor prior to final polishing and thus produce a uniform exposure level throughout the floor. Overall, the quality and look of the polished floor is excellent, and has met the expectations of Whole Foods.



DECORATIVE - INDUSTRIAL INTERIOR

Winner: TecNiq Facility, 9100 E. Michigan Ave.,
Galesburg

OWNER:
OPAL CIRCUIT LLC

Concrete Contractor: Burgess Concrete Construction

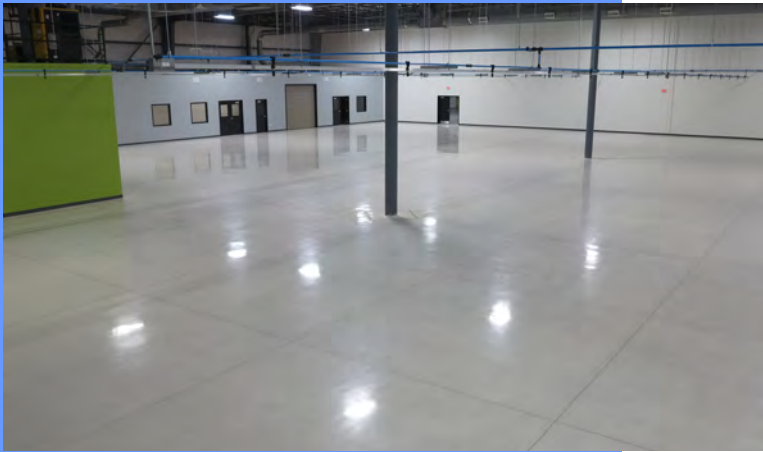
General Contractor: Cornerstone Construction Management

Concrete Supplier: Consumers Concrete Corp.

Architect: Bosch Architecture

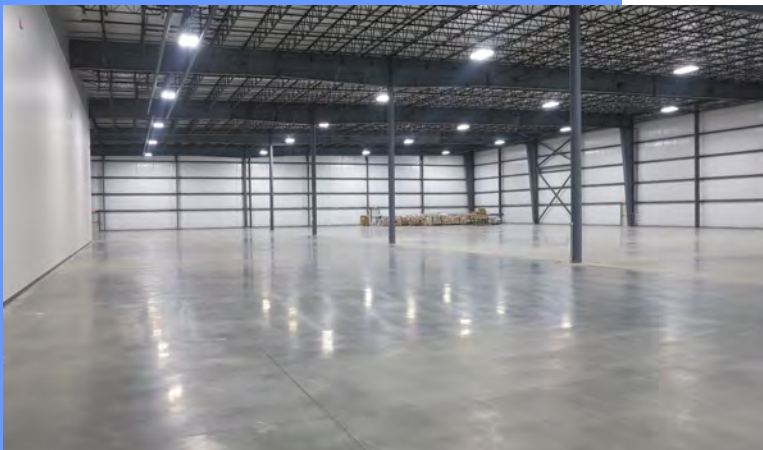
Owner: OPaL Circuit LLC

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TecNiq manufactures and assembles LED light fixtures primarily for vehicle and marine applications, including ambulances, boats, fire trucks, trailers, and other specialty uses. In planning their new, expanded facility, they realized they could enhance their workers' environment and reduce the stress on their vision by using a highly reflective floor.

Working with Burgess and Consumers, the owners and their design team chose Consumers' White Artevia Custom Richland Cream polished floors. The custom mix uses white portland cement and limestone to get the light-colored finish. To obtain a uniform "creamy" look with very little aggregate after polishing, Burgess crews had to place and finish the 6-inch concrete floor accurately, both flat and level, with their Somero laser screed.



The finishers used special plastic finishing blades on the power trowels to minimize any burning of the concrete surface, and Burgess's polishing crew also had to use special diamond polishing wheels on their equipment so that the white floor did not get marks on it during polishing.

The warehouse area floors also were placed to similar tolerances, and received a typical troweled finish on the standard gray concrete. Both the white and gray floors received a penetrating densifying sealer to achieve a beautiful, durable floor that will stand up to years of use by the owners.



DECORATIVE - RESIDENTIAL

Winner: Wall Residence Driveway, Grand Blanc

OWNER:
THE WALL FAMILY

Concrete Contractor: Albanelli Cement Contractors, Inc.

Concrete Supplier: Superior Materials

Owner: The Wall Family

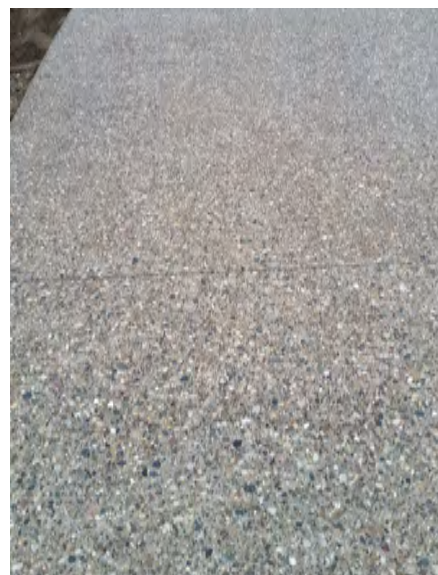
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Nothing puts the finishing touch on a new home better than a beautiful exposed aggregate concrete driveway. Albanelli Cement Contractors was able to construct such a driveway for their customer, the Wall Family, at their new residence located near Warwick Hills Golf & Country Club in Grand Blanc, MI. The exposed aggregate was chosen to compliment the construction of the new rustic, craftsman style home completed in 2017.

Exposed aggregate concrete is becoming increasingly popular for home construction and requires knowledge and experience to construct properly. The construction process involves spraying a surface retarder immediately after placing and finishing which delays the set time and gives the contractor flexibility to remove cement paste up to a day or so later. Albanelli used a top-cast surface retarder to achieve this step and then washed the surface mortar to expose the aggregate to just the right depth. Saw timing was also critical to ensure smooth and efficiently cut contraction joints.

The result is a high-quality, aesthetically pleasing product that enhances this beautiful new home.



RESIDENTIAL STREETS - SMALL PROJECTS

**Winner: 2017 Local Street Program Contract #1-17(P),
Oak Street from N. Glenhurst Dr. to Chesterfield Ave
Birmingham**

**OWNER:
*CITY OF
BIRMINGHAM***

**Concrete Contractor: GM & Sons
Prime Contractor: DiPonio Contracting
Concrete Supplier: McCoig Materials
Engineer: Nowak & Fraus Engineers
Owner: City of Birmingham**

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The City of Birmingham's 2017 Local Street Program included the reconstruction and widening of Oak Street in front of Quarton Elementary School, featuring a new median-separated drop-off lane adjacent to the school. Area residents also benefitted from the upgrade with new watermain and service connections, storm sewer, and new aggregate base under the new 8-inch concrete pavement.



GM & Sons laid the new concrete roadway with the goal of minimizing impact to the local residents. They accomplished this by paving Oak Street in three main phases with fixed forms and roller screeds: First, the new student drop-off lane was placed, then the east-bound lane, and finally the westbound lane.

McCoig supplied 1,400 cubic yards of Grade P1M high performance concrete, which was specified to ensure a durable, long-lasting concrete mix, and GM & Sons crews used 12-foot floats to ensure a smooth, high quality finish for the residents of Birmingham.



RESIDENTIAL STREETS - LARGE PROJECTS

Winner: Independence Commons Subdivision Road Rehabilitation, Farmington Hills

**OWNER:
*CITY OF
FARMINGTON HILLS***

Concrete Contractor: Florence Cement Company

Concrete Suppliers: Florence Cement; Superior Materials

Engineer: Hubbell, Roth & Clark

Owner: City of Farmington Hills

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The original concrete pavement in Independence Commons was constructed in 1967, and after close to 50 years of service, required significant rehabilitation. Several options were considered by the city of Farmington Hills including an alternate bid for full depth concrete or asphalt replacement. In the end, full concrete replacement was chosen.

This project was complex in that all construction took place in an existing subdivision, with close to 450 residents that had to be accommodated while the work occurred. Needless to say, staging was a key aspect of the project. The City and its engineer HRC spent significant effort developing a staging plan that would address all the critical elements including access and parking for residents, school buses, garbage pickup, and emergency vehicles.

Florence began paving the project in the summer of 2016 and when completed in the spring of 2017, placed close to 70,000 square yards of 7-inch plain concrete pavement. The pavement section also included 12 inches of a combination of 21AA recycled concrete aggregate and 1"x3" aggregate with a geogrid separator. The impact of this project was significant on the community and coordination and cooperation between the city, its engineer, and the contractor was key to its success.



INDUSTRIAL PARKING LOTS

Winner: Shannon Precision Fastener Distribution Center, Dixie Highway, Holly

OWNER:
SHANNON PRECISION
FASTENER

Concrete Contractor: Fessler & Bowman

General Contractor: Rhoads & Johnson

Concrete Supplier: Ken's Redi-Mix, Inc.

Engineer: Nowak & Fraus Engineers

Owner: Shannon Precision Fastener

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Shannon Precision Fastener's newest facility, a 71,000 square foot state-of-the-art distribution center, was completed in 2017 at a cost of \$7.5 million. Located in Holly Township, the facility will give the community an economic boost, initially employing approximately 50 workers with the future potential to accommodate up to 500 employees. The Madison Heights-based company manufactures precision engineered fasteners that hold together high-stress parts in powertrain, body, chassis and safety applications primarily for automotive OEMs (original equipment manufacturers). Today they sell high quality fasteners on six continents.



Fessler & Bowman was contracted to complete the concrete site work which consisted of all the road and parking lot pavement at the facility. Approximately 150,000 square feet of 5-, 8- and 10-inch pavement was placed at various locations throughout the site. Fessler & Bowman worked closely with their supplier Ken's Redi-Mix, Inc. to coordinate the placement of the concrete which had to be completed in a short timeframe of approximately 4 months. In order to meet this rigorous schedule, night time concrete placement was frequently scheduled and paving was accomplished utilizing a S-22 Somero 3-D Laser Screed. All of the site work was scheduled and completed at the same time the main building construction was taking place.



This is the third location for Shannon Precision Fastener, with manufacturing and distribution facilities in Madison Heights and Auburn Hills. The project was able to move forward with the support of the Michigan Economic Development Corporation, Oakland County Economic Development and Community Affairs group, and the township of Holly.

COMMERCIAL PARKING LOTS

Winner: McDonald's, 1432 E. Grand River
Portland

OWNER:
**MCDONALD'S
CORPORATION**

Concrete Contractor: Van Laan Concrete Construction

Concrete Supplier: H.S.V. Redi Mix

Testing Company: Materials Testing Consultants

Engineer: Venture Engineering

Owner: McDonald's Corporation

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When McDonald's decides to rebuild a store location, they give a set amount of time that they are willing to keep the store closed. For the 40-year-old Portland, Michigan location, two months were allotted for the demolition and reconstruction schedule, which was a primary challenge for all the contractors and suppliers involved with this project.

Typically, asphalt pavement is seen as an easy choice in these situations because of cure time concerns and having to phase the concrete paving around other trades working onsite. In this case, however, local asphalt pavers were unwilling to commit to getting the asphalt in on time given the tight schedule, whereas Van-Laan's crews were up for the challenge.



The existing asphalt was pulverized on-site and reused for subbase material, saving money and time. H.S.V. Redi-Mix supplied all the concrete for the site, including over 500 cubic yards of macrosynthetic fiber-reinforced concrete for the parking area placed at 5 inches thick.

The bright LED lighting for the new store is enhanced by the lighter colored pavement surface of the new concrete parking area, proving once again that concrete is the smarter choice to help build Michigan.



SPECIAL INNOVATIVE

**Winner: North-South Straightaway Reconstruction
GM Milford Proving Grounds**

**OWNER:
*GENERAL MOTORS***

Concrete Contractor: Angelo lafrate Construction Co.

Concrete Supplier: Superior Materials

Testing Company: CTI and Associates

Engineer: PEA, Inc.

Owner: General Motors

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Most owners want concrete to be smooth and free of defects, bumps, and deviations. The 6,410 foot-long concrete portion of the North-South Straightaway Reconstruction, however, was designed to duplicate existing pavement to provide test data for suspension and tires on vehicles. Three main sections were constructed, including the Global Freeway Hop, the US-23 Freeway Hop, and the tining-trough section, which included two different tined concrete surface types and a trough section intended to test hydroplaning.



The freeway hop sections were formed with plasma-cut custom steel forms attached to wood, and checked by surveyors every 2 feet for accurate duplication. Forming was a long and tedious process with minor adjustments being done constantly. Paving for these sections was by hand with a wet burlap finish.

The tined and trough areas were paved with a GOMACO paver. The variable tining required building a special rake with tines spaced at pre-determined locations. Then every 250 feet that bar was shifted about 3/10 of an inch. The nominal tining had a custom tine section that was also shifted every 250 feet with a 3/8 of an inch offset. The trough section required welded plates to the bottom of the paver screed, and finished by hand to take the sharp edges off the slopes.



The concrete mix utilized a dolomite limestone specially purchased for this project. A retarder was added to the mix to allow lafrate's highly skilled concrete finishers the time needed to achieve the tight surface tolerances specified by the owner.

SPECIAL INNOVATIVE

Winner: Sterling Heights Skateboard Park
City Center Commons, Sterling Heights

OWNER:
CITY OF
STERING HEIGHTS

Concrete Contractor: Evergreen Skateparks LLC
Concrete Supplier: Van Horn Concrete Co.
Construction Engineer: Mears Design Group
Planner/Architect: Dorchen/Martin Associates LLC.
Owner: City of Sterling Heights

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In 2016, the residents of the City of Sterling Heights approved a property tax increase to fund several new parks and recreation improvements which included a new community center, skateboard park, splash pad, and ice rink. The skateboard park was completed in 2017 and was constructed by Evergreen Skateparks, LCC based out of Portland, Oregon. They worked closely with supplier Van Horn Concrete to construct this unique project which consisted of approximately 16,500 square feet of uniquely sculpted 4-inch-thick concrete. The park was designed to accommodate skate boarding elements suitable for all levels of expertise as well as for in-line skaters, pump path bicycle riders, and scooters.

A great deal of detail went into the design and construction of this facility, which is as much a recreational park as it is a work of art. The site was initially laid out and contoured using small grading equipment. The elevations and bowl depths were established upon verification of the existing conditions. Reinforcing bars and drainage lines were placed and the concrete was meticulously placed in approximately 8 to 10 yard batches by a team of 8 to 10 artisans who carefully contoured and troweled the concrete to a hard-troweled finish.

The concrete was placed using the "shotcrete" method, which consisted of essentially pumping a wet concrete mix into place. Because of the large area of the park and the need to place the concrete without construction joints (necessary to avoid vertical displacement from one section to the next) and the unusual shapes of the bowls, raised and flat areas, the placement of concrete was programmed to occur in sections based on batch size. The process created a checkerboard look as the constructed proceeded to completion. The high-quality design and workmanship of this park is evident in the final product. The citizens of Sterling Heights now have a unique skatepark which can be enjoyed by all for many years to come.

SPECIAL INNOVATIVE

**Winner: General Motors Durant-Dort Factory One
Flint**

**OWNER:
*GENERAL MOTORS***

**Concrete Contractor: Brenca Contractors
Concrete Supplier: Modern Concrete
Owner: General Motors**

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Once home to the Flint Road Cart Company which built horse drawn carriages, and established in 1886 by William "Billy" Durant and business partner Josiah Dort, the newly restored Durant-Dort Factory One is now open and boasts a new events space for up to 300 people and a modern archive where future generations can learn about the innovators and risk takers who reinvented personal transportation.



Factory One's archive is free to use and contains about 100,000 historical documents, photos, and other artifacts related to the carriage-building and early automotive manufacturing in the Flint area, as well as the GM history. The new research library relocates extensive archives from nearby Kettering University. The move makes the collection more accessible to the public, and it complements the other historical assets at Kettering, the University of Michigan-Flint and Sloan Museum in the nearby College and Cultural Area.



GM purchased the Factory One building in 2013 and stabilized it with new, period accurate windows and doors, as well as a new roofing system, with the goal of preserving and showcasing the original architecture. Contractors replaced 17,000 bricks color-matched to the original, as well as 20 percent of the mortar on the building. The foundation, damaged by flooding and grade changes over time, was repaired and water-proofed. The last phase of renovation included all-new heating/cooling, electrical, plumbing, state-of-the-art fire-suppression equipment and a new decorative concrete polished floor, made specifically to look as if it were part of the original building.

MEGA PROJECT

Winner: Little Caesars Arena, 2645 Woodward Ave
District Detroit

OWNER:
DETROIT DDA
OLYMPIA
DEVELOPMENT

Concrete Contractors: Angelo Iafrate Construction Co., Barton Malow
Tooles Contracting Group/Commercial Contracting Corp.

Concrete Supplier: Superior Materials

Engineer: HOK

Owner/Operator: Detroit Downtown Development Authority
Olympia Development of Michigan

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Little Caesars Arena in the District Detroit serves as the home of the Detroit Red Wings, Detroit Pistons, and countless other sports, entertainment, and community events. Construction of the arena began in the spring of 2015 and was completed in 2017 at a cost of nearly \$863 million. Rich in the tradition of the Original Six Detroit Red Wings and Detroit's incredible music heritage, it also features state-of-the-art technology, fan amenities, and active community spaces like the Via, the BELFOR Training Center, and the Chevrolet Plaza. The Little Caesars Arena has created a streetscape atmosphere around the stadium with many landscaped areas, colored/stamped community spaces, brick lined streets, and architectural walks.



This Mega project was completed as a result of many hard-working men and women, working as a team toward one goal. This award is to specifically acknowledge the contractors, supplier and engineer that contributed to the concrete elements that make up this project. These include the exterior flatwork, decorative work, parking structure, slabs, and buildings as well as the arena slabs, decks, foundation, elevator core, plaza, ice rink and building.



Like many building projects of this size, keeping the dozens of contractors working on the site focused on completing their specific work and staying on schedule was key to this project's success. With each phase of building, communication and keeping the project moving forward so that the next new phase could begin was critical. For example, the exterior paving had to be scheduled around the construction of the building and was performed in many smaller pours, in off shifts, and on overtime in order to meet the completion date.

MEGA PROJECT

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Engineer: HOK

Owner/Operator: Detroit Downtown Development Authority
Olympia Development of Michigan

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2018 Upcoming Events

ADA Seminars - March 6, 27 & April 24, 2018

8:00am - 12:00am

MITA/MCA Main Office/Okemos/MI

Registration can be found at www.michiganltap.org

Level 1 & Level 2 Certification Courses

Various Times & Locations (see MCA Website)

ACI Flatwork Finisher/Decorative/Pervious Concrete Finisher

Various Times & Locations

MCA Annual Scholarship Golf Outing - June 27, 2018

9:00am - 4:30pm

Eagle Eye Golf Club/Bath/MI

For more information or to register for any of these events

Please visit www.miconcrete.org or call (517) 347-7720