Celebrating Art and Efficiency

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By Melanie Padgett Powers

MOST PEOPLE don’t think about parking too much, unless it’s about how to find a space closest to their destination. But IPMI members think about parking and mobility all the time and can point out gorgeous new parking structures, efficient parking lot setups, and sustainable mixed-use projects to anyone who asks. It’s this celebration of the beauty and efficiency of parking we honor once a year with the Awards of Excellence that honor outstanding achievement in parking and mobility. Here are this year’s incredible winners.
After acquiring a site in the heart of Houston’s bustling downtown district, Skanska USA envisioned a workplace for the future with amenities that would attract a new generation of discerning tenants. These included column-free corner offices, floor-to-ceiling glass facades to infuse natural light, and a five-level underground environment of retail, restaurants, and services. Skanska also set a sustainability goal that had never previously been achieved by an office property in the U.S.: LEED v4 Core and Shell Platinum certification.

A cost-efficient structural frame was developed for both the 35-story tower and the integrated podium parking garage. To accommodate 1,365 parking spaces, the garage was designed with an innovative express ramping system at the ground floor that provides access to two major streets and allows up to 40 percent more area for retail and back-of-house opportunities. At level two, the express ramp system transitions to a traditional double helix. Parking bay widths are two feet wider than normal for angled parking to provide a higher level of comfort. End bays are also larger to provide comfortable turning maneuvers and easily accommodate full-size trucks and SUVs. Dimmable LED light fixtures outfitted with motion sensors provide enhanced lighting levels.

Atop the structure is a tenant amenity space with a water harvesting system that conserves resources and provides irrigation for the 12th floor urban rooftop oasis. The site also features a 10,000-square-foot tenant lounge, conference center, and event space; a 7,000-square-foot fitness center; a 20,000-square-foot elevated green park; and a 20,000-square-foot culinary market. The property is fully leased at premium lease rates and recently sold for a record price per square foot.
Minneapolis-St. Paul International Airport Silver Ramp

**Owning Agency:** Metropolitan Airports Commission, Minneapolis-St. Paul International Airport

**Engineer, Program Manager:** Kimley-Horn

**Architect:** Millider Dunwiddie

**TOTAL COST: $245 MILLION**

The Minneapolis-St. Paul International Airport (MSP) is the 12th busiest U.S. airport, with more than 400,000 annual landings and takeoffs. The airport’s growth has significantly increased demand for passenger vehicle parking and amenities, so the Metropolitan Airports Commission (MAC), which operates MSP, constructed the Silver Ramp, a new 5,000-stall parking structure.

The ramp, which was built directly above an existing light rail transit station, functions as a hub for travelers to access public transportation and serves many user groups, including public parking, on- and off-site rental car agencies, local and regional buses and charters, and local hotel shuttles. The ramp provides approximately 2.1 million square feet of structured parking, including three miles of expansion joints, five acres of exterior facade, and 180,000 square feet of conditioned floor space.

The transit functions are on the ground level with access provided from the airport’s inbound roadway via a slip lane. Public passenger vehicles and rental cars park on the upper levels. Each user group uses one thread of each helix, allowing the user groups to remain separated and secure. User separation was achieved by constructing the rental car agency customer service building in a central location under the parking ramp and providing direct escalators to each level of the rental car ready/return. As part of this dedicated access, the escalator connecting the ground floor to level five rises 56 feet, making it the longest escalator in Minnesota.

The Silver Ramp also includes custom seating, electronic wayfinding and information kiosks, escalators that take rental car customers to their preferred agency level, and large public restrooms. The ground level includes bike storage space and pedestrian connectivity to an adjacent hotel and post office east of the Silver Ramp. The facility also includes a breastfeeding room and a pet/service animal relief area.
Best Design of a Mixed Use Parking & Transportation Facility

Walnut Creek BART Transit Village: South Garage

_Walnut Creek, Calif._

**Owning Agency:** Transit Village Associates, LLC/Blake | Griggs Properties  
**General Contractor:** McCarthy Building Companies, Inc.  
**Architect:** International Parking Design, Inc.  
**TOTAL COST:** $37,186,375

The New South Garage at Walnut Creek Bay Area Rapid Transit (BART) station in California was developed on an existing surface lot that catered nearly exclusively to BART riders. The new five-level, 344,433-square-foot garage is equipped with enhanced vehicle and pedestrian circulation flow to accommodate BART riders as well as bus and bike riders from the new Walnut Creek Transit Village. The village is a mixed-use, multipurpose development that will incorporate apartments, retail shops, restaurants, public plazas, and improved BART station access.

The 920-space garage added 100 parking stalls to the existing station. It also includes enhanced bike paths and storage accommodations, passenger pick-up and drop-off zones for ride-share services, an upgraded bus facility and police station, and public art installations. A key feature of the raised structure is its high bay infrastructure, an element not typically seen in parking garages due to the complexity of execution. The garage was designed to provide regional transit buses and the Walnut Creek Trolley Bus adequate space for an expanded bus facility within the garage. The city trolley buses are powered by electric induction motors for which the parking facility provides two charging pads.
Best Design of a Parking Facility

Athena Arsenal LLC West Garage

Watertown, Mass.

**Owner:** athenahealth, Inc.

**Architect and Structural Engineer of Record:** Walker Consultants

**Vision Architect and Bridge and Existing Building Architect:** Charles Rose Architects

**Construction Manager and General Contractor:** C.E. Floyd Company

**Civil Engineering and Landscape Design:** Stantec

**Mechanical, Electrical, Plumbing, and Fire Protection Design:** NV5

**TOTAL COST:** $29,540 PER SPACE

The Athena Arsenal LLC West Garage project consists of a 1,400-space parking structure on an existing parking lot at the Arsenal on the Charles campus in Watertown, Mass. The structure was built to address parking demand needs and to support athenahealth’s master plan for campus redevelopment. Primary users are athenahealth employees and users of the surrounding retail and commercial space. The parking structure and foundation system was designed to accommodate the construction of a new commercial/retail building along the north facade, with a direct pedestrian link between the parking structure and the new building. The project site is a brownfield, which required significant soil remediation to be performed for the construction.

A pocket park along the south side provides green space for campus employees and the community. The park links to bike paths and sections of boardwalks above the site’s stormwater management system. Approximately 10,700 perennials; 70 trees; and 630 shrubs were planted throughout the project, including three levels of irrigated planters along the parking structure facade. The project includes several sustainability initiatives, including stormwater capture from the parking structure for irrigation, permeable pavers, a high-efficiency LED lighting system, electric vehicle charging stations, and a photovoltaic-ready design for the entire parking structure footprint.
Gilbert Heritage District RD 120 Parking Structure

Gilbert, Colo.

Owner and Project Manager: Town of Gilbert
Project Manager: Walker Consultants
Architect: BWS Architects
Civil and Survey: Dibble
Landscape Designer: Colwell Shelor Landscape Architecture
TOTAL COST: $16 MILLION

The Town of Gilbert Public Parking Garage was designed to serve the energetic and growing entertainment venues within its Heritage District. The town’s goal was to consolidate parking so existing surface parking areas could be redeveloped. The project was coordinated with Sam Fox Concepts for the opening of its new Culinary Dropout restaurant next to the garage. Of the 600 parking stalls, 100 nested stalls with dedicated entry/exit, are leased by the restaurant for its valet operation.

Providing free public parking with larger drive aisles was an important design element. The town selected a cast-in-place structural system to save on long-term maintenance costs and eliminate internal shearwalls, resulting in visual openness for safety and security. Other safety elements included in the design are 48-inch-tall bumper walls with sloped top cap and a glass-backed elevator. The adjoining Hearne Way was developed into a public events plaza with the garage as the backdrop. That side of the garage can accommodate a giant electronic media board to broadcast movies, promote local events and businesses, and provide districtwide parking information.

The garage includes an iconic clock tower, vintage graphics and building signage, and specialty LED colored lighting at the Hearne Way facade. Public amenities include alternative fuel charging stations, restrooms, pedestrian and pet drinking fountains, a public safety space for police and fire departments, and bicycle accommodations.
Best Design/Implementation of a Surface Lot

10th and Mitchell Streets
City of Milwaukee, Wisc.

Owner and Project Manager: City of Milwaukee, Wisc,
Engineer: StormWater Solutions Engineering

The Mitchell Street Green Parking Lot in Milwaukee’s historic Mitchell Street neighborhood is unique because it's on a watershed divide: It drains between two river watersheds that lead to Lake Michigan. The parking lot was deteriorating, but it was also a barren and under-utilized lot with increasing public safety hazards. Refurbishing the lot provided an opportunity to pilot-test the idea of incorporating green spaces into city-owned parking lots.

The finished lot includes a 1,050-square-foot section of permeable pavement snow storage area. It also includes four bioswales totaling 3,100 square feet and an additional 4,100 square feet of green space. Overall, the site captures 132,000 gallons of water. It incorporates accessible parking and safe pedestrian routes via brick pavers and a wooden boardwalk with wood sourced locally from the Menomonee Tribal Enterprises, making a direct connection to the relationship with the Ignace Indian Health Center just south of the lot. There are now park benches and tables throughout the site so pedestrians can enjoy an oasis of green space in the middle of the city.
The Calgary Parking Authority (CPA) was inspired to reimagine what a parking lot could look like and other ways it could function. PARK PARK began as an open-design competition managed by the Calgary Municipal Land Corporation. CPA asked for an original intervention that reinvented a 30-stall surface lot that had heavy traffic in Inglewood, Calgary’s oldest neighborhood. The call for design submissions was posted across Canada, and the winner was Public City Architecture Inc. of Winnipeg, Canada.

PARK PARK is part park, part parking lot. The asphalt surface is now a vibrant mural with six fewer stalls to allow for more recreation space. There is a scaffolding structure around the perimeter. Freestanding icons serve as visual representations of its features, including a basketball hoop, picnic table, USB charger, hand warmer, free library, and more.

In PARK PARK’s first three months it was well-used by the community and lauded by community builders. It was rented for a community night market and open for pedestrians to explore on PARK(ing) Day. This pilot project will be in place for two years, at which time CPA will review community feedback and determine the possibilities for similar placemaking projects in the city’s CPA parking facilities.
Best Facility Rehab or Restoration

Ft. Duquesne & Sixth Parking Garage

*Pittsburgh, Pa.*

**Owner:** Pittsburgh Parking Authority  
**Structural Engineer and Parking Consultant:** DESMAN  
**Contractor:** Carl Walker Construction  
**TOTAL COST:** $8.6 MILLION

The Ft. Duquesne & Sixth Parking Garage was an iconic structure exemplifying mid-20th Century architecture. It stood for more than half a century along the shores of the Allegheny River in Pittsburgh’s Downtown Business District. The garage underwent a complete renovation and repair, including repairs to the structural components, stair tower renovations, and updates to meet building code and compliance with the Americans With Disabilities Act. An antiquated fireproofing system was replaced, and a new thin elastomeric traffic bearing waterproofing membrane was added. Reflective coating was added to all vertical and overhead surfaces, and the entire lighting and electrical system was replaced.

It was important to renovate the facade while maintaining its striking appearance. Therefore, the renovation of the facade included the removal and refurbishment of existing facade panels, the removal and fabrication of new facade panels to match existing, the removal and replacement of the existing structural frame supporting the facade panels, the application of a weather resistant/waterproof coating to the concrete substrate surfaces of the facade, and new lighting and electrical system associated with lit panels of the facade.
The Helix Parking Garage, owned by the Lexington & Fayette County Parking Authority (LFCPA), was constructed circa 1967 and gained a reputation for being one of the least attractive buildings in the city. In 2013, the 389-space garage received a much-needed facelift, including a new exterior and interior lighting improvements, with energy-efficient LED lighting within the helix ramp. The water quality improvement project, completed in May 2019, was a part of LFCPA's efforts to improve the quality and environment for the City of Lexington. Before this upgrade, pollutants from parked cars would mix with rainwater and flow directly into the Town Branch, the founding water source for Lexington, with no pre-treatment or detention. This project now captures and filters the water runoff from a 71,303-square-feet area. The runoff is routed through two 1,000-gallon oil/water separators before flowing into the Town Branch. There is also enough greywater for reuse for sidewalk washing and annual garage deck pressure washing.
Innovation in a Mobility, Transportation, or Parking Program

Chicago Parking Fine Reform

Owning Agency: City of Chicago Department of Finance
Program Manager: Conduent Transportation

Studies have shown the lopsided impact of Chicago’s parking enforcement on the working poor. Delays in fines result in penalties, and the consequences can quickly spiral out of control, leading to vehicle seizures and driver’s license suspensions. Chicago Mayor Lori Lightfoot charged the city’s Department of Finance with spearheading innovative efforts to issue and collect parking citations in a more sustainable, fair, and effective way. The goals included using data to inform the allocation of parking enforcement officers (PEOs) and reduce the potential for predatory enforcement; capping penalties on city sticker fines; eliminating same-day duplicate fines; and ending the practice of suspending driving privileges for illegal parking.

The Chicago Department of Finance took a proactive, data-driven approach, first by examining historical PEO assignments. Prior to 2019, PEOs were deployed evenly across the city, regardless of the need for enforcement, leading to a disparate impact on disadvantaged neighborhoods. The city established new enforcement zones, varying sizes based on the curbside miles and the likelihood of infractions affecting safety and congestion. Zones are now prioritized based on need, and PEOs are routed toward infractions that create turnover and improve safety. Sticker violations, especially in marginalized neighborhoods, decreased while street cleaning and meter violations increased. A payment plan portal and expanded payment plan options lead to 131 percent increase in online payment plans and 108 percent increase in related revenue. City sticker violation late penalties are now capped at $50, a 75 percent reduction, and a city sticker amnesty was established, with nearly 12,000 people participating in late 2019, providing up to $11.5 million in relief to people.
Innovation in a Mobility, Transportation, or Parking Program

Ding, Ding! Transit Goes Electric in Estes Park, Colo.

Owning Agency: Estes Park, Colo.
Electrical Component Manufacturer: Motiv Power Systems
Trolley Manufacturer: Hometown Trolley

Estes Park, Colo., has implemented North America’s first rubber-tire, fully electric trolley replica vehicle, after actively working to increase its electric vehicle (EV) infrastructure and readiness over the past few years. This town of 6,426 people welcomes 4 million visitors a year, and during the COVID-19 pandemic, more and more people were hitting the road. This created an urgency to accelerate the town’s EV efforts.

Since the town formed a parking and transit division in 2018, there were several EV implementation efforts, but they were happening in different departments without dedicated champions or an organized implementation plan. A cross-departmental team was formed and led by parking staff, which increased progress on EV adoption. This included installing Level III DC fast-charging stations and creating an EV Infrastructure and Readiness Plan.

During the town’s first trolley maiden season, July 1–October 18, 2020, staff calculated that it saved 2,481 gallons of gasoline and reduced over 16 environmental pollutants, including 22 metric tons of CO2. With the second trolley scheduled to arrive in May 2021, 40 percent of the town’s transit fleet will be electric.
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Los Angeles International Airport (LAX) is the busiest destination airport in the world. The biggest constraint to growth was roadway congestion in the Central Terminal Area. Auto traffic at LAX had grown by 49 percent in just the past seven years, and significant roadway closures for construction projects were imminent. The airport needed to reduce traffic congestion in this terminal, which serves taxis and ride-share companies.

The solution? Consolidating arriving passengers into dedicated shuttles to an airport-adjacent facility. With this new service — called LAX-it (pronounced “LA exit”) — LAZ Parking shuttles transport passengers in designated traffic lanes to the fast, efficient new facility so they can meet their ride. The facility includes four pickup curbs with enough capacity to accommodate approximately 100 cars and up to 2,000 passengers at one time. The lot features a pedestrian plaza with street furniture, a breakroom, restrooms, and three food truck spaces. LAX-it has reduced terminal traffic by 15–20 percent and saved most passengers at least 15 minutes exiting the airport.
Innovation in a Mobility, Transportation, or Parking Program

Washington, D.C., Vision Zero Bike Lane

Owning Agency: Washington, D.C., Parking Enforcement and Management Administration (PEMA)

Technology Supplier: gtechna, a division of Harris Computer

TOTAL COST: $75,000

Washington, D.C., was looking to solve two problems: officers being forced to put themselves in harm’s way by confronting motorists who block bike lanes, and the ability of motorists to easily drive away when they saw they were being ticketed. The city’s Parking Enforcement and Management Administration implemented LPR and ticket-by-mail programs to solve both issues. After the programs were implemented, year-over-year tickets issued increased 116 percent. Accidents decreased by over 50 percent each month, while each of the city’s wards showed a reduction in bike-related accidents.

The city embraced transportation alternatives and installed dedicated signage about where to use each type of vehicle and where pickups and drop-offs are permitted. The city also added bike lanes, created protected bike lanes, connected bike lanes to allow cyclists to move safer throughout the city, and added sidewalks. The District plans to double the number of protected bike lanes by 10 miles by 2024.
Excellence in Architectural Design

Cooksville GO Station

*Toronto, Ontario, Canada*

**Owning Agency:** Metrolinx  
**Design Architect:** NORR Architects & Engineers Limited  
**Project Architect:** Walter Fedy  
**TOTAL COST:** $99.2 MILLION

Metrolinx, an agency of the Government of Ontario, Canada, has transformed the Cooksville GO Station, in Mississauga. In partnership with Infrastructure Ontario, Metrolinx turned the transit hub into an efficient, modern station. The new station includes upgraded pedestrian tunnels and rail platforms, an east pavilion building with a large civic plaza, a new bus loop, and a 1,900-space six-story commuter parking structure. Existing underground tunnel links to the central train platform were reused and extended to the new station and parking structure. A new bridge connection from the parking structure connects customers to the rail platform.

The precast structure is wrapped by a sculptural veil of expanded aluminum mesh that is inflected and fractured by the vehicle entry points, the glazed vertical circulation towers, and the pedestrian bridge connection to the rail platforms. This larger folding texture of the facade is complimented by a finer texture of vertical slot openings that provides visual interest at the pedestrian level and from surrounding buildings as well as views from within the structure. Inside the sculptural veil resides an additional inner skin of woven stainless steel mesh that serves as a guard for pedestrians, while a tension cable system serves as a car barrier. This multi-layered system serves to maximize the level of natural light and air entering the building while mitigating light spillage onto neighboring residential properties.
Regatta Harbour Garage

*Miami, Fla.*

**Owning Agency and Director of Planning and Development:** Miami Parking Authority  
**Architect:** Wolfberg Alvarez & Partners  
**TOTAL COST:** $32,000 PER SPACE

The Regatta Harbour garage was built on seven acres of waterfront in Miami’s historic Coconut Grove, an upscale, walkable, bohemian neighborhood. The mixed-use garage project features 542 parking spaces and 33,000 square feet of retail space. The design included renovating a pair of historic airplane hangars that have been on the site for decades. Dating back to the 1920s, the hangars stored the famous “flying boats” that Pan American Airways flew from the site to Havana, Cuba, in the 1930s.

The seaplane-themed artwork features milestones associated with the historical context of the area. A mesh wrapping the garage and all other related components is made of stainless steel. The garage features low-scale parking integration with other transportation modalities aimed at encouraging walkability. Ambient lighting for the site, promenades, surface parking, and a pocket park were selected to maximize aesthetic qualities and scale.
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