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Fleet Service & Management

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INSIDE:

watershed management

City of Atlanta Watershed automates fleet management

Rolling out electric buses

Meeting emission goals

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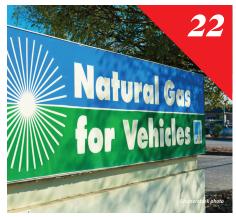
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ON THE COVER

The automation of the Atlanta Department of Watershed Management's fleet has saved the city money while also improving utilization, enhancing service and further greening its operations. Thanks to Agile Fleet's FleetCommander system, the city is expecting to save \$30,000-\$65,000 annually. Find out more about where that savings is coming from on page 10.







In recent years we have been reminded often of the important part building codes play in ensuring our communities can weather catastrophes. Around the world, our people, our economies, and even our health rely on the latest building and safety codes that incorporate innovative technology, best practices, and learnings gained from our diverse communities.

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Meet our Staff

publisher

RON BAUMGARTNER
rbaumgartner@the-papers.com



interim editor

DEB PATTERSON
dpatterson@the-papers.com

editor SARAH WRIGHT swright@the-papers.com





publication manager
CHRIS SMITH
chris@themunicipal.com

senior account executive REES WOODCOCK rees@themunicipal.com





account executive Lalanya Bruner lalanya@themunicipal.com



business manager
CARRIE GORALCZYK

cgoralczyk@the-papers.com

director of marketing
KIP SCHUMM

kschumm@the-papers.com

mail manager

KHOEUN KHOEUTH

kkhoueuth@the-papers.com

THE MUNICIPAL

PO Box 188 • 206 S. Main St., Milford, IN 46542 866-580-1138/Fax 800-886-3796 Editorial Ext. 2307; Advertising Ext. 2505, 2408 or 2489 **WWW.THEMUNICIPAL.COM**







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Departments

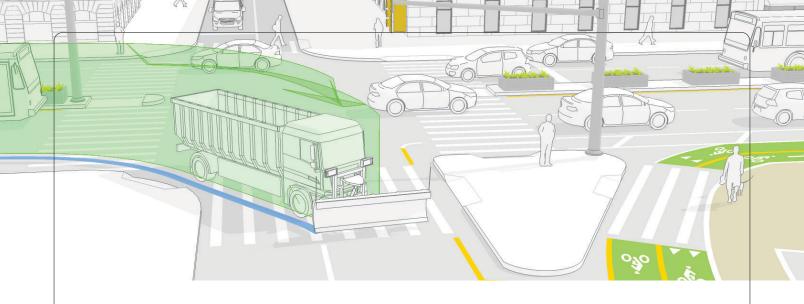
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Editor-In-Chief

DebPatterson accepted the position of editor-in-chief of The Papers Inc., officially moving into the position Monday, Jan. 20, after previously being named interim editor-in-chief following the death of long-time editor-in-chief Jeri Seely. Patterson has been employed full time at the company since May 22, 1978.

"I am grateful to have the support, encouragement and backing of the staff and publisher," she said. "I had great mentoring from former publisher Arch Baumgartner and gained invaluable knowledge from Jeri working under her for all the years at the company."





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Fleets continue pursuit of low-no emissions

Sarah Wright | Editor

day brings with it a news article sharing a different public fleet's plans to reduce emissions by "x" amount by "x" year. In most cases the gauntlet has been thrown down by forward-thinking city councilors or managers, but fleets have been more than eager to take it up, streamlining operations while also embracing new technologies and renewable fuels.

Metros, in particular, have been a driving force, with many taking on soaring emission reduction goals. Toward the end of January 2020, the Los Angeles Bureau of Sanitation—in line with other LA fleets—committed toward a zero-emissions fleet by 2035. It plans to transition its refuse fleet to 100% electric. It is amazing how far and quickly electric vehicle technology has come. Just a decade ago, electric vehicles were seen as a great option for light-duty vehicles, such as sedans, even though concerns were noted when it came to range, especially for certain applications like public safety. Now with the technology's rapid growth, heavy-duty electrified vehicles are seen as highly viable, and several truck manufacturers are now offering electric refuse collection models.

Refuse trucks aren't the only heavy-duty vehicles being electrified with success. Writer Denise Fedorow goes into depth about the use of electric buses — the pros and cons of the technology and how location might mean your mileage will vary in terms of practicality. Fleet managers definitely need to properly examine their circumstances before adding too many electric buses to their rosters, but if done right, electric buses can save money and reduce greenhouse gas emissions while also making

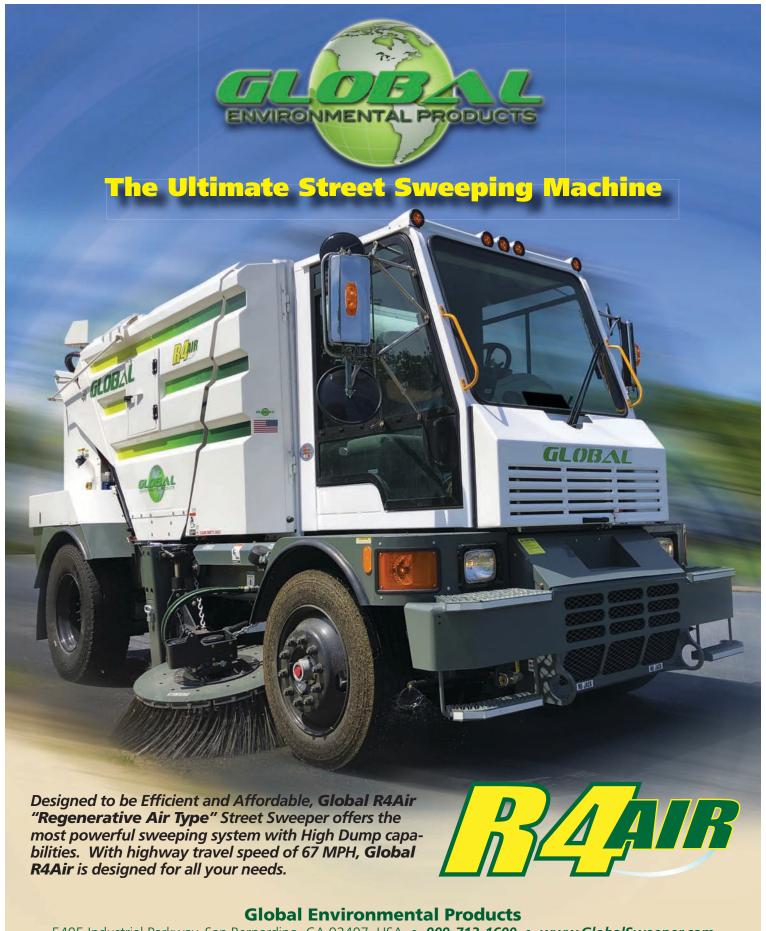
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happy with their quietness.

Compressed natural gas continues to entice public fleets with green on their minds, and some cities are getting into the biogas game with their own digesters. Writer Amanda Demster is relaying three fleets' experiences with CNG, including Longmont, Colo., and Manteca, Calif., both of which are embarking in biogas creation with the end goal of producing CNG. Clearwater, Fla., has also been using CNG for more than a decade and shared its experience with CNG refuse trucks.

In addition to renewable fuels, this fleet service and management issue of The Municipal will feature articles on fleet centralization and maintaining excellent communications between fleet members and customers.

As always we hope you find these stories insightful. If you'd like to share your fleets' stories, don't hesitate to reach out. We'd love to hear them.



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By ED SMITH | Agile Fleet

The city of Atlanta's Department of Watershed Management automated the management of its vehicle fleet to reduce cost, improve utilization, enhance service to employees and to further green its fleet. Fleet vehicles are a critical tool used by the Watershed to provide core services such as treatment and delivery of safe drinking water, treatment and collection of wastewater and management of stormwater in the city of Atlanta.

The objective for the city's fleet management automation initiative is to achieve the efficient management of fleet vehicles and ensure that safe and well-maintained vehicles are available for staff to carry out essential functions of the Watershed. The agency's fleet manager, Robert Horton, explained that prior to launching its fleet automation and vehicle sharing project, costly city vehicles were underutilized.

"There are over 50 different city offices in the city of Atlanta's Department of Watershed. Each office has its own pool of vehicles. There was very little sharing between the different offices. This led to some vehicles being rarely used while others were used daily and past their normal life cycle. The underutilized vehicles were also cumbersome to maintain due to overdue preventive maintenance, dead battery issues and poor overall appearance. We needed a way to get these underutilized vehicles into the

Robert Horton, fleet manager for Atlanta's Department of Watershed Management, launched his fleet's automation and vehicle sharing project, which promises to save the city \$30,000-\$65,000 annually. (Photo provided)

hands of individuals who needed them, and the over-utilized vehicles replaced with newer, more efficient vehicles. Centralizing and automating maintenance functions was also a goal," said Horton.

The city of Atlanta's Department of Watershed's motor pool

The Watershed currently has two self-service motor pool operations that serve employees who require city vehicles to conduct business. By sharing vehicles and allowing employees to easily schedule them via an online vehicle reservation system, the agency has increased the use of existing vehicles while reducing the overall need for vehicles dedicated to individuals or departments. Providing 24/7 pickup and drop-off of vehicle keys using the automated self-service kiosk makes physically accessing

LEFT: Having visibility into how and when vehicles are being used has enabled Atlanta's Department of Watershed Management to slash underused vehicles. (Photo provided)

the vehicles efficient throughout the department. As a result, vehicle usage for the shared fleet is rising at an astonishing rate.

With the Agile Fleet FleetCommander system in place, the city now collects usage metrics for each trip. FleetCommander produces preventive maintenance schedules via the automatic system, which provides an extra safety measure that benefits the fleet and city employees alike. The system also collects driver feedback on every trip so administrators are immediately notified of any occurrences that may arise.

Cutting costs, collecting metrics and greening the fleet

Having visibility into how and when vehicles are being used enables the city to slash underused vehicles. Horton said, "The city initially envisions cutting about 10 vehicles."

According to Agile Fleet estimates, this will save the city a minimum of \$30,000-\$65,000 annually in maintenance, depreciation, insurance, parking and other costs. Having usage metrics will also enable the department to fine-tune the fleet's composition to best meet the city's needs.

Horton said, "We are moving toward offering small SUVs, electric sedans and some pickups within the department's pool of vehicles. We will have Explorers for executive staff when their vehicles are in for service, and we will be able to switch over from hybrids to electric vehicles, which will further reduce costs, increase efficiency and green our fleet."

The Watershed is also adding EV ARC charging stations and will use solar power to charge vehicles. "I am especially interested in the emergence of new sustainable fleet technologies. I look forward to the future with the growing demand for electric vehicles, autonomous vehicles, alternative fuel vehicles and advanced fuels," said Horton.

"With the new automated system, we can run usage reports, see the status of our fleet with an online fleet dashboard and other fleet status screens and reports. This gives us instant visibility into what has happened, what is happening and what will be happening with our vehicles. Having all of the data we need in one system has been a game-changer to getting our city fleet under control," Horton said.

Horton stated the city's internal communication system helped it spread the word about sharing vehicles via the self-service motor pool. He said the system is being adopted by city drivers because of word-of-mouth and ease of use. "Folks seem to like feeling like they are 'part of the club,' and we are working with Agile Fleet to enable our employees to easily access the system using RFID (radio-frequency identification) badges. People are learning that the shared vehicle fleet is better for them because they now have access to more types of vehicles, whereas in the past they were limited to the types of vehicles that were offered by their department."

From key chaos to secure accountability

Managing vehicle keys in the past was inefficient. Horton said, "In the past, we kept keys in folders in the fleet offices. This was not ideal because individuals did not have access after work hours and tracking who was loaned the key was also a problem. We had a sign-out sheet, but it was not always used or filled out completely. Numerous times the keys would go missing without anyone knowing who had taken them or needed to

City of Atlanta's Department of Watershed Fleet and Motor Pool Management Quick Facts

- Serves drinking water to 1.2 million people each day
- Transformed manual fleet management processes to fully automated system
- Manages keys via secure, centralized key control system that does not require staffing
- Has automated system for managing preventive maintenance schedules
- Provides 24/7 pickup and drop-off of vehicle keys in two city locations
- Has 100% accountability for vehicles
- Maintains all user and vehicle data in one place
- Tracks vehicle usage by department, trips, hours and miles
- Collects odometers to manage timely vehicle maintenance schedules for a safer fleet
- Optimizes parking space
- Communicates and enforces policy automatically
- Can restrict access to certain vehicles to selected users via the automated system

bring them back. Key replacement is costly and time-consuming. With the secure, self-dispatching key box that is part of the motor pool solution, there is complete accountability. Our goal of eliminating lost keys and having 100% accountability for all key transactions is being realized through automation."

Fleet policy communication and enforcement

Having, communicating and consistently enforcing a policy can dramatically reduce fleet costs. The new system communicates fleet policies to drivers of fleet vehicles and requires them acknowledge policies online. Along with communicating policy as a part of new employee onboarding, the automated system requires drivers to reacknowledge policy every year. Over time, Horton expects to be modifying vehicle use policies to stay current with best fleet management practices. His automation system will automatically require drivers to acknowledge the new policy as he releases changes via the fleet management information system. Better policy will have a big impact on the organization's bottom line.

Looking ahead

"We are looking forward to achieving our short- and long-term goals of fleet efficiency and optimizing the system to its fullest potential over time. Word is getting out how easy the system is to access, and people are learning how it actually serves them better than the way things were done in the past. That's a win-win both for Watershed and for city taxpayers," said Horton.

For more information about the Agile Fleet management information system FleetCommander, visit www.agilefleet.com; email info@agilefleet.com; or call (408) 213-9555, ext. 1.



Boardwalk, Ocean City, Md.



By RAY BALOGH | The Municipal

(All photos courtesy of Ocean City, MD Tourism)

The small town of Ocean City, Md., with about 7,000 residents, opens its doors—or rather its boardwalk—to 8 million visitors every year.

The 2.5-mile traditional wooden plank walkway stretches north and south along pristine sandy beaches on the Atlantic coast.

The influx of visitors necessitates a stratospheric ratio of amenities per capita. Ocean City boasts 10,000 hotel rooms, 25,000 condominium units and more than 200 restaurants. Seventeen golf courses are available within a short drive of the town.

The Travel Channel hailed the classic boardwalk as America's best, National Geographic named it one of the country's top 10 and USA Today dubbed it one of the nation's best boardwalks for food.

Marking the southern terminus of the boardwalk is Jolly Roger at the Pier amusement park, which features a roller coaster, Ferris wheel, bumper cars, kiddie and wave pools, funhouse, midway and arcade games and a "Ripley's Believe It or Not!" museum.

The Trimper's Carousel, created in 1912, is the oldest continuously operating carousel in the United States. Nearby is a 1902 two-tiered merry-go-round with elaborately painted animals and benches, mirrors and felicitous decorations.



The southern inlet of the Ocean City boardwalk features an amusement park complete with Ferris wheel, roller coaster, arcade, bumper cars and midway games.

Walking, biking or taking the tram northward, visitors can enjoy frozen custard, ice cream, french fry and candy stands; restaurants offering barbecued ribs, pizza, seafood and craft cocktails; souvenir shops; and a brewery offering specially flavored moonshines, such as peach, cherry, strawberry, blueberry and cinnamon apple pie.

Other sweet tooth satisfiers include saltwater taffy, caramel corn, fudge, hot funnel cakes, cotton candy and chocolate-covered strawberries.

Specialty shops dotting the boardwalk sell pet supplies, jewelry, T-shirts and surfing accessories.



ABOVE: Early bird visitors can catch a glimpse of a stunning sunrise over the Atlantic Ocean.





Foot-pedaled surreys are available for rent to make the trek up and down the boardwalk less strenuous.

Notable landmarks along the way include:

- A U.S. Coast Guard tower. Construction began in 1934 and the tower was employed to watch for German U-boats during World War II.
- Ocean City Life-Saving Station Museum, which houses museum exhibits that portray the history of the U.S. life-saving service and the town. The first life-saving station was erected in 1878 and was expanded in 1891. The long-abandoned building was saved from demolition in 1977 and was moved to its current location. Exhibits include Davy Jones' locker, Boardwalk of Yesterwday and aquariums featuring local marine life.
- An oak carving of an Assateague Indian, created in 1976 by artist Peter Toth, who has donated totem carvings to all 50 states. The tree used for the carving was more than a century old.
- Ocean City Pier Building, first built in 1907 and replaced in 1926. The original building contained a dancing pavilion, skating rink, bowling alleys, billiard room and refreshment booths. The second floor was initially constructed as a ballroom.

Melanie Pursel, president and CEO of the Greater Ocean City Chamber of Commerce, offered a 10-point plan to maximize one's experience on the boardwalk:

- Walk the whole thing. "You'll enjoy stunning water views and tons of window shopping while getting a seriously heartpumping workout," she said.
- Borrow some wheels, including a tram, bicycle or surrey.
- Shop 'til you drop. "The blend of quirky, bizarre and beautiful makes shopping a real treasure hunt."
- Eat your heart out. "Leave your diet at home."
- Visit an extra special attraction, "from sandcastle building competitions to air shows."
- People watch.
- Tune in to beach music, including street performers, live music in some of the restaurants and bars and music during the weekly laser shows and beach concerts.
- Entertain your kids, including familyfriendly Beach Olympics and Movies on the Beach.
- Stay on the boards in one of the dozens of hotels, motels and condos that line the boardwalk
- Move beyond the boards onto "cozy, brick-lined streets with a decidedly downtown vibe. If you've already done the boardwalk, you'll find there is still much more to explore."

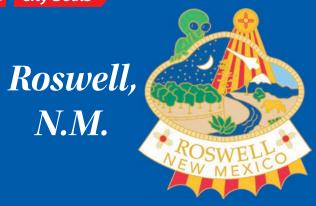
"If you get up early enough you can catch the pristine sunrise over the Atlantic," said Pursel. "Also, be sure to stay for the fireworks on Thursday nights throughout the summer."

The first boardwalk, a modest stretch of a few blocks, was constructed in 1902 by several hoteliers who, according to www.oceancity. com, "decided they and their guests needed a way to walk easily between their places of business while enjoying the view of the ocean." That portable first version was "removed at high tide and stored on the hotel porches."

The first permanent section, which ran five blocks, was constructed in 1910. Subsequent lengths were added, but the boardwalk was destroyed by a storm in 1962. It was rebuilt to its current length and underwent a complete renovation in 2012 "whereby the old splintering and rotten boards were replaced with new wood, while retaining the old-fashioned feel of its historic past."

The boardwalk is open 24/7 year-round, but the businesses maintain various hours and some are only open during the peak tourism season between the Memorial Day and Labor Day weekends.

For more information, visit www.ococean. com, www.oceancity.com or www.oceancitymd.gov.



The city seal of Roswell, N.M., is probably the only one in the country to feature an alien.

The green extraterrestrial is shown looking down upon an idyllic rustic scene from outside its boundaries. The alien is holding a disc, from which beams emanate to the ground behind a mountain, river, woodland and a grazing animal.

The seal boasts "Roswell, All-American City" across the bottom of the image.

The seat of Chaves County, Roswell, population 47,635, is the fifth-largest city in New Mexico. Its main businesses are a balance of agricultural and industrial, and include irrigated farming, dairy, ranching, manufacturing, distribution and petroleum production.

Roswell is home to the New Mexico Military Institute, which was founded in 1891. TV journalist Sam Donaldson and hall of fame quarterback Roger Staubach attended the academy.

The city, of course, was put on the map in the summer of 1947 with the apocryphal report of the crash landing of an alien aircraft, though the debris was actually found about 75 miles north of Roswell. A rancher in Lincoln County found the strange wreckage — including rubber strips, tinfoil and thick paper — on his property and took some of it to the sheriff in Roswell, who notified the commanding officer of the Roswell Army Air Field.

The RAAF released a statement the following day about coming into possession of a "flying disc," but changed its story a day later, claiming the object was a weather balloon, an explanation the U.S. Air Force admitted in 1994 to being bogus. Instead, the Air Force said the wreckage came from a spy device designed to float over the USSR to detect sound waves.

The alien bodies allegedly seen by some were dismissed in a 1997 government report as fallen parachute test dummies.

Questions persist and many Roswell enthusiasts will probably always believe the government was and is up to nefarious secrecy.

Roswell hosted an out-of-this-world descent of the more celebratory kind on Oct. 14, 2012. Austrian daredevil Felix Baumgartner jumped from a helium balloon that had ascended into the stratosphere, setting world records for the longest free fall - 24 1/4 miles - and fastest free fall speed - 834 mph, making him the first human to break the sound barrier outside a vehicle.

Since 1996 Roswell has hosted a UFO Festival, drawing thousands of visitors a year to the International UFO Museum and Research Center. The three-day event, held the first week of July, features alien costume contests for humans and pets, an evening light parade, memorabilia and Fourth of July fireworks. M

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"One third of new transit buses will be electric in 2020."

According to a 2017 article by Green Car Reports.

260,000 gallons

Currently, Yonkers, N.Y.'s, light-duty fleet consumes approximately this many gallons of gasoline annually, amounting to the equivalent of 2,311

Metric tons of carbon dioxide. Yonkers Mayor Mike Spano recently signed an executive order directing the city to procure only electric vehicle models of light-duty vehicles.



Source: http://yonkerstimes.com/yonkers-municipal-fleet-going-electric/

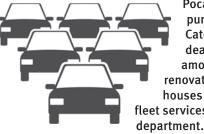
\$55,000

Wichita, Kan., was awarded a matching grant for this much by its local energy company, Evergy, which helped pay for infrastructure for a charging station to be used by the city's electric buses.



Learn about cities' experiences rolling out electric buses on page 18.

\$2 million

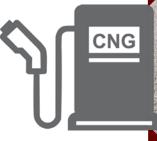


Pocatello, Idaho, purchased a former Caterpillar dealership for this amount, and after renovations, it now houses the city's new fleet services

Pocatello realizes benefits of centralization on page 28.

1,000 metric tons

Each year Longmont, Colo., expects to reduce its carbon emissions by up to this amount through the replacement of its diesel-powered trash trucks with compressed natural gas vehicles.



Read more about CNG's benefits on page 22

260



The pieces of equipment overseen by Framingham, Mass. To track each one, the city's Fleet, Facilities and Communications Program completes daily operational readiness reports.

Find out more about how Framingham has streamlined its communications on page 26.

60%

Albuquerque, N.M., is transitioning a little more than this percentage of its fleet to electric or hybrid power. This amounts to about 255 city fleet vehicles, with the first

the end of 2020.

Source: www.krqe.com/news/
albuquerque-metro/city-of-albuquerque-

unveils-electric-car-fleet/

50 being transitioned by



105,000 square feet

The size of a new building that will combine Madision, Wis.'s, existing fire maintenance facility from East Washington Avenue, the communications radio shop from Sayle Street and the fleet services facility from First Street.

Source: www.channel3000.com/ city-leaders-break-ground-on-fleetservices-building/



Is it for your municipality?

By DENISE FEDOROW | The Municipal

ABOVE: This is one of the Proterra electric buses that the city of Wichita, Kan., added to its fleet. (Photo provided)



Wichita City Council members, transit director, Proterra founder and members of the Federal Transit Authority Region 7 ambassadors cut the ribbon on the newly received electric buses last fall. (Photo provided) As more facts about carbon emissions' affect on climate change become known and as fuel prices fluctuate, more municipalities are considering renewable sources of energy for city operations. One way some cities and towns are doing this is by the electrification of their public transit systems.

According to a 2017 article by Green Car Reports, "One third of new transit buses will be electric in 2020."

Los Angeles ordered over 100 buses, and it, along with Seattle and several other cities, has committed to purchasing only electric after 2025.

That same article stated since buses "operate on predictable routes at scheduled times and within predefined areas coordinating the installation of charging infrastructure is somewhat easier compared to cars."

While still a fairly new endeavor, two municipalities spoke to The Municipal about their experience with electric buses.

Wichita, Kan.

Michael Tann, city transit director of Wichita, said the city looked at other alternative propulsion options like compressed natural gas before electricity but decided the cost of conversion was higher than Wichita wanted.

Tann mentioned his former city, Erie, Pa., was pretty heavy into CNG. Because of the federal low-no emission bus grants available through the Federal Transit Administration, the city decided to go that route to replace old trolley buses.

It submitted its grant application in August 2018 with the help of Proterra, an electric bus manufacturer.

Tann said, "We told them we'd only be purchasing electric buses moving forward."

In November 2018, Wichita was awarded enough to purchase four buses and the infrastructure needed to charge them. It also partnered with local energy company Evergy, which awarded the city a \$55,000 matching grant for infrastructure that helped put in the charging station. Tann said Evergy signed an agreement with Wichita and the entire state of Kansas that any city using electric buses will get a reduced rate of electricity from 7 p.m. to 6 a.m.

"Our buses are off the street every night at 7-7:30 (p.m.) so this gives us a 55% savings over what we'd normally pay for electric," he noted.

Wichita has received an over \$2 million grant to replace its aging trolleys, but that wasn't enough to purchase all Proterras so it asked the federal government if it could also use that money to get refurbished electric buses.

Tann said the city got the OK and purchased seven refurbished electric buses from Complete Coach Works. Complete Coach Works takes the old frame and replaces everything else. "It has all new guts, new seats and electrification system."

Between the Proterra buses and the Complete Coach Works, Wichita has a total of 11 buses out of the 40 it has on the street.

"We were able to maximize our buying power," he said.

The goal is to get Wichita's fleet to 50-50, and right now, it has the infrastructure capacity for 15 buses without adding anymore charging stations. The plan is to add more in four to five years, and one reason is the "battery technology is evolving so fast."



Proterra Founder Dale Hill visits with Wichita Transit driver Troy Bowens inside one of the new electric buses unveiled last fall. (Photo provided)

Tann related that now the batteries can run about 140-150 miles on a charge. "We don't run any routes that long," he said, noting his city's public transit system works perfectly with the operating parameters of the electric buses.

The buses operate Monday through Saturday until 7 p.m., and Wichita is flat and very straight so the routes are not hard on the buses.

Wichita is very "car-centric," according to Tann, with a lot of families owning four cars. In Wichita, it's possible to drive from one end of town to the other in 15 minutes. So he said the motivation for most residents to ride the bus is the cost of a vehicle or the impact they can have on the environment by using public transportation.

When the younger generation gets familiar with riding the bus to and from school, then they start riding it to go shopping or visit friends and may continue riding it to reduce their carbon footprint.

Pros and cons

Wichita just put its buses on the street a few weeks ago and Proterra will be training its drivers.

"If a driver operates the bus properly, they can regenerate 20% of the power while they're driving," Tann said. "With electric buses, when you take your foot off the accelerator, it goes in reverse and regenerates electricity. Once you train the drivers, you can almost

have a competition on who can regenerate the most electricity."

Wichita will only let the battery get down to 20%, and from 20% to 100% takes six hours. Once it's fully charged, it'll go into "trickle mode." Tann explained the two different types of buses have different charging methods. The four Proterra buses have their own charging stations, so when the buses come in, they get plugged in. The Complete Coach Works buses have the charger integrated into the bus and use 220-volt electricity.

Some of the pros for electric buses include they have fiberglass bodies so they don't have corrosion, the brake line lasts three times longer, no oil to change, no combustion engine, etc. This enables the city to save on preventive maintenance. They're also quiet so passengers can converse inside or outside the bus.

Tann said the city leases the battery packs from Proterra so in six years it'll get new battery packs and the old lithium batteries will be repurposed.

"It has a long life for its main purpose, and then it can be refurbished for new use," he said

One negative is the cost of the bus and the infrastructure. The Proterra buses reportedly cost around \$800,000-\$900,000 each.

"The disadvantages are short term and up front," he said. "New technology always costs more," but he added, as more are sold, the costs go down.



These are four charging stations for Proterra electric buses installed at the city of Wichita's transit garage. (Photo provided)

The cost difference between diesel and electric buses has already shrunk from just a few years ago with the difference now about \$120,000-\$130,000, according to Tann. But he said right now with the low-no emission grants the federal government pays 90% of that cost.

Tann acknowledged the grant money is "very competitive, but it's certainly well worth doing if the community is willing to invest in the other part—the infrastructure."

Tann believes the cost of the bus and battery technology will continue to get better and less expensive as more units are put into service. He acknowledged, while Wichita's buses are still in the commission phase, he doesn't think they'll have any of the issues other municipalities have had with battery degradation with the extremes of hot or cold weather.

"It's probably not going to affect us — our buses are garaged," Tann said.

Now Tann has had the opportunity to work with fleets using diesel fuel, CNG and electric, and so far, he thinks he prefers the electric systems.

"The FTA is 100% behind this — it's a great way to diversify your propulsion and get away from fossil fuels. I highly recommend every public transit agency to look at where electrification can be beneficial."

Duluth, Minn.

Duluth just completed a trial year of running some Proterra buses and has had some challenges. Phil Pumphrey, general manager of Duluth Transit Authority, said Duluth was named in one poll as the fifth coldest city in the U.S. It sits at the west end of Lake Superior and runs east and west with steep elevation climbs from the lake to about 800 feet.

These factors are why the FTA's low-no emission vehicle grant program and partner Proterra wanted to see how the buses would perform.

Pumphrey said the authority received its first electric buses in the summer of 2018, and they were put into service by the end of that November. This first group included seven Proterra extended range buses with 440 KW and two-speed transmissions.

Duluth's buses have supplemental diesel-fueled heaters in their cabins.

"The manufacturer was skeptical that we needed it because the bus has a HVAC system, but we told them we had to have it," Pumphrey said.

Because of the battery drain caused by Duluth's extreme extended periods of cold — often with temperatures of 20 below zero — the supplemental diesel heater became the primary heat supply.

"The cold decreases the ranges significantly. When the temperature hits below 20 degrees, it has a real impact — the buses can only run six to six and a half hours in the winter," Pumphrey said. "A diesel will run all day so it's not a one-for-one replacement for the buses."

The city of Duluth operates its buses about 20-21 hours a day. "We have a lot of ridership — about 2.7 million a year," Pumphrey said.

The authority has contracts with the universities in town to provide service, and a lot of lower income residents ride the buses. So Pumphrey said knowing the electric buses only run six hours makes a big difference in how and where the authority can utilize those buses.

"There have been savings promised, but they're gone depending on how long you can run the buses," he said.

Duluth has run hybrids, too, and have had some of the same issues. "I think it's the weather." he said.

The seven electric buses are about 10% of the fleet, and in hind-sight, Duluth Transit Authority would have gotten fewer to start, but Pumphrey said the decision was made before he entered his current position. He said the buses cost about \$900,000 each, not including the infrastructure and backup generator.

"After the bus has been discharged, we can recharge 10% in an hour on a fast charge so it takes about seven hours to fully charge."

Duluth has experienced squealing power steering since the electric buses don't provide residual heat in the engine compartment. This was among other "hiccups that we worked through," according to Pumphrey.

Duluth also gets a break on the cost of electricity from their electric company but not until after 10 p.m.

Pumphrey said he thinks the electric buses would be ideal for their school districts because they run for a couple of hours in the morning and can be recharged before going out in the afternoon.

He said the passengers do like the buses because they are very quiet. For other municipalities looking at electrification, he said he wouldn't recommend "going whole hog — just get a couple."

Smaller cities might like hybrids

For smaller municipalities with less ridership or those who just want to stick their toes in the pool of electrification, a hybrid shuttle bus like the ones offered by XL Fleet may be the way to go.

Eric Foellmer, director of marketing for XL Fleet, said the company's most popular model for public transportation is the Ford E350-450 Cutaway Shuttle that holds about 15-20 passengers.

"That's our most popular for city transit — we have a variety of midduty passenger vans for smaller municipal applications."

Foellmer said the hybrids will "help improve the miles per gallon by 25% and reduce emissions by 20% with no operational disruption."

For information, check out the websites of the manufacturers mentioned: www.proterra.com, www.completecoach.com and www.xlfleet.com

He explained because it's a hybrid system, it's still gas powered so there are no worries about the length of routes or expensive infrastructure.

"It's a great stepping stone for municipalities with sustainability goals but not the funds for infrastructure. Most municipalities need substantial grants in order to buy an electric bus. They can add more hybrids for the cost of one bus."

XL Fleet's systems run about \$24,000-\$25,000 above the cost of the vehicle.

"We're an aftermarket technology. Most buy the vehicles new and add the hybrid system but we can retrofit." Foellmer added, "We're eQVM certified and the maintenance schedules and (OEM) warranties are intact."

The only difference from regular maintenance is, when the vehicle is brought in for service, technicians need to check the coolant on the hybrid system. Like the fully electrified system, the XL Fleet hybrid regenerates power when braking. He noted, "Our customers are finding it's extending the life of their brake pads—it's a great secondary feature."

Foellmer said the company also works with General Motors. "We electrify what the fleets are already buying."

He said hybrids are still the predominate seller for alternative fuel vehicles as they're more cost effective and less impactful on infrastructure. With an increase of 25% in miles per gallon and 20% reduction in CO2 emissions that becomes pretty substantial over the lifespan of the vehicle.



The city of Duluth, Minn., added electric buses to its fleet in 2018. (Photo provided)

"For municipalities just starting out and wanting to reach sustainability goals, this is a great way to start. This is a great way for fleets to be more flexible and sustainable," Foellmer said.

So for those considering a move in this direction, the best thing may be to take Pumphrey's advice. "Be sure you do your due diligence and research with an independent source and try to ascertain and get hard data on what the range will be, how the bus will perform in your conditions and how you plan to use it."

Make more impact, with less impact







Need to make progress on your sustainability targets this year, but don't have the means to fully electrify your fleet? Adding hybrid or plug-in hybrid electric pickups, vans or work trucks can make a big impact on your goals with a small impact on your operations.

XLfleet.com/sustainability





CNG gives cities a cleaner, cheaper fuel solution

By AMANDA DEMSTER | The Municipal

As the push continues for environmentally safe, renewable fuel sources, cities across the country are turning to compressed natural gas. CNG brings a variety of benefits, like reduced greenhouse gas emissions and lowered dependence on foreign oil.

Fleet managers are discovering the added benefit of reduced costs since CNG is cleanburning, which, in turn, cuts down on maintenance needs and increases vehicle life. Many states offer grants and other funding for cities wishing to move from fossil fuel to biofuels and CNG.

Some cities produce their own CNG from materials like food waste. Anaerobic

digesters installed at wastewater treatment facilities break this waste down into methane gas, which can be purified to create a clean-burning, renewable fuel source known as biomethane. Under pressure, this biomethane is known as CNG.

Manteca, Calif.; Longmont, Colo.; and Clearwater, Fla., serve as examples of what can happen when cities put their minds to reducing emissions and saving on fuel costs.

Manteca, Calif.

In recent years, the state of California has passed legislation requiring food waste be kept out of landfills.

State regulation also mandates replacement of diesel-powered fleet vehicles with ones that run on clean-burning, renewable fuels. This pertains to vehicles dated 2010 or earlier. With a deadline of 2023, cities across the state are scrambling to find ways to comply.

LEFT: Cities continue to embrace compressed natural gas in order to meet emission reduction goals and save money. Pictured is a Las Vegas, Nev., Clean Energy Fuels natural gas station. (Jonathan Weiss/ Shutterstock.com)

In August 2019, Manteca held a ribbon-cutting ceremony to mark the grand opening of its waste-to-fuel program, the first fruits of the city's Biosolids and Biogas Utilization Plan.

The first phase of this project was completed in June 2019. It included expanding the digesters at the city's Water Quality Control Facility and incorporating the latest energy-efficient technology in biogas production and treatment.

Phase two involved the construction of a facility at the WQCF, where biogas will be converted into renewable CNG. Phase three is the installation of food waste separating equipment at the city's Lovelace Transfer Station.

"Right now, most of the energy produced is specifically through the biosolids," Manteca Public Works Deputy Director Peni Basalusalu said.

This is not the city's first step toward reducing its carbon footprint. In 2016, Manteca announced its intention to convert or replace its entire fleet of garbage trucks with vehicles that run on CNG. This fleet continues to grow.

Annually, the station is expected to produce up to 140,000 diesel gallon equivalents of CNG, which will then be used to power the city's garbage trucks. This, in turn, could save the city between \$500,000 and \$1 million in fuel costs since it will reduce diesel consumption by approximately 500 diesel gallon equivalents per day.

Due to CNG's efficiency, even as Manteca continues growing its CNG fleet, the facility is still producing more natural gas than the trucks can use.

"The biggest challenge we have is not having enough CNG trucks to meet the amount of CNG fuel that is being produced," Basalusalu said.

This is a good problem to have and has allowed Manteca to consider the idea of making its CNG publicly available.

In 2018, Manteca received an award from CWEA-NSJ and won third place for engineering achievement from the California Water



Longmont, Colo., has replaced several diesel-powered trash trucks with CNG vehicles. Once the full transition is complete, Longmont will save an estimated \$100,000 to \$200,000 annually on fuel costs. Pictured is the Longmont Civic Center, which houses many city offices and departments. (Shutterstock.com)

Environment Association. Last year, Manteca received the Water Environment Federation Project Excellence Award, a national honor.

"We're very excited to be one of the leading agencies in this aspect," Basalusalu said. "We're hoping to get some funding help and continue to meet the mandates and be good stewards of our environment."

Some of this has already come about. Manteca received \$3.3 million from the California Energy Commission for biogas production facilities. An additional \$1.9 million has come from the San Joaquin Valley Unified Air Pollution Control District for CNG fueling and dispensing facilities.

For more information and to see Manteca's Solid Waste Master Plan and Biosolids and Biogas Utilization Plan, visit https://www.ci.manteca.ca.us/PublicWorks/Pages/Waste-to-Fuel-Program.aspx.

Longmont, Colo.

More than 1,000 miles east of Manteca, the city of Longmont recently completed a 23,000-square-foot building that will serve as the site of its Biogas Treatment and Renewable Natural Gas Fueling Station.

Located at the city's wastewater treatment plant, the station converts gas produced during the sewage treatment process into CNG, giving the city a constant, renewable fuel source for its fleet of garbage trucks.

Several of Longmont's diesel-powered trash trucks have already been replaced with CNG vehicles. Once the full transition is complete, Longmont will save an estimated \$100,000 to \$200,000 annually on fuel costs while reducing carbon emissions by up to 1,000 metric tons per year.

An initial challenge was determining whether Longmont's existing facility could accommodate CNG.

"If you're going to transfer a whole fuel type over from diesel to CNG, you've got some considerations," Longmont civil engineer and CNG project manager John Gage said. "One, do you have a fleet maintenance facility that is compatible with maintaining CNG vehicles?"

As it turned out, the city already did.

"It had been upgraded within the last five years, so they went ahead and put in a CNG maintenance facility, knowing that was something we might be needing in the future," Gage said.



Cost also came into play. According to Gage, a new CNG garbage truck can cost between \$50,000 and \$60,000 more than a diesel one. Fortunately, Longmont was not alone in its endeavors.

The Regional Air Quality Council covered around \$40,000 per truck, and a \$1 million grant from the Colorado Department of Local Affairs helped purchase RNG equipment. The city can also take advantage of between \$100,000 and \$200,000 in credits through the U.S. Environmental Protection Agency's Renewable Fuel Standard Program.

When it comes to keeping cost down, Longmont has been deliberate, timing the purchase of new CNG trucks with the fleet's existing vehicle replacement cycle.

As far as maintenance, it is too early to tell what the cost will be compared to diesel vehicles. Longmont was able to send its existing fleet mechanics to CNG training without having to hire new ones. That is not to say things will always be that simple.

"The question about long-term maintenance will be laid out for us," Gage said. "We've heard different stories. Some say CNG requires a lot less maintenance, but there are some people who say there is more maintenance."

Longmont also faces the question of what to do with its excess CNG. The plant can

produce around 150,000 gallons of RNG annually, but the fleet uses only around 100,000 gallons.

"So, we have decent capacity to fill the vehicles, but now we're talking about how do we leverage that extra fuel we're using and how do we incorporate different vehicles like electric," Gage said.

To learn more about Longmont's goals for sustainability, visit www.LongmontColorado.gov/community/sustainability.

Clearwater, Fla.

While the use of CNG may be fairly new to Manteca and Longmont, the city of Clearwater has been using it for more than a decade.

Clearwater does not produce its own CNG, but pipes it in from wellhead gas. The city's gas utility, Clearwater Gas System, oversees the filling station where the garbage trucks refuel.

Aside from powering the city's garbage truck fleet, the city of Clearwater was one of the first entities in the Tampa Bay area to make CNG accessible to the public and remains one of the few in the state to do so.

Making the CNG publicly accessible was a stipulation for receiving grant funding to help build the facility, Clearwater Gas System Assistant Director Brian Langill said. Clearwater, Fla., has been using CNG for over a decade, piping it in from wellhead qas. (J. Bicking/Shutterstock.com)

In January, CNG at the Clearwater station was \$1.49 per gallon, much cheaper than gasoline and diesel. The station, Langill said, known as "fast fill," takes about 10 minutes to refuel one CNG garbage truck. This is as opposed to overnight for a "slow fill" station.

At this time, Clearwater does not have the necessary capabilities to produce its own CNG, though that is something the city would like to be able to do in the future.

"We see that as up and coming for our area, as far as using the waste gas off of their digester plants," Langill said.

Currently, there are 57 CNG garbage trucks running throughout the city. While each vehicle costs between \$30,000 and \$40,000 more than its diesel counterparts, fuel savings are around \$15,000 per year.

"The savings per gallon every month pays for them within two or three years," Langill said. "They're running those garbage trucks for eight-plus years, so they're saving a lot of money on annual fuel costs."

Besides fuel savings, Clearwater has seen a number of positive results over the last 10 years when it comes to using CNG. One is vehicle maintenance.

"The life cycle of the vehicle is extended because the engine does not wear out as quickly because of the clean fuel you're using," Langill said. "Oil changes are not as often because the oil stays clean, so it really has helped out a lot, especially with the garbage trucks."

In addition, Langill said the vehicles' exhaust pipes do not accumulate dark soot like they would on a gasoline or diesel vehicle. Overall, he said the trucks simply run better.

Clearwater does not yet have a tried and true formula for measuring emission reduction. However, Langill believes the numbers would be encouraging.

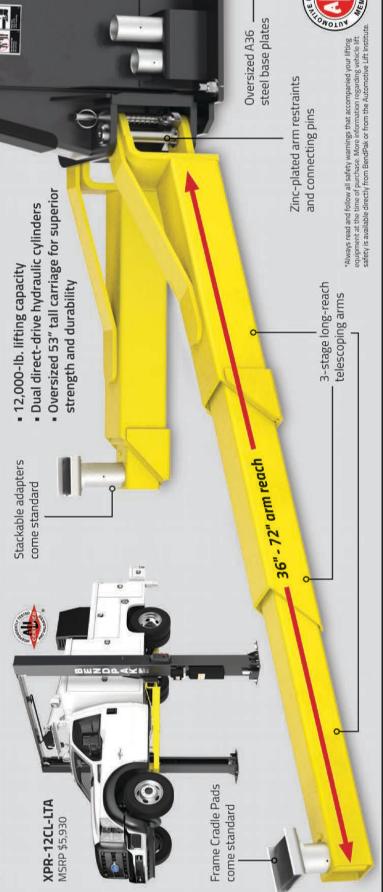
"I just know, generally speaking, by industry standards you get about a 25% reduction on CO2 emissions," he said. "But we have not actually measured it, or at least not yet."

For more information about Clearwater's CNG refueling station, visit https://www.clearwatergas.com/services/services/natural-gas-vehicles-cng. M

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Communication is key:

How fleet managers must keep information flowing

By JULIE YOUNG | The Municipal

With more than 260 pieces of equipment to coordinate ranging from portable signboards to big tractor-trailer vehicles, Jeffery Rousseau has his work cut out for him. As the director of the Fleet, Facilities and Communications Program for the city of Framingham, Mass., he said communication is the key to helping everything run smoothly. Especially when the going gets rough.

"If a truck is out of service or is being worked on, everyone needs to know that," he said. "They need to know what equipment is down or out and more importantly, when they can expect it back."

Get "ready"

In order to achieve this, Rousseau prepares a daily operational readiness report that lists every truck or piece of equipment that is out for repair, no matter if it is merely an oil change or something more serious. The report is then distributed to 38 people across multiple departments so they can learn what vehicles are available and ready for dispatch.

"If sanders are needed to handle an ice event, you can't assign a worker to a route with a truck that's not available," Rousseau said.

Naturally, organizing so many pieces of moving equipment, managing routine maintenance and communicating with various departments is not always easy. In addition to the daily operational readiness report, Rousseau promotes communication by making sure all vehicles are equipped with two-way radio so important information can be transmitted and disseminated at all times as well as having appropriate software to help manage everything in a concise way.

Some of the most popular fleet management software solutions include GPSWOX, which is based in the U.K. but has subsidiaries in the U.S. and the EU as well; NexTrag, a Michelin company headquartered in Atlanta, Ga.; and PeopleNet, which offers end-to-end tracking for performance monitoring, travel logging, navigation routing, safety and insurance. Experts say fleet management software should enable your organization to lessen the lifecycle costs of each vehicle, promote better replacement planning and budgeting, offer a fully integrated fuel management system, oversee compliance regulations and offer a fully customizable dashboard that supports workflows.

Of course when it comes to communication, personal cellphones and mobile devices help as well, and in the event of an actual emergency, Framingham has a fully staffed storm room that can be contacted, which helps both personnel and the public at large stay informed as to what is going on.

LEFT: Framingham, Mass., Fleet, Facilities and Communications Program oversees 260 pieces of equipment, and to best manage them, its director creates a daily operational readiness report that lists every truck or piece of equipment that is out for repair. (Shutterstock.com)

RIGHT: Framingham's storm room helps both personnel and the public stay informed during weather events. (Photo provided)

"The women who run that room are fantastic. When we know something may be coming our way, they get on top of that situation hours before it's expected to arrive," he said.

The snowball effect

In 2015, Framingham had what Rousseau calls a "never-ending" snowstorm when the temperatures would not rise above freezing and trucks were needed to combat the weather. With an all-hands-on-deck mentality to get the job done, Rousseau said it was critically important to know what was available, what wasn't and when it would be back in service so they could get personnel back out on the road.

"In most cases, there is no such thing as extra equipment so we have to do what we can to repair any vehicles and get them operational so that we can manage the situation. The storm room really helps out with that," he said. "During a full-blown storm, there is a need to get equipment out on the road, and if it isn't available, there can be a serious snowball effect. From a fleet standpoint, our job is to support and that begins with good communication."

The personnel in the storm room update the city every four hours, and the information is also made public so residents can stay informed as well. Rousseau said it's been so effective that other departments are adopting the protocol, adapting it and using it to improve communication in their areas as well.

"DPW (department of public works) has started doing it so that the public can make adjustments to their route if their road is blocked off due to a pipe repair."





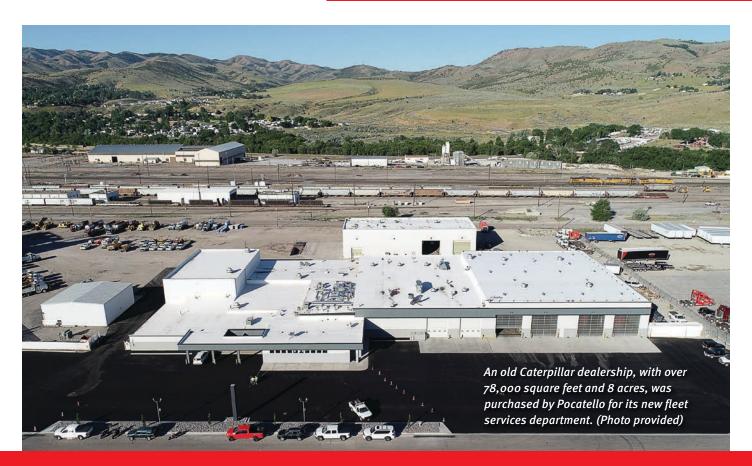
During a massive snow event in 2015, it became critically important to know what equipment was available, what wasn't and when it would be back in service to keep personnel on the road. (Photo provided)

Streamlining the operation

The purpose of a fleet manager is to ensure the vehicles in his or her care are operating smoothly, identify areas in which performance can be enhanced and to keep costs low while adhering to all local, state and federal regulations. With such a streamlined operation running like a well-oiled machine, Rousseau admitted it's easy to become complacent over time. However, he is quick to say there is always room for improvement as it pertains to communication and it's important for managers to adapt when appropriate and not

complicate the process with a lot of unnecessary steps.

"When the call comes in, we have someone who takes ownership of the situation," he said. "If you have a sewer problem, you will talk to someone in the sewer department and there will be a truck in your yard soon. We have personnel on call at all hours, they are ready to go and we have a list that we update constantly. Not only do we strive to take care of problems, but we also follow up. We log our calls and make sure that the issue is resolved not only for our residents but for our personnel as well. That's what communication is all about."



Pocatello, Idaho, bids silos farewell with new fleet services department

By JANET PATTERSON | The Municipal

In 2019, Pocatello, Idaho, joined a growing trend toward centralizing city vehicle and maintenance operations to increase efficiency and decrease costs.

The new Pocatello Fleet Services Department opened its doors in a former heavy equipment dealership building Oct. 1, 2019, according to Tom Kirkman, the city's deputy public works director.

The idea for centralizing the maintenance and repair operation of the city's vehicles and other equipment was the result of a challenge from the city's government.

During the 2017 budget planning cycle, he said the Pocatello City Council asked the city departments for "ideas on how to increase efficiencies and decrease costs. Centralizing

vehicle and equipment maintenance seemed like a logical place to start."

The city did a facility needs assessment for the Street and Sanitation Department in July 2017. "These departments were in need of different facilities, and it was determined that it would be beneficial to house all three departments in one facility," Kirkman said, adding after researching each department's needs, the city concluded that to house the street, sanitation and future fleet services departments, it would need 50,573 square feet of space.

"We found a vacant building that previously housed a Caterpillar dealership and offered over 78,000 square feet and over 8 acres."

The city purchased the property for \$2 million, putting an additional \$1.5 million into renovations necessary to combine all three city departments. The renovations began in October 2018 and were complete by the following March.

Almost every city department uses vehicles in some way. While all the city departments have not been included in the new fleet services department, it takes care of about 600 vehicles in the street, sanitation, water, parks and recreation, police, animal control and library departments, as well as city hall functions such as building, utility billing, planning, the mayor's office and public works. Because

of proximity or funding sources, Kirkman said the departments not served by Pocatello Fleet Services are the airport, transit, water pollution control and the fire department.

Nationally, both large and small cities are finding benefits to centralizing services to their vehicle fleets. Idaho's capital city of Boise created a fleet service department in 2008. The effort has been so successful that Boise was named the top fleet in the country in 2015 at the annual Government Fleet Expo and Conference. Kirkman said the Boise fleet was helpful in Pocatello's planning process. "We met with them to assist in our centralization. They were extremely helpful in pointing out items that we would need to consider."

In addition to breaking down the traditional "silos" of fleet management, centralization uses expertise across a city's fleet and optimizes both capital and operational dollars by sharing resources, according to CST Fleet Services, consultants in the transportation industry.

Centralization also means better control for a city when purchasing fuel, parts and tires as well as replacing vehicles.

Kirkman said the city believes there are four main benefits to the centralization of Pocatello's fleet.

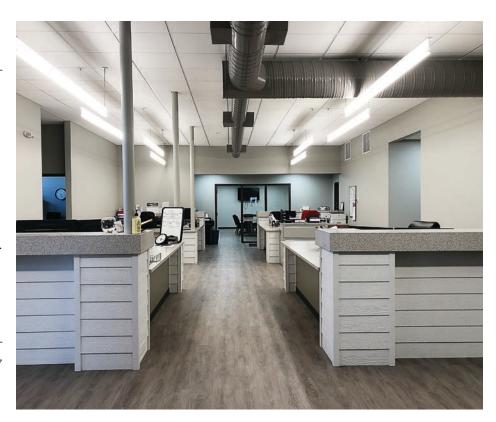
The top benefit is that individual departments are paying technician wages only when they're needed by a department, rather than having every department paying all of its technicians' full-time wages. Kirkman said this means "saving each department a substantial amount of money."

The second benefit is being able to purchase supplies in bulk rather than each department purchasing separately.

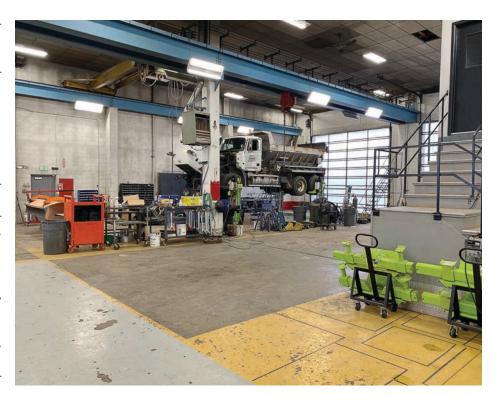
Another benefit for the city is that technicians can focus on vehicle repair and preventive maintenance rather than performing other duties within individual departments.

And finally, the new fleet management software that has been implemented tracks and plans for capital purchases as well as determining right sizing for each department, Kirkman said.

The Pocatello Fleet Services Department employs five technicians, two shop foremen, a service writer, a fleet manager and a fleet and materials coordinator who manages purchases. Kirkman said no one lost a job in the centralization, but as technicians have moved on or retired, some vacancies have not been filled, saving money for the department.



Building renovations began in October 2018 and were complete by the following March. (Photo provided)



Pocatello Fleet Services Department takes care of about 600 vehicles, ranging from sedans and light trucks to garbage trucks, dump trucks and road construction equipment. (Photo provided)

The 10 fleet services people are tasked with maintaining and repairing everything from sedans and light trucks to garbage trucks, dump trucks and road construction equipment like backhoes, loaders, graders and asphalt pavers. In addition, police cars and lawn mowers come under the fleet services care.

"Each (personnel) vacancy was reevaluated and determined that cross-training of current technicians would be a viable option to cover those vacant positions," he added.

Kirkman said that because Fleet Services has been in operation only since last fall, it is too early to tell exactly how much the savings benefits of centralization will be to the city; however, he believes it will have considerable benefits to the budget for the city of 55,000.

"Combining all technicians into a centralized fleet repair facility has been a daunting task. The city of Pocatello has not created a new department in many, many years so there were not a lot of resources to assist in this process," he said.

Pocatello's research leading up to the centralization resulted in implementing new policies and procedures that mean better tracking of vehicle and equipment maintenance and repairs in addition to streamlining purchasing across city departments. Kirkman said he expects these factors to result in saving both money and time for the city.

"We believe our efforts will be well worth it," he said. "Our attitude has been, just because we have always done something a certain way doesn't mean there isn't room for reevaluation and improvement."



Having fleet services centralized enables Pocatello to purchase supplies in bulk rather than each department purchasing separately—saving money. (Photo provided)

He added that a major factor in the success of the centralizing effort has been the encouragement of the city's mayor, Brian Blad, and the city council.

Future plans for the newly centralized operation include working toward ASE certification for Pocatello Fleet Services' technicians as well as expanding the number of departments served by it. $\[\]$





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Westbrook establishes state's first municipal veteran services office with city's first electric vehicle

By MAGGIE KENWORTHY | The Municipal

Westbrook, Maine, is focusing on a series of firsts as the city recently opened the state's first municipal veteran services office, and that office has leased the city's first fully electric vehicle.



Pictured, from left, are Ellie Espling representing Senator Susan Collins; Mayor Michael Foley; Veterans Service Officer Arty Ledoux; and former Mayor Mike Sanphy at the office's ribbon-cutting held Jan. 17. (Photo Provided)

The idea to start a veteran services office at the municipal level first came to Veterans Service Officer Arty Ledoux in March 2019.

"In Maine, there are two entities that have veteran services offices, they are the Maine Bureau of Veteran Services and the federal government, the VA (Veterans Affairs). Here in Maine, those are the only two places where veterans can access particular benefits that they have earned and deserve," explained Ledoux. "We are bringing that down into the municipal level. We are the first ones in the state of Maine that's not affiliated with the state or the federal government. We're going to be offering these same services, right here at the municipal level."

Specifically, a veteran services office works to help veterans and their families access benefits available to them. A veterans service officer is available to help them find answers to their questions, solutions to their issues and be a helping hand when it comes to filling out paperwork.

"One of the things I wanted us to be was I wanted us to be more than just a pamphlet rack. Somebody comes in and you hand them a pamphlet and send them on their way," said Ledoux. "That's not what my vision was for this, and I would not be the right person for that job. I wanted to provide more support for veterans and their families than just that."



The veteran services office, with the help of local organizations, leased a Hyundai Kona, Westbrook's first electric vehicle. (Photo Provided)

Since last March, Ledoux has proved that he is much more than just a pamphlet rack in many ways. He has earned his accreditation as a veterans service officer through the National Organization of County Veterans Service Officers, found a home for the office within an existing building and even helped facilitate the leasing of Westbrook's first fully electric vehicle for the office—all while juggling another full-time position as the operations manager for the Public Services Department.

"(Ledoux is) going to try to fulfill all his duties within a four-day workweek, Monday through Thursday, and therefore, be available on Fridays for veterans services," explained Mayor Michael Foley. "He'll still be able to get emails or calls while he's fulfilling his normal responsibilities and be able to get back to people or set up appointments to meet with people on the timeframe that we have him allotted for on Fridays."

This allows Westbrook to run the new office completely through the use of municipal funds. Another way that this office is able to work financially is because the office is housed within the existing community center, inside a room that Ledoux stated was previously used as a storage closet.

But, the city really saved money when it came to the acquisition of the office's vehicle. This vehicle will be used to help transport veterans to appointments or visit with them at their homes if they are unable to travel to the office.

"I could see that there could be a need for a vehicle in this position," said Ledoux. "I approached the local (Rowe Hyundai of Westbrook) dealer, who I know, and his son is a Marine and a veteran of Iraq. I met with him and his son, and over the course of three or four meetings, we were able to put together a deal."

The city secured a three-year lease on the 2019 Hyundai Kona EV with only \$2,800 from the city's budget. The remaining cost was funded with help from the dealership, Efficiency Maine, Hyundai Motor Company and the Cornelia Warren Community Association.

Despite the city's hybrid police cruisers, this is Westbrook's first fully electric vehicle.

"In Maine, there's been more electric vehicles from a municipal standpoint. We're actually kind of behind on that area," explained Foley. "We have electric vehicle chargers located at our city hall and in our downtown... So it might make sense for us to definitely explore (other uses for electric vehicles)."



The new veteran services office is located within the Westbrook Community Center. (Photo Provided)



The Westbrook Veteran Services Office officially opened Jan. 17, making it Maine's first municipal veteran services office. (Photo Provided)

Since starting on this journey of opening the office, Ledoux said the thing that's surprised him the most is the number of resources already available for veterans.

"The wheel has already been invented in a lot of cases and I just need to know where the wheel is, because there's a lot of programs out there for veterans already," said Ledoux. "For example, I had one gentleman in Portland tell me, 'If you have a veteran that contacts you and tells you that they're homeless and need a place to stay, just call me and that's what we do, we'll take care of that veteran.' That just gives you an idea of what's out there... People have been coming out of the woodwork, in a wonderful way, to share their services with

me so that I will be able to point a veteran in the right direction depending on what they need."

Currently, the city is unaware of how many veterans live within Westbrook and are in need of the service; another reason why the office is starting out as only being open one day of the week.

"Maine, in general, has an aging population and so does Westbrook. What comes with that is a lot of folks who have served our country in the military. We do have a large veterans contingent; we have two American Legion posts in the city," said Foley. "It's not a resource that we see right now being a need full time for our city, but should we ever want to be a regional office or do something with other communities, then that's something we might consider in the future."

But, for right now, the city is excited to offer these services to Westbrook residents, even on a part-time basis.

"There's just such a need out there and we're trying to fulfill some of the need and hopefully help out some of the other veteran services organizations that already work with veterans by just removing some



Community members gathered to celebrate the ribbon-cutting for Westbrook Veteran Services Office Jan. 17. (Photo Provided)

of the workload here at the municipal level," said Ledoux. "I think it's an awesome opportunity and I think it's a wonderful endeavor by the city here to take on." \square



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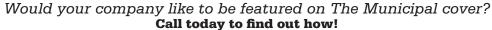
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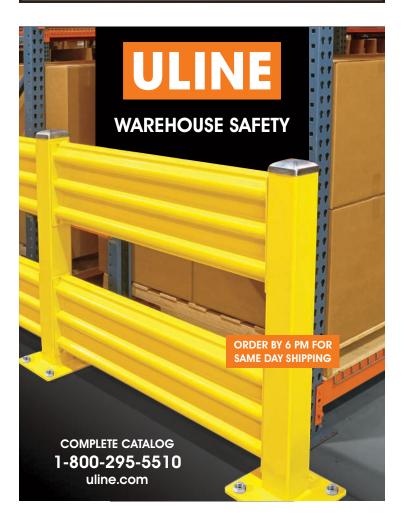
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Pictured is Leawood's Municipal Court. The city prosecutor represents the city in all traffic, criminal and city ordinance violations filed in the Municipal Court. (Photo provided)



Being within the Kansas City metro area, Leawood, Kan., prides itself on its affordability, which attracts residents and businesses alike. Pictured is its City Hall. (Photo provided)

Leawood, Kan.: Growing with distinction

By BARB SIEMINSKI | The Municipal

Picture it — a vivid display of growth that propelled Leawood, Kan., to the top of WalletHub's Top 20 Small Cities of America for the second year in a row for cities with a population of 25,000-100,000.

Leawood is home to a recently built all-inclusive playground for children of all capabilities; it boasts a new city partnership with Ring Home Security Systems to provide a rebate for front-door cameras; offers an almost-completed designated bike loop throughout the entire city; and runs a virtual bus program for its elementary students who walk to school.

"Also, we are the host for the lunchtime stop for the Kansas Special Olympics Torch Run," said Scott Lambers, city administrator of Leawood, adding, "We do an annual doggie dunk to close out our pool season; we hold summertime outdoor theater productions; and we have one of the most vibrant art in public places programs in the metropolitan area. Our City Hall complex has been rated one of the best sledding sites in Kansas City and our municipal golf course is consistently rated as one of the best public courses in the metropolitan area, and finally, we have two

parks named after our Sister Cities in Taiwan and Israel."

Another perk, according to Lambers: "We have also been consistently rated the safest city in Kansas by multiple organizations."

With a population of 34,659 (2017), Leawood has plenty to be proud of, including its biggest perk: affordability. Incorporated as a municipality in 1948, the Johnson County suburban community is located only 10 miles southwest of Kansas City, Mo. Its land area is about 75% developed and still growing.

Native Americans were the first inhabitants, and in the 1700s, Daniel Boone explored the area with French and American traders. Fast forward to 1922, when a retired police officer from Oklahoma, Oscar Lee, arrived and purchased land between what is now 79th and 103rd streets and State Line and Belinder Roads. This purchase became the building block of the current Leawood.



Mayor Peggy Dunn

The outstanding residential community—with its well-manicured lawns and neat-as-a-pin neighborhoods, soccer fields and golf courses—also serves as an impressive business location. Distinguished neighborhoods share space with prominent office buildings, and Leawood proudly carries the best from the past into the future. Leawood stayed true to its roots by being a small, close community of an ideal setting of attractive parks, streets, schools and churches, all being highly rated and worthy of the designation, "Growing with Distinction."



ABOVE and BELOW: Pictured are two of the works of art displayed in Leawood, Kan.: "Sky Writing 1" and "Walking Woman." (Photo provided)



Leawood has a popular dog park boasting a creative moniker: Leawoof.

According to Ross Kurz, IT director of Leawood, who has provided many city photos, there are several activities of which he and his son derive pleasure.

"My son and I love spending time in the parks," said Kurz. "Leawoof Dog Park is incredibly fun! Our dog Lucy loves to run in the park in the summer. Leawood has an incredible Fourth of July fireworks display that is second to none. We also enjoy the plays of the Leawood Stage Company. 'The Mouse Trap' and 'West Side Story' were two of their best performances in 2018."

Mayor Peggy Dunn is proud of Leawood's continuing growth and magnetism for businesses and attractive neighborhoods. She explained why her city was so progressive.

"I give a great deal of credit to our involved, educated and caring residents," said Dunn, adding that the residents are interested in selflessly serving as volunteers on numerous mayoral-appointed groups.

"They appreciate the excellent schools and city services available and provided to them. And when commercial developments are proposed, developers are first required to meet with nearby residents to receive their input. Often, modifications are then made that make the project far better than it would have been without our residents' involvement. These are just a few examples of how we have been



Ironwoods Park is home to the Prairie Oak Nature Center, The Lodge at Ironwoods, the Oxford School House, Camp Ironwoods, Ironwoods Challenge Course and the Ironwoods Amphitheater. It also holds a playground, a shelter, a 1-acre lake, two open playing fields and 2 miles of bike/hike trails. (Photo provided)

able to live up to our motto of 'Growing with Distinction."

Dunn shared an anecdote, which shows Leawood's pride in its tight-knit community.

"Leawood Fire Chief Dave Williams often says that our firefighters want to be part of the community and good neighbors," began Dunn. "One example was this past December when they ran a call for traumatic injury. While putting up holiday lights, a homeowner fell off his roof and was seriously injured. Later that day, the firefighters returned to the house and finished putting up the display lights. When some of them were discovered to be burned out, they even went to the store and purchased some replacement lights to finish the job."

There are some current city projects Leawood is working on, said Dunn.

"The city of Leawood is 75% built out. While there are some redevelopments coming forward, we also have a large tract of land in the southern portion along 135th Street from our east to our west boundary lines that still has 83% yet to be developed. It is master-planned to be mixed use. We hope to see residential, office and retail along this corridor in order to ensure a vibrant 24/7 synergy throughout the area. While we have been fortunate to attain some Sustainable Places Planning Grants from the Mid-America Regional Council to assist with our planning documents, it will be up to the private sector to help us achieve our vision for

this remaining parcel of undeveloped ground. It will most likely be a 25- to 30-year plan."

A 12-mile southern bike route was developed by the Leawood Public Works and Parks & Recreation departments, according to Kurz. And information services is working on a Mission Road fiber project.

"The Parks & Recreation Department also added two pieces of art ("Walking Woman" and "Skywriting 1") to our parks," said Kurz.

Meanwhile, Fire Chief Williams isn't letting any grass grow under his feet. He and his fire-fighters install car seats; teach CPR to residents and businesses for free; install smoke detectors; and hold "lots of public relation events."

"The firefighters read to elementary school classes and provide a fire prevention message," said Williams, who added this program was started a few years ago. "We sponsored a Skate with a Firefighter event this past November at a local outdoor ice skating rink. We had educational fire information and a fire truck for them to see. Plus, they were able to skate with a firefighter."

On an everyday basis, he noted, "We strive to answer every call with an immediate, professional and compassionate response. The firefighters want to be part of the community and genuinely want to help our neighbors. They demonstrate that every call. It is part of our fire department culture, and I think it is also the culture of Leawood."



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By LAUREN CAGGIANO | The Municipal

Humans, by their nature, are prone to error and deficiencies, but when the stakes are high, you can't leave anything to chance. Crew resource management in the fire service—and really any industry—is an approach that attempts to address such factors in a methodical way. The primary goal of CRM is enhanced situational awareness; self-awareness; leadership; assertiveness; decision-making; flexibility; adaptability; event and mission analysis; and communication.



John Tippett, director of fire service programs with the National Fallen Firefighters Association, is a subject-matter expert when it comes to CRM. According to Tippett, a lot can go wrong when crews are under such pressure and responding to an incident.

"(When handling an incident), your decisionmaking is based on information that's coming into you. And there are a number of things that happen in that time compressed element when firefighters are forced to make decisions that can lead them down a path of disaster." That said, he's identified a few different categories that errors typically fall under.

"Usually their situational awareness is a big one," he said. "Basically, you're talking about: What's going on? How are you interpreting what's going on?"

For example, he said firefighters are talking back and forth to each other, making a decision based on the information they're taking in. There can be breakdowns in communication and teamwork that can wreak havoc and result in injury, death or property damage. Firefighters may also get distracted by an object they think

John Tippett, Director of Fire Service Programs with the National Fallen Firefighters Association

LEFT: Crew resource management encourages examination of every call to see what went well and if that was through planning or luck. (Shutterstock.com)

RIGHT: Enhanced situational awareness; self-awareness; leadership; assertiveness; decision-making; flexibility; adaptability; event and mission analysis; and communication are all important components of CRM. All of these elements will improve safety for those in the fire service. (Shutterstock.com)

is the source of the disaster or could pose a threat, but in reality, it's a red herring.

In his words, "Firefighters are faced with really, really significant challenges that just overwhelm your senses, no matter how well you're trained."

Taking that into account, he said CRM challenges people to pay more attention to what's going on around them. It also posits that crew leaders are not infallible and need to take into account information from members in their crew, no matter their age or level of seniority.

"On the other hand, crew members are trained to recognize that the boss is still the boss, but the boss can't possibly know everything," he said. "So, it's really important for the group to work as a team and not just rely specifically on one person to do it all."

Complacency is another wildcard, according to Tippett. That's why debriefing is so important to the outcome.

"Basically, that means you come back after the call and you examine everything," he said. "Did it go well because we purposely did it that way? Or because we got lucky? If it's a matter of getting lucky versus doing it well on purpose, eventually luck runs out."

And complacency can sometimes come at a cost of human life, as researchers have found out. Tippett noted that Robert Helmreich is credited for first bringing CRM to the forefront in the 1970s. Helmreich studied airplane disasters to determine how and why they went down.

"In most cases, it wasn't the airplane that was responsible for the crash," he said. "It was the people. It was kind of revolutionary at the time."

Following the successes experienced in the aviation community, CRM was identified





CRM challenges firefighters to pay more attention to what's going on around them. It also posits that crew leaders are not infallible while promoting the need to take into account information from members in their crew, no matter their age or level of seniority. (Ted Pendergast/Shutterstock.com)

as a potential safety improvement program for the fire services. Various programs have since been developed to train emergency responders in these concepts and to help minimize human error.

Whether adopted formally or informally, Tippett said the fundamentals of CRM can make an appreciable difference.

"A lot of times when we're doing a presentation on crew resource management, you'll find out that people have been using the tenants of it, but they didn't really know what to call it. It was just the way they operated."

Ultimately, CRM requires a commitment to change fire and emergency service

leadership and operating cultures that have evolved over generations. And that can be a tall order but consider the payoff. According to the International Association of Fire Chiefs, CRM can result in "better teamwork, newly acquired communication and problem-solving skills, an operating philosophy that promotes team member input while preserving legal authority and proactive accident prevention."

The key takeaway is if you implement these processes into your training programs, crew members can put them into action, which will help ensure your safety and the safety of your team.

■

Blue Zones Project improves well-being in Albert Lea

By ANDREW MENTOCK | The Municipal

In 2009 Albert Lea, Minn., a city with high smoking rates and residents leading a sedentary lifestyle, made a concerted effort to improve the health of the community. It began to model its habits after the communities that lived the longest and were the happiest in the world, which meant more physical activity and fewer tobacco products.



Blue Zones Project is an initiative to make healthy choices easier for everyone in a community. As part of a pilot for the project, Albert Lea worked to reduce smoking in the community, increase the walkability of the downtown area with a new streetscape, improve and update bike trails and encourage workplace initiatives. (Photo provided by Teresa Kauffmann)

The city did this as a pilot for the Blue Zones Project, an initiative to make healthy choices easier for everyone in a community. Albert Lea then went about implementing initiatives and policies to make these desired improvements a reality through sustainability changes that encouraged residents to make healthier choices.

Doing this type of work helped attract people like Chad Adams, who became the city manager of Albert Lea about a year after the city started the Blue Zones Project — a position he held until spring of 2019.

"It was one of the major things that attracted me to the community, with the work that they were doing with improving the overall well-being of the residents and the level of community engagement that it entailed, which was very widespread throughout the entire community," Adams said. "So part of my role coming into the city as a city manager there was taking it to the next step toward sustainability and continued to work with Blue Zones."

That meant Albert Lea was only just beginning to implement changes to improve the health and well-being of its community. Over the next six years, it implemented a number of best practices, such as increasing the walkability of the downtown area with a new streetscape, improving and updating bike trails and encouraging workplace initiatives that allow employees to be more active and go on walks during breaks.

This also included changing city tobacco policies.

"I think there's 99 counties in Minnesota," Adams said. "Tobacco rates, for example, were dropping more in the county than any other county, for the most part, in the state of Minnesota largely due to the intentional effort of changing tobacco policy and in various different initiatives in the community. I think they were around 21% or 22% of adults using tobacco in the community when the Blue Zones Project started. By the time I was leaving, it was down to about 14%, which was below the state and national averages."

Working with Blue Zones, Albert Lea was at first asked to discourage residents from smoking tobacco in high-traffic public areas, such as parks and popular walkways.

Eventually, this progressed to the point that Adams and other city officials advocated and helped to enact a law that banned anyone under the age of 21 from purchasing tobacco within city limits.



Downtown Albert Lea, Minn., went from four-lanes to two with a turn lane, allowing for wider sidewalks. The changes have brought economic benefits with businesses moving into the downtown area while also improving safety for pedestrians. (Photo provided by Teresa Kauffmann)

Over time, this led to some pretty significant health and economic changes to Albert Lea. By 2016, the average lifespan had increased by three years and was saving \$7.5 million in annual health care costs for employers, according the Blue Zones Project website.

There were other added economic benefits as well. Improving the streetscape of downtown and turning the four-lane road into one with two lanes and a turn lane made the area much safer and more attractive to residents and prospective businesses.

"It was probably a one-in-75-year opportunity to redo the infrastructure in our historic downtown," Adams said. "We incorporated a lot of principles to have community engagement, whether that was a plaza area or whether that was wider sidewalks that would allow for restaurants to have outside eating, because they didn't have that capacity through the old design. We added bump-outs at the intersections.

"There was an extraordinary economic gain from that design process, which incorporates a lot of the Blue Zones principles."

The downtown, which was largely vacant before the streetscape changes, added 15 businesses over the next several years and is now full while still having space for new businesses.

While these changes helped Albert Lea in a multitude of ways, they're only the beginning. As part of Blue Zones Project, the city must continually improve. That was the case when the Blue Zones Project updated its certification policy in 2016, which Albert Lea earned and, according to Adams, must be recertified every three years.

To help the city do this, the city has a Blue Zones Project committee that meets regularly to help spark new ideas and initiatives and encourage business owners to allow workers time during the day to be physically active and go on walks.

"You have continued community engagement from all sectors of the community," Adams said. "So it wasn't just a few city officials, it was healthcare, it was industry, it was education — across representation of all the communities that really helped build communities. And when they're all actively involved and supportive of the Blue Zones Project, you can get a whole lot of work done. And that was essential."



Prior to the streetscape project, downtown restaurants lacked room to place outside dining alongside the sidewalks. Now residents can dine al fresco. (Photo provided by Teresa Kauffmann)



Residents gather for Thursdays on Fountain in Albert Lea. (Photo provided by Teresa Kauffmann)

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Bioasphalts pave the way to the future

By AMANDA DEMSTER | The Municipal

(All photos provided by United Soybean Board)

It is inevitable. Your city spends tens of thousands of dollars giving taxpayers smooth, safe streets to drive on, only to have those streets crumble over time.

With increasing concerns about climate change and its various causes, cities nationwide are now faced with the challenge of keeping their streets well maintained while leaving the smallest carbon footprint possible.

Enter, bioasphalt. This word encompasses a variety of possibilities, and over the years, researchers have come upon some surprising ingredients that are both renewable and environmentally friendly.

High oleic soybean oil

One unexpected ingredient is growing in fields throughout the country: soybeans.

In December 2019, the United Soybean Board announced development of a new polymer containing high oleic soybean oil, which can be used as an environmentally friendly binding agent in asphalt.

The idea of using plant-based oils in asphalt began in earnest as early as 2011 with the discovery of thermoplastic rubbers, created by dissolving vegetable oil rubbers.

"This really kicked off our joint research, which began in 2013," USB Vice President of Oil Strategy John Jansen said. "The product that high oleic soybean oil creates from this process was recognized as

having the ideal properties for replacing petroleum-based rubbers and extending the life of asphalt mixes."

Researching high oleic soybean oil is a joint effort between the United Soybean Board, the Iowa Soybean Association, the Asphalt Paving Association of Iowa and Iowa State University. According to Jansen, the polymer, which does not yet have a name, is undergoing final testing before it becomes commercially available.

Iowa State University Department of Chemical and Biological Engineering and Center for Bioplastics and Biocomposites professor/director Eric Cochran listed several benefits of using soy-based asphalt.

"This soy-based asphalt lets you use less petroleum, more recycled pavement, cheaper starting materials and operate in cold climates," Cochran said.

April Hemmes, a soybean farmer from Hampton, Iowa, and a United Soybean Board farmer-leader, added that high oleic soybased asphalt could cut down on potential health hazards.

"This product also allows asphalt pavers the opportunity to replace possible carcinogens and other volatile or hazardous ingredients to provide a safer work environment for their employees," Hemmes said.

LEFT: Research is showing that soybeans can be used as an environmentally friendly binding agent in asphalt to positive results.

RIGHT: Asphalt that uses high oleic soybean oil could cut down on potential health hazards by removing possible carcinogens and other volatile or hazardous ingredients used in the creation of asphalt.

Performance is an important quality in any type of paving, and according to Jansen, Hemmes and Cochran, soy-based asphalt does not disappoint.

"Iowa State University found that their unique asphalt modifier using high oleic soybean oil worked by creating springlike connections between components of an asphalt pavement, making it more resilient at high temperatures and resistant to cracking at low, even extremely low, temperatures," Jansen said.

This is especially good news for areas that experience large variations in temperatures between seasons.

"We found out firsthand how well the asphalt did when Iowa faced single-digit temperatures almost immediately after the paving was completed at the university, and it tested very well," Hemmes said.

Hemmes was referring to a test use of the asphalt on a university parking lot. Video is available at unitedsoybean.org. Specialized test tracks are also used to try out new pavement technologies.

"We've also paved on a city street near Auburn, Ala., a country road near Brainerd, Iowa, a city street in Grimes, Iowa, and in St. Joseph, Mo.," Cochran said.

While it is too soon to report any data from long-term use, Cochran, Hemmes and Jansen are optimistic.

This year, the Iowa Department of Transportation has agreed to allow the university to

pave 130 lane miles of Iowa county roads using the soy-based asphalt. Additional test sites will be located in the southern United States and in Ontario, Canada, Cochran said.

Cost is another important factor in choosing a paving material.

"The product we saw demonstrated saved \$3,000 per lane mile for the pavers, reduced chemicals needed and used the oil from 400 bushels of soybeans," Jansen said.

At its experimental paving site, Iowa State University was able to increase ratio of recycled asphalt ingredients from 17% to 30%.

"It's very costly when building a new road or making repairs to truck the old asphalt away," Jansen said. "Our soy-based asphalt allows for a





In 2020, the Iowa Department of Transportation will allow Iowa State University to pave 130 lane miles of Iowa county roads using the soy-based asphalt.

significant portion of that asphalt to be reused and revitalized as fresh product, reducing input and trucking costs for pavers."

Hemmes sees the soybean oil-based polymers as a major step in the world of farming.

"As a farmer, this is really exciting to me because it's beyond petroleum," Hemmes said. "You're going sustainable, you're going renewable... and we're providing support to an important industry in our country—infrastructure."

Those interested in a demonstration can email ecochran@iastate. edu. For more information about high oleic soybean oil-based asphalt, visit unitedsoybean.org and soynewuses.org. ■



By NICHOLETTE CARLSON | The Municipal

The city of Everett, Wash., has been plagued with issues of flooding throughout the years, particularly northwest Everett. The northwest corner of the city consists of late-1800s historic homes, the Legion Memorial golf course, Everett Community College, Providence Medical Center and Washington State University Puget Sound. Given these homes, businesses and organizations, as well as the history of flooding, a northwest stormwater separation project was presented.

The goals and objectives of this project were to eliminate basement flooding and sewer backups; improve level of service for the sewer collection system; reduce the wet weather flows in the C-basic trunk sewer; and siphon headworks and combined sewer overflows. In order to reach these overall objectives, specific plan objectives were put into place to begin the process. The stakeholders engaged in the project's planning included Everett Parks, Everett Community College, Legion Memorial golf course and the community as a whole.

In order to prepare for this project's undertaking to utilize the golf course to aid in stormwater detention, stormwater management practices at various golf courses throughout Washington and Oregon were researched. This research focused on how other management plans worked for the environment through technology, naturalization, water recycling, bio-filtering, wetlands, turf grass science, being drought ready, water harvesting as well as a productive use of water.

When considering stormwater management alternatives for the golf course and an approach to the overall project, the plan was to utilize surveying and mapping, use geotechnical investigations, conduct pavement condition assessments and perform hydrologic and hydraulic modeling. In the hydrologic and hydraulic modeling, an update to the existing model was explored, including basin modifications, such as creating 122 subbasins, and updating the rooftop contribution areas. Calibration and validation was also measured using a monitored time series from Nov. 1, 2015, to Jan. 6, 2016. Using the results from the modeling study, three scenarios were considered: the existing conditions of combined sewer only, a full northwest stormwater separation implementation or a phased northwest stormwater separation implementation.

The first step was to define a separate stormwater network and then evaluate stormwater management alternatives. The primary **LEFT:** The new pond, one of three stormwater detention ponds now at the golf course, can be seen in the foreground. The green of hole 13 can be seen in the background. (Photo provided)

RIGHT: The northwest corner of Everett, Wash., consists of late-1800s historic homes, the Legion Memorial golf course, Everett Community College, Providence Medical Center and Washington State University Puget Sound. With a history of flooding, a northwest stormwater separation project was presented. (Photo provided)

alternatives considered included detention with a discharge to the combined sewer, discharge to the storm outfall, reuse and irrigation or infiltration.

With the detention option, benefits include a single detention pond, limited impact to the Legion Memorial golf course and a 39 cubic foot per second peak flow reduction over 25 years. Constraints on this option include limited storage volume, discharge to the combined sewer and larger conveyance pipes. Estimated construction cost for this option was \$5.7 million.

In the discharge to outfall option, benefits include the stormwater flow being removed from the combined sewer and fresh water flow going to the existing outfall. Constraints for this option include pump station capital and operating and maintenance costs. The estimated construction cost is \$900,000.

Reuse and irrigation option benefits are a stormwater flow removal from the combined sewer and potentially less potable water used for irrigation. Constraints include pump station capital and operation and maintenance costs as well as limited precipitation during peak irrigation. This option also compared runoff and irrigation use for peak irrigation demand during the drier months. The estimated construction cost was \$300,000.

The last option was infiltration, which included the benefits of removing the stormwater flow from the combined sewer. Constraints on this option included addition water quality treatment and underground injection control monitoring and permitting. Project elements would include a water quality treatment system, infiltration injections system and monitoring plan. Estimated construction cost for this option was \$300,000.

After considering these various alternatives, the preferred storm-water management alternative was chosen. The detention option was considered to have the greatest benefits with respect to mitigating basement flooding and improving the level of service in the northwest stormwater separation area and Everett Community College. Implementation phases could then be defined.

During the planning process, the construction phases were laid out. Phase one of construction would focus on the detention and initial storm network. Phase two would involve completion of the storm network. It also made plans for potential future phases to include additional detention, discharge stormwater and irrigation. Designs for the separated stormwater network and stormwater detention were put into place in order to reduce peak flows by 80% to the Basin C trunk sewer.

Critical success factors for the final design incorporated a 5.2 acre-foot stormwater detention on the golf course; accommodated stormwater goals without sacrificing golf playability, strategy or adding to maintenance costs; integrated the project with the North



ABOVE: The first step in the project was to define a separate stormwater network and then evaluate stormwater management alternatives. With the detention option, benefits include a single detention pond, limited impacts to the Legion Memorial golf course and a 39 cubic foot per second peak flow reduction over 25 years. (Photo provided)



ABOVE: Construction on the stormwater separation project began in March 2019. A grand reopening of the golf course after completion of the detention ponds took place on Sept. 4, 2019. (Photo provided)

Wetmore and Alverson southwest separation projects; kept future stormwater phases in mind to ensure the integrity of the golf course; and explored other opportunities at the golf course to create additional revenue or improve the quality of the course.

As part of the golf course concept plan, three conceptual plans for golf course improvements were developed. A workshop with the city was then done in order to select the preferred conceptual plan. A schematic level design plan with golf course improvements was created focusing on operation and maintenance considerations as well as a strategy to maintain play on the golf course during construction. Planning, specification and estimates for the golf course were then coordinated with the planning, specifications and estimates of the North Wetmore stormwater separation project.

When considering bidding options, the stakeholders considered accepting one bid package with separate schedules for the golf ▶

course work or separate bid packages. The conventional public works procurement process was utilized.

Considering design specifics for the detention ponds, certain criteria needed to be met regarding side slopes, the access ramp grade, access road and ramp width, pond walls and using a safety bench in lieu of a fence. The golf course also specified an 8-foot depth for ponds A and C and a 7-foot depth for pond B.

Control structures were put into place to ensure that the pond held at normal low elevation between rain events; weir overflow discharges went to the trunk sewer; the lower pond orifice would open in advance of anticipated storms; there was a maintenance drain; and a stub out existed for a future pump station. Operation and maintenance considerations included control structure maintenance; valve types operation and maintenance; fine grain sediment loads from storm runoff; access to ponds across the golf course and cart paths; vegetation removal along the pond slopes and safety benches; aeration devices; golf ball removal; instrumentation and telemetry; and power.

Construction sequencing considerations were also taken into regard when it came to golf course operation and temporary play, access to the holes and hole closures, storm flow connections for the northwest stormwater separation piping, wet weather limitation and arsenic soil containment.

The golf course design was then finalized. Todd Schoeder, golf course architect, was an influential member of the design team from



Retaining wall construction at ponds A and B is shown at the Legion Memorial golf course. Considering design specifics for the detention ponds, certain criteria needed to be met regarding side slopes, the access ramp grade, access road and ramp width, pond walls and using a safety bench in lieu of a fence. (Photo provided)

the project's conception. Pretreated area stormwater runoff is now transported into the three detention ponds on the golf course instead of overflowing the sewer system. A grand reopening of the golf course after completion of the detention ponds took place on Sept. 4, 2019.

■







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La Marque, Texas: Celebrating second childhoods

By BARB SIEMINSKI | The Municipal

People today are living longer than ever, and some are even enjoying their second childhoods happily—at least in La Marque, Texas. Seniors are going back to their roots when life was simpler and gathering with friends on warm sunny days in the park was the highlight of the week.

La Marque is a city in Galveston County and the hometown of Senator Kay Bailey Hutchison and Norman Bulaich, a former American football running back in the National Football League. This small town has something big going for it, with its designed-for-senior-citizens playground, which opened in 2014.

With a graying population, health and fitness are becoming more important than ever for seniors. Putting emphasis on these programs could cut down on hospitalizations, especially from falls and loss of balance. Thus, these special playgrounds operated by towns and cities are filling a need — not only for the desired

exercise but also socially by bringing people together for conversation and ambience as they have fun keeping fit.

Carbide Park's senior playground in La Marque is equipped with exercises focused on maintaining seniors' balance and coordination.

Stephen Holmes, Galveston County commissioner, Precinct 3, was eager to share the impact Carbide Park's senior citizens' playground had on the city since it was first built in August 2014.

"Since Hurricane Harvey caused damage to the building that housed our senior citizen program, we had to relocate to a **LEFT:** For seniors, the health benefits of outdoor playgrounds include increased range of motion, cardio-respiratory, blood circulation, balance work, hand-eye coordination, motor coordination, proprioception work, column exercises and adaption to daily activities. (Shutterstock.com)

RIGHT: La Marque, Texas, built its senior citizens' playground in August 2014 at Carbide Park. It has since become a favorite gathering spot for the city's seniors. (Photo provided)

different location," said Holmes. "We have since returned to Carbide Park just before the new year. With the playground, seniors who use it have improved mentally and physically, and it is often used as a social gathering spot."

Holmes emphasized the park was not a "senior citizen park," but rather a park that features a playground for senior citizens.

"If another city were considering building their own such play-ground, I would tell them that the reward to their community will greatly outweigh the cost," said Holmes, adding the cost for La Marque's senior playground came to \$36,000.

These types of play areas were originally created in China and have grown in popularity overseas in other lands, especially in Germany, England, Finland, New Zealand and other parts of Asia. They are growing in the Americas, albeit more slowly.

Some of the items on the playground would not be desired by older citizens: monkey bars, high slides, jungle gyms, etc. The senior citizen playground emphasizes core muscle strength and concentrates on movements such as walking, increasing flexibility and other low-impact activities. Even citizens who use a wheel-chair or those who have limited mobility can benefit from these playgrounds.

Other health benefits of either outdoor or indoor playgrounds include increased range of motion, cardio-respiratory, blood circulation, balance work, hand-eye coordination, motor coordination, proprioception work, column exercises and adaption to daily activities.

Depending on a city's budget, the playground could be stocked with stationary bicycles, treadmills, cross-trainers and machines that encourage flexibility. Even a well-balanced seesaw can provide activity, mobility and safety for the joints. Another benefit is the al fresco ambience. Decide where your plot of land will be; at least part of it should be in the shade. Also, do you want it strictly for older people or do you want it to be intergenerational, bringing both generations together?

An economic plus is seniors who may not be able to afford an expensive gym membership wholeheartedly welcome these free American with Disabilities Act-accessible outings.

Renelle Lopez, office coordinator of Galveston County Parks & Cultural Services, said Motion Wellness Systems was the company used to make the senior playground dream come true. According to its brochure, "37% of the population over 75 years of age lives alone and their independence in day-to-day activities is affected by loss of agility, coordination and balance and a slowing down of movement. One out of three adults age 65 and older falls each year, but less than half talk to their healthcare provider about it. Among older adults (those 65 and older), falls are the leading cause





Senior playgrounds were originally created in China and have since grown in popularity around the world. They are just catching notice in the U.S. (Shutterstock.com)



In addition to offering fitness benefits, senior playgrounds can greatly improve seniors' lives through social interaction. (Shutterstock.com)

of death from injury. They are also the most common cause of nonfatal injuries and hospital admissions for trauma."

Cities will need to choose the thickness of their ground mats—likely 5 inches thick—materials and their required labor, and other installation offerings before hiring a crew.

The items used in La Marque's senior citizen playground include fitness steps; fitness ramp; two rope net floor; zigzag pipe with hand ring; two hand throttle bars; snake pipe with hand ring; balance beam; three hand-and-dial turns; rope bridge walk; two stretching boards; bench sit-up and bench push-up bar; two high chin-up bars; balance and hip twist; and a stretch and low push-up bar.

According to Lopez, three packages were offered by the fitness company — silver, bronze and gold. La Marque went for the gold and beyond; and if frequent attendance of the ADA senior citizens' playground is any indication, the seniors using it are very happy.

For a complete list of all upcoming events, visit themunicipal.com/events.

To list your upcoming conference or seminar in The Municipal at no charge, call (800) 733-4111, ext. 2307, or email the information to swright@the-papers.com.

MARCH

March 1-4 DRI2020

Westin Savannah Harbor Golf Resort & Spa, Savannah, Ga. https://conference.drii.org

March 2-4 MSTPA Spring Conference

Sandestin Golf & Beach Resort, Sandestin, Fla.

www.mstpa.org

March 2-6 EMS Today: The **JEMS Conference & Exposition**

Tampa, Fla.

www.emstoday.com

March 3-6 NTEA's 20th Work **Truck Show and Green Truck** Summit

Indiana Convention Center, Indianapolis, Ind.

www.ntea.com

March 8-11 NLC Congressional **City Conference**

Washington, D.C. www.ccc.nlc.org

March 18-20 2020 Spring **FLAGFA Conference and Expo**

The Shores Resort Daytona Beach, Daytona Beach, Fla. flagfa.org

March 24-25 Michigan **Municipal League Capital** Conference and Annual Expo

Lansing Center, Lansing, Mich. blogs.mml.org/wp/cc/

March 24-26 Wildland Urban Interface

Peppermill Resort, Reno, Nev. www.iafc.org/events/wui

March 26-28 Mid-America **Trucking Show**

Louisville, Ky. www.truckingshow.com

March 30-April 3 IWCE **Conference**

Las Vegas Convention Center, Las Vegas, Nev.

www.iwceexpo.com

APRIL

April 5-9 NASTT No-Dig Show

Denver, Colo.

www.nodigshow.com

April 6-8 NAFA Institute & Expo

Indianapolis, Ind. www.nafa.org

April 8-10 New England Parking Council Annual Conference and Tradeshow

Seaport Hotel & WTC, Boston, Mass.

https:// newenglandparkingcouncil. org/events

April 14-17 AASHTO 2020 GIS-T **Symposium**

Hyatt Regency Minneapolis, Minneapolis, Minn.

https://gis-t.transportation.org/

April 19-21 Fire Department Training Network Live-Fire Training Camp

Indianapolis, Ind. www.fdtraining.com

APRIL

April 19-22 North American Snow Conference

Cleveland, Ohio https://snow.apwa.net

April 20-25 FDIC International 2020

Indianapolis, Ind. www.fdic.com

April 22-24 The Parking and Transportation Association of Georgia Annual Conference & Trade Show

Courtyard by Marriott Rome Boardwalk, Rome, Ga.

parkingassociationofgeorgia. com/conference

April 29-30 National Fire and Emergency Services Symposium and Dinner

Washington, D.C. www.cfsi.org/2020-dinner/

April 27-May 1 Midwest Leadership Institute

Naperrville, Ill.

https:// midwestleadershipinstitute.org

April 29-May 1 Navigator 2020 Orlando, Fla.

https://navigator. emergencydispatch.org

April 30-May 1 Association of Fire Districts of the State of **New York Annual Meeting and** Conference

Long Island Marriott, Uniondale, N.Y.

www.afdsny.org/annual_ meeting_and_conference.php

MAY

May 3-5 NYCOM Annual Meeting

Sagamore Hotel, Bolton Landing, N.Y.

www.nycom.org/training/ annual-convention

May 4-7 WasteExpo

Ernest N. Morial Convention Center, New Orleans, La.

www.wasteexpo.com

May 11-14 Advanced Clean **Transportation Expo**

Long Beach Convention Center, Long Beach, Calif.

www.actexpo.com

May 16-19 Alabama League of Municipalities Annual Convention

Tuscaloosa, Ala. www.alalm.org/ AnnualConvention.aspx

May 27-29 Fifth Annual North **American Active Assailant Conference**

Woodside Bible Church, 6600 Rochester Road, Troy, Mich. www.facebook.com/North-American-Active-AssailantConfe rence-2110431222523951/

May 31-June 3 EUFMC 2020

Williamsburg Lodge and Conference Center, Williamsburg, Va. eufmc.com



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Taylor Wing leads the competition

By SARAH WRIGHT | The Municipal

Based in Northern California, Taylor Wing is driving innovation in the after-market truck industry when it comes to truck tool boxes, tool/fuel combo boxes and fuel tanks. For 40 years, the company has set out to do one thing: build the best. Taylor Wing's new facility will increase its capacity to do so while also creating a more content team behind the products.

"The new facility is twice as big as our existing one," Brad Durga, owner of Taylor Wing, said. "Our new, state-of-the-art Trumpf manufacturing equipment will allow us to produce our products much faster, in a more efficient manner. We have also included a large kitchen/dining area in the new facility to encourage our shop and office team members to eat and

interact together. We want to help create a pleasant and cohesive work environment."

Taylor Wing carries this through by providing its team members Platinum level insurance coverage so they can take care of themselves rather than being deterred from medical care by high deductibles. The new facility will also boost team members' opportunities.

"The new machines are a lot more userfriendly," Durga explained. "This will allow us to promote from within rather than having to hire exclusively outside the Taylor family for skilled positions."

A happy team paired with Taylor Wing's design and construction process has made for a well-crafted product that has been embraced by several top public agencies' fleets, especially within the firefighting and emergency services arena.

It all starts with quality materials in the construction process. Taylor Wing's aluminum products are constructed of 1/8-inch marinegrade aluminum, which is twice as thick as most competitors. To top it off, Taylor Wing makes every effort to source materials and equipment from American businesses.

LEFT: Taylor Wing's aluminum products are created with marine-grade aluminum, which is twice as thick as most of its competitors. With several features like Tru-Rain System, Tru-Fit Lid Assembly and Soft Close Latch Assembly built in, Taylor Wing's truck boxes are built to last. (Photo provided)

RIGHT: Taylor Wing's truck boxes feature a fully covered interior latching system to prevent objects inside the box from interfering with the latch system. (Photo provided)

The thicker aluminum, paired with Tru-Rain System, Tru-Fit Lid Assembly and Soft Close Latch Assembly, helps ensure Taylor Wing's products are designed to last in the most challenging conditions. The Tru-Rain System features neoprene weather-stripping seal in the upper lid, which prevents damage from objects moving in and out of the box. This feature, combined with a rain channel, makes the lids virtually water, weather and dust proof.

The Tru-Fit Lid Assembly features a unique stiffening system that provides unmatched strength. This assembly also features an integrated pin mount latch system, one-touch closing and revealed hinge for a precise, flush mount fit in the truck bed. Meanwhile, tapered edges allow Taylor Wing tool boxes to match a cab's contour, creating a truly custom-finished look. For safety, a soft close latching system, which incorporates a T-latch that is more secure than a push button, provides a coordinated locking system where you only have to unlock one side for access. It also has a fully covered interior latching system to prevent objects inside the box from interfering with the latch system.

All of these are standard features available in every product made by Taylor Wing, making them the best box period.

"If you put one of Taylor Wing's products side by side with our competitors—it is easy to see we build a better box," Durga said.

This year, Taylor Wing has also introduced a new steel line that boasts the same construction quality as its aluminum line while offering a lower cost option for customers.

"We're excited about this new line," Durga said. "We think it's a super viable option with a competitive price point for industrial users and public works departments."





Tapered edges allow Taylor Wing tool boxes to match a cab's contour, creating a truly custom-finished look. (Photo provided)

With an in-house finishing department, Taylor Wing is able to provide products in custom colors for fleet customers.

Clients also have the option for several standard finishes for their Taylor Wing aluminum boxes, which include matte black and white, diamond clear (unfinished) and Taylor Shield. Steel boxes are available in matte black and smooth white.

Taylor Shield provides the ultimate protection, including resistance to fading and UV damage. Utilizing a unique spray-on, layering

process with a lightly textured feel, Taylor Shield is also scratch and dent resistant.

Taylor Wing's American-made products come with a lifetime warranty, which aligns with the company's desire not only to offer quality construction but also quality customer service.

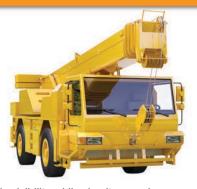
"Once you can see, touch and engage with a Taylor Wing product, it's a no-brainer," Durga concluded. "You're going to pick it."

For more information, call 888-844-5706 or visit taylorwing.com.

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NTEA welcomes senior director

FARMINGTON HILLS, MICH.—NTEA—The Association for the Work Truck Industry—announced the addition of Kevin Koester to its leadership team. NTEA selected Koester for this newly created role based on his extensive industry knowledge and marketing expertise.

"Adding Kevin to the team positions us to continue growing the Association," said NTEA Managing Director Doyle Sumrall. "With his impressive and diverse background in the commercial truck industry, he provides a unique strategic perspective that will benefit the membership and industry."

Koester brings 12 years of commercial vehicle market expertise from previous roles with Ford Motor Company and Team Detroit, where he supported new product reveal efforts and strategy awareness campaigns, and analyzed market and competitive data to support informed decision-making. "I look forward to returning to The Work Truck Show as part of the association and expanding the relationships I had the opportunity to build in previous assignments," said Koester.

As marketing manager at Ford Motor Company, he built a robust team with specialized skill sets, developed multiple dealer engagement tools and managed brand strategy development for heavy trucks.

As senior director at NTEA, Koester will focus on several critical aspects of the association, including the WorkTruckCert program; chassis OEM and Tier 1 engagement; and growth in data and market analytics.

Koester earned a bachelor's in business administration and marketing at Eastern Michigan University. He will be available at NTEA Booth 3400 at The Work Truck Show 2020 from 10 a.m.-12:30 p.m. and 3:30-5 p.m. March 4 and from 10 a.m.-2 p.m. March 5.

Park and recreation professionals work to provide access to healthy food in communities nationwide

ASHBURN, VA. — Nine in 10 U.S. adults support their local government providing resources for healthy food and nutrition assistance to low-income families in their community, according to a newly released National Recreation and Park Association poll. This is a sentiment shared by people across all demographic groups — e.g., income, parentage, education, race/ethnicity, geography — who strongly support this notion.

Park and recreation professionals nationwide work to provide access to healthy food through a variety of options, including:

- Federally funded meals served in summer camps and after-school programs
- Nutrition education programs
- Community gardens
- Farmers markets
- Community supported agricultural systems
- Connecting families to supplemental nutrition assistance (SNAP, WIC)

"The ongoing need for communities to provide access to healthy food and nutrition assistance is evident," said Allison Colman, NRPA director of health. "Park and recreation professionals have a strong track record of ensuring that meals served at program sites go above and beyond existing guidance and provide access to more nutritious, fresh and local options."

This poll is part of NRPA's Park Pulse, a continuing series of monthly surveys that gauge the public's opinion on topics relating to parks and recreation. To explore previous Park Pulse survey results, visit nrpa.org/ParkPulse

Five vendors awarded contracts in fabric structures

STAPLES, MINN.—From salt and sand to parks and recreation, Sourcewell members seeking flexible storage and building options will find what they're looking for through Sourcewell.

Five vendors have earned contracts in the fabric structures category, adding to Sourcewell's diverse line of options and solutions.

Sourcewell Contract Administrator Corey Jensen said this category includes structures with permanent and temporary tension and rigid-framed fabric, membrane and air-supported structures, as well as related materials and services.

"This category offers our members a great variety of solutions for their temporary or permanent structure needs," Jensen said. "Fabric structures has been a long-requested category that Sourcewell is happy to provide."

Following a competitive solicitation process, Sourcewell awarded these cooperative purchasing contracts:

Britespan | 091319-BRT

Salt, sand, solid waste and bulk storage; sports and recreation structures; aviation hanger and maintenance facilities; municipal waste and water centers; material storage bays; fire, EMS and side entrance vehicle storage; and public works material storage.

Calhoun Super Structures | 091319-CLH

Municipal vehicle storage buildings; waste and recycling storage; water treatment facilities; salt and sand production and storage buildings; shade structures for parks and recreation; indoor school athletic facilities; 3D nonlinear finite element analysis; fabric building installation; fabric building parts and recovers; engineered stamped drawings; and HDPE or PVC fabric options.

ClearSpan | 091319-CSS*

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Fleet procurement:

New strategies for ongoing challenges



Tammy Rimes, MPA | Guest columnist *Executive Director, National Cooperative Procurement Partners*

government agency—both operationally and budgetarily. Over the past few years, when faced with budgetary constraints, aging equipment, growing need for emergency responsiveness and reducing workforce, government teams are becoming creative in managing their fleet operations.

Versatility in equipment purchases

As the early morning sun rises above Knoxville, Iowa's, downtown square, city street crews are already hard at work. During the summer, the early morning duties may include transporting water to care for flowers on the square and then transitioning later in the year to winter duties by sweeping paths for pedestrians around City Hall and Knoxville Recreation Center. The unique distinction? The city uses the same piece of equipment for both duties, by changing the attachments.

Contracting with Bobcat, an American-based manufacturer of farm and construction equipment, the department purchased the Toolcat 5600 utility work machine, as its five Bobcat attachments allow the city to use one piece of equipment to provide multiple services for its 7,000 residents. By standardizing on a specific piece of equipment, with a strategically selected set of attachments, city crews can perform a wide range of tasks, including street and cemetery maintenance, playground installations and snow/ice removal, to help stretch a publicly funded budget.

"When you're a municipality running on the taxpayers' dollars, you try to give them the best possible service you can for the least amount of money," said Kevin DeLong, Knoxville's cemetery and streets supervisor. "In selecting this particular piece of equipment, with its compact size and versatility, we have also saved labor costs, because this equipment can go into places that we used to manually shovel or sweep."

On a recent project, the Toolcat machine's bucket transferred loads of wet concrete to a crew working to secure footings on the installation of playground equipment at the recreation center. DeLong stated, "We couldn't get a large concrete truck close to the footings, but this machine is small enough to move the concrete into the playground area where we can shovel it out and fill the holes around the posts.



The Toolcat's multiple attachments and small size made it an ideal addition to Knoxville, Iowa's, fleet, allowing city crews to perform a wide range of tasks. (Photos provided)



"We clean out the bucket, and when the concrete dries, we'll use it again to spread our wood chips."

By purchasing multiuse equipment, productivity remains consistent after the construction and growing season with other grounds maintenance projects and snow and ice removal on sidewalks around city parks and municipal buildings.

Renting instead of purchasing?

While purchasing equipment has been a traditional ownership approach, sourcing heavy or specialized equipment can often be complicated. Balancing the initial purchase, with the costs of ongoing maintenance, the typical government budgetary philosophy has been that owning is cheaper than renting. However, depending on an

organization's budget and work requirements, renting may also offer a more cost-effective option.

Rentals make perfect sense when related to a one-time event. For instance, think summer festival at a city park or a graduation at a public high school gymnasium. Renting ground or floor protection might be the best option. Even if those events occur year after year, labor should be factored into the total cost. Renting may save personnel costs since the vendor is responsible for delivery, installation and removal. Technology changes might be another reason to lease. For instance, there may be a push for a new technology—electric cars or solar-powered equipment—by the city council. The fleet manager may pursue a lease option to ensure that the acquired vehicles or equipment actually meet the needs of the organization. It also provides time for mechanics to come up to speed and be trained to handle any maintenance issues.

If a specialized piece of equipment is required for a single job, then renting may make sense. For example, when light bulbs burn out in a historic city hall building entry, it might be easier to replace them with a single-man lift. If the lift is primarily used for this job, it's probably more expedient to rent. According to Sunbelt Rentals, one of the easiest rental justifications is when equipment is required for a specialized need within a specific timeframe.

Natalia Welch, director of Government Sales, stated, "Over the past few years of attending fleet conferences, I have witnessed greater numbers of fleet directors seeking information on leasing equipment. The idea of renting is becoming a growing area of interest."

Retiring older equipment — More bang for the buck

On the other end of the procurement spectrum is the ultimate retirement of outdated equipment that can no longer be used. Some organizations use internal resources to auction or dispose of no longer useful equipment. However, the recent trend is contracting with a supplier with exposure to a national network to bring in more bidders to the process. This provides opportunities to increase revenues that may be used toward new purchases.

The Henry Miller Reclamation District #2131 in Dos Palos, Calif., found themselves with several vehicles and pieces of equipment that were cleared as surplus and no longer needed by the district. While the district used a local auctioneer in the past, Executive Assistant Palmer McCoy wanted to research ways to expand their outreach and possibly increase revenues. Hearing about GovDeals through its affiliation with the California Special Districts Association, McCoy opted to try a new route by transitioning to an online auction process.

Coordinating with the GovDeals team, the district quickly gathered photos and brief descriptions of the items to be auctioned, uploaded the assets to the online site and set auction dates and pricing requirements.

Over a period of two weeks, the district successfully sold 32 of the 35 listed items in the first round. The auction drew an average of 605 visitors, with total revenues resulting in a sum of more than \$100,000; assets ranged from a 1983 Caterpillar 120G motor grader, with a final bid of \$24,600, to a 100-gallon drum mounted on a trailer, which sold for \$5. Winning bidders, coming as far away as Georgia and Minnesota, retrieved all sold items from the Dos Palos location within two weeks of the auction closing.

According to McCoy, "The operational support made the whole process simple, from easy setup and use of the online site, to having the option of passing on the fee to the buyer. In addition, by GovDeals



Renting ground or floor protection for one-time events might be the best option, especially when factoring in labor. (Photo provided)

advertising a few of our items in other publications, the auction was a much bigger success than we had imagined."

A growing phenomena in government contracting is the use of cooperative contracts. Already solicited and awarded, these contracts offer more "bang for the buck" by leveraging the spend of multiple agencies to drive savings. And contract choices have grown exponentially over the past decade.

Ronnie Barnes, from HGACBuy, stated, "The growth in the cooperative purchasing market has resulted in more choices in manufacturers/brands, models, configurations, fuel types and accessories than ever before. These choices allow fleets to maintain continuity as well as offer opportunity to change over to something new and different. Several cooperative purchasing programs have staff available to be responsive to questions and to guide fleet managers through the process."

With little time to research, and many choices in cooperative contracts, the ultimate task of choosing the best fit may be daunting for the first time. New companies are developing strategies to review and select the best contract based on the organization's needs. One such company, COProcure, was founded with the goal of assisting in that selection process.

Founder Mariel Reed stated, "There's so much opportunity to use technology to enable stronger collaboration and innovation in public procurement. Technology has a critical role to play in unleashing the full power of cooperative purchasing and its positive impact for public employees, businesses and taxpayers across the country."

Tammy Rimes, MPA, is a keynote speaker, procurement consultant and executive director of the National Cooperative Procurement Partners, or NCPP. She served as former purchasing agent for the city of San Diego and implemented its first environmentally preferred purchasing program. She served during one of Southern California's largest emergencies — the 2007 Witch Creek Fires, which raged for 17 days and destroyed over 2,000 homes and structures. Free educational materials on emergency preparedness, cooperative contracts and a free webinar series are available at www.NCPPAssociation.org.

M TOP 10

Best small cities in America

No two small cities are made equally, as WalletHub noted in its annual "Best Small Cities in America" rankings, which it released Oct. 28, 2019. It compared more than 1,200 U.S. cities with populations between 25,000-100,000 based on 42 key indicators of livability, which fit into five key dimensions: affordability; economic health; education and health; quality of life; and safety. The indicators ranged from housing costs to school system quality to restaurants per capita.

Leawood, Kan., topped the list, doing particularly well in the affordability dimension. Learn more about this city on page 40 as it is our city profile.

Other small cities appearing in the top 10 are listed below.

- 1. Leawood, Kan.
- 2. Brentwood, Tenn.
- 3. Sammamish, Wash.
- 4. Melrose, Mass.
- 5. Carmel, Ind.
- 6. Lexington, Mass.
- 7. Milton, Mass.
- 8. Brookfield, Wis.
- 9. Fair Lawn, N.J.
- 10. Cedar Park, Texas



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Agile Fleet	Mean Green Products
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FCAR Tech USA, LLC43	Spectra Products Incorporated
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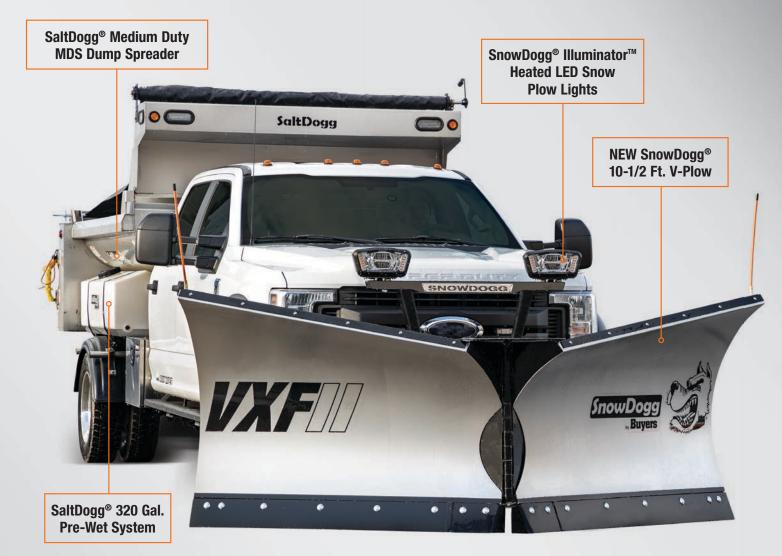
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