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March 2019

Fleet Service & Management



INSIDE:

Agile Fleet

**Lessons from the
private sector**

**Algae, the next
biofuel feedstock**



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ON THE COVER

Using Agile Fleet's FleetCommander, Seattle's Sound Transit removed 115 vehicles from its non-revenue fleet. The system provided Sound Transit with all the data it needed to find underutilized vehicles to cut. The reduced fleet size — paired with a 24/7 pickup and drop-off of vehicle keys using an automated self-service kiosk — has increased its vehicle utilization rates while saving money in the process. Learn more on page 12.



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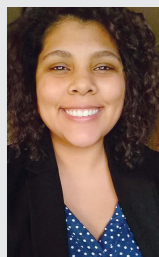
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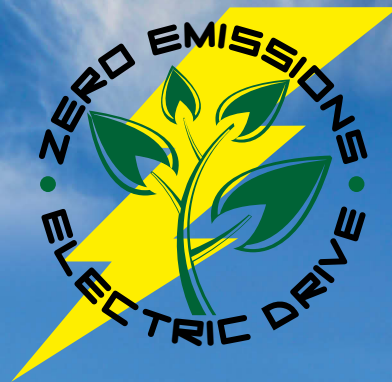
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Meet The Feature Writers

Elisa Walker spends her free time writing fiction, adopting stray cats and supporting young writers. She can often be found reading books in line at the grocery store, listening to true crime podcasts and learning about her Filipino-American identity. Cooking and trying new foods is also something she does frequently as she believes good food is essential in life.



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Realizing a well-rounded fleet



Sarah Wright | Editor

FLEET MANAGERS FACE A VARIETY of demands from drivers, council members and taxpayers. It is no easy feat to meet them all. Technology is proving helpful in the endeavor though, monitoring vehicle usage, driving habits and more. Our cover article, which profiles Seattle's Sound Transit, is a great testament to this. It used fleet tracking software to eliminate 115 underused vehicles from its non-revenue fleet. It is mind-blowing so many vehicles



could be removed while having no major impact on operations. To top it off, Sound Transit is saving more than \$2 million since it launched its initiative in 2013.

For other city fleets, leasing vehicles has become a major reduction of stress and money spent. Writer Nicholette Carlson spoke with two officials in Illinois cities who have seen savings by leasing their fleet vehicles. For Rockford, Ill., leasing opened a pathway toward combatting a backlog of vehicles that needed replaced. Since older vehicles were being replaced in a timely manner, employees felt safer as they knew the piece of equipment they were working with was reliable.

Money is always a major constraint for municipal fleet operations, especially when it comes to replacing vehicles. And while private fleets are structured differently and often have more funds available, there are still plenty of lessons to be gleaned from that sector by public fleets. Writer Andrew Mentock spoke with Steve Saltzgiver, a member of NAFA's board of directors and a fleet consultant for Mercury Associates, on the subject, and he was glad to share his observations having worked in both sectors. Set goals and objectives, while also factoring in metrics, is a major take away.

While setting those goals and objectives, we are also encouraging municipal fleets to examine their preparedness. 2018 saw numerous natural disasters from hurricanes to the massive wildfires experienced in California. While not necessarily on such a massive scale, many cities find their operations impacted by flooding and snowstorms. Fleets need to be prepared for such circumstances. Writer Denise Fedorow checked in with Ventura, Calif., where its interim public works director, Mary Joyce Ivers, shared what it was like to keep its fleet of 406 operating during the 2017 Thomas Fire.

The scale of this wildfire saw the fleet consume 20,000 gallons of fuel within the first week. For scale, this amount of fuel is what the city usually uses in a month. Ensuring fuel is secured and practicing regular maintenance on equipment were invaluable for ensuring vehicles could perform the tasks given to them over the course of the event.

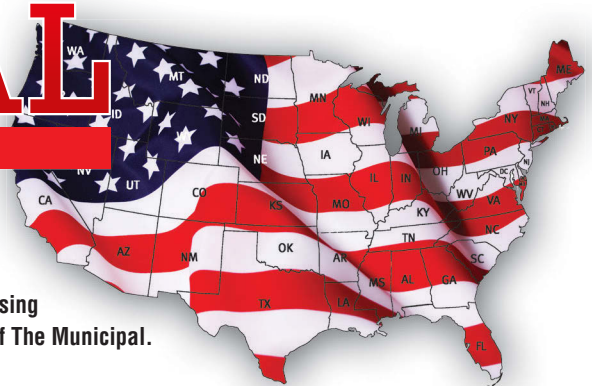
Using technology, best practices and having plans in place should the worst happen will reduce stress in the long term while also creating a well-rounded fleet. Life isn't perfect but clear goals and plans can bridge uncertainties. **M**

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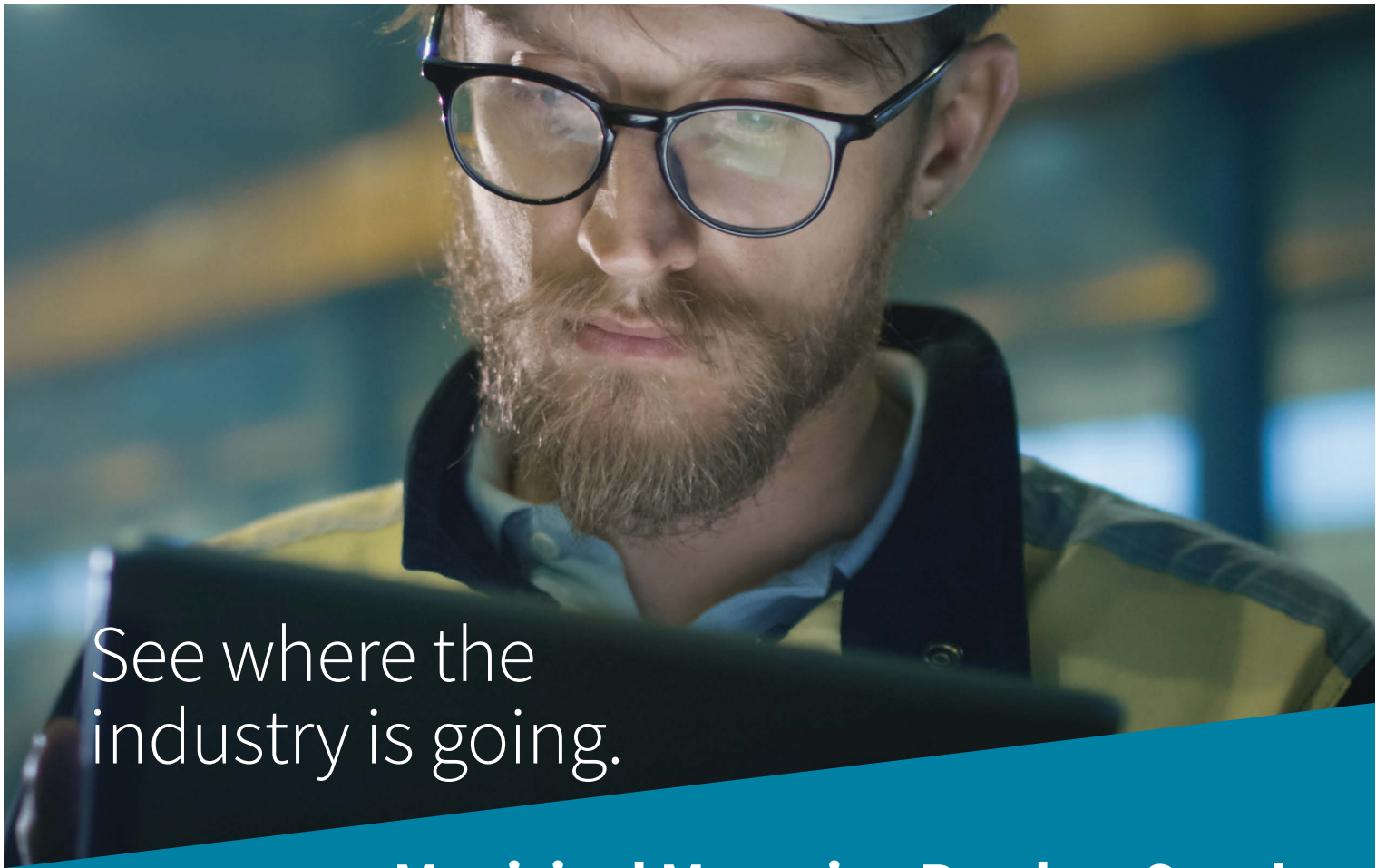
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Sound Transit slashes millions of dollars by efficiently managing, sharing vehicles

By ED SMITH

Seattle's Sound Transit has slashed 115 vehicles from its non-revenue fleet because of process optimization using automated vehicle sharing and fleet management technology. The reductions are part of the transit agency's initiative to operate its fleet and facilities more efficiently. Legacy processes were replaced, resulting in automated, streamlined access to vehicles for approximately 1,000 of the agency's staff. A savings of more than \$2 million has been realized for taxpayers since launching the initiative in 2013, and the savings continue to grow.

Streamlined vehicle access and increased utilization rates have been key to the success at Sound Transit. 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 the vehicles easy as well. As a result,

ABOVE: From left are Tom Roetman, non-revenue vehicle project control coordinator; Ahmad Bilal, manager, non-revenue vehicle fleet; and Nathan Wilson, non-revenue vehicle administrative assistant — all with Sound Transit in Seattle, Wash. (Photo provided)

vehicle utilization rates for the shared fleet generally range from 77-100 percent. Eighty vehicles are now shared to provide access for staff located at six sites throughout the region.

Data collected by the system pinpoints underutilized vehicles, which can be flagged for removal, contributing to the agency's commitment to continued performance improvement.



ABOVE: An automated self-service motor pool kiosk provides 24/7 pickup and drop-off of vehicle keys. The online vehicle reservation system makes it easy to schedule vehicles. Today, Sound Transit manages almost 10,000 reservations annually, up from about 350 in 2011. (Photo provided)

“Sound Transit is committed to the most efficient delivery of services and projects as a core value,” said Ahmad Bilal, Sound Transit’s non-revenue vehicle fleet manager. “Efficiently managing the vehicles we use for activities like meeting with stakeholders, conducting community outreach and other business-related travel is an essential part of that. After automating our fleet management processes, we were able to cut costly vehicles that were weighing down our budgets while improving service to our employees. And, we’re saving the taxpaying citizens a lot of money.”

Agile Fleet, creator of the fleet management information system FleetCommander that is in place at Sound Transit, estimates that for every vehicle removed from the fleet, an organization saves between \$3,500-\$6,000 per vehicle per year in maintenance, insurance, depreciation, parking and other costs required to keep the vehicle running. For Sound Transit, the elimination of 115 vehicles has helped avoid millions of dollars in ongoing costs.

Bilal said tracking and analyzing vehicle utilization has directly led to changes in the quantity and type of vehicles needed, vehicle reassignments to address demand and has influenced vehicle replacement decisions.

“By reviewing fleet pool utilization rates, we identified patterns of underutilization that were unique to certain types of vehicles.

We discovered that this was due, in part, to the fact that drivers have difficulties with operating SUVs and minivans around downtown Seattle. Therefore, these vehicles were going unused. As a result of these types of findings, we reassigned larger vehicles to shared vehicle pools at satellite offices that can accommodate the larger vehicles. This has increased fleet pool utilization downtown while saving us from purchasing new vehicles,” said Bilal.

Jen Thomas, a former Sound Transit employee, witnessed the process transformation firsthand as she helped implement the Agile Fleet FMIS. “Before launching the Agile Fleet system, the fleet was managed manually. I was sometimes asked to analyze data for fleet utilization. It was a time-consuming and costly nightmare. There was very little data to work with and we often had little confidence in the accuracy of the data. It took weeks to generate reports and we didn’t really trust the results. Once we put the system in place, we knew exactly where to look for the data. The agency now knows that information is being captured in a way that is timely and accurate. Dashboards now present utilization data graphically in real-time. The agency has access to dozens of reports to work with and can take the data analysis even further by analyzing reports in Excel. It is a game changer with big financial rewards.”

Features and benefits that have led to Sound Transit’s efficiencies include:

- An online reservation process that assures employees that vehicles will be available when needed
- The ability to make last-minute vehicle requests directly at the self-service fleet kiosk
- A secure, fully automated key dispatching and return system that can be accessed 24/7
- Management of fleet, driver and vehicle reservation data all in one online system
- 100 percent accountability for all vehicle use and key custody
- The ability to communicate and enforce fleet policy
- Easy access to dashboards and reports to enable Sound Transit to make vehicle quantity, type and location decisions
- Reducing the need to reimburse employees for use of personal vehicles by enforcing policy of using personal vehicles only when impractical to use shared fleet

Bilal, who joined Sound Transit in 2017, said that fleet data analysis has been key to their efforts for continuous improvement because demonstrating performance improvement is a critical aspect of Sound Transit’s mission. M

Sound Transit Fleet Quick Facts

- Located in Central Puget Sound area of Washington State, serving King, Pierce and Snohomish counties
- Transformed manual processes to automated system
- Manages vehicles located in 6 different geographical locations from a single office
- 1,015 users
- 80 shared vehicles
- Average utilization 77-100 percent
- Saves more than one FTE staff time/year due to automated vs manual reservation system
- Has 100 percent 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 spaces
- Communicates and enforces policy
- Can restrict access to certain vehicles to selected users

Learn more about how Agile Fleet can help with fleet management at www.agilefleet.com; (408) 213-9555, ext.1; and info@agilefleet.com.

Bavarian Village Leavenworth, Wash.



By RAY BALOGH | The Municipal

ABOVE: The robust blasts of traditional alpenhorns are a familiar sound in downtown Leavenworth during tourist season. (Photo courtesy of Icicle TV)

With apologies to Plato and Frank Zappa, sometimes necessity is the mother of reinvention.

In the 1930s, Leavenworth, a picturesque hamlet of 2,000 residents nestled in the Cascade Mountains, began to die. The tracks of Great Northern Railway Company, the town's commercial lifeline for four decades, were rerouted and took with them jobs, industry and hope for the future.

The once robust local logging industry was decimated and the town's sawmill closed. Merchants shuttered their shops. Some townspeople moved away, seeking a new life. The remainder hunkered down, resigned to a hardscrabble existence in a remote, insignificant community.

Leavenworth's vitality slowly hemorrhaged until the early 1960s. Then everything changed.

Community leaders brainstormed ways to bring commerce back to town and scored an idea, inspired by the stunningly beautiful Cascades surrounding the town. They decided to turn the town into a charming Bavarian village to entice tourism, which has remained Leavenworth's signal industry for six decades.

The entire community rallied to the cause. Intensive research was conducted; building facades received comprehensive makeovers, resulting in a townwide milieu rivaling a "Sound of Music" movie set; and building codes were rewritten to maintain the image.

Renovation began with the Chikamin Hotel, which was renamed the Edelweiss after Bavaria's state flower.

Townspeople studied German culture and entrepreneurs opened Bavarian-themed shops specializing in sausage and salami, beer and wine, chocolate, premium ice cream, gingerbread and German pastries.

Enterprising citizens crafted a year-round schedule of family-friendly festivals, including Maifest, featuring a maypole that towers more than three stories above the town square; Bavarian Icefest every Martin Luther King Jr. weekend; Kinderfest on the Fourth of July; Oktoberfest; Christkindlmarkt throughout Thanksgiving Day weekend; and one of the inaugural events, the three-weekend Christmas Lighting Festival.

According to www.cityofleavenworth.com, "The new plan worked. Ever since the change to a Bavarian motif, Leavenworth has become a pillar of the tourism industry in the Pacific Northwest ... The story is a landmark case of human spirit: The people of Leavenworth not only survived their most critical hour, they endured."

Jessica Stoller, media director for the town's chamber of commerce, lauded the "dedication of a group of local business owners" responsible in large part for the village's renaissance. "They were tenacious



Dancers revel around the maypole in the town square during Maifest, a German celebration celebrating the arrival of spring. The 2019 festival will be held Saturday and Sunday, May 11-12. (Photo courtesy of Icicle TV)

and scrappy enough to follow their dream of making Leavenworth a successful tourist destination. Obviously this dream was fulfilled and we are benefiting from those efforts today.

"We see more than 2.5 million visitors a year and we have seen strong growth year to year," she said. Tourists have arrived from every state in the country and many nations around the globe. A few came and never left.

Small wonder. The local flora, mountains, buildings and traditional attire emanate a kaleidoscope of happy colors and spirit-lifting polka music reverberates throughout downtown.

Visitors can enjoy international cuisine ranging from folksy to elegant, sip a variety of adult beverages at several brewpubs and distilleries, lodge in immaculate overnight accommodations, hike or bike nature trails and shoot a round of miniature golf on a bent grass championship hillside putting course beneath the languid gaze of disinterested mountain goats.

The downtown shops offer a variety of merchandise, including cuckoo clocks, beer steins, music boxes, handcrafted wooden puzzles and toys, holiday decorations, quilts, antiques and collectibles, handcrafted soaps and candles, boutique clothing, fine china and jewelry.

Leavenworth's outdoor attractions are blessed with a resolutely collegial climate during tourist season. Rainfall is rare and every month from May to October has recorded zero precipitation at one time or another. In 2003, Leavenworth experienced a rainless streak of 114 days from June 15 to Oct. 6.


One of Leavenworth's centerpiece attractions is the Nutcracker Museum, which opened its doors in 1995 and boasts more than 6,000 nutcrackers from around the world.



The majestic Cascade Mountains surrounding the town exhibit their unique beauty each season of the year. (Photo courtesy of Leavenworth Chamber of Commerce)

The museum has produced a 14-minute video on the history of nutcrackers; developed two educational websites about the museum, its displays and the nutritional value of nuts, www.nutcrackermuseum.com and www.kidslovenutcrackers.com; and published a coffee table book, "The Art and Character of Nutcrackers," with photographs of more than 1,000 of the museum's displayed items.

The gift shop, opened in 2011, helps provide operating funds for the 501(c)(3) organization.

The museum has been featured on CBS "Sunday Morning" with Charles Osgood, The Conan Show, Travel Channel, A&E Network, Martha Stewart Living, HGTV and Food Network. 

For more information, call (509) 548-5807 or visit www.leavenworth.org or www.cityofleavenworth.com.

Aiken, S.C.



The central features of the city seal of Aiken, S.C., represent prominent facets of its history and community life. They include a building with traditional antebellum pillars, a golfer, a horse head and a molecule.

Strangely, one symbol not included in the seal is a depiction of a railroad.

The city of 30,721 is the namesake of William Aiken, president of South Carolina Railroad Company. One of the state's leading cotton merchants, Aiken hired the engineer who later built the Brooklyn Bridge to build a railroad from Charleston, 130 miles to the east.

Work began in 1830 and the first train arrived in the new settlement on Oct. 2, 1833. The following year two local engineers laid out the planned community with wide streets and parkways.

The town was chartered in 1835 and immediately attracted visitors from Charleston who spent summers at the self-described "place of retreat from the heat and malaria of unhealthier regions."

In 1865 the Union's westward advance was stopped at Aiken in one of General William Tecumseh Sherman's rare Civil War defeats.

The town quickly recovered from the war and in 1870 began attracting wealthy tourists from the North, lured to the area by Aiken's celebrated equestrian sports. The area's sandy soil was ideal for horse training, and polo and fox hunting were added to the menu of equestrian diversions. Fred Astaire, a thoroughbred horse owner, maintained a second home in Aiken.


In 1949 the Soviet Union detonated a nuclear weapon. President Harry Truman responded by asking the Atomic Energy Commission and DuPont Company to design, build and operate a nuclear material production facility for a hydrogen bomb.

The Savannah River Plant near Aiken broke ground February 1951 and the first production reactor was fired up in December 1953. More than 38,000 workers helped construct more than 200 structures on the 300-square-mile site.

The facility met every product shipment on time, maintaining an unprecedented safety record with stellar environmental management. After the Cold War, the plant, which today employs about 10,000 workers, made fuel to power commercial nuclear reactors.

Aiken also hosts several other large employers, including Kimberly-Clark, Firestone and United Parcel Service.

The city holds several annual events, including a Civil War re-enactment, weeklong musical festival, horse races and polo tournament, bluegrass festival and a juried arts and crafts show.

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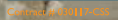
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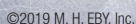
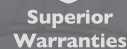


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A photograph of two men in a workshop setting. The man in the foreground, wearing a blue button-down shirt and jeans, is holding a clipboard and a pen, looking down at it. He has a beard and is wearing a watch. The man in the background, wearing a dark shirt and blue gloves, is working on the engine of a car with its hood open. The background is slightly blurred, focusing attention on the men and the car.

Focus on: **FLEET SERVICE & MANAGEMENT**

“The most important thing, and this is whether you’re running a municipal government shop or in a corporate organization, is to invest in your people.” page 30

\$2 million

The University of Michigan received this amount in a grant from the U.S. Department of Energy to create biofuels that work in existing diesel engines and reduce greenhouse gas emissions by 60 percent. The U of M research team is exploring algae as a feedstock for biofuels.

Read more about this research project on page 22.



20,000 gallons

The amount of fuel Ventura, Calif.'s, fleet normally uses in a month. It used that same amount within one week during the Thomas Fire.

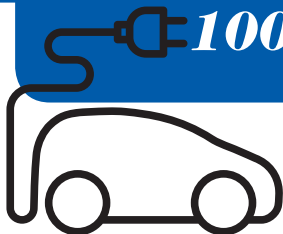


Learn more about being prepared for disasters as a fleet on page 26.

100

The number of sedans the Minneapolis City Council mandated be converted to electric by 2024.

Source: www.govtech.com/fs/Hennepin-County-Minn-Commits-to-Boosting-Electric-Fleet.html



\$61,837

After welcoming a fleet of 50 CNG solid waste trucks, Chesapeake, Va., annually saves this much per truck in maintenance and fuels costs compared to diesel-powered refuse trucks.



Source: www.nguglobal.com/blog/city-of-chesapeake-clocks-1-million-cng-gallons-1212

10,000

The number of people turning 65 every day in North America. This is resulting in a rapidly retiring population, meaning in the automotive repair sector, there are not always enough skilled mechanics to go around.



Experts provide tips for avoiding skills gaps on page 30.

\$1,519,896

The estimated savings Crystal Lake, Ill., expects to see in maintenance costs over the course of a 15-year program if it leases its fleet vehicles.



Cities share their leasing programs on page 32.

\$140,000

The cost savings expected in East Orange, N.J.'s, first year with its new in-house street sweepers. The city noted the move to in-house street sweeping will also enable it to "control how we clean our streets."



Source: www.facebook.com/EOCityHall/posts/1052604491587479



Lessons from the private fleet sector

By ANDREW MENTOCK | The Municipal

Fleet management is often broken up into two different sectors: private and municipal. Fleets that fall under the private umbrella often have more money, different systems for evaluating employees and unique challenges.

Even with the obvious differences, that doesn't mean that there isn't a thing or two that a municipal fleet can learn from a privately owned and operated fleet. In order to find applicable advice, The Municipal spoke with Steve Saltzgeber, a member of NAF's board of directors and a fleet consultant for Mercury Associates. He has more than 20 years of experience as a fleet manager,

working for both municipal and corporate employers like Coca Cola and the state of Georgia.

"I've done both," Saltzgeber said. "The biggest difference that I see in corporate versus municipal is that a corporate fleet usually pays more attention to replacing vehicles in a timely manner. That's not necessarily always the case. I have worked for some corporate

ABOVE: While there are many differences between private and municipal fleets, there is plenty the latter can learn from the former, from operations to maintenance. (Shutterstock.com)

companies that drag it out, but typically corporate looks at the bottom line and they look at the return on investment."

This usually happens because municipal fleets have fixed budgets, so even though it might be more cost effective to get something repaired or replaced immediately, the government won't allow them to spend more money than the municipal fleet was



approved for. This can lead to a fleet wasting money on repairs or having to buy used temporary replacement vehicles.

“A number of municipal fleets have a large backlog of vehicles that are under ‘need for replacement,’” Saltzgiver said. “When that happens, then you have more vehicles than you want because you have to have spares and the other vehicles are being worked on and they’re breaking down. So that means they have a bloated or a bigger fleet than is needed.”

To combat this problem, Saltzgiver said that municipal fleets can try to be more flexible when it comes to spending and attempt to think about long-term costs, which is easier to do when objectives and important goals are clearly defined.

“That’s another thing that corporate fleet does very well,” he said. “They have pretty set goals and objectives and metrics that you’re held accountable to as a fleet management organization. They’re routinely monitored to make sure you’re on task.”

A corporate fleet that sets clearly defined goals and is able to track how well those goals are being met will be likely to work with urgency. Saltzgiver said that it’s also much easier to manage when it’s obvious if objectives are being met or not, and those clearer goals will help make municipal fleets more efficient as well.

This trait also makes corporate fleets more cut-throat because a team is either meeting its goals or it’s not. And if it’s not, then there will be worker turnover until objectives are met — something Saltzgiver said municipal fleets are much more reluctant to do.

“In corporate, if you don’t do your job, you get fired,” he said. “It’s the way of life. They restructure all the time — even if they don’t want to tell you the restructure — and they’ll fire a whole department. In

ABOVE: *Many municipal fleets have a large backlog of vehicles that are labeled under “need for replacement.” Flexibility when thinking about long-term costs — paired with clearly defined objectives and goals — can help address this backlog. (Shutterstock.com)*

government, you’re pretty much there for life. You got to do something pretty egregious to get fired.”

While a municipal fleet will always have a more difficult time letting go of underperforming staff members, he said that one thing they can do is to use more effective employee-evaluating tools.

“I learned how to make sure people were in the right job and could contribute in the most positive way, which that’s another thing that corporate does a little bit better: evaluating their employee’s skills and their employee’s actions and behavior,” Saltzgiver said. “They actually have assessment tools that they use where it’s a lot more objective than some of the evaluation tools used in municipal government.”

One of the best assessment tools he said he used is a SAP product called SuccessFactors, which he used to rate his employees objectively.

Another way to hold a municipal employee accountable is to be transparent when it comes to costs. He said that employees are much more likely to take care of equipment if they know what the company will be charged to fix or replace it. While corporate companies could do a better job at this as well, Saltzgiver said that municipal fleets are often even more reluctant to do this. M



Algae tapped as potential feedstock for renewable biofuel

The search for a reliable, sustainable and fiscally sensible alternative biofuel has been long in the making, and Professor Brad Cardinale of the University of Michigan, along with a team of researchers from universities across the country, believe they've almost got the process down using a less conventional source: algae.



By CATEY TRAYLOR | The Municipal

Cardinale's team focuses specifically on converting algae into a sustainable biofuel from feedstocks in outdoor ponds, which then can be converted into refined fuel that runs in an environmentally friendly way in diesel engines.

"Biofuels are going to be a component of a renewable energy portfolio across the world," Cardinale said. "Although we all accept that most renewable energy will be based on solar and wind power, there are portions of transportation in the energy sector that you can't get batteries in, like planes, and we'll need renewable fuel sources for those."

His project is funded by a \$2 million grant from the U.S. Department of Energy. The goal is to create biofuels that work in existing diesel engines to reduce greenhouse gas emissions by 60 percent compared to normal diesel fuels while improving engine thermal efficiency beyond the baseline diesel engine.

Although there are a number of baseline substances to choose from, Cardinale explained that algae makes sense. It's economical, relatively easy to harvest and actually already in use as a biofuel by the United States military. Although the substance is already in use, continued sustainability of algae as a biofuel is easier said than done.

"The problem is you face water issues—evaporation in hot areas, mainly," Cardinale said. "The single biggest bottleneck to making algal biofuels sustainable, both environmentally and economically, is that

TOP LEFT: *The University of Michigan team has been growing multiple species of algae in the same environment, testing if whether one species declines or faces a challenge, another would take its place and compensate for the shortcomings. (Photo provided)*

BOTTOM LEFT: *Funded by a \$2 million grant from the U.S. Department of Energy, U of M aims to create biofuels using algae that work in existing diesel engines, ultimately reducing greenhouse gas emissions by 60 percent compared to normal diesel fuels. (Photo provided)*



University of Michigan researchers, along with researchers from Penn State University and the University of Delaware, have completed the research and development needed to identify the species groups that work best together in small ponds. (Photo provided)

as soon as you take genetically modified strands out of a lab and into nature, they do terribly. Ponds crash because they become diseased, competing algae gets involved and takes over, things like that.”

According to Cardinale, the key to success is finding the perfect balance of algae species that can work together to grow despite ever-changing ecological conditions.

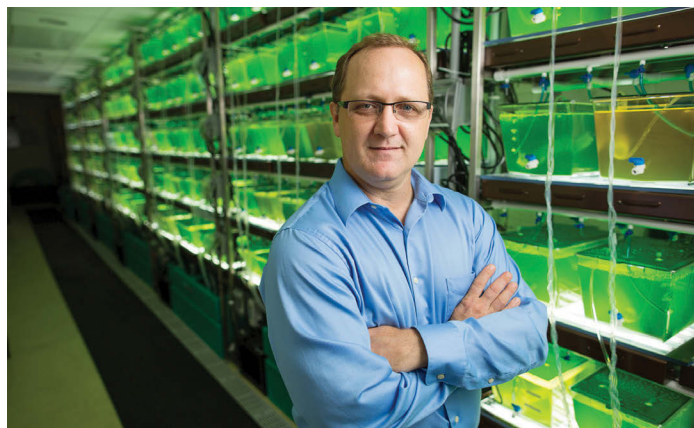
“The biggest problem is growing things for a long period of time sustainably. Over the past four years, we’ve been working at U of M to use ecological design to overcome this problem,” Cardinale said. “We take principles developed from the science of ecology and use them to build a better and more sustainable system.”

Cardinale said the concept his team is exploring is growing multiple species of algae in the same environment so when one species declines or faces a challenge, another can take its place and compensate for the shortcomings.

“All we’re doing,” he said, “is finding groups of species that grow together that cannot overcome a problem individually but collectively can face them all.”

So, what’s the draw of algae if other biofuel sources, like corn and soy, already exist in mass quantities?

“The draw of algae is you can grow a lot more in a smaller space than corn or soy,” Cardinale said. “If you were going to use a terrestrial crop, you’d have to dedicate a very large portion of the Midwest to growing crops not for food, but for biofuel. The immediate concern there



Professor Brad Cardinale of the University of Michigan

becomes where to grow food or having to import food production from somewhere else. However, if you were to use algae, you’d take a small chunk of land that barely registers on a map and be able to grow all that you’d need in that space.”

So far, Cardinale’s research team at the University of Michigan, along with researchers from Penn State University and the University of Delaware, have completed the research and development needed to identify the species groups that work best together in small ►

“Biofuels are going to be a component of a renewable energy portfolio across the world.”

ponds. The Department of Energy grant allows them to take this research to the next level.

“We’re now able to head into step two of this process, which is a demonstration project where we take these groups we’ve identified to Arizona where the Department of Energy has space for us to grow these in real-life, very large ponds,” Cardinale said.

Once that research is complete, the team will look beyond the production of algae.

“It’s one thing to say ‘let’s get a stable pond where we can produce this algae easily.’ It’s another thing to convert the algae into fuel to run a system,” Cardinale said. “We now have all the people lined up to generate the feedstock, convert it to a biocrude, upload it into an engine and test to see if it works.”

The timeline of the next steps of this research is about six months, Cardinale estimated. In terms of widespread use, within the next few years isn’t out of the realm of possibility.



*Pictured are algae samples at the University of Michigan.
(Photo provided)*

“We’ll be growing these feedstocks, converting them into oil and putting them in an engine starting in 2019,” he said. “It’s not unrealistic to think that if there’s economic demand and we had an administration in the United States that supported reusable fuel, this could be a reality on a small scale five to 10 years from now.” 

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Preparation key for fleet management during natural disasters



The Thomas Fire in Ventura, Calif., was, until 2018's fires, the largest California wildfire, encompassing roughly 281,000 acres and moving one acre per minute with 80 mph winds. (Photo provided)

By DENISE FEDOROW | The Municipal

Although it's difficult to be completely prepared for the variety of natural disasters that might hit your community, there are things that can be done to keep your fleet on the road and able to respond.

No matter where you live in this great nation, there's a possibility of natural disasters — hurricanes, tornadoes, wildfires, snowstorms and floods — and while some of these disasters have people fleeing the area, municipal workers and first responders have to stay and deal with the disaster and its aftermath.

Ventura, Calif.

A community aware of the importance of preparation is Ventura. It withstood the Thomas Fire in December 2017 — the largest wildfire in California's history until the recent 2018 fires.

Mary Joyce Ivers, interim public works director for the city of Ventura, worked for

the city as fleet and facilities manager prior to being named interim director and has worked with the city for 26 years. Ivers is also on the American Public Works Association national board for fleet and facilities and knows all too well the importance of preparedness.

She said Ventura has 406 vehicles in its fleet and aside from wildfires also has to deal with earthquakes, flooding and mudslides. Mudslides are a consequence of the wildfires as the destruction of trees and brush creates erosion. When heavy rains come, the additional debris is not held back, and the layer of ash on top of hardened land is slick and more prone to sliding.

Ivers said when it comes to preparing for emergencies like the devastating fires that hit the community, communication is critical.

"Make sure that you have good communication and two-way radios," she said.

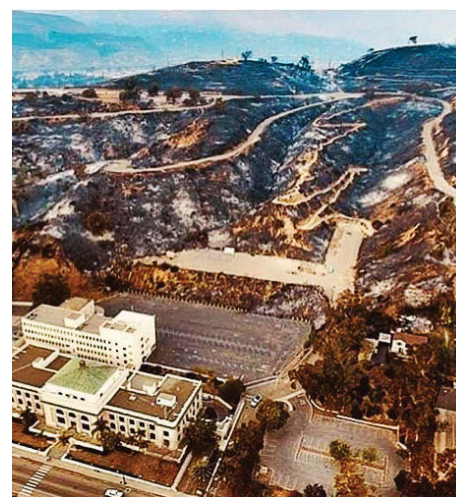
Knowing the staff's shift availability and having a plan in place so that everyone knows their assignments in the event of a disaster is of paramount importance. Ivers said that was helpful during the Thomas Fire.

Having emergency supply contracts in place proved to be vital, too. "We have emergency fuel supply contracts and emergency generator rental contracts in place," she said. "We also make sure we do proper preventative maintenance on our vehicles and have enough gas and diesel fuel."

During the Thomas Fire, the fleet had to put those contacts in place. It also got emergency generators, which required filling. She



Pictured is Ventura, Calif.'s, fleet services team. Mary Joyce Ivers is currently interim public works supervisor and Barbara McCormack is acting fleet and facility services manager. From left, are Erwing Navarro, Donny Covarrubias, Ken Stiles, Robert Wiman, Tim Wolverton, Mary Joyce Ivers, Frank Cenicerros, Jeff Waters, Silvia Medrano, Courtney Deppen and Barbara McCormack. (Photo provided)



During the Thomas Fire, there was the miraculous evacuation of 27,000 people, or 25 percent of Ventura, Calif.'s, population, to safety all within a few hours. Pictured is some of the damage done in a neighborhood off Foothill Road. (Photo provided)



This photo shows the fueling of mutual aid agencies' fire apparatuses during the 2017 Thomas Fire in Ventura, Calif. Twenty-two states provided mutual aid. The Ventura fleet team provided food, water, coffee and other necessities besides fuel to the responding agencies during this massive fire. (Photo provided)

said the department has a 100-gallon fuel tank on the back of a truck and has used it to fill the generators.

The current fuel emergency service contract is with Los Angeles, about 60 miles away.

"They trucked fuel in and kept us supplied every day," she said, noting there was a local supplier, too.

Ventura also has an on-site shop to have tires and spare parts on hand. Additionally,

there is a mobile mechanic who can be sent into the field if someone experiences a breakdown.

The GPS that is installed in Ventura's fleet is helpful in a variety of ways: It helps identify where the trucks are in the midst of an emergency and aids with the cost of recovery. GPS has collected data, including where the equipment was used and for how many hours, that is necessary for the Federal Emergency Management Agency.

Ivers said in storm events, whether it's a snowstorm or heavy rain storm, GPS identifies what roads are closed and which are cleared. As a board member for the APWA, she "hears the stories" and knows for those in the north that deal with snow, being prepared means is there enough salt for the trucks, is the equipment ready and where are the blades for the snowplows?

In a snow event keeping arterial roads and certain more major collector roads clear for public safety and emergency responses is critical.

When dealing with wildfires where fires are on both sides of the road and sometimes leaping across the road, she said workers "have to use precaution and safety measures. If they're not police or fire, they should use different access roads."

Public works personnel have had to assist with evacuation, road closures and removing debris and mud. She noted that there is an evacuation route listed on the city's website. According to Ivers, Ventura often does not want to evacuate the whole city, but in the Thomas Fire, which went across the whole city, it evacuated 25,000 people.

Earthquakes often bring a different sort of issues. Electrical lines, for example, are often down, requiring caution. ►

Ivers said regardless of the type of natural disaster, the lessons she's learned have taught her three things.

1.) Communication: Everyone has a role and everyone should know everyone's role. "Everyone should understand communications and how the critical command center works; who the incident commander is; and (who) the point person for each department (is) — who's going to contact us to get trees removed, add barricades, etc."

Also have good communication with neighboring communities — including county and state agencies — via mutual aid agreements. Ivers said the county had several premade sandbags, which it brought in for the flooding. The county also had a huge supply of masks brought in.

"We got compliments on doing a good job, with the city and county working together during the response and recovery process with debris, etc. So we got good support."

2.) Training: Make sure your people are trained on special equipment — particularly seasonal equipment or equipment that is not operated all the time. Doing regular training is something she admitted Ventura's fleet could do a better job with but added it also uses the disasters as training opportunities. Upcoming heavy rain storms will help them put best practices to the test.

3.) Properly maintained equipment: Doing daily checks on equipment; having spare tires and parts handy; knowing the equipment you have on hand and where it is located; and keeping a full tank of gas in fleet vehicles is all a part of this last lesson.

She said in the first 24 hours of the Thomas Fire, the fleet used 6,000 gallons of fuel for the generators and vehicles. Normally, it would use 20,000 gallons of fuel in a month, but during the fire, it used that same amount within the first week between keeping generators full due to the power outages and supplying city and employee vehicles.

Fuel supply plays a big part in disaster response and management, and Ivers said while there's a school of thought of only keeping tanks half full, she believes in making sure they are full at all times.

"It's just a good practice to be prepared. It's easy to think 'I'll do it tomorrow,' but you never know what will happen in the middle of the night," Ivers said.

Hartford, Wis.

A couple of thousand miles away from the city on the Pacific Coast is Hartford, Wis. — about 35 miles north of Milwaukee. The natural disasters might be different — tornadoes and snowstorms versus wildfires and mudslides — but the practical preparation is the same.

Public works Director Darryl Kranz said having the proper equipment and doing regular maintenance on that equipment is key for them. They check everything on the vehicles monthly.

Having a full-time mechanic on hand is helpful in keeping the equipment properly maintained and ready for whatever might come at them.

Kranz also praised city administration and the city council for making sure the department has the equipment it needs. He said they've been real good when a request is made for equipment, usually readily approving it.

Kranz said when it comes to natural disasters, "first we pray it misses us, but if it doesn't, we'll be ready."



This nighttime shot of Hartford, Wis., shows the downtown area, including city hall. Hartford is located about 35 miles north of Milwaukee, Wis. (Photo provided)



The city of Hartford, Wis., is blanketed in several inches of snow from a winter storm in January. Snowstorms are one of the natural disasters that the Midwestern city has to be prepared for in the winter months. (Photo provided)

He said the town was hit by a tornado a couple of years ago and a lot of communities came to help. Recently, the city of Columbus, about 20 minutes away, was hit with a major wind shear that took down thousands of trees, and Hartford employees went to help remove trees and debris.

When asked if the city had mutual aid agreements, he said it didn't for public works. He said an organization began a few years ago that was trying to create those types of agreements, but it wasn't kept up.

"Fortunately, we live in an area where there are several small communities and everyone comes together to help," Kranz said.

Having a written agreement is fine, according to Kranz, but, "Sometimes what's needed is having someone with common sense who will take action and respond."

Bottom line, Kranz said, "If we do get hit and we're not ready, that's on me so we'll be ready."

Take the advice of these public works administrators — and the Scouts — and always "Be Prepared." **M**



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Preventing a skills gap in fleet technicians



By **ANDREW MENTOCK** | The Municipal

As more and more modern technology is introduced into the fleet management industry, new and potentially unfamiliar skills become a necessary part of a technician's job.

While experts such as Katherine Vigneau, NAFAs' director of professional development, said it's unclear if a skills gap is plaguing the entire industry, but she does know that keeping more experienced technicians up to date with the latest trends and best practices can be a challenge.

These potential issues can manifest themselves in a couple of ways. First and foremost, technicians who did not grow up with newer pieces of technology might have a steeper learning curve. Secondly, those same technicians might be reluctant to change.

"I've heard the skills gap applied the other way: That the young people entering are

very tech-savvy, of course, and very comfortable with processing work orders online and using all the diagnostic tools that are now provided by the OEMs," Vigneau said.

For instance, many vehicle issues can be detected quickly and efficiently through software, which can save a technician a significant amount of time when it comes to finding a potential problem.

"I think everything is computer driven and so forth now, so the mechanics have to be willing to learn the computer and so forth," said Kathleen Wellik, the director of transportation services at Iowa State University. "So it's not only the computer in the cars, but it's your vehicle management

system as well to keep track of your work orders and stuff like that."

Wellik said some of her more experienced technicians also might have trouble with more modern communication tools when speaking with one another and customers.

"We all communicate through iPhones and messaging. I would say definitely the younger generation feels more comfortable texting and using that technology than some of the others."

To combat these potential issues, they said it's important to keep all employees up to date on the latest pieces of training and necessary certifications.

"The most important thing, and this is whether you're running a municipal government shop or in a corporate organization, is to invest in your people," Vigneau said. "Have a yearly training budget and make sure that's



Setting training goals can ensure automotive technicians stay up to date on the latest technologies while preventing a potential skills gap. (Shutterstock.com)

on updated training and is tailored for the individual's requirements."

"Set training goals and discuss what training opportunities are going to be most beneficial to the individual."

This can also be important to do for younger technicians. Wellik said that all of her mechanics and their assistants have come to her with prior experience, but according to a 2016 article on Career.org, titled "Shortage of Skills: Automotive Repair," there is a "shortage of skilled auto mechanics."

"It depends on how you use the skill gap. So there's definitely a shortage of employment-ready mechanics," Vigneau said. "People are retiring at a faster rate because (there are) 10,000 people turning 65 every day in North America. So people are retiring at a rapid rate and there are not the mechanics available to take over from that."

She also said that this might also be because there is a significant number of jobs available, but at the same time, schools and mechanic training programs are somewhat limited in the number of skills that they can teach.

This is why she said apprenticeships are so important when it comes to the development of inexperienced technicians. It's also necessary to stay up to date on all relevant certifications, even if they are not legally required.

"We have them keep up on their ASE certifications for one thing," Wellik said. "We also encourage and promote any classes that any of the vendors and so forth are having so they can keep up with the technology. And



Younger generations coming into the trade are often more tech-savvy. On the other hand, more experienced technicians can struggle with the more modern communication tools. Offering training for both groups will only benefit the shop. (Shutterstock.com)

then I know the guys have also had some of the technologies brought in so they can visit with manufacturers and/or dealers about products, product changes and how they're built differently."

Going forward, Vigneau said it's important that fleet managers start to think about how to address employees' skills or lack thereof immediately.

"A lot of organizations talk about succession planning when they're talking about replacing a key manager or a key senior executive," she said, "but with this (potential) skills gap, having employment-ready mechanics ready to (come) onboard at the right time (is important). It should be talking about succession planning in terms of mechanics." **M**



Leasing fleet vehicles provides a cost-effective method for timely replacement

By NICHOLETTE CARLSON | The Municipal

A newer trend seen in some municipalities is the process of leasing fleet vehicles as opposed to purchasing them. Cities decide to lease for a variety of reasons.

Out of necessity

For the city of Rockford, Ill., its leasing initiative was born from necessity. As the city “went through a major budget cost reduction initiative,” according to Carrie Hagerty, financial director, outside consultants were brought in to see where money could be saved. One of the first things the consultants noticed was the size of Rockford’s fleet and the maintenance costs associated with it.

“We ended up having a replacement vehicle for every front-line vehicle because the front-line vehicles were unreliable,” Hagerty explained. Since its replacement needs were so substantial, the council approved a four-year leasing initiative to begin replacing fleet

vehicles. In the first year, fleet replacement costs totaled over \$10 million.

“It allowed us to actually start replacing vehicles,” Hagerty stated. They replaced fire trucks; squad car; ambulances; heavy equipment such as snowplows; sedans; and trucks. Anything that is maintained by the city’s garage is purchased through its leasing plan. A byproduct of this was a large increase in employee morale. “We are giving employees the appropriate tools they need to get their job done,” she commented. Employees are happier knowing they have safe, reliable, modern equipment to work with.

Due to budget constraints, the leasing program was discontinued for a few years;

however, city officials feared they would again end up with a large fleet of unreliable vehicles. There were a few 2003 and 2008 vehicles with significant mileage, for example, that had not been replaced in the first wave of leasing. This led the city council to approve a continuation of Rockford’s leasing replacement plan in 2018.

Leasing contracts were awarded on a competitive basis so the city was consistently getting the best interest rate; however, this led to different leases being held at different banks. The city has since chosen to have a master lease agreement through only one bank, PNC Bank. The master lease agreement also allows the city to lease vehicles without having a public notice each time.

Since this was still a new approach to fleet replacement, Hagerty commented, “It felt like we were blazing a trail with this.” Not having the benefits of learning from another city, the city of Rockford had to come together

LEFT: The need for replacing fleet vehicles in Rockford, Ill., had become so substantial that choosing to lease became a necessity. The city had backup vehicles for each of its front-line vehicles since they were unreliable and frequently needed repair. Pictured is Dave DeCarlo working on a fire engine prior to the city choosing to lease. (Photo provided by the city of Rockford, Ill.)



At times the city of Rockford, Ill., would have to buy used equipment from neighboring cities, which put it at, what Carrie Hagerty described as, “a crisis level.” This also led to nicknaming the Rockford fleet the “rainbow fleet” since there were so many different colored vehicles from different towns. (Photo provided by the city of Rockford, Ill.)

to “make sure all the balls stay in the air.” This meant working with various departments, banks and sellers as it figured out the best processes as it went.

Hagerty recommended having a good process planned out, proper approval, proper documents, a system set up for payments and a plan for vehicle procurement. Titling vehicles properly was also a surprisingly difficult process and the city is just now “getting the process start to finish locked down.” She urged municipalities that are considering this route to reach out to other communities for tips and advice.

Currently, with its leasing plan, Rockford is paying approximately \$3 million a year for all the replacement vehicles combined. Hagerty concluded, “Municipal leases have been a great sort of salvation for us to get our fleet vehicles and work within our budget constraints.”

Better financial savings

When it came to reworking the way Crystal Lake, Ill., replaced its municipal fleet vehicles, the town did its research to determine the best and most cost-effective method. George Koczwara, Crystal Lake’s financial director, discussed the research and preparation that went into the city’s decision to lease its fleet vehicles.

The method the city was using, which Koczwara now calls “capital triage,” was becoming ineffective. “Capital triage wasn’t working and maintenance costs were going through the roof and vehicles weren’t available when we needed them,” he explained.

Research led to the proposition of leasing fleet vehicles.



As the leasing plan continues, Rockford, Ill., is most concerned with watching interest rates to ensure that leasing continues to be the best option. Leasing has allowed the city to continue the necessary replacement of fleet vehicles, including this new ladder truck. (Photo provided by the city of Rockford, Ill.)



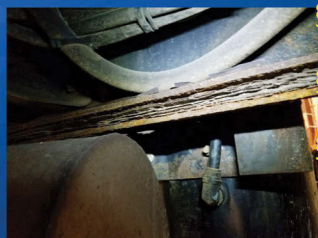
With the leasing arrangement in place, Rockford, Ill., was able to get new ambulances as well as a number of other vehicles. The first year, the city spent over \$10 million replacing fleet vehicles. (Photo provided by the city of Rockford, Ill.)

The city council proposal explains, “The city currently has a fleet of vehicles of varying ages, many beyond their useful lives and capabilities, which has caused staff to reexamine our procurement practices and consider the benefits of fleet leasing.” As financial director, Koczwara also stressed the importance of a lifecycle cost analysis method for vehicle replacement.

As a member of The Interlocal Purchasing System, Crystal Lake was able to enter a fleet leasing and management contract with Enterprise Fleet Management Inc. more easily than it would have been able to otherwise. Since Enterprise was awarded a contract by TIPS following a competitive proposal process in July 2016, Crystal Lake was able to save both time and money. ►

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Using the example of a 1999 dump truck, the city of Crystal Lake, Ill., chose to begin leasing its fleet vehicles. Having purchased the dump truck for \$95,000, the estimated resale value was only \$3,000 due to extensive rust and corrosion. It would cost \$190,500 to replace the dump truck after the city had already spent \$109,420 repairing the truck. Leasing became the most cost-efficient option as opposed to spending more money repairing a vehicle. (Photo provided by the city of Crystal Lake, Ill.)



Since the city owns and maintains 326 vehicles and other pieces of equipment, its primary goal is to ensure that the vehicles are safe, reliable and perform their necessary functions. Pictured are Michael Magnuson, left, director of public works, and Don Christenson, fleet and facility services superintendent. (Photo provided by the city of Crystal Lake, Ill.)

For Crystal Lake, the benefits of leasing were substantial. After a cost analysis, it was determined that leasing would increase cash flow. The proposal shared the staff's findings after comparing purchasing and leasing: "The net cost for the purchase of the fleet is estimated to be \$19,565,653 whereas the net cost of the leasing of the fleet is estimated to be \$17,783,390." It goes on to state, "This will result in an estimated \$1,519,896 savings in maintenance costs over the course of a 15-year program."

Maintenance costs will be reduced since the city will follow an optimal vehicle replacement schedule. With 54 out of the 116 vehicles to be replaced having bumper to bumper coverage, repair costs will also decrease.

Koczwara described how the city would also be able to utilize a computerized information management system that would monitor and document preventative maintenance and repairs for fleet vehicles.

Partnering with Enterprise, the city receives increased fleet management support, which includes more buying power; fleet maintenance reminders and recommendations; assistance with insurance claims and repair; and assistance with routine administrative tasks such as license renewals. Once the vehicle's lease is up, Enterprise sends the vehicle to auction and the city takes the depreciation risk. Residual money from the vehicle's sale at auction then goes toward the city's next lease.

The majority of fleet vehicle leases are for five years except for police pursuit vehicles, which are three-year leases. Koczwara also explained that the city has the option to renew its leasing program for an additional five years. Ambulances and fire trucks are not currently included in its leasing.


There is only one current challenge that Koczwara and Crystal Lake face and that is the wait time, specifically for vehicles that need outfitting. "A challenge is the delay on dump truck orders," he admitted, which is something the city crucially needs.

An initial five-year leasing agreement was approved by the city council on May 1, 2018. The city is responsible for determining how many vehicles will be acquired through the lease annually and including it in the annual budget approval. "We have a more holistic view of our entire fleet and it's working really well," Koczwara commented, adding, "It's a win-win for everyone. The city will have fleet vehicles that work. Local shop will get the work."

Benefits of leasing

Christopher Lyon, NTEA's director of fleet relations, stated, "Leasing can be beneficial if capital is not available to replace aging vehicles. It also allows fleets to have new vehicles every few years." Besides capital costs, leasing a fleet vehicle can also be beneficial for a city since, as Lyon stated, "Many vocational trucks are specialized and often have a longer life cycle length than traditional cars or trucks."

However, he also mentioned challenges similar to what Koczwara shared, "Vocational trucks, since specialized and often custom-designed, sometimes require longer lead times and special lease terms." Lyon continued, "Lease companies pay strict attention to depreciation costs, and as a result, those costs are embedded in the lease rate. The net effect for cities is that the lease rate for any given vehicle may be higher than an internally funded direct purchase."

A number of companies provide fleet leasing solutions to cities, including Donlen, Enterprise, ARI, GE Capital and Lease Plan. 

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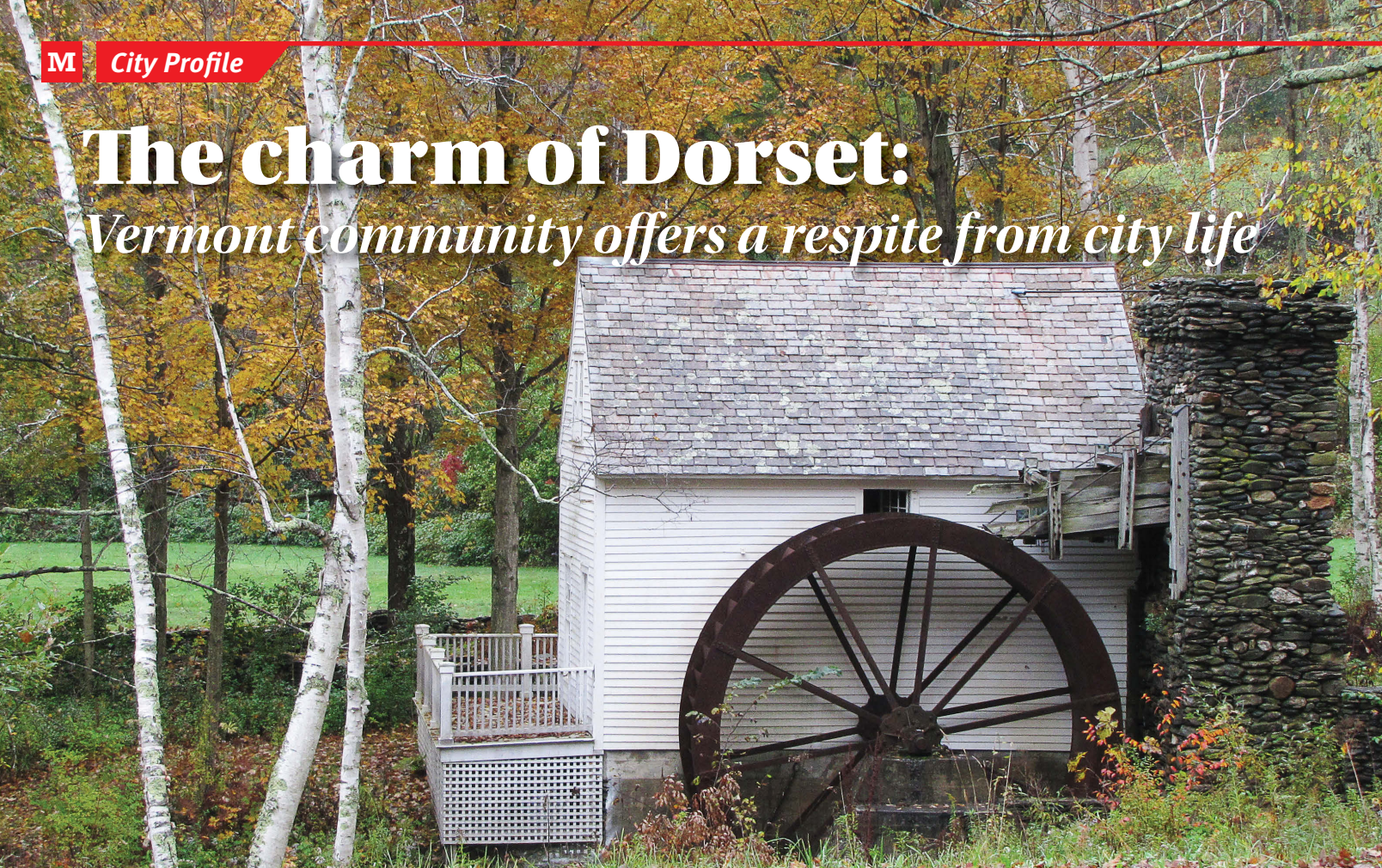


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The charm of Dorset:

Vermont community offers a respite from city life



By JULIE YOUNG | The Municipal

No matter if you are looking for a great place to visit or a sweet spot in which to settle down and raise a family, it's not hard to fall under the spell of Dorset, Vt. Chartered in 1791 and located within the hills of northern Bennington County, Dorset is a picturesque community that offers historic businesses, plenty of peace and quiet and a high quality of life for its 2,031 residents, according to the 2010 census.

ABOVE: Chartered in 1791, Dorset has worked hard to balance preserving its past while also looking toward the future and drawing in new future visitors. (Photo provided)

"Dorset has a lot neatly packaged into a quaint, rural New England town," said Town Manager Rob Gaiotti.

While Vermont in general operates at a slower pace than most people are accustomed to, Gaiotti said Dorset is in a class by itself. As a bedroom community for some of the larger and more urban areas, such as Manchester, Bennington and Rutland, it is the perfect location for visitors looking for respite and commuters who want to get away from the hustle and bustle of everyday life.

"It's a great place to live," he said.

Room at the inn

Like a lot of other New England communities, Dorset has strong ties to the nation's past. Its village green was the center of town activity during the Colonial period, and it was on this plot of land that the

Green Mountain Boys plotted their exploits against the British in 1775, where parades were held and where public games of tennis and croquet could be played. There are plenty of Colonial- and Federal-style homes as well as a number of historic businesses that have been in operation for more than 200 years.

Most notably is the Dorset Inn, the oldest continually operated inn in the state of Vermont. According to its website, the Dorset Inn welcomed its first guests in 1796, and over the years, it has been expanded, renovated and refurbished but has always maintained its gracious welcoming atmosphere and exceptional food.

"We are within 20 minutes of three ski resorts, and when people come to the state to ski, they also want to experience some of that authentic New England charm," Gaiotti said. "The Dorset Inn offers plenty of that."



Dorset is home to the first marble quarry in the U.S. Today, brave souls enjoy swimming there in the summer months. (Photo provided)

So does the Dorset Union Store, which originally opened in 1816. An attractive white clapboard storefront with striped green awnings, the Dorset Union Store is a grocery store, deli/bakery, wine source, gift shop and carryout place that is a great place to seek out a wide range of local fare. For a wider range of options, the H.N. Williams Store, which has been family owned and operated since 1840, offers apparel for the whole family, specialty items, food, toys, games and more.

"We are also home to the first marble quarry in the nation," Gaiotti said.

According to the Dorset Historical Society, Isaac Underhill opened the country's first commercial quarry in 1785. Over the next 130 years, another two dozen or more cropped up along the slopes of Dorset Mountain, and it was that mountain that provided marble for use in headstones, hearths and notable buildings such as the New York City Library. Today, the quarry is a popular spot to take a dip on a hot summer day, and while the owners choose to keep it open to the public, it is not for the novice swimmer. Some of the rocks tower 40 feet above the water line, so if you bring your suit and plan to go for a dive, don't forget your nerve.

A balancing act

Gaiotti said the community of Dorset works hard to strike a balance between the present and past in order to ensure a future for the community, but it isn't always easy. Many of the challenges Dorset faces are not uncommon to similar villages throughout New England. As their residents age, many would like to downsize or move into a transitional living community. Unfortunately, these amenities are not available to them.

"We don't have assisted living or residential care options," Gaiotti said.

There is also the problem of young people leaving and not coming back, which leads to an imbalance in the employee base so there aren't as many caregivers, service providers and other demographics that can help meet seniors' needs.

The "graying population," as it is called, also has an adverse effect on communities looking to revitalize as there are fewer children leading to the closure of local schools. The stagnated economy also



Dorset, Vt., offers a chance to slow down and enjoy New England's charm. (Photo provided)

makes it difficult for the local government to upgrade its systems and services to move with the times.

"Tech is an issue as well," Gaiotti said. "Even though older adults are more tech savvy than ever, internet service can be spotty and we still use newspapers to get our message out for those who are not connected to social media."

But they are working on it and Gaiotti is confident that the future is bright for Dorset. They continue to attract folks to the area with their outdoor landscape and recreational opportunities, and Gaiotti said they are working hard to leverage those amenities to encourage folks to experience all that Dorset has to offer. It's a tried-and-true formula that has served other communities well: If people have a good time when they visit, then hopefully they will come back. They might even move in.

"Perhaps they will want to buy a second home here or perhaps they realize it is a great place to raise their family," he said. "Dorset is just a really great and friendly community that is a great opportunity for people who like the outdoors." M



Utilizing technological advances: *Police departments use podcasts to reach the public*

By NICHOLETTE CARLSON | The Municipal

The Newport Beach, Calif., police department is testing out unique methods for reaching out to the public for assistance in cases.

Jennifer Manzella, administrative assistant to the chief of police, stated that coming up with new ways to reach the public began in July 2018 with Linda's Story. "We had just completed a project for a cold case homicide called #Linda'sStory where we used Twitter to reach out for public assistance in identifying a murderer," she said. She was then approached by investigators later that month to come up with potential new ideas in asking the public's assistance with locating Peter Chadwick.

In 2012, Chadwick's wife was murdered and he was arrested for the crime but fled before he could stand trial. Police believe he may have used his ties overseas as well as his wealth to disappear and possibly leave the country. Since the Newport Beach Police Department had already tried the typical ways of reaching out to the public, they asked for Manzella's help to try something new.

After reaching out to the public through newspapers, magazines and television, Manzella explained, "We knew that we wanted to try something different and a podcast seemed like a perfect fit." After sitting down and reading through the case file, she began to work on a script for the podcast. "The case itself is episodic in nature and the format really let us take our time and tell the story to the listeners."

The podcast's script was reviewed by both investigators and supervisory staff the same way they would vet a press release or any other information released regarding an active investigation. The introduction and all six episodes were recorded and edited prior to the podcast airing in September. Throughout the episodes, Manzella presents the public with an overview of the original investigation, court proceedings and Chadwick's fugitive status. Also included in the podcast were messages to the public, the victim's family and Chadwick.



In September 2018, the Newport Beach Police Department began a podcast called "Countdown to Capture" with six episodes to request assistance from the public in locating a fugitive, Peter Chadwick, who is wanted for the murder of his wife. (Photo provided by the Newport Beach Police Department)

The technology

"We wanted to do everything in-house so it was a steep learning curve with the technical side," Manzella admitted. However, by not hiring out for help, they did not have to worry about finding a way to secure funding. The most challenging part was learning to record the audio since she had not prior experience.

She did receive some in-house help, though. "We have a photographer and videographer under contract with the department, and

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Race: White

Sex: Male

Hair: Brown

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Eyes: Blue

Weight: 160 lbs

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Case Outline:

Chadwick is wanted by the Newport Beach Police Department for the murder of his wife of 21 years, Quee Choo Lim Chadwick. In October 2012, Chadwick, a multimillionaire real estate investor, allegedly murdered his wife in their home after a heated argument. Investigators revealed that Chadwick became enraged and strangled his wife to death.

*The Newport Beach Police Department is offering up to \$75k additional reward for information leading to Chadwick's arrest.

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Through the podcast, the Newport Beach Police Department and all of the partnering agencies have been able to reach out internationally in an attempt to bring Peter Chadwick to justice after fleeing before facing his trial. (Photo provided by the Newport Beach Police Department)

he was able to help us out a bit with some of the more technical aspects of the project," Manzella said. "We used basic audio recording equipment — microphone, music stand to hold the script, etc. — and we edited on a laptop."

Part of the experience was learning how to not only record the audio but also process it. She had to learn how to cut it together, how to host it online and how to distribute it. "We were on a tight schedule so we learned 'on the fly' from when the project began in early August to when the podcast was released in mid-September," Manzella said.

The community's engagement in the case was well worth all the trouble, however. Manzella declared, "The response has been incredible. We started getting tips almost immediately and have seen international engagement." While she does not have particular knowledge of other departments who are using a podcast, she has received phone calls from other departments regarding equipment recommendations.

"If it's a good fit for another case in the future, we might use it again," Manzella said.

ABOVE: The "Inside The Squad" graphic shows Specialist Ian O'Shields, left, and Lt. Brian Phillips who are the current hosts of the podcast. They focus on connecting with the public and promoting public safety. (Photo provided by the city of Lafayette, Ind.)

LEFT: Tom Melville, left, and Alan Schwab are the current producers of the "Inside the Squad" podcast. They are civilian personnel who work as specialists and administrators in IT (Photo provided by the city of Lafayette, Ind.)

Monthly podcasts

The Lafayette, Ind., police department began a monthly podcast in 2017 under Chief Patrick Flannelly. The podcast was named "Inside the Squad" and is part of the department's ongoing community outreach and crime prevention. "Police Chief Patrick Flannelly thought the podcast could be another avenue of communication to further our missions of outreach and transparency, especially at a time when police were experiencing image issues nationally," Patty Payne, director of marketing and communications, explained. "The initial format was a more structured

topic-driven platform and has evolved into more organic discussions designed to pull back the curtain."

In order to get started, Payne described how "Chief Flannelly, with the support of Mayor Tony Roswarski, pulled in the city's (information technology) and marketing departments to meet with the staff at MatchBOX, a city-partnered co-working studio, to coordinate schedules. Enthusiasm was high from all parties who were eager to share their pride in LPD and the continuing efforts to stay progressive and transparent. Existing audio equipment at city hall and ▶

MARCH 2019 | THE MUNICIPAL 41

MatchBOX was used, so only minimal funding was needed for audio hosting on SoundCloud." After meeting in January 2017, the department was able to launch their first podcast the next month."

Recorded at MatchBOX Coworking Studio, the podcast is hosted by Lt. Brian Phillips and Specialist Ian O'Shields; produced by civilian IT technicians Tom Melville and Alan Schwab; and directed by Payne.


While the podcasts originally came out at the beginning of each month, Payne stated that it "now has a more relaxed timeline that is scheduled whenever guests can be slotted for the multiple fresh topics in the queue." The lengths vary from 10 minutes to an hour and the details vary from episode to episode, though their primary focus is on public safety accomplishments by the police department in the greater Lafayette area.

Topics have included vehicle crashes, road rage, fraud, summer safety, fire prevention, domestic violence awareness and holiday stressors. The podcast will also include interviews with various other departments, including members of animal control, a traffic sergeant, a crime analyst, the mayor and new officers to the force. They have also discussed police habits when it comes to nutrition, exercise, sleep, stress and even the department's hiring process.

Lt. Phillips remarked, "We're not afraid to be a little edgy. Some of what we say may raise some eyebrows. Our intent is to connect with our public safety and general audiences and to illustrate that police officers are real people with real struggles. We hope our commonality strikes a chord."



At a meeting both the Lafayette mayor, Tony Roswarski, far right, who supported Chief Flannelly in the creation of the podcast, and the mayor of West Lafayette, John Dennis, second to the far right, can be seen. Patty Payne, pictured toward the center, is the podcast's director, a regular co-host and producer. (Photo provided by the city of Lafayette, Ind.)

The podcast has received primarily positive feedback, and everyone involved has enjoyed seeing the podcast's viewership reach 11,000. Since community interaction is one of the primary focuses of the community outreach and crime prevention unit, the podcast's listeners and followers are able to interact by emailing questions and comments to podcast@lafayette.in.gov. 

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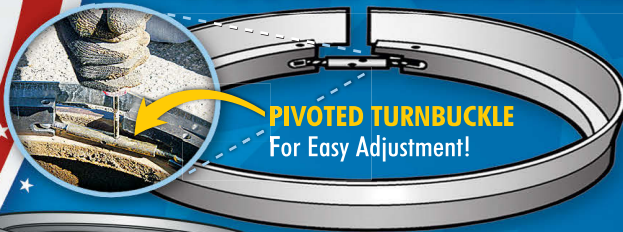




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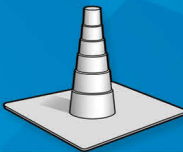
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Blair divides and conquers snow and ice

By CATEY TRAYLOR | The Municipal

The city of Blair, Neb., is no stranger to snow, and its efficient approach to handling inclement weather and ensuring the safety of residents is evidence of its familiarity.

The city has 15 pieces of snow equipment that are available to the public works department for snow and ice control. The equipment consists of dump trucks with sanders and plows, pickups with plows, a front end loader, a loader backhoe, snow blowers and graders. Once the first inch of snow settles on the ground, the dozen or so personnel dedicated to snow removal get to work.

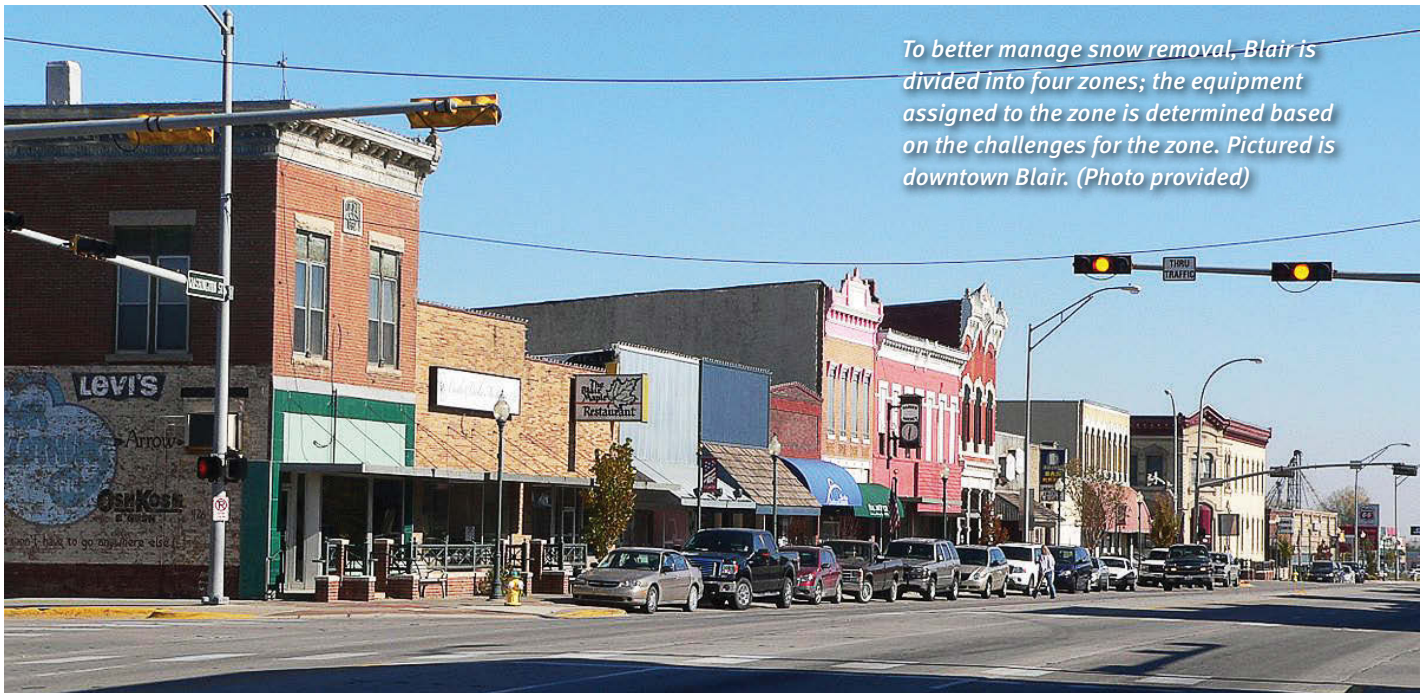
“Once the first inch of snow is on the city streets, the streets department supervisor starts contacting the staff within this department along with the utility supervisor who contacts their staff to mobilize for snow and ice control operations,” public works Director Allen Schoemaker said. “Depending on the weather forecast for how long the snow event will last determines how many staff are brought in right away versus splitting up the staff. Snow events that hit the 12-hour mark are the determining factor on this decision.”

Once the crews are mobilized, the topography of the city is taken into consideration when assigning where each person should go.

“The city is split into four zones with staff and equipment assigned to each zone,” Schoemaker said. “The equipment assigned to the zone is determined based on the challenges for the zone. Blair is unique in



Like a lot of cities, Blair is struggling with an aging workforce. It has managed to backfill some of its positions with new staff members who have spent hours learning about snow and ice control operations. (Photo provided)



To better manage snow removal, Blair is divided into four zones; the equipment assigned to the zone is determined based on the challenges for the zone. Pictured is downtown Blair. (Photo provided)

Nebraska as we have both flat and hilly areas within the city, which provide different challenges for the snow and ice operations.”

A combination of white and red salt along with sand is used for treating roadways. When the mixture is distributed on the streets, crews spray the substance with liquid salt mixed with Geomelt to help the paved surfaces thaw evenly and quickly.

As with fleet operations across the country, the city of Blair faces its fair share of challenges.

“We are challenged with keeping and maintaining qualified and experienced staff for our snow and ice operations,” Schoemaker said. “We are like many cities with an aging workforce; however, we have been able to backfill the positions with new staff that the supervisor spends many hours with training them on snow and ice control operations.”

When new staff member are put into the field, they work with experienced operators who provide oversight and assistance to them as needed to allow them to gain the experience needed to become quality employees within the city’s snow and ice control program.

Part of learning the job is learning the maintenance of the snow removal machines. While kept mostly in pristine condition, the equipment faces a lot of natural wear and tear through the years. Schoemaker has devised a system that allows the city to replace machinery when needed in order to maintain safety and efficiency while also keeping economic impact of those large purchases in mind.

“We have a life cycle for each piece of equipment in our fleet,” he explained. “As an example, dump trucks and loaders are replaced every 10 years while pickups are replaced every seven years, and the system continues from there. I work with the city administration and the city council to identify the pieces of equipment that are coming up for replacement to help with funding cycles to try to avoid a large burden on any one year’s fiscal year budget. Using this practice allows the city to maintain its snow ice control equipment and meet the expectations of the community.”



Unlike most of Nebraska, the city of Blair features both hilly and flat terrain. This can make snow removal a bit more challenging for the city’s public works department. (Photo provided)

The most challenging and important part of his job, Schoemaker said, is balancing fiscal responsibility in the short term in order to better prepare for the long term.

“Be realistic in what is needed and what is wanted. Make sure everything planned has an eye to fiscal impact to the decision both for short term and long term,” he advised. “Work with administration and elected officials to make sure they understand the cost of the service. We solicit input from both administration, elected officials and especially the public as to the level of service expected for the community so we can deliver accordingly.” **M**



Santa Fe uses bond to undertake infrastructure projects

By LAUREN CAGGIANO | The Municipal

Crumbling infrastructure is a weighty problem many U.S. cities face. Yet with reduced funding, some cities are scrambling to pay for necessary repairs and upgrades through alternative means. Santa Fe, N.M., is among them and it is looking to a bond issue — passed last fall — to provide relief.

As recently as 2015, the city of 70,000 people faced a \$15 million deficit in operating revenue compared to expenditures. That deficit was addressed with budget cuts and freezes, exacerbating infrastructure challenges and affecting public services, public safety operations and internal city processes.

Fast-forward to today and the city is still grappling with the consequences of those tough decisions. Regina Wheeler has served as the city of Santa Fe's public works director since July 2018. She described the current state of affairs in terms of infrastructure as

generally poor, but she's optimistic at the same time.

"I think the story is common in many cities," she said. "Funding for infrastructure has been scarce since the Great Recession. Our backlog in road repairs is over \$200 million (and) our facilities were in dire need of repairs. Most of which will be addressed by the \$20 million 2018 GRT Bond."

Santa Fe, she added, is experiencing a transformation from "an old funky town to a desirable small city to live in and visit." That's why it's especially critical to make the



Regina Wheeler, Santa Fe public works director

necessary investments in infrastructure, she said, to rise to the level desired by residents.

LEFT: Santa Fe is using its \$20 million GRT Bond to address a backlog of road and facility repairs. Pictured is Santa Fe's Cathedral Basilica of St. Francis of Assisi. (Shutterstock.com)

A September 2018 memo from the city's finance department outlines its plans:

"To begin addressing the city's capital infrastructure needs, the finance department proposes issuing a \$20 million, Senior Lien Gross Receipts Tax (GRT) Bond for 2018. This bond issue would not increase taxes. The GRT Bond issue enables the city to commit future Gross Receipts Tax revenue to finance the cost of the improvements, which more fairly spreads the cost over both current and future users of the facilities and services. Bond interest rates are also currently low, offering additional savings."

The memo goes on, making a case for the city's financial prudence. "We have not issued a Senior Lien GRT Bond for capital improvements since 2014, at a total of \$15.46 million. Since 2014, the city has been active in refunding or paying off outstanding debt to lower interest costs and debt burdens. The city has only issued one new revenue bond for capital improvement projects since 2014 — the 2018 Gas Tax Bond, which has funded significant road repaving work throughout the city."

In order to accommodate future growth, city staff assembled a package of priority capital improvement projects to be funded by the GRT Bond, taking into account factors like the city's obligation, critical need, deferred maintenance and leveraging matching funds. They also were concerned with equity, geographical diversity, potential public reach, best use of funds, potential savings and project readiness.

Per the memo, staff took into account that 85 percent of the total \$20 million should be spent within three years of the bond issuance. So, what types of projects will the funds support? In general, the city is financially committed to boosting quality of life and quality of place.

"A majority of the funds will go to building repairs and upgrades, making rec centers, libraries, pools and ice-skating rinks more functional, comfortable, energy efficient and safe," said Wheeler.

As is prescribed in the memo, these projects are more short term in nature and scope. To that end, Wheeler said many of the projects are shovel ready and will be executed in the next 12 months.

For example, "We are building a new fire station that has just entered the design phase, and that will take a couple of years," she said.

These projects are just as much about physical investment as they are societal benefit, she pointed out. The book "Palaces for the People" by Eric Klinenberg has informed her approach to public works.

"It is a great book about the importance of infrastructure that builds social infrastructure," she said. "He says that by investing in libraries, recreation centers, swimming pools and trails, we build health, resiliency and tolerance into our city. This is what we are going for — the most sustainable, family-friendly and user-friendly city in America. These bond projects take a big step in achieving these goals."

And those goals seem to be aligned with the residents' expectations.

"We haven't had any negative feedback about these projects and what feedback we've gotten has been positive," Wheeler said. "These are important places to invest to maintain and improve our social infrastructure. I think the lack of commentary from our citizens is a sign that they are relieved we are addressing these critical facilities and community needs." **M**



Santa Fe has put special focus on quality-of-life infrastructure, which is important to residents and visitors alike. (Photo provided)



Santa Fe is transforming from an old funky town to a desirable small city to live in and visit; however, like many cities across the U.S., it is struggling to keep up with its infrastructure. (Photo provided)



ABOVE: Pictured is Illinois Street, which was the major in-house complete rebuild. It was completed in 2018. (Photo provided)

LEFT: This is the first asphalt Kirksville, Mo., laid on a street from its own asphalt mixing plant. (Photo provided)

Kirksville launches its own asphalt mixing plant

By **BARB SIEMINSKI** | The Municipal

Kirksville, Mo., a rural city in Benton Township with a population of 17,536, serves as the county seat of Adair County. For years it had contracted out for the laying of asphalt, including for repairs.

One day in 2016, Ray Sandstrom, street superintendent of Kirksville, approached his boss, public works Director Glenn Balliew, with an incredulous proposal: Why doesn't the city buy its own asphalt mixing plant instead of shelling out significantly more money that could be used for other more pressing endeavors? Wouldn't the savings be substantial?

Balliew, true to form, put on his Missouri state "Show-Me" demeanor but allowed Sandstrom to form a task force to explore the idea.

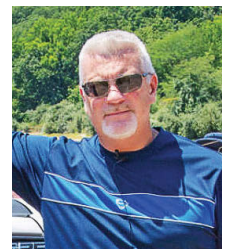
Meanwhile, an old asphalt batch plant was already located in Kirksville but seldom operated — why? This sparked an idea, however. Since it was already in existence, why not develop it into service?

"The old batch plant is privately owned," explained Balliew. "The city only purchased asphalt from that plant and could not plan projects because the plant seldom ran, would not provide asphalt when we needed it and the quality of the asphalt was questionable at times."

As to why, Kirksville took on this enterprise, Balliew noted the city's street infrastructure was failing at an alarming rate. The city had an outside company perform a complete study of every street in the community to include budget recommendations. The study indicated that the overall street pavement condition index was 57 and streets were severely underfunded.

"Funding for streets is tough because streets are nonrevenue generating," said Balliew. "The city street budget had not seen a significant increase for almost 30 years until the citizens voted to permanently extend an economic development sales tax that added \$600,000 to the street budget beginning in 2019. Adding a street construction crew to the staff and buying an asphalt plant was a bold move. The plan is to find efficiencies that would allow the city to do more with the funding provided by the taxpayers. The city can rehabilitate neighborhoods and repair drainage at a huge reduction in cost, and contractors can rehabilitate major streets that require more manpower. In 2019, the city expects to rehabilitate more than 7 miles of streets; this is the most that has been rehabilitated in a single season in more than 20 years."

"With the cost savings, the asphalt plant will pay for itself in five years or less. In 2018 the city saw a cost savings of more than \$1.5 million over engineering estimates on a single street. This particular street was a complete rebuild and affordable using correct annual budget amounts."



Glenn Balliew serves as Kirksville's public works director. (Photo provided)



ABOVE & BELOW: Pictured is the finished asphalt mixing plant in Kirksville, Mo. (Photo provided)



Based on engineering estimates, it would have taken the entire street budget for more than two years to rebuild this street. Federal and state prevailing wage rates drive up contract cost that results in less work being accomplished with the funds provided. Using the city construction crews and making our own asphalt results in an estimated 60 percent reduction in cost on this project. That is huge."

Also, partnering with the civil and environmental engineering department of the University of Missouri, 92 miles away in Columbia, was a game changer. The university's Missouri Asphalt Pavement and Innovation Lab experimented with finding the best possible asphalt mix for Kirksville's plant.

Asked if there was any opposition to creating the new plant, Balliew stated that this was a difficult fight because the city was losing more streets annually than they were repairing.

"Something had to change," admitted Balliew.

He added, "The public works department didn't arbitrarily decide to just build an asphalt plant. We conducted two solid years of research before putting it in the budget and defending it. Being able to control the quality of the asphalt; producing it as a 40 percent to 60 percent reduction in cost; and, furthermore, getting it exactly when we needed it was key to our success. We felt confident that the plan would help in getting our street infrastructure back to acceptable levels and putting us on a 15-year rehabilitation plan. We also understood that citizens would want to see progress. We ran the numbers and conducted the analysis and were confident that this was the right thing to do. I felt assured that it would work and we went for it."

Regional and local contractors voiced opposition to the idea, which they didn't like at all. They didn't realize that through the in-house construction and creation of the asphalt plant they would be getting as much, if not more, work as they had in the past. This was a result of the city's goal to repair even more streets.

"We actually erected the plant in-house to save money," said Balliew. "The street division performed the site prep; built the footers; hired cranes; erected the plant; managed all utilities; pulled wires; provided the manpower for hookups and controls; and calibrated the plant."

Other purchases included the asphalt drum mixers unit, which produces up to 110 tons an hour of two kinds of asphalt paving material; a slipform curb machine; GPS surveying equipment for the street division; a small LeeBoy asphalt paver; and a tractor-trailer truck to haul limestone from a quarry. A Wirtgen asphalt milling machine is sporadically leased for the preparation of streets for new pavement.

Balliew and his crew could not locate another city of Kirksville's size from which to model their asphalt plant off.

"They may be out there, but we couldn't find them," said Balliew. "This was a new concept, but something had to change. We hope that other cities can use our lessons learned if they are considering building their own streets."

As far as reactions to the plant, Balliew noted there were citizens and city leader both for and against it.

"Most citizens were behind the idea," said Balliew. "They understood that change was necessary. After numerous briefings, newspaper articles and local press interviews, more got on board. With the progress seen from the first year of operations, the asphalt plant is poised to make a huge difference in the coming years. As mentioned previously, the city will rehabilitate more streets in only the second full year of operations than has been done for more than 20 years in a single season. Progress speaks for itself."

Mari Macomber, Kirksville city manager, is happy about the endeavor for two reasons.

"First, I like having the ability to schedule and know that we are going to get a quality product," said Macomber. "The second is the capability to use the product in other applications that we hadn't thought about, such as parking lots and trails."

Sandstrom wouldn't do anything differently if he had to do the project over.

"To those cities considering building their own asphalt plant, keep in mind that we did a tremendous amount of research before ultimately deciding that building our own plant was the way to go," concluded Sandstrom. "We no longer have to depend on other plants that might not have the quality of asphalt we have or the reliability of delivering it when we need it." M

The vulture sculptures in Sonoma County, Calif., were designed and created by a local artist who had free range as long as it met the structural engineering and code requirements. (Photo provided)



Gogh-ing the creative route for common problems

By ELISA WALKER | The Municipal

Art can create and transform a city's identity or revive it by drawing in the eyes of visitors. It gives residents a sense of home and culture that is unique to them and memorable to others. It can solve issues like vandalism and crime while looking good doing it.

As cities implement art, they're discovering more practical uses with each program and cultivating a closer connection with their community in the process.

A scavenger's warning

While art is beautiful to observe, it serves a practical purpose. Cities across the world have created interesting crosswalks to

make pedestrians and drivers pay attention. Large installments — like "Cloud Gate," fondly called "The Bean" in Chicago — have become a tourist attractions and a symbols of identity. Art has always been used as a way to define a city, and now more cities are also viewing it as a way to resolve problems.

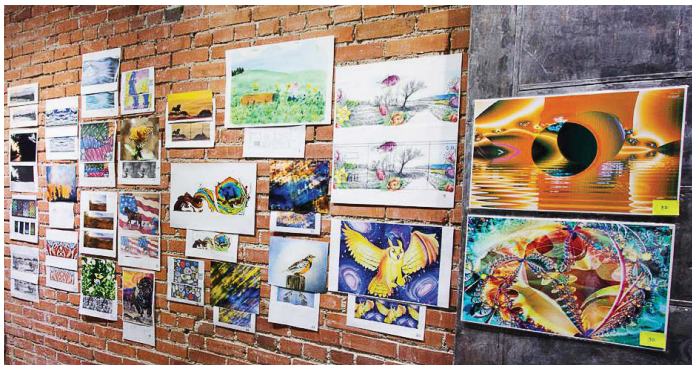
In Sonoma County, Calif., on Laughlin Road, sit two metal vultures, awaiting their

prey. At 7 feet tall, they're perched atop a yellow clearance boom as a warning to semi-truck drivers about limits.

The sculptures came from a constant problem of truck drivers ignoring flags and size limit signs, resulting in damages that create road closures that wouldn't only inconvenience residents but cost time and resources for them and the county.

This kind of artistic warning sign is common across Europe, but Sonoma County believes it is a forerunner in the U.S.

"We're pleased to be a potential national model for how to implement effective traffic solutions that mix art and engineering



In partnering with local artists and art groups, municipalities stand a better chance of having their projects heard and gathering art submissions. According to Beth Andress, Casper, Wyo., the broader the theme was the more submissions they received. (Photo provided)



The traffic signal cabinet wraps in Casper, Wyo., credit the artist's name, but paying artists and making the process easier will draw in more submissions. (Photo provided)

in creative ways to enhance safety in transportation in corridors," commented Johannes Hoevertsz, director of the department of transportation and public works. "We welcome opportunities to help solve ongoing issues and improve transportation-related projects by mixing art and engineering in ways that can meet state and federal standards and are unique to Sonoma County and its communities."

There haven't been any incidents since the sculpture installation in late 2018, to the delight of Sonoma County. While it brought more awareness to the issue, the installation also generated positive attention from the public and media.

Hoevertsz advised, "It's important to identify and work with appropriate departments, agencies and local nonprofits dedicated to the arts to find willing and qualified artists and advocates. Also identify local elected officials who will support and help facilitate the project."

All about the vinyl

In Casper, Wyo., the city is combating vandalism through beautification — specifically covering the traffic signal cabinets in art. This may not be unique to other cities, but utilizing vinyl wrap is a new twist.

Using vinyl not only saves time for the artists and the city, it is also easy to install. In 2018, the project was budgeted for \$3,000 but cost \$2,800 in total, which included installation, printing and paying the artists. Every year five art submission winners' pieces cover the boxes.

"The technology has gotten less expensive. Vinyl is resilient, washable and replaceable. Our local company gives us a good deal for the wraps," informed Beth Andress, Casper's beautification coordinator. "Public art doesn't have to be a \$50,000 mural and the artists don't have to be out there for five days, painting it on the box. It takes less of their time and our time."

"This makes the intersections more interesting. Since the wraps went up, they haven't been graffitied. Even if they were, our traffic department would have an easier time cleaning it up, and we could easily print the art again. You wouldn't have to call the artist to have them touch it up."

Despite a municipality having a myriad of people and ways to communicate, partnering with Casper Artists' Guild was the best step to make it all happen, according to Andress. The guild was able to speak



Through a partnership between the artists' guild and the city, Casper has installed a people's art choice on its traffic signal boxes. The guild puts the pieces on display during an art show, giving people the chance to vote. (Photo provided)

with local artists and had access to them in ways the city didn't, which proved helpful and beneficial for all parties.

"It's about picking the right partners who will give you credit. Originally, we were going to do it ourselves, but people weren't going to pay attention to us. We're not a local artist place. We don't talk to them on a regular basis. I don't think this would've been successful if there wasn't a partnership."

Andress recalled a 96-year-old artist who had been a winner and had only heard of the program through the guild as it was the place she visited regularly. The guild also hosts art shows, which gives the public a chance to vote on one art piece they'd like to win while also giving artists the opportunity to show their work to friends and family.

Casper has seen a decrease in graffiti and vandalism since art installations. ►



Totem Books, the most recent mural site in Flint, Mich., is only one painted section of the city and has brought countless visitors already. Local and national artists have visited Flint to partake in the public art projects. (Photo provided)



Murals around Flint have depicted inspirational settings, poetry and abstract forms of artwork to beautify abandoned houses and blighted buildings that would otherwise be eyesores. (Photo provided)

“We’ve also done four murals. The way we do art is really about graffiti and vandalism,” Andress explained. “Art locations are picked purely where we own the wall and box, and where it’s being graffitied. I think this is a better way than putting up cameras.”

“As beautification people, we get stuck in a hole where we think this needs to be professional, cost a lot of money and take all summer long. But these murals were small and cost between \$2,000-\$10,000. A lot of times the group I work with is AmeriCorps., and they write a grant to pay the artist.”

Andress added, “Go for it, but start small. If you get too grandiose, you set yourself up for failure. Start small, get the right players, get a couple local artist groups on the board and then see what they say.”

Painting a new perception

Flint Public Arts Project set out years ago to rejuvenate the city and its history of murals in Flint, Mich. After receiving negative press from the water crisis, artists and various nonprofit organizations banded together to display the city’s culture and shine positivity on the city.


Joseph Schipani, former executive director of Amplifier, which FPAP was originally a part of, shared the one example of murals changing the perception of Flint was in 2012. An old run-down building that attracted drug dealing and prostitution prompted a neighborhood to ask about an artistic solution.

“If we put big murals on it, that’d make people want to stop, take pictures and look around. That might make these people not want to come around and do illegal activities then,” Schipani shared. “We covered the building with murals, like an outdoor gallery. The crime went away almost immediately.”

Along with deterring crime and serving as beautification, some of the public art projects focus on promoting local businesses. The most recently completed project was on the walls of a local bookstore located on the outskirts of the downtown area. It catches the eyes of people who would otherwise drive past the business and has become an attraction for visitors.

With the water crisis taking up most financial and philanthropic investments, resources have been lacking when it comes to generating art. According to Schipani, “Getting funded on a local level is difficult, and then it’s harder to get funded on a national level when there’s no support on the local level.”

Nonetheless, Schipani and Flint residents see this as a turning point for the city.

“People come to cities to check out art and culture — they like to live where there’s art and culture. The more of that we have, the more beautiful things we have to look at. People are going to recognize that. If we keep creating art, it’ll spark more business and having more people moving here to become a part of it. It can revive almost abandoned cities.” 

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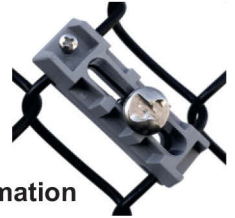
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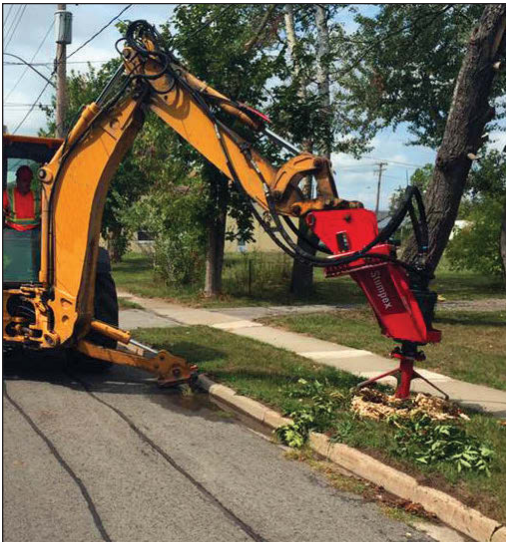
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Stertil-Koni research reveals 10 top tips to raise vehicle lift safety

Article provided by Stertil-Koni.

Following an in-depth review of municipal bus and truck maintenance facilities across North America, combined with heightened service demands resulting from the increased severity of weather events over the past decade, heavy-duty vehicle lift leader Stertil-Koni recommends 10 top tips to improve safety for the busy technicians working on the shop floor.

ABOVE: Platform lifts are designed for rapid drive-on, drive-off maintenance. Here, the Stertil-Koni Skylift Washbay model with hot dipped galvanized runways proves ideal for undercarriage cleaning, reducing grime buildup around engines. (Photo provided)

“With weather conditions shifting at a record pace, now is the time to plan for and advance your preventative maintenance strategies,” noted Peter Bowers, technical sales support manager at Stertil-Koni. “The advantages are compelling, especially in the form of heightened shop safety, prolonged vehicle life, reduced failures and breakdowns and sustained maximum vehicle uptime.”

The need is quite pressing.

With so much riding on municipal vehicles and the maintenance personnel that service

them, Stertil-Koni, known for its heavy-duty bus lifts and truck lifts, has developed 10 top tips for choosing a lift and the safe operation of HD vehicle lifts.

1. Certification is significant: Consider purchasing lifts certified by the American Lift Institute. The ANSI/ALI ALCTV — current edition — is the standard for automotive lifts. This lift certification program makes it easy for buyers to choose lifts that meet all safety requirements for construction, testing and validation. The ALI gold label is the only guarantee that a lift has been

independently tested to meet the highest industry safety standards.

2. Lift choice and capacity: Know in advance the weight of the heaviest vehicle to be lifted and make certain that the lift selected is certified to meet or exceed that capacity. Also, confirm the height of the vehicle when raised on a lift does not exceed the clear ceiling height.

3. Learn the lift: Well-trained lift operators should know the lift’s use and abilities prior to powering up. Proper training ensures safe and efficient operation and prepares the user



Complete access to the vehicle enables safe and efficient service and maintenance. Shown, maintenance workers inspect a school bus on Stertil-Koni's high-pressure telescopic piston lift, the DIAMONDLIFT. (Photo provided)



The high lift wheel dolly allows wheel removal and proper alignment of dual tire assemblies and brake drums to be completed efficiently and accurately, reducing back strain. (Photo provided)

for an emergency situation. Keep a copy of the manufacturer's lift operation and maintenance manual nearby at all times.

4. Safety first: During lift setup, check the perimeter of the lift to confirm that nothing is vertically obstructing the vehicle's path during lifting and there are no hazards in the lifting area. Lift the vehicle approximately 12 inches off the ground, then pause and do another sweep of the area to further check that there are no impediments.

5. Stability is key: Always place lifts on a firm foundation and on level ground. This is especially important with Mobile Column Lifts—as they can be easily relocated for operation both inside and outside of the maintenance shop. When outside, check for wind loads. Further, select a lift with an "electronic synchronization" system. As the lift goes into motion and continues through the full-range up to its maximum height, vehicles should rise smoothly, even those with unequal weight distribution, such as fire trucks and pumps. Assure that the lifted vehicle itself is level.

6. Adhere to proper lifting points: At all times use vehicle manufacturer's designated lifting points. For inground lifts, operators should check that the contact adapters are properly positioned.

7. Technician protection: Lift vehicles to a proper height so technicians can move about freely and comfortably underneath the vehicle. Verify lifts are in a locked position. Utilize support stands as required.

8. Maintain a lift maintenance schedule: Make sure lifts receive annual inspections by a certified ALI lift inspector. Also, use manufacturer-authorized technicians to service and repair your lifts.

9. Create a culture of safety: Publicly and prominently post service bulletins, safety messages and continuously update the skills of all technicians. This is vital to a smooth-running maintenance facility.

10. Accessorize your lift: Utilize lift accessories specifically designed to help ensure fleet maintenance operator safety and proper ergonomics. One example is a high lift wheel dolly, which allows wheel removal and proper alignment during installation of dual tire assemblies and brake drums to be completed efficiently and accurately, without back strain.

In conclusion, noted Dr. Jean DellAmore, Stertil-Koni USA president, "Safety is always mission No. 1 in the service bay. That is precisely why we suggest using a well-planned, safety-first approach so that shop technicians can perform their duties efficiently,

ergonomically and with complete confidence. It also creates a positive workplace atmosphere, helps improve worker retention and contributes to greater longevity of the vehicles being serviced and the maintenance equipment the techs operate." **M**

About Stertil-Koni

Stertil-Koni is the market leader in heavy-duty vehicle lifts, notably bus lifts and truck lifts, and proudly serves municipalities, state agencies, school bus fleets, major corporations, the U.S. military and more. Stertil-Koni's breadth of products meets all ranges of lifting needs and includes portable lifts such as Mobile Column Lifts, two-post, four-post, inground piston lifts, platform lifts and its axle-engaging, inground, scissor lift configuration, ECO-LIFT. The company's innovative, inground telescopic piston DIAMONDLIFT is now available with an optional continuous recess system, ideal for low clearance vehicles. Stertil-Koni USA is headquartered in Stevensville, Md., with production facilities in Europe, the Netherlands and in Streator, Ill.

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MARCH

March 4-6 MSTPA Annual Spring Conference

Hilton Lexington Downtown, Lexington, Ky.

<https://mstpa.org/annual-conference>

March 4-8 International Wireless Communications Expo

Las Vegas Convention Center, Las Vegas, Nev.

iwceexpo.com

March 5-8 The Work Truck Show and Green Truck Summit

Indianapolis, Ind.

worktruckshow.com

March 10-13 NLC Congressional City Conference

Washington, D.C.

nlc.org

March 14-16 NUCA Annual Convention and Exhibit

Naples Grande Beach Resort, Naples, Fla.

nuca.com/convention

March 17-21 NASTT's No-Dig Show

Chicago, Ill.

nodigshow.com

March 18-21 TMC Annual 2019

Atlanta, Ga.

tmcannual.trucking.org

March 19-20 Michigan Municipal League's Capital Conference and Annual Expo

Lansing Center, Lansing, Mich.

<http://blogs.mml.org/wp/cc/>

March 20-22 Florida Association of Governmental Fleet Administrators' Spring Event

Shores Resort and Spa, Daytona Beach Shores, Fla.

flagfa.org/future_dates.php

March 23-29 Wildland Urban Interface 2019

Peppermill Resort, Reno, Nev.

iafc.org/events/wui

March 28-30 Mid-America Trucking Show

Louisville, Ky.

truckingshow.com

APRIL

April 2-4 New England Parking Council Annual Conference and Trade Show

Hartford, Conn.

newenglandparkingcouncil.org/events

April 7-9 Fire Department Training Network Live-Fire Training Camp

Indianapolis, Ind.

fdtraining.com/training/courses

April 8-13 FDIC International 2019

Indianapolis, Ind.

fdic.com

April 15-17 NAFA Institute and Expo

Louisville, Ky.

nafainstitute.org

April 23-26 Advanced Clean Transportation Expo

Long Beach Convention Center, Long Beach, Calif.

actexpo.com

APRIL

April 23-26 2019 GIS-T Symposium

Omni Orlando at Champions Gate, Kissimmee, Fla.

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

April 24-25 National Fire and Emergency Services Symposium and Dinner

Washington, D.C.

cfsi.org/2019-dinner/

April 24-26 Navigator 2019

National Harbor, Md.

<https://navigator.emergencydispatch.org/>

April 24-26 2019 Parking Association of Georgia Conference

Marriott Evergreen Resort and Convention Center, Stone Mountain, Ga.

parkingassociationofgeorgia.com

MAY

May 2-4 Association of Fire Districts of the State of New York Annual Meeting and Conference

Albany Marriott, Albany, N.Y.

afdsny.org/annual_meeting_and_conference.php

May 4-7 Alabama League of Municipalities Annual Convention

Arthur R. Outlaw Convention Center, Mobile, Ala.

alalm.org/annual-convention.html

May 5-7 NYCOM Annual Meeting and Training School

Otesaga Hotel, Cooperstown, N.Y.

nycom.org/meetings-training/conferences.html

MAY

May 6-9 WasteExpo

Las Vegas Convention Center, Las Vegas, Nev.

wasteexpo.com

May 17-19 Lancaster County Firemen's Association Annual Fire Expo

Pennsylvania Farm Show & Expo Center, Harrisburg, Pa.

lcfa.com

May 19-22 North American Snow Conference

Salt Lake City, Utah

apwa.net

May 19-23 Community Transportation Association of America Expo

Palm Springs, Calif.

<https://ctaa.org/expo/>

May 20-23 AWEA WindPower

Houston, Texas

windpowerexpo.org

JUNE

June 2-5 EUFMC 2019

Williamsburg Lodge and Conference Center, Williamsburg, Va.

eufmc.com

June 12-14 Wyoming Association of Municipalities Summer Conference

Sheridan, Wyo.

<https://wyomuni.org/events/>

June 12-14 Arkansas Municipal League 85th Annual Convention

Little Rock, Ark.

arml.org

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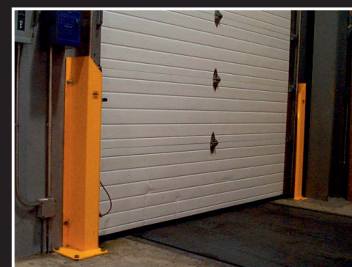
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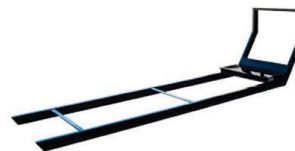
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Cities with the most nice days

We all want to live somewhere nice. For some, that entails having all the right services while for others it's all about the weather. The Washington Post used automated weather stations with relatively complete data between 1998 and 2018 to determine which cities offer the most nice days weather wise.

Brian Brettschneider notes in his August 2018 article, " ... we systematically evaluated every daily and hourly observation for 373 stations around the country for all 365 days of

the year and computed the number of days per year that met all of the following specific criteria: high temperature between 65 and 85 degrees, maximum dew point temperature less than or equal to 65 degrees, peak daily wind (including gusts) less than 25 mph, average daily cloud cover less than or equal to 65 percent (and) no measurable precipitation."

Unsurprisingly, using these criteria, cities topping this list tended to be on the West Coast or in the Southwest. Though for fans of rain and

snow, you're mileage on this list will vary. Brettschneider kindly attaches Margaret Wolfe Hungerford popular quote—"Beauty is in the eye of the beholder"—to bring this point home. **M**

1. Long Beach, Calif. ~ 210*



2. Los Angeles, Calif. ~ 182*



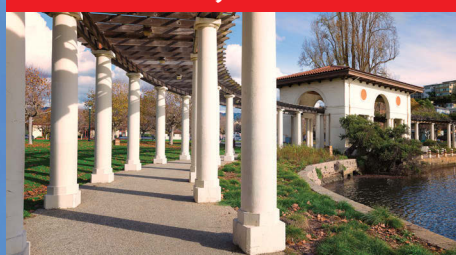
3. San Diego, Calif. ~ 178*



4. San Jose, Calif. ~ 170*



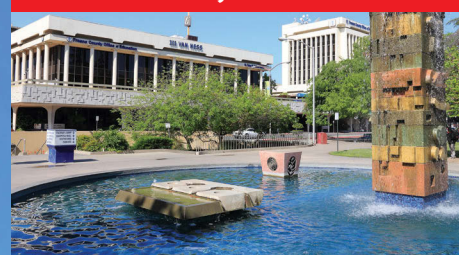
5. Oakland, Calif. ~ 138*



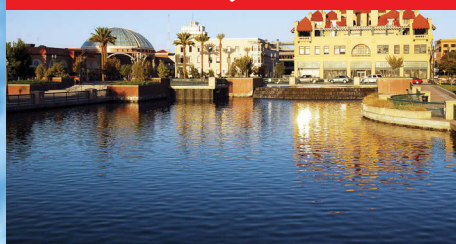
6. Phoenix, Ariz. ~ 100*



7. Fresno, Calif. ~ 95*



8. Stockton, Calif. ~ 89*



9. Tacoma, Wash. ~ 86*



10. Olympia, Wash. ~ 84*



*Average most nice days per year. Images Shutterstock.com

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