Updates and information on programs and projects at the City of San Carlos.

City Manager

Non-Profit Grant Program Spotlight: Museum of San Carlos History
The Museum of San Carlos History received a grant of $6,000 through the City’s Non-Profit Grant Program for Fiscal Year 2018-19. The grant will contribute to outdoor space improvements and article software maintenance.

While continuing to update exhibits and digitize historical data, the Museum plans to update its outward appearance to a more distinctive and attractive place for its visitors. By creating an outside space that is functional and visually alluring, the Museum hopes to expand gatherings, enhance public outreach and help promote community pride.

In addition, the Museum will continue its program offering digital historical articles to visitors and will use grant funding to maintain the software, which makes searching articles simple and easy. This year the Museum plans on expanding further into social media with research articles and photos, encouraging the community to learn more about San Carlos' history.

Administrative Services

Here are some quick updates from the Human Resources Division of the Administrative Services Department on recruitments to fill vacant positions at the City.
Open Recruitments
• Recreation Leader II (Part-time, Athletics) – Recruitment closes on October 19th
• Assistant Planner – Recruitment closes on October 19th
• Associate Planner – Recruitment closes on October 19th

Upcoming Recruitments
• Maintenance Worker – Background check in progress
• Recreation Leader I (Part-time, Youth Development) – Applications under review
• Management Analyst (Public Works) – First round of interviews were held on October 10th
• Facility Attendant (Full-time) – Background check in progress

New Hire
• Program Coordinator (Part-time) – New hire started on October 1st

Community Development

San Carlos Based Firm Leads Way in Robotic Farming
Iron Ox, a San Carlos based company, was recently featured on the front page of the San Francisco Chronicle thanks to its work developing the first robotic farm in the United States. The Chronicle article highlighted the firm’s efforts in growing greens and herbs with the assistance of fully articulated robots at an 8,000 square foot warehouse in the city. The produce is grown indoors in about a foot of nutrient-dense water that the company claims uses 90 percent less water than traditional farming and eliminates the need for pesticides and herbicides. While beginning in San Carlos, Iron Ox’s ultimate goal is to open greenhouses across the country that can provide produce for large supermarkets and help to address the labor shortage currently faced by many farmers. City staff will meet with Iron Ox the week of October 15th to discuss expansion plans.

The article is included as an attachment to this Newsletter and is also available online at: https://www.sfchronicle.com/bayarea/article/U-S-s-first-robotic-farm-opens-in-the-Bay-Area-13276847.php#photo-16267032

Amendments to the Regional Housing Needs Assessment (RHNA) Process
Recent amendments to the RHNA process have changed how cities can reach estimates for their future housing needs. All California cities are required to develop a Housing Element that states how much housing a city anticipates needing at different income levels. RHNA outlines how these numbers should be calculated, but some believe the process allows jurisdictions to set artificially low housing targets. In response, the State of California has amended RHNA so that jurisdictions must now include data regarding overcrowding rates, vacancy rates and cost-burdened housing, among other new data points. The goal of these amendments is to make the process of setting RHNA targets more thorough and data-driven and less open to manipulation.
Parks & Recreation / Fire Department

Fuel Reduction Grant Update
In the last year, the City of San Carlos received two grants focusing on fuel management in parks and open spaces. The first grant is funded by the California Fire Safe Council in partnership with Fire Safe San Mateo County. Other agencies committed to the project include Cal Fire and Woodside Fire Protection District. Fuel removal at Eaton and Big Canyon Parks will be funded by this grant. An environmental review was performed to determine best practices, timing and methods for the fuel reduction before the work commenced. This past Monday, the crew set up grazing goats at Eaton Park. The goats will graze for the next week or so before being moved to Big Canyon Park. Additional work will include removal of vegetation by using Cal Fire hand crews.

The second grant received is funded by the Federal Emergency Management Agency (FEMA) and will consist of fuels management in Crestview and Highlands Parks, as well as other areas identified during upcoming environmental review. The project will require the use of Cal Fire hand crews, goats and heavy equipment. We will be sure to notify community members in the area ahead of time. The City will begin the environmental review for this project in the next few months with work anticipated to begin next spring.

Welcome New Employee
The Adult Community Center (ACC) welcomes new part time program coordinator Hilda Pacheco to the team. Hilda earned a Bachelor of Science degree in Public Health with a minor in Nutrition and Food Science from San Jose State University (SJSU). Hilda’s most recent position was as Healthy Campus 2020 coordinator at SJSU. She has experience in food operations, marketing and communications, which makes her a great fit for the ACC team. Hilda was raised in the East Bay and currently resides in San Jose. Please stop by the ACC to say hello to Hilda!

Police

Commercial Burglaries
On September 30th at approximately 9:10 a.m., deputies responded to Marsha’s Lunchbox located at 760 Industrial Road on the report of a burglary. Sometime overnight, suspects smashed the front window at Marsha’s Lunchbox and entered the victim’s store. The suspects stole approximately $100 from the cash register.

On September 30th at approximately 10:20 a.m., deputies responded to Dosachaat Café located at 601 Old County Road on the report of a burglary. Sometime overnight, suspects entered through an unlocked rear window at Dosachaat Café and stole approximately $250 from a desk drawer.

In both cases reports were taken and forwarded to the Detective Bureau for further investigation.
Vandalism
On October 3rd at approximately 11:00 a.m., deputies responded to the 1000 block of Riverton Drive on the report of vandalism. Sometime overnight, suspects used black spray paint to vandalize six addresses. Characters were painted on the driveways and sidewalks in front of each address, and all six appeared to have happened during the same time frame. A report was taken and forwarded to the Detective Bureau for further investigation.

Vehicle Burglary
On October 7th at approximately 8:30 a.m., deputies responded to the 300 block of Pearl Avenue on the report of a vehicle burglary. Sometime overnight, suspects smashed the driver side window of the victim’s vehicle while it was parked in front of his home. A suspect stole a laptop valued at $600, that had been left on the front seat. A report was taken and forwarded to the Detective Bureau for further investigation.

Public Works

All Way Stop Control
Public Works received requests to review the intersections of Laurel Street and Morse Boulevard and Laurel Street and White Oak Way to determine whether the increased volumes of pedestrians and vehicles warrant all-way stop controls.

The intersections were studied at various times/days and it was determined that all-way stop control is warranted at both locations.

Public Works brought the results of the study to the Transportation and Circulation Commission and received positive input and feedback from the public and the Commissioners for the installations.

The all-way stop control at the intersections will be installed within the next few weeks once the work is coordinated with the contractor and maintenance staff to stripe the new pavement markings and install signs.

Americans with Disabilities Act (ADA) Parking: San Carlos to Arroyo
City Council recently requested that Public Works review the conversion of existing parking stalls into additional ADA parking stalls along Laurel Street between San Carlos and Arroyo Avenues. Staff determined that there are eight existing handicap stalls in this street length.

The conversion of street parking stalls to ADA parking stalls will require the removal of approximately three regular parking stalls and the relocation or removal of street trees and/or streetlights along Laurel Street for restriping, signage and the installation of a curb ramp to meet design requirements. However, Public Works identified two existing locations that can accommodate additional ADA parking stalls without much impact on existing conditions. Public Works is investigating the ADA stall design options and will be presenting the options to the Transportation and Circulation Commission for further input and comments.
LOCAL // BAY AREA & STATE

U.S.'s first robotic farm opens in the Bay Area

Jonathan Kauffman

Iron Ox co-founder Jon Binney (left) robotics engineer monitor the robotics as a robotic arm transfers red veined sorrel from one container to another at Iron Ox on Tuesday, October 2, 2018 in San Carlos, Calif.

Photo: Lea Suzuki / The Chronicle

Angus doesn't look like your normal farmer. He's more of a giant, docile rectangle, built to lift 800-pound containers filled with water and seedlings and wheel them over to his partner robot, which looks like a giant arm with twin cameras set next to its gripping fingers.

It has taken a San Carlos company named Iron Ox three years to build these two core pieces of technology. As of Wednesday, they're officially at work at the country's first robotic farm.
Founders Brandon Alexander and Jon Binney met at the influential Silicon Valley robotics lab Willow Garage and quit their jobs in 2015 to dive into the farming world. “Let’s not build robots until we talk to a bunch of farmers,” Alexander said the pair decided. They road tripped all over California, asking farmers what their biggest point of concern was.

The answer was clear: labor scarcity.

According to a 2017 survey of 762 farmers conducted by the California Farm Bureau Federation, 55 percent of those polled reported labor shortages, and that figure was closer to 70 percent for those who relied on seasonal workers. Many had raised wages in an effort to attract laborers, but 33 percent of farmers said they were also turning to automation.

For California’s $54 billion agriculture industry, change is coming. “Labor-related tasks are kind of a big factor in what’s motivating farmers,” said David Slaughter, head of UC Davis’ Smart Farm Initiative. Many aspects of grain or cotton production have long been automated, but perishables — tree fruits, berries, lettuces — require the human touch.
Some robotics research is focused in the area of weeding and pruning, others on harvesting apples or strawberries. In the Salinas Valley, some field lettuce growers have adopted automation in the form of high-pressure “water knives” that move along the rows, cutting the bottoms of the heads and feeding them up to workers via conveyor belts, a process that eases the burden on workers' backs.

Fully articulated robots like the ones operating at Iron Ox are rare.

“When it comes to automated, advanced mechanization, and specifically robotics, we're very early in the game,” said Dennis Donohue, director of the Western Growers Center for Innovation and Technology, an agriculture-tech incubator program.

According to market research firm CB Insights, about $1.1 billion of investment has been poured into agriculture tech this year, up from $73.5 million five years before. Robotics still represents a small sliver of that funding.

Alexander and Binney have required only $6 million to build Iron Ox, after graduating from the incubator Y Combinator in 2016. The company has since graduated from its initial research and development facility to an 8,000-square-foot warehouse with a smooth poured-concrete floor, a gated area filled with engineers, plant scientists and their computers, as well as a reception room with cafe tables and a window overlooking the 2,000-square-foot growing area.

Iron Ox's goal is to create a replicable and scalable model that can produce vegetables for Midwestern Costcos rather than for four-star restaurants. The company's prototype farm consists of several dozen containers in which greens and herbs grow in about a foot of nutrient-dense water: butterhead lettuce and basil, sure, but also dinosaur kale and upland cress. Despite their size, the containers can be closely spaced, since Angus can maneuver — all by itself — down the rows to pick up the ones it (or its programmers) wants.

For now, humans take readings to adjust the nutrient balance in the water, and humans harvest the greens when they're fully mature. But Iron Ox has automated many of the other repetitive, back-bending tasks. The biggest challenge isn't getting robots to pick up 800-pound containers. It's training Angus to move the container without splashing, and programming the arm to gently maneuver around tender leaves.
Growing vegetables hydroponically in indoor greenhouses saves 90 percent on water and avoids the need for pesticides or herbicides, Alexander said. Because the robots can constantly shift the plants around so they're spaced farther and farther apart over their four to six weeks of growth, Alexander estimated that Iron Ox will be able to produce 30 or 40 times what a conventional greenhouse of the same size could, operating year round.

Two other Silicon Valley companies — Crop One and Plenty — are building “vertical farms” to grow lettuce in enclosed warehouses under LED lighting. (Neither is selling to retailers, but you can find Plenty’s spring mix at Creator, the San Francisco hamburger-cooking robot restaurant that opened to the general public last week.)

Iron Ox said that its goal is first to move into a local greenhouse with natural light — the sun is cheaper than LED lights — and then expand to greenhouses all over the country, bringing freshly grown produce to regions with short summers as well as rural areas with little access to grocery stores.

The company is not building fleets of Anguses for other farmers: It’s selling the greens itself. Iron Ox has no current customers, but as of Wednesday, it’s inviting professional chefs to tour
the farm. The anticipated price of a head of lettuce? A dollar, as close to the industry standard as possible.

The Bay Area is an ideal testing ground for robotic farms because of the proximity to Silicon Valley's engineers and capital. At the same time, when it comes to salad greens there are few more competitive markets on the planet. The company has hired plant scientist Nicole Bergelin to diversify what the farm produces. She has added purple bok choy, fenugreek greens and broccolini, helping the engineers train the robots to work with each. “All the robots in the world don't matter if we can't grow great produce,” Alexander said.

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