

Local Home Security Expert Launches Next-Gen DIY Smart Home Solution



PHOTO | COURTESY OF INNOVATE SECURITIES FOR LIFE

by **CLAUDIA JOHNSON, Public Relations — Innovate Securities for Life**

With the ongoing presence of the coronavirus and mounting uncertainty, families are seeking peace of mind in more ways than one. As families spend more time at home and an aging population remains more isolated, demand for home security and monitoring services has escalated. In addition, with more people at home, there is a growing trend toward do-it-yourself (DIY) domestic improvement projects, and more uneasiness with in-person, high-touch installation professionals.

With those trends in mind, national home security expert and Bend resident Graham Hausler got busy engineering not only the next generation in home and office security technology, but a DIY installation process that makes smart home solutions easy, intuitive and affordable for everyone right now. A security industry insider, Hausler, who founded and operated Bend-based Atlas Security for 20 years, foresaw the need for a proven DIY security model that would differentiate from old traditional security systems. Welcome Innovate Security for Life.

"The Innovate team is redefining the narrative in the security industry, at a time when most companies are still offering clunky, expensive video surveillance and automation equipment. We are grounded in the fundamentals — and smart technology — to ensure life safety first, and all with the ease of a highly customizable, do-it-yourself solution," says Hausler. "You cannot put a price on the safety and security of your family, which is why we engineered Security for Life."

Customize a Security System that Works for You

Innovate offers an online ordering process that enables the consumer to customize home security and family safety options that meet their needs and lifestyles.

Innovate's online security system designer will walk you through the process of identifying the right features and functions for your family. It walks users through their

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Manufacturing Industries Remain Strong & Diversified

by **RONNI WILDE — CBN Reporter**

Manufacturing in Central Oregon continues to be a staple industry in our region. While manufacturers have had to pivot and rethink business like so many others during this season, overall, the industry remains strong and diversified. Those manufacturers who create consumer goods saw phenomenal growth over the past year, and business owners who were willing to tweak what they produce have been able to slowly drive sales back up, even after suffering losses at the beginning of the pandemic.

"As with many things related to COVID impacts, it is a bit of a mixed bag for manufacturers in our region. Some are having their best year ever, while others still have not replaced revenue lost in the pandemic," says Roger Lee, CEO of Economic Development for Central Oregon (EDCO). "Overall, employment in the tri-county area is down for manufacturing, but we're not really alarmed — businesses have had to resize their workforce for changing market conditions and customer demand. These companies will survive and remain important employers and a source of job growth both in the short and long term." He adds, "We also continue to field interest from manufacturers outside the region who are considering our area for expansion or relocation. It's important to note that we have more than 500 manufacturing businesses now in the tri-county region. That in and of itself creates greater diversity, such that when one industry is down, not all businesses suffer."

Jon Stark, senior director of Redmond Economic Development Inc. (REDI), agrees that since last year, COVID has hit hard; but overall, manufacturing has held its own for a variety of reasons. "We saw employment declines across many sectors, manufacturing included.



JON STARK, SENIOR DIRECTOR OF REDMOND ECONOMIC DEVELOPMENT INC., PRESENTS AN OFFICIAL PROCLAMATION TO SAM MEIER, GENERAL MANAGER OF COMPOSITE APPROACH, DURING THE MADE IN REDMOND TOUR | PHOTO COURTESY TIMOTHY PARK

But manufacturing that didn't support the airlines, hospitality or bars and restaurants — those that make consumer goods — some of those went through the roof." Lee says that a limited number of manufacturers

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ISCO Manufacturing Solutions' Blueprint for Success

Three Generations of Bend Family Sees Machine Shop Thrive From 1973 Origins

by **SIMON MATHER — CBN Feature Writer**

Three generations of a Bend family with deep roots in the area have provided a blueprint for success in the machining industry.

The origins of ISCO Manufacturing Solutions, currently housed in a close to 20,000-square-foot location off NE Empire, stretch back to 1973 when General Manager Craig Allen Gribkov's grandfather, Les, started the enterprise in a small shop in South East Bend, with an emphasis on mill repair supporting the region's burgeoning timber business.

The family's long-standing ties to the local community were already in evidence even well before this time, when the senior Gribkov's sister, Maren, along with Eleanor Bechen founded what became Bend's premier landmark restaurant, The Pine Tavern, in 1936. At a time when the country was just barely pulling itself out of the Great Depression, these enterprising and courageous women built a thriving business serving a growing population of timber industry workers and their



TUBESHARK II | PHOTO COURTESY OF ISCO INDUSTRIAL SERVICE COMPANY

families, before selling to the next operator in 1967.

Later, current ISCO GM Gribkov's father, Craig, who still holds the title of company president, next joined the machining business, and helped move more in the direction of secondary wood products equipment as the lumber industry matured.

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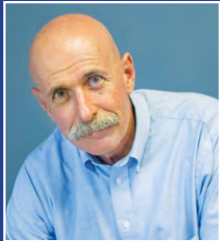
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CBN is published the first and third Wednesdays of each month.

Subscriptions are \$35 for one year (\$40 for out of tri-county).

CBN is a division of Cascade Publications Inc. which also publishes the monthly Cascade Arts & Entertainment magazine, Book of Lists, Sunriver Magazine, Premiere Builders Exchange Directory, Bend-La Pine High Schools Fall & Winter Sports Programs and the Art & Wine Auction Program. Locally owned and operated since 1994.

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Steele Associates Architects Selected to Design New USFS Sisters Ranger District Compound

After a competitive public solicitation process, Steele Associates Architects (STEELE) of Bend has been selected to design the new USFS Ranger District Compound in Sisters. The new facility will be located at the current USFS Ranger District site.

Phase 1 will include design and construction of a 12,000- to 14,000-square-foot Ranger District Office, and Phase 2 will include the design and construction of a 4,980 square foot District Storage Facility that includes eight individual storage units, four individual heated ADA restrooms/shower rooms and a heated combined workshop. The project will be designed to meet Green Globe 2 sustainability requirements.

"The STEELE Team couldn't be more

pleased to have won this project. We understand how important the new facilities are to the USFS, the City of Sisters and the region, and we intend to work very hard to make it a great process and project for all," said STEELE founder Scott Steele. "It's a special project for us because both Michael Sawiel (STEELE designer) and I were born and raised in Sisters. Though my family moved to Bend was I was six, Michael's stayed, and he graduated from Sisters High School.

"In addition, STEELE Project Manager Adam Stephen and I have worked on prior USFS projects and really enjoy working with them, and we can't wait

Continued on Page 30 ►

Renovated & Renamed Campfire Hotel Launches in Bend

Portland real estate and hotel developers launch a fresh new hotel concept in Bend: The Campfire Hotel and Pool Club, where Pacific Northwest camp culture meets urban and outdoor adventures. With 100 vintage-camping-inspired rooms, this pet-friendly boutique motor lodge offers modern



CAMPFIRE HOTEL | PHOTO BY LANE PEARSON

Continued on Page 30 ►

COIC Launches Another Round of Central Oregon COVID-19 Small Business Grants

The Central Oregon Intergovernmental Council (COIC) and a network of local partner organizations are offering another round of Grants to Central Oregon small businesses and nonprofits negatively impacted by the economic downturn caused by COVID-19. Eligible applicants can receive grants from \$5,000 to \$50,000 each. The application period opened October 16, and will close at midnight on Sunday, November 15. To apply, visit coic.org/grant.

COIC has already awarded more than \$520,000 in grants in two previous rounds of the program, which first

launched in July. Businesses or nonprofits who received grants in previous rounds are eligible to apply again for limited additional funding. Eligibility requirements have also been expanded to allow for more applicants to qualify for funding compared to previous rounds.

Businesses that have received less than \$100,000 in small business assistance through the CARES Act (such as PPP, EIDL, EIDLA, the Oregon Cares Fund for Black Relief + Resiliency and other programs) are now eligible.

Continued on Page 30 ►

RECENT TRANSACTIONS

Nick Vaughn, Broker and **Brian Fratzke**, CCIM, Principal both of **Fratzke Commercial Real Estate Advisors, Inc.** represented the Seller in the sale of 31036 SE Paiute in Bend for \$1,800,000.

Compass Commercial Real Estate Services broker **Howard Friedman**, CCIM represented the seller, **Cyber Drive, LLC**, in the sale of 325 SW Cyber Drive in Bend. The 6609 SF office building on 0.72 acre sold for \$2,225,000.

Mountain Modern Airstream LLC has signed a 37 month lease of 5,700 +/- SF of industrial space at 615 SE Glenwood in Bend. **Tom Tapia**, CCIM, Principal of **Fratzke Commercial Real Estate Advisors, Inc.** represented the Tenant and **Brian Fratzke**, CCIM, Principal of **Fratzke Commercial Real Estate Advisors, Inc.** represented the Landlord.

Broker and partner **Graham Dent** of **Compass Commercial Real Estate Services** represented the buyer, **Providence Tents, LLC**, in the acquisition of 1036 SE Paiute Way in Bend. The 12,790 SF Industrial building on 0.7 acre was purchased for \$1,800,000.

Cairn Inc. has signed a 5 year lease of 3,344 +/- SF of industrial space at 62561 NE 4th Street in Bend. **Tom Tapia**, CCIM, Principal & **Brian Fratzke**, CCIM, Principal, both of **Fratzke Commercial Real Estate Advisors, Inc.** represented the Landlord.

Terry O'Neil, CCIM and **Bruce Churchill**, Principal broker of **Compass Commercial Real Estate Services** represented the landlord, Jerry Ivy Separate Property Revocable Trust, in the lease of a 4,440 SF industrial suite located at 2050 SE Deerhound Avenue in Redmond.

Century Insurance has signed a 120 month lease of 4,554 +/- SF of office space at 320 SW upper Terrace in Bend.

Nick Vaughn, Broker of **Fratzke Commercial Real Estate Advisors, Inc.** represented the Tenant.

Central Oregon Rentals LLC has signed a 3 year lease of 5,472 +/- SF of industrial space at 63026 Plateau Drive in Bend. **Brian Fratzke**, CCIM, Principal of **Fratzke Commercial Real Estate Advisors, Inc.** represented the Landlord & Tenant.



• FOR SALE •



\$3,200,000

60909 SE 27th Street, Bend

10 acre parcel in the proposed SE Area Special Planned District. Sale includes Bend Pet Resort, a profitable business, four industrial buildings and a single family residence. Adjacent 28.1 acres also for sale.

Contact Al Eastwood
541.350.0987

• FOR SALE •

NEW LISTING



\$1,995,000

62988 Layton Avenue, Bend

Multi-tenant 6974 SF commercial building on a prime corner in the North Brinson Industrial Park. Currently occupied by two tenants and the owner.

Contact Meg Watkins
541.530.1620

• FOR SALE •



\$995,000

3600 N Hwy 97, Bend

Highly visible 22,215 SF of land ready for immediate development and perfect for a fast food, bank or convenience store.

Contact Paula Van Vleck
541.280.7774

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NEW LISTING



\$385,000

16440 3rd Street, La Pine

Great owner/user opportunity in a terrific location just off Hwy 97. 1762 SF building formerly occupied by a dental practice on .54 acre. Vacant and easy to show.

Contact Bill Pon
541.815.4140



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BROKERS LICENSED IN THE STATE OF OREGON

Measure 9-135

Bend’s Transportation Investment in Livability

Bend’s Transportation System Needs Help

provided by GO BEND 2020 COALITION

We care about keeping our neighborhoods and our city quiet and safe for ourselves and our kids. We want our economy to stay strong, and that depends on easy travel for both commuters and products. And we know we don’t live in this beautiful place to spend our time sitting in traffic. All the feedback aligns closely — from public meetings, phone surveys, focus groups and an online survey — our community’s shared priorities clearly call for improving traffic flow and safety in Bend. Commuters want to drive to and from work easily and reliably, especially if they travel east to west across town. Parents want their kids to walk or ride bikes to schools and parks safely. And people who walk or commute by bike want a network of routes to get across town safely and easily. We all need some assurance we can get there from here in a safe, timely and reliable manner.

Making it happen
A Citywide Transportation Advisory Committee (CTAC) worked with City Councilors, staff and consultants for two years to develop a 20-year Transportation System Plan (TSP) for Bend. Their work included a citywide survey validating key projects and providing guidance on appropriate investment levels.

In late 2019, the City Council decided it was time to take a first critical step — decide on the short-term priorities and a way to fund them. Bend City Council knows that any plan for the future of Bend’s transportation system was going to need broad support, both on the City Council and in the Community. The solution — a balanced steering committee of City Councilors and CTAC leaders to recommend priority projects. Councilors Bill Mosely and Gena Goodman-Campell worked with CTAC co-chairs Mike Riley and Karna Gustafson to hammer out a plan for the short term. Starting with the input from the TSP, the group developed a well-rounded package to improve neighborhood safety, improve traffic flow and increase citywide connectivity. “The plan will improve safe access to schools and support other neighborhood safety projects,” said Mayor Russell. “Dozens of major intersection fixes will improve traffic flow, including unsnarling the traffic on Reed Market Road. The plan will also build walking and bicycle routes and enhance transit, improving transportation choices for all Bend residents citywide.”

In January, the Bend the City Council approved the plan unanimously. They also voted to place a General Obligation Municipal Bond on the ballot to finance the improvements.

“This measure will help keep our families safe and protect our quality of life for years to come. I urge all Bend residents to join me in voting ‘YES’ on Measure 9-135 in May.”
~Mayor Sally Russell

Priorities: Increased safety, options and flow
“Bend’s economic vitality and community livability depends on a well-functioning transportation system that is safe, gives people choices and improves traffic flow,” said Bend Chamber CEO Katy Brooks. “Measure 9-135 is a strong and reasonable response to the transportation challenges we face. It will create jobs, helping hundreds of Bendites get back to work.”
Top priorities of the Bond over the next ten years, include:
• Dozens of intersection fixes to reduce bottlenecks and improve traffic flow.
• New links between existing roads to complete the city-wide road network.
• Reed Market: A bridge over the railroad and a two-lane roundabout at 15th St.
• Filling in sidewalk gaps and adding new, safe crossings near schools, parks and jobs.
• Safer biking and walking on 12 key routes all across town.
• Funding for neighborhood safety projects city-wide.
• Investment in more bus pull-outs, new technology to improve traffic flow.
Paying for the improvements
Voters in Bend are being asked to approve Measure 9-135, a General

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Attention Federal Contractors

Are Your Remote Workers Counted in the Correct Establishment?

by GABRIELLE HANSEN, Attorney — Barran Liebman LLP

Employers who enter into contracts and subcontracts with the federal government are subject to regulations and requirements as a result of these contracting relationships. One of these requirements is that contractors who have a certain number of employees, and contracts of a certain value, develop and maintain a written affirmative action program.

Specifically, federal supply and service contractors and subcontractors who have 50 or more employees and a government contract valued at \$50,000 or more are required by Executive Order 11246 and the Rehabilitation Act of 1973 (Section 503) to develop and maintain a written affirmative action program for each of their establishments or functional business units. Federal supply and service contractors and subcontractors who have 50 or more employees and a federal contract of \$150,000 or more are required to develop and maintain a written affirmative action program that complies with the requirements of the Vietnam Era Veterans' Readjustment Assistance Act of 1974 (VEVRAA) for each of their establishments or functional business units.

As all employers continue to navigate uncertainties brought on by COVID-19, it has become clear that telework and remote working arrangements may be here to stay. For federal contractors, one question this raises is whether a contractor is correctly including its employees in its affirmative action plans. One aspect of affirmative action plans is that they analyze a contractor's workforce demographics so as to see how the groups protected by Executive Order 11246, Section 503, and VEVRAA are represented in the contractor's workforce. This assessment is only meaningful if a contractor correctly includes its employees in its plans.

The laws and guidance governing affirmative action plans require that covered contractors maintain a plan for each of their establishments or functional business units. Establishment-based affirmative action plans are tied to the contractor's work location(s). Functional affirmative action plans allow a contractor to base its affirmative action plan around the contractor's business functions.

The regulations from the Office of Federal Contract Compliance Programs (OFCCP) do not specifically address how remote or teleworking employees should be included in a contractor's affirmative action plan(s). However, the OFCCP has issued a helpful FAQ on this topic.

If a contractor maintains their affirmative action plans by establishment, and only maintains one establishment, the analysis is simple. All remote and teleworking employees must be included in the affirmative action plan for the contractor's establishment.

However, many contractors have multiple establishments. Multi-establishment contractors who maintain their affirmative action plans by establishment must determine which establishment's plan includes which remote workers. This is because a remote worker is not an establishment in and of themselves —



that worker will need to be associated with one of the contractor's establishments. An employee should only be counted as belonging to one of a contractor's establishments.

For making this decision, the OFCCP provides the following guidance:

- Include remote or teleworking employees in affirmative action plans according to the management that they report to. For example, a teleworking employee who lives and works in Seattle, Washington, but who reports to a manager who works at the contractor's Portland, Oregon establishment would be included in the contractor's affirmative action plan for the Portland establishment.
- Include remote or teleworking employees in the affirmative action plan that corresponds to the establishment in which the decision to hire the employee was made. For example, a teleworking employee who was selected by the contractor's San Francisco, California establishment would be included in the affirmative action plan for the San Francisco establishment.
- Include remote or teleworking employees in the affirmative action plan that corresponds to the establishment that houses the personnel function that supports the employees. For example, if a supervisor works from home in Missoula, Montana and manages employees who work from home in various locations, but they are all supported by the functions of the contractor's Bend, Oregon office, then these remote employees can be included in the affirmative action plan for the Bend establishment.

Alternatively, if a contractor maintains a functional affirmative action program, the contractor must include remote or teleworking employees in the affirmative action plan of the functional or business unit under which they work.

If an employee could be included in more than one affirmative action plan, the OFCCP FAQ provides that the employer may choose which affirmative action plan that the employee should be included in. Notwithstanding the above, contractors should note that the actual location from which their remote or teleworking employees work will be specified in the organizational profile and job group analysis sections of the affirmative action plan that includes that employee.

To conclude, remote and teleworking arrangements create new challenges and opportunities for employers. However, for federal contractors and their affirmative action plan compliance, one important thing to remember is that each of a contractor's remote or teleworking employees are included in the contractor's affirmative action plans — regardless of the employee's location.

Gabrielle Hansen is an attorney with Barran Liebman LLP, where she represents employers in a variety of benefits and employment matters. Contact her at 503-276-2112 or ghansen@barran.com.
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Solar-Powered Vehicles Hit the Road

TECH TRENDS

by KATELYN MAWDSLEY & MAX CORDELL — Oregon Solar Car Team, & PRESTON CALLICOTT

The phrase “Solar Energy” has become synonymous with renewable energy. It’s been at the top of the green energy list for some time and, with recent advancements, solar-powered devices are becoming cheaper and more widespread. In this three-part series, we will take a deeper look at solar energy, how it’s used to power vehicles scheduled to hit the market this year and what the future looks like for solar-powered vehicles.

This article will touch on solar energy and how a group of Oregon teens are on the bleeding edge, exploring how to apply it to power vehicles as a green alternative to fossil fuels.

Oregon Solar Car Team

This series is being co-written with two brilliant local teens who have hands-on experience with solar technology. Max Cordell is captain and Katelyn Mawdsley is financial and social media captain of the Oregon Solar Car Team.

This team has a large impact on its members. These high school teens find their hands-on experience incredibly beneficial for future careers. Many enter STEM fields using the skills they have learned. These experiences affect how they look at their future careers and, more importantly, increase their awareness of clean energy and its impact on our planet.

Mawdsley noted, “This team has become a passion of mine. I care deeply for all living things and I believe using clean energy is humanity’s best chance to ensure their survival.”

They are preparing the team and their solar car for a national event in 2021 held at the Texas Motor Speedway. While the event is called a race by many, its primary focus is to improve solar energy and raise awareness of its capabilities.

What Is Solar Energy

What we call solar energy is quite simply, energy that has been captured from the sun. Primarily there are two ways this can be done: thermal technology, which uses heat generated by the sun’s light; and photovoltaic cells arranged into a solar panel, which



Katelyn Mawdsley Max Cordell Preston Callicott

convert light into electricity. We will be focusing on the latter, where most advancements are occurring.

Like many other electrical devices, a primary material used in solar panels is silicon. What makes silicon so special is its ability to conduct electricity without being a metal. The way silicon is arranged in a panel can determine its efficiency as well as its cost. A polycrystalline structure is much easier to produce over the premier monocrystalline panels. Another alternative is amorphous solar cells, which can be bent without being damaged although they are known to be the least efficient. We’ll dive deeper into various solar technologies in Part 2 in this series next month.

Solar Energy Isn’t the Only Contender in Town

Solar energy is one of several renewable energy options. Others include using the motion of wind and water to power wind turbines or hydroelectric dams. Another one that is commonly overlooked is geothermal energy, which uses our planet’s heat as a form of power. While those absolutely have their place in our power grid, they are often quite large or expensive making solar energy a viable alternative.

This isn’t to say that solar energy doesn’t have its downsides. Because it can only be produced in specific conditions, large batteries are required to stockpile the energy. This is an advantage hydro and geothermal power sources have as they are far more consistent. A stable power grid would ideally be composed of multiple types of renewable resources ensuring each source has a backup.

Solar Energy’s Promise

Solar Can Power the Whole World


Scientists estimate that it would take roughly 51.4 billion 350W solar panels to power the entire world’s needs, which would be a solar array generating over 18 TW (tera watts) of power covering 115,625 square miles or roughly 340 miles long by 340 miles wide. That’s only 1.2 percent of the Sahara Desert or about 60 percent of the Great Basin Desert in the western United States.

As of the end of 2019, the total installed solar power units globally could generate 629 GW of solar power. Total world output would need to be increased over 28 times our current total global capacity. Daunting, but doable. The International Energy Agency (IEA) projects total solar power output will increase to almost 5TW by 2050, although many industry pundits believe this is too conservative. Annual year-over-year growth is nearly exponential with many factors having driven down the cost of solar panels and solar roof tiles over 90 percent since 2010. Factories have scaled up and therefore are deriving cost reductions from mass-production. Bloomberg New Energy Finance (BNEF) predicts that solar panel prices will drop another 34 percent by 2030.

Solar Energy Combats Climate Change



Solar panels are incredibly versatile in that they can be compact enough to power a calculator or more recently, powerful enough to drive electric cars. The technology world is realizing the effect of fossil fuels on the environment. Thirty five billion tons of carbon dioxide is released into the atmosphere per year. This number can be greatly reduced with the production of renewable energy. Katelyn passionately states that “Solar energy will save the ecosystem. I am planning to go into a veterinarian field, so animals and the planet are incredibly important to me! My hopes for the future are that we reduce fossil fuels and replace

Continued on Page 30 ►



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Business Appraisals vs. Asset (Machinery, Equipment) Appraisals

Business Appraisals

by **LAURA LEMCO, CVA** — **Cascade Valuation Services**

A business appraisal is a report detailing the analysis involved to determine the value of a business as a whole — its assets, procedures, proprietary information, staff, management — all the parts of and influences on the business that interact to produce a benefit stream. It is important to determine the purpose of an appraisal to decide the best standard of value. As you can imagine, a business that must be liquidated because of a lawsuit has a different standard of value than a business that has several potential investors.

Because privately held businesses are not traded on the stock market, a valuation requires an independent appraiser to assess factors outside and inside the business to reach a conclusion of value. The IRS Revenue Ruling 59-60 requires a careful analysis of the nature and history of the business, the general economic outlook, industry outlook, financial condition of the business, earnings capacity of the company, goodwill or other intangible values (such as patents, procedures, proprietary information), the stock (and attached rights) being valued as well as the market price of stocks of similar businesses.

An appraisal is dependent on the information provided and the analysis used to determine an opinion of value for a specific purpose on a specific date. Both the quality of the information and the experience and credentials of the appraiser will affect the reliability of the conclusion.

Common Uses

The most common uses of a business appraisal are transition planning, buying, selling, estate planning, legal requirements, tax issues, management planning and decisions.

What appraisals are NOT

- Whether the appraisal is of the whole business or of its assets, in both cases they:
- Are not future predictions. Appraisals are intended for a specific date.
 - Are not prices. While they should be closely related, fair market value by definition is for a hypothetical buyer and seller. When a specific buyer is involved, the definition becomes investment value to that specific investor. Price is the amount of money a seller is asking or the amount a buyer offers. Asking price today may be different than yesterday, which may or may not be the same as the purchase price.
 - Are not advocacy. Accredited appraisers follow the standards of their accrediting agency. The only thing they should advocate for is their professional work and opinion. Clients pay for professional work, but their opinions should not have an influence on the value conclusion.
 - Are not guarantees. Appraisals are the researched and analyzed opinions of professionals who are held to the standards of their accrediting organization.

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Asset (Machinery, Equipment) Appraisals

by **MATT KAUFMAN, ASA** — **Spearhead Valuation Group**

An Asset (Machinery, Equipment) Appraisal is an opinion of value developed of a list of assets. This can also be called an FF&E appraisal for Fixtures, Furniture and Equipment. This list can be provided by the client or developed by the appraiser. The appraiser would normally inspect the assets and determine condition, vintage, special add-ons, capacity and other characteristics. During times such as the COVID-19 Pandemic when the assets are not able to be inspected, these may be completed as a “desktop” or limited scope appraisals. In these cases, the appraiser is reliant upon the list being complete, accurate and detailed enough to complete the assignment.

The appraiser must consider three approaches to value: cost, market and income. The cost approach is what it would cost to purchase new and then apply functional and economic obsolescence and physical deterioration. The market approach is what it would cost to purchase a like item on the used market and apply the same adjustments in the cost approach to the comparable to make it the same as the subject property. The income approach is rarely used on an asset appraisal, as it is difficult to attribute an income to one specific piece of equipment. The appraiser then must analyze which approach is the most appropriate and indicative of the value.

The appraiser should consider the definition of value: cost new, fair market, orderly or forced liquidation or salvage, and state the source. The appraiser should also consider level of trade. If you are buying full retail, direct from a distributor, from an auction, or a used equipment dealer, the appraisal should be well-developed, supported and reported, stating any hypothetical conditions, extraordinary assumptions and limiting conditions. Further, it is best, as we learned in elementary mathematics, to show your work!

Common Uses

The common uses are similar to business appraisals — insurance, financing, donations, divorce, mergers and acquisitions, purchase price allocation, eminent domain, liquidations and bankruptcy.

Matthew Kaufman, ASA, owns Spearhead Valuations and is accredited with the American Society of Appraisers in Machinery and Technical Specialties as well as Appraisal Review and Management. Laura Lemco, CVA, owns Cascade Valuation Services and is accredited with the National Association of Certified Valuators and Analysts in business appraisals.



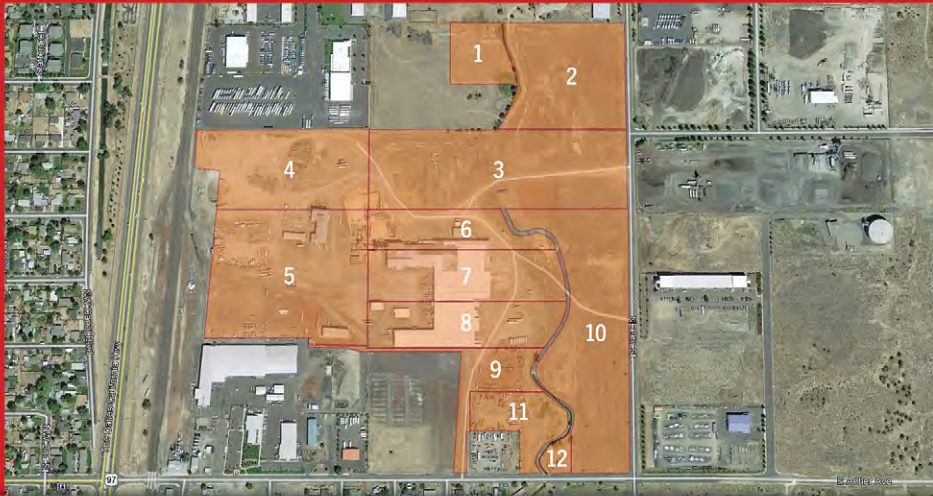
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- The Redmond Industrial Park is Redmond’s largest industrial park totaling more than 73-acres of land on 12 separate tax lots.
- Zoned M2 Heavy Industrial, the property boasts more than 164,000 rentable square feet to well-known companies including Papé Kenworth, Traeger Grills, and Baxter Builders.
- The industrial park remains one of the only facilities in Central Oregon with both warehouse space and outdoor yard space available for lease.
- Per our analysis the property has 53.75 acres for new development, which could provide up to 840,000 RSF of new buildings.



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Duke Warner Trend Report for September 2020

It's official, and Fall is here! After an epic summer of historical portions — for both home buyers and sellers in Bend — the leaves are changing, and there is a slight chill in the air. Central Oregon is as beautiful as ever, and although the seasons are changing, the real estate trends remain as fast and furious as the spring and summer. In our monthly Trend Report, we offer valuable insights by reviewing last month's activity, which can be a wonderful resource for any upcoming trends we might see as we finish out October and move into November.

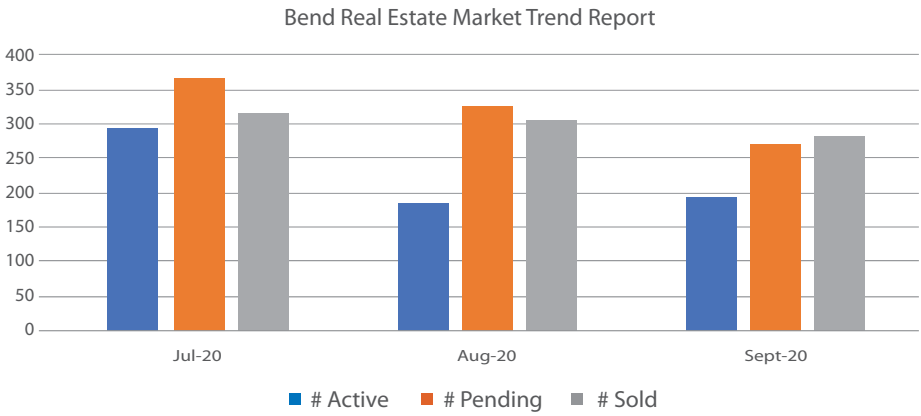
We continue to see throngs of homebuyers from out of the area seeking to relocate to Central Oregon. As many of us know, Bend has been a magical vacation town for many people and families for generations. We are not surprised to see some urbanites taking advantage of the remote work possibilities and landing on Bend as their new home destination. Just as with the past several months, unprecedented transactions both in the fast selling process and the number of active home seekers who are outbidding one another is a larger factor in the increasing housing prices. The active Bend listings for September increased mildly from August but were still historically low due. Homes continue selling at a rapid-fire pace- often within hours of hitting the market. The low inventory in both Bend and Redmond markets continue to create a sellers' market.

October 1 Inventory and September Activity

With a slight bump in active listings as of October 1, the Bend market has 197 active listings, and Redmond experienced a substantial drop in current listings at 111. The supply and demand of buyers vs. sellers continue to be quite the precarious dance in the real estate market in Central Oregon. Still a seller's market regardless of the season, now would be an excellent time to consider selling your home if it is on the radar for Spring 2021. We see the combined active listings for Central Oregon at 308, a dip from 322 last month.

Property values are increasing substantially daily, and our experienced, local brokers have not slowed down as the summer months progressed into Autumn. They continue to seek out the ideal home for buyers, which has required 24/7 diligence as a real estate expert. The Redmond markets showed 127 homes sold, 109 new homes on the market and 139 homes pending. The bulk of active homes on Redmond's market were in the \$325,100-\$425,000 price range, showing 42. The \$225,000-\$325,000 had half the active listings from August at six and the \$525,000-and-up price range showed 38 active listings.

For Bend, the numbers in September were similar to August except for the \$225,000-\$325,000 range with only one active listing, 32 in the \$325,100-\$425,000 range, 38 in the \$425,100-\$525,000 range and 23 in the \$525,100-\$625,000 price range. Eager homebuyers are waiting for additional homes to be put on the market, in all price ranges, as the Duke Warner Realty trend report data exposes. We showed a slight increase to 50 active homes available in the



\$925,100-and-up price range compared to 42 in August.

As the real estate market continues the expeditious pace, buyers should expect to compete with multiple full-price offers. If you are on the fence regarding selling your home and trying to price your property, we encourage you to consult with your trusted Duke Warner Broker for seasoned, expert advice. Our brokers will share their experience, knowledge and excitement while they work for you. Duke brokers know how to price properties according to the market trends and current housing competition. At Duke Warner Realty, we can help you plan, sort out the details and get you started on your home buying or selling journey.

Sold and Pending Listings

Bend had 329 pending homes in August and 272 in September. These numbers confirm the sellers' market telling us both buyers and sellers seek to finalize a purchase or sale. For sold listings, there were 306 in August and 286 in September. In Redmond, we saw 133 sold listings in August and 127 in September. We expect the homebuying frenzy to continue feverishly through the end of 2020 well into 2021.

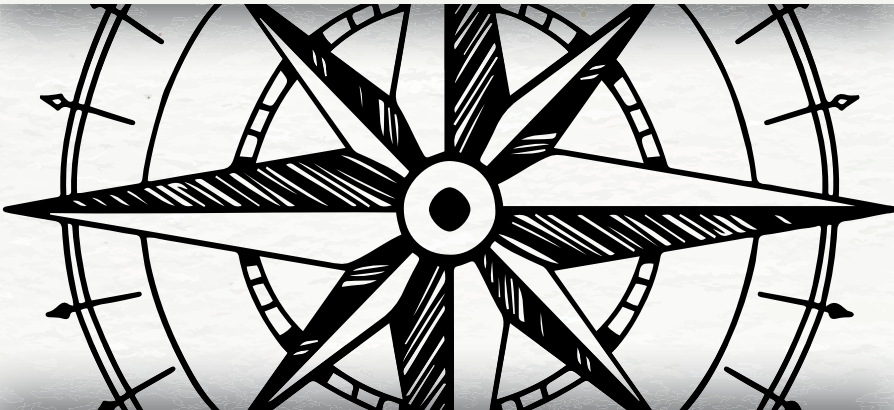
A Real Estate Expert is More Important Now Than Ever Before

Many of us know and value this special place we call home. Central Oregon is a beautiful place to live, and no matter what stage of life you are in, there is something for everyone in the real estate market. As you consider your housing needs, start to plan and look ahead; whether you want to buy or sell a home, keep us in mind for your real estate ventures. Our professional brokers can offer great insights as you navigate your next home experience. Give us a call today, and let us help you get started.

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Oregon’s Job Growth Slows to 5,100 in September

Oregon’s unemployment rate dropped to 8.0 percent in September from 8.5 percent, as revised, in August. For the past few months, Oregon’s unemployment rate has closely tracked the national unemployment rate, which fell to 7.9 percent in September from 8.4 percent in August.

Oregon’s total nonfarm payroll employment rose by 5,100 jobs in September, following a revised gain of 16,200 jobs in August. Over the past three months the rate of job growth slowed, with 39,000 jobs added in that time, following more rapid growth in May and June, when 83,100 jobs were added. Despite the recent slowdown, Oregon employers added jobs in each of the past five months, and the state has recovered 45 percent of the jobs cut in March and April.

Over-the-month job gains in September were largest in leisure and hospitality (+2,600 jobs); financial activities (+1,600); health care and social assistance (+1,600); retail trade (+1,500); and information (+1,200). Two industries cut a substantial number of jobs in September: construction (-2,600 jobs) and private educational services (-1,400).

Leisure and hospitality continues to be the industry most impacted by the economic effects of the COVID-19 pandemic. Its employment bounced back substantially in May and June, but job gains have slowed over the past three months. Employment totaled 163,200 in September, which was down 53,400 jobs, or 24.7 percent, since its peak month of February.

Manufacturing lost a substantial number of jobs this spring and hasn’t rebounded. Employment stood at 180,000 jobs in September, which was close to its level of the past five months. Since September 2019, manufacturing cut 18,100 jobs with losses widespread throughout most component industries. During that time, primary metals manufacturing dropped the most in percentage terms, shedding 2,600 jobs, or 28 percent. Next in line was transportation equipment manufacturing which cut 19 percent. Two other manufacturing industries dropped at least ten percent: food manufacturing (-4,200 jobs, or -14 percent) and electronic instrument manufacturing (-600 jobs, or -11 percent). None of the published manufacturing industries added a substantial number of jobs over the past 12 months.

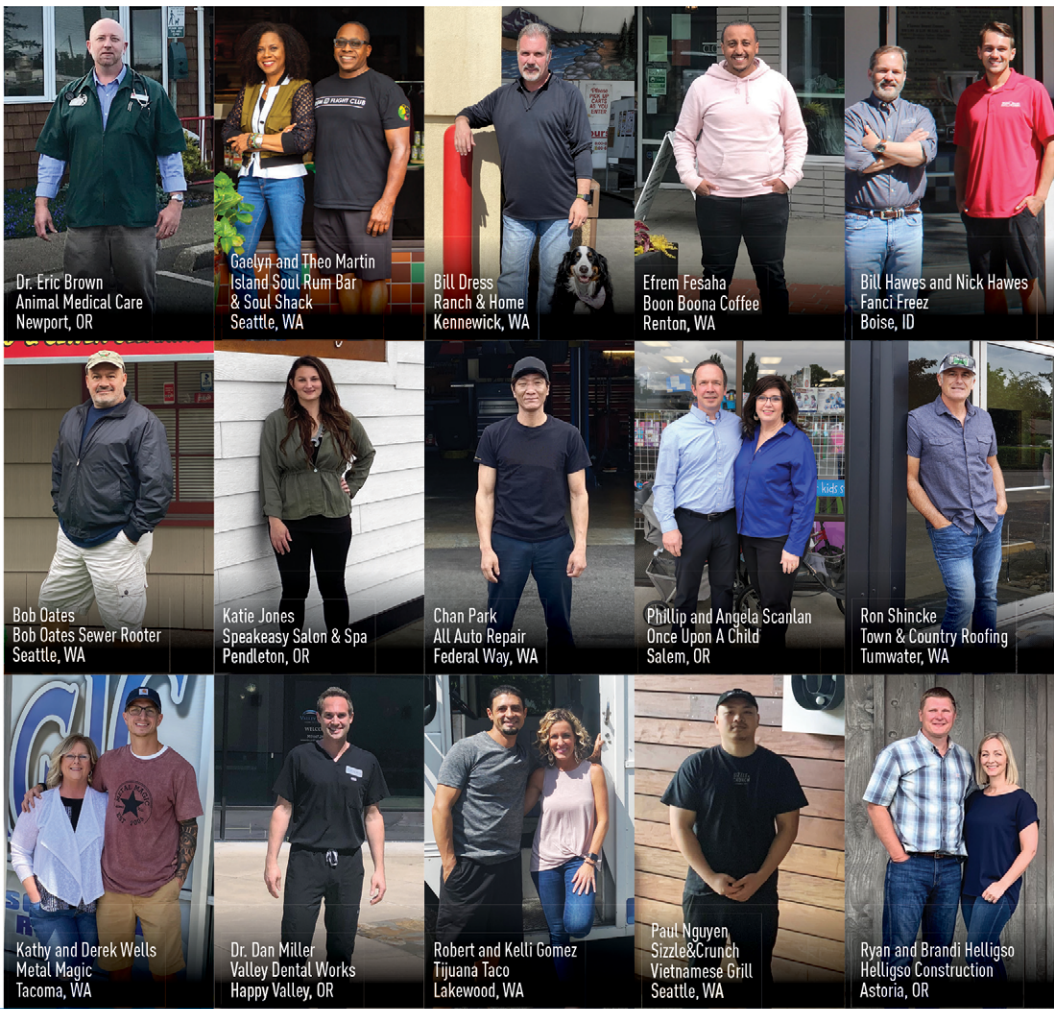
In contrast, two major industries rose closer to pre-pandemic employment levels. Retail trade rebounded rapidly, adding 4,700 jobs over the past two months. This left the industry down only 4,800 jobs, or 2.3 percent, since February. Certain retailers responded to strong demand lately, with food and beverage stores up 900 jobs, or 2.1 percent, since last September. Similarly, building material and garden supply stores added 900 jobs, or 5.4 percent in that time, while general merchandise stores added 1,100 jobs or 2.7 percent. Clearly consumer preferences and demands have shifted substantially, as reflected by job losses in several categories including clothing stores, which cut 8,100 jobs,

or 51.6 percent, over the year, and miscellaneous store retailers, which shed 2,800 jobs, or 16.5 percent.

Health care and social assistance added 2,300 jobs over the past two months and was only 8,200 jobs, or 3.1

percent, below its recent high in February. Over the past 12 months, social assistance cut 4,900 jobs, or 8.4 percent. However, health care declined only 800 jobs in that time.

oregon.gov



**We’re paying the bill.
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Through the Pass It On Project, small businesses are making a big impact. All across the Northwest, small businesses are being challenged and individuals are going without. Columbia Bank is here to help. Through the Pass It On Project, we’re paying the bill so small businesses can provide their services to those in need. From home repairs to dental work to clothes for kids, Columbia Bank is covering the cost. This project can help small businesses recover, while offering support to members of our communities affected by COVID-19. Learn more at PassItOnProject.com.

We're The Wurst

Morphing from Food Truck to Manufacturing

by RONNI WILDE — CBN Reporter

Matthew Fidler, owner of We're The Wurst food truck company in Bend, is a newcomer to the world of manufacturing. From humble beginnings as a bratwurst food cart business, Fidler is now expanding his operations, and is in the process of opening a production facility in Redmond.

"We're The Wurst came about because I'm a chef. I successfully dropped out of the Cascade Culinary Institute," Fidler says with a laugh. "There used to be a great cart here with German sausages, but the couple who ran it moved back to Germany. After that, I couldn't get a good bratwurst. It became a good old-fashioned business problem: I couldn't get a good brat, and other people couldn't get a good brat, so I created one." He continues, "Thus, a business was born. I really appreciate a product that is well-intentioned and well-produced. We started out as just a bratwurst food cart, but then customers began asking for more."

The journey to manufacturing began last year when Fidler started working on the licensing process. "It's quite a

long and arduous process," he explains. "We went from making sausages for just food trucks to having USDA inspections. We have a federal agent in the facility every day to prove that our processes and products are safe"

Now, the "leash is cut," as Fidler describes it, and he is able sell to anyone without measure, including grocery stores, restaurants and direct to consumers. "We are still crawling, doing the whole crawl, walk, run thing," He adds, "What we are doing right now, literally, is building up a new facility in Redmond. We are moving from about 800 square feet to 3,600 square feet. Jon Stark, senior director of Redmond Economic Development Inc., has been a blessing and instrumental in helping us and our business. We also have a really great new landlord." He continues, "We are leasing the facility; we're not even close to being able to buy property. Not yet. This hasn't been easy, so having some good business guys around us has been great. We are going to be able to increase production exponentially in our next space. It will

take the training wheels off, and will be like a whole new business."

In the early days of We're The Worst, Fidler says he had a rough start. "I have three children with another one on the way, but I've never been so stressed as that first day in the food cart: We had no running water and no electricity; all these awful things happened. If you are a chef and you have a bad dream, this is what it would be," he says. "We had a line stretching 100 feet, and I'm sure people thought I had no idea what I was doing. But the people who got the product liked it. People were very patient with me; there is no sugar-coating that. I got many customers that first day, and still have many of those same customers." He adds, "We've got the best customers."

With the transition into manufacturing, Fidler still has a small food cart that he uses to cater special events from, but he no longer runs a regular everyday business out of it. Products currently on his menu include Boerewors (a South African favorite), kielbasa, British bangers, Bockwurst, Chorizo, Linguica, Moroccan Merquez and more. Prices on



the menu range from \$6.99 to \$7.99.

Although COVID brought challenges for Fidler like it did for everyone else, he says the disruption to business provided the time for him to focus on getting his product into grocery stores. "We are not immune to the challenges of the recent COVID events, but it's also worked to help us shift gears and get into grocery stores. It's been challenging, but has also been a blessing."

werethewurst.com • 541-633-9800

Oregon Manufacturers Get Boost for U.S. Department of Defense Contracts

The Oregon Manufacturing Extension Partnership (OMEP) has hired a new Principal Consultant, based in Bend, to work with manufacturing companies throughout the state on securing work with the U.S. Department of Defense (DOD). Shane Steinke will lead the nonprofit's manufacturing consulting work focused on finding ways that Oregon manufacturers can support the DOD supply chain with new technology.

“We’re so thrilled to have Shane on our team to advance manufacturers’ DOD connections,” said OMEP President Aaron Fox. “OMEP supports manufacturers throughout the state by finding opportunities for growth and new ways to achieve their business goals. Shane will be pivotal in working with Oregon manufacturers to find new contract opportunities to support the DOD supply chain and enhance their use of advanced manufacturing technologies.”

There is a natural fit between manufacturing and U.S. defense work that Oregon companies can tap into for contracted projects. OMEP is responding to the gap between the desires of the state's manufacturers and their ability to support the DOD, helping them achieve that goal and secure contracts.

In FY 2018, defense spending as a share of Oregon's gross domestic product (GDP) was only 0.7 percent, or \$1.7 billion spent in state, the lowest in the U.S. Those figures include spending on new contracts for products and services, as well as personnel. That leaves an opportunity gap that OMEP can help Oregon manufacturers to capitalize on.

According to Steinke, the DOD can improve the health of the U.S. supply chain through innovation, workforce training, advanced cyber security and other methods by contracting with U.S. companies. Working with small and medium businesses is appealing to the DOD and other government agencies because of innovation, speed and nimbleness that can't always be offered by large corporations. Oregon has a history of being a pioneering state with good thinkers who can capitalize on working with the DOD. This not only helps their businesses and employs hardworking Oregonians with high-paying jobs, but also benefits the U.S. manufacturing supply chain, troops on the battlefield and Americans working abroad. Steinke will pursue opportunities for Oregon manufacturers to connect with the DOD.

Steinke comes to OMEP following a 23-year career with the U.S. Air Force. For half that time, he served as a Weapon Systems Officer, and he flew F-15s. He spent the latter half of his military career focused on international relations and geopolitics, when he worked on regional planning efforts in Europe, Africa and the Middle East. During his last assignment, he was second in command of more than 3,000 members of Operation Inherent Resolve in Syria and Iraq, supporting troops and allies on the ground. He has extensive experience with risk mitigation and problem analysis, skills that he can leverage to evaluate alternative options for manufacturers and help them to implement change successfully.

Steinke holds a bachelor of science in economics from the U.S. Air Force Academy, a master of business administration from Colorado State University, a master of security studies from the Naval Postgraduate School and a master of security studies in grand strategy from the Air War College.

There are more than 5,000 manufacturing companies in Oregon, and over 80 percent have fewer than 50 employees. The manufacturing industry employs more than 200,000 people throughout Oregon.

OMEPA has partnered with more than 1000 manufacturing companies throughout the state to address business challenges in the areas of business financials and strategy, workforce solutions, operational efficiency and advanced manufacturing technologies. Staff are based throughout the state to help businesses in urban and rural settings, located in Portland, Salem, Eugene, Roseburg, Medford and Bend.

omep.org

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MONDAY-FRIDAY 8-10PM

MARK LEVIN
MONDAY-FRIDAY 3-6PM

SCO

Continued from page 1

As times changed, the third generation came to the fore when current operational leader Craig Allen Gribskov, who was a Bend High graduate, came on board, some 20 years ago, and led a diversification into the emerging aerospace, medical and other fields, which continues to this day.

Filling a contract manufacturer “job shop” niche — featuring multiple general purpose machines capable of performing many different types of operations to produce a wide variety of products with small lot sizes — including assembly and fabrication, over its 47-year history ISCO has provided precision CNC* machine work, design and manufacturing services to an ever-widening variety of industries including electronics, medical equipment, aerospace and industrial manufacturers.

Craig Allen Gribskov commented, “We combine our many years of experience with state-of-the-art technology to offer our customers the best product and service value available.

“Our quality and reliability really form the foundation of the long-term business relationships we have enjoyed.

“We are ISO certified, which speaks to our quality management standards, and continually invest significantly in new equipment to stay ahead of the curve competitively, with recent additions including large capacity 5-Axis Milling, and high-pressure water jet cutting representing the latest in technology to further enhance the quality and productivity of our services.”

Featuring small manufacturing systems that handle job production in custom



PART OF FUNCTIONAL LAYOUT ON ISCO MANUFACTURING SOLUTIONS' SHOP FLOOR

or semi-custom/bespoke manufacturing processes such as small to medium-size customer orders or batch jobs, the ISCO shop is efficiently laid out, with similar equipment or functions grouped together, such as all drill presses in one area and grinding machines in another in a functional process layout, designed to minimize material handling, cost and work in process inventories.

The range of equipment utilized offers flexibility to change set-ups on the various machines very quickly, prioritizing quality, speed of product delivery, customization and new product introduction, and when an order arrives in the job shop, the part being worked on travels throughout the various areas according to a sequence of operations.

Gribskov said the company currently has a workforce of around 20, forming a “great crew” of experienced highly skilled craft employees who can operate several different classes of machinery. He added, “For over 40 years ISCO has developed staff, equipment and facilities to provide the very best capabilities for our customers.”

ISCO machining services include CNC Milling & Turning, Conventional Milling & Turning, Grinding, Vibratory Finishing, CNC

Lathes and Mills, as well as manual lathes, mills grinders and saws.

On the fabrication front, the shop has extensive experience in working with metals, plastics and composites for the aerospace, electronics, medical, industrial and construction industries and is fully equipped to meet customer requirements from prototype to production.

Gribskov added, “We have a good niche and are always ready for the next challenge. We have been involved with all kinds of industries and are not afraid to tackle anything and enjoy figuring it out.”

As part of expanding the company's reach, some 15 years ago Gribskov also acquired the rights to two additional lines known as the “TubeShark” and “Accu-Tapper” to which he oversaw minor modifications to improve efficiency, which are now manufactured in Bend under the name GRB Innovations

He said the TubeShark tube bender is ideal for the fabrication shop, home shop, race car, aircraft builder or anyone who needs a practical and affordable precision tube bender providing quality bends in the shop or in the field, in a wide variety of materials without distortion, “equal to machines costing thousands more”.

The Accu-Tapper is similarly suited for any industry, be it die casting, sheet metal, plastics or machine shop and is equipped with a 1/3-HP, 1725-RPM electric motor, capable of easily tapping steel up to 1/4-20. On the other end of the scale, the Accu-Tapper taps even the smallest holes with fewer broken taps, thanks to the design of the sliding backing plate that holds the true relationship between workpiece and tap.

iscomach.com

*CNC — short for “computer numerical control” machining — is a manufacturing process in which pre-programmed computer software dictates the movement of factory tools and machinery. The process can be used to control a range of complex machinery, from grinders and lathes to mills and routers and three-dimensional cutting tasks can be accomplished in a single set of prompts according to particular specifications.



SOME OF ISCO'S HIGH-PERFORMANCE MACHINING CENTER EQUIPMENT | PHOTOS BY SIMON MATHER

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Largest Manufacturing Deschutes County *(Listed by Number of Staff with at least 10 employees)*

Company / Address	Phone	Fax	WebSite/Email	Contact	Staff	CO Year Est.	Business Description
Les Schwab Tires Centers - Headquarters 20900 Cooley Rd. Bend, OR 97701	541-447-4136	541-416-5363	www.lesschwab.com	Reception	500	1952	Tire centers located throughout Central Oregon.
PCC Schlosser 345 NE Hemlock Ave. Redmond, OR 97756	541-548-0766	541-548-6579	www.pccstructurals.com	Keith Covlin	465	1989	Titanium investment casting foundry for the aerospace & medical industries.
JELD-WEN Millwork Manufacturing Bend 62845 Boyd Acres Rd. Bend, OR 97701	541-385-1444	541-382-2215	www.jeld-wen.com leebo@jeld-wen.com	Lee Bouck	315	1968	Wood products & wood window parts.
JELD-WEN, Inc. 62845 Boyd Acres Rd. Bend, OR 97701	541-382-4411	N/A	www.jeld-wen.com	Lee Sparks	315	1977	Wood products & wood window & door parts.
Deschutes Brewery 901 SW Simpson Ave. Bend, OR 97702	541-385-8606	541-383-4505	www.deschutesbrewery.com info@deschutesbrewery.com	Gary Fish	296	1988	Craft brewery.
Epic Aircraft 22590 Nelson Rd. Bend, OR 97701	541-318-8849	541-382-5125	www.epicaircraft.com info@epicaircraft.com	Doug King	250	2004	Kits for building aircraft, including the LTäc”6-place turboprop which is currently in the process of being certified with the FAA. Training on site.
BasX Solutions 3500 SW 21 Place Redmond, OR 97756	541-647-6650	N/A	www.basxsolutions.com mtobolski@basxsolutions.com	Matthew Tobolski, David Benson	220	2012	N/A
Medline ReNewal 1500 NE Hemlock Redmond, OR 97756	541-923-3310	541-923-3375	www.medlinerenewal.com info@medlinerenewal.com	Steve Bettis	210	1997	Manufacturing & reprocessing of medical devices. A FDA-registered device reprocessor.
10 Barrel Brewing 62950 NE 18th St. (Brewery & Pub) 1135 NW Galveston Ave. (Pub) Bend, OR 97701	541-585-1007	541-585-1008	www.10barrel.com info@10barrel.com	Kyle McKee	202	2006	Handcrafted beer.
Knife River 64500 OB Riley Rd. Bend, OR 97701	541-388-0445	541-388-8932	www.kniferiver.com chris.doan@kniferiver.com	Chris Doan	150	1968	Paving mixtures, asphalt, aggregate & construction.
Nosler Inc. 107 SW Columbia St. Bend, OR 97709	541-382-3921	541-388-4667	www.nosler.com catalog@nosler.com	Zach Waterman	141	1948	Manufacturer the industry’s finest bullets, ammunition, component brass & rifles for hunting & shooting enthusiasts.
Bright Wood Corporation - Redmond 630 SE First St. Redmond, OR 97756	541-548-4511	541-548-3272	www.brightwood.com info@brightwood.com	Dallas Stovall	130	1960	Wood products.
Hooker Creek Companies, LLC 95 SW Scalehouse Ip., Ste. 100 Bend, OR 97702	541-389-0981	541-389-4763	www.hookercreek.net info@hookercreek.net	John Fournier	130	1984	Ready mixed concrete, sand & gravel, equipment rentals, supplier of construction materials.
Microsemi Corporation 405 SW Columbia St. Bend, OR 97702	541-382-8028	541-388-0364	www.microsemi.com	Mark Gabler	130	1984	Mixed-Signal integrated circuits & discrete semi-conductors & RF components.
Systema 265 NW Franklin Ave., Ste. 201 Bend, OR 97701	541-602-2092	N/A	www.systema-usacorp.com	Travis Stevens	130	1993	Provides software solutions, processes & services to the high technology industry that are cost-effective, improve productivity & meet regulatory compliance requirements. Also provides comprehensive engineering & consulting services in End-To-End Automation, Manufacturing IT & Enterprise Integration Solutions.
Quality Truss 1000 SE Lake Rd. Redmond, OR 97756	541-923-2759	541-923-0023	qtruss@qtruss.com	Andy Scott, Ted Hormel	102	1985	Roof & floor trusses.
Cascade Lakes Brewing Company 2141 SW First St. Redmond, OR 97756	541-923-3110	N/A	www.cascadelakes.com chris@cascadelakes.com	Chris Justema, Andy Rhine	85	1994	Brews six beers year-round: Blonde Bombshell, 20 inch Brown, Salted Caramel Porter, Hopsmack IPA, Mosaic IPA & Cyclops IPA as well as many seasonals throughout the year: Slippery Slope, Drop the M.I.C., Paulina Lake Pilsner & more. Distributed & sold in WA, OR, ID, AK & CA.
Grace Bio-Labs 1015 SW Emkay Dr. Bend, OR 97702	541-318-1208	541-318-0242	www.gracebio.com lhale@gracebio.com	Lisa Hale	85	1995	Global provider, local manufacturer. Developing laboratory products, services & custom solutions for research & diagnostics applications.
Suterra LLC 20950 NE Talus Pl. Bend, OR 97701	541-388-3688	541-388-3705	www.suterra.com agsales@suterra.com	N/A	75	1984	Sustainable, pheromone-based insect control for commercial agricultural markets.
Brian’s Cabinets 20780 Sockeye Place Bend, OR 97701	541-382-3773	541-382-7021	www.brianscabinets.com info@brianscabinets.com	Sean Brisbine	65	1977	Cabinet & closet manufacturer.
Eberhard’s Dairy Products 235 SW Evergreen Ave. Redmond, OR 97756	541-548-5181	541-548-7009	www.eberhardsdairy.com ebdairy@eberhardsdairy.com	Mark Eberhard	50	1951	Milk, ice cream, cottage cheese & butter manufacturer & distributor.
Entre Prises USA Inc. 63085 18th St., Ste. 101 Bend, OR 97701	541-388-5463	541-388-3248	www.epusa.com info@epusa.com	Sander Culliton	50	1988	Artificial climbing walls, handholds & Clip ‘N Climb elements.
Mike’s Fence Center, Inc. 59 SW Hayes Ave. Bend, OR 97702	541-388-1625	541-389-4578	www.mikesfence.com sales@mikesfence.com	Ryan Higgins	50	1980	Fence construction, fence supplies (retail), automated gates & mobile mix concrete.
Qorvo, Inc 63140 Britta St., C106 Bend, OR 97703	541-640-8651	N/A	www.qorvo.com crystal.ferns@qorvo.com	541-640-8651	50	2005	Design & manufacture RF Solutions for mobile, defense & infrastructure markets.
Oregon Wild Harvest 1601 NE Hemlock Ave. Redmond, OR 97756	541-548-9400	541-923-7235	www.oregonswildharvest.com questions@oregonswildharvest.com	Pam Buresh	47	2014	Herbal supplement manufacturer distributed nationally.
Bendstillery, Inc. 19330 Pinchurst Rd. Bend, OR 97703	541-318-0200	541-318-1886	www.bendstillery.com alan@bendstillery.com	Alan Dietrich	45	1996	Fully operating distillery, farm, tasting room, offering free samples & free tours as well as gift shop on 23+ acres just west of Tumalo on Hwy. 20 toward Sisters. Produce Crater Lake Vodka, Crater Lake Gin & more. Produce ablis CBD, ablis beverages & supplements, tasting room for all beverages & essentials & an additional tasting room. Products in downtown Bend on Bond St. next to Deschutes Brewery.
Zamp Solar 63255 Jamison St. Bend, OR 97703	541-728-0924	N/A	www.zampsolar.com support@zampsolar.com	Coner Miller	45	2010	Zamp Solar specializes in 12-volt solar charging systems for off-grid, RV, marine, agriculture & other applications. Offer a variety of portable & hard mounted solar kits made right here in Bend, OR USA.



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Largest Manufacturing Deschutes County (Listed by Number of Staff with at least 10 employees)

Company / Address	Phone	Fax	WebSite/Email	Contact	Staff	CO Year Est.	Business Description
Aircraft Rubber Manufacturing (Fuel Safe Systems) 1550 NE Kingwood Ave. Redmond, OR 97756	541-923-6005	541-923-6015	www.fuelsafe.com sales@fuelsafe.com	William Hare	42	1988	Fuel cells for race cars, planes & boats. Armored tanks, industrial tanks. Welding & fabrication. Liquid storage containers.
Metabolic Maintenance 601 N Larch St. Sisters, OR 97759	541-549-7800	541-549-3299	www.metabolicmaintenance.com info@metabolicmaintenance.com	Karla Cross	40	1984	Vitamin supplement manufacturers.
Metolius Mountain Products 63189 Nels Anderson Rd. Bend, OR 97701	541-382-7585	541-382-8531	www.metoliusclimbing.com info@metoliusclimbing.com	Doug Phillips	40	1983	Mountain climbing equipment.
Proshop Millwork & Design 63085 NE 18th St. Bend, OR 97701	541-388-4340	541-388-3440	www.proshopmillwork.com chuck@proshopmillwork.com	Chuck Mazzola	40	1980	Residential & commercial cabinetry, countertops & pro shop display features.
CLS Fabrication Inc. 20522 Builders Ct. Bend, OR 97701	541-749-4257	541-749-4263	www.clsfab.com bmitchell@clsfab.com	Ben Mitchell, Eric Fleming	39	1984	End to end fabricator & manufacturer of metal based products included commercial grade cabinetry & OEM sheet metal/structural goods. Primary processing is via CNC machinery with in-house design services.
Breedlove Guitar Company 61573 American Loop Bend, OR 97701	877-800-4848	541-385-8183	www.breedlovemusic.com info@breedloveguitars.com	Tom Bedell	38	1990	Acoustic guitars & mandolins.
Host Industries, Inc. 20526 Murray Rd. Bend, OR 97701	541-330-2328	541-330-9002	www.hostcampers.com dave@hostcampers.com	Mark Storch, Dave Hogue	35	2001	Manufacture recreational vehicles.
Northland Furniture Co. 681 SE Glenwood Dr. Bend, OR 97702	541-389-3600	541-389-4943	www.northlandfurniture.com sales@northlandfurniture.com	Brian Noll	35	1976	Custom furniture manufacturer for the hospitality, healthcare & education markets.
Kawak Aviation Technologies, Inc. 20690 Carmen Loop, Ste. 102 Bend, OR 97702	541-385-5051	541-617-9857	www.kawakaviation.com andrew@kawakaviation.com	Steven Sawyer, Mike Reightley, Andrew Sawyer	34	1993	Offers a full spectrum of products & disciplines from specialized product lines & engineering services to production & fast track development programs in a global market.
BlackStrap Industries Inc. 13055 SE Armour Rd., Ste. 100 Bend, OR 97702	541-213-2500	N/A	www.bsbrand.com Info@bsbrand.com	Info@bsbrand.com	32	2008	Domestic manufacturer of facemasks & active accessories in the global snow sports & outdoor recreation markets. All products are true products of the USA, having full control over its supply chain. From the mill-ing, cut & sew & distribution is all done in the U.S. Service to more than 1,000+ retailer partners worldwide.
Bend Plating Inc. 550 SE Bridgeford Blvd. Bend, OR 97702	541-388-3456	541-388-3450	www.bendplating.com	Shairleen Chambers	30	1969	Decorative gold, nickel, chrome electroplating.
CR Fabrication Ltd. 833 SE First St. Redmond, OR 97756	541-548-4369	541-504-5493	www.cr-fab.com info@cr-fab.com	Casey Mott	28	2000	Produces fabricated & manufactured metal products & services for the aviation industry with ground support equipment. Continues to expand capabilities & ser-vices in the metal fabrication & manufactur-ing markets nationwide.
ISCO Industrial Service Company 63055 Corporate Pl., Unit 1 Bend, OR 97701	541-382-1573	541-382-6902	www.wiscomach.com charlenew@iscomach.com	Craig Gribnikov	28	1973	Machinery & computer numerical control (CNC) machine shop; ISO 9001 certified, abrasive waterjet cutting; aircraft parts, job shop & prototype fabrication. www.TubeShark.com Hydraulic Tube Bender, www.Accu-Tapper.com Benchmount Tapping Machine. www.wiscomach.com
McConnell Labs/Light Elegance Nail Products 406 Umatilla Ave. Redmond, OR 97756	541-526-5570	N/A	www.mcconnelllabs.com sales@mcconnelllabs.com	Jim & Lezie McConnell	28	2003	Manufacture of Light Elegance nail products. Specializes in private label nail products. In addition to manufacturing high-quality UV & LED cured gels & gel polishes, offers pumping & packaging services utilizing its fully-automated line.
Electronics, Intl., INC. 63296 Powell Butte Hwy. Bend, OR 97701	541-318-6060	541-318-7575	www.buy-ci.com support@buy-ci.com	Tyler Speed	26	1979	Manufacturers of aircraft instruments.
Smith Bros. Pushrods 2895 SW 13th St. Redmond, OR 97756	541-388-8188	541-389-8840	www.pushrods.net smithbrothers@pushrods.net	Scott Mills	26	1999	Pushrod manufacturing & custom machining.
Be-Bop Biscotti 601 NE First St., Unit B Bend, OR 97701	541-388-8164	541-389-6185	www.be-bop.net bgolden@be-bop.net	Bob Golden	25	1999	Gourmet biscotti

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Largest Manufacturing Deschutes County *(Listed by Number of Staff with at least 10 employees)*

CONTINUED FROM PAGE 13

Company / Address	Phone	Fax	WebSite/Email	Contact	Staff	CO Year Est.	Business Description
Newhouse Manufacturing Co. 1048 N Sixth St. Redmond, OR 97756	541-548-1055	541-548-4144	www.newhouse-mfg.com info@newhouse-mfg.com	Dan Winton, Robert Babcox	25	1953	Manufacture farm equipment, parts, drive lines & belts.
Outback Manufacturing, Inc. 63076 Crusher Ave. Bend, OR 97703	541-388-1046	541-318-9397	www.outbackmfg.com Danno@outbackmfg.com	Brent Bourgault, Danno Shawe	25	1993	Production & high tech CNC machining services.
Ruff Wear 2843 NW Lolo Dr. Bend, OR 97703	541-388-1821	541-388-1831	www.ruffwear.com support@ruffwear.com	Patrick Kruse	25	1992	Performance gear for dogs.
Carlson Sign Company 1605 NE Forbes Rd. Bend, OR 97701	541-382-2182	541-382-2196	www.carlsonsign.com pcarlson@carlsonsign.com	Peter Carlson	24	1948	Signs & advertising displays.
Precise Flight Inc. 63354 Powell Butte Rd. Bend, OR 97701	541-382-8684	541-388-1105	www.preciseflight.com karen.conard@preciseflight.com	Brad LeHuquet	24	1980	Aircraft safety & performance equipment.
BTL Sales & Lining, Inc. 3451 SW Empire Dr. Prineville, OR 97754	541-447-0712	541-447-0759	www.btl liners.com jared@btl liners.com	Jared Santoro	22	1981	Pond liners & greenhouse covers.
DENT Instruments, Inc. 925 SW Emkay Dr. Bend, OR 97702	541-388-4774	541-385-9333	www.dentinstruments.com sales@dentinstruments.com	Christopher L. Dent	22	1988	Design & manufacture of portable energy & power measurement instruments.
Commercial Powder Coating 20554 Builders St. Bend, OR 97701	541-330-1141	541-330-8979	www.commpowder.com thuettl@commpowder.com	Tracy Huettl, Chns Acarregui	21	1999	Started with powder coating as the core to the business, & has continuously grown to meet customer base, which is mostly comprised of commercial customers. Offers powder coating, sandblasting, striping, pretreatment, assembly, packaging & shipping.
Key Technology/Redmond Operations 1011 SE Lake Rd. Redmond, OR 97756	541-923-3997	541-923-1170	www.key.net sedwards@key.net	Susan Edwards	20	1984	Design, manufacture & market process automation systems for food & other industries.
Norco Inc. 63024 Sherman Rd. Bend, OR 97703	541-382-2362	541-383-5996	www.norco-inc.com wayneb@norco-inc.com	Wayne Barker	20	1960	Industrial gases, welding machinery & safety equipment. Durable medical equipment.
Sat Pak Communications Inc. 1492 N Sixth St. Redmond, OR 97756	541-923-0467	541-923-5925	www.satpak.com info@satpak.com	Bill Park	20	1983	Electronic cable assemblies.
The Deleone Corp. 1258 SE Lake Rd. Redmond, OR 97756	541-504-8311	541-504-8411	www.cascadelabels.com orders@deleone.com	Michael De Leone	20	1972	Label manufacturer.
Butler Aircraft Services LLC 705 SE Salmon Ave. Redmond, OR 97756	541-923-1355	541-923-4181	www.butlerairservices.com info@butleraircraft.com	Nan Garnick, Kurt Newton	18	1946	Airplanes/aircraft services, charter service, aerial firefighting.
Chapman-Huffman, Inc. 320 SE Bridgeford Blvd., Ste. 1 Bend, OR 97702	541-382-7869	541-382-4999	www.chapman-huffman.com jason@chapman-huffman.com	Jason Nyman	18	1979	Dental components & replacement parts.
Hydro Flask 900 SE Wilson Ave., Ste. H Bend, OR 97702	888-58-HYDRO	N/A	www.hydroflask.com info@hydroflask.com	Travis Rosbach	18	2009	The only all-insulated bottle company in the world that produces double-wall vacuum insulated bottles that are BPA & toxin free.
SisTech Manufacturing 63068 Lower Meadow Dr. Bend, OR 97701	877-792-2779	N/A	www.sistechmfg.com	Lorraine Kennedy	18	2009	Electronic assembly & box builds.
VocalBooth.com, Inc. 1103 NE 11th St. Redmond, OR 97756	541-330-6045	801-659-2475	www.vocalbooth.com info@vocalbooth.com	Calvin Mann, Freddie Gateley, Guy Coleman	18	1997	Modular & portable sound enclosure booths.
RDD Enterprises 2244 SE Airport Way, Ste.130 Redmond, OR 97756	541-504-0305	N/A	www.rddent.com info@rddent.com	Mark Mahnke, David McRae	17	2007	N/A
Bend Cabinet & Fixtures Inc. 62890 Boyd Acres Rd. Bend, OR 97701	541-382-6093	541-382-6097	bendcabinets@bendbroadband.com	Kelly Wilson	16	1976	Commercial cabinet & fixture shop.
Aerospace Instrumentation Research 2244 SE Airport Way, Ste. 100 Redmond, OR 97756	541-548-7500	541-923-4141	www.mhoxygen.com sales@mhoxygen.com	Brad Stankey	15	1985	Research, design & manufacturer of patented state-of-the-art digital aviation oxygen equipment. All products are manufactured on site in Central Oregon. The company is known particularly in the general aviation, glider & home built industry for the MH EDS electronic 'Pulse-Demand' adaptive oxygen delivery devices.
Cement Products Manufacturing 1945 SE First St. Redmond, OR 97756	541-548-5910	541-548-6917	www.cementproductsmfg.com joedemeyer@cementproductsmfg.com	Dick Yancey	15	1980	Complete line of masonry products including cement blocks, baffle & fire brick for wood stoves. Real stone & manufactured stone.
Mountain High Equipment & Supply Co. 2244 SE Airport Way, Ste. 100 Redmond, OR 97756	541-923-4100	541-923-4141	www.mhoxygen.com sales@mhoxygen.com	Brad Stankey	15	1985	Aviation oxygen equipment & supplies.
CIES, Inc. 1375 SE Wilson Ave., Ste. 150 Bend, OR 97702	541-977-1043	N/A	www.ciescorp.net scott.philiben@ciescorp.com	Scott Philiben	14	2010	CIES Inc. is the largest supplier of fuel quantity indication systems in aviation. We have over 95% of the General Aviation market. We also supply fuel sending units units to solve difficult issues for the automotive, marine & LPG tank markets.
Laserline Manufacturing, Inc., 1810 SE First St., Ste. H Redmond, OR 97756	541-548-0882	541-548-0892	www.laserlinemfg.com laserline@laserline.net	Bob Vanneman, Mike Vanneman	14	1995	Lasers for construction, road striping trucks, snow plow guidance, parking lot striping, tunneling, mining, dredging & direct reading grade rods.
Sullivan Glove Company 537 SE Glenwood Dr. Bend, OR 97702	541-382-3092	541-382-5369	www.sullivanglove.com	David & Terri Hayes	14	1948	Leather gloves.
GlasWeld Systems Inc. 20578 Empire Blvd. Bend, OR 97701	541-388-1156	N/A	www.glasweld.com info@glasweld.com	Sales	13	1983	Worldwide provider of glass restoration products: windshield repair systems, scratch removal systems, headlight restoration system, training available.
Leoni Fiberoptics, Inc. 340 SW Columbia St. Bend, OR 97702	541-385-0170	541-385-0168	www.leoni.com	Shannon Fields	13	1990	High power fiberoptic cables & connectors for industrial, defense, scientific, medical & homeland security applications.
Straw Propeller Gourmet Foods 725 SW Umatilla Ave. Redmond, OR 97756	541-886-5783	N/A	www.strawpropeller.com info@strawpropeller.com	Sandy Anderson	13	2011	Woman-owned & operated gourmet food manufacturer that creates a variety of gourmet oatmeal & muesli products. All products made with certified gluten-free oats, non-GMO, all natural & Kosher certified ingredients.
Bend Steel Supply & Fabrication 20698 Brinson Blvd. Bend, OR 97701	541-383-3113	541-383-9073	www.bendsteelsupply.com sales@empiretruckworks.com	Jonathan Fay	11	2018	N/A
Willamette Graystone Inc. 64978 Deschutes Pleasant Ridge Bend, OR 97701	541-388-3811	541-388-3812	www.willamettegraystone.com rext@willamettegraystone.com	Rex Turney	11	1979	Cultured stone, concrete block, brick & pavers, septic tanks.
Advanced Machining Services LLC 20690 Carmen Loop, #100 Bend, OR 97702	541-617-9500	N/A	amsbend.com info@amsbend.com	Craig Achatz	10	2002	A full-service machining shop excelling in CNC machining & design, specializes in precision-machined components from the aerospace industry to custom projects.
Beverly Pacific Company 1266 SE Lake Rd. Redmond, OR 97756	541-548-0810	541-548-0816	www.beverlypacific.com dcu@beverlypacific.com	David Ullrich	10	1988	Air filter system, cellular antenna concealment products.
Easybar 63015 Layton Ave., Bend, OR 97701	888-294-7405	503-624-6741	www.easybar.com info@easybar.com	James Nicol	10	1968	Manufacturer & supplier of innovative devices that regulate the amount of liquor or beer poured in bar drinks.
Max Manufacturing, Inc. 20651 High Desert Ln. Bend, OR 97701	888-644-0280	541-382-2556	www.maxmfg.com mikeg@maxmfg.com	Mike Garoutte	10	1973	Laser cutting & processing, precision sheet metal fabrication, custom motor vehicle parts.
Snowline Manufacturing, Inc. 63360 Powell Butte Hwy. Bend, OR 97701	541-617-1107	541-617-1108	www.snowlinemfg.com mikes@snowlinemfg.com	Mike Snow	10	1990	Fabricates & welds aircraft products. Rock screening products.

CBN has made every effort to ensure that all information is accurate and up-to-date. We cannot, however, guarantee it. Please contact us immediately if you know that certain information is not correct or you would like to be added to a list, 541-388-5665 or email cbn@cascadebusnews.com.

EarthCruiser Expands Expedition Vehicle Lineup with New EC Terranova Expedition Camper

EarthCruiser, a globally recognized leader in global expedition travel vehicles, introduces the EC Terranova Expedition Camper, a 4x4 all-season cab-over expedition camper available with a choice of Ford, Chevy or Dodge domestic chassis. The EC Terranova allows outdoor enthusiasts to travel unbound, without sacrificing performance, comfort or livability, and is designed to be unyielding in its ability to perform in town or on the most rugged terrain with ease opening up endless adventure possibilities.

“EarthCruiser is an undisputed expert in cab-over vehicle design in the USA and has been perfecting cab-over overlanding trucks since 2008. We pull from years of proven engineering and design expertise to produce the most accomplished 4x4 recreation vehicles available in the world,” says Chad Knight, GM of EarthCruiser. “The EC Terranova Expedition Camper meets customer demand for a cab-over with a choice of domestic chassis. We know many customers feel more comfortable behind the wheel of a consumer-class truck versus commercial and have strong brand preferences. We want to be able to honor that.”

Every EarthCruiser product is designed, developed and hand built by a team of enthusiasts that bring years of true overlanding experience to every inch of product construction. Experiences in Mongolia, through the jungles of Borneo and across the Australian outback influence every panel, latch, door location, storage compartment and system redundancy. No other expedition camper can be trusted to get you to your next adventure and back like the EC Terranova Expedition Camper.

Performance

The smaller house and lighter weight of the EC Terranova Expedition Camper allows for more acceleration and better performance on the highway and easily tows a boat, trailer or toy hauler. Base Chassis options include: Model year 2020+ Ford F350; RAM 3500 and Silverado 3500.

Construction

The EC Terranova Expedition Camper is made like a racing yacht. Fiberglass and high-density plastic materials will stand up to years of rough trails, and are easily cleaned. The camper chassis is mounted to the vehicle chassis with EarthCruisers proprietary kinetic mount system and with the same foam insulated raising-roof found on EXD and EXP models. The triple-layer curtain includes eight windows, which provide a 360-degree panoramic view, and include insect, privacy screens and clear vinyl protective layers. No locks or latches are required to raise or lower the roof.

EarthCruiser’s foam core composite construction and multi-layer curtain provide unparalleled protection against the elements, keeping the heat in or out, all four seasons. EarthCruisers are designed to perform in the world’s most extreme climates, ensuring comfort in all temperatures and conditions, allowing you to



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Manufacturing Crook County *(Listed by Number of Staff)*

Company / Address	Phone	Fax	WebSite/Email	Contact	Staff	CO Year Est.	Business Description
Contact Industries 1155 N Main St. Prineville, OR 97754	541-447-4195	541-447-6479	www.contactind.com cjackson@contactind.com	Casey Jackson	270	1946	Moulding, millwork & engineered wood components.
Pioneer Cut Stock Inc. 1941 NW Industrial Park Rd. Prineville, OR 97754	541-447-5962	541-447-1081	www.pioneercutstock.com mdavenport@pioneercutstock.com	Martha Davenport	56	1986	Lumber manufacturer featuring premiere wood window manufacture that demand quality above industry standards.
Bright Wood Corporation - Prineville 1941 Industrial Park Rd. Prineville, OR 97754	541-447-5962	541-447-1081	www.brightwood.com info@brightwood.com	Dallas Stovall	43	1960	Wood products.
Helena Chemical 1225 N Gardner Rd., Ste. 200 Prineville, OR 97754	541-447-5609	541-447-1403	www.helenachemical.com Castorm@helenachemical.com	Mark Castor	42	1961	Fertilizer, chemical & seed.
Dayspring Hardwood & Moulding, Inc. 2816 Cessna Prineville, OR 97754	541-447-0222	541-447-0223	www.dayspringinc.com sales@dayspringinc.com	Michael Newman, Mike Engel	35	1986	Hardwood mouldings, flooring, stair treads/risers, handrails, crown mouldings, engineered/recycled flooring & specialty items.
Consolidated Pine Inc. 1951 NW Lamonta Rd. PO Box 1375 Prineville, OR 97754	541-447-5635	541-447-6525	www.consolco.com info@consolco.com	Steve Cole, Laura Barbeau	29	1952	Wood products, finger-joint, primed mouldings & solid mouldings.
Mill Power, Inc. 3141 SW High Desert Dr. Prineville, OR 97754	541-447-1100	541-447-1101	www.millpower.com emailtestosterone@gmail.com	Alison Muilenburg, Dale Tompkins	20	1968	Design & manufacturing of custom vibrating industrial process equipment including conveyors, screens & feeders.
Double Press Manufacturing 541 SW High Desert Dr. Prineville, OR 97754	541-475-1952	541-475-4239	www.double-press.com info@doublepress.net	Dan Jacques	18	1993	Bale compressors to compress hay for export.
Advanced Cabinetry, Inc. 2853 SW High Desert Dr. Prineville, OR 97754	541-447-7024	N/A	advcabinetry@gmail.com	Jason McCollum	10	1997	Custom cabinet making.
Rohrer Manufacturing, Inc. 2261 NW Industrial Park Rd. Prineville, OR 97754	541-447-7749	541-447-5190	www.rohrermfg.com info@rohrermfg.com	Dan Rohrer	8	1989	Air operated post drivers, farm related manufacturing & design.
ABC Fence Company 421 NW Tenth St. Prineville, OR 97754	541-447-6780	541-447-1974	www.abcfencecompany.net fencegal1@gmail.com	Rawlin Smith, Serena Wood	7	1984	All types of fence products & installation.
Northwest Sign Recycling LLC 1415 NW Murphy Ct., Prineville Redmond, OR 97756	541-279-0386	541-383-2072	www.nwsignrecycling.com tory@nwsignrecycling.com	Penny Eddington, Tory Allman, Wendie Every	5	2004	Hydrostripping & recycling aluminum highway signs for cities, counties, states, other agencies & private sector.
Agee Ironworks 3133 NE Third St. Prineville, OR 97754	541-788-3179	541-447-3946	www.agecironworks.com agecironworks@crestviewcable.com	Jenny Agee, Bret Agee	3	2001	Creating unique hand forged items such as beds, wine racks, railing, trellises, arbors, gates, ect.
RYCO Manufacturing, Inc. 2959 SW High Desert Dr. Prineville, OR 97754	541-416-9313	541-416-9315	www.wildhorsemesa.com dave@rycomfg.com	David Ryan	2	1976	Custom metal fabrication.
Daniel R. Kentner Welding & Machine 14497 SE Wagonwheel Ln. Prineville, OR 97754	541-447-7987	541-447-8649	www.EZlitefirestarter.com dkentner67@gmail.com	Daniel R. Kentner	1	2001	Fire starter manufacturer, welding & machine.

Manufacturing Jefferson County *(Listed by Number of Staff)*

Company / Address	Phone	Fax	WebSite/Email	Contact	Staff	CO Year Est.	Business Description
Bright Wood Corporation - Madras 335 NW Hess St. Madras, OR 97741	541-475-2234	541-475-7758	www.brightwood.com info@brightwood.com	Dallas Stovall	813	1960	Wood products.
Keith Manufacturing Company 401 NW Adler St. Madras, OR 97741	541-475-3802	541-475-2169	www.keithwalkingfloor.com mediadept@keithwalkingfloor.com	Mark Foster	235	1950	Moving floor conveying systems.
The Sweetwater Co., Inc. dba Earth2o 812 C St. Culver, OR 97734	541-546-2464	541-546-3468	www.earth2o.com nseifert@earth2o.com	Nick Seifert	72	1991	Natural, sustainable, manufacturer of bottled water. SQF Level 3 certified.
Warm Springs Composite Products 3270 U.S. Hwy. 26, Bldg. #8 PO Box 906 Warm Springs, OR 97761	541-553-1143	541-553-1145	www.wscp.com contact@wscp.com	Jacob Coochise	60	1994	Fire rated door components & frames & roofing closer strips. Ballistic materials.
Central Oregon Seeds, Inc./ Central Oregon Basalt 1747 NW Mill St. Madras, OR 97741	541-475-7231	541-475-7233	cosi.ag	Michael Weber	56	1979	Grass, vegetable seeds & soil amendment, Cascade Minerals.
Helena Agri-Enterprises 505 C St. Culver, OR 97734	541-546-5222	541-546-2237	www.helenaculver.com spauldingb@helenachemical.com	Britt Spaulding	41	2012	Fertilizer, pesticides, seeds & wholesale feed.
Shielding International Inc. 2150 NW Andrews Dr. Madras, OR 97741	800-292-2247	541-475-6628	www.shieldingintl.com info@shieldingintl.com	N/A	23	1996	Manufacturer of X-ray protective apparel & accessories.
Maragas Winery 15523 SW Hwy. 97 Culver, OR 97734	541-546-5464	N/A	www.margaswinery.com info@maragaswinery.com	Doug Maragas	8	1999	Wine.
WB & D Technologies 182 NW Earl St. Madras, OR 97741	541-475-7211	541-475-6628	www.shieldingintl.com info@shieldingintl.com	Carol Locke	5	1996	Manufacturer of lead sheeting.
Albina Asphalt 400 NW Paul Jasa Way Madras, OR 97741	541-475-6638	541-475-6168	www.albina.com madras@albina.com	Mike McCool	4	1989	Asphalt emulsion.
Griffin Seed International 3815 SW Culver Hwy. Metolius, OR 97741	541-546-2801	541-546-2906	www.griffinseedinternational.com sales@griffinseedint.com	Robert Griffin	4	1987	Sells vegetable seeds.
Meuret Pump, Inc. 6039 SW Franklin Ln. Madras, OR 97741	541-546-2992	541-546-7940	meuret69@outlook.com	Frank Summers	3	1945	Pumping & farm equipment, conveyors & pipe fitting.
Oregon Embroidery 182 NW Earl St. Madras, OR 97741	541-475-7211	541-475-6628	www.facebook.com/Oregon-Embroidery	Kriste Lofting	2	1988	Direct embroidery of garments & accessories.

This is only a partial listing. CBN has made every effort to ensure that all information is accurate and up-to-date. We cannot, however, guarantee it. Please contact us immediately if you know that certain information is not correct or you would like to be added to a list, 541-388-5665 or email cbn@cascadebusnews.com.

Innovate

Continued from page 1

home to identify how many detectors, sensors, video cameras and smoke/carbon monoxide detectors they might need. Innovate security monitoring fees are \$29 per month — or less than a dollar a day — with security equipment kits starting at \$350.

Imagine cameras that allow you to answer the door for your food delivery without in-person contact, or remotely check in on elderly relatives with monitors or outfit them with emergency call or panic alert systems; all in addition to protecting your home and family with the security components and monitors essential to staying safe.

As a long-time expert in the security industry, Hausler believes that the security

Innovate Security for Life Responds to Increased Demand for Peace of Mind & a Trend Toward Do-It-Yourself Home Improvements with Advanced Technology & Patent-Pending Magnetic Installation Design

industry has done a poor job educating clients on the value of monitoring for life safety first. In an actual fire or carbon monoxide event, monitoring and the dispatch of fire and medical authorities is how lives are saved. Innovate’s mission is to provide all clients with the best life-safety protection and life-safety monitoring in the industry, protecting the people, pets and possessions our clients truly care about the most.

Innovate Security was inspired by a simple concept: Use innovation to provide professional-grade life safety and security products for home and business; offer continued support; and help customers save money through DIY installation. With a market that is quickly transitioning, Innovate has re-engineered professional grade, cutting-edge systems for easy installation by customers. Innovate offers products that are the most advanced, easiest to install and fully expandable in their class.

innovatesfl.com

EarthCruiser

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work or relax in comfort and safety.

Industrial Design

EC Terranova looks tough, and delivers on this. Because of our years of design experience, we are able to fit all required systems and a generous living space into a sleek, aerodynamic design. This avoids the bulky, boxy look of most other “expedition” truck bed campers on the market. Interior living space is designed to maximize space, comfort and usability and borrows from our products that have been proven in extreme remote situations all over the world.

Interior

EC Terranova offers expanded living quarters with the bed above the cab roof as an alternative to the convertible dinette-bed combination offered in the EarthCruiser EXD.

The EC Terranova Expedition Camper comfortably transports and houses four guests and utilizes many of the same systems as the popular EarthCruiser EXP and FX. These systems (electrical, plumbing, mechanical) are designed to work together seamlessly, and have been stress-tested and repeatedly proven during years of world travel and ranges of environments and temperatures far below sub-zero.

Living-quarter features include:

- Easy clean, durable fiberglass surfaces throughout interior.
- A fan system integrated into the roof that efficiently moves over 200 cfm of air keeping the house fresh and practically eliminating any condensation from

occurring; DC Air Conditioner (optional).

- Dinette bench seats with leather cushions and integrated storage provide ample room for working remote, entertaining, dining or hanging out with a board game.
- Premium one-piece countertop with stainless steel sink, induction cooktop and Isotherm stainless steel refrigerator and freezer (12v / 4.24 cu ft.).
- Shurflo freshwater pump and water system with freshwater tank.
- Purified water drinking tap and kitchen faucet with hot/cold mixer.
- Bathroom features a stainless steel sink basin, full height shower with retractable shower curtain, and showerhead-sink faucet combo; 6.7 liters at 1.77 gallons per minute.
- Thetford cassette toilet is recessed from view when not in use and has a 4.49-gallon waste capacity limit for the 17 liter; 3.96-gallon top flush with 15 liter.

Additional Specifications and Features

- Exterior hot and cold water shower; exterior purified drinking water faucet.
- Grey water closed-circuit water recycling system uses three different types of carbon filters, a UV filter and dedicated electric hot water tank. This system significantly reduces the power required to take a hot shower by cycling the already-heated water through the filtration system, and back out the shower head (available 2021).
- Solar controller and monitoring system with 108 Watt Sunflare solar panels.
- Lithium house battery, 12 volt, 400Ah.
- Extensive inside and outside storage, including cooktop and sink-top storage, under-bed storage cubbies and kitchen pantry.

EC Terranova Expedition Camper is also available for sale to the international community, such as the Middle East and Europe.

earthcruiser.com • earthcruiser.com/ECTerranova • sales@earthcruiser.com



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A Brief Look at Central Oregon Manufacturing Activity



MEDLINE RENEWAL, A MEDICAL DEVICE RE-PROCESSING COMPANY, IS EXPANDING BY DOUBLING THEIR EXISTING SPACE IN REDMOND | PHOTO BY TIMOTHY PARK

by RONNI WILDE — CBN Reporter

In this fourth quarter of 2020, there is quite a bit of moving and shaking going on in the manufacturing sector. Here is a listing of some of the manufacturing companies that are either relocating into Central Oregon from other areas, are new businesses or are expanding their existing operations. Please note that this is not an exhaustive list, but rather a sampling of some of the movement happening in the region.

In Redmond — Source: Jon Stark, senior director, Redmond Economic Development Inc.

- i3DMFG — Contract manufacturer that makes parts for various industries (medical, military, firearms, etc.); preparing to open a new space on Lake Road in Redmond, moving here from The Dalles.
- BasX Solutions — Manufacturer of high-efficiency cooling systems and solutions in Redmond; adding 75,000 square feet to its existing facility.
- Medline Renewal — Medical device re-processor; expanding by doubling their existing space.
- We're The Worst — Formerly a bratwurst/sausage food truck business in Bend; now going into full-scale manufacturing and opening a facility in Redmond.

In Bend — Source: Don Myll, Bend Area director, Economic Development for Central Oregon (EDCO)

- BMS Technologies — Mailing, printing, online bill paying and software solutions; constructed a new 30,000-square-foot production facility in Juniper Ridge*.
- Brian's Cabinets — Custom cabinet manufacturer; constructing new 20,000-square-foot production facility in Empire Industrial area.
- Picky Bars — Makes and distributes gluten- and dairy-free energy bars for extreme athletes; expanding by raising capital to fuel company's growth.
- SmartyPits — Personal care products manufacturer specializing in aluminum-free deodorant; moving into new 6,000-square-foot production facility in central Bend after relocating from California.
- Thuren Suspension Technology — Off-road vehicle suspension manufacturer; expanded by constructing 6,000-square-foot production facility in Juniper Ridge*.
- Lonza (formerly Bend Research) — Contract development and manufacturing for the biotech industry; expanded by building new production facilities on the Lonza campus in NW Bend.
- NanoMetrics — Manufactures optical process control and measurement devices for semiconductor and other high-technology industries; expanded production facilities.

* Juniper Ridge, at the corner of Cooley Road and Highway 97 — 500 acres of city-owned land now earmarked for industrial use.

In Sisters — Source: Caprielle A. Lewis, Sisters Area director, EDCO

- Holy Kakow — A premium coffee shop supplier of organic chocolate sauces and coffee syrups, will co-occupy just over 5,000 square feet of a brand new 13,426-square-foot spec building in Sun Ranch Business Park, a mixed-use district in Sisters.
- Nechville Banjos — Founder Tom Nechville recently relocated to Sisters from Bloomington, Minnesota; has purchased building and plans to open retail and light-assembly location in downtown Sisters, a block away from the headquarters (production facility) of Preston Thompson Guitars.

The recent City Council approval to rezone 15 acres of private land within the city limits to light industrial is attracting additional manufacturers to Sisters, primarily in the natural products and outdoor industries, as well as expansion of local specialty food and beverage companies. These projects will develop new workforce opportunities for the Sisters community and region in the next several years.

In Prineville — Source: Kelsey Lucas, Prineville/Crook County director, EDCO

- Top Dog Fabrications — A startup operation as of July, focusing on CNC plasma, commercial metalwork, TIG/MIG welding and CAD/CAM designing. This is a husband-and-wife team that relocated from Western Oregon.

rediinfo.com
edcoinfo.com



i3DMFG, WHICH PROVIDES DIRECT METAL LASER SOLIDIFICATION AND METAL 3D PRINTING SERVICES, IS MOVING FROM THE DALLES TO REDMOND | PHOTO COURTESY OF i3DMFG

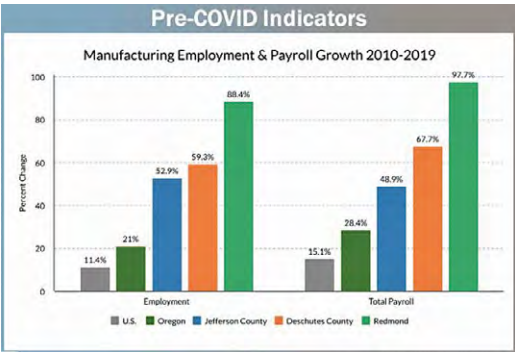
Manufacturing

Continued from page 1

have ceased operations permanently, but of those few, there were other pre-COVID issues at play, such as small cash reserves, change of ownership or declining revenues. Stark adds, "Aircraft parts, beer-related manufacturing, etc., were hit hard. We've had some decline in these areas, but in other areas, we've seen gains, like with Poltex (producers of organizational equipment for healthcare and laboratory settings). They have grown through this. Generally, with manufacturing in Redmond, there were some small disruptions, some right-sizing that went on, but we are back on a trajectory of growth. And, we still have new manufacturers coming into the region."

Lee says that from an industry perspective, the sectors seeing growth include bioscience, building products, specialty food projects, tech and outdoor gear and apparel, while others such as aviation/aerospace, brewing and distilling are in a holding pattern or are contracting. "A trend we've seen for years is for a greater number of our projects to be smaller in size in terms of jobs and capital investment, but there are more of them. This bodes well for further industry and economic diversification, but it takes more of these projects to produce a larger total number of jobs, which are in high demand currently."

While manufacturing in Central Oregon has both expanded and contracted during the past year, there is another phenomenon taking place: Just as individuals are moving out of larger cities to escape the higher number of COVID cases and the political unrest happening in densely populated areas, the same shift is occurring



GRAPHIC | COURTESY OF REDI

within the business sector. "We are seeing a trend: People are moving out of big cities due to COVID, riots, etc., and that scenario is happening with businesses too," says Stark. "That migration is happening with both homeowners and businesses." He says there are two primary reasons for this: time and money. "Capital is cheap; interest rates are at an all-time low. And, businesses that hadn't had the time to make their move into a new area previously found the time to do so during the COVID disruption. The disruption gave them the time to make their move into central Oregon, and there is now affordability in making the move." He adds, "Our crystal ball moving forward looks like a continuation of the rapid growth we've seen over the past nine years."

Lee says that on the relocation side of EDCO's recruitment efforts, there seems to be a strong concentration on consumer goods manufacturing currently, which, considering that consumer spending has been among the most impacted sectors of the economy, he finds interesting and perhaps counter-intuitive. "Much of that inbound interest is from established companies looking at options outside large metros."

Within the region, Redmond continues to see the fastest growth in manufacturing. "Over the last nine years, manufacturing has grown in Redmond by 88 percent. Wages for manufacturing-related jobs are up 97 percent. That is four times the Oregon average, and eight times the U.S. average," says Stark. "Over the past several decades, up until the last nine years, the nation as a whole had been shedding manufacturing jobs. Over the past decade, that number has been growing again, but nowhere near the pace of Redmond. Redmond is one of fastest-growing places for manufacturing, if not the fastest." He adds, "Our mayor, years ago, dubbed Redmond the hub for manufacturing in the region. Its growing faster in Redmond than in

the rest of Deschutes County."

According to Damon Runberg, East Cascades regional economist for the Oregon Employment Department, the manufacturing sector in Central Oregon had been growing at a slow-but-steady pace before the onset of the COVID-19 pandemic. In the two years prior to the pandemic, he says Central Oregon's manufacturing sector expanded by 5.5 percent compared to a growth of only 1.3 percent statewide. "Much of the manufacturing growth coming out of the last recession was concentrated in nondurable goods manufacturing, specifically beverage manufacturing such as beer, cider and kombucha. However, the growth we saw over the last several years was more diverse, with gains in composite manufacturing, aeronautics/aerospace and primary metals," he explains. "Although we were seeing manufacturing growth across the county, the largest and most notable growth in this last expansion phase was in Redmond, where manufacturing job growth far outpaced Bend."

Unfortunately, Runberg says that the manufacturing employment gains from the past few years in Central Oregon were wiped out between February and May of this year, as the sector shed 1,020 jobs, or roughly 13 percent of the workforce. "These losses were sharper than in Oregon statewide, where the sector only lost around 7.5 percent of jobs." The good news, he says, is that through August of this year, the region had recovered 350, or 34 percent, of the jobs lost during the first few months of the pandemic.

On a statewide level, the Oregon Department of Employment reports that manufacturing lost a substantial number of jobs this spring and has not rebounded. In a press release issued on October 14, the Department reported that employment in the sector stood at 180,000 jobs in September, which was close to its level of the past five months. Since September 2019, however, manufacturing cut 18,100 jobs with losses widespread throughout most component industries. During that time, primary metals manufacturing dropped the most in percentage terms, shedding 2,600 jobs, or 28 percent. Next in line was transportation equipment manufacturing, which cut 19 percent. Two other manufacturing industries dropped at least ten percent: food manufacturing (-4,200 jobs, or -14 percent) and electronic instrument manufacturing (-600 jobs, or -11 percent). The report goes on to say that none of the published manufacturing industries added a substantial number of jobs over the past 12 months statewide in Oregon.

Runberg says manufacturing lost jobs to the pandemic for a variety of reasons. "Early on, the industry posted temporary layoffs due to stay-at-home orders and difficulty in social distancing. As restrictions eased, many of these temporary layoffs were called back, but the recovery has been incomplete, as many businesses experience supply chain disruptions, and others experience a drop in orders." He continues, "We don't have much information on firm openings and closures since the onset of the pandemic. But there is room for optimism more generally for the industry here in Central Oregon. Wood product manufacturing remains a large and important employer across the region. The demand for wood products due to home-improvement projects and high demand for housing have led to an increased demand for many of the wood products developed here."

To show appreciation to the manufacturing companies in Redmond, which generate jobs and revenue, REDI celebrates National Manufacturing Day in October each year with the Made in Redmond Tour. "We do this because manufacturing contributes a ton to our economy. We want to support those manufacturers who are helping to grow our economy," says Stark. "We've had state legislators, the mayor, city councilors and the general public attend over the years." This year, the Made in Redmond Tour was a hybrid event, he explains. "We still held a tour, and we had 100 people. But we did it all by video, and showed the videos to an audience at the fairgrounds. Now, the videos are live on our YouTube channel. Because of COVID, we had the opportunity to host the tour for more people."

About Republic Services of Central Oregon

by **SUSAN BAKER, Municipal Manager — Republic Services**

Republic Services, an industry leader in U.S. recycling and solid waste disposal, currently serves Central Oregon communities — including Bend, Redmond, Sisters, Prineville and La Pine, bringing a high level of experience in recycling, solid waste disposal and sustainability.

With 145 local employees at four facilities, their services encompass recycling and waste collection, city curbside yard debris and food waste pick up, drop box containers, junk cleanup, composting and document destruction services. Republic also operates Deschutes Recycling located at Knott Landfill.

In the fall of 2019, Republic Services launched a food waste collection program for Bend city residents with yard debris subscription service. Customers in Bend can put nearly every type of food scrap in their yard debris cart, including meat, dairy, produce and bakery. The material is processed into nutrient-rich compost to use on lawns and gardens, creating a closed loop food system for our community — the compost is sold to the public as well. The next step will be to expand the residential food waste collection program to City of Redmond customers.



PHOTOS | COURTESY OF REPUBLIC SERVICES

As an industry leader, Republic Services has always been committed to keeping communities clean in a safe and environmentally responsible way, working to increase recycling, generate renewable energy and help customers and communities be more resourceful. Republic Services must also lead by example — continuously improving their own footprint through decreased vehicle emissions, community engagement and employee growth and development.

Republic Services’ Blue Planet: 2030 Goals are designed to help the company thrive in this ever-changing environment, through a bold sustainability platform and durable practices that benefit the environment and society as well as enhance our business — even in the most challenging of times. And, through it all, the health and safety of the employees and communities remain the number one priority and at the forefront of every decisions made.

Giving back to the community is very important to Republic Services. They are proud to support various organizations including Bethlehem Inn, NeighborImpact, United Way of Deschutes County, Volunteers in Medicine, CAN Cancer, Saving Grace, Hospice of Redmond and Sisters Folk Festival.

Customers may call 541-382-2263 for more information about local collection services.

republicservices.com



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KNOTT LANDFILL RECYCLING & TRANSFER FACILITY BUSINESS HAZARDOUS WASTE DISPOSAL FACILITY



The Knott Landfill Recycling & Transfer Facility, located at 61050 SE 27th Street in Bend, has a hazardous waste facility available for business-generated hazardous waste disposal.

Contact the Solid Waste office or visit the website:
www.deschutes.org/sw
to receive a Business Hazardous Waste Collection application and to make an appointment for drop off.

Upcoming Appointment Dates:
October 9-10 & 23-24
November 13-14
December 11-12
January 8-9 & 22-23
February 12-13 & 26-27
March 12-13 & 26-27

Deschutes County Department of Solid Waste
61050 SE 27th Street, Bend, OR 97702
Phone: (541) 317-3163 Fax: (541) 317-3959
www.deschutes.org/sw
To request this information in an alternate format, please call (541) 317-3163 or send email to solidwaste@deschutes.org



Garbage & Recycling Companies *(Listed Alphabetically)*

Company / Address	Phone	Fax	WebSite/Email	Contact	Staff	CO Year Est.	Services	Area Covered
Advanced Systems Portable 1300 SE Wilson Ave. Bend, OR 97702	541-389-5646	541-385-5226	www.advancedportabletoilets.com Cust2912@wcnx.org	Erwin Swetnam	5	1965	Portable restrooms & storage units.	Central Oregon
Alfalfa Transfer Station At Walker Rd. Alfalfa, OR 97709	541-317-3163	541-317-3959	www.co.deschutes.or.us/sw timms@deschutes.org	Timm Schimke	1	1999	Saturdays 8am-4pm.	Deschutes County
Cascade Disposal (Waste Connections) 1300 SE Wilson Ave. Bend, OR 97702	541-382-6660	541-385-6061	cascadedisposal.com cust2012@wasteconnections.com	Erwin Swetnam	44	1965	Garbage hauling, curbside recycling, commercial, residential, special events, clean ups, roll offs & yard debris & food waste for city customers	S Greenwood & Newport & South of Alfalfa Market Road, Sunriver
City of Sisters PO Box 39 Sisters, OR 97759	541-549-6022	541-549-0561	www.ci.sisters.or.us kkeeton@ci.sisters.or.us	Kim Keeton	17	1946	Provides water & sewer services.	Within Sisters City Limits
Crooked River Sanitary, Inc. 13918 SW Commercial Loop Rd. Terrebonne, OR 97760	541-548-1542	541-548-0217	www.crsanitary.com info@crsanitary.com	Dave Jones	4	1996	Please remove Recycling off on line 9 & curbside co-mingled recycling, including motor oil on Last line.	Crooked River Ranch
Deschutes County Department of Solid Waste 61050 SE 27th St. Bend, OR 97702	541-317-3163	541-317-3959	www.deschutes.org/sw timms@deschutes.org	Timm Schimke	16	1995	Summer: May 1-Oct. 31, 7am-5pm, 7 days per week. Winter: Nov. 1-April 30, 7am-4:30pm, Monday through Saturday, closed Sunday.	Deschutes County
Deschutes Recycling 61050 SE 27th St. Bend, OR 97702	541-388-1910	541-322-2194	deschutesrecycling.com sbaker6@republicservices.com	Kristin Steiner	7	2001	Knott Landfill recycling depot. Recycling of computers, refrigerators, appliances, tires, scrap metal, glass, cardboard, etc. Composting facility for disposal of yard debris & sales of SoilBuilder & BioFine compost.	Central Oregon
Knott Landfill 61050 SE 27th St. Bend, OR 97702	541-317-3163	541-317-3959	www.deschutes.org/sw solidwaste@deschutes.org	Timm Schimke	21	1972	Monday-Saturday 7am-4:30pm, Nov. 1-April 30. May 1-Oct. 31, 7 days a week, 7am-5pm.	Deschutes County
Madras Sanitary Service 1778 NW Mill St. Madras, OR 97741	541-475-2071	541-475-9244	www.madrassanitary.com madrassanitary@madras.net	Melanie Widmer	24	1976	Garbage & recycling services, medical waste disposal, document destruction.	Jefferson County
Negus Transfer Station 2400 NE Maple St. Redmond, OR 97756	541-548-7232	541-317-3959	www.deschutes.org/sw timms@deschutes.org	Timm Schimke	1	1993	Monday-Saturday 8am-4pm.	Deschutes County
Northwest Transfer Station 68200 Fryrear Rd. Bend, OR 97701	541-548-3437	541-317-3959	www.deschutes.org/sw timms@deschutes.org	Timm Schimke	1	1993	Wednesday-Saturday 8am-4pm.	Deschutes County
Republic Services (formerly Bend Garbage & Recycling) 20835 NE Montana Wy. Bend, OR 97701	541-382-2263	541-383-3640	bendgarbage.com sbaker6@republicservices.com	Kristin Steiner	50	1960	Curbside garbage & recycling collection. City curbside yard debris / food waste collection. Drop box & Rent-A-Bin services. Junk clean-up, SecureShred document destruction services. Delivered compost from Deschutes Recycling. Medical waste collection.	N Newport & Greenwood/ Alfalfa Mkt. & Tumalo
Republic Services (formerly High Country Disposal) 1090 NE Hemlock Ave. Redmond, OR 97756	541-548-4984	541-548-2309	highcountrydisposal.com sbaker6@republicservices.com	Kristin Steiner	30	1967	Curbside garbage & recycling collection. City curbside yard debris collection. Drop box & Rent-A-Bin service. Junk removal, document destruction service & compost sales.	Redmond, Terrebonne, Sisters, Black Butte Ranch, Camp Sherman
Southwest Transfer Station 54580 Hwy. 97 La Pine, OR 97739	541-317-3163	541-317-3959	www.deschutes.org/sw timms@deschutes.org	Timm Schimke	2	1993	Wednesday-Saturday 8am-4pm.	Deschutes County
Wilderness Garbage & Recycling PO Box 2669 La Pine, OR 97739	541-536-1194	541-536-9507	www.wildernessgarbage.com wgcs2@wildernessgarbage.com	Anne Wiley, Stuart Martinez	12	1984	Garbage, drop box service from Sunriver to Beaver Marsh. Recycling depot. 8am-4pm Monday-Thursday, 8am-1pm Fridays	Southern border of Sunriver, La Pine, Crescent, Chemult, Gilcrest, Crescent Lake Jct.

Recycled Products & Services *(Listed Alphabetically)*

Company / Address	Phone	Fax	WebSite/Email	Contact	Staff	CO Year Est.	Services
B&R Auto Wrecking 64154 Hwy. 97 Bend, OR 97701	541-382-1987	541-389-6299	www.autowrecking.com/locations/bend sales@autowrecking.com	Dan Gilder	7	1978	Complete auto recycling, selling used auto parts.
Bar Seven A Recycle 1060 SE Lake Rd. PO Box 890 Redmond, OR 97756	541-548-4747	541-548-0460	www.barsevena.com admin@barsevena.com	Brian Skidgel	27	1967	Wood recycling. Portable crushing. Portable grinding. Excavation. Commercial excavation.
Bend Area Habitat for Humanity ReStore 224 NE Thurston Ave. Bend, OR 97701	541-312-6709	N/A	www.restorebend.org restore@bendhabitat.org	Habitat For Humanity	14	1998	Bend Area Habitat for Humanity provides affordable housing for hardworking local families & individuals. The ReStore is a used & surplus building supply outlet, offering a huge selection of building material, appliances & furniture at 50-75 percent off retail prices. Proceeds from the ReStore benefit Bend Area Habitat for Humanity.
Bend-Redmond Habitat for Humanity ReStore (Redmond) 1242 S Hwy. 97 Redmond, OR 97756	541-548-1406	N/A	www.restorebend.org spaez@brhabitat.org	Sophie Paez	6	N/A	Bend Area Habitat for Humanity provides affordable housing for hardworking local families & individuals. The ReStore is a used & surplus building supply outlet, offering a huge selection of building material, appliances & furniture at 50-75 percent off retail prices. Proceeds from the ReStore benefit Bend Area Habitat for Humanity.
Brilliant Environmental Building Products 327 NW Greenwood Ave., Ste. 100 Bend, OR 97703	541-317-0202	541-550-2230	www.brilliantmaterials.com info@brilliantmaterials.com	Jorden Swart	2	2008	Specializing in sustainable building materials for the interior of a home such as wool carpet, cork flooring, bamboo, counter tops, paints, stains & more.
Crook County Landfill 300 NE Third St. Prineville, OR 97754	541-447-2398	541-416-1283	www.co.crook.or.us Jacquie.Davis@co.crook.or.us	Jacque Davis	8	1979	Landfill & standard recycling depot. Selling wood chips. Recycling facilities for corrugated cardboard, container glass, newspaper, motor oil & car batteries, antifreeze, aluminum & tin cans & magazines.
Deschutes Recycling 61050 SE 27th St. Bend, OR 97702	541-388-1910	541-322-2194	deschutesrecycling.com sbaker6@republicservices.com	Kristin Steiner	12	2001	Knott Landfill recycling depot. Recycling of computers, refrigerators, appliances, tires, scrap metal, glass, cardboard, etc. Composting facility for disposal of yard debris & sales of SoilBuilder & BioFine compost.
Fagen Trees & Chips 151 SE Second St. Bend, OR 97702	541-382-4997	541-382-9470	www.bendoregontreesservice.com treesandchips@gmail.com	Wade Fagen	4	1986	Certified Arborist, land clearing & tree services, wood chip bark mulch supplier, snow removal.
Northwest Sign Recycling LLC 1415 NW Murphy Ct., PO Box 2424 Redmond, OR 97756	541-279-0386	541-383-2072	www.nwsignrecycling.com tory@nwsignrecycling.com	Wendie Every, Penny Eddington, Tory Allman	5	2004	Hydrostripping & refurbishing aluminum highway signs for cities, counties, states, other agencies & private sector.
Opportunity Foundation of Central Oregon - Bend 275 NW Second St. Bend, OR 97701	541-322-0297	541-389-2084	www.opportunityfound.org info@opportunityfound.org	Susan Klampe	335	1965	Designated drop site for electronic waste recycling. Thrift store.

Recycle Like a Local

by ANI KASCH — Rethink Waste Program Manager

Deschutes County is becoming an increasingly popular place to live. Bend, Oregon is the third fastest-growing city in the nation according to a study by wallethub.com. When you ask the question “Where are you from?” to those around you at work, at daycare or at your favorite bar, chances are very good the answer will not be Deschutes County. Who can blame folks for coming here?

But the important thing to remember for folks moving from one community to another is that things may be done differently than where you come from. Whether it’s about honking your horn (we don’t really do that much in Oregon, except when it’s actually an emergency) or mountain bike trail etiquette (those traveling uphill here have the right of way!). And another thing: how to recycle right.

Recycling diverts valuable material from the landfill, and that’s important. Deschutes County’s Knott Landfill (our only disposal option in the county) is projected to be full by 2029. Also, international recycling markets have been interrupted. Not to mention we’re in the middle of a pandemic that has a lot of people scared about reuse and Bringing-Your-Own despite the research showing reusables that are washed are not a threat of COVID transmission. Now more than ever, it’s important for us to recycle AND to do it correctly. Here are a few tips for how to recycle right in your curbside mixed cart in Deschutes County:

- DOs:**

 - Plastics accepted: bottles, tubs and jugs — no lids
 - Paper accepted: office paper, junk mail, paperboard and cardboard
 - Metal accepted: tin and aluminum cans
 - Keep your recyclables loose in your curbside recycling cart — don’t bag it up
 - Make sure your recyclables are clean and dry
 - Keep glass separate
- DON'Ts:**

 - We do NOT “recycle by number” — the universal recycling symbol does NOT



PHOTO | COURTESY OF ENVIRONMENTAL CENTER

- mean something is recyclable, it tells us what kind of chemicals are in the material
- NO cups of any kind (neither paper nor plastic)
 - NO plastic clamshells
 - NO plastic film of any sort in your curbside bin

For more information about recycling, to sign up for our newsletter or to download the Rethink Waste Guide, visit our RethinkWasteProject.org/Recycle.

Rethink Waste Project is an Environmental Center program partnering with Deschutes County’s Department of Solid Waste and local garbage service providers to deliver consistent and accurate waste reduction information to all residents in the county. Contact Ani Kasch: ani@envirocenter.org with questions or to set up a free virtual presentation.

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Recycled Products & Services *(Listed Alphabetically)*

▶ CONTINUED FROM PAGE 20

Company / Address	Phone	Fax	WebSite/Email	Contact	Staff	CO Year Est.	Services
Opportunity Foundation of Central Oregon - Madras 1412 SW Hwy. 97 Madras, OR 97741	541-475-6961	541-475-6971	www.opportunityfound.org info@opportunityfound.org	Kirstin Nilles	335	1965	Designated drop spot for electronic recycling, Thrift store.
Opportunity Foundation of Central Oregon - Redmond 835 E. Hwy. 126, 3294 S Hwy. 97 PO Box 430 Redmond, OR 97756	541-548-5288	541-504-2115	www.opportunityfound.org info@opportunityfound.org	Marti Rasmussen	335	1965	Designated drop site for electronic waste recycling, Thrift store.
Printer Resources & Recycling, LLC 2669 NE Twin Knolls Dr., Ste. 205 Bend, OR 97701	541-318-5211	541-382-7882	www.MyPrinterResources.com frank@myprinterresources.com	Jennifer Clark, Mark Giltner, Frank Patka, Mickey Meszaro	6	2000	Printer, multifunction, copier, plotter service & supplies. Discounted quality toner & inks, E-waste recycling services - printers, faxes, desktop copiers, computers, monitors, toners, inks, cell phones, home batteries; IT services.
Redmond Habitat for Humanity ReStore 1242 S Hwy. 97 PO Box 692 Redmond, OR 97756	541-548-1406	541-504-5485	www.redmondhfh.org sbrown@brhabitat.org	Scott Brown	6	2005	Offering quality donated building materials, appliances, & furnishings in support of affordable housing. Bend-Redmond Habitat for Humanity provides affordable housing for hardworking local families & individuals. ReStores are used & surplus building supply outlets, offering a great selection of building material, appliances & furniture at deeply discounted prices. Proceeds from the ReStores in Bend & Redmond support Bend-Redmond Habitat for Humanity operations.
Republic Services (formerly SecureShred) 20835 NE Montana Wy. Bend, OR 97701	541-382-2263	541-383-3640	bendgarbage.com sbaker6@republicservices.com	Kristin Steiner	2	2003	Complete on-site document destruction. Serving all of Central Oregon.
Schnitzer Steel 110 SE Fifth St. Bend, OR 97702	541-382-8471	541-382-3893	www.schnitzersteel.com sdoyle@schn.com	Scott Doyle	5	1971	Scrap metal recycling.
Sisters Habitat for Humanity ReStore 254 W Adams PO Box 238 Sisters, OR 97759	541-549-1621	N/A	www.sistershabitat.org sharlene@sistershabitat.org	Sharlene Weed	4	2007	New & used building supplies, home furnishings & appliances.
Sisters Habitat for Humanity Thrift Store 211 E Cascade Ave. Sisters, OR 97759	541-549-1193	541-549-6695	www.sistershabitat.org sharlene@sistershabitat.org	Sharlene Weed	4	2007	Recycled clothing, books, crafting supplies, dishes & vintage items.
Strive Workplace Solutions 63011 Plateau Dr., Ste. 1 Bend, OR 97701	541-382-6688	541-389-1762	www.striveoffice.com kathym@striveoffice.com	Kathy Madison	5	1969	Office supplies, furniture, office machines, design planning, printing, janitorial & break room supplies.
Swift & McCormick Metal Inc. 3192 NE Sedgewick Ave. Redmond, OR 97756	541-548-4448	541-548-4061	carol.smmetals@yahoo.com	Dan McCormick	11	1987	Scrap metal recycling.
The Broomsmen 827 SE Business Way, Ste. M Bend, OR 97702	541-213-1131	N/A	www.thebroomsmen.com info@TheBroomsmen.com	Phillip Torchio	7	2015	Zero waste events, wedding services: event setup & cleanup, by appointment only. We work with your event team to ensure your waste & recycling is managed in a sustainable manner, whether planning a small fundraiser or a large music festival.
Tire Disposal & Recycling PO Box 177 Prineville, OR 97754	541-447-5121	541-416-9339	www.tiredisposal-recycling.com	Kevin Dehart	12	1988	Disposal of tires.

CBN has made every effort to ensure that all information is accurate and up-to-date. We cannot, however, guarantee it. Please contact us immediately if you know that certain information is not correct or you would like to be added to a list, 541-388-5665 or email cbn@cascadebusnews.com.

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The Shape of Economic Recovery

by ED WETTIG, CFP — Wettig Capital Management

On June 8, 2020, the National Bureau of Economic Research (NBER), which has official responsibility for determining U.S. business cycles, announced that February 2020 marked the end of an expansion that began in 2009 and the beginning of a recession.¹

This was no great surprise considering widespread business closures due to the coronavirus pandemic and the resulting spike in unemployment, but it was an unusually quick official announcement.

The NBER defines a recession as, “a decline in economic activity that lasts more than a few months,” so it typically takes from six months to a year to determine when a recession started. In this case, the NBER’s Business Cycle Dating Committee concluded that “the unprecedented magnitude of the decline in employment and production, and its broad reach across the entire economy,” warrants the designation of a recession, “even if it turns out to be briefer than earlier contractions.”²

Another common definition of a recession is two or more quarters of negative growth in gross domestic product (GDP), and it’s clear that the current situation will meet that test. The U.S. economy shrank at an annual rate of 5 percent in the first quarter of 2020 — a significant but deceptively small decline, because the economy was strong during the first part of the quarter.³

The Atlanta Fed then estimated that GDP would drop at a 35.5 percent annual rate in the second quarter.⁴ By comparison, the largest quarterly drop since World War II was 10 percent in the first quarter of 1958, followed by 8.4 percent in the fourth



quarter of 2008.⁵ The actual second quarter GDP drop was a 31.4 percent annual rate. That was by all measures, the low point of the 2020 economy.

Most economists believe that GDP will turn upward in the third quarter as businesses continue to open.⁶ Bank of America lifted their third-

quarter forecast to 27 percent from 15 percent recently. But with the extreme decline in business activity during the first half of 2020, it will take sustained growth to return the economy to its pre-recession level. In its June economic projections, the Federal Reserve Open Market Committee projected a 6.5 percent annual drop in GDP for 2020, followed by 5.0 percent growth in 2021 and 3.5 percent growth in 2022.⁷ The simple math of these projections suggests the economy may not return to its 2019 level until 2022.

BY THE LETTERS

Economists traditionally view economic recessions and recoveries as having a shape, named after the letter it resembles.

V-shaped — a rapid fall followed by a quick rebound to previous levels. The 1990-91 recession, which lasted only eight months and was followed by strong economic growth, was V-shaped. This type of recovery would require control of COVID-19 through testing and treatment, a quick ramp-up of business activity and a return to pre-recession spending habits by consumers.⁸⁻⁹

U-shaped — an extended recession before the economy returns to previous levels. The Great Recession, which lasted 18 months followed by a slow recovery, was U-shaped. If COVID-19 takes longer to control and the economy does not bounce back as expected in the

third quarter, the current recession could be prolonged.¹⁰⁻¹¹

W-shaped — a “double-dip” recession in which a quick recovery begins but drops back sharply before beginning again. The U.S. economy experienced a W-shaped recession in 1980-82, when a second oil crisis and high inflation triggered a brief recession, followed by a quick recovery and another recession sparked by overly aggressive anti-inflation policies by the Federal Reserve. This type of recession could occur if a second wave of COVID-19 forces businesses to shut down again later in the year, just as the economy is recovering.¹²⁻¹³

L-shaped — a steep drop followed by a long period of high unemployment and low economic output. The Great Depression, which lasted 43 months with four straight years of negative GDP growth, was L-shaped. This is unlikely in the current environment, considering the strength of the U.S. economy before COVID-19 and the unprecedented economic support from the Federal Reserve.¹⁴⁻¹⁵

A SWOOSH

In the July Economic Forecasting Survey by *The Wall Street Journal*, which polls more than 60 U.S. economists each month, 13.0 percent of respondents thought the recovery would be V-shaped, 11.1 percent expected it to be W-shaped, 5.5 percent indicated it would be U-shaped and none thought it would be L-shaped.¹⁶

The vast majority — 70.4 percent — believed the recovery would take a “Nike swoosh” shape, which suggests a sharp drop followed by a long, slow recovery.¹⁷ This view factors in the possibility that businesses may be slow to rehire, and consumers could be slow to resume pre-recession spending patterns. It also considers that some businesses may be

impacted longer than others. Airlines do not expect to return to pre-COVID passenger activity until 2022, and movie theaters, beauty salons, sporting events and other high-contact businesses may struggle until a vaccine is developed.¹⁸

Adding to the prognosis for a slow recovery is the fact that the rest of the world is also fighting the pandemic, including many countries where growth was already more sluggish than in the United States. And if the virus resurges in the fall or early 2021, the recovery may turn jagged with significant setbacks along the way.¹⁹

While the general consensus suggests that the duration of the actual recession may be brief, it is much too early to know the true shape of the recovery. However, the economy will recover, as it has in even more challenging situations. All of these projections indicate that a key factor in determining the shape of recovery will be control of COVID-19. Beyond that, the underlying question is whether the virus has fundamentally changed the U.S. and global economies.

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^{1-2, 8, 10, 12, 14} National Bureau of Economic Research, June 2020

^{3, 5, 15} U.S. Bureau of Economic Analysis, June 2020

⁴ Federal Reserve Bank of Atlanta, July 9, 2020

^{6, 16-17} The Wall Street Journal Economic Forecasting Survey, July 2020

⁷ Federal Reserve, June 10, 2020

^{9, 11, 13} Forbes Advisor, June 8, 2020

¹⁸⁻¹⁹ The Wall Street Journal, May 11, 2020

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Samantha Corti

KPOV 88.9 FM has hired **Samantha Corti** as the radio station's new development director. She replaces Bruce Morris, who was promoted to station manager following the retirement of former Station Manager Jill Mahler in mid-September.

Corti has ten years of nonprofit experience, specializing in fundraising and event support. She is originally from New Hampshire and has spent the past six years in Northern California where she focused on stewarding major individual and business donors to create sustaining relationships.

In her last job, Corti was the first person hired at a new nonprofit, where she created a development strategy from the ground up and organized several events and major donor campaigns in the first year of operation. She enjoys skiing and backpacking, and looks forward to settling in

Central Oregon with her husband John and her Husky Kylo Ren.

Summit Medical Group Oregon
Internal Medicine and Behavioral Health expands.

Elana Fedor, MD, is the newest member of Summit Medical Group Oregon's Internal Medicine team. Fedor is board certified in internal medicine and completed her medical education, with honors, at New York University School of Medicine in New York City. Her internship and residency training were completed at the New York University Medical Center/Bellevue Hospital Residency Program in Internal Medicine, where she later joined the faculty as an Assistant Professor of Internal Medicine. Fedor is a general internist with 24 years of post-residency experience and has taken care of patients of various demographics, from teenagers to patients over 100 years old.



Elana Fedor



David G. Downing

David G. Downing, PsyD, recently joined Summit Medical Group Oregon's Behavioral Health team. He received his undergraduate degree in psychology from Oregon State University in Corvallis. Downing earned both a master of arts degree in clinical psychology and his doctor of psychology from Xavier University in Cincinnati, Ohio, where he also completed his dissertation, *Cancer-related Masculine Threat, Body Compassion and Prostate-Specific Functioning in Prostate Cancer Patients*. Downing completed his predoctoral internship in geropsychology at Miami Veterans Affairs Health Care System and postdoctoral fellowship in palliative care psychology at the Portland Veterans Affairs Health Care System. His area of expertise is working with adults and elderly patients who are coping with advance illnesses including metastatic cancers, end-stage renal disease and congestive heart failure. He also treats patients with chronic pain, sleep difficulties (insomnia) and other physical concerns.

Hospice of Redmond announced that **Rachel Carver** won the National Hospice and Palliative Care Organization (NHPCO) award for Volunteer of the Year 2020. The NHPCO recognizes five national recipients from thousands of nominees for this award each year.

Nominees for this award are evaluated on several key criteria including their commitment of time, longevity of service, the impact the volunteer has had on patients and families in the organization, personal growth of the volunteer and how they have served as an inspiration to fellow volunteers.

The volunteers are the Foundation of Hospice Awards recognized hospice volunteers who best reflect the universal concept of volunteerism in its truest sense — serving as an inspiration to others. The award for the category, Organizational Support, recognizes volunteers who support the hospice organization as a whole. These volunteers help the organization in various ways, including fundraising, board service, outreach and administrative support.

A native Oregonian, Carver was born and raised in Central Oregon. Shortly after retiring in 2014, she began volunteering at Hospice of Redmond. Carver's mother was in hospice care from 1999-2000. The experience of watching her mother go through hospice deepened her respect and admiration for the

nurses, staff and volunteers, which prompted her to want to give back through hospice volunteer work.



Laura Ghinazzi

SEND Transportation, Bend's first employee-owned logistics company, is expanding to provide personal and business moving services.

Heading up the expansion is **Laura Ghinazzi**. Ghinazzi started in the moving industry in 2012 while living in Park City, Utah. She started Traverso Moving in 2018, completing moves in over 25 states. She has since merged with SEND to form a one-stop moving service.

AP Equipment Financing has hired **Alfred ("Al") E. Steinhause** as a senior vice president of development and sales. Steinhause has over 35 years of experience in banking and equipment finance at prominent finance companies including The Associates/Citicapital, F & M Bank & Trust, GE Capital Solutions and Simmons Bank.



Alfred Steinhause



Jessica Blue

Jessica Blue is a welcome addition to the **Central Oregon Windermere Family**. Blue has experience in several aspects of the industry. She is service oriented, and her clientele know and trust her to represent them with the utmost care and professionalism. Blue also exudes enthusiasm and a genuine positive attitude.

Precision Body & Paint of Bend has received word that our Honda Pro-First certification has been renewed. This means we will continue to serve Honda & Acura owners in Central Oregon as our region's only Honda/Acura-certified collision repair facility.

Honda & Acura vehicles are engineered with materials that often require specific tools, training and equipment for proper repair. As a Honda/Acura ProFirst Certified shop, they have successfully completed all Honda's requirements to remain up to date.

Prior to receiving this notification, they passed a stringent Honda inspection to verify proper equipment, facility cleanliness and overall shop operation. Training verification is performed on an ongoing basis.

NewsChannel 21 at Sunrise welcomes **Rhea Panella** and **Arielle Brumfield**, joining Chief Meteorologist Bob Shaw, to co-anchor the morning show. Brumfield is an award-winning journalist receiving a first-place award for Northwest Excellence in Journalism from the Society of Professional Journalists. Panella has done an excellent job anchoring the Sunday evening news and will bring her professionalism and talent to the Sunrise team.

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Local Credit Union Receives Financial Literacy Award

Credit Union National Association Acknowledges Mid Oregon's Work Educating High School Students about Budgeting & Money Management

Mid Oregon Credit Union has been recognized by the Credit Union National Association (CUNA) in the northwest region with an Alphonse Desjardins Youth and Adult Financial Education Award. Mid Oregon's Bite of Reality program received accolades for teaching high school students about budgeting and money management.

The Bite of Reality program app guides students through a day-in-the-life simulation of an adult's financial responsibilities. Each student receives an occupation, income, partner, child and possible debt using an app. The student purchases necessities, including rent/mortgage, car payment, groceries and lifestyle items. They also navigate financial setbacks, such as medical emergencies, surprise bills and cash windfalls. Last year, Mid Oregon Credit Union hosted three Bite of Reality events attended by 120 students from Central Oregon schools. The credit union also regularly presents free financial workshops for adults.

On December 2, eight credit unions from Idaho, Oregon and Washington will receive regional CUNA awards at the Northwest Credit Union Association's virtual awards celebration.

"We are honored to be recognized by CUNA in our region. It's rewarding to see our community efforts with financial literacy, especially those focused on younger generations, achieve recognition. We look forward to expanding this program to more schools in the future," says Kyle Frick, VP of Marketing for Mid Oregon Credit Union.

midoregon.com • cuna.org • nwcua.org



MID OREGON CREDIT UNION'S TEAM MEMBERS (KYLE FRICK, JODIE ROGERS, TIFFANY DYER - IN THE PHOTO, AND WAYNE HANSON) WHO WORKED ON THE BITE OF REALITY PROGRAM RECOGNIZED WITH A CUNA ALPHONSE DESJARDINS YOUTH AND ADULT FINANCIAL EDUCATION AWARD | PHOTO COURTESY OF MID OREGON CREDIT UNION

Businesses Serving Community



100+ WOMEN WHO CARE CENTRAL OREGON

100+ Women Who Care of Central Oregon members continue with the work they started in 2014, even due to COVID, and raised a collective **\$19,500** (and counting) for three area nonprofits: Mountain Star Relief Nursery, \$5,700; Treehouse Therapies, \$7,350 and Every Child of Central Oregon, \$6,450.

Mountain Star Relief Nursery: Funds will be used for their Outreach Program, the first and essential step when families in crisis are reaching out for help.

Treehouse Therapies: Funds will be used to renovate a pool/changing room/roof at a newly acquired facility in Redmond to allow aqua therapy for children.

Every Child Central Oregon: uplift families impacted by foster care to ensure the basic needs, such as clothing, toys, car seats and toiletries of vulnerable children in foster care are being met.



J BAR J

Rotary Club of Greater Bend recently presented the second of three \$25,000 checks to J Bar J — part of their \$75,000 commitment to J Bar J's Vocational Training school.

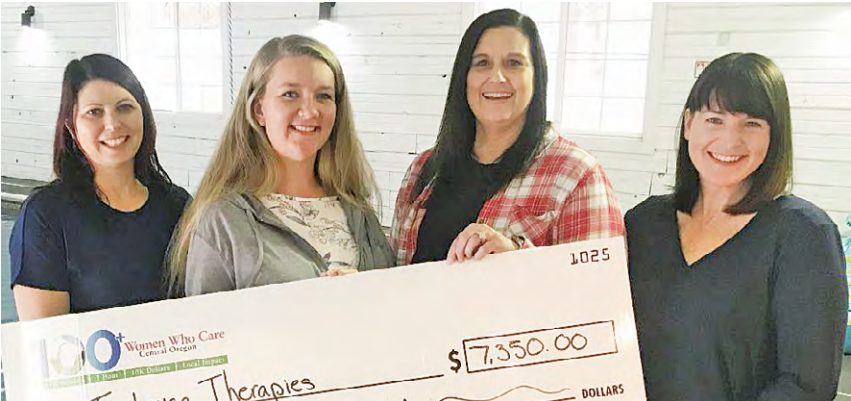
Vocational training for youth in the J Bar J suite of services is, at minimum, beneficial to the long-term work success of many of the youth — and often essential in preventing recidivism and to providing a successful path into adulthood.



PHOTO | COURTESY OF J BAR J

To support that goal, J Bar J, along with Rotary Club of Greater Bend and the greater Bend Community, have built a Vocational Training school that houses a classroom and shop the kids will use to learn building trades, auto mechanics and other vocational subjects. Core curriculum provided by Paxton/Patterson for construction trades, and a Construction Site Safety Orientation Certificate will be earned from the National Center for Construction Education (NCCER).

A curriculum instructor has been hired to the teaching staff to assure kids will also complete a GED or achieve a high school diploma as they work to learn a vocation that they can take with them when they leave the J Bar J program.



BEND-REDMOND HABITAT FOR HUMANITY

Bend-Redmond Habitat for Humanity recently received a \$4,900 grant from the U.S. Bank Foundation to help the organization build an affordable home for a local family in need. The home will be constructed at Habitat's property in Redmond called Quince Townhomes. Once completed, the site will be home to ten families.

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Seven Local Students Earn National Merit Semi-Finalist Honor

Two Bend Senior High School & Five Summit High School Students Earn Distinction

Seven Bend-La Pine Schools' students have earned top academic recognition as National Merit Semi-Finalists. Bend Senior High School students Grace Bengtson and Kylie Eckert and Summit High School students Kent Koehler, Chase McDonald, Alex Shaffer, Hannah Song and Owen Wheary are among the more than 180 students in Oregon to earn this prestigious distinction from the National Merit Scholarship Program.

"We are proud of this outstanding accomplishment by these dedicated students, who have clearly pursued academic excellence," said Interim Superintendent Lora Nordquist.

Grace Bengtson – Bend Senior High

Bengtson, 18, is fascinated with languages, and plans to become a translator/interpreter. She would like to attend either the University of British Columbia, the University of Oregon or another Pacific Northwest university, where she plans to study modern languages, specifically Spanish and French. Bengtson enjoys playing the piano and singing in the choir, and also runs cross-country.

Kylie Eckert – Bend Senior High

Eckert, 17, plans to go into biomedical engineering, and will attend a four-year university next fall. Eckert is a cyclist, and races cyclocross and mountain biking for Cascadia Junior Cycling. She has also volunteered as a coach for the organization's youth programs. In addition, Eckert was a NASA SEES (STEM Enhancement in Earth Science) intern on the Mosquito Mappers team this year, and in her free time enjoys sewing and painting.

Kent Koehler - Summit

Koehler, 18, would like to one day become a college professor, and has plans to study physics in college next fall, though he's not yet sure which university he'll attend. Koehler plays tennis, enjoys computer science and tutoring and has been a camp counselor at the Bend Science Station.

Chase McDonald – Summit

McDonald, 17, dreams of being a computer programmer as he loves all of the



SEVEN LOCAL NATIONAL MERIT SEMI-FINALISTS FROM BEND-LA PINE SCHOOLS INCLUDE (TOP ROW) GRACE BENGTSON, KYLIE ECKERT, KENT KOEHLER AND (BOTTOM ROW) CHASE MCDONALD, ALEX SHAFFER, HANNAH SONG AND OWEN WHEARY | PHOTOS COURTESY OF BEND-LA PINE SCHOOL DISTRICT

math that's involved in the subject. He'll start by studying computer science in college, though he's not yet sure which one. McDonald is also an accomplished rock climber, and has competed in competitions at the national level and enjoys playing classical guitar and camping with his family.

Alex Shaffer – Summit

Shaffer, 17, conducts independent research at the Bend Science Station, where he currently is looking at how to combat ocean acidification. Last year, he conducted research on European Honey Bees. Shaffer is also active in Speech and Debate. While Shaffer is not yet sure on where he'll attend college next year, he is interested in studying applied mathematics or physics, and would like to either pursue a PhD in a STEM field and go into academia, or pursue law after undergraduate study.

Hannah Song – Summit

Song, 17, plans to study mechanical engineering and is currently applying to colleges. She is active in the Diversity and Equity Club, the Spanish National Honor Society and Summit Winds, and enjoys philosophy, knitting and the comfort of a rocking chair.

Owen Wheary – Summit

Wheary, 17, dreams of becoming a computer programmer, and as such plans to study computer science in college, though he's not sure yet which one. Wheary is also active in robotics.

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BendTel Earns Diamond Status for the Fourth Year

BendTel, Inc. has earned "Diamond" status in the NEC Corporation of America's (NEC) Smart Partner Program for the fourth year in a row. Diamond status is earned by NEC phone system dealers that meet exceptional business standards, sales achievements and adhere to the strict requirements established by NEC.

The NEC's Smart Partner Program is comprised of an elite group of dealers who promote the highest standards within the NEC dealer network. Their sales and technical staff are required to perform a series of rigorous training and maintain course certifications. NEC dealers that achieve the Diamond status show commitment to maintaining exemplary product knowledge when designing, deploying and maintaining customer networks.



PHOTO | COURTESY OF BENDTEL

bendtel.com

Annual Comedy for Kids' Sake is November 12

Big Brothers Big Sisters of Central Oregon invites you to a hilariously beneficial evening of comedy, auctions and awards.

This year, let BBBSCO join you, Thursday November 12, in your home for our virtual gala and help us end the wait for so many Littles in our area. We invite you to set up your own party pod and enjoy an evening with friends and family participating in a safely distanced atmosphere, bidding on your favorite auction items, viewing our video presentation, and contributing to our cause in a way that is comfortable for you. Learn more about Party Pod Packages.

The event will kick off on November 5 as we open our online bidding platform to the public. Discover old favorites and new additions to our silent auction. Then we will roll out our Live Auction items over the next six days until the day of our event. Stay tuned, on November 12, as we release our video presentation filled with beneficial humor, caring information and a joyful award on our YouTube channel. Watch, bid, laugh, donate and ignite potential.

Don't get BBBSCO CFKS FOMO! The only cure is to host a BBBSCO Comedy Night party pod. A variety of party pod options are available to support your night. Contact Jenni Garner, BBBSCO events coordinator, for more details and the opportunity to sign up. Party Pod spots and supplies are limited so get yours

reserved today.

Although we cannot all be together in one room to celebrate this year, we will all be together in one community, on one night, for one cause! Join us and become a DEFENDER OF POTENTIAL and help end the wait for those Littles who need us.

Children benefit from a caring adult mentor who can inspire their potential. Studies show youth with mentors do better in school and reach higher levels of education than those without. Hundreds of kids in our region, from Madras to La Pine, need quality adult mentors. You have the power to defend the potential that is in all youth and assist Big Brothers Big Sisters of Central Oregon with their goals, and change a life for the better, forever.

Note: when you arrive at the auction landing page, press start bidding to be taken to the registration page.

For any questions please email or call Eva Gill, marketing creative of J Bar J Youth Services, at 541-480-7407.

jbarj.org

COPA Leads Project to Distribute 15,000 Free Masks to Kids in Central Oregon

Central Oregon Pediatric Associates (COPA) is pleased to announce a partnership with Pacific Source and Central Oregon Health Council (COHC) resulting in the purchase and distribution of high quality and reusable face masks to 15,000 children in Central Oregon at no cost to the families. The Masks for Children Project can help reduce the spread of disease so that kids can return to classrooms, parents can get back to work and the community can continue to thrive.

The Masks for Children Project supports the tremendous need among children to have comfortable, washable and pediatric-size face masks they can use daily as recommended by the CDC and Oregon Health Authority.

COPA doctors in July piloted a program with Blackstrap, a Bend-based clothing accessories manufacturer, to produce kid-sized masks designed specifically for COPA patients. The masks have a four-way stretch made with top quality, high-tech fabrics that are breathable and comfortable and made in the USA. COPA initially purchased 4,000 masks for the pilot and gave them to patients free of charge, with highly positive reviews on comfort and style.

After the initial pilot, COPA's CEO, Wade Miller, reached out to Pacific Source and COHC for a grant to further expand the program and distribute masks to thousands more children in the region, in both small and adult sizes for kids of all ages. Both organizations were enthusiastic about the benefits of the project and immediately approved the funding.

Deschutes Children's Foundation (DCF) agreed to support the project by

assisting in communications and distribution of the masks through regional nonprofits in Deschutes, Crook and Jefferson Counties.

"From the first news of COVID-19, we've worked nonstop to keep the community safe and we believe this innovative partnership between COPA, Pacific Source, COHC and nonprofits will help in a big way. The Blackstrap masks are terrific, and kids love them, so they're more likely to keep them on," said Miller.

Free masks for children are currently available to patients of COPA and all children through select nonprofits in the tri-county region through Deschutes Children's Foundation.

copakids.com

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Medical Technology Company Raises Nearly \$278 Million as First OSU Spinout to Go Public

by STEVE LUNDEBERG — Oregon State University

A medical technology company founded on Oregon State University intellectual property has become the first OSU spinout to go public, raising nearly \$278 million in its initial public offering.

The almost 10.3 million shares in Outset Medical bore an opening price of \$27 on the Nasdaq and saw their value double in two days.

Founded in 2003 as Home Dialysis Plus and securing an option to OSU intellectual property the following year, Outset Medical now makes the Tablo system of hemodialysis — blood pumped out of the body to an artificial kidney machine.

During and after the company’s founding, multiple faculty from OSU’s colleges of Engineering and Science served as researchers and consultants, including Brian Paul, Goran Jovanovic, Todd Miller, Vince Remcho and the late Richard Peterson, on the core Oregon State IP: microchannel dialyzers and a microchannel heat exchanger.

Oregon State and the company transformed the option deal into a full IP license in 2008, and between 2010 and 2018 the company secured private investments of more than \$300 million.

Outset continues to contract with Oregon State on the refinement of the heat exchanger technology.

“It’s essentially a small-scale, efficient, water purification technology that would allow the use of tap water in dialysis as opposed to gallons and gallons of pre-purified water, expanding capabilities in developing countries,” said Brian Wall, associate vice president of research, innovation and economic impact at Oregon State. “They are now targeting and focusing investment in it over the next year to see if we can get it to a price point that works for the market. Outset is a terrific example of the kind of company OSU is proud to partner with, one that improves peoples’ lives while driving the creation of jobs, truly maximizing our impact.”

oregonstate.edu

COVID-19 Update from St. Charles Health System

by JOE SLUKA, President & CEO — St. Charles Health System

In the past seven months, 22 people have died in Central Oregon because of the COVID-19 pandemic.

Since March, 1,598 Central Oregonians have been struck ill with this virus — many of them have had significant health impacts and some have had a protracted illness with long-lasting symptoms.

So far, 150 people have been discharged from a St. Charles hospital after needing care related to COVID-19. Of those, 31 have spent time in the ICU. The average length of stay for an ICU patient with COVID-19 is more than 15 days.

Last week (October 3-9), we had another 97 positive COVID-19 cases in Central Oregon. That number is higher than it has been since early August.

And October 8 marked the highest number of positive COVID-19 cases in the state since the

pandemic began.

All of this is to say that COVID-19 continues to be a real and very serious threat. Our numbers are up, which translates to people needing costly intensive care that could result in a lifetime of health-related struggles.

Families throughout our region are mourning the loved ones they have lost.

No matter how fatigued you may be by the restrictions in place and changes to our lives, we can’t give up. In fact, now is the time to continue staying strong and fighting even harder to protect ourselves and our loved ones.

Several medical providers in our Central Oregon communities have messages to share with you about why all of this remains important. Please

take a moment to listen to Dr. Natalie Good from Prineville, Dr. Alwin Borgmann of La Pine and Dr. Shiloh Tippet of Madras.

They understand that COVID-19 is serious. And they care about your health and the health of our communities. I hope you will listen to them. That you will continue to wash your hands, wear a mask, physically distance yourself from others and stay home whenever possible.

I also hope you will take the advice of our medical professionals and be sure to get your flu shot as soon as possible. Dr. Sanaz Askari shares why this year the flu shot is more important than ever.

Stay strong Central Oregon. Together, we will get through this.

stcharleshealthcare.org

See Your PT Annually for Injury Prevention, Early Intervention

We all know that visiting your physician for an annual physical is important for maintaining long-term health. Similarly, dental exams twice each year help ensure oral health throughout a lifetime.

But, did you know that annual physical therapy check-ups provide the third critical (and often overlooked) component of long-term health and preventative care for people of all ages?

As we observe National Physical Therapy Month each October, Bend physical therapist Rob Hollander notes that physical therapy exams focus on one’s ability to move freely and independently while living a safe and active life.

“The primary focus of a physical therapist is the musculoskeletal system — the bones, joints, muscles and connective tissues that make it possible for you to not just move, but experience life on your own terms,” said Hollander, co-owner of Alpine Physical Therapy in Bend.

“As a physical therapist, my job is to ensure this system is working optimally so limitations like strength, balance, flexibility, pain and so on don’t stand in the way of a person’s quality of life.”

Based on the results of a physical therapy check-up, a physical therapist is able to provide clients with individualized treatment plans and/or programs meant to help prevent future, movement-limiting problems.

The goal of these assessments and related interventions is to ensure a high quality of life for those who wish to stay active and independent. As part of this, physical therapists are often able to identify issues that may lead to long-term health problems, such as pain, injury and disease.

“Movement is medicine, and being able to stay physically active plays a huge role in disease prevention, managing chronic conditions and, in general, taking

greater control of your health,” Hollander said. “We as physical therapists help people avoid pain, injury and other issues that could lead them toward becoming more sedentary and at greater risk of these types of issues.”

According to the American Association of Physical Therapy (APTA), physical therapists are highly skilled, licensed health care professionals who help patients reduce pain and improve or restore mobility.

During a preventative check-up, a physical therapist will evaluate such things as movement and injury history, balance, aerobic capacity, functional strength, flexibility and quality of movement (i.e., gait, reach, bending, etc.).

In addition, a physical therapist will work with each person to address any personal limitations, weaknesses, pain or other impairments that may be holding them back from reaching lifestyle and movement goals.

“We recommend that, just as with their personal physicians, people should see a physical therapist for a check-up once each year,” Hollander said. Physical therapy check-ups should also be considered:

- Whenever one experiences pain, discomfort or strain when doing an activity they enjoy.
- Whenever one is considering a new fitness or training program, or starting a new sport.
- Following the completion of post-surgery rehab, when trying to resume normal activities.
- Or, after any surgery or condition that has led to bed rest.

alpinephysicaltherapy.com

Central Oregon Business Calendar

October 21-November 18
Oregon State University Virtual Career Fair.

October 21
7pm City of Bend City Council Regular Business Virtual Meeting.

October 22
2:30-4pm 2020 Made in Crook County Hybrid Tour.

October 22
5:45 COCC Virtual Board Meeting.

October 22
7-8pm City Club of Central Oregon and League of Women Voters of Deschutes County 2020 Election Candidate Forum, Bend City Council Position 1 and 3.

October 23
8:30am Redmond Chamber Virtual Coffee Clatter.

October 24
10am-2pm St. Charles Medication Take-Back Event at St. Charles Bend Campus.

October 27
7pm Think Wild Virtual Wildlife Trivia, Creatures of the Night.

October 29
5-5:45pm Cascades Academy Virtual Open House.

October 29
5:30-6:30pm City of Bend 2021 Neighborhood Street Safety Program Projects Virtual Open House.

October 30
8:30am Redmond Chamber Virtual Coffee Clatter.

Building Permits

COMMERCIAL PERMITS WEEK ENDING 10-2-2020

City of Bend

- \$124,000.00 - Commercial Alteration (NW Kind Marijuana) 6,270 sf. at 145 SE Logsden St. Bend 97702 OR
Owner: Twin Lakes Investments, LLC 2534 NE Community Ln. Bend, OR 97701 Permit # 20-1942
- \$32,000.00 - Commercial (Summit Park) at 2017 NE Full Moon Dr. Bend 97701 OR
Owner: Bend Area Habitat for Humanity 224 NE Thurston Ave. Bend, OR 97701 Builder: Smalling Construction, Inc. 541-548-2250 Permit # 20-2782
- \$25,000.00 - Commercial Alteration (Old Mill Properties) at 807 SW Industrial Wy. Bend 97702 OR
Owner: Old Mill Properties, LLC 114 Pacifica #310 Irvine, CA 92618 Builder: Stilson Builders, Inc. 541-419-2556 Permit # 20-4030

Crook Co. & City of Prineville

- \$10,000.00 - Commercial Detached Accessory Structure (Picnic Shelter) 192 sf. at 800 NW Harwood St. Prineville 97754 OR
Owner: Crook County Parks & Rec District 296 S Main St. Prineville, OR 97754 Builder: SMAF Construction, LLC 541-447-5643 Permit # 217-20-004395-STR

COMMERCIAL PERMITS WEEK ENDING 10-9-2020

City of Bend

- \$4,241,795.00 - Multi-FD 40,603 sf. at 60853 SW Atwood Dr. Bend 97702 OR Owner: Stillwater Managers, LLC 131 S Higgins Ave. #P-1 Missoula, MT 59802
Builder: Headwaters Construction Co. 866-496-9868 Permit # 20-3238
- \$4,241,795.00 - Multi-FD 40,603 sf. at 60835 SW Atwood Dr. Bend 97702 OR Owner: Stillwater Managers, LLC 131 S Higgins Ave. #P-1 Missoula, MT 59802
Builder: Headwaters Construction Co. 866-496-9868 Permit # 20-3239
- \$2,644,706.00 - Multi-FD 25,296 sf. at 60828 SW Atwood Dr. Bend 97702 OR Owner: Stillwater Managers, LLC 131 S Higgins Ave. #P-1 Missoula, MT 59802
Builder: Headwaters Construction Co. 866-496-9868 Permit # 20-2792
- \$765,202.00 - Commercial (Stillwater Crossings Clubhouse) 4,947 sf. at 60847 SW Atwood Dr. Bend 97702 OR Owner: Stillwater Managers, LLC 131 S Higgins Ave. #P-1 Missoula, MT 59802
Builder: Headwaters Construction Co. 866-496-9868 Permit # 20-3253
- \$369,605.00 - Multi-FD 3,187 sf. at 1767 NE Lotus Dr. Bend 97701 OR Owner: Jamey J Julius 20525 Reed Market Rd. Bend, OR 97702
Builder: JJ Building & Design, LLC 541-390-6829 Permit # 20-0002
- \$100,000.00 - Commercial (Stillwater Crossings Management) 1,008 sf. at 60841 SW Atwood Dr. Bend 97702 OR Owner: Stillwater Managers, LLC 131 S Higgins Ave. #P-1 Missoula, MT 59802
Builder: Headwaters Construction Co. 866-496-9868 Permit # 20-3252

Deschutes County

- \$551,000.00 - Commercial Addition (City of Bend) 1,105 sf. at 22395 McGrath Rd. Bend 97701 OR
Owner: City of Bend PO Box 431 Bend, OR 97709 Builder: Slayden Constructors, Inc. 720-547-5400 Permit # 247-20-002102-STR
- \$31,298.00 - Commercial Detached Accessory Structure 648 sf. at 1100 W Williamson Ave. Bldg B Sisters 97759 OR
Owner: Hayden Homes, LLC 2464 SW Glacier Pl. Ste 110 Redmond, OR 97756 541-923-6607 Permit # 247-20-005954-STR
- \$31,298.00 - Commercial Detached Accessory Structure 648 sf. at 1100 W Williamson Ave. Bldg H Sisters 97759 OR
Owner: Hayden Homes, LLC 2464 SW Glacier Pl. Ste 110 Redmond, OR 97756 541-923-6607 Permit # 247-20-005961-STR
- \$23,474.00 - Commercial Detached Accessory Structure 648 sf. at 1100 W Williamson Ave. Bldg A Sisters 97759 OR
Owner: Hayden Homes, LLC 2464 SW Glacier Pl. Ste 110 Redmond, OR 97756 541-923-6607 Permit # 247-20-005953-STR
- \$23,474.00 - Commercial Detached Accessory Structure 648 sf. at 1100 W Williamson Ave. Bldg C Sisters 97759 OR
Owner: Hayden Homes, LLC 2464 SW Glacier Pl. Ste 110 Redmond, OR 97756 541-923-6607 Permit # 247-20-005955-STR
- \$23,474.00 - Commercial Detached Accessory Structure 648 sf. at 1100 W Williamson Ave. Bldg D Sisters 97759 OR
Owner: Hayden Homes, LLC 2464 SW Glacier Pl. Ste 110 Redmond, OR 97756 541-923-6607 Permit # 247-20-005956-STR
- \$23,474.00 - Commercial Detached Accessory Structure 648 sf. at 1100 W Williamson Ave. Bldg E Sisters 97759 OR
Owner: Hayden Homes, LLC 2464 SW Glacier Pl. Ste 110 Redmond, OR 97756 541-923-6607 Permit # 247-20-005958-STR
- \$23,474.00 - Commercial Detached Accessory Structure 648 sf. at 1100 W Williamson Ave. Bldg F Sisters 97759 OR
Owner: Hayden Homes, LLC 2464 SW Glacier Pl. Ste 110 Redmond, OR 97756 541-923-6607 Permit # 247-20-005959-STR
- \$23,474.00 - Commercial Detached Accessory Structure 648 sf. at 1100 W Williamson Ave. Bldg G Sisters 97759 OR
Owner: Hayden Homes, LLC 2464 SW Glacier Pl. Ste 110 Redmond, OR 97756 541-923-6607 Permit # 247-20-005960-STR

City of Redmond

- \$850,000.00 - Commercial Alteration 37,979 sf. at 1619 SW Odem Medo Rd. Redmond 97756 OR
Owner: Albany-Pacific, LLC Et Al PO Box 990 Minneapolis, MN 55440 Builder: Dickerhoof Construction, LLC 541-231-5977 Permit # 711-20-001356-STR

Measure 9-135

Continued from page 4

Obligation Bond of up to \$190 million to finance transportation improvements for the next ten years. The Bond will be repaid by an annual assessment on real property, estimated to cost property owners an average of 47 cents per \$1,000 of assessed value each year of the repayment period.

A home with a real market value of \$415,000 and assessed value of \$220,000 (Bend’s citywide averages) would pay about \$170 per year,” explained City Manager Eric King. “To put the cost in practical terms,” he added, “the Bond will cost the average Bend homeowner around 50 cents a day, or \$15 a month over the life of the bonds.” And given the uncertainty with our economy, taxes won’t be levied until 2022 and average annual costs will remain at \$30 per year for the first few years of the bond period.

Accountability

Citizen Oversight — In order to ensure accountability and transparency for the use of the Bond funds, the City Council also voted unanimously to establish a public bond oversight committee to track progress and report to the community over the ten-year construction period.

“The City of Bend has a good track record with this type of bond-funded construction,” added Mayor Russell. In 2011, Bend voters approved a \$30 million Bond for transportation upgrades. The City built 12.7 lane miles of new pavement, four roundabouts, 5.6 miles of sidewalks, 181 ADA-compliant curb ramps, 59 LED streetlights and storm drain improvements that reduced storm runoff into the Deschutes River by 94 percent. All these bond-funded projects were completed on time and on budget using the voter-approved funds.

gobend2020.com • bendoregon.gov/city-projects/safe-travel

The above article was prepared by the author in his/her own personal capacity. The opinions expressed in the article are the author’s own and do not necessarily reflect the views of Cascade Business News or of Cascade Publications Inc.

Steele Associates Architects

Continued from page 3

to begin work on this exciting facility.”

“The Forest Service would like to congratulate Steele Associates Architects on their selection to design the new Sisters Ranger District administrative site,” announced Ian Reid, Sisters District Ranger. “Steele Associates has strong ties to Sisters, as well as previous experience designing Forest Service buildings in Central Oregon. We’re really excited to work with Steele Associates and the City of Sisters to design a new ranger station that will support the community for generations to come.”

steele-arch.com

COIC

Continued from page 3

Additionally, even if a business or nonprofit was not prohibited from operations by the Governor’s Executive Order 20-12, the applicant could be eligible if they can demonstrate a 25 percent reduction in revenue (reduced from 50 percent previously required) over a 30-day period in 2020 compared to a comparable period in 2019. A complete overview of program guidelines and eligibility requirements is available at coic.org/grant.

As in previous rounds, eligible applicants must have 25 or fewer employees as of February 29, 2020, be located in Crook, Deschutes or Jefferson County, and current on all federal, state and local taxes. Sole proprietors are eligible and encouraged to apply! Nonprofit organizations must have federal 501c3 status to be eligible.

COIC is administering the delivery of this program in partnership with the OSU-Cascades Innovation Co-lab and a broad network of local and

regional partners, including: Crook, Deschutes and Jefferson counties; the cities of Bend, Madras and Redmond; the Warm Springs Community Action Team; Central Oregon Small Business Development Center (SBDC); Economic Development for Central Oregon (EDCO); the Latino Community Association; NeighborImpact; Opportunity Knocks and the La Pine, Sunriver, Bend, Sisters, Redmond, Prineville-Crook County and Madras-Jefferson County Chambers of Commerce.

This program is funded by the State of Oregon General Funds and Lottery Funds administered by the Oregon Business Development Department.

COIC was designated a Council of Governments in 1972 under ORS 190 and serves the local governments of Central Oregon. COIC provides regional services for employment and training, alternative high school education, business loans, planning and governance, community and economic development and public transportation services operated by Cascades East Transit.

coic.org

coic.org/grant

Campfire Hotel

Continued from page 3

in-room upgrades, a heated year-round pool and hot tub, community-inspired fire pit and an epic restaurant collaboration on the way.

In addition to modern amenities, you’ll find a few classics, too! Mid-century telephones, Victrola radios (with digital attachments, of course!), old-school folding lawn chairs to sit around the campfire and a number of acoustic instruments hanging on the walls, encouraging guests to play with pals or strangers at The Pit, our ten-foot circular fire pit surrounded by seating, perfect for a full-on camp-style sing-a-long.

The Campfire Hotel is the brainchild of Portland developers Tod Breslau, Kelsey Bunker, Chris Gunderson and Sasha Kirovski, who independently and collectively have developed the Jupiter Hotel/NEXT, The Hood River Hotel, the Bindery/Bindery Annex and the iconic Portland branding firm, Oregon Screen Impressions.

Co-owner Breslau, who grew up touring the states with his family fondly recalls pulling into a 1960’s Holiday Inn and Howard Johnson’s, checking in, jumping in the pool, playing outside and enjoying a classic diner meal. Breslau says of the new venture, “As the reality of the pandemic came upon us, the direction of travel, at least for a while, is moving towards the road trip. The Campfire captures that spirit with its crisp and simple amenities, its approach to vacation and adventure and its welcoming feel and vibe. The outdoor access and open space makes the Campfire a great alternative for Bend natives and visitors alike who want to experience the sun and fun you find in the city and in the

amazing outdoor adventures that Bend has to offer.”

With Bend being one of the West Coast’s premier active lifestyle and sports destinations, experiencing unprecedented growth and attracting new residents and visitors, the Campfire positions itself in the middle of it all. The hotel offers a landing spot for locals and visitors alike who are looking for the community vibes found at campsites while focusing on the luxuries associated with a cozy hotel stay. Plus, with proximity to Downtown Bend, guests will get the best of local craft beer, restaurants and boutique shopping that Bend has to offer.

The Pool Club includes year-round guest access to the heated pool and hot tub, surrounded by artist Ashley Montague’s epic Bend-inspired mural, complete with ways to laze the day away and soak up the sun in bright orange chairs and loungers throughout the outdoor space. Even locals will have access to the Pool Club through a seasonal small membership group.

The Canteen, the Campfire’s curated merch store and bar, features high-end local snacks, gifts for yourself and others and all the adventure gear you can ask for. Need a boozy beverage to help you wind down after a day on the slopes? The Canteen’s Lobby Bar, opening this winter, will provide the cabin vibes to go along with your craft beers, wine, complimentary hot coffee plus old-school board games and Instagram-worthy photo ops throughout.

Building community is a part of the Campfire’s culture. As restrictions lift throughout the state, events will abound at the Campfire, from local and traveling musicians in intimate shows around the Pit, to farmer’s markets and Bend artisan pop-ups. Come, gather round, and join us at the Campfire.

campfirehotel.com

Tech Trends

Continued from page 6

them with renewable energy sources.”

Solar-Powered Vehicles

Solar cars are rising in popularity. Technology enthusiasts realize solar energy is the future of renewable energy. Solar energy is a zero-emission source and is now cheaper than fossil fuels, which makes it the best alternative.

Hybrid solar cars have been around for a while, which proved the viability of solar-powered vehicles. Hyundai entered the market with its new version of its hybrid car, the Sonata. It was panned by critics as the panels didn’t provide sufficient power, only extending the range by two miles per day. Over the next 12 to 18 months we will see the entry of several production models using solar energy as its primary energy source with batteries providing storage for nights and cloudy days. The new Toyota Prius PHV will be primarily a commuter vehicle with a range of 60 miles per day (25 miles of daily solar range plus 35 miles of battery storage range), The Lightyear One will be the first long-range production automobile with a daily solar range of up to 43 miles plus battery range of 450 miles.

Back to the Oregon Solar Car Team. The team is fortunate to have a partnership with SunPower, who

donated the solar cells needed to power the car. Team members hand-solder them to custom-fit the car, then send the panels to California to be laminated. This gives the team a lot of flexibility with installation, with the panels configured for maximum density on the car’s surface. Their goal is to make their car as efficient as possible. Contributing factors to a car’s efficiency include the quality of the parts used, the overall weight, aerodynamics and its mechanical design.

Competition and Collaboration

The team is faced with all sorts of challenges, including funding, a lack of resources and restrictions on hours they can meet. Fortunately, they are not alone. They receive valuable help from other teams such as Stanford and OSU. For example, Cordell points out, “We received a major donation from Stanford University, providing us their molds for our carbon fiber body, which would have been cost-prohibitive to obtain on our own.” They want to win the competition just like all the other teams, but the camaraderie and collaboration make the race more of a “coopetition,” with everyone cheering each team’s attempt and providing assistance when needed.

The team is a fantastic example of people working together to demonstrate how solar energy works and its enormous potential for society. Remember the names of our fellow Bendites, Cordell and Mawdsley, and their passion for renewable energy, and our planet will no doubt make them leaders in their fields,

along with the rest of the team.

Next Up — Part 2

Part two in this series will be a deep dive into the exponential advances in solar technology and how other tech trends, such as software advances, are accelerating solar energy’s evolution.

Part three will peer into our crystal ball to see what the next ten to 20 years may hold for solar energy’s impact on society and the planet. Then we’ll speculate how solar energy will transform our world as we know it by the end of this century.

Find Out More

Oregonsolarcarteam.org; bit.ly/2020-Solar-Cars; bit.ly/Audi-and-Apollo-Power; bit.ly/Solar-Cars

About the Authors

Katelyn Mawdsley is the Financial and Social Media Captain on the Oregon Solar Car Team. Katelyn plans to become a veterinarian and open her own practice. Some of her passions include composing poetry and exploring new places.

Max Cordell has been part of the Oregon Solar Car Team since 2017 and is currently Team Captain. He specializes in programming and electrical systems. In his free time, Max likes exploring new technologies and tinkering with electronics.

Preston Callicott is a “tech-humanist”, advocating for embedding the best of human ideals into all systems we create, especially those driven by Artificial Intelligence. He wants humans to control AI, not the other way around.

Manufacturing

Continued from page 18

For this year’s Made in Redmond tour, REDI toured Composite Approach, a composite manufacturing company; Poltex; and Risse Racing, a maker of mountain bike suspension systems. “Two of these companies didn’t exist in the great recession, and one of them was in California,” says Stark. “They didn’t exist in Redmond at all. But now they employ 55 people and occupy nearly 50,000 square feet. This is a good example of what wasn’t

in existence during the great recession but has helped Redmond continue to its 88 percent growth in manufacturing over the past nine years. This is remarkable, and not found in other parts of the country. We are leading the way.” (To view the videos of the Made in Redmond tour, please visit the REDI YouTube channel at youtube.com/channel/UC90_tbvPPmgtT3PoH9ot78w.)

“Given some of the land-use constraints and inventory of industrial or light industrial land, some communities in our region are better positioned currently for manufacturing,” says Lee. “Redmond and Prineville are seeing the most activity; however there are active expansion

projects in Bend and Sisters as well. We have been very impressed by the ingenuity and resourcefulness of manufacturers in Central Oregon. Some initially lost 60-70 percent of their revenue (due to the pandemic), but have still found ways to claw back to greater viability and find new ways to generate revenue. Many more have been able to pivot the business and products they produce and are on pace to exceed 2019 sales. Business owners who are applying themselves and who are willing to take some calculated risks are also seeing some market gains.” He adds, “Right now, it’s all about adaptability.”

“Our manufacturing companies have

responded and pivoted well to COVID difficulties,” says Don Myll, Bend area director of EDCO. “Most our manufacturing companies have figured it out. They have been agile and are doing OK. It’s an indication of how Bend companies are team players.” He adds, “While many of our traded-sector companies suffered significant pain during the early stages of the pandemic, and some unfortunately still are, it has been inspiring to me to see the resiliency of many of our Bend companies that are successfully pivoting in this difficult situation.”

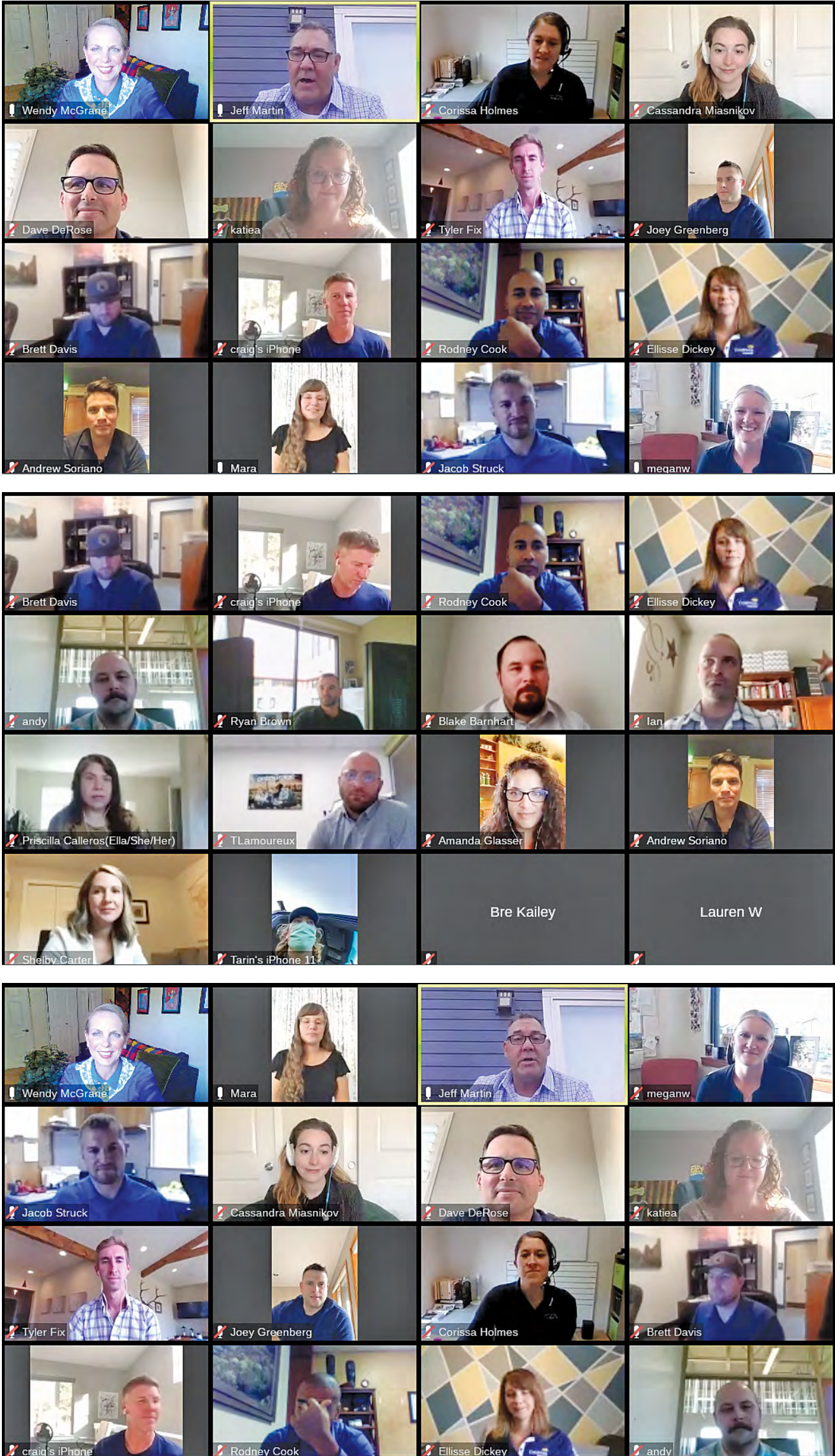
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