



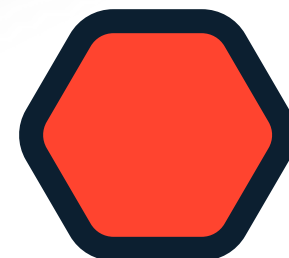
Simplifying Utilities:

Harnessing User-Friendly Technology
for Everyday Convenience

JOSH HAWLEY

Ziptility Coach
josh@ziptility.com





Coach Hawley

Golf Course Superintendent

Sports Bar GM

Town of Nashville - Laborer

CSCD - Utility Superintendent

CSCD - General Manager

Ziptility



IMPORTANT FACTS

50% of Operators



75% of Managers



- Where do we find people that will WANT to do this kind of work?
- Training Nightmares
- Wage War
- Certification Woes
- Retention Issues

- Knowledge Gap
- No Succession Plans
- Wage War
- Local Politics
- Small Pool of Talent
- What if you don't find anyone?

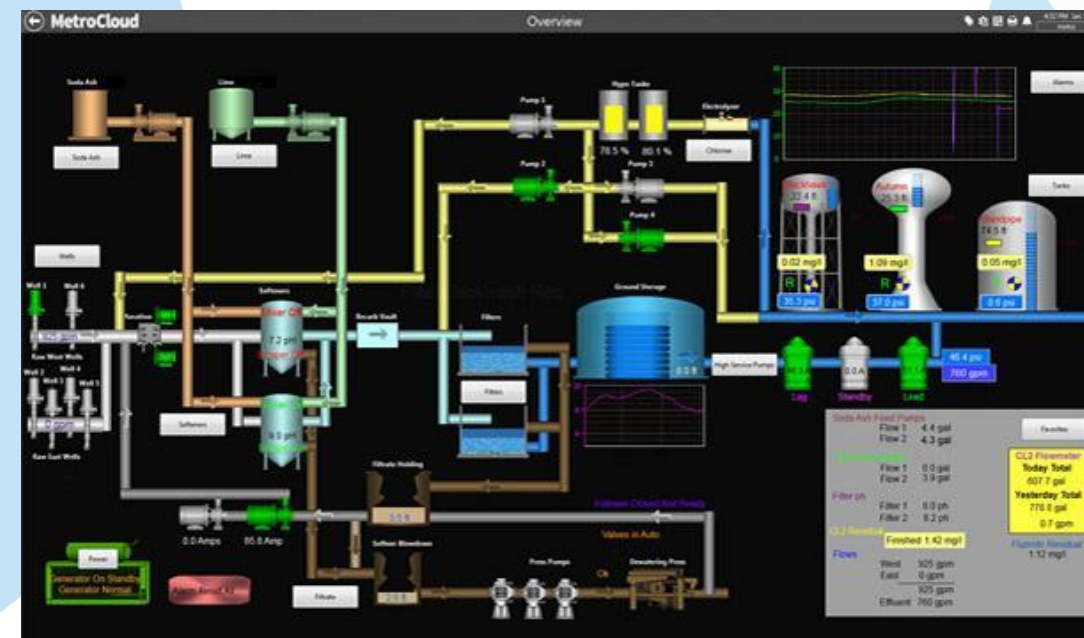




Simpler Times



SIMPLER TIMES?



Simplification Tools



GIS | Digital Mapping



Project Management



Work Order System



Digital Asset Management

Tools of the Trade...



GIS | Digital Mapping

The What, Where, and Why of our operations



Project Management

Regulatory Compliance, Proactive Programs



Work Order System

When & How we do what we do



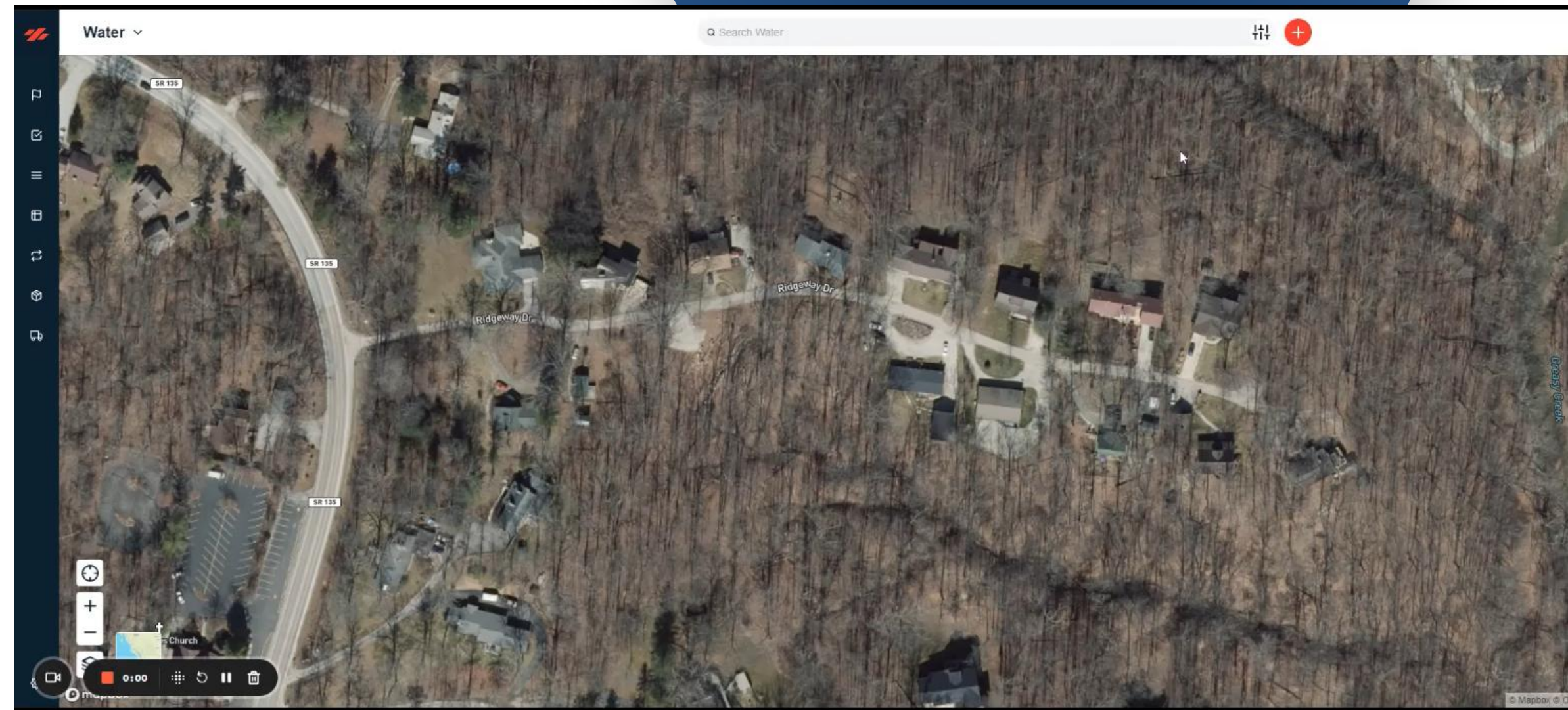
Digital Asset Management

Sustainability for the future

GIS | The Foundation

It's not just dots on the map...

- Details
- Pictures
- Download Brains
- Accuracy Decisions
- Attach Manuals & SOPs
- Leak Locations



GIS Help



Class I Assets

- Big & Expensive
- Buildings/Facilities
- You know exactly where they are all located



Class II & III Assets

- Class II help locate Class III assets
- Class II: Valves, hydrants, manholes, et
- Class III: Mains



Class IV Assets

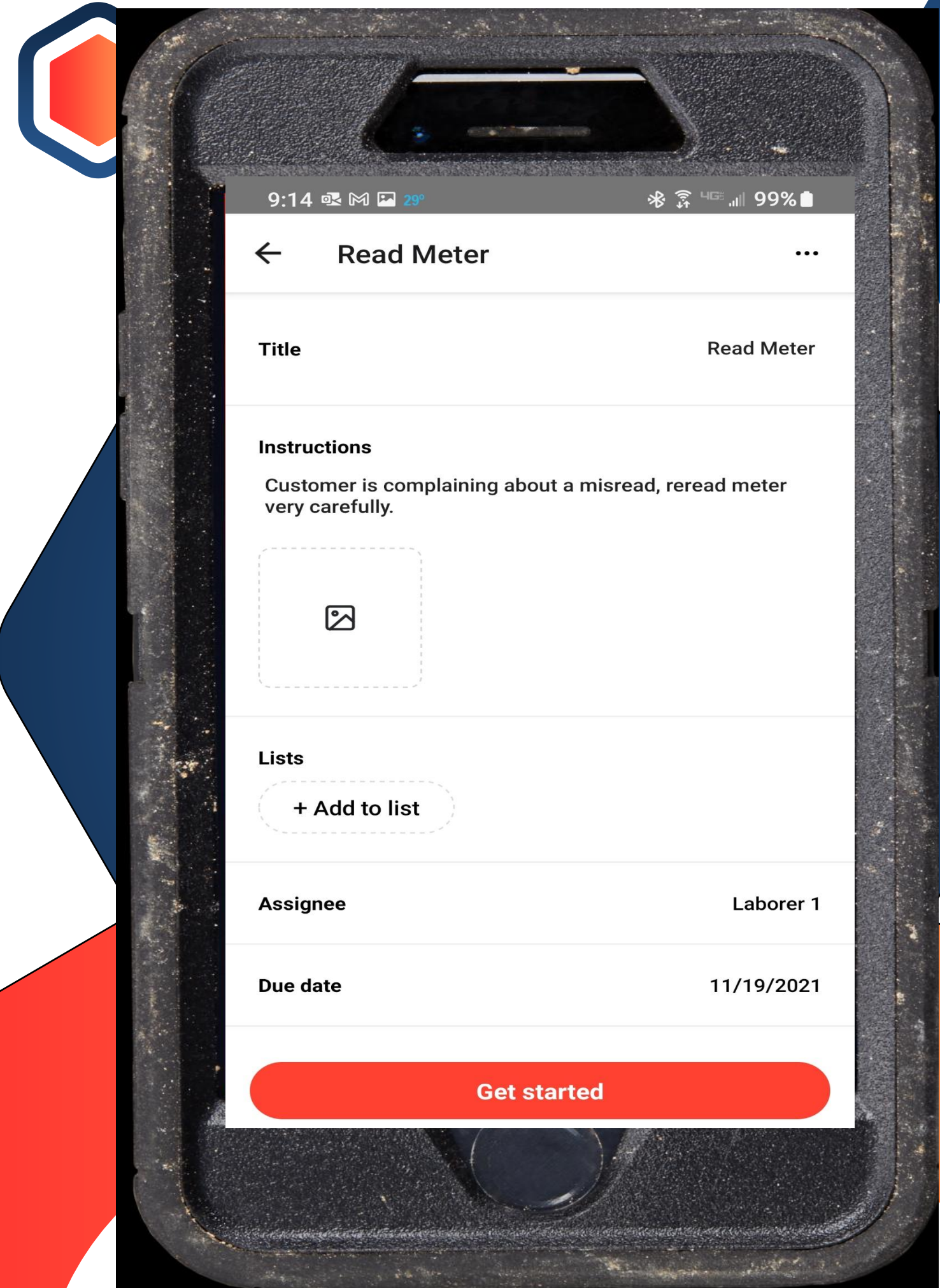
- Require the most field work
- Meters, residential grinder pumps, etc

Evolution of Work

Digital Work Order Systems

SCHEDULE • PRIORITIZE • ORGANIZE

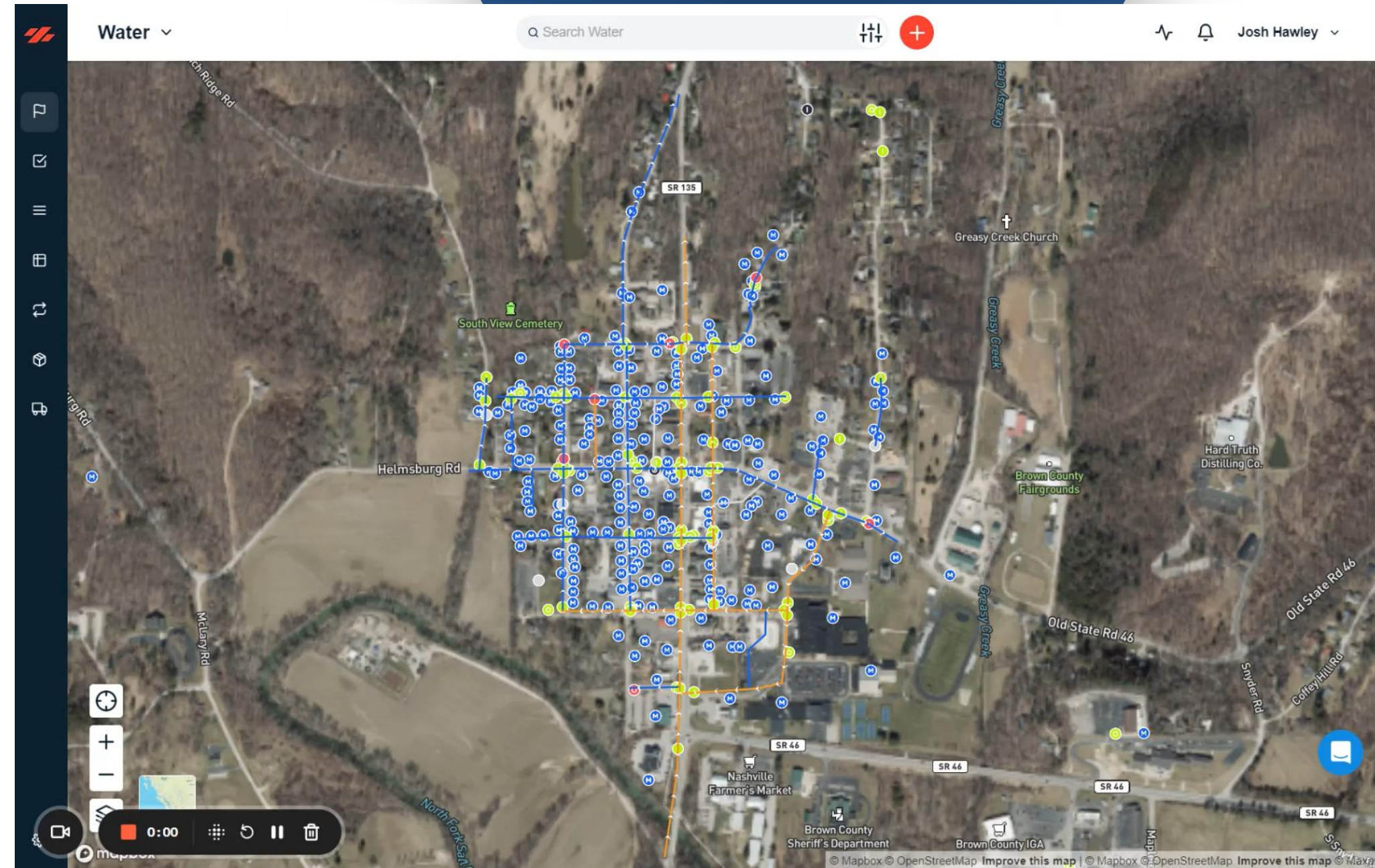
- Sustainability for the future
- Everyone on the same page at the same time
- Mobile dispatching
- Digital paper trail
- Records forever – without the filing cabinets



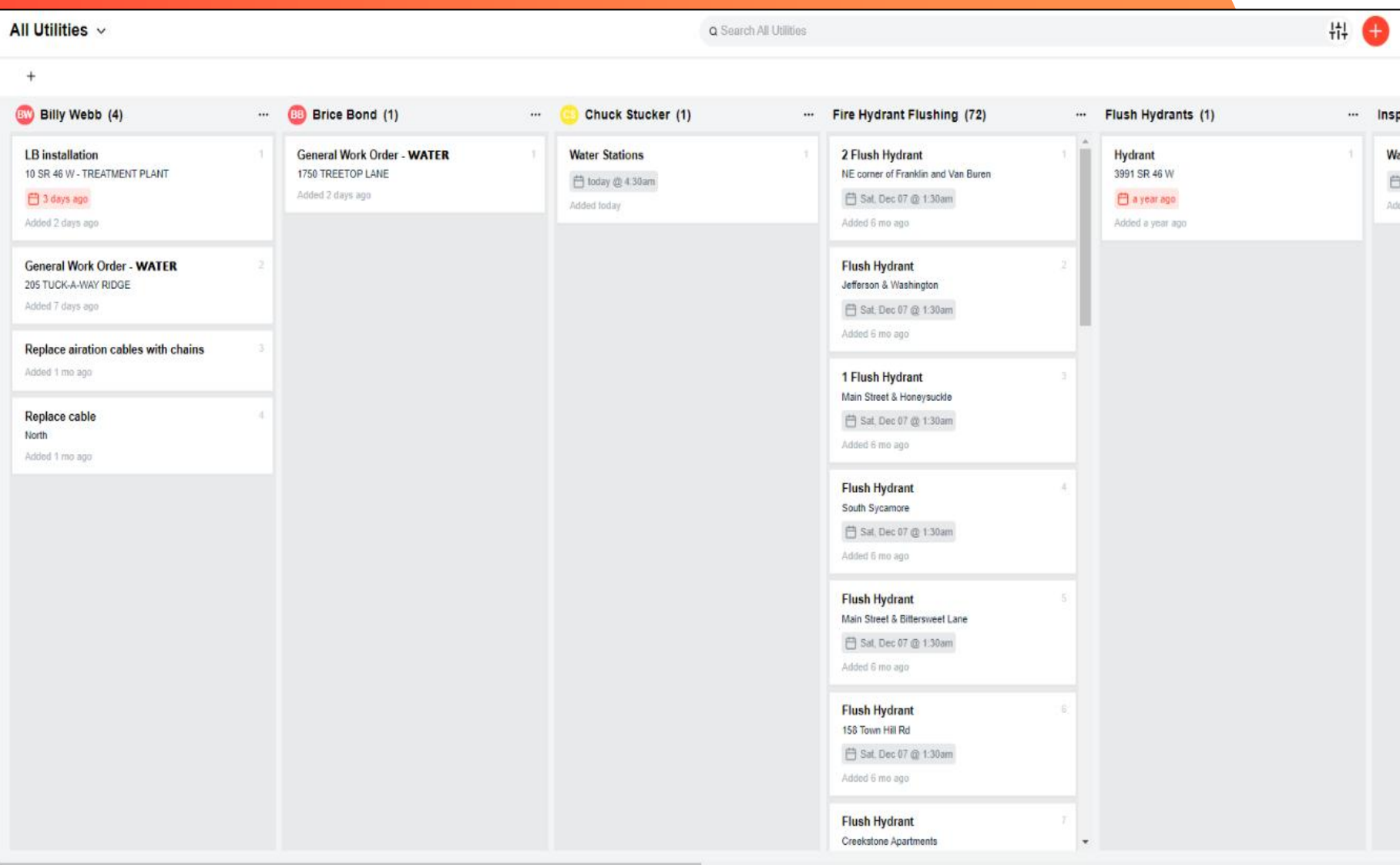
CMMS | Work Orders

More than logging maintenance

- Stop using sticky notes
- Fuel & Labor Efficiency
- Collect data in real time
- Search for & report on work
- Clear the backlog
- Become proactive!



CMMS & YOU!



SOPs

How you do...what you do...when you do it

- Detailed instructions w/ photos
- Get the information you want



Routines & Schedules

Go from Reactive to PROACTIVE

- Get those routine inspections on a scheduled list
- Hydrant flushing, valve exercising, pump maintenance



Compliance

Never forget important dates or to-dos again

- Prepare for sanitary surveys
- MRO data right into the phone



Succession Planning

The Utility Train never leaves the tracks



REACTIVE

- Fix it when it breaks
- Constant repairs
- Impossible to schedule around
- Always behind



PROACTIVE

- Catch it before it's an emergency
- General maintenance mode
- Schedule your PMs
- Make some headway



How to Get Going



Get Buy-In...from Everyone!

- Mobile Crew
- Office Staff
- Board



Scheduled Routines / Add work from the field

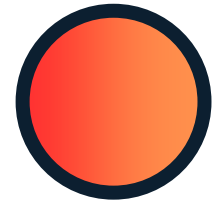
- Inspections & PMs
- Improve optics of operations



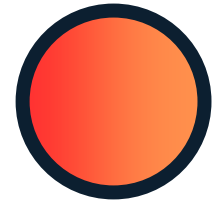
Customer Service

- Faster service
- Better record keeping
- Everyone on the same page

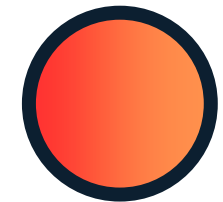
CMMS Winning Strategies



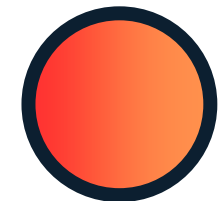
SOPs



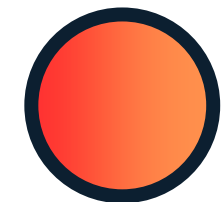
Track Time & Materials



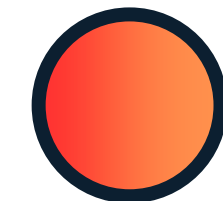
Unlock Asset Management



Right-hand Planning (Wo)man



Nothing slips through the cracks



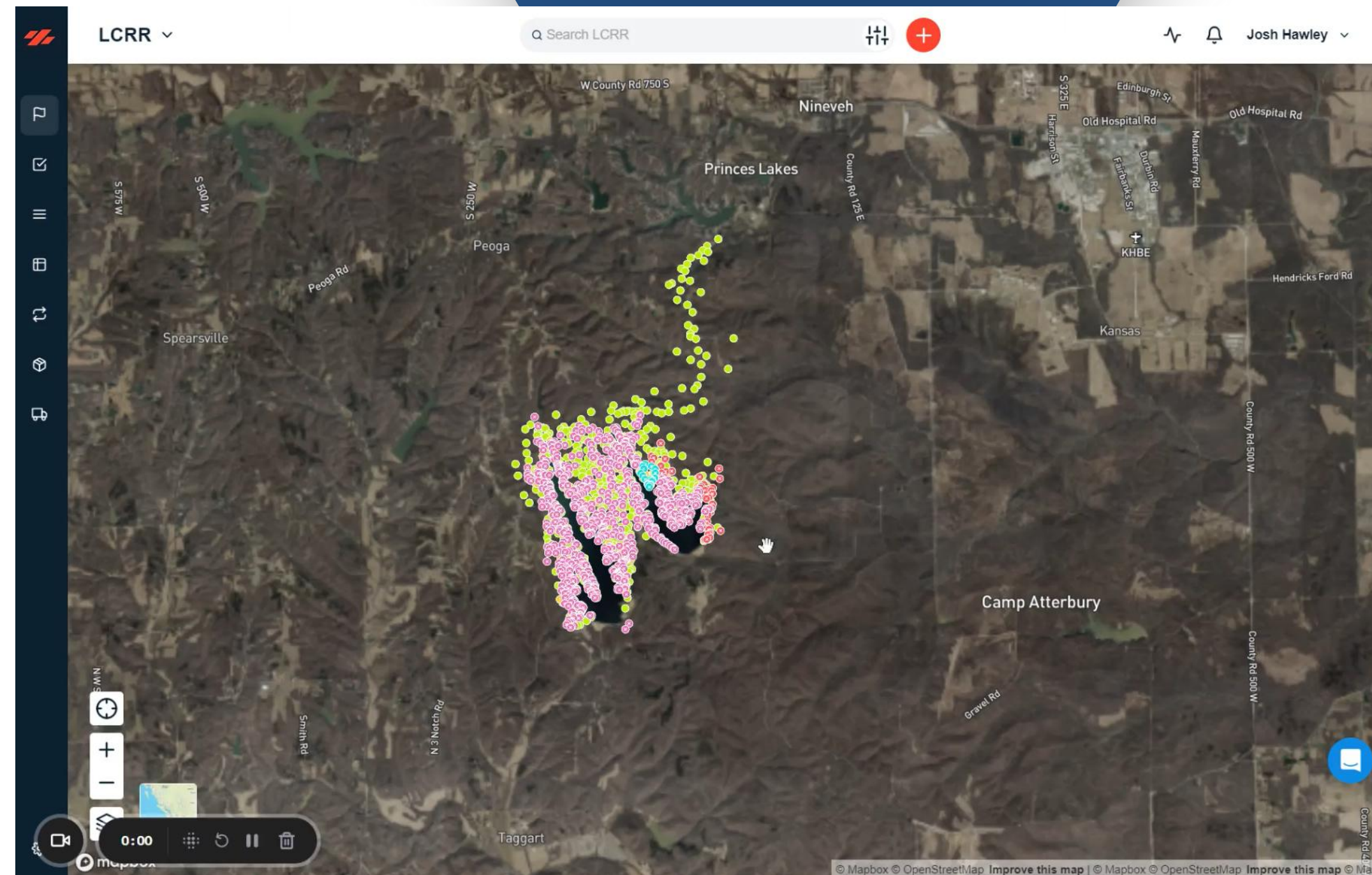
Tell Your Story



Project Management

Get Ahead... Stay Ahead

- Manage entire projects from GIS & CMMS
- Project planning
- Visualize current projects
- Never miss important milestones, goals, or meetings





SOPs & Schedules

- Water Leaks
- Daily Readings
- Meter Reading
- Disconnects
- Customer Requests
- Line Locates
- Emergency Repairs
- Leak Detection
- Hydrant Flushing
- Hydrant Painting
- Valve Exercising
- Clean around Valves & Hydrants
- Plant Maintenance
- Pump Maintenance
- Manhole Inspections
- Smoke Testing
- CCTV
- New Connections
- Equipment Maintenance & Repairs
- Board/Council Meetings
- Projects
- Compliance
- Sampling
- Meter Change-outs
- Meter Testing
- Re-Reads
- Final Reads
- Reports
- Tank Maintenance
- Potholes
- Signs
- Ditching
- Spread Gravel
- Paving Plans
- Grant Writing
- Trim Trees
- Cut Trees
- Storm Cleanup
- Clear Storm Drains
- Equipment Maintenance & Repairs
- Reports
- Litter Pickup
- Mowing Roadsides
- Plowing
- Brine Pre-Treatment
- Snow Equipment
- Salt Spreading
- Parking Lot Lines
- Stop Block Lines
- Speed Bumps
- Culvert Cleanouts
- Road Drainage Design
- Projects
- Herbicide Management
- Guardrail Maintenance
- Beach Maintenance
- Aquatic Weed Control
- Mow Dams
- Mow Parks
- Playground Maintenance
- Trail Maintenance
- Park Plans
- Leaf Pile Maintenance
- Morning Trash Pickup
- Bench Maintenance
- Building Maintenance
- Canopies for Marinas
- Dock Maintenance
- Boat & Equipment Maintenance
- Buoys
- Inlet & Outlet Maintenance
- Coffer Dam Maintenance
- Community Garden
- Baseball Diamond
- Driving Range Tee
- Parking Lots
- Wildflower Habitats
- Beach Samples
- Property Maintenance
- Park Signs
- Landscaping





SOPs & Schedules



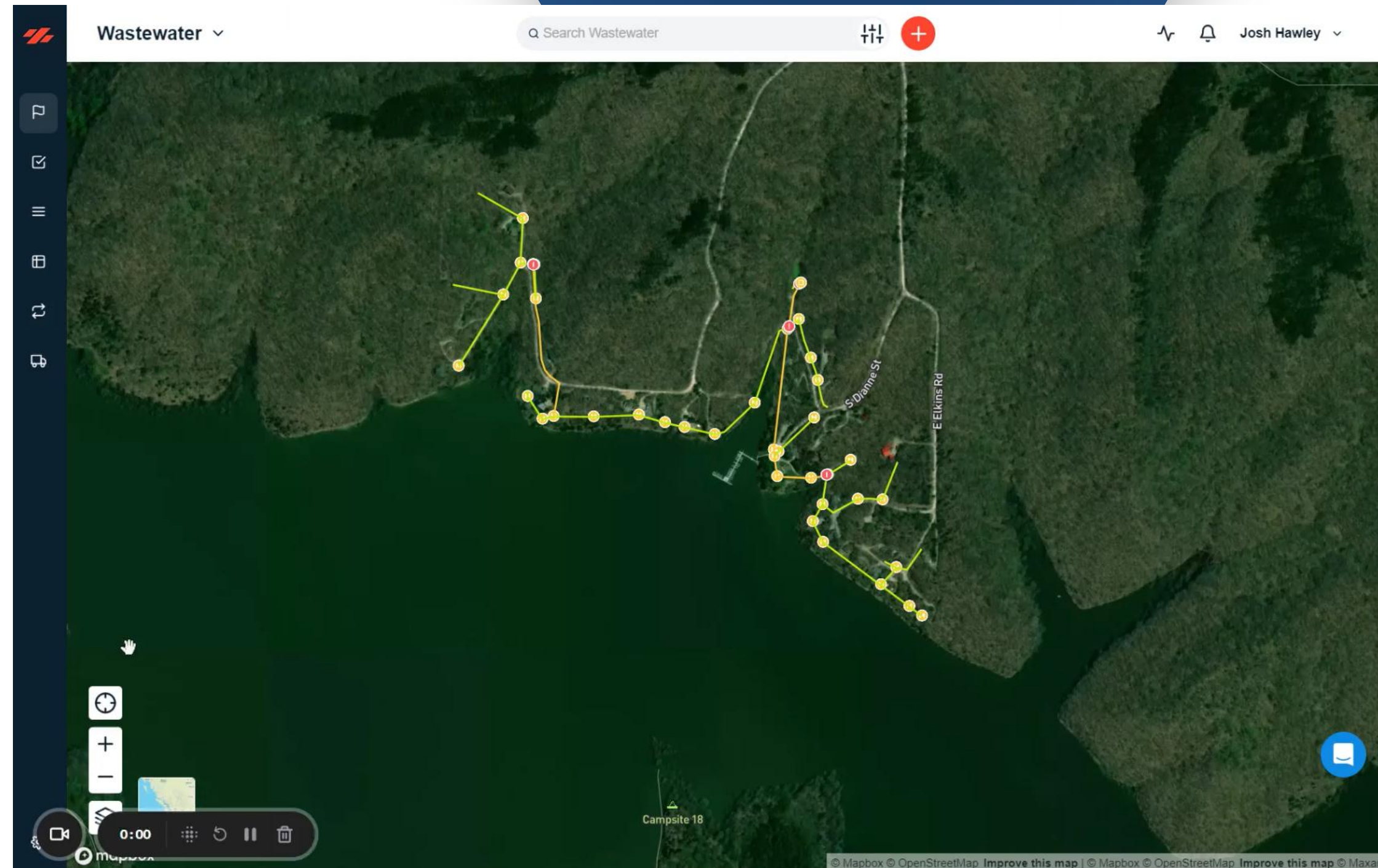
- Trucks/ Vehicles
- Tractors
- Vac Trailer / Truck
- UTVs
- Sprayers
- Chainsaws
- Leak Detection Equipment
- Mowers
- Weeders
- Brine Maker
- Pumps
- Generators
- Sand-Pro for Beach
- Power Tools
- Backhoe
- Mini Excavator
- Skid Steer
- Commercial Leaf Blower
- Snow Equipment



Asset Management

Maintain & Plan for the Future

- Manage inspections, repairs, PM's all from one program
- Understand what assets should be tracked at your utility
- Condition, Probability of Failure, Consequence of Failure, Criticality





B & B Water AMP

Real Life Example

Water Main 68
Mt Giload & Upper Elrdie Main

About

Likelihood Of Failure	5 - Imminent
Consequence Of Failure	4 - Major disruption
Original Cost (\$)	
Replacement Cost (\$)	2307736
Year Installed	7/1/1957
Expected Useful Life (yrs)	50
Is Redundancy In-place	<input type="checkbox"/>
Remaining Useful Life (yrs)	-7
Criticality	3 - Critical
Condition	—





ASSET MANAGEMENT PLANS

A Living Plan for Utility Sustainability

Assessment as of:		4/11/2024										
Asset	Ziptility ID	Consequence of Failure	Condition	Probability of Failure	Criticality	Manufacturer	Date Installed	Yrs. Of Service	Expected Life (YR)	Remaining Useful Life	Initial Cost	Replacement Cost
Hydrant ID												
Unionville School	57	4		3	12		7/1/1968	55	60	5		\$ 6,000.00
End Benton Ct	8	3		3	9		7/1/1968	55	60	5		\$ 6,000.00
End Martin	4	3		3	9		7/1/1968	55	60	5		\$ 6,000.00
5080 Limberlost Ln	5	3		3	9		7/1/1968	55	60	5		\$ 6,000.00
End Bent Pine	6	3		3	9		7/1/1968	55	60	5		\$ 6,000.00
Decker	0	3		3	9		7/1/1968	55	60	5		\$ 6,000.00
2148 N Mt Gilead Rd	1	3		3	9		7/1/1968	55	60	5		\$ 6,000.00
SR 45 Near RR Tracks Intersection	2	3		3	9		7/1/1968	55	60	5		\$ 6,000.00
Ratliff	3	3		3	9		7/1/1968	55	60	5		\$ 6,000.00
SR 45 New Unionville Tracks	7	3		3	9		7/1/1968	55	60	5		\$ 6,000.00
End Greylock	12	3		3	9		7/1/1968	55	60	5		\$ 6,000.00
Mt Gilead North of Collins	21	3		3	9		7/1/1968	55	60	5		\$ 6,000.00
Hinkle Lane	13	3		3	9		7/1/1968	55	60	5		\$ 6,000.00
End of Claybrooke Court East	17	3		3	9		7/1/1968	55	60	5		\$ 6,000.00

Asset	Ziptility ID	Consequence of Failure	Condition	Probability of Failure	Criticality	Manufacturer	Date Installed	Yrs. Of Service	Expected Life (YR)	Remaining Useful Life	Initial Cost	Replacement Costs
Pump Name												
State Road 45 Pump 1	1	3	4	5	15	Peerless	7/1/1991	32	20	-12		\$ 50,000.00
State Road 45 Pump 2	2	3	4	5	15	Peerless	7/1/1991	32	20	-12		\$ 50,000.00
Hinkle Road Pump 1	3	3	1	2	6	Paco	7/1/2019	4	20	16		\$ 50,000.00
Hinkle Road Pump 2	4	3	1	2	6	Paco	7/1/2019	4	20	16		\$ 50,000.00

Bringing it all Together...



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Sustainability for the future



Your **Operations** at Your Fingertips

Going **Beyond** Dots
on a Map...



DIGITAL MAPPING • WORK ORDERS • INVENTORY • ASSET MANAGEMENT

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