



MONTANA WILDFIRE DEFENSE



WE FOAM YOUR HOME

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Website: <https://montanawildfiredefense.com/>



FRONTLINE[®]
WILDFIRE DEFENSE

Frontline Wildfire Defense

- Developed in 2017 by an expert group of firefighters, technologists, and ecologists
- Software that tracks wildfire exposure and connects to each home or business through WiFi, cellular, & satellite
- A networked, digital fire department capable of providing community level protection at the push of a button
- Experience protecting luxury estates, wineries, summer camps, commercial structures, and everyday homeowners.
- 2,500+ system activations since 2019
- Over \$3 billion in real estate protected
- ZERO Frontline protected homes lost
- 70,000+ families use the Frontline app





The Wildfire Problem

Wildfires are becoming more frequent, more intense, and more dangerous.

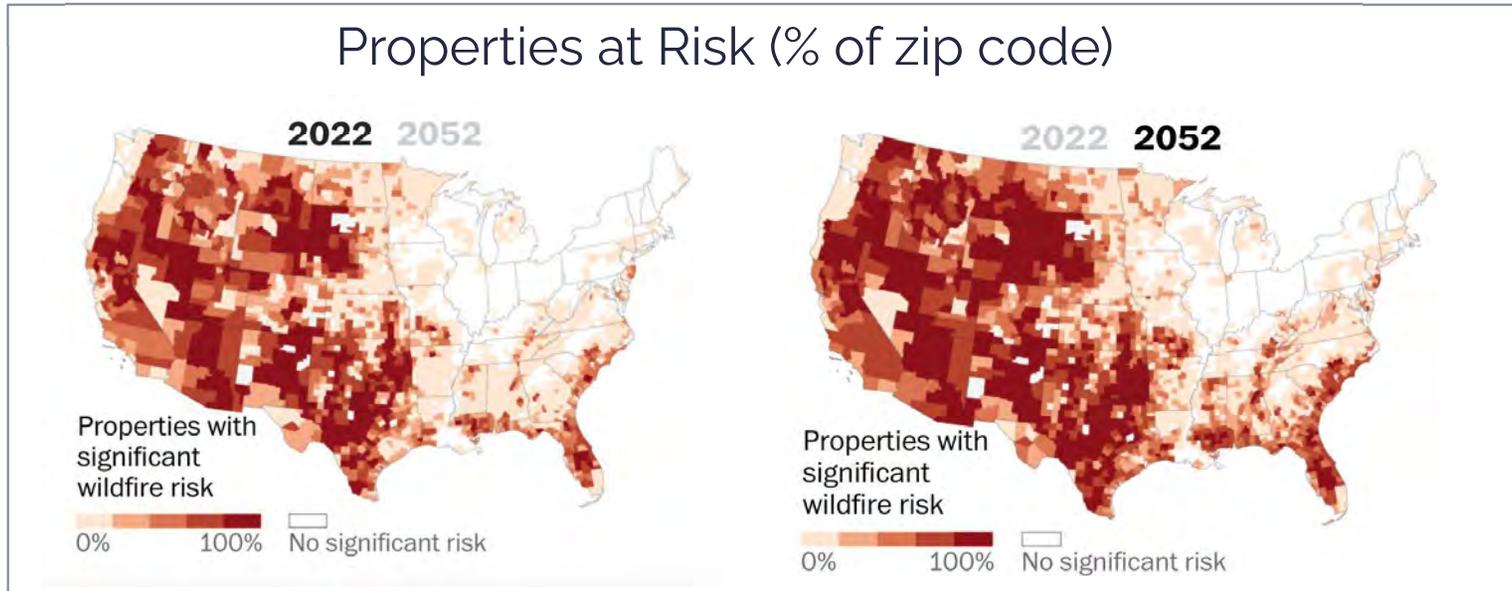
Firefighters can't protect.

Insurers can't underwrite.

Homeowners are on their own.



Risk is already high and only getting worse.



[First Street Foundation](#)

200MM

People in the US live in the path of wildfire risk

80MM

Homes in wildfire risk path in United States

33%

Homes built in wildfire risk areas across US

Three types of wildfire ignition exposure.

Embers

90% of Structure Ignition



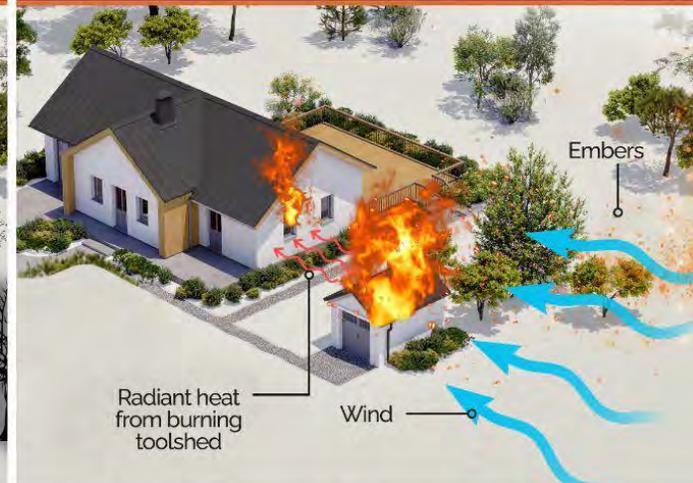
Direct Flame Contact

Continuity of Fuels



Radiant Heat

Density of Structures

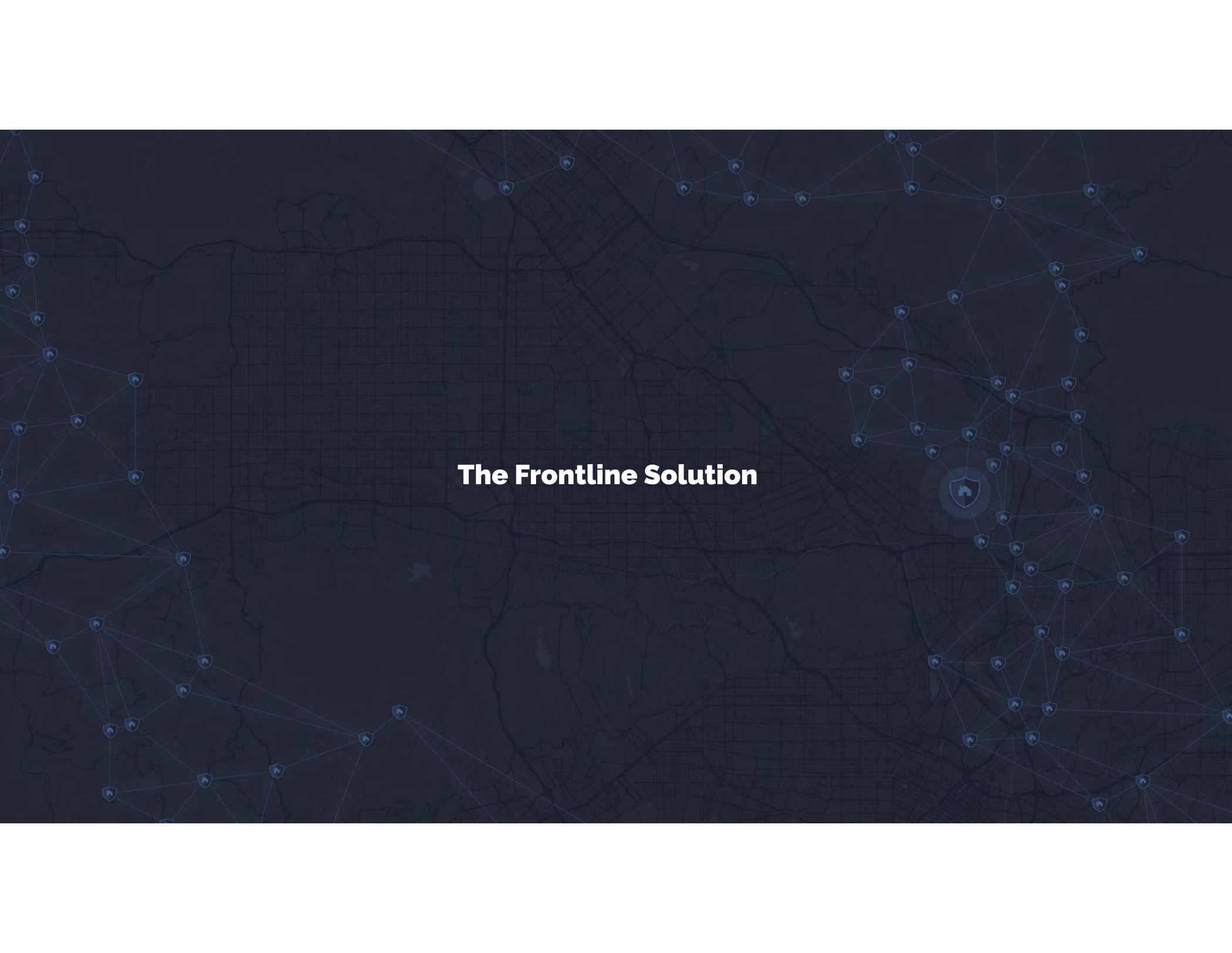


Embers are the #1 threat.

Embers cause 90% of structure ignitions.

Windblown embers can travel many miles ahead of a fire.

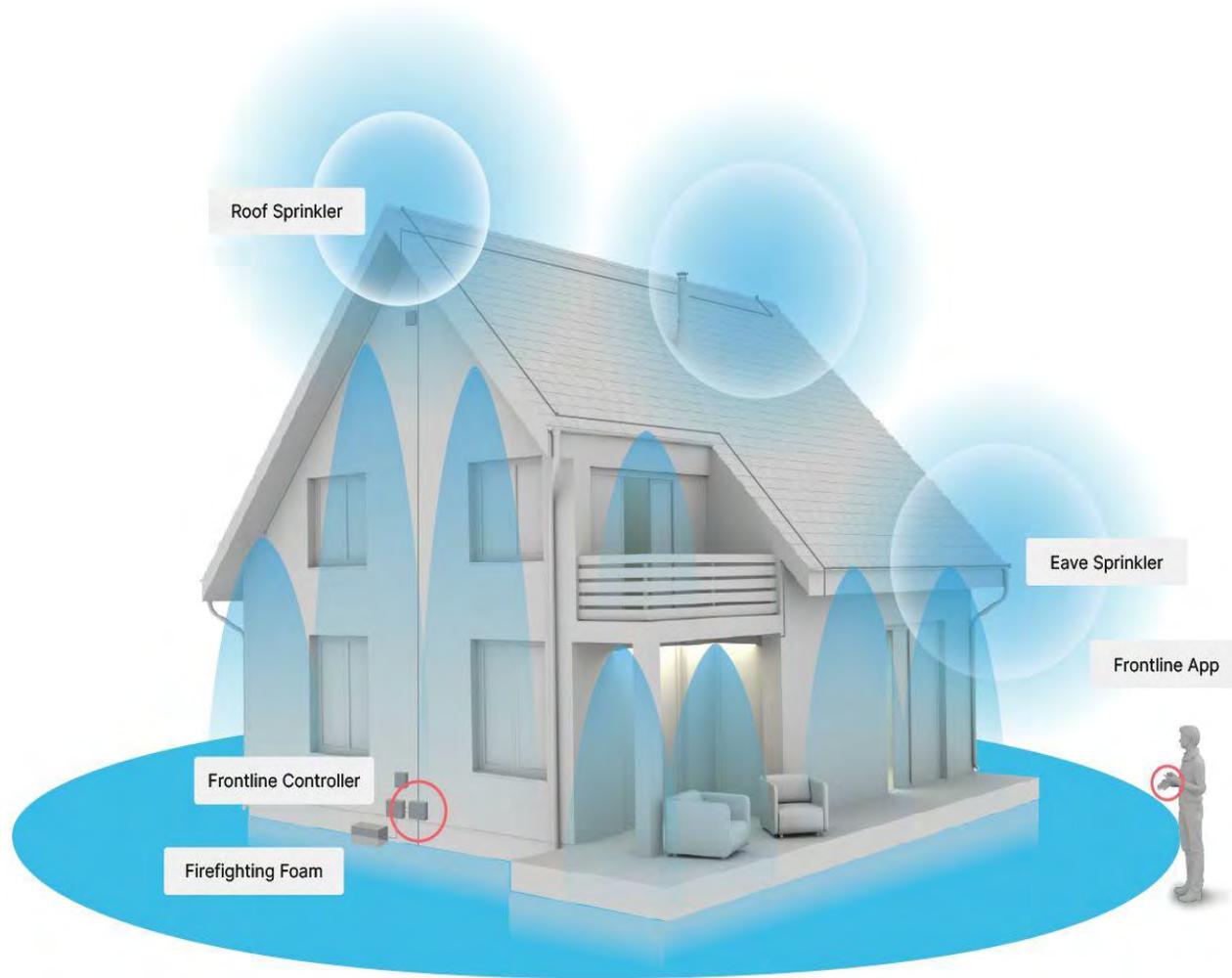




The Frontline Solution

The Frontline system activates automatically when fire is near & pre-wets a property so it is too wet for ember ignition.

- Software platform monitors fire and auto-activates the system when needed.
- The homeowner monitors and controls the system through the Frontline app, even if they have evacuated.
- Satellite connectivity and backup battery keeps the homeowner connected to the system during extended power outages.
- The system applies the same fire preventing foam used by firefighters, without needing a firefighter onsite to apply it.
- Backup water supply options such as a pool, tank, well, or pond eliminate dependence on municipal water.



LA Fires Start date: Tuesday January 7, 2025



“The wildfire spread rapidly due to strong winds, dry vegetation, and low humidity.

Grounded aerial resources and insufficient water supply further hindered firefighting efforts, while evacuation traffic and abandoned vehicles blocked access routes.

Wind gusts reached as high as 100 mph.”

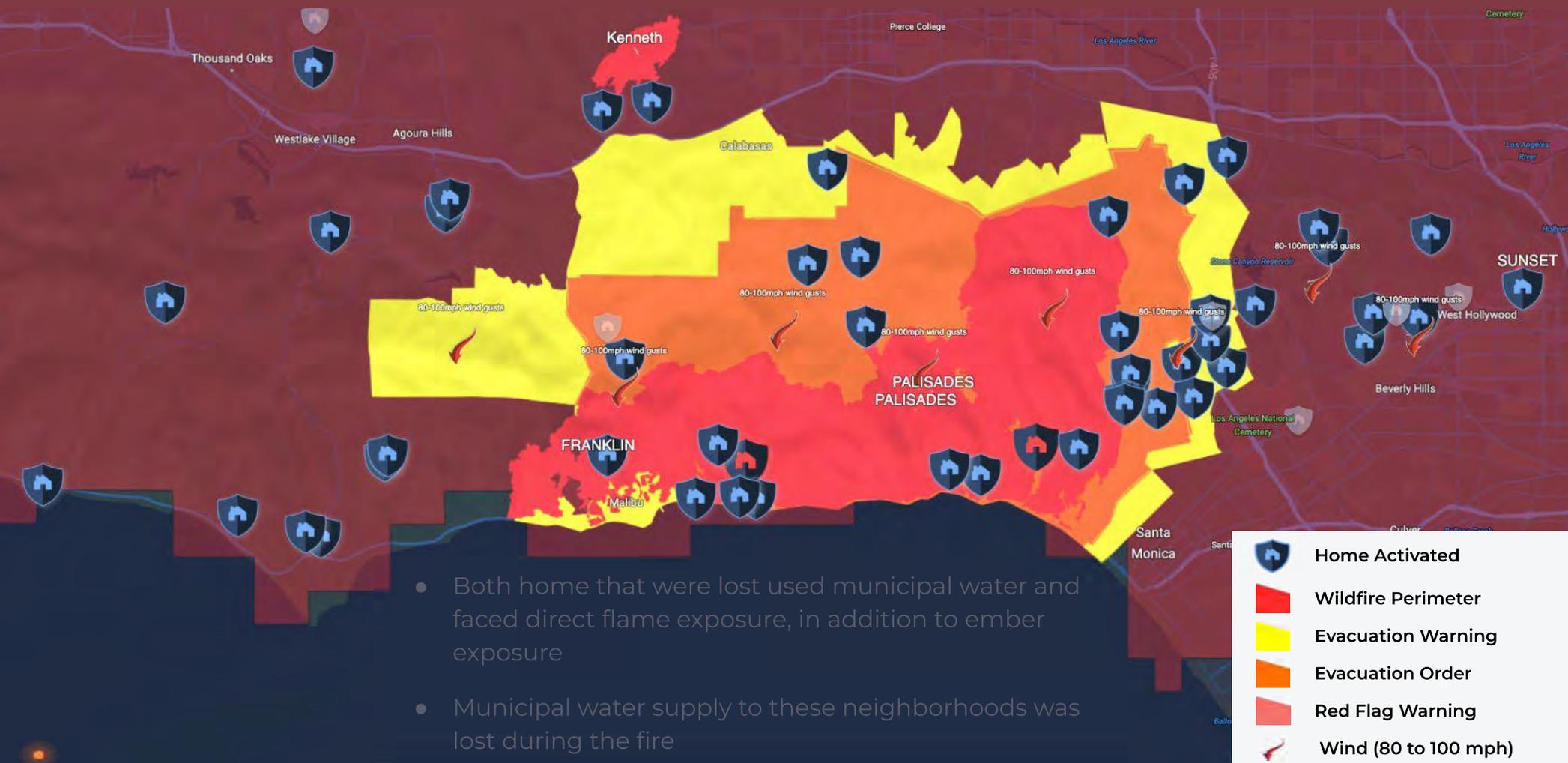
Source: NBC News



61 Frontline systems were activated at properties with direct or indirect (ember) exposure



Protection results: 61 activations, 59 systems protected, 2 homes lost



Suppression



Internal Fire Sprinkler System

- “Wet” suppression system
- Triggered by heat
- Designed to deliver a high volume of water in short period of time to extinguish or suppress an active fire
- Primary function: Save lives, not structures



Prevention

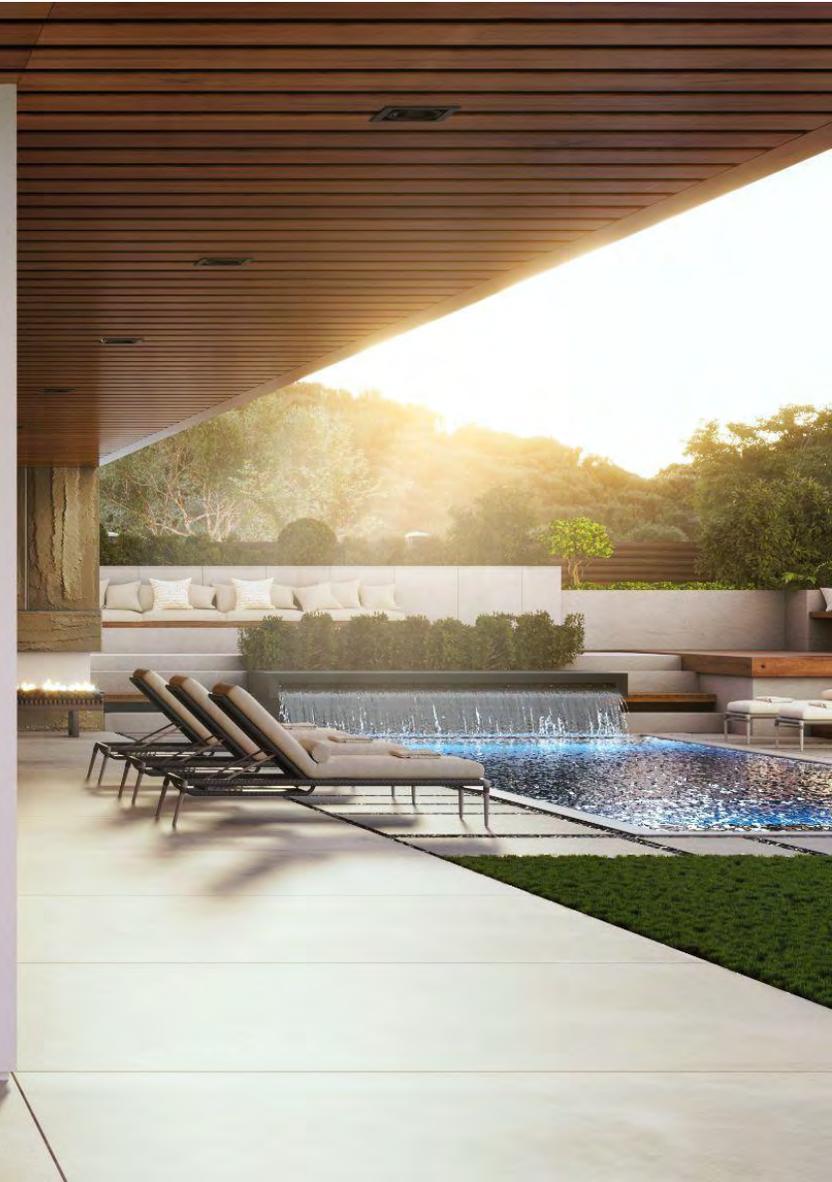


External Wildfire Sprinkler System

- “Dry” prevention system
- Triggered by tracking software or manual
- Designed to deliver a consistent volume of water over an extended period of time to prevent ignition in the first place
- Runs in a series of zones, pauses intermittently
- Primary function: Save structures after homeowners evacuate



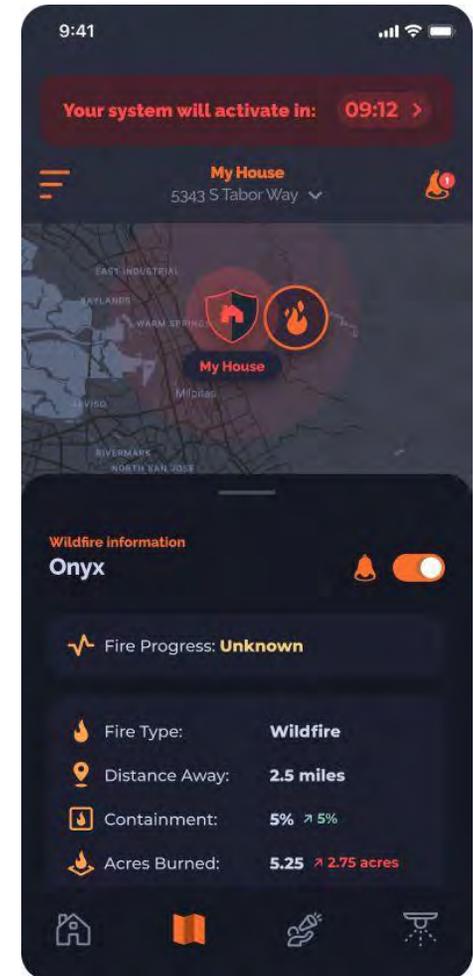
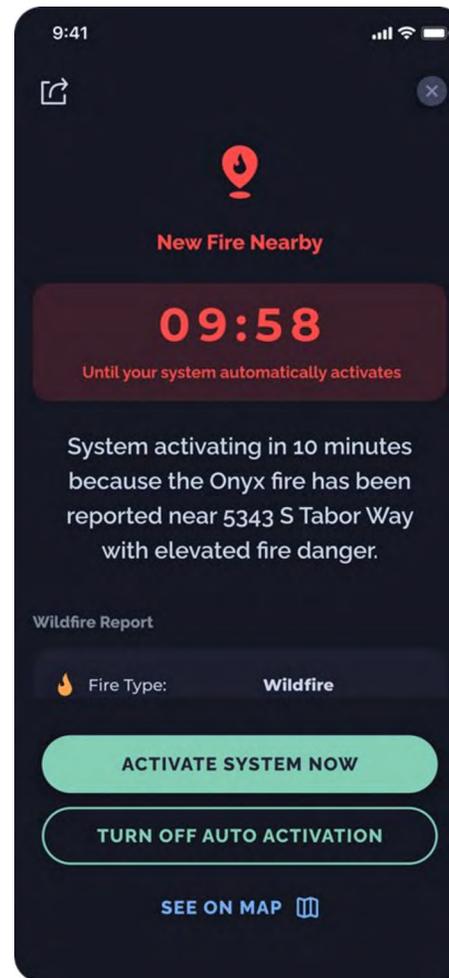
A digital fire solution.



Auto Activation

Proactively alerts users when a fire is in the area

- Sends a push notification and automatically runs the Frontline Wildfire Defense system when needed
- First system of its kind to offer software driven monitoring and remote automatic activation



Firefighting Foam: Non-toxic, biodegradable

- The Frontline Wildfire System deploys **Class A Foam Concentrate** for extra protection during an imminent threat
- Foam acts as a **surfactant**, breaking the surface tension of the water and allowing for easier absorption into combustible materials
- Approved for use by the United States Forest Service as a Fully Qualified Class A Foam for wildland fire management
- Fully biodegradable and non-toxic



Smart Switch: Automatic rollover to secondary water sources

- Many homeowners choose to add a secondary water source: pool, tank, well, or pond.
- Private water eliminates dependence on municipal water sources.
- The Frontline System actively measures available PSI and automatically switches to an available secondary water source if PSI drops too low.



Home Ignition Zones

Immediate Zone (Red)

The home and the area 0-5' from the furthest attached exterior point of the home; defined as a non-combustible area. Science tells us this is the most important zone to take immediate action on as it is the most vulnerable to embers.

Intermediate Zone (Orange)

5-30' from the furthest exterior point of the home. Landscaping/hardscaping- employing careful landscaping or creating breaks that can help influence and decrease fire behavior.

Extended Zone (Green)

30-100', out to 200'. Landscaping – the goal here is not to eliminate fire but to interrupt fire's path and keep flames smaller and on the ground.



System layout:

Water Smart, Minimizes wind impact

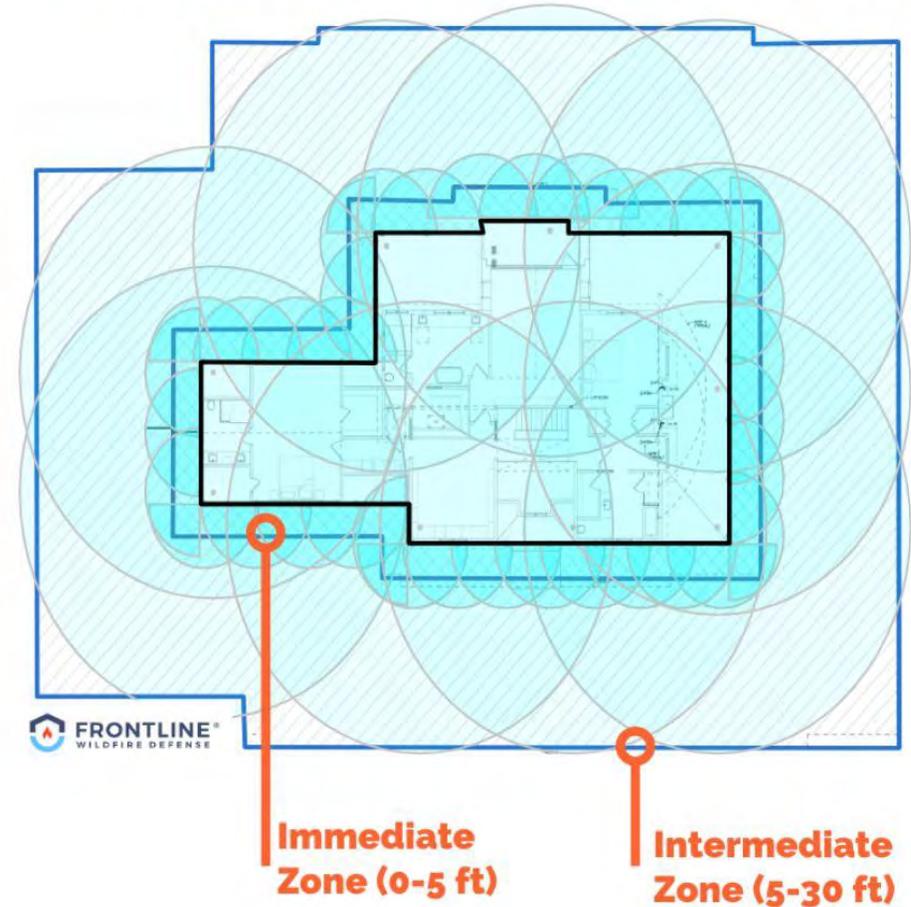
Immediate Zone

- Eave Sprayers
- 100% overlap
- Applying a water density of ~ 1 gpm/100 sq ft

Intermediate Zone

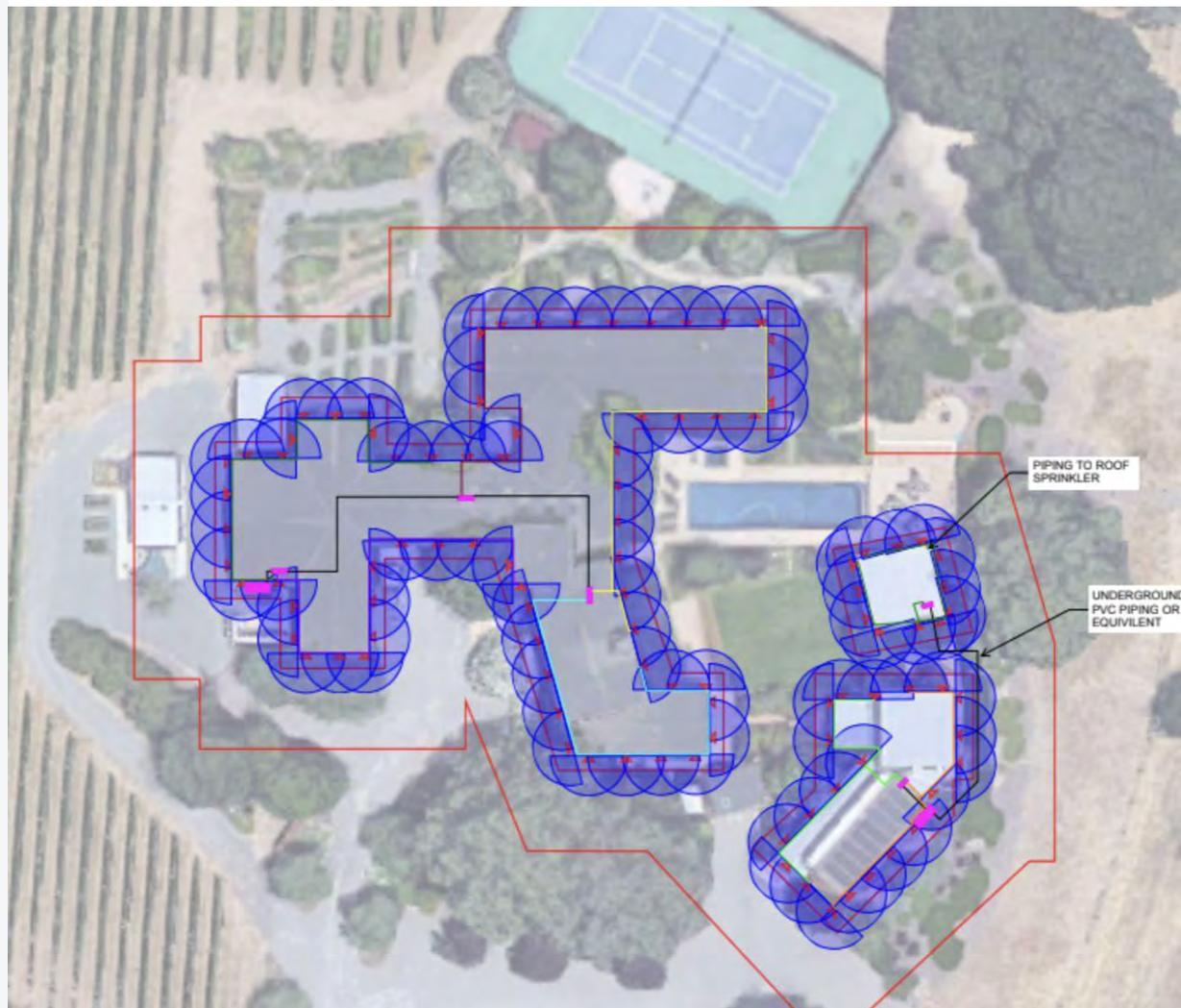
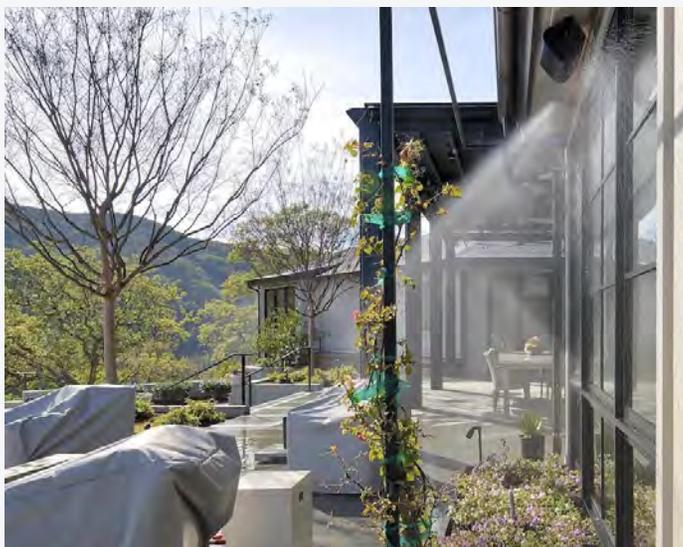
- Roof Rotors
- 60%-70% overlap
- Applying a water density of ~ 0.2 gpm/100 sq ft

Wildfire Sprinkler System Design



Eave Sprays

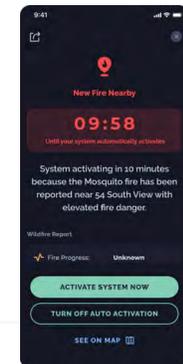
Eave Sprayers are designed to fully saturate the immediate zone and up to 15' from the home.



Current Product Offering

CORE ATTRIBUTES:

- Hydration Prescription
 - HIZ0 - 1"
 - HIZ1 - 10%-20%
- System Design
 - Sprinkler heads - water density
 - Sprinkler layout - space & overlap
 - Zones / pipe layout
- **System Control**
 - **Activate/monitor (on-site and remote)**
 - **Redundant communications**
 - **Auto-activation**
- Regulatory Compliance
 - Backflow preventer
 - Compatible with NFPA 13 systems
- Installation
 - Frontline or partner



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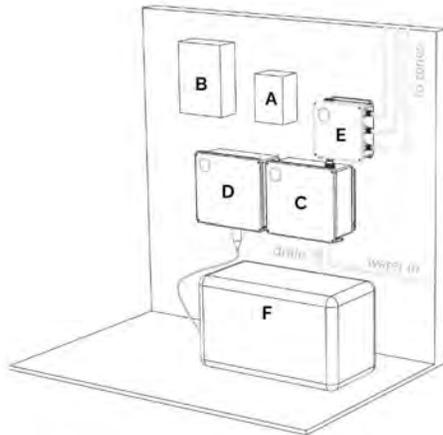
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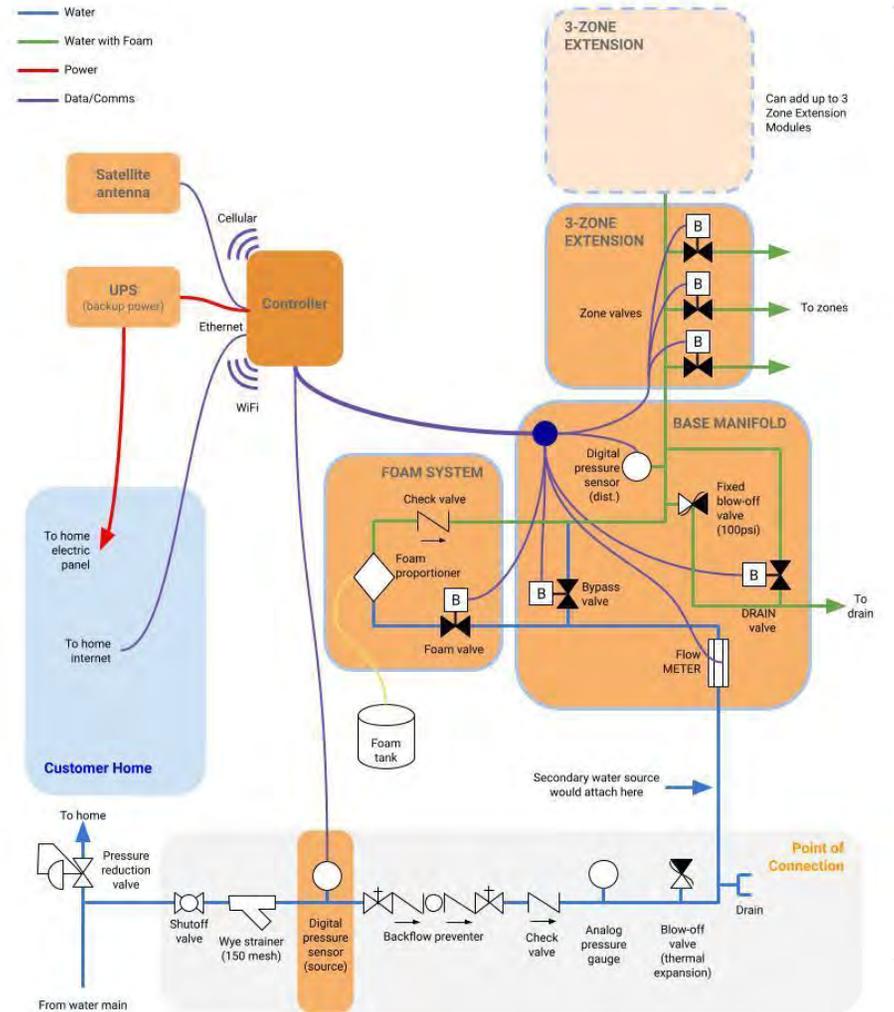


Schematic



FRONTLINE SYSTEM LAYOUT

| LEGEND | | | |
|--------|-----|--|---|
| ID | QTY | DESCRIPTION | DIMENSIONS (W x H x D) |
| A | 1 | FRONTLINE CONTROLLER | 8" x 12" x 8" |
| B | 1 | UPS - BACKUP POWER SYSTEM | 13" x 18" x 6" |
| C | 1 | BASE MANIFOLD | 19.5" x 17.5" x 9" |
| D | 1 | FOAM SYSTEM MODULE (INSTALLATION DOWNWARD) | 19.5" x 17.5" x 9" |
| E | 1-3 | 3-ZONE EXTENSION MODULE (INSTALLATION DOWNWARD) | 13.5" x 13.5" x 7" |
| F | 1 | 50 GALLON FOAM TANK 200 GALLON FOAM TANK 1000 GALLON FOAM TANK OTHER SIZES AND FORM FACTORS CAN BE REQUESTED. | 38" x 22" x 19" 24" x 22" x 19" 38" x 30" x 30" |

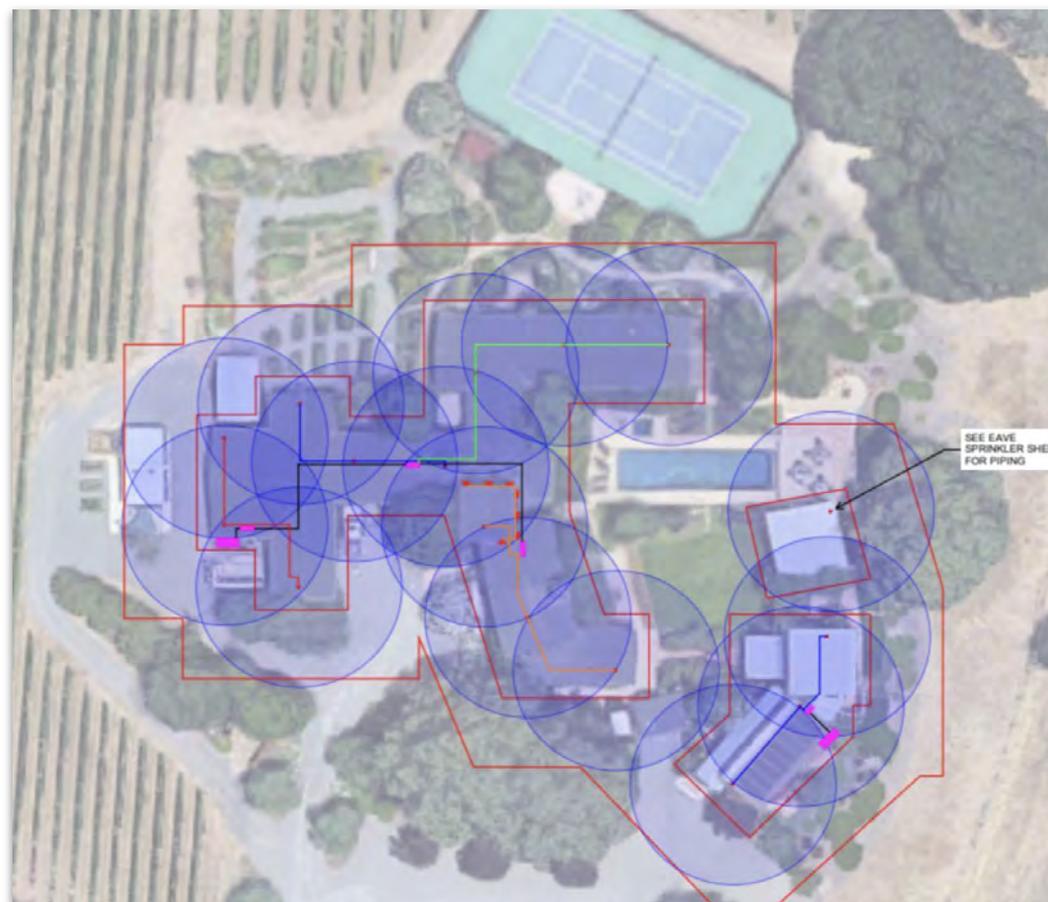






Roof Rotors

Roof Rotors are designed to hydrate the rooftop and 30' from the home. Each zone is calibrated to address both immediate zone and intermediate zone.





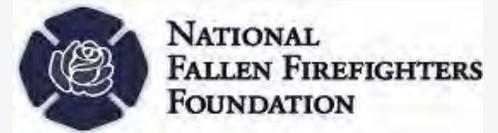
Perimeter Sprinklers

Ground mounted, perimeter sprinklers spray backwards towards the home. They are designed to complement or replace eave sprays and typically focus on the immediate.





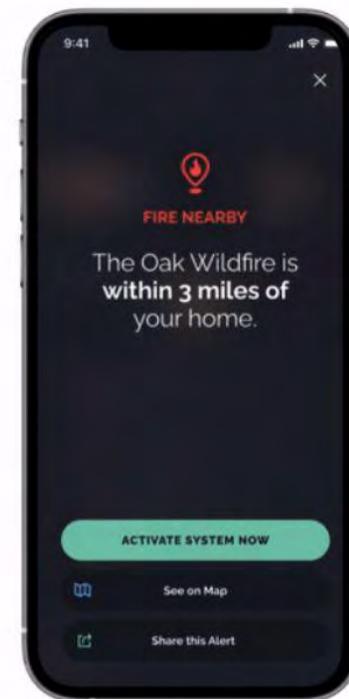
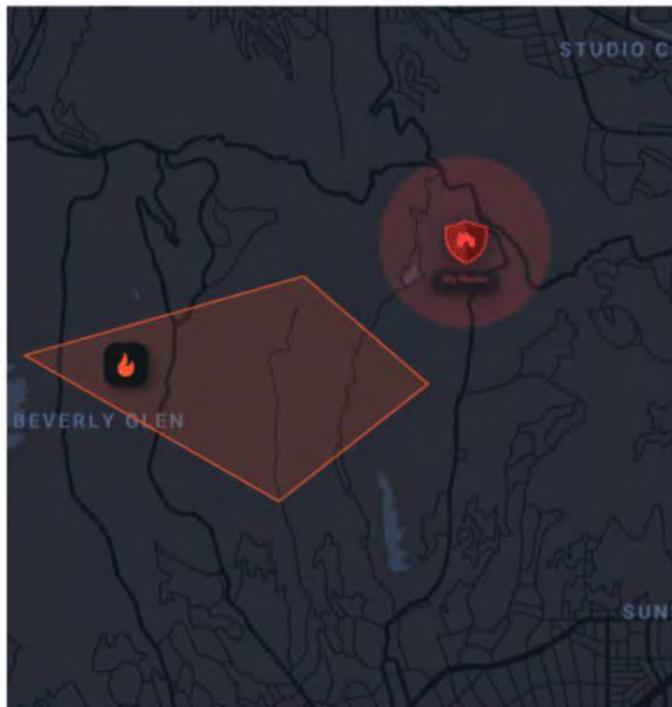
Frontline Partners and Strategic Advisors: Federal, State, & Local



Download the free Frontline Wildfire App.



The Frontline Wildfire Defense App is a FREE comprehensive wildfire information resource that helps protect you, your family, and your home from wildfire disasters. Wildfire maps, weather, fire danger indexes, event notifications, emergency contact groups, and preparation checklists are some of the key features in the Frontline app that allow you to better prepare for the wildfire season.



Thank you!



ACTIVE



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