# Structural Rice

ROP

and server with the total of the

FII 7

# **Current State : Structures**



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# FUTURE STATE: LOS ANGELES, CALIFORNIA

















# Innovating Fire-Fighting Procedures

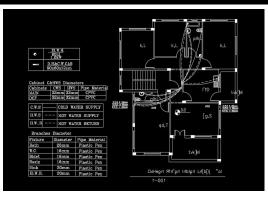
### **Utility Service Responsibility**



#### **Homeowner Responsibility**



#### Municipality Waterline Blueprint











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HER





# **Municipality Waterline: Blueprint**

٢	E1.W.H.
	D.H&C.W.CAB 90x60x12cm

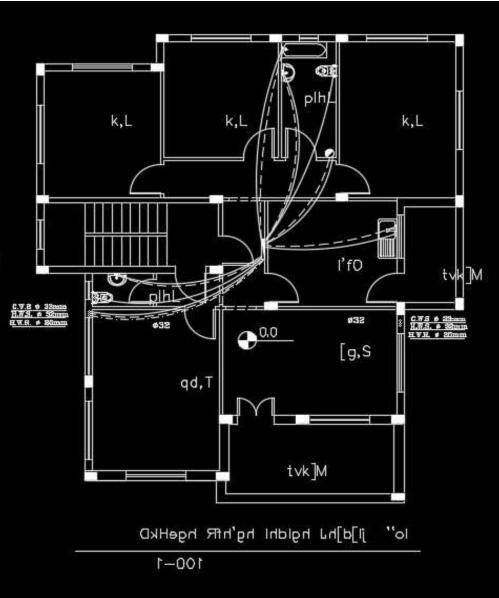
Cabinet C&HWS Diameters	Cabinet	C&HWS	Diameters	
-------------------------	---------	-------	-----------	--

Cabinets	CWS	HWS	Pipe	Materia
MAIN	32mm	32mm	CF	VC
DCF	32mm	32mm	CP	VC

C.W.S	 COLD WATER SUPPLY
H.W.S	 HOT WATER SUPPLY
H.WR	 HOT WATER RETURN

#### Branches Diameter

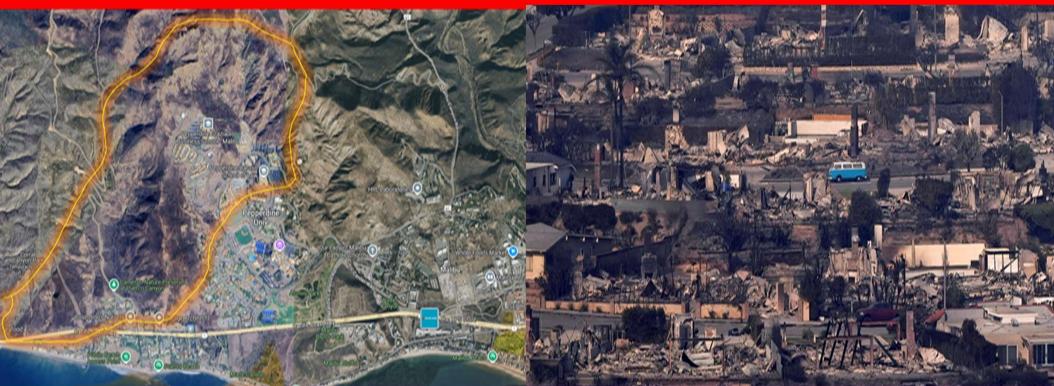
Fixture	Diameter	Pipe Material	
Bath	20mm	Plastic Pex	
W.C.	16mm	Plastic Pex	
Bidet	16mm	Plastic Pex	
Basin	16mm	Plastic Pex	
Sink	20mm	Plastic Pex	
E1.W.H.	20mm	Plastic Pex	







# Cooling Station Must be built near these hotspots in LA

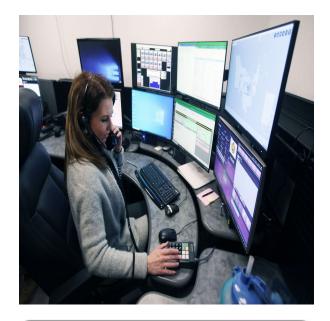




## CALIFORNIA WILDFIRE : IoT REMOTE MONITORING / DASHBOARDS & ALERTS

## WILD FIRE : REMOTE MONITORING WORK FLOW

```
[Start]
[Detection of Fire Event (Heat and Smoke Sensors)]
   V
[Is Fire Detected?]
    11
      1
[Yes] [No]
[Simultaneously Activate Camera, Record, Send Notifications and Alerts, Deploy Chemicals]
[Deploy Fire-Suppressing Chemicals (Foam, Water Mist, Inert Gases)]
[Suppress Fire and Prevent Re-ignition]
[Notify Next Set of IoT Devices in Coverage Area]
[Alert Sensors in Next Range to Sprinkle Chemicals in Advance]
[Send Alerts to Fire Department, Emergency Department, FEMA, Local Police, Forestry Departments]
   V
   [End]
```









## **ARTIFICIAL RESERVOIR AS A SOURCE TO EXTINGUISH FIRE**

### **1. Controlled Blasting**

### 2. Artificial Reservoirs with Rain water





### **3. Create a Cooling Station** from the Artificial Reservoirs



### 4. Pump from the Cooling Station / Reservoirs



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Assistive Technology with Emergency Alerts For Seniors and People with Impairments

### Integrating Assistive Technology with Wildfire and Emergency Preparedness

The goal of this project is to develop **assistive technologies for seniors and individuals with impairments** that integrate **advanced AI technologies and edge computing** to enhance emergency preparedness. This aligns with the **wildfire mitigation strategies proposed to the Emergency Council of Santa Clara County**, ensuring that vulnerable populations receive timely support and protection.

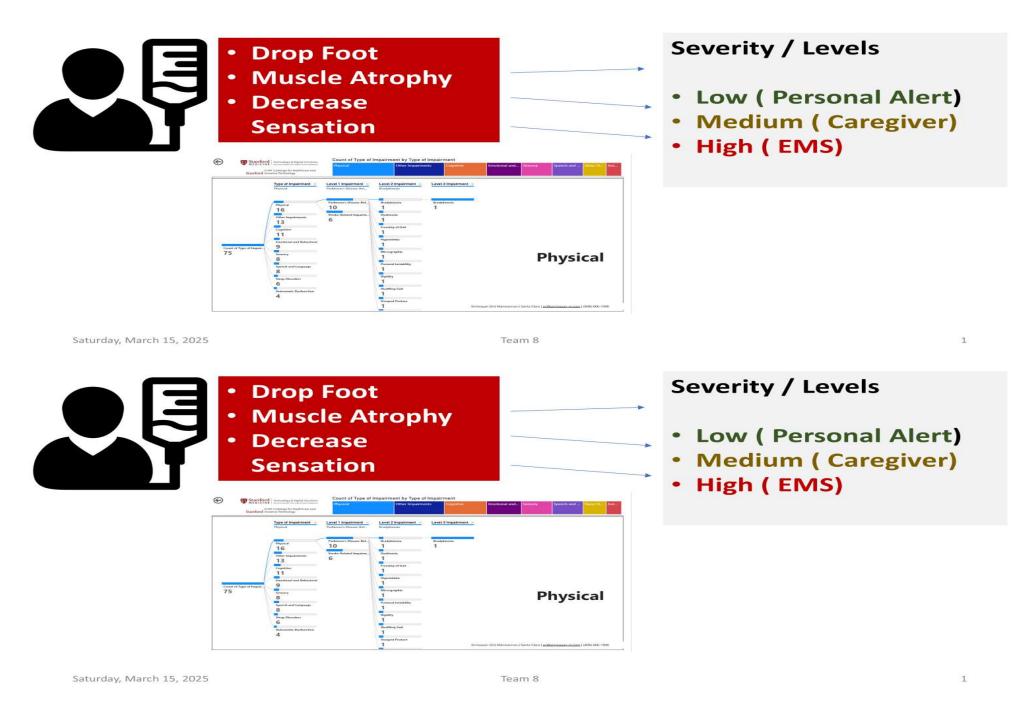
As discussed at the **Stanford University CHAT: Co-design for Healthcare and Assistive Technology** workshop, the focus is on **replacing traditional assistive devices with highly sophisticated ones powered by advanced AI technologies and edge computing, enabling them to predict, prevent, suggest, adjust, monitor, and alert everyone involved in the patient's journey about emergencies like wildfires and floods ahead of time.** These recommendations have been forwarded to the fire chief for early implementation, reinforcing the county's commitment to safeguarding those most at risk.



Saturday, March 8, 2025

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### **Urgent Fire Mitigation and Structural Safety Measures**

#### Dear Board Members, Fire Chief, and Team,

It gives me immense satisfaction to actively contribute to expediting efforts in mitigating wildfires, structural fires, and their devastating impact on lives and property.

I strongly recommend **designating burnt areas as high-risk fire zones**, not only for wildfires but also for structural fires. It is imperative that we **rebuild with enhanced fire-resistant architecture** as mandated by the city, county, and state. New homes must incorporate **external fire-extinguishing sprinklers and IoT monitoring systems** that alert first responders, senior centers, and individuals with disabilities.

Key safety measures should include:

- Roof-mounted sensors and sprinklers that detect and respond to fire intensity.
- Automated activation of utility service sprinklers if temperatures exceed a critical threshold.
- Integration of artificial reservoirs and alternative water sources as a first line of defense before emergency responders arrive.
- High-pressure pipes connected to fire hydrants, ensuring immediate water availability.
- Cooling stations near high-risk areas like Malibu Drive, funded through a joint venture between the city and local communities.

Additionally, I recently participated in a workshop at Stanford University on assistive technology development for individuals with impairments. I strongly emphasized the need to incorporate advanced monitoring and alerting systems to ensure that seniors and people with disabilities receive early warnings in emergencies like wildfires or floods, allowing them to evacuate to safety in time.

This is a **shared responsibility**—not one that falls solely on law enforcement or fire teams, but on every individual. I am committed to raising awareness and integrating emergency mitigation into every transformative effort. **In California, disaster preparedness should be a part of everyday life.** 

A detailed breakdown of shared responsibilities and implementation strategies is provided in the attached slides. I urge us to take swift action to safeguard our communities and prevent future disasters. Looking forward to your support in making this a reality.

Sincerely,

Sri A Proud Resident of City of Santa Clara

