



UNITED ARAB EMIRATES

دولة الإمارات العربية المتحدة

Phase 2

High Rise Building

Control Center

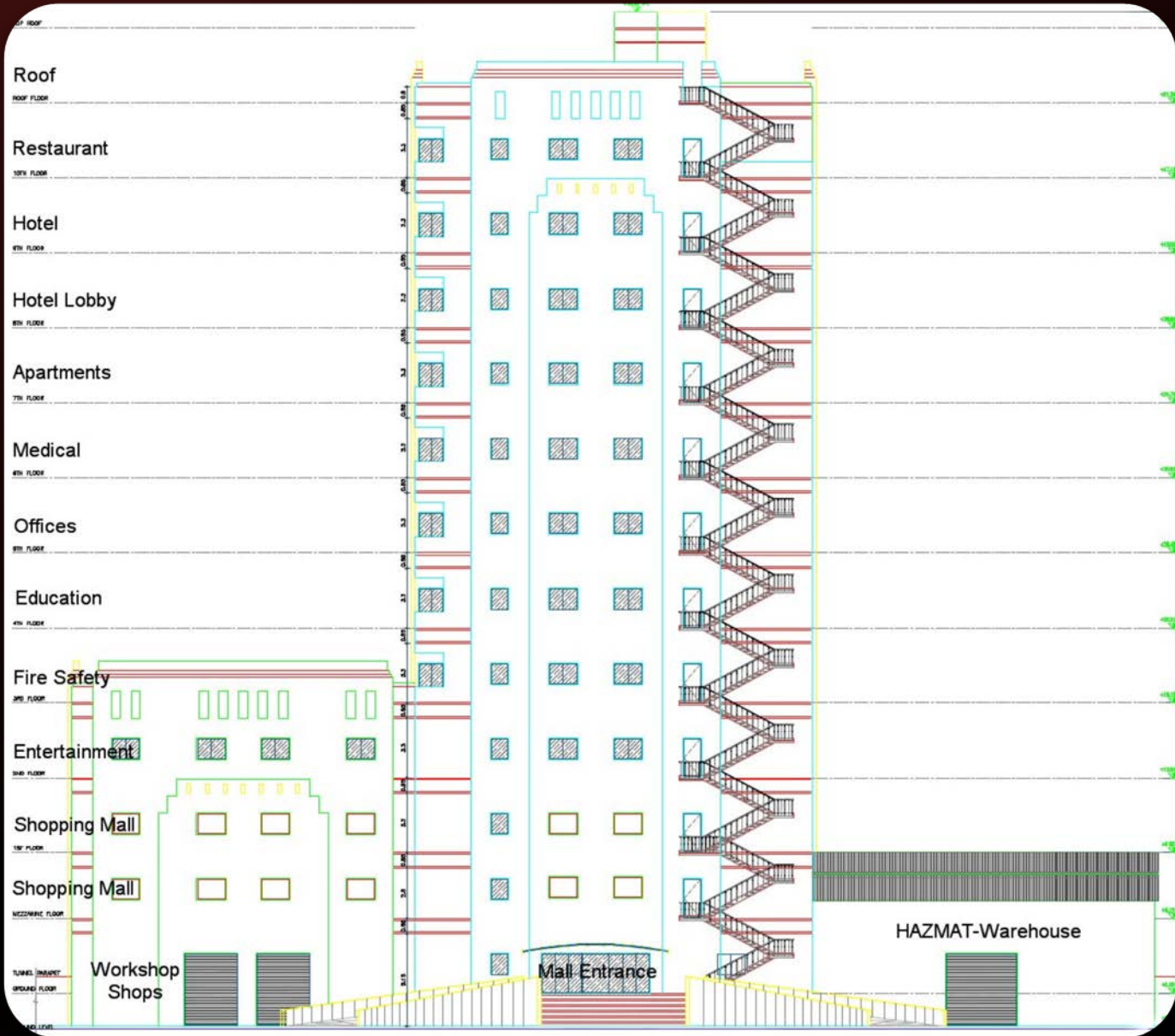


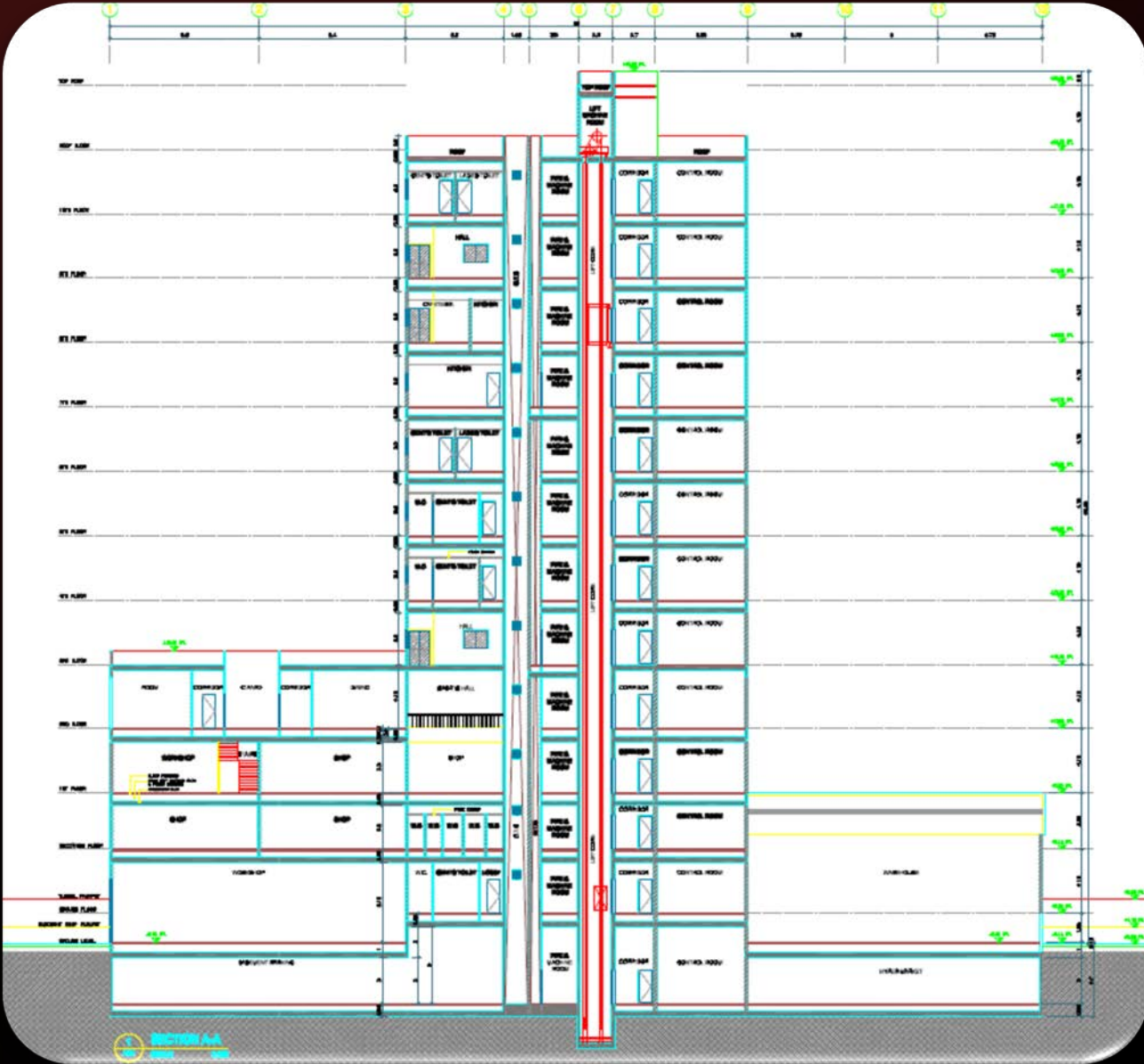
High Rise Fire Training Building for Civil Defence Training Academy Abu Dhabi



- Size HRB: 12-storeys, 2 Tunnels
- Hazardous goods warehouse
- 14 fire sectors, 3 sectors + HAZMAT can be operated simultaneously
- 3 Operator stations & 3 RCU
- 27 firesimulators with 35 fireplaces
- 13 Special Effect Props in the HAZMAT
- Solid Fire Room & Flue Gas Cleaning Plant
- 1 Hot Door
- 24 Smoke generators
- 28 Day/Night & 27 Thermal Cameras
- 2 Gas Evaporators (450 & 600 kg/h)
- 50 Gas Sensors
- 20 Combustion Air fans
- 28 Exhaust axial & roof fire gas fans







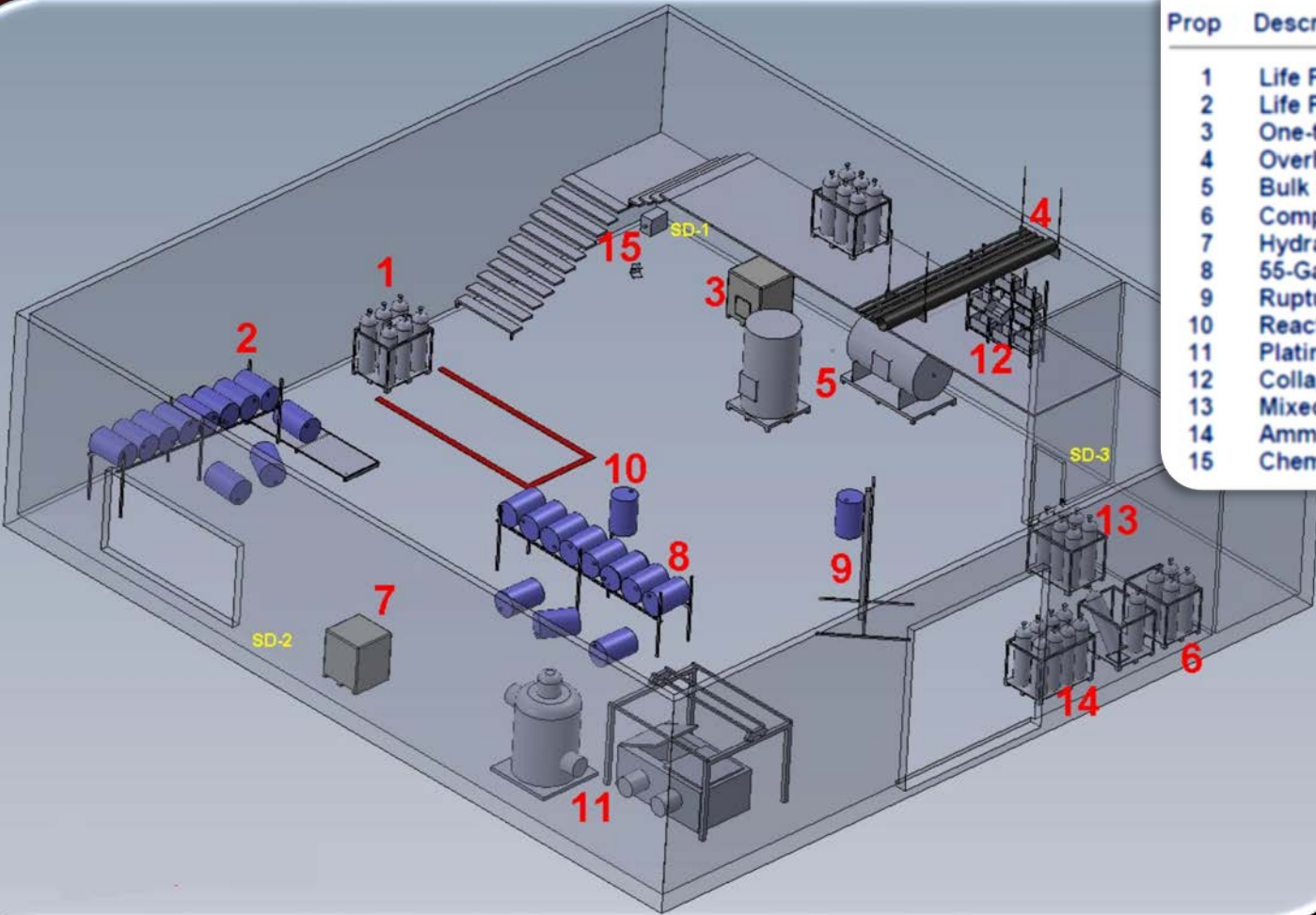
Roadtunnels & Underground Parking Lot

This architectural drawing illustrates the basement floor plan of a building, focusing on the integration of road tunnels and an underground parking lot. The plan is divided into several functional areas:

- DRIVEWAY:** Located on the left side, it shows the entrance and exit points for vehicles.
- PARKING:** Several parking spaces are marked, including a designated area for a "VEHICLE" and a "VEHICLE" space.
- MECHANICAL ROOMS:** Labeled as "MECH. ROOM" and "MECH. ROOM", these areas are situated in the central and right portions of the plan.
- STORAGE:** A "STORAGE" area is located in the upper right section.
- ENTRANCE:** The main entrance is marked with a "DOOR" symbol.
- Structural Elements:** The plan includes various structural details such as walls, columns, and beams, along with dimensions and annotations.

The drawing is a detailed technical representation, likely used for construction and engineering purposes, showing the spatial organization and infrastructure of the underground facility.

HAZMAT - Store
Principle Layout



| Prop | Description |
|------|---|
| 1 | Life Fire & Leaking Chlorine Cylinders |
| 2 | Life Fire & Drums falling from Rack |
| 3 | One-ton Chlorine Containerelement |
| 4 | Overhead Piping System |
| 5 | Bulk Storage Tanks, Horizontal & Vertical |
| 6 | Compressed Gas Cylinders |
| 7 | Hydrazine Liquid Tank |
| 8 | 55-Gallons Drums on Racks |
| 9 | Rupturing / Exploding Drum |
| 10 | Reacting Drum |
| 11 | Plating Plant Tank |
| 12 | Collapsing Dry Storage Shelving |
| 13 | Mixed Gas Cylinders |
| 14 | Ammonia Cylinders |
| 15 | Chemical Fire Size-up Simulator |







Gas Bottle Valve Fire



Puddle Fire















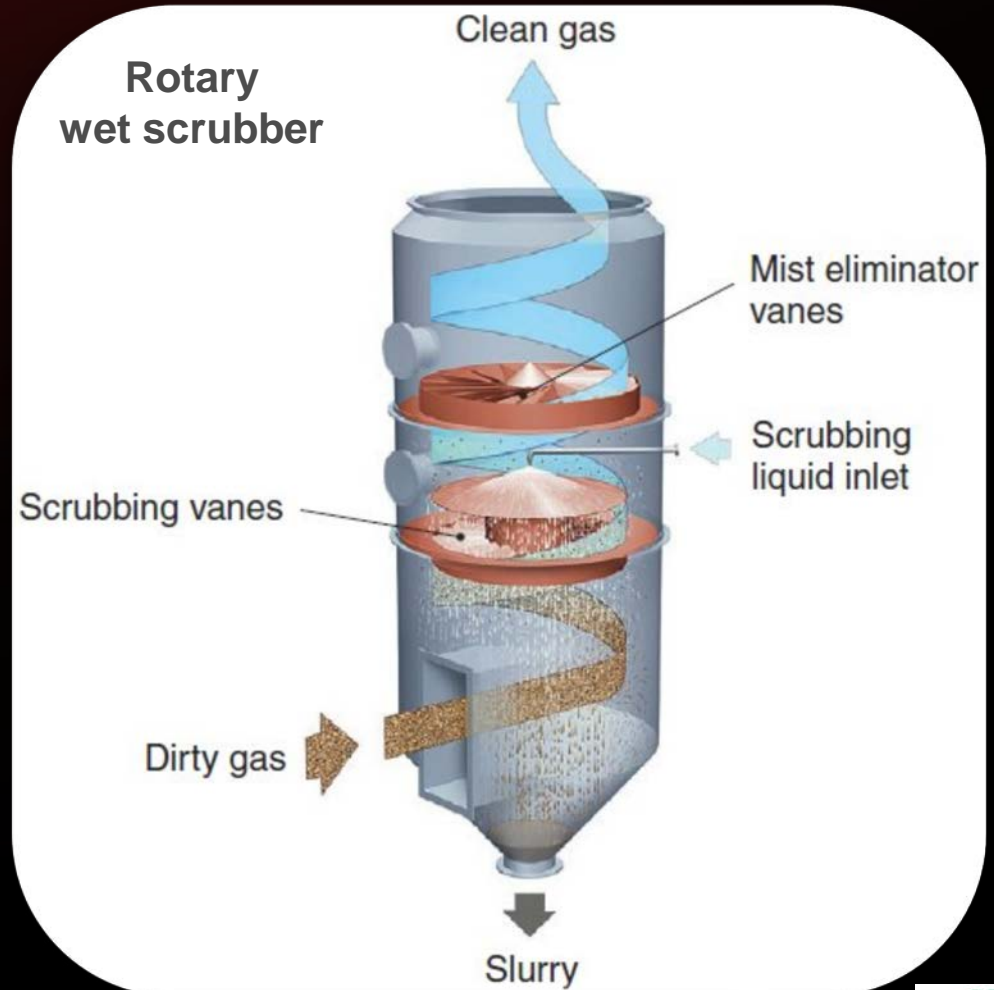
Barcounter Fire



Kitchen Fire



Flue Gas Cleaning Plant for class A fire

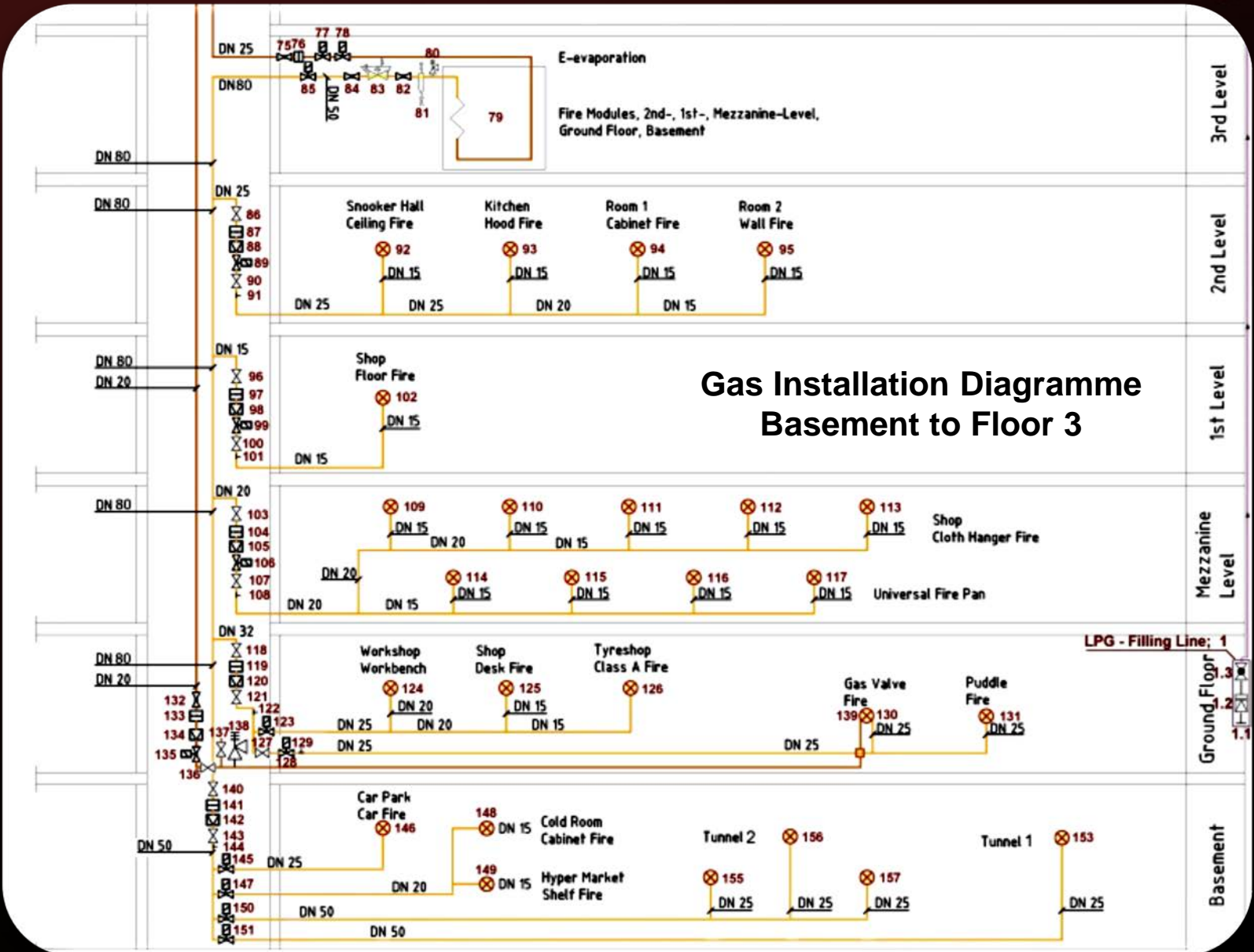




**Unique, patented
double floor system**







Product Data:

Make FAS Germany
Type FAS-2000
dry evaporator



Vaporizers

on the Roof

3rd Floor

Technical Data:

| | | |
|------------------------------|-------------|-----------------|
| Number of vaporizers | 3 | 4 |
| Capacity (kg/h) | 450 | 620 |
| Electricity consumption (kW) | 72 | 96 |
| Serving floors | Roof to 6th | 3rd to Basement |



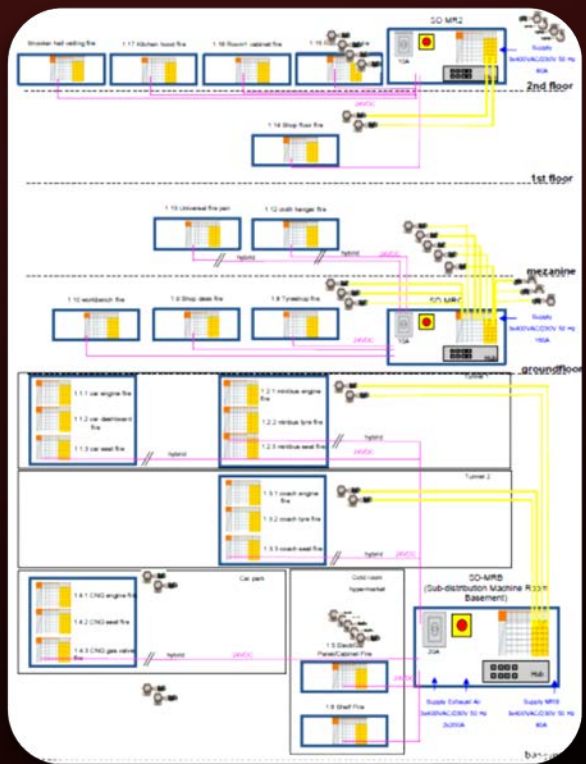
- Computer based PLC-Control System (intrinsically safe)
- In Fire Simulation Applications state of art
- Characteristics:
 - Reliability
 - Flexibility
 - Operability
 - Extensibility
 - Programmable
 - Remote Diagnose & Support



- Proven System Software
(HBA Feldkirch, LFWS Geretsried, FRTC Frankfurt, AZ Andelfingen...)
- Control of all system components
- Divers Setting Possibilities (Parameterization)
- Automatic Fire Process Control
- Training scenarios can be programmed and saved in so-called Recipes
- Possible Fire Place Adjustment Parameters:
 - Fire-fighting Exercise Level 1 - 9
 - Setting of Exercise Level for each Fire Place individually
 - Development time of Flame Size
 - Time delay until re-ignition occurs
 - Temperature Level where back fire occurs
 - Activation of the Fire Places selectively
 - Activation of all Fire Places in the Sector simultaneously

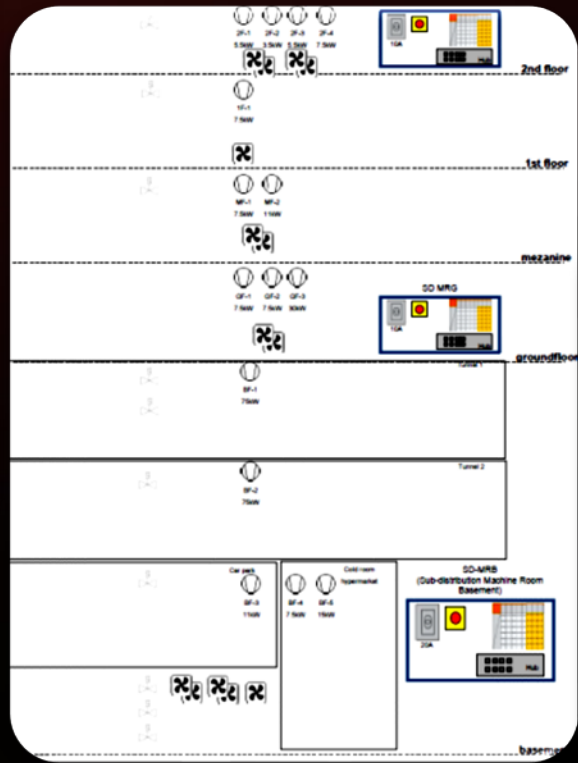


Hardware Concept

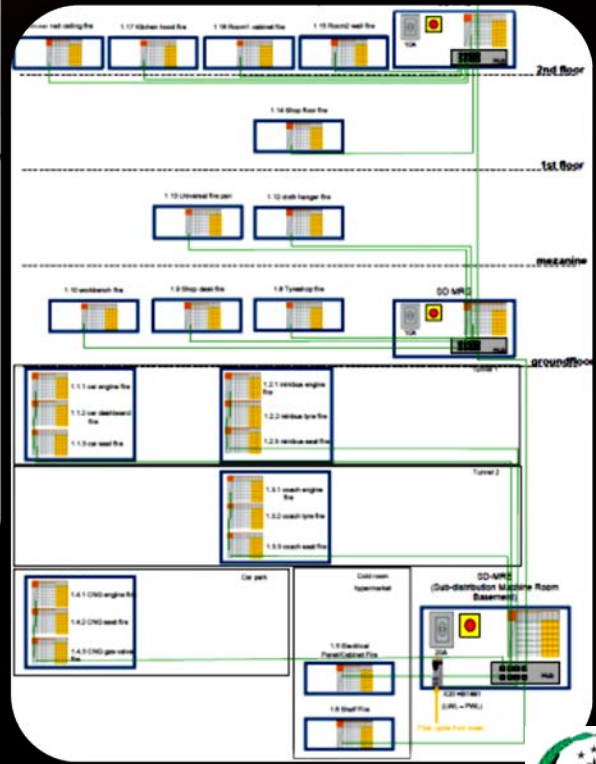


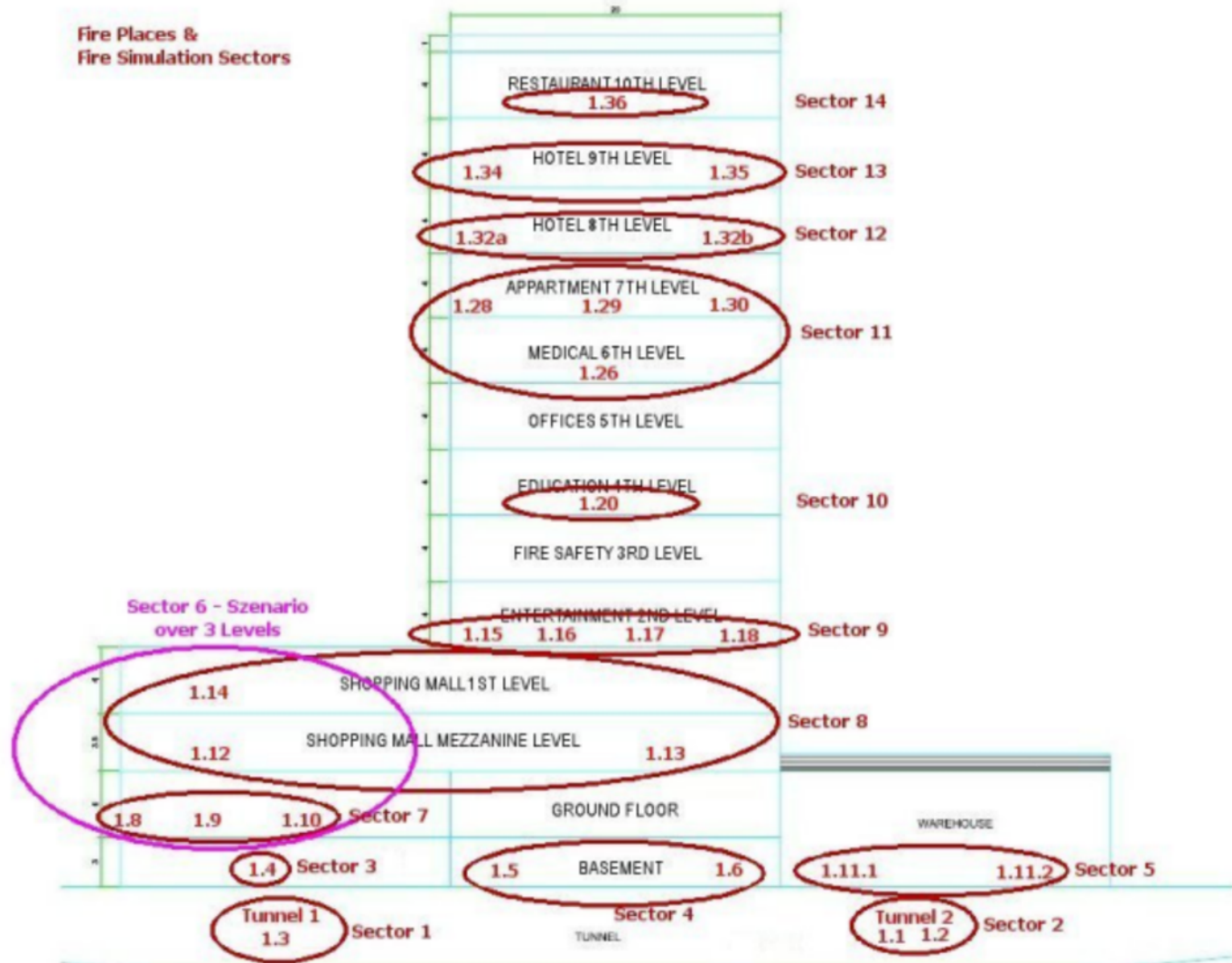
Fire places & gas sensors

Power wiring



Field bus wiring





GUJ / 4.2.2016

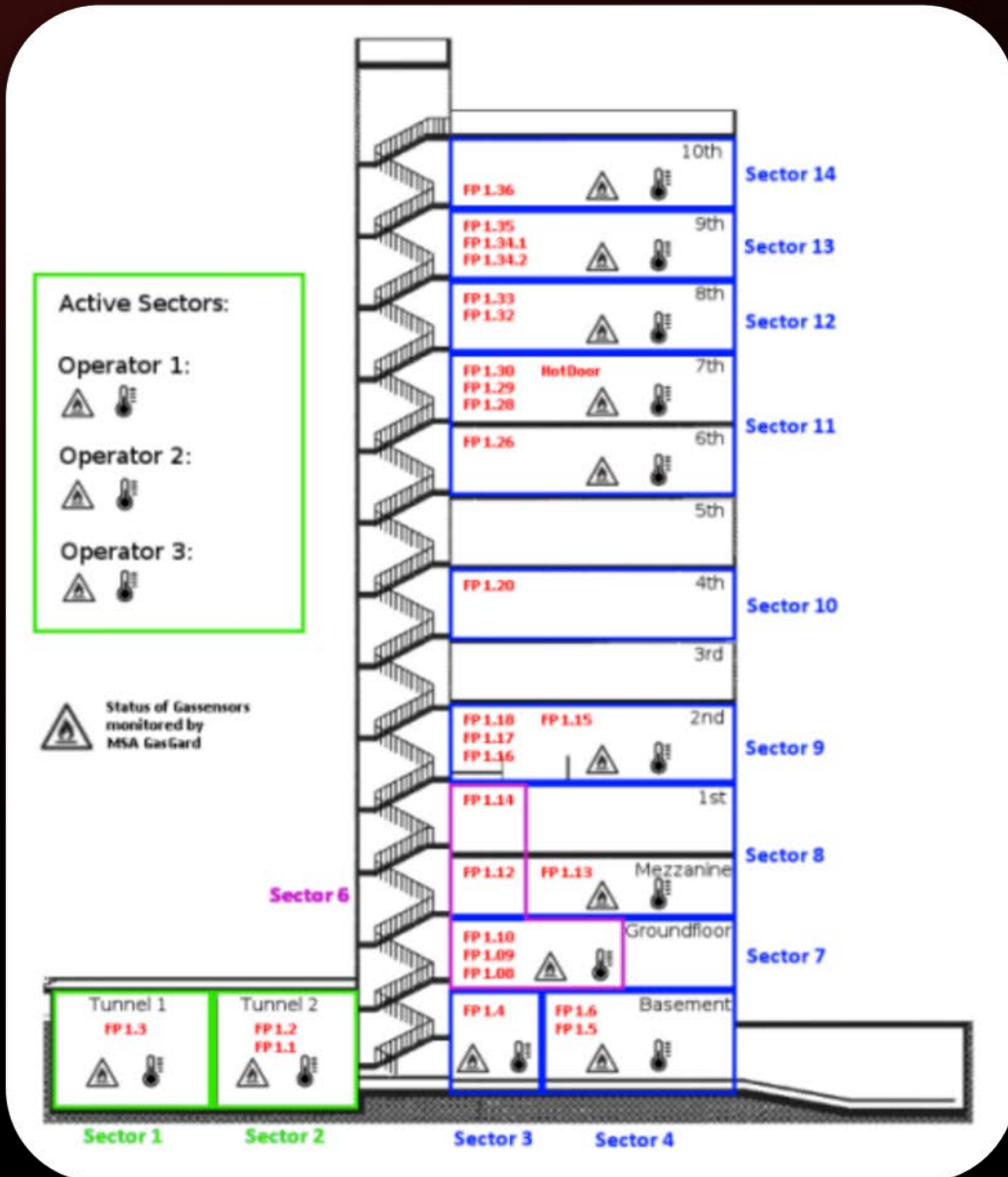


Control Room with State of the Art Plant Control System...

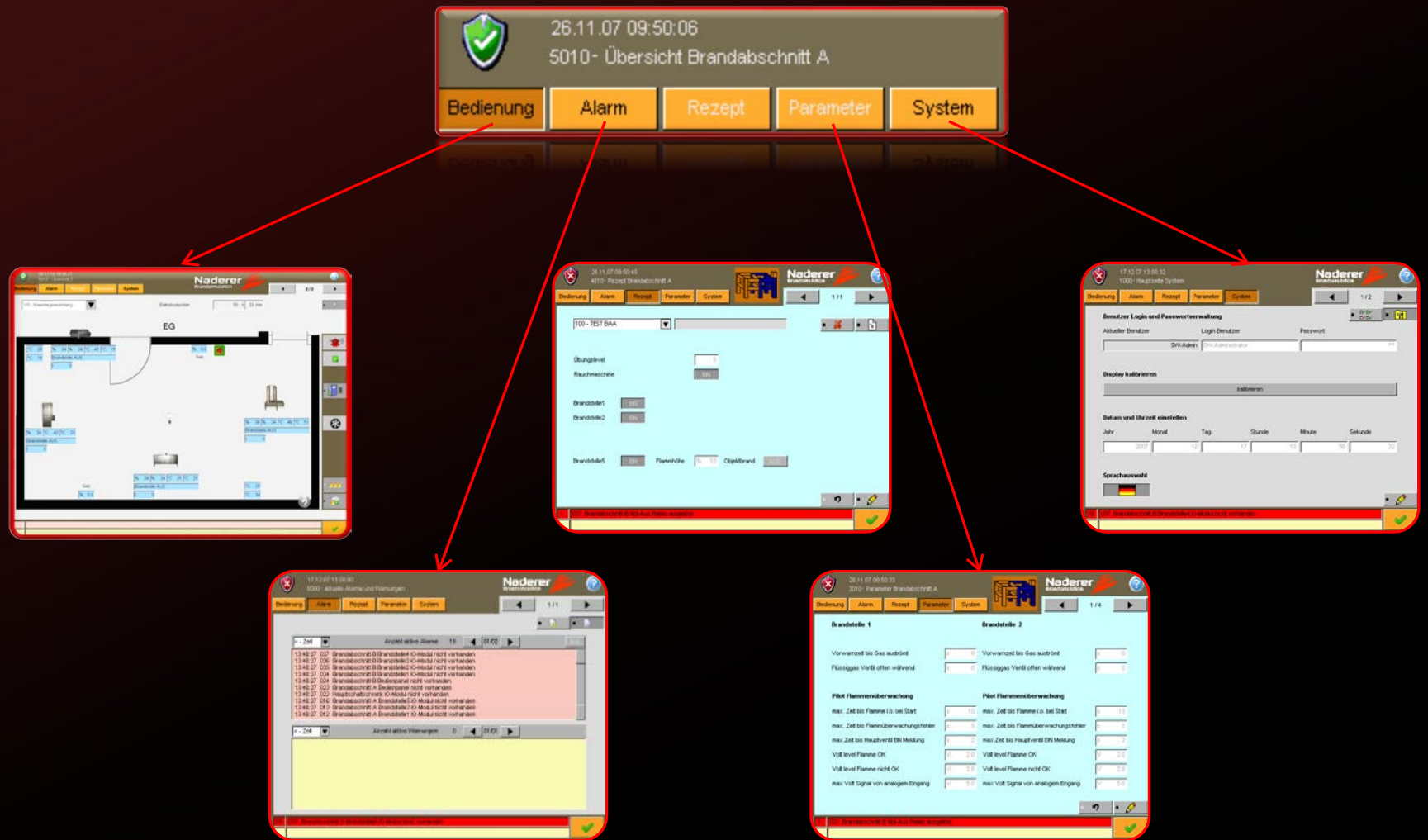


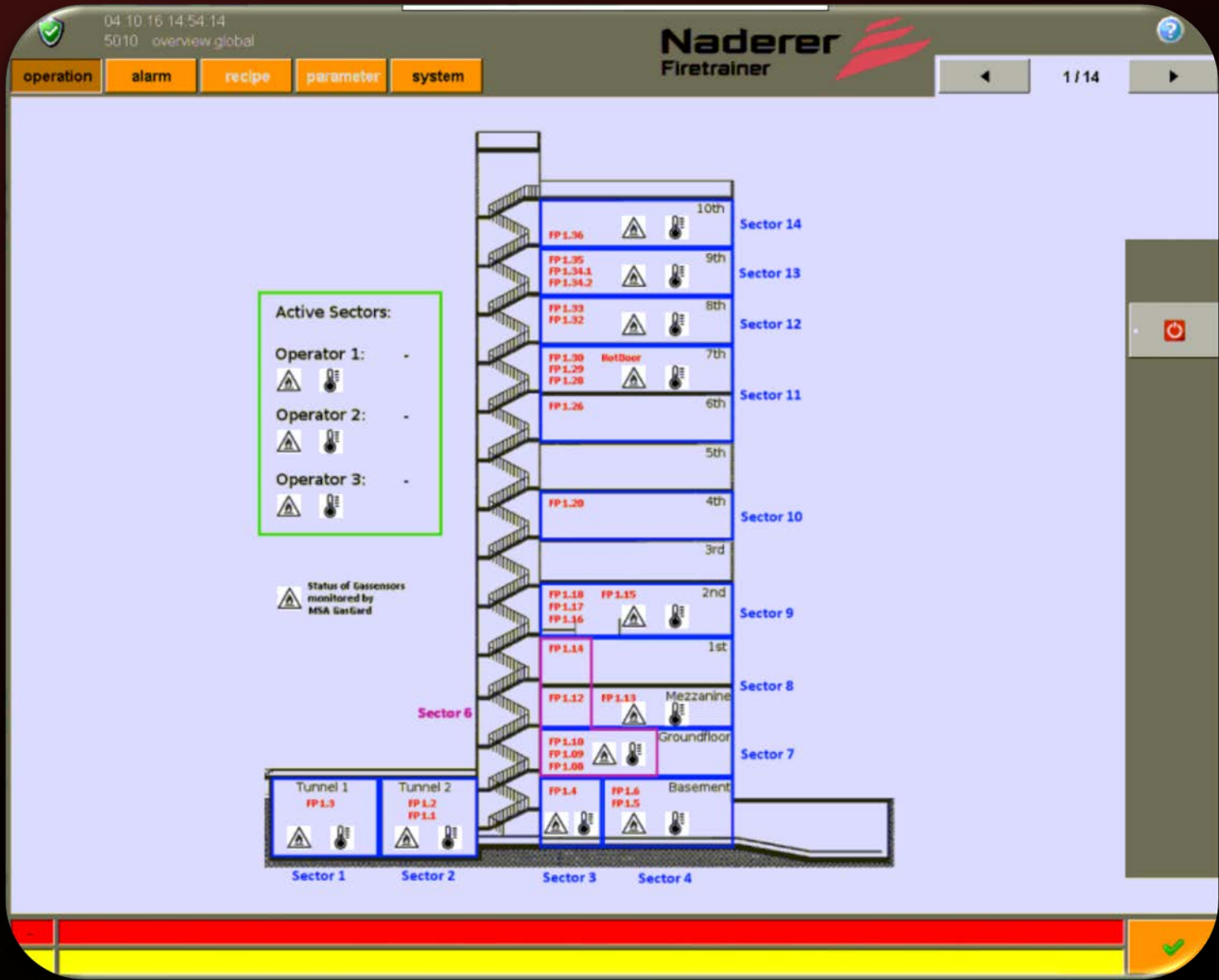
To control:

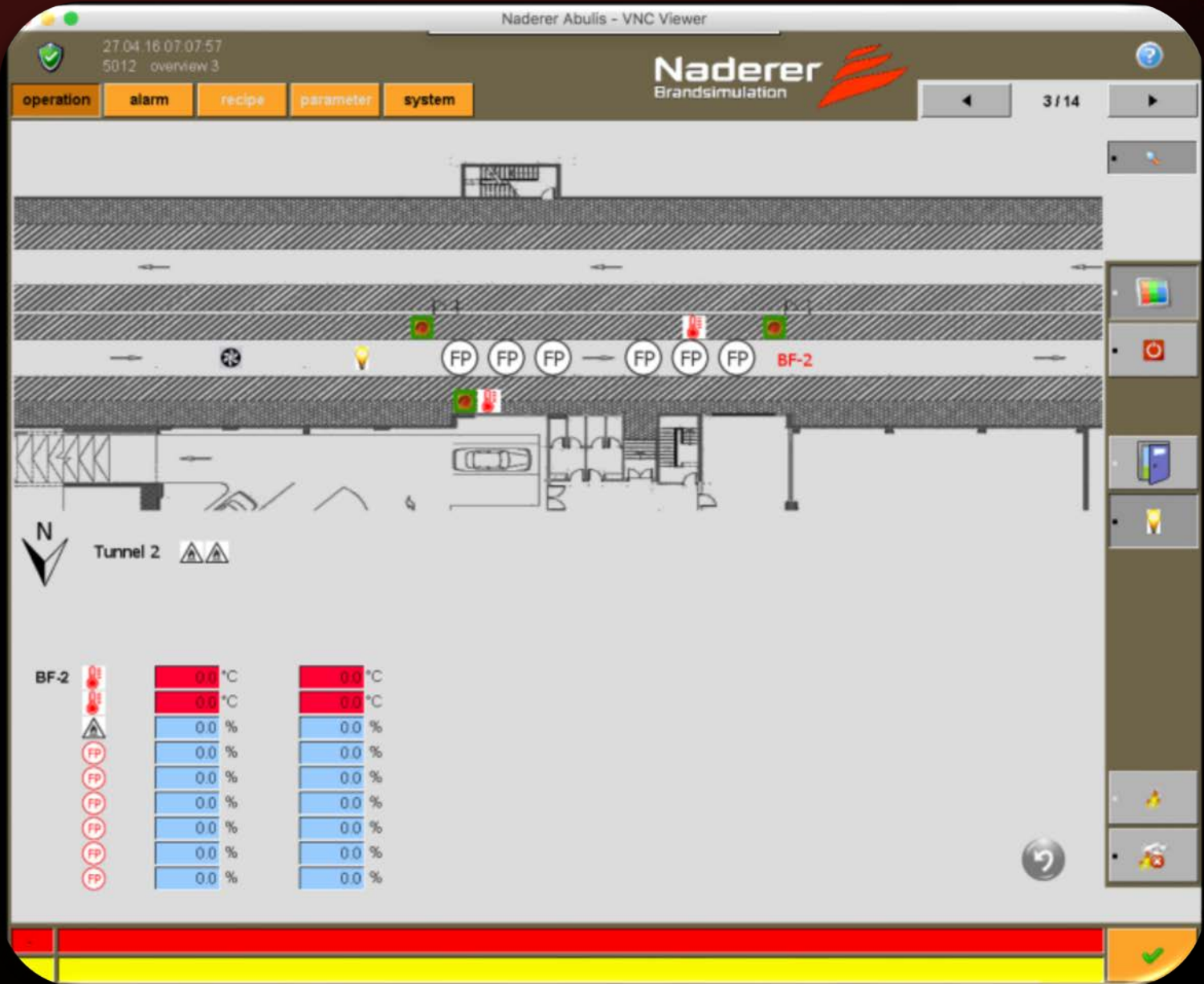
- 14 Fire sectors
- 3 Operator stations
- 3 Wireless remote control units
- 3 Fire sectors + HAZMAT can be operated simultaneously
- 27 Fire simulators with 35 Fire places & 45 stages of Fire.
- 1 Hot Door
- 1 Special Effects Cabinet 4th Floor
- 13 Special Effect Props in the HAZMAT
- 24 Smoke generators
- 10 Smoke distribution flaps
- 50 Gas sensors
- 37 Emergency stops
- 57 Emergency lights
- 90 Thermal sensors
- 61 Thermal probes
- 20 Combustion air fans
- 24 Exhaust axial fire gas fans
- 4 Exhaust roof fire gas fans
- 2 Circular duct fans
- 139 Solenoid gas valves
- 44 Solenoid air valves
- 23 Solenoid water valves
- 7 Solenoid acids valves
- 34 Regulating motor gas valves
- Flue Gas Cleaning Plant (Smoke Filtration)
- 28 Day/Night & 27 Thermal Cameras

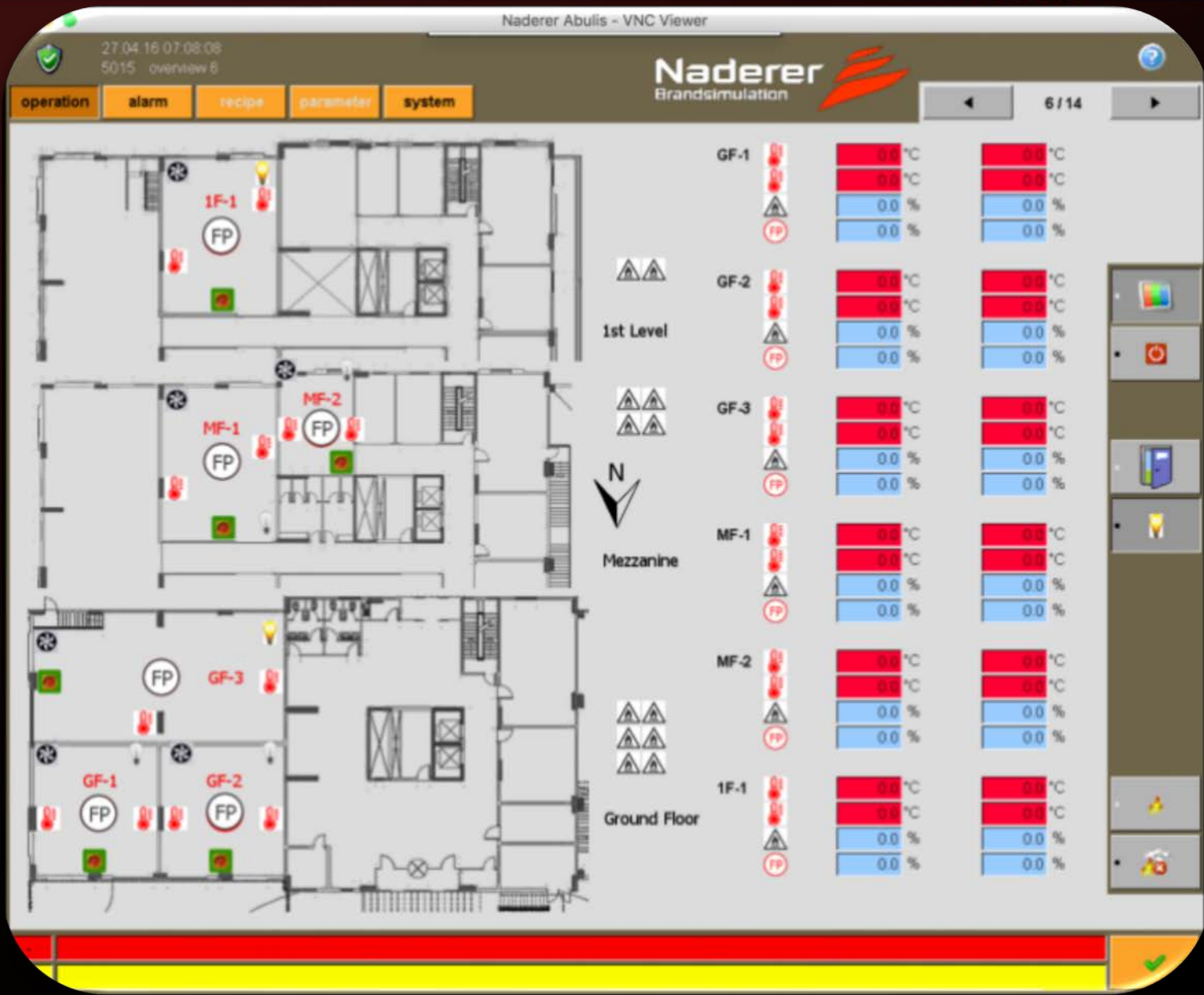


Operators Terminal - Navigation









Wireless Remote Control Unit



Legende Brandstellentasten (1-6) mit LED

| LED Farbe | Status | Bei Tastendruck |
|-------------------|---|-------------------------|
| Rot/Grün blinkend | Brandmodul aktiviert. Wird während der Aufwärmphase angezeigt | |
| Dunkel | Brandstelle AUS | Pilotflamme EIN |
| Blau blinkend | Pilotflamme wird gezündet | Pilotflamme AUS |
| Blau | Pilotflamme EIN | Brandsimulation startet |
| Grün blinkend | Brandsimulation läuft hoch | Abbruch Brandsimulation |
| Grün | Löschansatz | Pilotflamme EIN |
| Rot blinkend | Brandstelle weist eine Störung auf | keine Funktion |

Das Bedienpanel stellt den detaillierten Status jeder Brandstelle visuell dar.

Legende Quittierung (✓) mit LED

| LED Farbe | Status | Bei Tastendruck |
|-------------------|---|-------------------------|
| Dunkel | kein Fehler | keine Funktion |
| Rot/Grün blinkend | Eine Brandstelle weist eine Störung auf | Quittierung der Störung |
| Rot | Not-Aus ausgelöst | Quittierung der Störung |
| Rot blinkend | Globaler System Fehler | Quittierung der Störung |

Der detaillierte Fehler wird auf dem Bedienpanel visuell dargestellt.

Legende Eintaster (I) mit LED

| LED Farbe | Status | Bei Tastendruck |
|---------------|---------------------------------|-----------------------|
| Dunkel | Steuerung AUS | keine Funktion |
| Rot | Handfernbedienung AUS | Handfernbedienung EIN |
| Grün blinkend | System wird eingeschaltet | Handfernbedienung AUS |
| Grün | Handfernbedienung EIN (Betrieb) | Handfernbedienung AUS |
| Rot Blinkend | System wird abgeschaltet | keine Funktion |