Sheri L. Bonstelle
sbonstelle@jmbm.com

1900 Avenue of the Stars, 7th Floor
Los Angeles, California 90067-4308
(310) 203-8080 (310) 203-0567 Fax
www.jmbm.com

February 9, 2025

VIA E-MAIL

Los Angeles City Council
Los Angeles City Hall
200 N. Spring Street
Los Angeles, CA 90012
Attn: City Clerk
Cityclerk@lacity.org
LACouncilcomment.com

Re: 3003 N. Runyon Canyon Road (Council File No. 24-1371)
Fire Safety Analysis Summary
PLUM Committee Hearing Date: February 11, 2025

Dear President Harris-Dawson and Members of the Los Angeles City Council:

Our office represents Manny Valencia and his family, (the "Owner", "Valencia Family") the owners of the property at 3003 Runyon Canyon Road. (the "Property") The Valencia Family proposes to construct a 5,700 square foot two story residence on the Property (the "Project"), which was unanimously approved by the Mulholland Design Review Board ("DRB") and unanimously approved by the South Valley Area Planning Commission ("APC").

This letter responds to public comments regarding fire safety on the Property, and specifically addresses questions regarding recent fires described in the letter by Jamie Hall, submitted on behalf of the Runyon Canyon Coalition, dated February 4, 2025 ("RCC Letter"). The fire safety analysis below was previously provided to the City as part of the South Valley APC review and approval of the Project entitlements and certification of the EIR. None of this summary constitutes new information, but is provided here for clarity and ease of reference.

1. **Summary.** The Property is located within a Very High Fire Hazard Severity Zone ("VHFHSZ"), and the building design, landscape design, and extensive environmental review have all fully evaluated this risk and considered this environment in every factor of the design. The Project's fire safety and design features are described by the architect Ameen Ayoub in a written analysis, attached as Exhibit A. Retired Fire Chief Michael Dyer inspected the Property and the Project documents, and provided a fire-safety analysis which concluded that the Project meets or exceeds the City and State's fire-safety regulations, attached as Exhibit B. As part of the building permitting process, LADBS and LAFD will be required to review the Project in detail, and determine compliance with the Fire Code, as set forth in the plan check and Supplemental

Corrections for properties in a VHFHSZ, attached as Exhibits C and D. Finally, the LAFD previously reviewed and approved the Fire Hydrant and Access Plan for the Project, attached as Exhibit E.

2. **Fire-Safe and Sustainable Design.** In "*Runyon Canyon Residence: A Case Study in Climate-Resilient, Sustainable Architecture*", the architect Ameen Ayoub describes the Project's fire-safety and sustainable features which create a model for a new building typology in response to climate change. (See Exhibit A) It integrates state of the art construction technologies, passive cooling strategies and ecological design principles that result in self-sustaining, fire-resistant, sophisticated design. Core fire-resilience strategies include the following:

(a) ***Non-combustible materials***. The use of reinforced concrete, steel and stone pavers eliminates flammable building elements. The primary structure of the home is a concrete topping over a steel metal deck, supported by a structural steel framework. The metal decking provides additional strength and flexibility, and it reduces the overall structure weight. The steel framework is engineered for seismic stability, and the steel members have intumescent fireproofing to ensure structure integrity in the event of extreme heat exposure. This combination enhances fire resistance, improves thermal regulation, and minimizes movement in the event of a seismic event.

The residence is clad in non-combustible materials, including high-performance fiber cement elements, metal panel systems, fire treated hybrid wood elements, and the wall assembly includes non-combustible insulation, moisture barriers, and fire resistant coatings. The project incorporates fire-rated glass panels with double and triple glazed low-E windows to minimize heat gain, prevent heat loss and reduce glare.

(b) ***Ember-resistant Venting***. Engineered venting systems prevent embers from entering closed spaces. Elimination of attic spaces significantly reduces fire ember entry.

(c) ***Fire-resistant green roofs***: Planted roofs with drought-tolerant species minimize heat buildup and act as a natural firebreak. The earth berm design serves as a natural insulation and fire protection, reducing heat gain and providing a thermal buffer against wildfires.

(d) ***Automated sprinkler system***. The residence features a high-pressure fire suppression system linked to smoke, heat and ember sensors. The irrigation system and rooftop misting system automatically deploy water suppression when fire is detected.

(e) ***Water storage & active suppression***: The roof, decks, entrance fountain and courtyard fountain serve as a rainwater catchment system, providing stored water

for landscape irrigation and fire suppression. Subterranean drainage systems are installed beneath the foundation and retaining walls, ensuring that excess water does not compromise structural stability.

(f) ***Fire-resistant landscaping***. The landscaping will reduce fire risk through strategic vegetation management and fire-resistant plant species integrated with the fuel modification plan. The green roof and surrounding landscape feature low-fuel, high moisture plants that slow fire spread. The hardscape firebreaks, such as stone pathways and gravel zones, prevent direct flame transition to the home by creating a defensible space.

(g) ***Comprehensive fuel modification plan***. The Project increases the fuel modification area by .59 acres for a total of 3.3 acres that has been and will be regularly maintained by the Owner.

(h) ***Hillside terrain maintenance***. Comprehensive geotechnical studies were conducted as part of the EIR analysis to assess the soil stability, landslide risk and foundation integrity to ensure that the structure supports and enhances safety of the natural terrain.

3. **Fire Safety Expert Review**. Retired Fire Chief Michael Dyer submitted a letter to the City Council, dated February 9, 2025 (See Exhibit B) that specifically reviews the fire safety design standards based on an inspection of the Property and the Project documents, and concludes that the Project meets or exceeds the City and State's fire-safety regulations related to numerous issues including fire hydrant location and access, fire vehicle access, defensible space, and wildfire analysis in the EIR. In addition, Fire Chief Dyer notes that the Owner will retain a fire safety consultant to ensure that the new residence exceeds VHFHSZ standards and adopts new technologies to ensure life safety for residents and their neighbors.

4. **LAFD Fire Safety Review**. The LAFD previously reviewed and approved the Fire Hydrant and Access Plan, dated August 8, 2018, and reapproved it on May 31, 2024 (See Exhibit E). The LAFD reviewed the existing three (3) fire hydrants, which are identified as 2 ½ S and are located immediately to the west, north and east of the Property (See Exhibit E) The LAFD concluded that with the fourth hydrant, the Project will comply with Fire Code standards and maintain a flow requirement of 4,000 gallons per minute. This is a project design feature, as identified in the Project's EIR (FIR-PDF-1) In addition, the LAFD determined that an additional .59 acres of fuel modification area should be added to the existing 2.88 acres of fuel modification area. (See EIR, Section IV.L)

Fire Protection was fully evaluated in the Draft EIR Section IV.1, and the Project has no project or cumulative impacts related to fire protection services. For building permitting, LADBS will require compliance with the LA Fire Code and Title 24 related to fire protection services, and

signoff by LAFD. This will include compliance with all Fire Code standards, including Supplement Corrections for properties in a VHFHSZ (See Exhibits C, D)

5. **EIR Wildfire Analysis**.

As stated in our previous letter, dated February 1, 2024 (the "Applicant Letter") the Project had full environmental review through the preparation of an Environmental Impact Report ("EIR"), which included multiple studies. (State Clearinghouse No. 2018041016) The Mulholland DRB reviewed and approved the EIR in June 2022, and the South Valley APC approved and certified the EIR on August 8, 2024. Despite Appellant's claims that no wildfire analysis was done in the EIR, in fact, the EIR fully analyzed any impacts to wildfires by the Project, as set forth in the EIR, Section IV.1. The EIR evaluated the information provided by the LAFD, including the approved Fire Hydrant and Access Plan, dated August 8, 2018 (See Exhibit E). The EIR required that the fourth hydrant be included as a project design feature (FIR-PDF-1). The EIR required additional fuel modification area, such that 3.3 acres of the 4.5 acre Property is a protected fuel modification area. Finally, the EIR concluded that the Project has no project or cumulative impacts related to fire protection services.

6. **The Appellant's Claims Regarding Fire Safety Have No Merit**.

None of the claims in the RCC Letter regarding fire safety have any merit, or provide any substantial evidence in the record of any significant impact caused by the Project.

The RCC Letter describes the recent fires in the Palisades, Eaton, and Sunset area, and attaches several hundred pages of articles regarding the fires, their progress, and evacuation of various areas. However, the Letter and exhibits do not provide any information other than identifying recent fires that occurred in fire prone areas for yet unknown reasons during an unusual Santa Ana wind event. The RCC Letter states, without any evidence, that "the noted features of the Project site and location make it especially hard to reach for firefighters and rescuers to access the area to protect it." In fact, a Fire Chief who visited the Property during the Sunset Fire stated that the Property was well maintained and easily defensible. Despite the close location of the Sunset fire, none of the landscape or structures on the Property were impacted. The safety features of the existing Property and proposed Project are fire safe, as set forth in Fire Chief Michael Dyer's fire safety assessment (See Exhibit B). The RCC provides no substantial evidence in the record that the fires in other areas would create a higher likelihood of a wildfire impact from the Project as designed.

The RCC Letter implies that the Project could not fully analyze the potential impact of the Project on wildfires, because the recent Palisades, Eaton and Sunset fires had not yet occurred. But, to the contrary, the Project fully analyzed the fire safety impact in the EIR, as set forth above, including coordination with and evaluation by LAFD (See Exhibit E). Although single family homes are typically subject to a Class III CEQA exemption (for up to three residences), the Owner elected to draft an EIR and to evaluate every potential impact, including dozens of studies, to

ensure the Project would not have any actual impact, including to wildfire risk. This included a full evaluation of the design and its potential impact on wildfires (See EIR, Section IV.L, described above).

The RCC Letter also re-states the Hillside Federation's claim that the Project does not comply with the State fire safety regulations, which require the street adjacent to the Project to be 20 feet wide. As stated in our February 1, 2025 letter in detail, the Project is not required to comply with these provisions, because the road standard only applies to new or expanded streets, only applies to streets with 4 or more residences (Runyon Canyon Road has only 2 residences), and does not apply to roads that were part of a parcel map adopted prior to 1991 (Runyon Canyon Road was a deemed-approved prior street and part of a parcel map prior to this date) (See Board of Forestry, adopted State Minimum Fire Safe Regulations, CCR, Title 14). The Project does fully comply with all State and local fire regulations, and will increase the fire safety of the Property. The existing Project driveway is 20 feet wide from the road, where the new fire hydrant is located, to the existing house and main house, and includes a hammerhead 60 foot long fire truck turn around. (See Exhibit B)

In addition, on February 6, 2025, the Planning Director issued an appeal report that supports this analysis ("City Appeal Report"). The Report found that "the EIR prepared for the project discussed impacts with respect to impacts on fire protection services and emergency access. Pursuant to EIR Section IV.L (Public Services – Fire Protection) pages IV.L-15 to IV.L – 16, the LAFD will review the project plans for compliance with Los Angeles Fire Code, California Fire Code, City of Los Angeles Building Code, and National Fire Protection Association standards and would not approve permits unless emergency access meets their standards, thereby ensuring that the Project would not create any undue fire hazard. As the Project must demonstrate conformance with fire standards, this would not invalidate the Findings for approval of the project, as the Project would be consistent with the General Plan and zoning and would not be detrimental to the public welfare or injurious to others adjacent to or in the vicinity of the subject property. Vehicular access to the Project would be provided via an existing driveway along North Runyon Canyon Road, which is accessed from Mulholland Drive. Emergency access is also available to the ridge via the hiking trail, which has been recently paved. As such, emergency access to the Project Site and surrounding uses would be maintained at all times, as it is under current conditions. Furthermore, the Project's driveway and internal circulation would be designed to incorporate all applicable City Building Code and Fire Code requirements regarding site access, including providing adequate emergency vehicle access, which would be provided in a T-shaped fire department turnaround on the Project driveway. The project will comply with all LAFD requirements and recommendations related to emergency access. The Appellants have failed to provide any substantial evidence that an additional unit of housing would result in significant impacts related to fire services and public safety or that the findings were incorrect." The Report also confirms that the Project does not violate the State Minimum Fire Safe Regulations per CCR Title 14 Natural Resources, Division 1.5 Department of Forestry and Fire Protection, Chapter 7 Fire Protection, Subchapter 2 SRA/VHFHSZ Regulations which establishes minimum wildfire protection standards for projects

located in a VHFHSZ. The Report then describes in detail the reasons that the Project is exempt from the provisions.

7. **Conclusion**

In conclusion, the new home will provide a thoughtful, elegant, sustainable design that fully incorporates all fire safety measures in both the structure and landscape design. The potential wildfire impact was fully evaluated in the Project's EIR with coordination and approval by LAFD. The studies and evaluation are attached hereto in Exhibits A-E, and included in the Draft and Final EIR, incorporated herein by reference. RCC, the Appellants, and other public comment did not provide substantial evidence in the record, or any evidence, that the Project will cause a significant impact on wildfire risk.

We respectfully request that the City Council deny the appeals and uphold the South Valley APC's unanimous approval of the Project's entitlements and EIR certification.

Sincerely,

Sheri Bonstelle

SHERI L. BONSTELLE for
Jeffer Mangels Butler & Mitchell LLP

SLB

Exhibit A: *Runyon Canyon Residence: A Case Study in Climate-Resilient, Sustainable Architecture*, by architect Ameen Ayoub.
Exhibit B: Letter from Retired Fire Chief Michael W. Dyer, dated February 9, 2025, regarding the Property's fire safety assessment.
Exhibit C: LAFD Plan Check Review Summary, dated February 7, 2025, by BCG
Exhibit D: LADBS Supplemental Correction Sheet for VHFHSZ, dated January 1, 2024
Exhibit E: LAFD Approved Fire Hydrant and Access Plan, dated August 8, 2018 and May 31, 2024

cc: Councilmember Nithya Raman, CD4 (nithya.raman@lacity.org)
Mashael Majid, Deputy Chief of Staff, CD4 (mashael.majid@lacity.org)
Hannah Wenger. Legislative Deputy, CD12 (hannah.wenger@lacity.org)
Jeff Jacobberger, Legislative Director, CD3 (jeff.jacobberger@lacity.org)
Andrew Westall, Chief Deputy, CD10 (andrew.westall@lacity.org)
Hakeem Parke-Davis, Planning Director, CD10 (hakeem.parke-davis@lacity.org)
Councilmember Adrin Nazarian, CD 2 (adrin.nazarian@lacity.org)
Blake Lamb, Principal Planner (blake.lamb@lacity.org)

Claudia Rodriguez, City Planner (claudia.rodriguez@lacity.org)
Katie Knudson, Project Planner (katie.knudson@lacity.org)
Lisa Webber, Principal Planner (lisa.webber@lacity.org)
Candy Rosales, Legislative Assistant to PLUM Committee (Candy.Rosales@lacity.org)

EXHIBIT A

RUNYON CANYON RESIDENCE

A Case Study in Climate-Resilient, Sustainable Architecture

Luxury | Sustainability | Fire Resilience | Innovation

Prepared by:

Ameen Ayoub

Principal and Founder

Ameen Ayoub Design Studio

Los Angeles, CA

Project Location:

3003 Runyon Canyon Road, Los Angeles, CA

Project Overview:

The **Runyon Canyon Residence** is a **visionary example of modern hillside architecture,** seamlessly integrating **fire resistance, sustainability,** and **cutting-edge building systems** into a **high-performance living environment.** Designed to adapt to **Los Angeles' wildfire-prone landscape,** the residence leverages **advanced materials, passive cooling, green roofs, and smart home automation** to create a **self-sustaining, resilient home** that redefines **luxury living in extreme environments.**

Featuring:

✓ **Fire-Resistant Construction & Climate Adaptation**

✓ **Sustainable Green Roof Systems & Passive Cooling**

✓ **Smart Home Automation & Energy Independence**

✓ **Wildfire-Defensive Landscaping & Water Management**

✓ **High-Performance Concrete & Steel Engineering**

A Blueprint for the Future of Hillside Living

This booklet explores the architectural vision, technical execution, and long-term impact of the Runyon Canyon Residence, offering a model for future residential design in fire-prone, environmentally sensitive regions.

Ameen Ayoub Design Studio (AADS)

Innovating at the Intersection of Architecture, Sustainability, and Resilience

Table of Contents

Runyon Canyon Residence: A Case Study in Climate-Resilient, Sustainable Architecture

Introduction & Project Vision

The Runyon Canyon Residence: A New Standard in Hillside Architecture

The **Runyon Canyon Residence** is a groundbreaking example of **luxury hillside architecture,** where **fire resilience, environmental sustainability,** and **fluid modernism** converge to create a home that is as **functionally resilient as it is architecturally striking.** Designed to integrate **seamlessly into the rugged landscape of Runyon Canyon Park,** the **residence sets a new benchmark for site-sensitive, fire-adaptive design,** redefining what it means to build responsibly in **high-risk, ecologically sensitive areas.**

Located at the **top of the ridgeline,** the home is **partially buried,** employing **earth-bermed construction and green roof systems** to regulate climate, enhance **fire resistance,** and maintain a **low visual impact.** The home has been strategically positioned to **align with the natural contours of the land, ensuring compliance with the Mulholland Design Review Board's guidelines** while maintaining **minimal disruption to the surrounding ecosystem.**

This residence is not simply a **high-end home**—it is a **living study in climate-responsive architecture,** integrating **state-of-the-art construction systems, passive cooling strategies, and ecological design principles.** The result is a **self-sustaining, fire-resistant, and environmentally harmonious dwelling** that represents a forward-thinking approach to contemporary hillside design and construction.

Environmental Considerations & Findings from the EIR

The **Runyon Canyon Residence** is a carefully planned single family residence that has undergone a **rigorous environmental review process** to assess its potential impact on the surrounding ecosystem. The **Environmental Impact Report (EIR)** for the project provides a comprehensive analysis of the site's geological, ecological, and historical context, ensuring that the residence is designed **in alignment with environmental and historical preservation requirements.**

Key Environmental Findings:

1. Site Context & Geotechnical Stability

• The project is located within **Runyon Canyon Park,** approximately **0.5 miles south of Mulholland Drive** in the **Hollywood Hills.**

• **Comprehensive geotechnical studies** have been conducted to assess **soil stability, landslide risk, and foundation integrity** to ensure that the structure does not negatively impact the natural hillside terrain.

2. Historical Preservation

• The site is home to the **Headley/Handley House,** a designated **Los Angeles Historic-Cultural Monument (HCM #563).**

• The project ensures that **the historical structure remains intact,** with **adaptive reuse as Accessory Living Quarters, blending historical significance with modern functionality.**

3. Wildlife Movement & Biodiversity Protection

• The residence is located within a **wildlife movement corridor,** necessitating a **thorough study of local species and migration patterns.**

• The design incorporates landscaping and **open space buffers** to minimize disturbances to native wildlife habitats.

4. Vegetation & Fire Mitigation Strategies

• A **comprehensive fuel modification plan** has been integrated into the landscape design, reducing **fire risk through strategic vegetation management and fire-resistant plant species.**

• The project introduces **fire-resistant green roofs, ember-resistant venting, and a well-structured defensible space** to mitigate wildfire threats.

5. Noise & Air Quality Considerations

• The **construction phase** will be managed to minimize **noise pollution and air quality impacts,** ensuring compliance with **city regulations and environmental best practices.**

• Long-term strategies include **natural ventilation, green roofs, and passive cooling systems to enhance indoor air quality and overall building performance.**

These findings highlight the **Runyon Canyon Residence's commitment to environmental stewardship, historical preservation, and sustainable home.** The design approach is not only about **aesthetic and functional excellence** but also about **ensuring long-term ecological balance and fire resilience in a high-risk zone.**

Design Philosophy: Fluid Modernism Meets Resilient Design

At the core of the **Runyon Canyon Residence** is an **Ameen Ayoub Design Studio** philosophy of **fluid modernism,** a design approach that prioritizes **seamless transitions between structure and landscape.** The home's **curved and angular forms** are not arbitrary—they are sculpted to respond to **topographical constraints, environmental forces, and functional necessities.** This balance between **organic fluidity and geometric precision** ensures that the residence remains both **aesthetically striking and structurally efficient.**

Key Design Principles:

• **Site Integration & Topographical Adaptation:** The home is set within **50 feet of the original ridgeline,** ensuring that it remains **in harmony with the landscape** rather than overpowering it.

• **Fire-Resilient & Climate-Responsive Design:** By **embedding portions of the home into the hillside** and utilizing **green roofs and earth berms,** the structure maintains **natural insulation and fire resistance.**

• **Passive Cooling & Energy Efficiency:** The **internal courtyard at the main level and the depressed courtyard at the ridgeline** enhance **cross-ventilation,** while a **sunken water feature** helps regulate temperatures through **evaporative cooling.**

• **Materiality & Structural Integrity:** The **reinforced concrete and steel framework** provides **seismic stability and fireproofing,** while **low-E, fire-rated glazing ensures both thermal efficiency and safety.**

By integrating these principles, the home is designed not only as **a modern luxury residence** but as **an environmentally conscious response to the unique challenges of hillside residential design in wildfire-prone regions.**

A New Paradigm for Fire-Resilient, Sustainable Hillside Homes

Wildfires have become an **increasingly prevalent threat in California,** demanding **a shift in how we approach residential construction in high-risk zones.** The **Runyon Canyon Residence** represents a **holistic approach to fire adaptation,** where **architecture and landscape are designed as a unified system** to mitigate risk.

Core Fire-Resilience Strategies:

• **Non-Combustible Materials:** The use of **reinforced concrete, steel, and stone pavers** eliminates flammable building elements.

• **Ember-Resistant Venting**: Engineered **venting systems prevent embers from entering** enclosed spaces.

• **Fire-Resistant Green Roofs:** Planted roofs with **drought-tolerant species** minimize heat buildup and **act as natural firebreaks.**

• **Water Storage & Active Suppression**: The **roof, decks, entrance fountain and courtyard fountain serve as a rainwater catchment system,** providing stored water for **landscape irrigation and fire suppression.**

This **multi-layered approach to fire resilience** ensures that the home is **not only defensible but also self-sustaining,** using a **blend of passive and active fire mitigation strategies** to protect both the structure and the surrounding environment.

Merging Luxury with Environmental Responsibility

While **fire resilience and site integration** form the backbone of the project, the **Runyon Canyon Residence** is equally committed to **luxury, comfort, and experiential quality.** The home is designed to be **as visually captivating as it is technically sophisticated,** offering **expansive views, seamless indoor-outdoor transitions, and carefully curated materials** that enhance the **sensory experience of living in nature.**

Section 2: Site Integration & Land Use

Working with the Land: Merging Architecture with the Natural Environment

The **Runyon Canyon Residence** is designed to **disappear into the landscape,** utilizing a **low-impact, terrain-sensitive approach** that integrates the home **directly into the hillside.** The **placement, orientation, and excavation strategies** ensure that the structure is **both environmentally responsible and visually unobtrusive,** meeting the strict **Mulholland Design Review Board (MDRB) guidelines while enhancing fire resilience and climate adaptability.**

Regulatory & Environmental Context

The project site is located in **Runyon Canyon Park,** a highly **visible and ecologically sensitive area** subject to strict land-use regulations. The **MDRB mandates that structures must not exceed the natural ridgeline,** requiring a **carefully engineered placement that maintains the hill's natural form.**

Key regulatory requirements that shaped the design:

• **Ridgeline Protection:** The home is located **within 50 feet of the original ridgeline,** ensuring minimal disruption to the **existing topography.**

• **Wildland-Urban Interface (WUI) Compliance:** The site is in a **fire-prone zone,** requiring **defensible space planning, non-combustible materials, and fire-resistant landscaping.**

• **Historical Considerations: The Headley/Handley House (HCM #563)** remains preserved, ensuring compliance with historical preservation laws.

These constraints dictated a **subterranean approach,** with the home **partially buried** to maintain the **visual and ecological integrity** of the site.

Ridgeline Integration & Earth-Bermed Design

Depressing the Roof for Minimal Visual Impact

One of the defining features of the **Runyon Canyon Residence** is its **depressed roof profile** at the **top of the ridgeline.** Rather than **building above the natural crest of the hill,** the design **excavates into the terrain,** allowing the **planted green roof to blend seamlessly with the surrounding landscape.**

• **Planted Roof at Existing Ridgeline:** By maintaining the **original hilltop elevation,** the home appears as an **extension of the natural terrain** rather than an intrusive structure.

• **Depressed Central Courtyard for Passive Cooling & Privacy:** A **courtyard is recessed into the roofline,** creating a **climatically optimized, private outdoor space** without disrupting the **existing ridgeline profile.**

• **Fire Resilience Through Subterranean Massing:** The **earth-bermed sections** serve as **natural insulation and fire protection,** reducing heat gain and providing a **thermal buffer against wildfires.**

Courtyard Design as a Climate & Spatial Strategy

Internal Courtyard at Main Level

At the **main level,** a **large internal courtyard** functions as the **heart of the home,** creating an **enclosed outdoor environment** that enhances **natural ventilation, daylighting, and cooling.**

• **Microclimate Control:** The **courtyard acts as a passive cooling zone,** where **warm air rises and is vented out,** maintaining **stable indoor temperatures.**

• **Connection to Nature:** The space provides a **direct indoor-outdoor experience,** reinforcing the **fluid modernist** approach of the home.

Depressed Courtyard at the Ridgeline

At the **uppermost portion of the home,** a **secondary courtyard is carved into the roofline,** further enhancing the **climate-adaptive design**.

• **Wind Protection & Heat Reduction**: The **lowered profile** of the courtyard creates a **buffer against strong winds** while mitigating **heat absorption** from direct sunlight.

• **Water Feature for Evaporative Cooling:** A **shallow pond** at the courtyard base provides **natural cooling,** leveraging **evaporative principles** to **reduce surrounding temperatures.**

Fire-Resistant Landscaping & Defensible Space Planning

Given the site's location in a **Wildland-Urban Interface (WUI) zone,** the landscaping strategy is **both aesthetic and defensive,** designed to **minimize wildfire risk while enhancing ecological integrity**.

Key Strategies:

• **Fuel Modification Zones:** The **landscaped buffer zones** around the home use **non-combustible hardscapes, drought-tolerant native plants, and strategic irrigation** to reduce fire hazards.

• **Green Roof as Fire Mitigation:** The **planted roof** absorbs heat and provides **a natural fire break,** preventing embers from igniting the structure.

• **Fire-Resistant Hardscaping:** The **permeable stone pavers** used on walkable roof surfaces and patios eliminate **flammable ground cover materials**.

• **Emergency Water Supply**: The **entrance fountain, courtyard fountain, roof, and decks, double as a rainwater catchment basin,** storing water for **landscape irrigation and fire suppression**.

Balancing Regulatory Constraints with Architectural Vision

The **Runyon Canyon Residence** is a **response to both design ambition and regulatory necessity,** requiring **an intelligent balance between creative vision and environmental responsibility.**

Regulatory Challenges & Design Adaptations:

1. **MDRB Height & Ridgeline Restrictions → Depressed Roof & Earth-Bermed Massing**

2. **WUI Fire Safety Regulations → Non-Combustible Materials, Green Roofs, & Defensible Space**

3. **Historical Preservation Requirements → Adaptive Reuse of the Headley/Handley House**

By working **within these constraints,** the residence becomes **a case study in adaptive hillside architecture,** proving that **stringent regulations can enhance rather than hinder great design.**

Section 3: Structural Systems & Materiality

Engineering a Resilient and Fireproof Structure

The **Runyon Canyon Residence** is built with a **robust structural system** designed to ensure **long-term durability, fire resistance, and seismic stability** while maintaining **seamless integration with the natural landscape.** The home's **reinforced concrete and steel framework,** combined with **fire-rated materials and high-performance glazing,** provides a **defensible, low-maintenance, and high-performance structure** that meets the stringent requirements of **hillside home and Wildland-Urban Interface (WUI) regulations.**

The structural and material strategies employed in this residence are not just about compliance—they are a **deliberate response to the extreme conditions of the site, including wildfire exposure, seismic activity, and thermal fluctuations.**

Primary Structural System: Reinforced Concrete & Steel Framework

The residence's **load-bearing system** is composed of **reinforced concrete and structural steel,** which work together to provide **fireproofing, seismic resilience, and thermal mass advantages.**

1. Concrete Topping Over a Metal Deck

• The **primary structure** of the home is built using **a concrete topping over a steel metal deck,** supported by a **structural steel framework** underneath.

• This combination **enhances fire resistance, improves thermal regulation, and minimizes movement in seismic events.**

• The **metal decking provides additional strength and flexibility,** reducing the overall weight of the structure while maintaining **high load-bearing capacity.**

2. Structural Steel Framework

• The **steel framework** is engineered for **seismic stability,** ensuring that the home can withstand **ground motion without structural failure.**

• All **steel members are fireproofed,** reducing heat transfer and ensuring structural integrity even in the event of extreme heat exposure.

• The design incorporates **moment frames** to absorb lateral forces, making the home resistant to both **earthquake tremors and wind loads.**

3. Earth-Bermed Structural Integration

• Portions of the **home are embedded into the hillside,** leveraging **the thermal mass of the earth** to regulate interior temperatures.

• This **subterranean construction approach** naturally protects the home from **wildfires and extreme heat fluctuations,** reducing the need for mechanical cooling.

Fire-Resistant Envelope & Material Selection

Since the home is located in a **WUI (Wildland-Urban Interface) zone,** it requires an **exterior envelope that is non-combustible, ember-resistant, and structurally sound.** Every material used in the façade, roof, and openings was chosen to **enhance fire resistance while maintaining aesthetic elegance.**

1. Exterior Cladding & Wall Assembly

• The residence is clad in **non-combustible materials,** including:

• **High-performance fiber cement elements**

• **Metal panel systems**

• **Fire-treated hybrid wood elements for aesthetic contrast**

• The wall assembly is designed with **multiple layers of protection,** including:

• **Non-combustible insulation** for enhanced thermal performance

• **Moisture barriers** to prevent condensation buildup

• **Fire-resistant coatings** to withstand high heat exposure

2. Glazing & High-Performance Windows

• The project incorporates **fire-rated glass panels** that protect against extreme heat while maintaining **unobstructed views and natural daylighting.**

• **Double- and triple-glazed low-E windows** are used to:

• **Minimize heat gain** in the summer

• **Prevent heat loss** in the winter

• **Reduce glare while maintaining high visibility**

• The glazing is **strategically positioned** to facilitate **cross-ventilation and passive cooling,** ensuring **thermal comfort without over-reliance on mechanical systems.**

3. Fireproof Venting & Ember Protection

• All ventilation openings use **ember-resistant venting systems,** which prevent **wind-driven embers from entering the home's mechanical systems.**

• The design eliminates **flammable venting materials,** ensuring that all components are rated for **WUI compliance.**

Green Roof & Advanced Roofing Systems

One of the most **innovative features of the Runyon Canyon Residence** is its **fully planted green roof,** which integrates **American Hydrotech's Garden Roof® Assembly** to **provide insulation, stormwater management, and additional fire resistance.**

1. Green Roof Structural Layers

The green roof system is designed as a **multi-layered assembly** that combines:

- **Waterproofing membrane (Hydrotech Monolithic Membrane 6125®)**
- **Drainage & filtration layers**
- **High-performance insulation**
- **Specialized growing media**
- **Drought-tolerant native plantings**

By integrating these layers, the **roof is capable of absorbing heat, reducing water runoff, and preventing fire spread,** while also enhancing the **thermal efficiency of the home.**

2. Walkable Roof Surfaces & Fire-Resistant Hardscaping

- **Permeable stone pavers** are used in areas where the roof is designed for foot traffic, ensuring that **no flammable materials are used on walkable surfaces.**
- The **stone pavers provide a cooling effect,** reflecting solar radiation and reducing the overall **thermal load on the struct**ure.

Stormwater Management & Structural Drainage

The site's **hillside location and green roof design** require a **comprehensive stormwater management strategy** to prevent **erosion, runoff, and water infiltration issues.**

1. Rainwater Catchment & Filtration

• The **entrance fountain acts as a rainwater catchment basin,** storing excess runoff in an **underground tank.**

• This water is **filtered and reused** for **irrigation and fire suppression,** ensuring that the landscape remains **self-sustaining and drought-resistant.**

2. Permeable Hardscaping for Drainage Control

• The **stone pavers and permeable pathways** reduce **surface runoff,** allowing water to **naturally infiltrate into the ground.**

• The **landscape grading** is engineered to **channel excess water away from the foundation,** preventing **erosion and slope instability.**

Balancing Strength, Safety, and Sustainability

The **Runyon Canyon Residence** is an **engineering marvel** that blends **fireproofing, structural resilience, and environmental performance** into a cohesive**, high-performance home.** By utilizing a **reinforced concrete and steel framework,** integrating **advanced fireproofing strategies,** and leveraging **climate-adaptive roofing systems,** the residence is built to **withstand the unique challenges of hillside homes in Los Angeles.**

Section 4: Climate & Environmental Strategies

Designing for Climate Adaptation & Environmental Efficiency

The **Runyon Canyon Residence** is more than just a high-end home—it is a **climate-responsive dwelling,** engineered to function in harmony with its **natural environment.** Situated in a **semi-arid region prone to wildfires and extreme heat,** the residence employs **passive solar design, natural ventilation, green roof technology, and water conservation strategies** to ensure year-round thermal comfort while minimizing **energy demand and environmental impact.**

Rather than relying solely on **mechanical systems,** the home is designed to **self-regulate,** leveraging the **site's microclimate, topography, and architectural form** to create a **passive, high-performance living environment.**

Total Heat Gain Reduction: How the Home Stays Cool

The residence is designed to **minimize heat gain,** using a **combination of shading, thermal mass, and planted surfaces** to prevent **excessive solar absorption.**

1. Green Roofs as Natural Insulation

• The **fully planted green roofs** absorb solar radiation, reducing the **heat island effect** and providing **a natural cooling buffer.**

• By using **American Hydrotech's Garden Roof® Assembly,** the roof layers **trap moisture and prevent direct heat absorption** into the home.

• The planted roof also functions as an **insulating barrier,** stabilizing indoor temperatures and reducing **cooling demands in summer** and **heating needs in winter.**

2. Earth-Bermed Walls & Thermal Mass

• Sections of the home are **embedded into the hillside,** allowing **the earth to function as natural insulation.**

• The **reinforced concrete walls** absorb heat during the day and release it slowly at night, maintaining **stable indoor temperatures** without mechanical intervention.

3. Depressed Courtyards & Shaded Outdoor Spaces

• **The internal courtyard at the main level** and the **depressed courtyard at the ridgeline** function as **thermal buffers,** reducing direct sun exposure and creating **cooling microclimates**.

• **5-foot roof eaves** shade the interior spaces, **blocking direct sun penetration** during peak heat hours.

Natural Ventilation & Passive Cooling Strategies

The home is designed to **breathe naturally**, utilizing **cross-ventilation, stack ventilation, and strategically placed openings to promote airflow and passive cooling**.

1. Cross-Ventilation Through Opposing Openings

• The residence features **large, operable sliding doors on multiple elevations,** allowing **prevailing breezes to flow through the home.**

• As cool air enters, **hot air is expelled through higher openings,** reducing **heat buildup without mechanical air conditioning.**

2. Stack Ventilation Through the Central Courtyard

• The **internal courtyard at the main level** functions as a **chimney effect,** where warm air rises and is vented out through **high openings,** pulling **cooler air through lower vents.**

• This **natural airflow pattern** continuously circulates fresh air, maintaining a **comfortable indoor climate.**

3. Depressed Courtyard & Water Feature for Evaporative Cooling

• The **courtyard at the ridgeline** includes a **shallow pond,** which **cools surrounding air through evaporation.**

• As water evaporates, it **absorbs heat from the air,** creating a **cooling effect that enhances outdoor comfort.**

Passive Solar Design & Energy Efficiency

The **Runyon Canyon Residence** is strategically oriented to **optimize solar exposure in winter while minimizing heat gain in summer.**

1. High-Performance Glazing & Solar Control

• **Low-E, double- and triple-glazed windows** reduce solar heat gain while maintaining **high visibility and natural daylighting.**

• **Motorized exterior shading systems** adjust throughout the day to block excessive sunlight while maximizing views.

2. Thermal Mass for Heat Retention in Winter

• **Exposed concrete walls & stone floors** absorb solar radiation during the day**, releasing stored heat at night** to warm the interiors naturally.

• This strategy **reduces dependence on mechanical heating,** improving energy efficiency.

Water Conservation & Sustainable Hydrology

The residence integrates **advanced water management systems,** ensuring **efficient irrigation, rainwater harvesting, and stormwater control.**

1. Rainwater Harvesting & Storage

• The **entrance fountain, courtyard fountain, roof and decks function as a rainwater catchment basin,** storing water in an **underground tank for irrigation & fire suppression.**

• **Permeable hardscaping** allows rainwater to **naturally infiltrate into the ground,** reducing stormwater runoff and preventing erosion.

2. Drought-Tolerant Landscaping & Smart Irrigation

• The home's **landscaping is composed entirely of native, drought-tolerant species,** reducing the need for irrigation.

• **Automated drip irrigation systems** ensure **efficient water usage,** delivering moisture directly to plant roots with minimal waste.

3. On-Site Wastewater Management & Graywater Recycling

• A **graywater recycling system** repurposes wastewater from sinks and showers for **landscape irrigation,** minimizing water waste.

• **Bioswales & retention basins** filter runoff before reintroducing it into the **natural watershed.**

Fire Resilience Through Environmental Design

The home's **environmental strategies are not just about comfort and efficiency**—they are also **key fire mitigation tactics**.

1. Fire-Resistant Planting Strategy

• The **green roof & surrounding landscape** feature **low-fuel, high-moisture plants that slow fire spread.**

• **Hardscape firebreaks** (such as stone pathways & gravel zones) prevent **direct flame transmission to the home.**

2. Ember-Resistant Design Features

• **Non-combustible exterior cladding** prevent ignition.

• **Specialized ember-resistant vents** block airborne embers from entering the structure.

3. Passive Cooling as Fire Protection

• The **depressed courtyard & water feature** create a **moisture-rich zone** that prevents dry, fire-prone conditions.

• The **green roof retains water,** reducing surface temperatures and mitigating wildfire risk.

The Home as a Climate-Resilient Prototype

The **Runyon Canyon Residence** demonstrates how **homes in general and in this case, luxury architecture can be aligned with climate resilience and ecological responsibility.** By integrating **passive design, sustainable water management, and fireproof materials,** the home functions as a **model for the future of hillside homes in fire-prone and arid regions.**

Section 5: Green Building Systems & Sustainability

Achieving High-Performance Sustainability in a Fire-Prone Environment

The **Runyon Canyon Residence** is a **showcase of advanced green building systems,** integrating **renewable energy, high-performance insulation, and smart building technology** to create a **low-carbon, energy-efficient home.** Designed to function **in harmony with its natural surroundings,** the residence leverages **solar energy, passive climate strategies, and sustainable materials** to achieve a **high-performance, fire-resilient, and environmentally responsible design.**

Rather than relying solely on **conventional energy sources,** the home is engineered to be **self-sustaining,** reducing its impact on the environment while maximizing occupant comfort.

Renewable Energy & Net-Zero Potential

1. Solar Power Integration

The residence is designed as a **solar-ready home,** with an integrated **photovoltaic (PV) system** that generates on-site renewable energy.

- **Solar panels are integrated into the site design,** minimizing visual impact while maximizing solar exposure.
- **Battery storage systems** allow for **off-grid energy independence,** ensuring power availability even during outages.
- The **solar energy system is designed to offset the home's total electricity consumption,** bringing it closer to **net-zero energy status.**

2. Solar-Thermal Heating for Water & HVAC

- **Solar water heating panels** provide **hot water for domestic use,** reducing reliance on gas or electric water heaters.
- The system **pre-heats water for the radiant heating system,** increasing energy efficiency in colder months.

Advanced Insulation & Building Envelope Performance

1. High-Performance Insulation for Energy Efficiency

The home is constructed with **a tightly sealed building envelope,** ensuring **minimal energy loss** while maintaining interior comfort.

- **Non-combustible, high-R-value insulation** enhances both **thermal and fire resistance.**
- **Insulated Concrete Forms (ICFs) and Structural Insulated Panels (SIPs) provide superior airtightness and durability.**
- **Thermal bridging is minimized** through careful detailing and the use of advanced **air-sealing materials.**

2. Smart Air-Sealing & Passive Ventilation

- **Airtight construction prevents heat leakage** in winter and unwanted heat gain in summer.
- **High-efficiency mechanical ventilation systems (ERVs & HRVs)** ensure continuous fresh air supply without energy loss.
- **Operable sliding doors and windows & stack ventilation** allow for **natural airflow,** reducing the need for mechanical cooling.

Smart Home Technology for Energy Management

1. Intelligent Climate Control & Monitoring

- **Automated climate control systems** adjust heating, cooling, and ventilation based on real-time indoor conditions.
- **Sensors monitor temperature, humidity, and CO_2 levels,** optimizing air quality and energy efficiency.

2. Adaptive Lighting & Energy Use Optimization

- **Daylight-responsive LED lighting** adjusts brightness based on natural light levels.
- **Automated shading systems** reduce solar heat gain, lowering cooling demand.
- **Smart home energy dashboards** allow occupants to monitor and optimize power usage.

Sustainable Materials & Low-Carbon Construction

1. Fire-Resistant, Recycled & Locally Sourced Materials

- **Reclaimed wood & recycled metal components** reduce embodied carbon.
- **Low-VOC paints, finishes, and adhesives** improve indoor air quality.
- **Concrete mix incorporates recycled materials,** reducing environmental impact.

2. Permeable & Low-Impact Hardscaping

- **Stone pavers & gravel pathways** allow for **natural water infiltration,** reducing runoff.
- **Corten steel planters and concrete retaining walls** provide durability with **a weathered, maintenance-free finish.**

Water Conservation & Sustainable Hydrology

1. Rainwater Harvesting & Storage

- The **entrance fountain, courtyard fountain, roof and decks collect rainwater,** storing it for l**andscape irrigation and fire suppression.**
- A **subsurface cistern** captures additional runoff**,** ensuring a **self-sustaining water supply.**

2. Smart Irrigation & Graywater Recycling

- **Automated drip irrigation systems** deliver water efficiently to **drought-tolerant plants.**
- **Graywater from sinks & showers** is **filtered and reused** for **landscape irrigation,** reducing waste.

The Home as a Living, Self-Sustaining System

By integrating **solar power, passive design, fire-resistant materials, and smart home technology,** the **Runyon Canyon Residence** functions as a **highly efficient, self-sustaining ecosystem.** It sets a **new benchmark for resilient, luxury hillside architecture,** proving that sustainability and fire safety can **coexist seamlessly.**

Section 6: Construction Technology & Innovation

Building a Resilient & Efficient Home in a Complex Environment

The **Runyon Canyon Residence** is not only defined by its **architectural vision** and **sustainability strategies**—it is also a **feat of construction technology and engineering innovation.** The home's **precise hillside integration, fire-resistant materials, and complex structural systems** required an approach that leveraged **advanced digital modeling, prefabrication techniques, and cutting-edge fabrication methods** to achieve both **design precision and construction efficiency.**

Unlike conventional hillside homes, which often rely on **traditional grading and excavation,** this residence was designed to **minimize site disruption** while maximizing **structural integrity and environmental adaptation.**

Advanced Digital Modeling & Parametric Design

1. BIM & Computational Design for Precision Engineering

• The project was designed using **Building Information Modeling (BIM)** to **integrate structural, mechanical, and environmental data** into a **single, real-time digital model.**

• **Parametric design software** was used to fine-tune the home's **roof curvature, overhangs, and ridgeline integration,** ensuring **minimal site disturbance** while maintaining **aesthetic fluidity.**

• **Simulations of solar exposure, wind loads, and thermal performance** helped optimize **the positioning of courtyards, openings, and shading elements.**

2. 3D Scanning & Topographical Mapping

• The **site was digitally scanned using LiDAR technology,** allowing for **precise terrain modeling and structural adaptation.**

• This data ensured that the **foundation and earth-bermed elements** followed the **natural contours of the land,** reducing unnecessary excavation.

Prefabrication & Off-Site Construction Efficiencies

1. Prefabricated Structural Components for Speed & Precision

• Key elements of the **structural steel framework** are **fabricated off-site,** ensuring **greater precision and reducing on-site labor time.**

• **Precast concrete elements for the project and site and non-load-bearing sections** are delivered and installed with **minimal disruption to the site.**

• **Steel moment frames are pre-assembled where applicable,** allowing for **faster on-site erection and seismic reinforcement.**

2. Modular Construction Techniques for Sustainable Building

• **Custom modular wall sections,** including **insulated façade panels,** are constructed off-site and assembled on location, reducing **construction waste and improving installation efficiency.**

• The **green roof assembly** are prefabricated in layers, making installation faster while ensuring **consistent waterproofing and insulation performance.**

Innovative Concrete & Steel Fabrication Techniques

1. High-Performance Concrete with Recycled Materials

• The **reinforced concrete mix** included **recycled fly ash and supplementary cementitious materials (SCMs)** to **reduce carbon footprint.**

• **Self-healing concrete additives** were used in certain areas to **prevent cracks and increase longevity.**

• **High-strength, fiber-reinforced concrete** was applied in **seismic load-bearing areas** to ensure **long-term structural resilience.**

2. Steel Fabrication & Fireproofing Advancements

• **All exposed steel elements** are coated with **intumescent fireproofing,** expanding under extreme heat to prevent **structural weakening during wildfires.**

• **Laser-cut steel components** are fabricated with **custom precision,** ensuring **tight integration between architectural elements and structural reinforcements.**

Smart Construction Methods for Fire & Climate Resilience

1. Integrated Fireproofing at Every Construction Level

• **Multi-layered fire-resistant assemblies** are used in **walls, ceilings, and exterior cladding** to exceed **WUI (Wildland-Urban Interface) fire codes.**

• **Non-combustible insulation materials,** such as **mineral wool and aerated concrete blocks,** are installed to enhance **thermal and fire performance.**

• **Ember-resistant venting systems** are integrated into the roofing and façade, preventing **wind-driven embers from entering the structure.**

2. Waterproofing & Drainage Innovations for Hillside Stability

• **Subterranean drainage systems** are installed beneath the **foundation and retaining walls,** ensuring that **excess water does not compromise structural stability.**

• **Bentonite waterproofing membranes** are applied to all **below-grade concrete walls,** providing **long-term protection against moisture intru**sion.

Construction as a Synthesis of Technology & Sustainability

By integrating **digital modeling, prefabrication, advanced materials, and climate-responsive building techniques,** the **Runyon Canyon Residence** represents a new **frontier in fire-resistant, high-performance residential construction.**

Rather than relying on **traditional hillside construction techniques,** this project leverages **cutting-edge methodologies** to create a home that is:

✓ **Stronger and more resilient**

✓ **Faster and more efficient to build**

✓ **Lower in environmental impact**

✓ **Optimized for long-term energy performance and safety**

Section 7: Smart Home & Resilient Infrastructure

Integrating Intelligent Systems for Safety, Efficiency, and Comfort

The **Runyon Canyon Residence** is not just a marvel of architecture and construction—it is a **fully responsive, intelligent living environment.** By integrating s**mart home automation, advanced security systems, and resilient infrastructure,** the home ensures **seamless operation, optimal energy efficiency, and enhanced safety,** particularly in the face of **wildfire risks and extreme weather conditions.**

This section describes the **technologies and systems** that make the home **adaptive, self-regulating, and future-proof,** blending **state-of-the-art automation with fire resilience and water conservation strategies.**

1. Smart Home Automation & Integrated Climate Control

A Fully Connected Living Experience

The residence is equipped with a **comprehensive smart home system,** allowing for **real-time monitoring and automated control of climate, lighting, security, and energy usage.**

• **Centralized Home Automation Platform: A custom-built control system** integrates **lighting, HVAC, security, shading, and renewable energy management** into a **single user interface,** accessible via **mobile devices, voice commands, or smart displays.**

• **AI-Powered Climate Regulation:** The home **self-adjusts temperature, humidity, and ventilation** based on **weather conditions, occupancy patterns, and real-time energy demand.**

• **Dynamic Shading Systems: Automated exterior shades and electrochromic smart glass** adjust based on **solar exposure,** optimizing **daylight use and reducing cooling loads.**

Advanced HVAC & Air Quality Management

• **Geothermal**: The home utilizes **geothermal heat exchange,** reducing **energy consumption for heating.**

• **Energy Recovery Ventilation (ERV):** An **advanced ERV system continuously filters and circulates fresh air,** improving **indoor air quality** while maintaining **energy efficiency.**

• **AI-Based Air Quality Monitoring: Real-time sensors track airborne pollutants, humidity levels, and CO_2,** ensuring a **healthy indoor environment.**

2. Advanced Security & Fire Detection Systems

A Fire-Resilient, High-Security Home

With the home located in a **fire-prone Wildland-Urban Interface (WUI) zone,** security and disaster preparedness are integrated into every system.

Fire & Smoke Detection

• **Smart Ember Detection:** AI-driven cameras detect **approaching embers or early fire signs,** automatically triggering **defensive fire mitigation measures.**

• **Automated Sprinkler System:** The residence features **a high-pressure fire suppression system** linked to **smoke, heat, and ember sensors,** activating in **high-risk scenarios.**

• **Perimeter Fire Buffer Activation:** The **irrigation system and rooftop misting system** automatically deploy **water suppression** when wildfire threats are detected.

Advanced Security & Threat Protection

• **Biometric Entry & Perimeter Surveillance:** Facial recognition, fingerprint scanning, and AI-driven **motion detection cameras** ensure **only authorized access.**

• **Hardened Perimeter & Reinforced Entry Points:** The home features **security doors, impact resistant glazing, and automated perimeter defenses.**

• **AI-Powered Intrusion Detection:** Motion-activated cameras **distinguish between human activity, wildlife, and environmental factors,** reducing **false alarms** while ensuring **real-time threat monitoring.**

3. On-Site Water Management & Emergency Preparedness

Self-Sustaining Water Systems

Given the **drought-prone climate of Los Angeles,** the residence is designed for **maximum water efficiency,** ensuring **sustainability and fire preparedness.**

Rainwater Harvesting & Storage

• The **entrance fountain, courtyard fountain, roof and decks function as a rainwater catchment basin,** collecting water for **landscape irrigation and fire suppression.**

• **Underground cisterns** store and purify **rainwater for domestic and emergency use,** reducing reliance on municipal water.

Graywater Recycling

• **Smart filtration systems** purify **graywater from sinks, showers, and laundry,** reusing it for **irrigation and non-potable needs.**

• **Automated distribution systems** ensure **precise water allocation** based on **weather forecasts and soil moisture levels.**

Emergency Water Supply for Fire Suppression

• The home features an **on-site emergency water reservoir,** providing **pressurized water for fire suppression systems.**

• **High-volume pumps and rooftop sprinkler systems** create a **defensive moisture barrier** in extreme fire conditions.

4. Sustainable Energy Management & Backup Power

Solar Power & Battery Storage for Grid Independence

The residence is designed to be **resilient against power outages,** utilizing **on-site renewable energy generation and battery backup.**

• **Integrated Solar PV System:** The project features **high-efficiency solar panels,** optimized for **maximum energy production and minimal visual impact.**

• **Battery Storage & Off-Grid Capability:** A **Tesla Powerwall-style battery system** stores excess energy, allowing the home to **operate independently in the event of grid failure.**

• **Smart Load Balancing:** AI-driven energy management systems prioritize **critical loads,** ensuring **essential functions remain active even during outages.**

Backup Generator for Critical Systems

• The home includes a **low-emission backup generator,** ensuring **uninterrupted power for security, water pumps, and climate control in extreme conditions.**

• The generator operates on **renewable biofuel,** reducing its **carbon footprint while maintaining emergency readiness.**

5. The Future of Smart, Resilient Living

The **Runyon Canyon Residence** is not just a **high-tech smart home**—it is a **self-sustaining, disaster-ready, and climate-adaptive dwelling.** With **integrated automation, intelligent water management, and fireproof security systems,** the home represents a **new standard in high-performance residential architecture.**

By blending **technology with resilience,** the residence provides **peace of mind in an era of climate uncertainty,** proving that **luxury, safety, and sustainability can coexist effortlessly**.

Section 8: Final Impact & Future Thinking

A New Standard for Hillside Architecture

The **Runyon Canyon Residence** is more than a luxury home—it is a f**orward-thinking case study in resilient, environmentally conscious hillside residential design.** Through **architectural ingenuity, material innovation, advanced construction techniques, and smart building systems,** the residence exemplifies how **modern living can coexist with fire-prone landscapes, extreme climates, and ecological sensitivity.**

As climate change, wildfires, and urban expansion challenge the future of residential architecture, the principles demonstrated in this home offer a **scalable, adaptable model for designing resilient, self-sustaining dwellings.**

Key Points for the Runyon Canyon Residence

1. Fire Resilience Can Be Integrated into Design

• Through **non-combustible materials, ember-resistant venting, and green roofs,** the residence proves that fire safety does not have to **compromise aesthetics or function.**

• **Water storage, passive cooling, and defensible space planning are essential fire mitigation tools** that should become **industry standards** in wildfire-prone regions.

2. Sustainable Building Can Enhance Comfort & Efficiency

• The integration of **solar power, rainwater harvesting, and passive cooling strategies** allows for **high-performance, low-energy living.**

• **Earth-bermed architecture and planted roofs** demonstrate that **working with the natural landscape** can **reduce energy loads and increase durability.**

3. Smart Homes Should Be More Than Just Technology

• The home's **intelligent automation, security, and energy management systems** are not just about convenience—they are about **creating a self-sustaining ecosystem.**

• **Resilient infrastructure,** such as **backup power, emergency water reserves, and predictive fire suppression,** ensures **uninterrupted, secure living in uncertain conditions.**

How This Project Sets a Precedent for Future Residential Design

The **Runyon Canyon Residence** stands as a **benchmark** for future hillside residential design, offering insights into how **high-end residential projects can balance luxury with environmental stewardship.**

1. Reshaping Fire-Resilient Luxury Housing

• Homeowners, architects, engineers, developers and city planners can learn from this project's **fire-resistant materials, structural solutions, and sustainable site strategies to create safer, more durable hillside homes.**

2. Influencing Policy & Wildland-Urban Interface (WUI) Regulations

• The home's success could **serve as a model for local and state building codes,** helping shape **fire-safe zoning laws and green building policies** in California and beyond.

3. Shaping the Future of Hillside Sustainability

• The **marriage of green roofs, passive energy strategies, and water-efficient landscaping** offers a **holistic model for climate-adaptive residential design.**

• The residence proves that **architectural excellence and ecological responsibility can be seamlessly combined.**

Final Reflections on Residential Design, Sustainability, & Environmental Responsibility

The **Runyon Canyon Residence** challenges **traditional notions of custom residential living,** proving that **beauty, sustainability, and resilience** are not mutually exclusive. By pushing the boundaries of **site-sensitive design, structural innovation, and climate adaptation,** the home sets a new precedent for **what residential architecture can and should be in the 21st century.**

In the face of **growing climate challenges, increasing fire risks, and evolving sustainability demands,** this residence stands as a **beacon of possibility,** showcasing how **homes of the future** can be designed to **thrive in harmony with nature, rather than against it.**

Final Thoughts: Looking Ahead

The completion of this home is **not the end of its story—it is the beginning of a movement. It offers a replicable model, a case study, and an inspiration** for homeowners, architects, and policymakers who seek to **redefine the future of residential design.**

As cities expand, climates shift, and the need for **resilient, intelligent homes** grows, projects like **the Runyon Canyon Residence** will stand as **pioneering examples of what is possible when architecture, technology, and environmental consciousness align.**

Conclusion: A Vision Realized, A Future Defined

The **Runyon Canyon Residence** is not just a home—it is a **statement, a prototype, and a promise** of a future where custom single family residential, and responsibility are not separate concepts but **intrinsically linked.**

It is a vision realized and a future defined—one where architecture is not only a reflection of human ambition but a testament to our ability to **live in balance with the world around us.**

EXHIBIT B

VIA E-MAIL (LACouncilComment.com)

Los Angeles City Council
200 N. Spring Street
Los Angeles, CA 90012
Attn: City Clerk
Cityclerk@lacity.org
LACouncilComment.com

Re: 3003 N. Runyon Canyon Road (Council File No. 24-1371)
APCSV-2015-4179-SPE-DRB-SPP-MSP-ZV-ZAD
ENV-2016-4180-EIR (Sch. No. 2018041016)
PLUM Committee Hearing Date: February 11, 2025

Dear President Harris-Dawson and Members of the Los Angeles City Council:

This letter provides a site fire safety assessment of the proposed residential project (the Project) located at 3003 N. Runyon Canyon Road, Los Angeles, CA (the Property). I visited the Property on Sunday, February 9, 2025, and this assessment is based on my inspection of the Property, review of the Project plans, and review of the South Valley APC Letter of Determination (LOD) and EIR documents and studies, including LAFD comments and approvals.

1. **Qualifications**. I began my public safety career over 40 years ago. I have served in both Chief Deputy assignments with the Los Angeles County Fire Department and retired as the Fire Chief of the Santa Barbara County Fire Department. I hold a Bachelor's Degree in Physical Education and a Master's Degree in Public Administration from California State University, Northridge. I have also completed the Executive Leadership Program at the Naval Postgraduate School. In addition to this formal education, I was also certified as a Hazardous Materials Specialist, Paramedic, and achieved the certification of Fire Chief from the California State Fire Marshal. I also served on several statewide committees such as the California Joint Apprenticeship Management Board, as Chair of CALFIRE Contract Counties, and as the Chair of the FIRESCOPE Board of Directors. I recently served with the consulting firm that completed the after-action report on the Woolsey Fire from 2018.

2. **Project.** The Project is the construction of a 5,500 square foot 2-story single family residence with a 600 square foot garage and a 3,000 square foot basement (total 5,700 square foot RFA) that it embedded in an existing graded hill on the south side of the Property. The Project also retains the existing approximately 2,000 square foot 2-story house with a carport and pool that was built in 1948. Both the existing house and new residence are located at the end of an existing driveway. The Property is a total of 4.54 acres, and is one of two lots with access to Runyon Canyon Road, which is accessed on the north from Mulholland Drive.

3. **Fire Safety Analysis**

(a) ***Summary***. Currently, the project meets or exceeds the fire safety requirements for fire flow water and fire department access in the Los Angeles Fire Code, State regulations and/or policies.

(b) ***Property***. The property is adjacent to city park open space.

(c) ***Fire Hydrants.*** The LAFD has approved a Fire Hydrant Location and Access Plan, dated August 8, 2018, by Fire Chief Ralph Terrazas. There are three existing fire hydrants immediately adjacent to the Property, including one to the west, one to the north, and one to the east, all of which are 2 ½ S Fire Hydrants. The Project includes a fourth new fire hydrant located at the base of the driveway. All fire hydrants will maintain a pressure of 4,000 gallons per minute.

(d) ***Access to Property for Fire Vehicles***. There is an existing 20 foot wide driveway from Runyon Canyon Road to the existing house, carport, and proposed new residence. The driveway has a legal hammerhead turnaround that is 60 feet in length located 164 feet from Runyon Canyon Road.

(e) ***Defensible Space.*** *Current defensible space standards required by LAFD have been met for the current residence.*

Fuel Modification Area. Per the Fire Department approval, the brush in the area adjacent to the proposed development shall be cleared or thinned periodically by the Owner under supervision to the Los Angeles City Fire Department in order to reduce the risk of brush fires spreading to the home.

The existing property has a fuel modification area of 2.88 acres, and the Project increases the fuel modification area to 3.3 acres. The Fuel Modification Plan shall be prepared by a licensed landscape architect or other design professional with equivalent credentials. Fuel modification will adhere to LAFD standards and also include irrigation systems that will enhance fire safety.

(f) ***Construction Materials and Building Systems***. All proposed project construction materials and fire sprinkler system will meet or exceed building code and fire code requirements.

(g) ***Fire Safety Conditions of Approval.*** The Project includes a Project Design Feature (FIR-PDF-1) that states

"A new fire hydrant is proposed as part of the Project and shall be installed as shown on the approved fire hydrant and access map, stamped as approved on August 9, 2018."

The Project Environmental Impact Report found no significant impacts to wildfire safety caused by the Project, and no mitigation measures are required. The South

Valley Area Planning Commission Letter of Determination, dated October 4, 2024, (LOD) required one condition related to fire safety. This states:

> **"33. Fire Department.** Prior to any sign-off of plans by the Department Services Center, the plot plan and the landscape plan shall be submitted to the Fire Department for review of compliance with the Los Angeles Municipal Code for hillside dwellings**."**

The LOD also made numerous findings of approval related to fire safety, and referenced the EIR findings. For Item 9, Hazards and Hazardous Materials, the LOD found that the project would continue to follow fuel modification requirements and would include an automatic fire sprinkler system and a new fire hydrant. Therefore, the Project would improve and not exacerbate any conditions related to the VHFHSZ classification. For Item 13. Public Services and Recreation, the LOD found that the Project would only minimally increase the demand for fire and police protection services, the LAFD currently serves the Property, and the Applicant currently maintains the existing 2.88 acre fuel modification area, and so the Project would not create a need for new facilities. For Item 17, Wildfire, the LOD states that the impacts with respect to wildfire are fully evaluated in the DEIR section IV.O (Wildfire) and Final EIR page 3-58. The findings state that the Project's design, proposed fire hydrant, existing and future fuel modification activities, and compliance with existing regulations regarding the VHFHSZ would reduce the flammability of the Project and facilitate quick containment in the event of a structure fire, so it would not spread quickly into the surrounding brush area. As such, the Project would not exacerbate wildfire risks and would increase fire safety.

(h) ***Proposed Additional Fire Safety Conditions of Approval.*** *Additional measures may be considered including a large buffer zone surrounding the property that is irrigated to keep the fuel moisture high and flammability rate lower.*

(i) ***Fire Department Approval of Building Permits in VHFHSZ***. Stringent modern building and fire safety standards for the new residence will be adopted and adhered to, thereby making the property safer than it is currently.

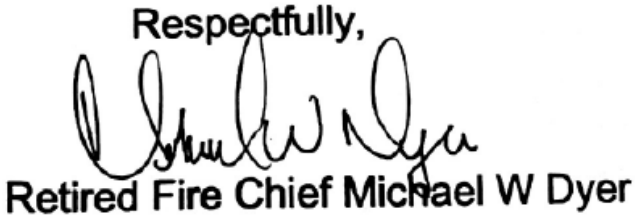
As you know, during LADBS building plan check, Fire Department review and sign off is required. The Supplemental Plan Check Correction Sheet For Fire District 1 and VHFHSZ (2023 LABC) includes numerous additional plan check corrections, including: (1) Specific Fire Resistive Construction rates depending on type of construction, (ii) Requiring openings to be protected by fire assembly with a 45 minute fire resistive rating when an exterior wall is within 10 feet (7204.3), (iii) Requiring a roofing platform to be of noncombustible material (7203.6), (iv) Providing a Class A or B roof covering (7204.4, 1505.1), and (v) for Properties within a VHFHSZ, the Project shall comply with the materials, systems and construction methods of Chapter 7A and Chapter 72, including the 16 specific material specifications or notes/details set forth in the Correction Sheet.

4. **Conclusion**

The current house built in 1948 cannot be brought up to current VHFHSZ building code and fire code standards. With the construction of the new residence and modern fire safety construction features, the property will be in a much safer condition for the property owner to live in than current main residence.

On top of meeting current fire department requirements, the Owner will retain a fire safety consultant to ensure the new residence not only meets but exceeds current VHFHSZ standards and adopts new technologies to ensure life safety for the residents and their neighbors.

Respectfully,



Retired Fire Chief Michael W Dyer

EXHIBIT C

Fire Code Table

Project: 3003 Runyon Canyon
Type of Review: Entitlements
Date: 2/7/2025

Code Section	Code Language	Team Feedback/Comments
503.1	Fire apparatus access roads shall be provided and maintained in accordance with Sections 503.1.1 through 503.1.6. Approved fire apparatus access roads shall be provided for every facility, building or portion of a building hereafter constructed or moved into or within the jurisdiction. The fire apparatus access road shall comply with the requirements of this section and shall extend to within 150 feet (45 720 mm) of all portions of the facility and all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of the building or facility. Exceptions: 1.The fire code official is authorized to increase the dimension of 150 feet (45 720 mm) where any of the following conditions occur: 1.1.The building is equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.1.3. 1.2.Fire apparatus access roads cannot be installed because of location on property, topography, waterways, nonnegotiable grades or other similar conditions, and an approved alternative means of fire protection is provided. 1.3.There are not more than two Group R-3 or Group U occupancies. 2.Where approved by the fire code official, fire apparatus access roads shall be permitted to be exempted or modified for solar photovoltaic power generation facilities.	
503.1.4	**Building structure more than 150 feet from the edge of the**	

Mailing Address:
4774 Park Granada #9379
Calabasas, CA 91372

Office Location:
24025 Park Sorrento Suite H,
Calabasas, CA 91372

	roadway. If any portion of the first-story exterior walls of any building structure is more than 150 feet (46 m) from the edge of the roadway of an approved street, an approved fire lane shall be provided so that such portion is within 150 feet (46 m) of the edge of the fire lane. Exception: An entrance to any dwelling unit or guestroom shall not be more than 150 feet (46 m) in distance of horizontal travel from the edge of roadway of an improved street or approved fire lane.	
503.1.6	**Easements.** Where fire lanes are required under Section 503.1.4 to provide access for Fire Department emergency vehicles, and such fire lanes are other than access roads, they shall be granted to the City without cost as easements from a public street or alley to the required terminal point. Provided, however, that the easement requirement may be waived, unless otherwise required by the General Plan of the City of Los Angeles, where the Department determines that the acquisition of an easement is not necessary for the protection of the public safety and welfare. Fire lanes shall be designated and maintained as follows: 1.Fire lanes shall have a minimum clear roadway width of 20 feet (6096 mm) when no parking is allowed on either side. 2.Those portions of a fire lane which must accommodate the operation of Fire Department aerial ladder apparatus shall have a minimum clear roadway width of 28 feet (8534 mm) when no parking is allowed on either side. 3.Those portions of a fire lane 30 feet (9144 mm) on either side of a private fire hydrant shall have a minimum clear roadway width of 28 feet (8534 mm). No parking shall be permitted within those portions of the roadway which are within 30 feet (9144 mm) of and on the same side of the roadway as a private fire hydrant. 4.Where parking is allowed on only one side of a required fire lane, parking shall be on the same side of the roadway as the hydrants. 5.Where parallel parking is allowed on either side of a fire lane, the roadway width shall be increased 8 feet (2438 mm) for each parking lane. 6.Where access requires accommodation of Fire Department apparatus, overhead clearance shall not be less than 14 feet (4267 mm). 7.Dead-end fire lanes shall terminate in cul-de-sacs or other approved turning areas consistent with the Department of Public	

	Works Standard Street Dimension Plan D-22549. 8.Fire lanes shall be paved to the City Engineer's standards for public alleys.	
507.5.1	Where a portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than 400 feet (122 m) from a hydrant on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains shall be provided where required by the fire code official. Exception: For Group R-3 and Group U occupancies, equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.1.3, the distance requirement shall be not more than 600 feet (183 m).	
513.1	Where the Chief determines that any or all of the supplemental fire protection equipment or systems described in this section may be substituted in lieu of the requirements of this chapter with respect to any facility, structure, group of structures or premises, the person owning or having control thereof shall either conform to the requirements of this chapter or shall install such supplemental equipment or systems. Where the Chief determines that any or all of such equipment or systems are necessary in addition to the requirements of this chapter as to any facility, structure, group of structures or premises, the owner thereof shall install such required equipment or systems.	
513.2	**Supplemental fire protection equipment or systems.** Supplemental fire protection equipment or systems shall consist of: 1.Fire-protective signaling systems which shall be installed in accordance with Chapter 9. 2.Fire hydrants which shall be installed in accordance with Section 507.3.1, or as required by the Chief. 3.Automatic fire-extinguishing systems which shall be installed in accordance with, but not limited to, Chapter 9. 4.Smoke removal systems which shall be designed for the hazard to be protected and shall be approved by the Chief. 5.Standpipe systems which shall be installed in accordance with the LAMC (Plumbing Code). 6.Systems or equipment not specified. The installation, arrangement of, or alteration thereto of other fire protection equipment or systems which are deemed necessary to provide minimum fire protection as may be required by the Chief.	
701.2	**Fire-resistance-rated construction.**	

	The fire-resistance rating of the following fire-resistance-rated construction shall be maintained: 1.Structural members. 2.Exterior walls. 3.Fire walls, fire barriers, fire partitions. 4.Horizontal assemblies. 5.Shaft enclosures.	
704.1	**Maintaining protection.** Where required when the building was originally constructed, materials and systems used to protect joints and voids in the following locations shall be maintained. The materials and systems shall be securely attached to or bonded to the adjacent construction, without openings visible through the construction. 1.Joints in or between fire-resistance-rated walls, floors or floor/ceiling assemblies and roof or roof/ceiling assemblies. 2.Joints in smoke barriers. 3.Voids at the intersection of a horizontal floor assembly and an exterior curtain wall. 4.Voids at the intersection of a horizontal smoke barrier and an exterior curtain wall. 5.Voids at the intersection of a nonfire-resistance-rated floor assembly and an exterior curtain wall. 6.Voids at the intersection of a vertical fire barrier and an exterior curtain wall. 7.Voids at the intersection of a vertical fire barrier and a nonfire-resistance-rated roof assembly. Unprotected joints and voids do not need to be protected where such joints and voids were not required to be protected when the building was originally constructed. Where the system design number is known, the system shall be inspected to the listing criteria and manufacturer's installation instructions.	
803.1.1	**Interior wall and ceiling finish materials tested in accordance with NFPA 286.** Interior wall and ceiling finish materials shall be classified in accordance with NFPA 286 and tested in accordance with Section 803.1.1.1. Materials complying with Section 803.1.1.1 shall be	

	considered to comply with the requirements of Class A specified in Section 803.1.2.	
803.3	**Interior finish requirements based on occupancy.** Interior wall and ceiling finish shall have a flame spread index not greater than that specified in Table 803.3 for the group and location designated. Interior wall and ceiling finish materials tested in accordance with NFPA 286, and meeting the acceptance criteria of Section 803.1.1.1, shall be used where a Class A classification in accordance with ASTM E84 or UL 723 is required.	
804.1	**Interior trim.** Combustible trim in new and existing buildings, excluding handrails and guards, shall not exceed 10 percent of the specific wall or ceiling areas to which it is attached. Other than foam plastic, material used as interior trim shall have minimum Class B flame spread and 450 smoke-developed index in Group I-3 and for all other occupancies shall comply with Section 804.1.1 or 804.1.2. Foam plastic used as interior trim shall comply with Section 804.2.	
804.2.2	The maximum thickness of the interior trim shall be 1/2 inch (12.7 mm) and the maximum width shall be 8 inches (203 mm).	
804.2.3	The interior trim shall not constitute more than 10 percent of the specific wall or ceiling area to which it is attached.	
804.2.4	The flame spread index shall not exceed 75 where tested in accordance with ASTM E84 or UL 723. The smoke-developed index shall not be limited. Exception: Where the interior trim material has been tested as an interior finish in accordance with NFPA 286 and complies with the acceptance criteria in Section 803.1.1.1, it is not required to be tested for flame spread index in accordance with ASTM E84 or UL 723.	
804.3	**New interior floor finish.** New interior floor finish and floor covering materials in new and existing buildings shall comply with Sections 804.3.1 through 804.3.3.2. Exception: Floor finishes and coverings of a traditional type, such as wood, vinyl, linoleum or terrazzo, and resilient floor covering materials that are not composed of fibers.	
804.3.1	Interior floor finish and floor covering materials required by Section 804.3.3.2 to be of Class I or II materials shall be classified in accordance with ASTM E648 or NFPA 253. The classification referred to herein corresponds to the classifications determined by ASTM E648 or NFPA 253 as follows: Class I, 0.45 watts/cm2 or greater; Class II, 0.22 watts/cm2 or greater.	
804.3.2	Interior floor finish and floor covering materials shall be tested by an approved agency in accordance with ASTM E648 or NFPA 253 and identified by a hang tag or other suitable method so as to identify	

	the manufacturer or supplier and style, and shall indicate the interior floor finish or floor covering classification in accordance with Section 804.3.1. Carpet-type floor coverings shall be tested as proposed for use, including underlayment. Test reports confirming the information provided in the manufacturer's product identification shall be furnished to the fire code official upon request.	
804.3.3	New interior floor covering materials shall comply with Sections 804.3.3.1 and 804.3.3.2, and interior floor finish materials shall comply with Section 804.3.1.	
804.4	**Interior floor-wall base.** Interior floor-wall base that is 6 inches (152 mm) or less in height shall be tested in accordance with ASTM E648 or NFPA 253 and shall be not less than Class II. Where a Class I floor finish is required, the floor-wall base shall be Class I. The classification referred to herein corresponds to the classifications determined by ASTM E648 or NFPA 253 as follows: Class I, 0.45 watt/cm2 or greater; Class II, 0.22 watts/cm2 or greater. Exception: Interior trim materials that comply with Section 804.1.	
901.4.5	**Additional fire protection systems.** In occupancies of a hazardous nature, where special hazards exist in addition to the normal hazards of the occupancy, or where the fire code official determines that access for fire apparatus is unduly difficult, the fire code official shall have the authority to require additional safeguards and fire protection systems. Fire protection and life safety systems required under this section shall be installed in accordance with this code and the applicable referenced standards.	
903.2.8	**Group R.** An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area. Exceptions: 1.Existing Group R-3 occupancies converted to Group R-3.1 occupancies not housing bedridden clients, not housing nonambulatory clients above the first floor, and not housing clients above the second floor. 2.Existing Group R-3 occupancies converted to Group R-3.1 occupancies housing only one bedridden client and complying with Section 435.8.3.3 of the California Building Code. 3.Pursuant to Health and Safety Code, Section 13113, occupancies housing ambulatory children only, none of whom are mentally ill children or children with intellectual disabilities, and the buildings or	

	portions thereof in which such children are housed are not more than two stories in height, and buildings or portions thereof housing such children have an automatic fire alarm system activated by approved smoke detectors. 4.Pursuant to Health and Safety Code, Section 13143.6, occupancies licensed for protective social care which house ambulatory clients only, none of whom is a child (under the age of 18 years), or who is elderly (65 years of age or over). When not used in accordance with area or height increases for automatic fire sprinklers allowed in the California Building Code, an automatic sprinkler system installed in accordance with Section 903.3.1.2 shall be allowed in Group R- 2.1 occupancies. An automatic sprinkler system designed in accordance with Section 903.3.1.3 shall not be utilized in Group R-2.1 or R-4 occupancies.	
903.2.11.1.3	**Basements.** Where any portion of a basement is located more than 75 feet (22 860 mm) from openings required by Section 903.2.11.1, or where walls, partitions or other obstructions are installed that restrict the application of water from hose streams, the basement shall be equipped throughout with an approved automatic sprinkler system.	
903.3.1.2	**NFPA 13R sprinkler systems.** Automatic sprinkler systems in Group R occupancies shall be permitted to be installed throughout in accordance with NFPA 13R as amended in Chapter 80. 1.Four stories or less above grade plane. 2.The floor level of the highest story is 30 feet (9144 mm) or less above the lowest level of fire department vehicle access. 3.The floor level of the lowest story is 30 feet (9144 mm) or less below the lowest level of fire department vehicle access. The number of stories of Group R occupancies constructed in accordance with Sections 510.2 and 510.4 of the California Building Code shall be measured from grade plane.	
903.3.1.2.1	**Balconies and decks.** Sprinkler protection shall be provided for exterior balconies, decks and ground floor patios of dwelling units and sleeping units where either of the following conditions exists: 1.The building is of Type V construction, provided that there is a roof or deck above.	

	2.Exterior balconies, decks and ground floor patios of dwelling units and sleeping units are constructed in accordance with Section 705.2.3.1, Exception 3 of the California Building Code. Sidewall sprinklers that are used to protect such areas shall be permitted to be located such that their deflectors are within 1 inch (25 mm) to 6 inches (152 mm) below the structural members and a maximum distance of 14 inches (356 mm) below the deck of the exterior balconies and decks that are constructed of open wood joist construction.	
903.3.1.2.2	**Corridors and balconies in the means of egress.** Sprinkler protection shall be provided in corridors and for balconies in the means of egress where any of the following conditions apply: 1.Corridors with combustible floor or walls. 2.Corridors with an interior change of direction exceeding 45 degrees (0.79 rad). 3.Corridors that are less than 50 percent open to the outside atmosphere at the ends. 4.Open-ended corridors and associated exterior stairways and ramps as specified in Section 1027.6, Exception 3. 5.Egress balconies not complying with Sections 1021.2 and 1021.3.	
903.3.1.3	**NFPA 13D sprinkler systems.** Automatic sprinkler systems installed in one- and two-family dwellings; Group R-3; Group R-4, Condition 1; and townhouses shall be permitted to be installed throughout in accordance with NFPA 13D as amended in Chapter 80.	
903.3.2	**Quick-response and residential sprinklers.** Where automatic sprinkler systems are required by this code, quick-response or residential automatic sprinklers shall be installed in all of the following areas in accordance with Section 903.3.1 and their listings: 1.Throughout all spaces within a smoke compartment containing care recipient sleeping units in Group I-2 in accordance with the California Building Code. 2.Throughout all spaces within a smoke compartment containing gas fireplace appliances and decorative gas appliances in Group I-2 in accordance with the California Building Code. 3.Throughout all spaces within a smoke compartment containing treatment rooms in ambulatory care facilities.	

	4.Dwelling units and sleeping units in Group R occupancies. 5.Light-hazard occupancies as defined in NFPA 13.	
4906.3	**Landscape plans.** Landscape plans shall be provided when required by the enforcing agency. The landscape plan shall include development and maintenance requirements for the vegetation management zone adjacent to structures and roadways, and to provide significant fire hazard reduction benefits for public and firefighting safety.	
4906.3.1	Landscape plans shall contain the following: 1.Delineation of the 30-foot (9144 mm) and 100-foot (30.5 m) fuel management zones from all structures. 2.Identification of existing vegetation to remain and proposed new vegetation. 3.Identification of irrigated areas. 4.A plant legend with both botanical and common names, and identification of all plant material symbols. 5.Identification of ground coverings within the 30-foot (9144 mm) zone.	
4906.4	**Vegetation.** All new vegetation shall be fire-resistant vegetation in accordance with this section. Exception: Trees classified as non-fire-resistant vegetation complying with Section 4906.4.2.1. To be considered fire-resistant vegetation, it must meet at least one of the following: 1.Be identified as fire-resistant vegetation in an approved book, journal or listing from an approved organization. 2.Be identified as fire-resistant vegetation by a licensed landscape architect with supporting justification. 3.Plants considered fire-resistant vegetation and approved by the local enforcing agency.	
4906.4.1	**Shrubs.** All new plantings of shrubs shall comply with the following: 1.Shrubs shall not exceed 6 feet (1829 mm) in height.	

	2.Groupings of shrubs are limited to a maximum aggregate diameter of 10 feet (3048 mm). 3.Shrub groupings shall be separated from other groupings a minimum of 15 feet (4572 mm). 4.Shrub groupings shall be separated from structures a minimum of 30 feet (9144 mm). 5.Where shrubs are located below or within a tree's drip line, the lowest tree branch shall be a minimum of three times the height of the understory shrubs or 10 feet (3048 mm), whichever is greater.	
4906.4.2	**Trees.** Trees shall be managed as follows within the 30-foot (9144 mm) zone of a structure: 1.New trees shall be planted and maintained so that the tree's drip line at maturity is a minimum of 10 feet (3048 mm) from any combustible structure. 2.The horizontal distance between crowns of new trees and crowns of adjacent trees shall not be less than 10 feet (3048 mm). 3.Existing trees shall be trimmed to provide a minimum separation of 10 feet (3048 mm) away from chimney and stovepipe outlets per Title 14, Section 1299.03.	
4906.4.2.1	**Non-fire-resistant vegetation.** New trees not classified as fire-resistant vegetation, such as conifers, palms, pepper trees and eucalyptus species, shall be permitted provided the tree is planted and maintained so that the tree's drip line at maturity is a minimum 30 feet (9144 mm) from any combustible structure.	
4906.5.1.1	**Specific requirements for hazardous vegetation**. Each person who has any ownership or possessory interest in, or control of, a parcel of land shall comply with the requirements set forth in Sections 4906.5.1.1.1 through 4906.5.1.1.10.	
4906.5.1.1.1	**Vegetation within 100 feet of buildings.** Remove from the property all dead trees, and maintain all weeds and other vegetation at a height of no more than three inches, except as otherwise provided therein, if such weeds or other vegetation are within 100 feet (30 m) of a building or structure located on such property or on adjacent property. This requirement does not apply to the maintenance of trees, ornamental shrubbery or plants which are used as ground cover, provided such do not provide a ready fuel supply to augment the spread or intensity of a fire; nor does it apply to a native shrub, provided such shrub is	

	trimmed up from the ground to onethird of its height; does not exceed 216 cubic feet (6 m3) in volume; is spaced at a distance of not less than three times its maximum diameter, and not less than 18 feet (5486 mm) from the edge of any other native shrub, building or structure; and all dead wood and other combustible material within 18 feet (5486 mm) of such shrub is removed except as provided above.	
4906.5.1.1.2	**Trees within 100 feet of buildings.** Maintain trees which are 18 feet (5486 mm) or more in height and are within 100 feet (30 m) of any building or structure or within 10 feet (3048 mm) of that portion of any highway, street, alley or driveway which is improved or used for vehicle travel or other vehicular purposes, so that no leafy foliage, twigs, or branches are within 6 feet (1829 mm) of the ground. Trees and shrubs less than 18 feet (5486 mm) shall be trimmed up one-third their height.	
4906.5.1.1.3	**Chimney clearance.** Remove any portion of a tree which extends within 10 feet (3048 mm) of the outlet of a chimney or stovepipe.	
4906.5.1.1.4	**Overhanging branches.** Keep all trees, shrubs, and other growing vegetation or portions thereof adjacent to or overhanging any building or structure free of dead limbs, branches and other combustible matter. Maintain 5 feet (1524 mm) of vertical clearance between roof surfaces and portions of trees overhanging any building or structure.	
4906.5.1.1.5	**Roof maintenance.** Maintain the roofs of all buildings or structures free of leaves, needles, twigs and other combustible matter.	
4906.5.1.1.6	**Road and fence clearance.** Maintain all weeds and other vegetation located within 10 feet (3048 mm) of any combustible fence or an edge of that portion of any highway, street, alley or driveway improved or used for vehicular travel or for other vehicular purposes at a height of not more than 3 inches (76 mm). This shall not require the removal of trees, ornamental shrubbery or plants which are used as ground cover, provided such do not provide a ready fuel supply to augment the spread or intensity of a fire, nor require the removal of native shrubs which meet the requirements set forth in Section 4906.5.1.1.1.	
4906.5.1.1.7	**Second 100-foot modification.** Clear all hazardous vegetation and other combustible growth within the first 100 feet (30 m) surrounding structures as required by this section. Reduce the amount and/or modify the arrangement of hazardous vegetation within the area comprising the second 100 feet (30 m) for a total distance of 200 feet (61 m) from any structure unless otherwise specified by the Chief. The work required	

	shall be set forth in the Notice of Noncompliance.	
4906.5.1.1.8	**Landscape vegetation.** Maintain all landscape vegetation, including, but not limited to, conifers (e.g., cedar, cypress, fir, juniper, and pine), eucalyptus, acacia, palm and pampas grass in such a condition as not to provide an available fuel supply to augment the spread or intensity of a fire. The Notice of Noncompliance citing violations of this subsection will specify that such landscape vegetation poses a threat to buildings or structures in the vicinity and may cause them to be indefensible, and shall describe the work required to be done.	
4906.5.1.1.9	**Greater fire protection measures.** Nothing contained in this subsection shall be deemed to preclude the Chief from requiring more than the minimum specific requirements set forth above when the Chief determines that conditions exist which necessitate greater fire protection measures.	
4906.5.1.1.10	**Additional brush clearance requirements.** All individuals performing grass or brush clearance activities in the VHFHSZ shall adhere to the following specific requirements: 1.Grass or brush clearance operations shall not be conducted on red flag days. 2.Individuals engaged in grass or brush clearance operations shall not engage in any other activities during their actual clearance of grass or brush. 3.Individuals engaged in grass or brush clearance operations shall use an appropriate extinguishing agent immediately to extinguish a fire. 4.All fires, regardless of size, shall be reported immediately via the 9-1-1 system to the Fire Department. 5.A Class 2-A 2-gallon (8 L) water fire extinguisher, pressurized garden hose with attached nozzle (fully open), or comparable pressurized Class 2-A extinguishing device shall be within 10 feet (3048 mm) of any grass or brush clearance operation. 6.Where a gasoline container is present at the site of the grass or brush clearance operation, a minimum 4A:60B:C dry chemical fire extinguisher shall be within 10 feet (3048 mm) of the brush clearance operation. 7.A cell phone capable of dialing 9-1-1 shall be charged and readily accessible to the grass or brush clearance operation. 8.A safety strap shall be used at all times for any tool or appliance	

	with hot exhaust. Hot exhaust shall not come in contact with any brush, grass, flash fuels, or other flammable material.	
4907.2	Buildings and structures located in the following areas shall maintain the required hazardous vegetation and fuel management: 1.All unincorporated lands designated by the State Board of Forestry and Fire Protection as a State Responsibility Area (SRA). 2.Land designated as a Very High Fire Hazard Severity Zone by the Director. 3.Land designated in ordinance by local agencies as a Very High Fire Hazard Severity Zone pursuant to Government Code Section 51179.	
4907.3	**Requirements.** Hazardous vegetation and fuels around all buildings and structures shall be maintained in accordance with the following laws and regulations: 1.Public Resources Code, Section 4291. 2.California Code of Regulations, Title 14, Division 1.5, Chapter 7, Subchapter 3, Article 3, Section 1299.03. 3.California Government Code, Section 51182. 4.California Code of Regulations, Title 19, Division 1, Chapter 7, Subchapter 1, Section 3.07.	
4908.1	**General.** Pursuant to PRC 4290 all residential, commercial and industrial building construction within state responsibility areas approved after January 1, 1991, and within lands classified and designated as an LRA Very High Fire Hazard Severity Zone, as defined in subdivision (i) of Section 51177 of the Government Code after July 1, 2021, shall comply with the SRA Fire Safe Development Regulations as specified in Title 14, Division 1.5, Chapter 7, Subchapter 2.	

EXHIBIT D

Supplemental Plan Check Corrections Sheet for Fire District 1 and Very High Fire Hazard Severity Zone (2023 LABC)

Plan Check / PCIS Application No.: _____

Job Address _____ **Date:** _____

P.C. Engineer: _____ **Phone:** _____
(E-mail: firstname.lastname@lacity.org)

For instruction and other information, read the master plan check list attached.

Obtain the following Information Bulletins, Affidavits or forms from our web site (www.ladbs.org)

- **Information Bulletin No. P/BC 2020-023**

A. FIRE DISTRICT 1

1. Type IV and V buildings are not permitted in Fire District No 1. (7204.1)

2. Type IIB construction shall have at least: (7204.2)
   - 2 hour fire-resistive construction for exterior walls within 10 feet of and facing a property line.
   - 1 hour fire-resistive construction for exterior walls within 30 feet of and facing a property line or as required by Table 601, whichever is higher.

3. Type II buildings shall have at least:
   - Exterior load bearing walls located within 30 feet of common property line or an assumed property line shall be of 2 hour fire-resistive. (7204.6)
   - Exterior nonload-bearing walls located within 30 feet of a common property line or an assumed property line shall as required by Table 601, but not less than 1 hour. (7204.6)
   - Exterior walls located more than 30 feet from common property line or an assumed property line shall comply with Table 601 requirements. (7204.6)

4. Provide 1-hour fire-resistance-rated construction in non-sprinklered building, other than automobile parking structures and buildings surrounded on all sides by a permanently open space of 30 feet or more, for walls, floors roofs and their supporting structural members. (7204.5)

5. Openings shall be protected by a fire assembly having a 45-minute fire resistive rating when the exterior wall has a fire separation distance of less than 10 feet. (7204.3)

6. Exterior plastic veneer is not permitted. (7204.11)
   a. Architectural trims shall be of approved noncombustible materials or fire-retardant-treated wood. (7204.7)
   b. Permanent canopies shall comply with Section 7204.8.

7. Every story or basement with a floor surface elevation more than 4 feet lower than the highest elevation of the floor landing or tread of any required exit from that story shall be sprinklered. (7203.5)

8. Loading platform shall be enclosed and shall be firestopped into areas not exceeding 2,500 square feet. (7203.6)

9. Loading platform over 48 inches above the ground shall be of noncombustible material. (7203.6)

10. Roofed platform shall be of noncombustible material. (7203.6)

11. Provide Class A or B roof covering. (7204.4, 1505.1)

B. VERY HIGH FIRE HAZARD SEVERITY ZONE (VHFHSZ) (701A.3, 7201.2, 7207)

1. Based on City maps, this project is located within Very High Fire Hazard Severity Zone (VHFHSZ). It shall Comply with requirements of Materials, systems & construction methods of Chapter 7A and Chapter 72. Add the following material specifications and/or notes/ details to plans:
   a. Class A roof covering is required for all buildings. Wood shakes and shingles are not permitted. (7207.4, 1505)
   b. Valley flashings shall be not less than 0.019-inch (0.48 mm) (No. 26 galvanized sheet gage) corrosion-resistant metal installed over a minimum 36-inch-wide (914mm) underlayment consisting of one layer of No. 72 ASTM cap sheet running the full length of the valley (705A.3)
   c. Roof gutters shall be provided with the means to prevent the accumulation of leaves and debris in the gutter (705A.4)
   d. (Roof) (Attic)(Exterior wall) vents shall resist the intrusion of flame and embers into the attic area of the structure, or shall be protected by corrosion-resistant, noncombustible wire mesh with 1/4 Binch (6 mm) openings or its equivalent. Vents shall not be installed in eaves and cornices (706A.1, 706A.2, 706A.3, 7207.3)
   e. Eaves and soffits shall meet the requirements of SFM 12-7A-3 or shall be protected by ignition-resistant materials or noncombustible construction on the exposed underside (707A.5)
   f. Exterior walls shall be approved noncombustible or ignition-resistant material, heavy timber, or log wall construction or shall provide protection from the intrusion of flames and embers in accordance with standard SFM 12-7A-1 (707A.3)
   g. Exterior wall coverings shall extend from the top of foundation to the roof, and terminate at 2-inch (50.8 mm) nominal solid wood blocking between rafters at all roof overhangs, or in the case of enclosed eaves, terminate at the enclosure (704A.3.2)
   h. Exterior windows, window walls, glaze doors, and glazed openings within exterior doors shall be insulating- glass units with a minimum of one tempered pane, or glass block units, or have a fire- resistance rating of not less than 20 minutes, when tested according to NFPA 257, or conform to the performance requirements of SFM 12-7A-2 (708A.2.1)
   i. Exterior door assemblies shall conform to the performance requirements of standard SFM 12-7A-1 or shall be approved noncombustible construction, or solid core wood having stiles and rails not less than 1 3/8 inches thick with interior field panel thickness no less than 1-1/4 inches thick, or shall have a fire-resistance rating of not less than 20 minutes when tested according to ASNFPA 252. (Exception: Noncombustible or exterior fire-retardant treated wood vehicle access doors) (708A.3)
   j. Decking, surfaces, stair treads, risers, and landings of decks, porches, and balconies where any portion of such surface is within 10 feet (3048 mm) of the primary structure shall be constructed of heavy timber, non combustible or other approved materials per Sec.709A.3
   k. The underside of cantilevered and overhanging appendages and floor projections shall maintain the ignition- resistant integrity of exterior walls, or the projection shall be enclosed to the grade (707A.8)
   l. Buildings shall have all underfloor areas completely enclosed to the grade with construction as required for exterior walls (707A.8, 7207.1)
   m. All utilities, pipes, furnaces, water heaters or other mechanical devices located in an exposed under-floor area of a residential building shall be enclosed with materials as required for 1-hour fire-resistive construction.(7207.2)
   n. The space between the roof covering and roof decking shall be constructed to prevent the intrusion of flames and embers and be fire stopped per 705A.2.
   o. No trellis is permitted within 10 feet of the primary structure.
   p. Trellis more than 10 feet from the primary structure shall be constructed of heavy timber or non combustible materials. Minimum of 4 inches spacing is required between the members. (Information Bulletin No. P/BC 2020-023).

Note: Visit https://osfm.fire.ca.gov/divisions/fire-engineering-and-investigations/building-materials-listing/bml-search-building-materials-listing to search the California State Fire Marshal directory of building material listings.

ADDITIONAL CORRECTIONS	Code Sec. No.

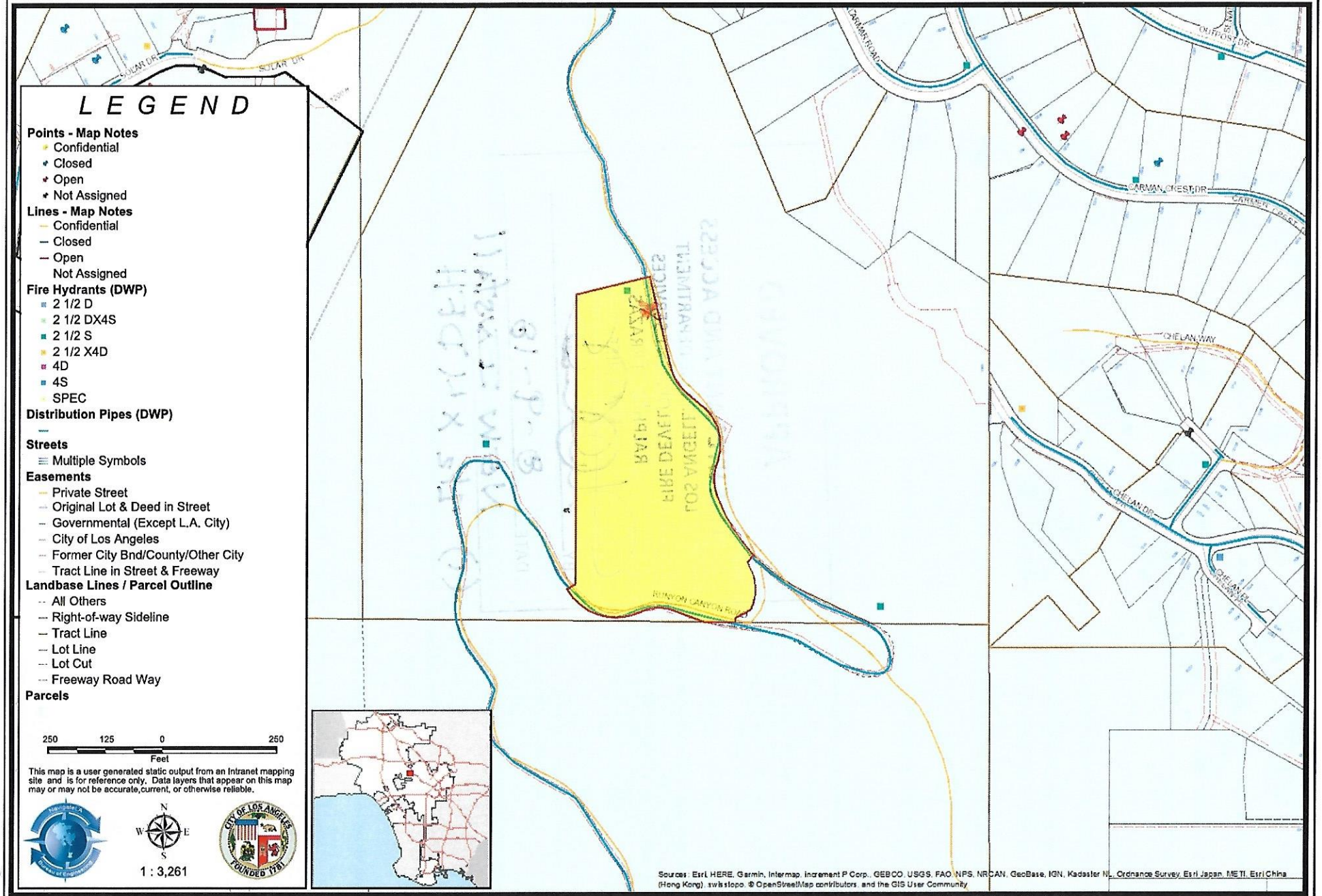
ADDITIONAL CORRECTIONS	Code Sec. No.

EXHIBIT E

Appendix I-2:

Approved Fire Hydrant and Access Plan

NavigateLA Map



LEGEND

Points - Map Notes
- Confidential
- Closed
- Open
- Not Assigned

Lines - Map Notes
- Confidential
- Closed
- Open
- Not Assigned

Fire Hydrants (DWP)
- 2 1/2 D
- 2 1/2 DX4S
- 2 1/2 S
- 2 1/2 X4D
- 4D
- 4S
- SPEC

Distribution Pipes (DWP)

Streets
- Multiple Symbols

Easements
- Private Street
- Original Lot & Deed in Street
- Governmental (Except L.A. City)
- City of Los Angeles
- Former City Bnd/County/Other City
- Tract Line in Street & Freeway

Landbase Lines / Parcel Outline
- All Others
- Right-of-way Sideline
- Tract Line
- Lot Line
- Lot Cut
- Freeway Road Way

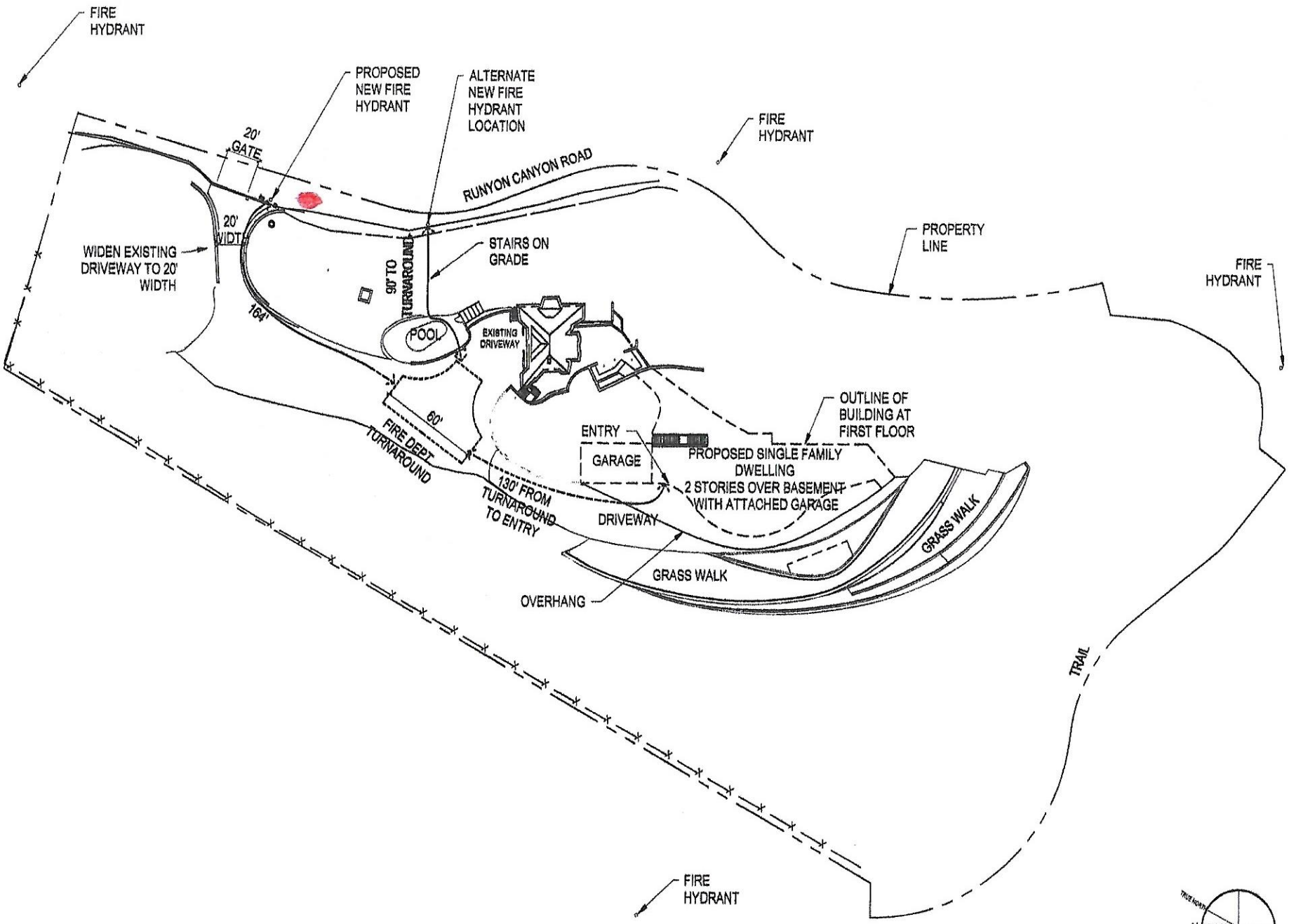
Parcels

250 125 0 250
Feet

This map is a user generated static output from an Intranet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate,current, or otherwise reliable.

1 : 3,261

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community



ameen ayoub design studio

662 n. sepulveda blvd. suite 201
los angeles ca 90049
afayoub@outlook.com
www.ameenayoub.com

0 50' 100' 150' 200'

GRAPHIC SCALE
FEET

3003 RUNYON CANYON ROAD
LOS ANGELES, CA 90046

FIRE DEPARTMENT EXHIBIT PLAN
SCALE 1" = 50'
JULY 2018

APPROVED

FIRE HYDRANT AND ACCESS
LOS ANGELES FIRE DEPARTMENT
FIRE DEVELOPMENT SERVICES
RALPH M. TERRAZAS
FIRE CHIEF

BY _____

DATE 8-9-18

NEW INSTALL
(1) 2½ X 4 DFH

APPROVED

FIRE HYDRANT AND ACCESS
LOS ANGELES FIRE DEPARTMENT
FIRE DEVELOPMENT SERVICES

BY _____ #4444

DATE 5/31/24

RESTAMP