

Appendix FEIR-12

Confirmatory Fire Analysis



Technical Memorandum

Date: 6 September 2023

To: Stephanie Eyestone-Jones, Eyestone Environmental

From: Nathan B. Wittasek

Project: 210921 – TVC 2050 Project, 7716-7860 West Beverly Boulevard,
Los Angeles, CA

Subject: TVC 2050 Project Fire Public Services

I am a fire protection engineer licensed in the State of California (in addition to holding licenses in several other states including Colorado, Florida, Idaho, Nevada, Oregon, Washington and Wyoming). I am a principal and partner at Simpson Gumpertz & Heger, a multi-disciplinary engineering firm with more than 600 employees founded in 1956 with projects located throughout the world, in addition to numerous projects within the City of Los Angeles where I reside. I am a former firefighter and have experience and expertise in fire operations (building and apparatus) and fire investigation in addition to my current focus on fire engineering, wildfire mitigation, performance-based design and building and fire codes. I am the current chairman of the NFPA 101 (Life Safety Code) and NFPA 5000 (Building Code) technical committees on fire protection features. I hold a Masters of Science in fire protection engineering and a Bachelor's of Science in civil engineering with a structural focus and have participated in numerous entitlement processes in the past two decades.

Exemplar projects in the Los Angeles area with which I have been involved in this capacity include the Wilshire Grand (Korean Air) project, Berggruen Institute, and Robertson Lane. Other local projects of a similar size where I led fire life safety efforts include the Metropolis Complex in downtown Los Angeles, the Grand Avenue Complex, the Disney Concert Hall, and the majority of the LACMA complex including the Academy of Motion Pictures and Arts Museum. I have also been responsible for fire engineering strategy and regulatory compliance for numerous projects internationally in China, Macau and the Middle East. In the greater Los Angeles Region, I am personally overseeing fire life safety aspects of numerous new and existing television and production studios and related complexes including low-rise and high-rise buildings. I have prepared this confirmatory technical memorandum in response to comments regarding the adequacy of fire public services for the TVC 2050 Project (the Project), which confirms the Draft Environmental Impact Report (EIR) conclusion that impacts related to fire public services would be less than significant under the California Environmental Quality Act (CEQA). Refer to Section IV.J.1, Public Services – Fire Protection, of the Draft EIR.

As discussed therein, the nearest fire station with an engine company (Fire Station 61) is located approximately 1.2 miles from the Project site. Accordingly, pursuant to Los Angeles Municipal Code (LAMC) Sections 57.507.3.3, 57.512.1 and 57.512.2, the Project is required to include automatic fire sprinkler systems in all structures, in addition to the fire protection features listed in the Los Angeles Fire Department (LAFD) interdepartmental correspondence dated 6 August 2021 for Case No. ENV-2021-4091-EIR (LAFD Letter), which is included as Appendix K to the Draft EIR (provided here as Attachment A). A description of the Project is included on p. 1 of the LAFD Letter. SGH has reviewed and concurs with the fire protection related responses to comments in comment letters 9, 16, 26, 32, 34, 35, 149, 156, and 444.

While the LAFD Letter notes that the Project would exceed the LAFD-required response distance for a fire station with an engine company, it concludes on p. 6 that “inclusion of the above listed recommendations, along with any additional recommendations made during later reviews of the proposed project, will reduce the impacts to an acceptable level.”

Therefore, as concluded in the Draft EIR, the Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities necessary to maintain adequate fire protection services, the construction of which would cause significant environmental impacts. As such, I concur that Project impacts related to fire protection would be less than significant as set forth in the Draft EIR.

1. RELATED CODE REQUIREMENTS

The Los Angeles Fire Code (LAMC Chapter V, Article 7) incorporates by reference portions of the California Fire Code and the International Fire Code. The Los Angeles Fire Code sets forth regulatory requirements pertaining to the prevention of fires; the investigation of fires and life safety hazards; the elimination of fire and life safety hazards in any building or structure (including buildings under construction); the maintenance of fire protection equipment and systems; and the storage, use, and handling of hazardous materials. Specific regulations regarding fire prevention and protection are discussed below. However, note that this discussion is not exhaustive. The regulations discussed below, as well as other applicable regulations, are discussed in detail in Section IV.J.1, Public Services – Fire Protection of the Draft EIR.

At issue is LAMC Section 57.507.3.3. LAMC Section 57.507.3.3 references Table 57.507.3.3 for land use and required fire flow (reproduced below). The Project is being addressed as an Industrial and Commercial land use.

TABLE 57.507.3.3 - Response Distances that if Exceeded Require the Installation of an Automatic Fire Sprinkler System

Land Use *	Required Fire-Flow	Maximum Response Distance **	
		Engine Co.	Truck Co.
Low Density Residential	2,000 g.p.m. from three adjacent hydrants flowing simultaneously	1-1/2 miles	2 miles
High Density Residential and Commercial Neighborhood	4,000 g.p.m. from four adjacent hydrants flowing simultaneously	1-1/2 miles	2 miles
Industrial and Commercial	6,000 to 9,000 g.p.m. from four hydrants flowing simultaneously	1 mile	1-1/2 miles
High Density Industrial and Commercial or Industrial (Principal Business Districts or Centers)	12,000 g.p.m. available to any block (where local conditions indicate that consideration must be given to simultaneous fires, an additional 2,000 to 8,000 g.p.m. will be required)	3/4 mile	1 mile

*Land use designations are contained in the community plan elements of the General Plan for the City of Los Angeles.

**The maximum response distances for both L.A.F.D. fire suppression companies (engine and truck) must be satisfied.

In addition to the above-noted requirements, the EIR and LAFD Letter reference the following additional code sections: LAMC Sections 57.107.5.2, 57.108.7, 57.118, 57.118.1.1, 57.408, 57.4704.5.1, 57.4705.1.6, 57.4705.4, 57.503.1.4, 57.507.3.1, 57.507.3.2, 57.507.3.3, 57.512.1, and 57.512.2 and LAFD Requirement No. 10.¹

2. DISCUSSION

The methodology for analyzing a project’s impacts on fire services is discussed on pp. IV.J.1-20 to IV.J.1-21 of Section IV.J.1, Public Services – Fire Protection, of the Draft EIR. As discussed therein, a potential deficiency in the adequacy of fire protection services in and of itself is not a CEQA impact, but rather a social and/or economic impact. Where a project causes a need for additional fire protection services, resulting in the need to construct new facilities or additions to existing facilities, and the construction results in a potential impact to the environment, then the impact would need to be assessed in an EIR and mitigated, if found to be significant. The ultimate decision of whether a project would result in a significant impact to the environment related to fire protection is determined by whether construction of new or expanded fire protection facilities is reasonably foreseeable as a direct or indirect effect of the project. Beyond the standards in the Fire Code, consideration is given to project size and components,

¹ Los Angeles Fire Department, Office of the Fire Marshal, Los Angeles Fire Department Requirement No. 10: Emergency Helicopter Landing Facilities Requirements, revised 17 Nov. 2014.

required fire flow, response time and distance for engine and truck companies, fire hydrant sizing and placement standards, access, and potential to use or store hazardous materials.² A project would normally have a significant impact on fire protection if it requires the addition of a new fire station or the expansion, consolidation, or relocation of an existing facility to maintain service.³

Although distance from a fire station can be considered to assess the adequacy of fire protection services, it is only one of a number of factors that LAFD utilizes in considering its ability to respond to fires and life and health safety emergencies. Distance from a fire station is also not indicative of the overall level of safety when automatic fire and life safety systems are provided for a project. This is because such features, inclusive of automatic fire sprinkler systems, compensate for delayed or impeded manual fire suppression response. If the number of incidents in a given area increases, it is LAFD's responsibility to assign new staff and equipment and potentially build new or expanded facilities, as necessary, to maintain adequate levels of service. In conformance with the California Constitution Article XIII, Section 35(a)(2), the City has and will continue to meet its legal obligations to provide adequate public safety services, including fire protection and emergency medical services. Thus, the need for additional fire protection and emergency medical services is not an environmental impact that CEQA requires an individual project to address.

As explained above, the Project would be required to include automatic fire sprinkler systems in all structures in accordance with LAMC Section 57.507.3.3, as well as the fire protection features listed in the LAFD Letter. With such systems and features installed, fire protection would be considered adequate. Additionally, filming activities would continue to be subject to LAFD's Studio/Sound Stage Fire & Life Safety Requirements. The Project would implement all applicable Los Angeles Building Code and Fire Code requirements regarding structural design, building materials, site access, fire flow, storage, and management of hazardous materials, alarm and communications systems, etc., including as set forth in the LAFD Letter. Compliance with applicable Building Code and Fire Code requirements would be confirmed as part of LAFD's fire/life safety plan review and fire/life safety inspection per LAMC Section 57.118 prior to the issuance of a building permit. Compliance with applicable regulatory requirements, including LAFD's fire/life safety plan review and fire/life safety inspection, would ensure that adequate fire prevention features that reduce the demand on LAFD facilities and equipment are provided. As such, compliance with standard LAFD procedures and Fire Code requirements would minimize the potential for incidents requiring an emergency response by LAFD and therefore reduce the need for a new fire station or the expansion, consolidation, or relocation of an existing fire station.

² L.A. CEQA Thresholds Guide, Section K.2(1)(B), p. K.2-1 to K.2-2.

³ L.A. CEQA Thresholds Guide, Section K.2(2)(A), p. K.2-3.

Thus, I concur that Project impacts related to fire protection would be less than significant as concluded in the Draft EIR.

Regarding cumulative impacts, cumulative impacts on fire protection services are analyzed on pp. IV.J.1-28 to IV.J.1-30 of the Draft EIR. Specifically, as discussed in the Draft EIR, while the Project and related projects would result in a cumulative increase in the demand for LAFD services, the Project and related projects would be reviewed by LAFD (or the respective fire department) to ensure that sufficient fire safety and hazards measures are implemented to reduce potential impacts to fire protection and emergency medical services and would be subject to the City's standard construction permitting process, which includes a review by LAFD for compliance with building and site design standards related to fire/life safety, as well as coordinating with the Los Angeles Department of Water and Power to ensure that local fire flow infrastructure meets current code standards for the type and intensity of land uses involved. Furthermore, if any of the related projects fall outside an acceptable response distance, like the Project, they would be required to be fully sprinklered.

Further, for planning purposes, the City assumes that even if a new fire station, or the expansion, consolidation, or relocation of an existing station, were determined to be warranted by LAFD, such facilities (1) would occur where allowed under the designated land use; (2) would be located on parcels that are infill opportunities on lots that are between 0.5 and 1.0 acre in size; and (3) could qualify for a categorical exemption under CEQA Guidelines Section 15301 or 15332 or a Mitigated Negative Declaration. Therefore, development of a station at this scale is unlikely to result in significant impacts, and projects involving the construction or expansion of a fire station would be addressed independently pursuant to CEQA. In addition, consistent with the ruling in *City of Hayward v. Board of Trustees of California State University* (2012) and the requirements in California Constitution Article XIII, Section 35(a)(2), the obligation to provide adequate fire protection and emergency medical services is the responsibility of the City and is beyond the scope of an individual project.

Through the City's regular budgeting efforts, LAFD's resource needs, including staffing, equipment, trucks and engines, ambulances, other special apparatuses and possibly station expansions or new station construction, would be identified and allocated according to the priorities at the time. At this time, LAFD has not identified the need for any new stations or station improvements in the Project area either because of this Project or other projects in the service area. If LAFD determines that new facilities are necessary at some point in the future, as discussed above, such facilities would not be expected to result in significant impacts.

Thus, I concur that cumulative impacts related to fire protection would be less than significant as concluded in the Draft EIR.

3. SUMMARY AND CONCLUSIONS

SGH has issued this technical memorandum confirming the adequacy of fire public services for the Project and confirming the Draft EIR's conclusion that fire protection impacts would be less than significant under CEQA. The nearest fire station, Fire Station 61, is located approximately 1.2 miles from the Project site. As mandated by the LAMC, the Project must incorporate automatic fire sprinkler systems in all structures and adhere to fire protection measures outlined in the LAFD Letter.

With the implementation of the fire protection features described in the LAFD Letter and compliance with all applicable regulatory requirements discussed above, the Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection services.

Encl.

Attachment A

CITY OF LOS ANGELES
INTER-DEPARTMENTAL CORRESPONDENCE

August 6, 2021

To: Vincent Bertoni, AICP, Director of Planning
Department of City Planning
Attention: Paul Caporaso

From: Los Angeles Fire Department

Subject: Notice of Preparation of an Environmental Impact

CASE NO.: ENV-2021-4091-EIR

PROJECT NAME: TVC 2050 Project

PROJECT APPLICANT: Television City Studios, LLC

PROJECT LOCATION: 7716-7860 West Beverly Boulevard, Los Angeles, California 90036

PROJECT DESCRIPTION: The Project would establish the TVC 2050 Specific Plan (Specific Plan) to allow for the modernization and expansion of media production facilities within the Television City Studio campus. The proposed Specific Plan would permit a total of up to approximately 1,874,000 square feet of sound stage, production support, production office, general office, and retail uses within the Project Site upon buildout, as well as associated circulation improvements, parking, landscaping, and open space. More specifically, the Specific Plan would permit approximately 1,626,180 square feet of new development, the retention of approximately 247,820 square feet of existing uses, and the demolition of up to approximately 495,860 square feet of existing media production facilities, as detailed in the table below. Parking would be provided in a combination of above ground structures, subterranean structures, and/or surface parking based on parking requirements established within the Specific Plan. The Specific Plan also would establish development guidelines and standards to regulate basic planning, design, and development concepts for future development within Television City. The designated Historic-Cultural Monument (CHC-2018-476-HCM) located on-site would be retained, and views of it from Beverly Boulevard would be opened up. Landscaping and open space elements, including streetscape improvements, would be introduced to create a cohesive visual identity for the Project Site and enhance the pedestrian experience, while continuing to provide for the unique security needs of a working production studio. In addition, a Sign District would be established to permit studio-specific on-site signs.

The Specific Plan would provide development flexibility by allowing for exchanges between certain categories of permitted land uses and associated floor areas in order to respond to the future needs and demands of the entertainment industry. Specifically, additional sound stage uses and/or production support uses may be developed in exchange for a reduction in floor area of another permitted land use category, so long as the limitations of the Specific Plan are met, namely that the total sitewide floor area may not exceed 1,874,000 square feet and the sitewide Floor Area Ratio (FAR) may not exceed 1.75:1. Buildout under the Specific Plan could take place in one phase with completion in 2026 or could occur in phases over multiple years. The Applicant is seeking a Development Agreement with a term of 20 years, which could extend the full buildout year to approximately 2043.

The following comments are furnished in response to your request for this Department to review the proposed development:

FIRE FLOW:

The adequacy of fire protection for a given area is based on required fire-flow, response distance from existing fire stations, and this Department's judgment for needs in the area. In general, the required fire-flow is closely related to land use. The quantity of water necessary for fire protection varies with the type of development, life hazard, occupancy, and the degree of fire hazard.

Fire-flow requirements vary from **6,000 to 9,000*** gallons per minute (G.P.M.) in low density residential areas to 12,000 G.P.M. in high-density commercial or industrial areas. A minimum residual water pressure of 20 pounds per square inch (P.S.I.) is to remain in the water system, with the required gallons per minute flowing. The required fire-flow for this project has been set at **6,000 to 9,000 G.P.M. from four to six fire hydrants flowing simultaneously.**

Improvements to the water system in this area may be required to provide **6,000 to 9,000* G.P.M.** fire flow. The cost of improving the water system may be charged to the developer. For more detailed information regarding water main improvements, the developer shall contact the Water Services Section of the Department of Water and Power.

***9,000 due to high rise**

RESPONSE DISTANCE:

Based on a required fire-flow of 9,000 G.P.M., the first-due Engine Company should be within 1.0 mile(s), the first-due Truck Company within 1.5 mile(s).

FIRE STATIONS:

The Fire Department has existing fire stations at the following locations for initial response into the area of the proposed development: **7716 W. Beverly Blvd.**

DISTANCE	Fire Station No. 61	SERVICES & EQUIPMENT	STAFF
1.2	5821 W. 3rd Street Los Angeles, CA 90036	Task Force, Paramedic Rescue Ambulance BLS Rescue Ambulance	14
3.5	Fire Station No.68 5023 W. Washington Boulevard Los Angeles, CA 90019	Engine and Paramedic Rescue Ambulance	8
3.3	Fire Station No. 58 1556 S. Robertson Blvd. Los Angeles, CA 90035	Assessment Engine, 2 Paramedic Rescue Ambulances and BLS Rescue Ambulance	8
3.0	Fire Station No. 27 1327 N. Cole Avenue Los Angeles, CA 90028	Task Force, Paramedic Rescue Ambulance BLS Rescue Ambulance and Urban Search and Rescue	16
1.9	Fire Station No. 41 1439 N. Gardner Street Los Angeles, CA 90046	Engine, Paramedic Rescue Ambulance and Brush Patrol	6

Based on these criteria (response distance from existing fire stations), fire protection would be considered **Inadequate**.

At present, there are no immediate plans to increase Fire Department staffing or resources in those areas, which will serve the proposed project.

FIREFIGHTING PERSONNEL & APPARATUS ACCESS:

Access for Fire Department apparatus and personnel to and into all structures shall be required.

One or more Knox Boxes will be required to be installed for LAFD access to the project. Location and number to be determined by LAFD Field Inspector. (Refer to FPB Req # 75).

505.1 Address identification. New and existing buildings shall have approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property.

No building or portion of a building shall be constructed more than 150 feet from the edge of a roadway of an improved street, access road, or designated fire lane.

Fire lane width shall not be less than 20 feet. When a fire lane must accommodate the operation of Fire Department aerial ladder apparatus or where fire hydrants are installed, those portions shall not be less than 28 feet in width.

The width of private roadways for general access use and fire lanes shall not be less than 20 feet, and the fire lane must be clear to the sky.

Fire lanes, where required and dead ending streets shall terminate in a cul-de-sac or other approved turning area. No dead ending street or fire lane shall be greater than 700 feet in length or secondary access shall be required.

Submit plot plans indicating access road and turning area for Fire Department approval.

All parking restrictions for fire lanes shall be posted and/or painted prior to any Temporary Certificate of Occupancy being issued.

Plans showing areas to be posted and/or painted, "FIRE LANE NO PARKING" shall be submitted and approved by the Fire Department prior to building permit application sign-off.

Electric Gates approved by the Fire Department shall be tested by the Fire Department prior to Building and Safety granting a Certificate of Occupancy.

Private streets shall be recorded as Private Streets, AND Fire Lane. All private street plans shall show the words "Private Street and Fire Lane" within the private street easement

Private streets and entry gates will be built to City standards to the satisfaction of the City Engineer and the Fire Department.

Construction of public or private roadway in the proposed development shall not exceed 15 percent in grade.

Private development shall conform to the standard street dimensions shown on Department of Public Works Standard Plan S-470-0.

Standard cut-corners will be used on all turns.

Where access for a given development requires accommodation of Fire Department apparatus, overhead clearance shall not be less than 14 feet.

The Fire Department may require additional vehicular access where buildings exceed 28 feet in height.

The Fire Department may require additional roof access via parapet access roof ladders where buildings exceed 28 feet in height, and when overhead wires or other obstructions block aerial ladder access.

All fire gates shall be designed to satisfaction of the Los Angeles Fire Department to allow gates to be opened by a master remote control device which will be provided to the Los Angeles Fire Department by the developer.

Modification of Access Gate Equipment and Facilities. There shall be no modification of any vehicular access gate equipment or facilities installed by Declarant in the Properties, including without limitation modification or changes in hardware and/or method of operation without the written approval of the Los Angeles Fire Department. The provision of this shall be specifically enforceable by the City and Fire Department. Requests for any modifications shall be made to the Hydrants and Access Unit, Los Angeles Fire Department.

Entrance to the main lobby shall be located off the address side of the building.

Any required Fire Annunciator panel or Fire Control Room shall be located within a 20ft visual line of sight of the main entrance stairwell or to the satisfaction of the Fire Department.

Adequate off-site public and on-site private fire hydrants may be required. Their number and location to be determined after the Fire Department's review of the plot plan.

The plot plans shall be approved by the Fire Department showing fire hydrants and access for each phase of the project prior to the recording of the final map for that phase. Each phase shall comply independently with code requirements.

FPB #10

Helicopter landing facilities are still required on all High-Rise buildings in the City. However, FPB's Requirement 10 has been revised to provide two new alternatives to a full FAA-approved helicopter landing facility.

Each standpipe in a new high-rise building shall be provided with two remotely located FDC's for each zone in compliance with NFPA 14-2013, Section 7.12.2.

FPB #105

5101.1 Emergency responder radio coverage in new buildings. All new buildings shall have approved radio coverage for emergency responders within the building based upon the existing coverage levels of the public safety communication systems of the jurisdiction at the exterior of the building. This section shall not require improvement of the existing public safety communication systems.

The inclusion of the above listed recommendations, along with any additional recommendations made during later reviews of the proposed project will reduce the impacts to an acceptable level.

Definitive plans and specifications shall be submitted to this Department and requirements for necessary permits satisfied prior to commencement of any portion of this project.

The Los Angeles Fire Department continually evaluates fire station placement and overall Department services for the entire City, as well as specific areas. The development of this proposed project, along with other approved and planned projects in the immediate area, may result in the need for the following:

1. Increased staffing for existing facilities. (I.E., Paramedic Rescue Ambulance and EMT Rescue Ambulance resources.)
2. Additional fire protection facilities.
3. Relocation of present fire protection facilities.

For additional information, please contact the Fire Development Services Section, Hydrants & Access Unit at (213) 482-6543 or email lafdhydrants@lacity.org.

Very truly yours,

Kristin Crowley
Fire Marshal
KC:RED:jb

Attachment B



Nathan B. Wittasek

P.E., LEED AP, CASp

Principal

T: 213.271.1932

E: nbwittasek@sgh.com

REGISTRATIONS

Professional Engineer

CA, FL, ID, NV, OR, WA, WY

OTHER

Certified Access Specialist (CASp)

Certified Fire & Explosions Investigator (CFEI)

Deputy Building Inspector, Smoke Control, City of Los Angeles (P031371)

Hazardous Waste Operations and Emergency Response Training in accordance with OSHA 29

CFR 1910.120, 1926.65

LEED Accredited Professional

National Council of Examiners for Engineering and Surveying (NCEES)

EDUCATION

Worcester Polytechnic Institute, Worcester, MA

M.S. in Fire Protection Engineering, 1997

B.S. in Civil Engineering, 1995

Nate has more than twenty-five years of experience working in the fire protection and regulatory arenas. Nate brings a practical approach to the fire protection engineering field that reflects his diverse training and experiences in academia, codes consulting for both new and existing facilities, performance-based fire protection engineering, resiliency design, and the fire service. His experience includes failure analysis, fire engineering, hazardous materials and operations, systems design and building codes and accessibility consulting for commercial, residential and infrastructure projects in North America, Europe, Asia, and the Middle East. Nate has specialized in fire life safety systems and approaches that are used in academic buildings and campuses, assembly and performance venues, cultural heritage facilities, historic structures, institutional, laboratories, multi-family dwellings, and tall buildings.

Experience

- | Simpson Gumpertz & Heger Inc. From 2016 to present.
- | Exponent. From 2011 to 2016.
- | Arup. From 2003 to 2011.
- | RJA Group. From 1997 to 2003.
- | Auburn Fire Department. From 1994 to 1997.
- | Worcester Polytechnic Institute. From 1995 to 1997.

Airports and ground transportation

Integration of security requirements with means of egress for large populations, smoke and air movement in below ground tunnels, terminal spaces and stations, zoned notification, means of egress:

- | Burbank Airport Hangar Renovation, Burbank, CA
- | Confidential Prototype Fixed Guideway Transportation System, CA and NV
- | Emirates International Lounge, Los Angeles, CA
- | John Wayne Airport Security Retrofit, Santa Ana, CA
- | JFK JetBlue Terminal, New York, NY
- | LAX Automated People Mover Performance-Based Study, Los Angeles, CA
- | LAX Central Utility Plan, Los Angeles, CA
- | LAX ConRAC Facility, Los Angeles, CA
- | LAX Terminal 7/8 Renovation and Expansion, Los Angeles, CA
- | Los Angeles Airport Security Retrofit, Los Angeles, CA
- | Los Angeles Union Station Master Plan, Los Angeles, CA
- | Ninoy Aquino International Airport Terminal 3, Manila, Philippines
- | World Trade Center Path Station, New York, NY

Archival, data, and information infrastructure

Alternative suppression systems, fire alarm and notification, fire and materials, flammability of materials, fuel storage, generator reliability, integrated security and fire systems, smoke control, stack systems, very early smoke detection:

- | AT&T / Quest Telephone Exchange Facility, Phoenix, AZ

- | Confidential Cloud Data Center, San Jose, CA
- | University of Utah Marriott Library, Salt Lake City, UT
- | UCLA Southern Regional Library Facility, Los Angeles, CA
- | Woodbury University Library Renovation, Burbank, CA

Assembly and performing arts

Assembly means of egress optimization, compartmentation considerations, fire detection and alarm, fire proofing, fire sprinkler systems, interior finish, proscenium protection, scenery protection, acoustic systems integration, smoke control (exhaust and venting), zoned egress:

- | Anaheim Convention Center, Anaheim, CA
- | Fashion Show Mall, Las Vegas, CA
- | Facebook Event Center, Menlo Park, CA
- | Harrah's Chester Downs Casino and Racetrack, Chester, PA
- | Idyllwild Arts Academy Performing Arts Center, Idyllwild, CA
- | Jack's Urban Meeting Place, Boise, ID
- | Kirk Douglas Theater, Culver City, CA
- | Kodak Theater, Los Angeles, CA
- | MGM Mansion, Las Vegas, NV
- | NFL Stadium Structural Fire Engineering, Inglewood, CA
- | Pala Casino Expansion, Temecula, CA
- | Project 115 Theme Park, Tianjin, P. R. China
- | Segerstrom Center for the Arts at OCPAC, Costa Mesa, CA
- | Skirball Cultural Center, Los Angeles, CA
- | Staples Center, Los Angeles, CA
- | Tempe Center for the Arts, Tempe, Arizona
- | Tropicana Casino and Resort, Las Vegas, CA
- | Universal City Walk, Universal City, CA
- | University of La Verne Sports Science and Athletics Pavilion, La Verne, CA
- | Venetian Macau, Macau SAR, China
- | Walt Disney Concert Hall, Los Angeles, CA
- | Wynn Encore, Las Vegas, NV
- | Wynn Resort, Macau SAR, China

Creative office

Means of egress, construction type analysis, smoke control, interior finish studies, art installations, fire protection systems design:

- | Apple Culver City Office Building, Culver City, CA
- | Culver Studios (multiple buildings), Culver City, CA
- | Facebook West Campus (various buildings), Menlo Park, CA
- | Facebook Dumbarton, Fremont, CA

- | Facebook Burlingame campus, Burlingame, CA
- | Facebook Menlo Park (Buildings 20, 21, 22, 27, 28, 61,62, 63), Menlo Park, CA
- | Facebook LAX, Los Angeles, CA
- | French Market Quarter Historical Office Building, West Hollywood, CA
- | Netflix ICON and CUE creative office buildings, Los Angeles, CA
- | Netflix Serrano office building, Los Angeles, CA
- | Pier 70 Adaptive Reuse Office Building, San Francisco, CA
- | Press mixed use office buildings, Costa Mesa, CA
- | Santa Monica Airport Office Building Adaptive Reuse, Santa Monica, CA
- | Santa Monica Post Office Adaptive Re-use, Santa Monica, CA
- | Second Century Complex, Burbank, CA
- | Sunset Bronson Studios historical renovation, Los Angeles, CA
- | Water's Edge 3 commercial development, Los Angeles, CA

Cultural resource facilities

Compartmentation, high value contents, fire suppression in sensitive spaces, occupant movement and means of egress, smoke control (exhaust method), system reliability, very early smoke detection:

- | 830 S. Flower Historical Renovation, Los Angeles, CA
- | Academy of Motion Pictures, Arts and Sciences Museum, Los Angeles, CA
- | Asian Art Museum Renovation and Addition, San Francisco, CA
- | Budokan Community Center, Los Angeles, CA
- | California Academy of Sciences, San Francisco, CA
- | California Museum of Science & Industry, Los Angeles, CA
- | Children's Museum of Los Angeles, Los Angeles, CA
- | Christ and St. Luke's Church, Norfolk, VA
- | Fresno Metropolitan Museum, Fresno, CA
- | Getty Center Museum, Los Angeles, CA
- | Glendale Central Library, Glendale, CA
- | Griffith Observatory Renovation, Los Angeles, CA
- | Guggenheim Abu Dhabi, United Arab Emirates
- | Hammer Museum (various renovations), Los Angeles, CA
- | Idyllwild Performing Arts Center, Idyllwild, CA
- | LACMA Building for Permanent Collection, Los Angeles, CA LACMA Transformation (Broad Contemporary Art Museum)
- | LACMA East and West
- | Los Angeles Mikvah Society, Los Angeles, CA
- | L. Ron Hubbard Hall, Clearwater, FL
- | MOCA Geffen Contemporary Renovation Study, Los Angeles, CA
- | Museo Soumaya, Mexico City, Mexico

- | Museum of Contemporary Art (MOCA), Los Angeles, CA
- | National Palace Museum, Taipei, Taiwan
- | Pershing Square Renovation Study, Los Angeles, CA
- | Shanghai Scienceland Museum, Shanghai, China

Educational

Dormitory fire protection, fire access, fire construction assemblies, hazardous materials management, means of egress, hazardous materials management, fire protection systems, smoke control systems:

- | Art Center College of Design Misc Buildings, Pasadena, CA
- | Broad Arts Center, Los Angeles, CA
- | Caltech Walter and Leonore Annenberg Center, Pasadena, CA
- | Cal State University Long Beach Science II Building, Long Beach, CA
- | Center for Early Education Alternative Means and Methods and Fire Access, West Hollywood, CA
- | Colburn School Student Housing, Los Angeles, CA
- | Community College of Southern Nevada, Science Classroom Building, Las Vegas, NV
- | Cooper Union Academic Building, New York, NY
- | Cal State University Misc Buildings, Los Angeles, Northridge, and Camarillo CA
- | Emerson College Los Angeles Center, Los Angeles, CA
- | LA Unified School District Misc Buildings, Los Angeles, CA
- | Marlborough School Renovations, Los Angeles, CA
- | Peter B. Lewis Weatherhead School of Management, Cleveland, OH
- | Pomona College Biology Building / Seaver South Renovation, Pomona, CA
- | Santa Monica College KCRW Facility, Santa Monica, CA
- | Soka University of America (multiple buildings), Aliso Viejo, CA
- | Stauffer Science Center, Whittier College, Whittier, CA
- | UCLA Basketball Practice Facility, Los Angeles, CA
- | UCLA Broad Art Center, Los Angeles, CA
- | UCLA Biomedical Sciences Research Building (SRB2), Los Angeles, CA
- | UCLA Landfair & Glenrock Housing Complex, Los Angeles, CA
- | UCLA Margan Apartments, Los Angeles, CA
- | UCLA Music Facility, Los Angeles, CA
- | UCLA Northwest Housing Complex, Los Angeles, CA
- | UCLA Ostin Music Center Addition, Los Angeles, CA
- | UCLA Southwest Housing Complex, Los Angeles, CA
- | UCLA Wooden Recreation and Sports Center Renovation, Los Angeles, CA
- | University of Nevada, Las Vegas Science, Engineering & Technology Building, Las Vegas, NV
- | University of Utah Marriott Library Renovation, Salt Lake City, UT

| Woodbury University Architecture Studio, Burbank, CA

Energy infrastructure

Explosion prevention, fire exposure analysis, flammable and combustible liquids storage, flammable and explosive gas protection, manual suppression:

- | Carson Oil Well Study, Torrance, CA**
- | Metro Division 16 Rail Maintenance Building, Los Angeles, CA**
- | Metro Division 20 Rail Maintenance Building, Los Angeles, CA**
- | Miscellaneous Oil Well Exposure Studies, Brea, Huntington Beach and Long Beach, CA**
- | PXP Mass Notification Assessment, Los Angeles, CA**
- | Recology Recycling Facility, Los Angeles, CA**
- | Confidential Battery Manufacturing Facility**

Healthcare

Compartmentation and fire resistive construction strategies, JCAHO accreditation and NFPA 101 compliance, means of egress, OSHPD 1, 2, and 3 implementation, suite design:

- | Cedars Sinai Tenant Improvements Misc Buildings, Los Angeles, CA**
- | Good Samaritan Medical Office Building, Los Angeles, CA**
- | Kaiser Foundation Hospital Panorama City, Panorama City, CA**
- | Kaiser Permanente Sand Canyon Central Plant, Irvine, CA**
- | St. Jude Hospital, Los Angeles, CA**
- | St. Joseph Medical Office Building, Orange, CA**

High-rise commercial, residential, and hotel

Design and implementation of high-rise building systems and approaches including smoke control, means of egress, fire safety systems, structural fire engineering, and alternative means and methods approaches.

- | 801 S Broadway Renovation, Los Angeles, CA**
- | 1120 S Grand South Park (AVEN), Los Angeles, CA**
- | 3033 Wilshire, Los Angeles, CA**
- | Al Dana at Raha Beach, Abu Dhabi, United Arab Emirates**
- | Anchorage Marriott, Anchorage, AK**
- | Barrington Plaza, Los Angeles, CA**
- | Burbank Studios Office Buildings, Burbank, CA**
- | Cal Trans District 7 Headquarters Building, Los Angeles, CA**
- | Cook County Administration Building, Chicago, IL**
- | The Grand LA, Los Angeles, CA**
- | Grand Californian Hotel, Anaheim, CA**
- | Hilton Canopy Sacramento, Sacramento, CA**
- | Hollywood and Highland Marriott Renaissance Hotel, Hollywood, CA**
- | Housing Bank of Trade and Finance, Amman, Jordan**

- | Horizons Luxury Condominiums, San Diego, CA
- | Marina Tower, Abu Dhabi, UAE
- | Metropolis Residential & Hotel Towers (Phases 1 and 2), Los Angeles, CA
- | Natural Resources Headquarters Building, Sacramento, CA
- | NFL Studio and office building, Inglewood, CA
- | Nissan Downtown Los Angeles Sales and Maintenance Facility, Los Angeles, CA
- | Pacific Design Center Red Building, West Hollywood, CA
- | Park Place Luxury Condominiums, Irvine, CA
- | Riviera Hotel and Casino Crocus City, Moscow, Russia
- | San Jose City Hall and Civic Center, San Jose, CA
- | Sienna Hotel & Casino, Reno NV
- | Sony Office Building, Culver City, CA
- | Sunset Bronson ICON tower (Netflix), Los Angeles, CA
- | Pendry Hotel, West Hollywood, CA
- | Torre Reforma, Mexico City, Mexico
- | Torre Quadrata, Mexico City, Mexico
- | Wilshire Crescent Heights Mixed Use, Los Angeles, CA
- | Wilshire Grand Center, Los Angeles, CA
- | Wilshire La Jolla Residential High-Rise, Los Angeles, CA
- | (W)rapper Office Building, Los Angeles, CA

Litigation support

Fire life safety focused litigation related to accessibility noncompliance, building defects analysis, origin and cause investigation and injury and systems failure analysis. Experience with litigation support inclusive of arbitration, deposition, and trial testimony.

Science and technology

Fire protection systems specification, fire resistive construction, hazardous materials management, hazardous processes, passive barrier optimization:

- | 41 Cooper Square Laboratory and Classroom Building, New York, NY
- | California Air Resources Board Testing and Research Facility, Riverside, CA
- | Confidential Laboratory Buildings for Artificial Intelligence Research and Defense Light Manufacturing, CA and WA
- | Keysight Technologies Fabrication Facility Risk Assessment, Santa Rosa, CA
- | JPL Misc Structures, Pasadena, CA
- | J. Vernon Luck Science Building, Los Angeles, CA
- | Lawrence Berkley Livermore National Laboratory Misc Buildings, Berkely, CA
- | UCLA Semel Nexus Renovation Study, Los Angeles, CA
- | University of Nevada Science, Engineering & Technology Building, Las Vegas, NV

Secure facilities

Integration of life safety with security, fire barrier implementation, high-rise requirements, means of egress analysis, smoke control (pressurization and exhaust):

- | Los Angeles U.S. Federal Courthouse, Los Angeles, CA
- | New Madera Courthouse, Madera, CA
- | Olympic Police Facility, Los Angeles, CA
- | Riverside District Attorney's Office, Riverside, CA
- | San Jose City Hall and Civic Center, San Jose, CA
- | U.S. Land Port of Entry Modernization and Expansion, Champlain, New York
- | U.S. Land Port of Entry Modernization and Expansion, Otay Mesa, California
- | U.S. Embassy in London (competition), London, UK
- | U.S. Embassy in Beirut, Lebanon
- | U.S. Embassy in Riyadh, Saudi Arabia

Sound stage, production office, mill, and studio complexes

Studio complex design entails unique approaches to the means of egress design, fire life safety systems and accessibility based on requirements derived from the California Building and Fire Codes as well as related National Fire Protection Association standards. These facilities must at once be flexible and cost effective while meeting rigorous standards of safety and operator standards:

- | CBS Television Studios, Los Angeles, CA
- | Confidential Studio Complex, Santa Clarita, CA
- | Confidential Studio Complex, Burbank, CA
- | Manhattan Beach Studios, Manhattan Beach, CA
- | Miscellaneous Sound Stage Renovations, Los Angeles, CA
- | Sunset Gower Studios, Los Angeles, CA
- | Sunset Las Palmas Studios, Los Angeles, CA
- | Sony Pictures Studios, Culver City, CA
- | Universal Studios, Universal City, CA

Honors and awards

- | Commendation by the Chief of the Auburn Fire Department
- | 2013 UCLA Extension Architecture + Interior Design Instructor of the Year
- | 2009 Consulting – Specifying Engineer Magazine's "40 under 40" Award
- | Best Technical Paper in Conference, "Submersible Oil Well Study," Proceedings of the Third International Conference on Fire Research and Engineering, October 1999
- | Salamander Honorary Fire Protection Engineering Society
- | Tau Beta Pi Engineering Honor Society
- | Chi Epsilon Engineering Honor Society
- | Skull Senior Honor Society

Professional activities

- Council on Tall Buildings and Urban Habitat (CTBUH): Fire Safety Committee.
- International Code Council (ICC): Member.
- National Fire Protection Association (NFPA): Member.
- NFPA 101 Technical Committee on Fire Protection Features: Chair.
- NFPA 5000 Technical Committee on Fire Protection Features: Chair.
- National Association of Fire Investigators (NAFI): Member.
- Society of Fire Protection Engineers (SFPE): Professional Member.
- Tall Building Fire Safety Network: Member.

Presentations

- Wittasek, N.B., "Time and the Tall Building – Time Saving Technologies that Preserve Lives and Enhance Safety in Recently Constructed Tall Buildings," presentation at the Third International Tall Building Fire Safety Conference, London, U.K, July 2015.
- Wittasek, N.B., "Tall Building Life Safety Systems: An Engineering Perspective of Key Challenges," presentation at 2nd International Tall Building Fire Safety Conference, London, U.K, June 2014.
- Wittasek, N.B., "Navigating the Complexities of Accessibility in Existing Buildings," presentation for AIA | LA Continuing Education Series, Los Angeles, CA, March 2012.
- Wittasek, N.B., "The 2010 CBC & ADA Accessibility in Existing Buildings," presentation for AIA | LA Continuing Education Series, Los Angeles, CA, September 2011.
- Wittasek, N.B., "It's Your Time and Money – Accessibility Errors and Omissions," presentation at Mobius LA, Los Angeles, CA, June 2010.
- Wittasek, N.B., "Simulating Building Evacuation Using an Agent-Based Approach," presentation at Human Behaviour in Fires Symposium, Cambridge, UK, July 2009.
- Wittasek, N.B., "Accessibility from the Outside In," presentation for AIA Continuing Education Series, Los Angeles, CA, September 2009.
- Wittasek, N.B., "Accessibility in New and Existing Assembly Occupancies: From the Front to the Back of House," presentation for AIA Continuing Education Series, Los Angeles, CA, January 2009.
- Wittasek, N.B., "Accessibility in New Retail Establishments: Walking through your Friendly Neighborhood Shops," presentation for AIA Continuing Education Series, Los Angeles, CA, January 2009.
- Wittasek, N.B., "Provisions of the 2007 CBC that Cause the Most Confusion," presentation at Mobius LA, Los Angeles, CA, 2008.
- Wittasek, N.B., "Heat," presentation at Pasadena Art Center College of Design, Pasadena, CA, 2008.
- Wittasek, N.B., "Building Codes and Design," presentation at Sci-Arc, Los Angeles, CA, 2007, 2008, and 2016.
- Wittasek, N.B., "Sustainable Development in the United Arab Emirates," presentation at University of Southern California Los Angeles, CA, 2008.

Books

- Wittasek, N.B. and J. Gentile, *Interactive Guide to the 2012 International Building Code, an Illustrated Checklist*, International Code Council, 2013.
- Wittasek, N.B., J. Tubbs, and B. Meacham, *Egress Design Solutions: A Guide to Evacuation and Crowd Management Planning*, John Wiley & Sons, 2007.

Publications

- Wittasek, N.B. and K.M. Black, "Choosing Active and Passive Fire Protection Systems," *Consulting-Specifying Engineer*, May 2021.
- Wittasek, N.B., "Best Practices for Design Smoke Control Systems," *Consulting-Specifying Engineer*, May 2020.
- Wittasek, N.B. and K.J. LaMalva, "New Standardization for Structural Fire Protection Variances," *Building Safety Journal*, May 2020.
- Wittasek, N.B., "Common Smoke Control Approaches in High-Rise Buildings," *Consulting-Specifying Engineer*, May 2019.
- Wittasek, N.B., "Challenges with Tall Building Design: Are we Creating Risk by Introducing Unnecessary Complexity?" *Proceedings of the 2nd International Tall Building Fire Safety Conference*, 17-20 June 2014.
- Wittasek, N.B. and D. Jacoby, "New Fire Alarms for Old Buildings," *Consulting Specifying Engineer*, 15 February 2010.
- Wittasek, N.B., "Model Behaviour," *The Economist Technology Quarterly*, 7 March 2009.
- Wittasek, N.B. and D. Gemeny, "Fire Test Data for Design Firms – A Perspective from One Practitioner," *ASTM's Role in Performance-Based Fire Codes and Standards*, ASTM STP 137, November 1999: 47-57.
- Wittasek, N.B., "Life Safety Considerations in the Health Care Environment," *ASHRAE Technical Forum*, 2003.
- Wittasek, N.B. and J. Tubbs, "Submersible Oil Well Study," *Proceedings of the 3rd International Conference on Fire Research and Engineering*, October 1999.
- Wittasek, N.B., R.D. Pehrson, and J.R. Barnett, "Computational Fluid Dynamics Modeling of Post-Crash Vehicle Fires," *General Motors Corporation*, Docket No. NHTSA-1998-3588-209, May 1997.
- Wittasek, N.B., "Analysis and Comparison of Marine Fire Testing Regulations and Procedures," *M.S. Thesis*, Worcester Polytechnic Institute, 1996.