Firehouse World

Taking it to the Streets: San Diego Buildings on Fire

Buildingsonfire.com

Instructors and Producers

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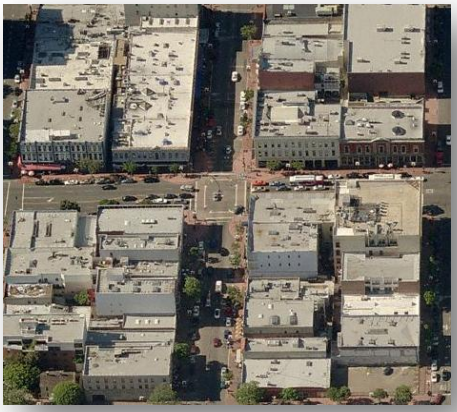
READY, RESPOND, RETURN: GET THE EDUCATION THAT MATTERS TO YOU



Building Knowledge = Firefighter Safety

Taking It to the Streets: San Diego and Buildings on Fire

Tuesday, Feb 19 2013 10:00AM - 2:00PM
Category: Building Construction

John Fisher, Battalion Chief, San Diego, CA, Fire-Rescue
Christopher Naum, SFPE., Chief of Training, Command Institute, Washington, DC

San Diego's historic Gaslamp Quarter provides the stage for an incredible opportunity to tour an amazing collection of buildings and occupancies dating from the late 18th century to current times. This program starts in the classroom and will transition to the field and into the streets for a dynamic walking lecture and tour of prominent examples of various buildings representing Heritage Construction, Legacy, Conventional to Engineered, and Hybrid structures representing a cross section of residential, commercial, retail, office, business and mixed occupancies.

Agenda

10:00 – 11:00 50 minutes Classroom

- **Introduction**
  - Objectives
  - Post Program Downloads
  - Field Activities and Travel Route: Google Earth and File Distribution

- **Reading the Building & Occupancy Risk:** ***Chief Christopher Naum, SFPE***
- **History and Overview Gaslamp Quarter:** ***Chief John Fischer***

- **Mobilize** and leave the Conference Center

11:00- 12:00 60 minutes Tour Phase I

12:00-12:30 30 minutes Lunch & Station Tour

- San Diego Fire-Rescue Station 4 --8TH Avenue and Corner of J Street

12:30-13:50 80 minutes Tour Phase II and Phase III

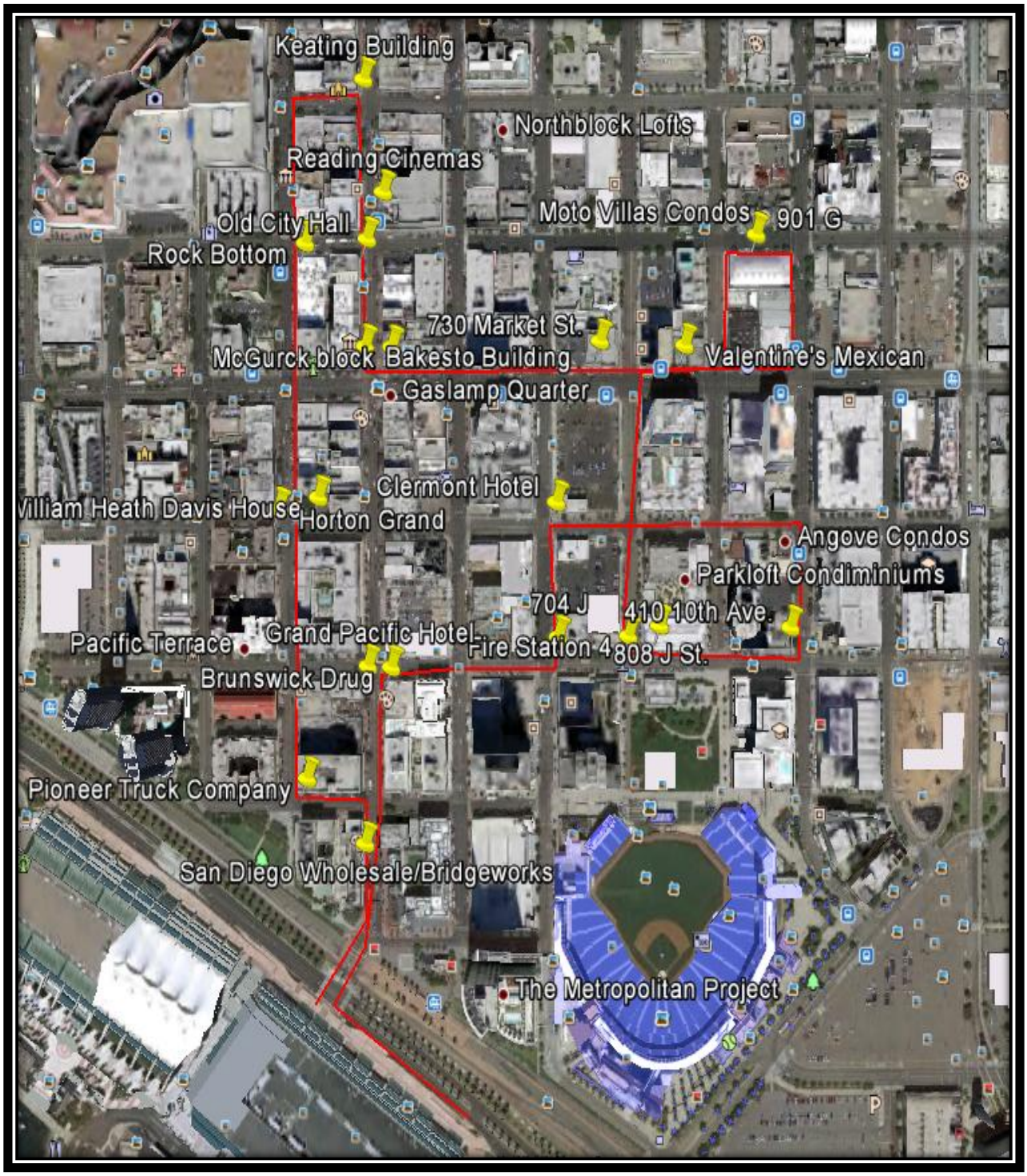
- Make way back to Convention center area

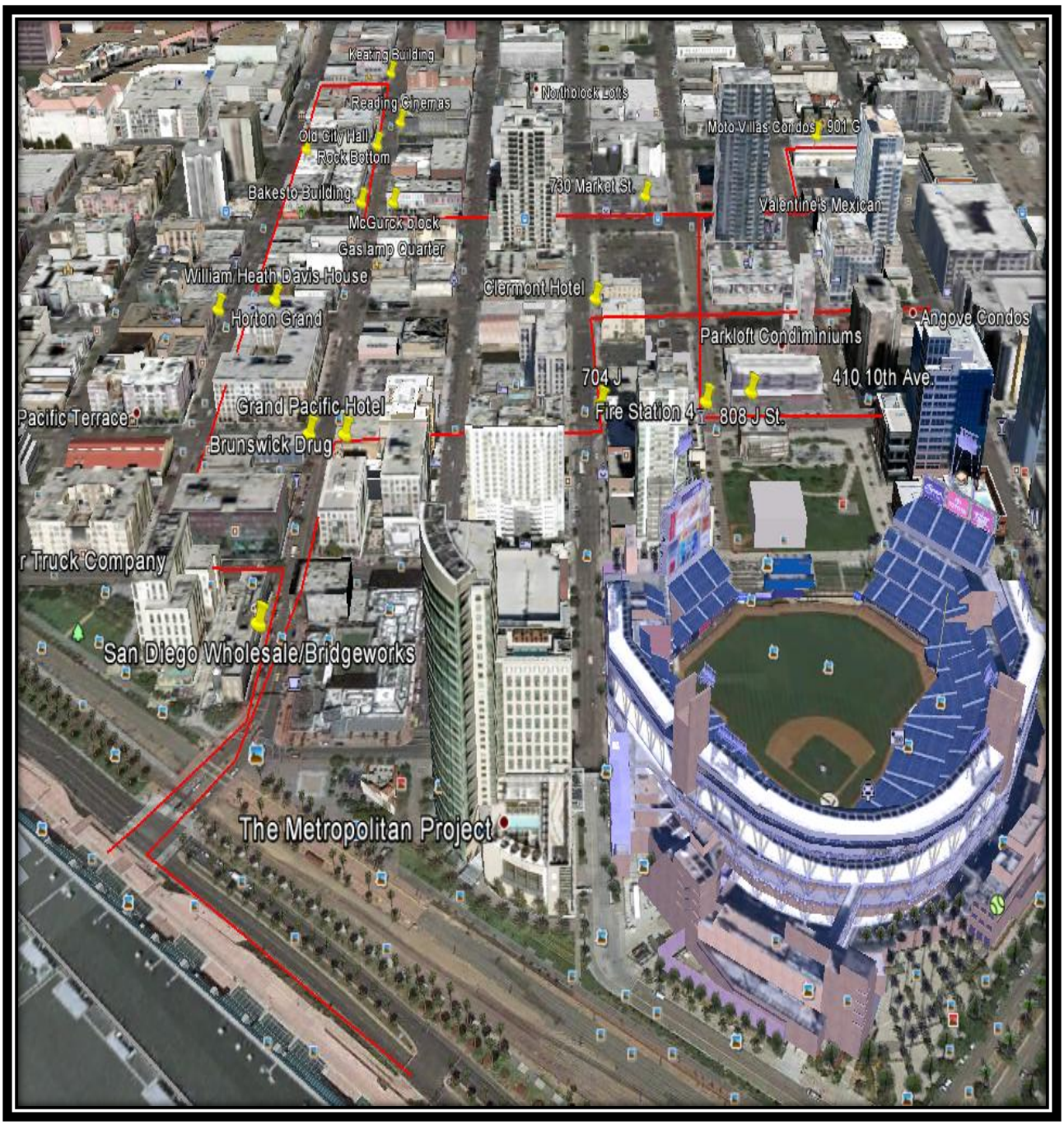
13:50-14:00 10 minutes Wrap-Up (next sessions start at 14:15)

- Return to Convention center Lobby
- Closing and Evaluations

Notes:

Tour Route San Diego and Buildings on Fire





Takin' It To The Streets.kmz

Notes

Building Occupancy Risk Profiling
Reading the Building

- **Building Anatomy**
  - **Construction Systems**
    - Type I Fire Resistive
    - Type II Non-Combustible
    - Type III Ordinary
    - Type IV Heavy Timber
    - Type V Wood

Notes

Building Occupancy Risk Profiling
Reading the Building

- **Building Anatomy**
  - **Construction Systems**
    - Heritage
      - Pre-1900
    - Legacy
      - 1900-1949
    - Conventional
      - 1950-1979
    - Engineered
      - 1980-2001 +
    - Integrated Hybrid Systems
      - 2002- current …
    - Composite Engineered Systems
      - 2010 - current….

Notes

Conventional Building Types

Buildings and structures are commonly classified according to their type of construction based upon one of five basic types of construction and are frequently refereed to and designated as;

- **Type I** (or Type 1)
  - Commonly referred to as **Fire Resistive** construction
- **Type II** (or Type 2)
  - Commonly referred to as **Non-Combustible** construction
- **Type III** (or Type 3)
  - Commonly referred to as **Ordinary** construction
- **Type IV** (or Type 4)
  - Commonly referred to as **Heavy Timber** construction
- **Type V** (or Type 5)
  - Commonly referred to as **Wood Frame** construction

Note: Some variations include the use of the term Class I, II, III, IV or V construction.
Refer to NFPA 222 (©2012 edition) Table 4.1.1 for additional insights and details related to fire resistive ratings (hours) for Exterior Bearing Walls, Interior Bearing Walls, Columns, Beams, Girders, Trusses and Arches, Floor-Ceiling Assemblies, Roof-Ceiling Assemblies, Interior Nonbearing Walls and Exterior Nonbearing Walls and also provides a comparison of similar types of construction for various model building codes.

This system of designating types of construction also includes a specific breakdown of the types of construction through the use of arabic numbers. These arabic numbers follow the roman numeral notation where identifying a type of construction [eg., Type I(442), Type II(111), Type III(200)] and indicate the fire resistance rating requirements for certain structural elements as follows:

- (1) First arabic number — exterior bearing walls
- (2) Second arabic number — columns, beams, girders, trusses and arches, supporting bearing walls, columns, or loads from more than one floor
- (3) Third arabic number — floor construction

Type I Fire Resistive

In this type of construction the structural elements consist of noncombustible materials, usually steel or concrete, that afford a fire resistance rating that provides a given fire protection performance endurance against the effects of fire.

- These specific ratings are determined by the model building codes for a specific type of construction.
- These specific ratings apply to the roof and floor assemblies as well as any exterior or interior bearing support walls.
- Interior partitions are required to be constructed with approved noncombustible materials.
- The fire resistance ratings are provided by different designs that meet minimum performances.

Type II Noncombustible

The same requirements that apply to Type I construction also apply to this type of construction, with one basic difference.

- This type of construction may not afford any fire-resistance rating for the exposed structural elements.
- If any fire protection of the structural elements is provided, it is at a lesser rating than that required for Type I construction. In this type of building the structural elements are usually made of steel, bolted, riveted, or welded together.
- This type of construction is susceptible to expansion, distortion, or relaxation of the steel members, resulting in early collapse during a fire.
- Again, interior partitions are required to be constructed with noncombustible or approved limited combustible materials.

Type III Ordinary
In this construction type all or part of the interior structural elements may be combustible. Exterior walls are required to be constructed with noncombustible materials. They can have a fire-resistance rating, depending upon the horizontal separation and whether they are bearing or nonbearing walls.

- This category usually is divided into protected and unprotected subtypes. The building will have masonry exterior walls (usually brick), and wooden structural members and combustible interior construction.
- The building generally will not exceed six stories, and most often will be two or three stories in height; it is often called "Main Street USA."
- Floor and roof supports are usually wood, but other materials, such as steel bar joists, may be found.
- Floor and roof decking most frequently will be plywood or composition board.
- Common walls between buildings may share wall sockets for floor joists and roof rafters. This type of construction was originally referred to as ordinary

Type IV Heavy Timber
Heavy timber structural members--columns, beams, arches, floors, and roofs--are unprotected wood with large cross-sectional areas.

- A minimum dimension of eight inches for structural wood supports (columns, beams, arches, and girders) is required.
- All other exposed wood must have a minimum dimension of two inches. Concealed spaces usually are not permitted.
- These buildings consist of masonry (noncombustible) exterior walls and structural members of substantial timber construction.
- Commonly this type of construction is found in older factories and mills, however there is a resurgence in their use in various new occupancy types.
- Wood floors generally will have a minimum thickness of three inches and may be oil-soaked from years of oiling heavy machinery with lubricating oils.
- Roof supports will be wood with minimum dimensions of four by six inches, and a minimum roof decking thickness of 1-1/8 inches.

Type V Wood Frame/Combustible
This type of construction uses structural members entirely of combustible materials, usually wood, and is divided into two subgroups:

- protected--structural elements protected as required; or
- unprotected--no fire resistance requirement.

Walls, floors, and roof structure are usually wood frame using different construction methods.

- **Post-and-beam** construction has a wood frame of substantial dimension and is sided with a lightweight covering such as wood boards, or plywood covered with aluminum or PVC siding. This type of construction is commonly used for barns, sheds, and other storage buildings but also may occur in dwellings and other occupancies.
- In **balloon frame** construction, studs run from the foundation to the attic. This type of construction was common in many parts of the country until the late 1930s for residential and light commercial buildings. This provides a continuous air space from top to bottom. Floor joists are tied into the wall, allowing for fire extension in any direction. Fire stopping was not a common practice.
- In **platform frame** construction the walls of each successive story are built on a platform formed by the preceding floor. The joists for the deck may be full-dimension lumber or lightweight materials. Once the floor or deck is in place, walls are placed on it with a sill at the bottom of the wall and a plate at the top. Platform frame construction provides a natural fire barrier for vertical extension within the walls, but openings in walls for water, sewer, ventilation, or heating/air conditioning pipes can create a void for fire extension.
- Modern construction since the 1980's continues to utilize assemblies and structural systems comprised of engineered components with a continuing advancement of new materials, designs and structural and architectural integration.

Since the late 1940's the fire service has continued in the use and the referral of a building type classification to dictate or be utilized in a presumptive manner to define or establish prescribed strategic or tactical deployment methods based upon predictability of fire ground and building performance.

As I've advocated extensively, the fire service used to discern with a measured degree of predictability, how certain building types would perform, react and fail under most fire conditions. Implementing established fundamentals of firefighting operations built upon nine decades of time tested and experience proven strategies and tactics that have formulated into today's conventional models of fire suppression operations. These same fundamental strategies related to building types continue to drive methodologies and operational curricula's that are the core of modern fire suppression theory and combat fire engagement in eh built environment involving buildings on fire.

The evolving and rapidly changing dynamics of building structures and occupancies both in terms of new construction as well as the renovation and adaptive reuse of older buildings and occupancies are the defining paths from which the fire service must reexamine operations related to buildings types and create a new order of classifications and groupings that better serve today's modern fire services in order to identify and ascertain with the predictability of occupancy performance during fire suppression operations that are evident in the types of fire and the challenges faced on today's adaptive and risked induced fire ground. The increasing variables related to building type, occupancy risk, compartment characteristics, fire behavior and fire suppression capabilities demands new

Recently there has been a movement based upon emerging research and analysis that has categorized buildings into two groups: engineered and legacy construction.

I strongly believe this is far too limiting and restrictive which is resulting in missed opportunities to develop further insights into other building type systems and occupancy risk profiling. In order to refine categories that provide corresponding values related to inherent construction features, systems, collapse and comprise, performance characteristics, fire integrity, resistance etc., the following building anatomy categories are suggested and promoted:

Building Anatomy Construction Systems

Heritage Construction (HC)
- Pre-1900

Legacy Construction (LC)
- 1900-1949

Conventional Construction (CC)
- 1950-1979

Engineered Structural Systems (ESS)
- 1980-2001 Type I
- 2002- current Type II

Integrated Hybrid Construction Systems (IHS)
- 2002- current …

Composite Engineered Construction Systems (CES)
- 2010 – current …

Building Occupancy Risk Profiling
Reading the Building

- Building Anatomy
  - Construction Systems
  - Occupancy Risk Profiling
  - Compromise & Collapse
  - Methods & Materials
  - Fire Dynamics

Notes

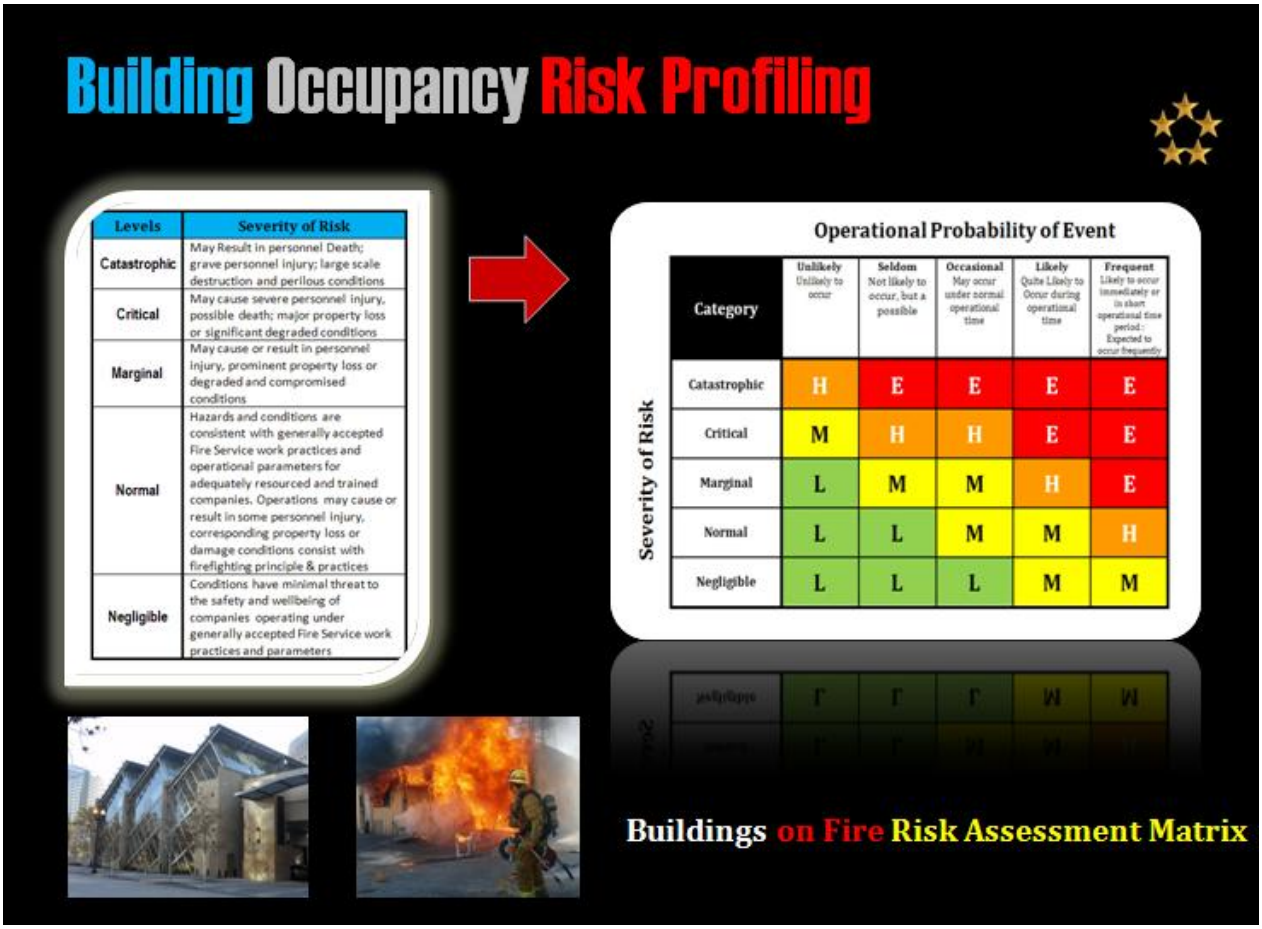
Building Occupancy Risk Profiling
Reading the Building

- Building Anatomy
  - Occupancy Risk Profiling
    - Volume and Area
      - Type 1 ≤ 2000 SF
      - Type 2 2100-4000 SF
      - Type 3 4000-6000 SF
      - Type 4 6000-8000 SF
      - Type 5 8000-10000 SF
      - Type 6 10000-15000 SF
      - Type 7 15000-20000 SF
    - Compartmentation
      - Open
      - Closed
      - Connective

Notes


Building Occupancy Risk Profiling
Reading the Building
Building Anatomy
Fire Dynamics
Fire Dynamic Profiling
Type 1 Behavior
Type 2 Growth (Fire Load Package)
Type 3 Propagation
Type 4 Severity (HRR)
Type 5 Intensity
Type 6 Connectivity
Movement
Proximity
SUG
Severity
Urgency
Growth

Notes


Building Occupancy Risk Profiling
Levels
Severity of Risk
Catastrophic
May Result in personnel Death; grave personnel injury; large scale destruction and perilous conditions
Critical
May cause severe personnel injury, possible death; major property loss or significant degraded conditions
Marginal
May cause or result in personnel injury, prominent property loss or degraded and compromised conditions
Normal
Hazards and conditions are consistent with generally accepted Fire Service work practices and operational parameters for adequately resourced and trained companies. Operations may cause or result in some personnel injury, corresponding property loss or damage conditions consist with firefighting principle & practices
Negligible
Conditions have minimal threat to the safety and wellbeing of companies operating under generally accepted Fire Service work practices and parameters
Operational Probability of Event
Severity of Risk
Category
Unlikely
Seldom
Occasional
Likely
Frequent
Catastrophic H E E E E
Critical M H H E E
Marginal L M M H E
Normal L L M M H
Negligible L L L M M
Buildings on Fire Risk Assessment Matrix


Building Occupancy Risk Profiling
Building Anatomy
Construction Systems
Type I Fire Resistive
Type II Non-Combustible
Type III Ordinary
Type IV Heavy Timber
Type V Wood
Building Anatomy
Occupancy Risk Profiling
Size and Volume
Volume and Area
Type 1 ≤ 2000 SF
Type 2 2100-4000 SF
Type 3 4000-6000 SF
Type 4 6000-8000 SF
Type 5 8000-10000 SF
Type 6 10000-15000 SF
Type 7 15000-20000 SF
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Closed
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Building Anatomy
Construction Systems
Heritage
Pre-1900
Legacy
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1950-1979
Engineered
1980-2001
Integrated Hybrid Systems
2002- current ...
Composite Engineered Systems
2010 - current....
Building Anatomy
Construction Systems
Occupancy Risk Profiling
Compromise & Collapse
Methods & Materials
Fire Dynamics
Performance
Building
Compartment
Company
Resistance
Integrity
Time
RIT

Notes

Predictability and Performance of Buildings on Fire

Chief Christopher J. Naum, SFPE
Contributing Editor, Firehouse Magazine & Firehouse.com

When we look at various buildings and occupancies, past operational experiences (both good and bad) give us experiences that define and determine how we assess, react and expect similar structures and occupancies to perform at a given alarm in the future. Naturalistic decision-making forms much of this basis.

We predicate with certain expectations that fire will travel in a defined (predictable) manner;

- that fire will hold within a room and compartment for a predictable given duration of time;
- that the fire load and related fire flows required will be appropriate for an expected size and severity of fire encountered within a given building, occupancy, structural system and
- given an appropriately trained and skilled staff to perform the requisite evolutions; we can safely and effectively mitigate a structural fire situation in any given building type and occupancy.

Today's incident demands on the fireground are unlike those of the recent past, requiring incident commanders, commanding and company officers and firefighters alike, to have increased technical knowledge of building construction with a heightened sensitivity to fire behavior and fire dynamics, a focus on operational structural stability of the compartment and building envelope and considerations related to occupancy risk versus the occupancy type.

There is an immediate need for today's emerging and operating command and company officers to increase their foundation of knowledge and insights related to the modern building occupancy, building construction and fire protection engineering and to adjust and modify traditional and conventional strategic operating profiles in order to safeguard companies, personnel and team compositions.

Strategies and tactics must have the combined adequacy of sufficient staffing, fire flow and tactical patience orchestrated in a manner that identifies with the fire profiling, predictability of the occupancy and building profile and accounts for presumptive fire behavior within the compartment and building. (We'll address more on tactical patience in a future article)

We used to discern with a measured degree of predictability, how buildings would perform, react and fail under most fire conditions. Implementing fundamentals of firefighting operations built upon nine decades of time tested and experience proven strategies and tactics continues to be the model of suppression operations. These same fundamental strategies continue to drive methodologies and curriculums in our current training programs and academies of instructions.

The lack of appreciation and the understanding of correlating principles involving fire behavior, fuel and rate of heat release and the growth stages of compartment fires within a structural occupancy are the defining paths from which the fire service must reexamine operations in order to identify with the predictability of occupancy performance during fire suppression operations thus increasing suppression effectiveness and firefighter safety.

Our buildings have changed; the structural systems of support, the degree of compartmentation the characteristics of materials and the magnitude of the fire loading package. The structural anatomy, predictability of building performance under fire conditions, structural integrity and the extreme fire behavior; accelerated growth rate and intensively levels typically encountered in buildings of modern construction during initial and sustained fire suppression have given new meaning to the term combat fire engagement. The rules for combat structural fire suppression have changed, but no one has told us.

It's no longer just brute force and sheer physical determination that define structural fire suppression operations, although any seasoned command and company officer knows that at times; it is what gets the job done under the most arduous and demanding of circumstances.

However, from a methodical and disciplined perspective; aggressive firefighting must be defined and aligned to the built environment and associated with goal oriented tactical operations that are defined by risk assessed and analyzed strategic processes that are executed under battle plans that promote the best in safety practices and survivability within known hostile structural fire environments.

The dramatic changes in buildings and occupancies over the past fifteen years have resulted identifiable inadequate fire suppression methodologies based upon conventional practices that do not align with the manner in which we used to discern, with a measured degree of predictability how buildings would perform, react and fail under most fire conditions.

We predicate certain expectations that fire will travel in a defined (predictable) manner that fire will hold within a room and compartment for a predictable given duration of time; that the fire load and related fire flows required will be appropriate for an expected size and severity of fire encountered within a given building, occupancy, structural system and given an appropriately trained and skilled staff to perform the requisite evolutions, we can safely and effectively mitigate a structural fire situation in any given building type and occupancy.

We have assumed that the routiness or successes of past operations and incident responses equates with predictability and diminished risk to our firefighting personnel. Our current generation of buildings, construction and occupancies are not as predictable as past conventional construction, therefore risk assessment, strategies and tactics must change to address these new rules of combat structural fire engagement.

Executing tactical plans based upon faulted or inaccurate strategic insights and indicators has proven to be a common apparent cause in numerous case studies, after action reports and LODD reports. Our years of predictable fireground experience have ultimately embedded and clouded our ability to predict, assess, plan and implement incident action plans and ultimately deploy our companies-based upon the predictable performance expected of modern construction and especially those with engineered structural systems.

The demands and requirements of modern firefighting will continue to require the placement of personnel within situations and buildings that carry risk, uncertainty and inherent danger. As a result, risk management must become fluid and integrated with intelligent tactical deployments and operations recognizing the risk problematically and not fatalistically, resulting in safety conscious strategies and tactics.

Today's incident commanders need to think about the Predicative Strategic Process, refined Tactical Deployment Models integrating intelligent Structural Anatomy and Predictive Occupancy Profiling, while implementing Tactical Patience.

If you don't fully understand how a building truly performs or reacts under fire conditions and the variables that can influence its stability and degradation, movement of fire and products of combustion and the resource requirements for smart aggressive fire suppression in terms of staffing, apparatus and required fire flows, then you will be functioning and operating in a reactionary manner that is no longer acceptable within many of our modern building types, occupancies and structures.
This places higher risk to your personnel and lessens the likelihood for effective, efficient and safe operations. You're just not doing your job effectively and you're at risk. These risks can equate into insurmountable operational challenges and could lead to adverse incident outcomes. Someone could get hurt, someone could die, it's that simple; it's that obvious.

Without understanding the building-occupancy relationships and integrating; construction, occupancies, fire dynamics and fire behavior, risk, analysis, the art and science of firefighting, safety conscious work environment concepts and effective and well-informed incident command management, company-level supervision and task-level competencies … You are derelict and negligent and "not "everyone may be going home".

It's all about understanding the building-occupancy relationships and the art and science of firefighting, equating to Building Knowledge = Firefighter Safety.

The built-environments that form and shape our response districts and communities pose unique challenges to the day-to-day responses of fire departments and their subsequent operations during combat structural fire engagement. With the variety of occupancies and building characteristics present, there are definable degrees of risk potential with recognizable strategic and tactical measures that must be taken. Although each occupancy type presents variables that dictate how a particular incident is handled, most company operations evolve from basic strategic and tactical principles rooted in past performance and operations at similar structures. Empirical insights and test data needs to be integrated in the developing and emerging fire

suppression models and improved firefighting theory. Technological Advancements in building construction, design, materials and methods have exceeded conventional fire suppression theory & practices.

Our world has evolved and changed. There are a variety of technological and sociological demands that create a continuing element of change in the built environment and our infrastructure. With these changes and demands come the requirements to assess these vulnerabilities, hazards, threats and dangers with effective and dynamic risk management and competent command and control.

- ***These changes influence the way we do business in the street, the interface-up close and personal with the buildings in your community and equate to the risks and hazards you and your personnel will be confronted with and the level of safety afforded them during incident operations.***

- ***Fire suppression tactics must be adjusted for the rapidly changing methods and materials impacting all forms of building construction, occupancies and structures. The need to redefine the art and science of firefighting is nearly upon us. Some things do stand the test of time, others need to adjust, evolve and change. Not for the sake of change only, but for the emerging and evolving buildings, structures and occupancies being built, developed or renovated in our communities.***

NOTES

If the fire service can significantly increase proficiencies in building knowledge and equate that to other fundamental operational aspects in structural fire operations, then there would be a direct enhancement to firefighter safety, through injury and LODD reduction, operational efficiency and operational excellence.

If we understand buildings, occupancies and construction, and balance this with our understanding of fire dynamics and orchestrate it with appropriate strategies, tactics and command management, then we made the new safety equation work; Building Knowledge = Firefighter Safety (Bk=F2S). *It's all about the Anatomy of Buildings on fire.*

Adaptive Fireground Management and the integration of the BECOME SAFE concept:

- **B**uilding
- **E**valuation
- **C**onstruction and Occupancy
- **O**perational Hazards
- **M**anage Time and Elements
- **E**ngagement
- **S**ituational Awareness
- **A**daptive Fireground Mgmt. & Assessment
- **F**ire Behavior and Effects
- **E**valuate and Execute

Understanding Buildings, Performance & Fire Operations

- There is an acute corollary of technical knowledge and inter reliance on occupancies, construction, strategy, tactics, risk, safety, physics, engineering and fire suppression theory…FACT!
- There are Fundamental Domains that can be applied
- There is a direct empirical correlation that provides quantitative & qualitative performance indicators and command gauges that can be utilized for risk assessment and strategic & tactical operational decision-making.

  - **The Predictability of Performance**
    - Predicates how we initiate Combat Fire Suppression Operations
    - Defined by Repetitiveness
    - Comfort Zone
    - Faulted by Complacency
  - **There is a Definable Level of Predictability**
    - That must be tempered and measured by Occupancy
    - Performance Standards
    - That are Assimilated into Redefined Strategies and Tactics
    - We can't treat everything the same anymore

Think about the following;

- Read, comprehend and implement the new IAFC The Rules of Engagement for Firefighter Survival and The Incident Commanders Rules of Engagement for Firefighter Safety
- Take a tour of your response area, district or community. Take a good look around and begin to recognize the apparent or subtle changes that will affect and influence your future incident operations; Take note and think about what needs to be adjusted, modified or changed in your operations.
- Read up on the latest research and technical literature on wind driven fires, extreme fire behavior, structural ability of engineered lumber systems, fire loading and suppression theory, vent path studies and fire suppression theory.
- Take the time to personally read a series of the latest NIOSH Fire Fighter Fatality Investigation and Prevention Program LODD reports and relate them to your organizations operations and jurisdictional risks.
- Start thinking in terms of Occupancy Risks versus Occupancy Type and align your operations and deployments to match those risks. It's much more than just the Five Fundamental Building Types of the past.
- Increase your situational awareness of today's fireground; refine your strategic/tactical modeling.
- Implement both Strategic and Tactical Patience; Slow down and allow the building to react and stabilize, for fire behavior to stop behaving badly and for your companies to increase survivability ratios while meeting the demands of conducting time sensitive tactical fire service operations
- Think about Adaptive Fireground Management and Command Resiliency
- Reprogram your assumptions and presumptions and options on building construction and firefighting operations; the buildings have changed, our firefighting has not; what are you going to about that gap?
- Understanding the building-occupancy relationships and the art and science of firefighting, equating to Building Knowledge = Firefighter Safety.
- Start knowing your buildings-intimately; it's the key to effective firefighting

Twenty Thirteen (2013)

Here are twenty-one (21) Suggested activities, actions or initiatives for you to consider completing in 2013….*Above all, be safe in all your endeavors, assignments and incident tasks.*

1. Regardless of my years of experience, I will increase my understanding of the basic principles of Building Construction, because; Building Knowledge=Firefighter Safety.
2. Identify thirteen (13) buildings within your first-due or response district and complete a pre-fire plan and present this to my company of organization.
3. Identify an area where new residential construction is underway and follow the construction process from foundation through completion to gain an understanding of operational issues.
4. I will complete the UL Structural stability of engineered lumber in fire conditions online course AND the UL Fire Behavior course and implement the lessons learned in my strategic and tactical operations.
5. I will not take any building or occupancy for granted, and shall take all precautions to ensure crew integrity and safety during my task assignments.
6. Complete a 360 assessment of all buildings upon arrival (or delegate), whenever feasible to gain reconnaissance information on the building and incident risks and implement this info into my strategic, tactical plans or company task assignments.
7. Research the issues affecting; Engineered Structural Systems (ESS), Fire Behavior/Fire Dynamics or Fire Suppression Management/Fire Loading and develop a training drill to share the lessons learned.
8. Select a new or previous published fire service text book and read up on a subject area that I may have neglected or ignored to increase my skill set.
9. Implement an objective approach towards effective risk assessment and profiling of all buildings and occupancies during incident operations and implement balanced tactical deployment with aggressive/measured assignments; recognizing that my company and I are not invincible.
10. During demanding Combat Structural Fire Engagements, I will; Do the Right Thing at the Right Time for the Right Reasons and will not practice Tactical Entertainment.
11. Read the Report of the Week (ROTW) on the National Firefighter Near-Miss Reporting System web site and share the operating experience (OE) lessons with my company or department, to reduce the likelihood of a similar or more serious event.
12. I will read Thirteen (13) NIOSH Firefighter Fatality Investigation and Prevention Program Reports and present the lessons learned in a discussion, table top, and drill or training program.
13. I will attend a regional or national training conference to increase my perspective and awareness of other firefighting, safety or operational methodologies, process or practices to increase firefighter safety in my home organization.
14. I will increase my understanding of the NFFF Everyone Goes Home Program initiatives, including the Sixteen Firefighter Life Safety Initiatives, Safety Thru Leadership and the Courage to Be Safe Programs and other new program initiatives and advocate and promote enhanced safety measures in my organization.
15. I will advocate and promote safe and defensive apparatus operations during emergency responses and will always buckle-up my seat belt and ensure my crew is always belted-in, not placing my company at risk and obeying traffic signals and postings.
16. I will implement the New Rules of Engagement during combat structural fire operations; while monitoring and reacting to on-going building performance and fire behavior.
17. I will increase my understanding of the Predictability of Building Performance and base my operational deployments on Occupancy Risk not Occupancy Type.

18. I will become a mentor to a new or less experienced firefighter and promote the traditions, honor and duty of our fire service profession, tempered with an emphasis on firefighter safety, survival and wellness.
19. I will take NO emergency incident responses as being routine in nature, due to frequency , regularity or past performance, demands or outcomes, nor will I take any building for granted; Company, Team and personal safety and integrity is paramount and I will not be complacent, but remain vigilant based upon my training, skills and experience.
20. I will be an aggressive firefighter; operating smarter, working within the parameters of my Department's protocols, regulations and expectations while employing Tactical Patience and NOT underestimate the fireground, fire behavior or building performance
21. I will not settle for status quo; but strive to achieve my highest potential as a firefighter, company officer or commander; and remember I am a brother/sister (firefighter) to everyone in this great profession.

Keep an eye in the rear view mirror; learning from the wisdom and knowledge from where you've been, what you've done and all your past experiences and practice;
but at the same time focusing on the road before you with keen attentiveness on situational awareness, anticipating error-likely conditions and balanced risk assessment and operational management in both your strategic and tactical deployments.
Ensure you're glancing occasionally in your rear view mirror to monitor where you've been, while driving your initiatives, programs, processes and actions forward.
Above all, maintain the courage to be safe.

Christopher J. Naum, SFPE

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