



Basis of Design		
1.	Building Description/ Introduction	<ul style="list-style-type: none"> • Project Address/ Cross Streets • Intended use and occupancy groups • Construction type(s) • Building height • Number of floors above/below grade • Area per floor (s.f.) • Total area (s.f.) • Seismic design/ Risk category
2.	Applicable Codes, Standards, Laws and Regulations/ Testing Criteria	See current list of adopted codes and standards NFPA 25, 72, 92, 70,4,3, etc.
3.	Design Responsibility Fire Protection and Life Safety Commissioning Team	<ul style="list-style-type: none"> • Project design professional in responsible charge • Architect • Design Team (Structural, Mechanical, Plumbing, Electrical, Life-Safety, Civil) • Building Owner • Special Inspection Authority/Inspector • Installing contractor(s) • Manufacturers' representatives • Construction manager / general contractor • Facility manager / owner's technical support • Third party test entity
4.	Design and Construction Methodology	<ul style="list-style-type: none"> • Demolition • Phased construction • Occupancy plan
5.	Special Consideration and Description	Historic Preservation, Greater than 420 ft. in height, Institutional occupancy, Essential facility structure (natural disaster shelter) etc.
6.	Infrastructure (supporting building fire protection and life-safety systems)	<ul style="list-style-type: none"> • Fire flow available (PFC Appendix B) • Fire main and hydrants (municipal, private) • Water tank • Electrical service (Transformer size, Oil filled, location/method of protection) • Standby/ Emergency Power Connections (Distinguish what is connected NEC 700, 701, 702) • Other Utilities: Information tech., natural gas, etc.
7.	Special Design	<ul style="list-style-type: none"> • Alternative methods and materials (Include Code Modification(s)/ Appeal(s) in Appendix)
8.	Critical Processes and Systems	<ul style="list-style-type: none"> • Energy management systems (see integrated testing requirements) • Hazardous materials and processes (temperature control etc.) • Mechanical refrigeration machine room • Research Labs

Passive, Active Fire Protection and Life Safety Equipment and Systems		
9.	Emergency Response	<ul style="list-style-type: none"> • Two-way communication (Type) • Emergency responder radio coverage • Fire command center • Firefighter Breathing Air • Access control doors • Fire emergency access • Fire Service Access Elevator (Design method to prevent water infiltration, # of elevators, etc.) • EMS Access Elevator • Ambulance stretcher designated • Fire fighter's emergency operation (Phase I and II) • Firefighter Sequence of Operation (Smoke Control, etc.)
10.	Hazardous Materials/Operations/ Explosion Prevention and Control Systems	<ul style="list-style-type: none"> • Type of material and physical state (HMIS- Provide in Appendix) • Maximum allowable quantities • Control areas • Type of hazard and method of protection • Management Plan (HMMP)
11.	Fixed Fire Suppression Systems	<ul style="list-style-type: none"> • Automatic fire suppression system (Wet, Dry, 13, 13R, etc.) • Standpipe system (Class I, II, III) • Fire pump (Electric, Diesel- Include fuel capacity analysis) • Commercial cooking (Hood Type, Suppressant) • Special systems (pre-action, water mist, etc.)
12.	Fire Alarm Systems	<ul style="list-style-type: none"> • System Design (full vs partial evacuation, Class A, etc.) • Sequence of operation (Cause/ Effect Matrix) • Notification requirements (ADA, special design) • Voice evacuation • Emergency alarms (H Occupancy) • CO/ CO2 Detectors
13.	Smoke Control and Management Systems	<ul style="list-style-type: none"> • Post fire smoke removal method and design • Stair pressurization • Elevator hoistway pressurization • Atrium smoke exhaust system • Smoke compartmentation • Fire fighter's smoke control panel • Diagram and controls • System acceptance
14.	Means of Egress Systems and Components	<ul style="list-style-type: none"> • Number of exits and/or stairways • Exit access components (fire/smoke resistant corridors) • Horizontal exits • Occupant evacuation elevators • Access to the public way or staging • Access controlled egress doors • Luminous egress markings

15.	Fire-resistant and Smoke-resistant Assemblies	<ul style="list-style-type: none"> • Method of protection (i.e. spray fire proofing, tested assemblies, etc.) • Fire and smoke dampers • Fire and smoke doors • Through penetration fire stops • Smoke vents (including elevator hoistway venting) • Smoke and fire rated assemblies
Commissioning and Integrated Testing		
16.	Delivery of Operation and Maintenance Documentation	<ul style="list-style-type: none"> • Smoke control • Active systems (WON doors, smoke guard, magnetically hold open) • Inspection Intervals (Smoke control, Alarm, Sprinkler System, etc.) • Manufacturer's installation instructions and specifications
17.	Occupant Overview of Life Safety Systems	<ul style="list-style-type: none"> • Training owner/ employees, staff on maintaining/ operating/ performance of systems • To be done prior to Certificate of Occupancy
Appendix		
A.	Smoke Control/ Modeling Summaries/ Rational Analysis Report	<ul style="list-style-type: none"> • Consider ASHRAE Temperatures
B.	Timed Egress Analysis Report	<ul style="list-style-type: none"> • If applicable to project
C.	Fire Flow Test	
D.	Appeals/ Code Modifications/ FCC Location Approval	<ul style="list-style-type: none"> • If applicable to project
E.	Commissioning/ Final Inspection/ Integrated Testing for all fire life safety systems documentation	<ul style="list-style-type: none"> • To be provided prior to Certificate of Occupancy • Accuracy of Diagrams of System Interconnection and Device Location • Installation in Accordance with Manufacturer's published Instructions • Performance in accordance with applicable codes and standards • Third party testing and special inspections • Fire command center • Fire alarm system • Energy management system • Emergency power system • Emergency responder radio coverage • Elevator systems • Equipment and Tools (Door Fan Test, Smoke Control Pressurization, etc.) • Special inspection / observation certificate
F.	Hazardous Material (HMIS)	<ul style="list-style-type: none"> • If applicable to project • IFC Chapter 50 • IBC Section 414 • (MAQ) Maximum Allowable Quantity Evaluation
G.	Floor Plans 11X17	<ul style="list-style-type: none"> • <i>Folded</i> to fit into report • Show fire command center, fire department connections, fire pump room, fire hydrant location(s), site plan, architectural floor plans.