



<b>Basis of Design</b>		
1.	Building Description/ Introduction	<ul style="list-style-type: none"> <li>• Project Address/ Cross Streets</li> <li>• Intended use and occupancy groups</li> <li>• Construction type(s)</li> <li>• Building height</li> <li>• Number of floors above/below grade</li> <li>• Area per floor (s.f.)</li> <li>• Total area (s.f.)</li> <li>• Seismic design/ Risk category</li> </ul>
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"> <li>• Project design professional in responsible charge</li> <li>• Architect</li> <li>• Design Team (Structural, Mechanical, Plumbing, Electrical, Life-Safety, Civil)</li> <li>• Building Owner</li> <li>• Special Inspection Authority/Inspector</li> <li>• Installing contractor(s)</li> <li>• Manufacturers' representatives</li> <li>• Construction manager / general contractor</li> <li>• Facility manager / owner's technical support</li> <li>• Third party test entity</li> </ul>
4.	Design and Construction Methodology	<ul style="list-style-type: none"> <li>• Demolition</li> <li>• Phased construction</li> <li>• Occupancy plan</li> </ul>
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"> <li>• Fire flow available (PFC Appendix B)</li> <li>• Fire main and hydrants (municipal, private)</li> <li>• Water tank</li> <li>• Electrical service (Transformer size, Oil filled, location/method of protection)</li> <li>• Standby/ Emergency Power Connections (Distinguish what is connected NEC 700, 701, 702)</li> <li>• Other Utilities: Information tech., natural gas, etc.</li> </ul>
7.	Special Design	<ul style="list-style-type: none"> <li>• Alternative methods and materials (Include Code Modification(s)/ Appeal(s) in Appendix)</li> </ul>
8.	Critical Processes and Systems	<ul style="list-style-type: none"> <li>• Energy management systems (see integrated testing requirements)</li> <li>• Hazardous materials and processes (temperature control etc.)</li> <li>• Mechanical refrigeration machine room</li> <li>• Research Labs</li> </ul>
<b>Passive, Active Fire Protection and Life Safety Equipment and Systems</b>		

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

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