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TONY CALLAWAY
Travis County Fire Marshal

TO: Travis County Fire Marshal Customers

SUBJECT: **INFORMATION BULLETIN 001**
Site and Building Plan Review Submittal Requirements

DATE: October 3, 2022

CREATED BY: Travis County Fire Marshal's Office

Purpose:

As a customer service initiative, the Travis County Fire Marshal's Office has created this bulletin to assist our customers with the submittal requirements for Site and Building Plan Review. Submittals are not considered complete unless they meet these requirements. The ultimate goal of this document is to assist the design team with developing a successful plan submittal and demonstrates the commitment of this office to provide the highest possible level of customer service.

Code References:

2015 International Fire and Building Codes
Chapter 201 – Travis County Fire Code

Background:

The Travis County Fire Code states, that "construction documents shall be submitted in such a form and detail as required by the fire code official". This information bulletin is intended to assist designers and permit applicants in the preparation of site and building plans for submittal to this office. This bulletin provides a detailed list of items which should be addressed by the design team. Additionally, guidance is provided regarding the manner in which the information must be submitted. When the required information is provided, following the guidance of this bulletin, the plans can be reviewed and approved in a timely manner, saving the project time and money.

When submittals lack the necessary information, or the information is difficult to locate, rejection comments must be issued and the permit for construction denied. Resubmittals are required, along with additional reviews, causing a significant delay in the review. While this information bulletin is comprehensive, it is not intended to be all-inclusive. There may be situations where additional items must be addressed which are not included in this document. For any additional questions, please contact the Travis County Fire Marshal's Office by email at fire.marshal@traviscountytx.gov.

All submittals shall be done online at www.tcfmopermits.com. A valid email address is required.

SITE PLAN SUBMITTALS

Site Plan Submittals Supporting Documentation:

The following items shall be provided with each site plan submittal:

- **Register/Login:** Applicants must register for a login to our online submittal system at www.tcfmopermits.com. Click the Login or Register button at the top right of the web page. First time users will need to register. A valid email address is required.
- **Permit Fee must be paid:** We accept checks, money orders, or credit card payments. Payments can be made either over the phone (credit cards) or in person at our office which is located at 5555 Airport Blvd., Suite 400, Austin, TX 78751. Our hours are Monday through Friday from 8a to 4p. Our fee schedule is posted on our website at www.tcfmo.com or in the Resources section at www.tcfmopermits.com. Checks and money orders shall be made payable to the Travis County Fire Marshal's Office. A site plan may be submitted at the same time as the building plan submittal.
- **Site Drawings:** A complete, digital pdf set of drawings must be provided for the proposed project. This bulletin provides content requirements below. Paper plans are no longer accepted.
- **Basic Development Permit:** An application number from Travis County Transportation and Natural Resources (TNR) which verifies an application has been submitted for a Basic Development Permit. The name of the TNR Case Manager is also required. Applicants can contact TNR at 512-854-4215 for information regarding Basic Development Permits. This is a required field in the online application process.

Site Plan Submittal General Guidelines:

Plan submittals which do not provide the required information or are not submitted in the required format will be denied and not reviewed.

- **Format:** Plans must be submitted as single, flattened (no layers), pdf file. The PDF plan set must be to scale and sized at 24x36 (all other sizes will be denied). Plans which include hand-drawn items will not be accepted.
- **Design Professional:** The site plans must be stamped by a Texas Licensed Civil Engineer.
- **Point of Compass:** Plans shall include a point of compass.
- **Scale:** All drawings shall include a scale and shall be designed to the scale provided.
- **Specification Books:** Do not submit specification books with the drawings. Any specifications necessary shall be provided in details and/or notes on the shop drawings.
- **Stamp Box:** Each page shall have a 3" x 4" empty box available for the Travis County Fire Marshal's stamp.
- **Site Plan Submittal:** Plans submitted for a site permit shall be a condensed plan set.
- **Upon Approval:** Upon plan review and permit approval, the stamped plan set must be printed at the 24x36 size, bound, and kept on site until completion of construction and final occupancy inspection.

Site Plan Required Contents:

Site plan drawings shall be submitted in the following format and shall include the required information. Some of the items listed may not be applicable to all projects. Notes should be provided to indicate which items are not included in the project and will not be addressed in the drawings.

- **Title Sheet:** Site drawings shall include a title sheet when not submitted with building plans. The title sheet shall identify the project and the design professional responsible for the project. A site plan submitted with building plans will not require an additional title sheet. The title sheet shall include:
    1. A list that identifies the applicable codes related to the project (i.e. 2015 International Fire Code with local amendments, 2015 International Building Code, 2015 International Mechanical Code, etc.)
    2. A short narrative or description explaining the intended use of the site.
    3. A 3" x 4" empty box as described above for the Travis County Fire Marshal's stamp.
    4. An index of drawings which clearly identifies all sheets provided in the submittal. For large projects, the index can be on a separate sheet.

5. Notes regarding any performance-based designs and/or alternative means of compliance which have been approved for the project.

- **Contents:** The plan set shall also include the following:
    1. **Construction:** Show location of all existing and proposed buildings. Identify the occupancy and square footage for all buildings.
    2. **Demolition:** Show the location of what construction will be demolished (if any).
    3. **Legend:** Provide a legend showing the symbols used in the plan set.
    4. **Tanks:** Show location of all existing and proposed fuel, LPG, and hazardous material cylinders and tanks. Identify the tank use and size, and if the tanks are located above or underground. Ensure that all cylinder tanks are not within the buildings' collapse zones. An above or underground storage tank designed to contain compressed gases, cryogenic fluids, flammable or combustible liquids, hazardous materials or LPG will require a Tank Installation Permit from our office. Fire Protection Water tank requirements are covered under another information bulletin issued by our office.
    5. **Address:** The address numbers must be posted visible from the street and approaching fire apparatus access roadway. Provide a note on or detail showing the location the address will be posted. Multiple buildings at the same property address shall be designated by a building number (not letter) and shall be in an easy to navigate (i.e. clockwise) pattern.
    6. **Property Line and Building Separation:** Show the distance between all existing and proposed buildings/structures to each other (multiple buildings/structures) and distance from buildings to the property line and streets.
    7. **Hydrants:** Show the location of all existing and proposed fire hydrants.
    8. **Generic Details:** Many detail and note sheets contain generic terms which may not be included in the project being reviewed. Details and notes which are not applicable to the project under review must be omitted from the submittal. Items not omitted, which are not part of the project, shall be marked through with an **X** to clearly indicate the item is not part of the project plan review.
    9. **Fire Department Access:** For additional Fire Department Access requirements, see the information bulletin titled Fire Department Access.
    10. **Fire Protection Water:** For additional Fire Protection Water requirements, see the information bulletin titled Fire Protection Water.

11. **Site Safety Plan:** A site safety plan shall be submitted as part of the plan set. The site safety plan is meant to address fire safety during construction and/or demolition. The site safety plan shall include the following as applicable:
    i. Name and contact information of site safety director;
    ii. Documentation of the training of the site safety director and fire watch personnel;
    iii. Procedures for reporting emergencies;
    iv. Fire department vehicle access routes;
    v. Location of fire protection equipment, including portable fire extinguishers, standpipes, fire department connections and fire hydrants;
    vi. Smoking and cooking policies, designated areas to be used where *approved*, and signage locations as required by the *fire code official*;
    vii. Location and safety considerations for temporary heating equipment;
    viii. Hot work permit plan;
    ix. Plans for control of combustible waste material;
    x. Locations and methods for storage and use of *flammable* and *combustible* liquids and other hazardous materials (separate permits may be required);
    xi. Provisions for site security;
    xii. Changes that affect this plan;
    xiii. Other site-specific information required by the *fire code official*.

BUILDING PLAN SUBMITTALS

Building Plan Submittals Supporting Documentation:

The following items shall be provided with each building plan submittal:

- **Register/Login:** Applicants must register for a login to our online submittal system at www.tcfmopermits.com. Click the Login or Register button at the top right of the web page. First time users will need to register. A valid email address is required.
- **Permit Fee must be paid:** We accept checks, money orders, or credit card payments. Payments can be made either over the phone (credit cards) or in person at our office which is located at 5555 Airport Blvd., Suite 400, Austin, TX 78751. Our hours are Monday through Friday from 8a to 4p. Our fee schedule is posted on our website at www.tcfmo.com or in the Resources section at www.tcfmopermits.com. Checks and money orders shall be made payable to the Travis County Fire Marshal's Office. A site plan may be submitted at the same time as the building plan submittal.

- ☐ **Site Plan:** A complete, digital pdf set of drawings must be provided for the proposed project (see site plan submittals above). If the site plan was submitted and approved separately from the building plan submittal, we will have that on file and you should see it when you log in to your project. Paper plans are no longer accepted.
- ☐ **Construction Drawings:** A complete, digital pdf set of construction drawings for the proposed building. ***Each building requires a separate submittal.*** Paper plans are no longer accepted.
- ☐ **Basic Development Permit:** An application number from Travis County Transportation and Natural Resources (TNR) which verifies an application has been submitted for a Basic Development Permit. The name of the TNR Case Manager is also required. Applicants can contact TNR at 512-854-4215 for information regarding Basic Development Permits. This is a required field in the online application process.
- ☐ **Texas Accessibility Standards:** Most projects require compliance with the Americans with Disabilities Act. We are required by state law to ensure these projects are submitted to the Texas Department of Licensing and Registration (TDLR) before issuing a building permit. A project registration number from TDLR is required or provide documentation from TDLR that the project is exempt from TAS compliance. The TDLR website is https://www.tdlr.texas.gov/ab/ab.htm. Click on the "Register / Search Projects" to register your project with TDLR.
- ☐ **Texas Licensed Architect or Licensed Professional Engineer Approved to Engage in the Practice of Architecture:** Most projects require a Texas licensed architect and/or a Texas Licensed Professional Engineer Approved to Engage in the Practice of Architecture. To see if your project requires either of these, please visit the website of the Texas Board of Architectural Examiners at TBAE to use their flowchart. For a list of Texas Licensed Professional Engineers Approved to Engage in the Practice of Architecture, visit Approved Engineers for Architecture.
- ☐ **Texas Professional Engineer:** If a project requires a Professional Engineer, their seal must also be on the documents, as required. Refer to this flowchart TBPE to verify requirements.

Building Plan Submittal General Guidelines:

Plan submittals which do not provide the required information or are not submitted in the required format will be denied and not reviewed.

- **Format:** Plans must be submitted as single, flattened (no layers), pdf file. The PDF plan set must be to scale and sized at 24x36 (all other sizes will be denied). Plans which include hand-drawn items will not be accepted.
- **Design Professional:** If required (reference supporting documentation section above), the plans must be stamped by a Texas Licensed Architect or Texas Professional Engineer Approved to Engage in the Practice of Architecture.
- **Hazardous Material Systems:** Drawings submitted for hazardous materials installations must be stamped by a Texas Licensed Fire Protection Engineer. To assist in locating a FPE, visit Texas Fire Protection Association.
- **Point of Compass:** Plans shall include a point of compass.
- **Scale:** All drawings shall include a scale and shall be designed to the scale provided.
- **Specification Books:** Do not submit specification books with the drawings. Any specifications necessary shall be provided in details and/or notes on the shop drawings.
- **Stamp Box:** Each page shall have a 3" x 4" empty box available for the Travis County Fire Marshal's stamp.
- **Fire Protection Systems:** Do not submit fire alarm and/or fire protection drawings with construction drawings. Fire Protection Systems require separate submittals and permits which can also be obtained through our online submittal system.
- **Design Coordination:** The project manager shall be responsible to ensure coordination between various disciplines to ensure a coherent submittal (i.e. floorplans shown on MEP drawings must be consistent with floorplans shown on Architectural Drawings).
- **Generic Details:** Many detail and note sheets contain generic terms which may not be included in the project being reviewed. Details and notes which are not applicable to the project under review must be omitted from the submittal. Items not omitted, which are not part of the project, shall be marked through with an **X** to clearly indicate the item is not part of the project plan review.
- **Upon Approval:** Upon plan review and permit approval, the stamped plan set must be printed at the 24x36 size, bound, and kept on site until completion of construction and final occupancy inspection.

Building Plan Required Contents:

Building plan drawings shall be submitted in the following format and shall include the required information. Some of the items listed may not be applicable to all projects. Notes should be provided to indicate which items are not included in the project and will not be addressed in the drawings.

- **Title Sheet:** Construction drawings shall include a title sheet. The title sheet shall identify the project and the design professional responsible for the project. A site plan submitted with building plans will not require an additional title sheet. The title sheet shall include:
    1. A short narrative or description explaining the intended use of the site.
    2. A 3" x 4" empty box as described above for the Travis County Fire Marshal's stamp.
    3. An index of drawings which clearly identifies all sheets provided in the submittal. For large projects, the index can be on a separate sheet.
    4. Notes regarding any performance-based designs and/or alternative means of compliance which have been approved for the project.
    5. The title sheet may be combined with the code analysis sheet if all required information can be provided in a legible format.

- **Code Analysis Sheet:** A code analysis sheet is required for each project. The code analysis sheet shall identify the applicable codes related to the project. The code analysis sheet shall include the required information presented in the following format. Additional information may be required by TCFMO. The following list is not all-inclusive and additional items may be addressed in the code analysis:

    GENERAL INFORMATION

    1. **Construction type:** Provide construction type based on ICC construction classifications (i.e. Type IA, IB, IIA, IIB, IIIA, IIIB, etc.).
    2. **Occupancy type:** Provide occupancy type based upon ICC occupancy classifications (i.e. Assembly A-2, Business, Education, Mercantile, etc.).
    3. **Mixed Use:** If mixed use, explain whether the building will be designed as a separated use or non-separated use per Chapter 3 of the IBC.
    4. **Building Area:** Actual square footage of proposed construction.
    5. **Allowable Area:** Allowable square footage based upon construction type and occupancy classifications per the currently adopted International Building Code as referenced in the International Fire Code adopted by Travis County.

6. **Area Increases:** If area increases will be utilized, provide calculations and code references to support the proposed increases.
7. **Building Height:** Actual number of stories and total height in feet.
8. **Allowable Height:** Allowable number of stories and total height in feet based upon construction type and occupancy classification per the currently adopted International Building Code as referenced in the International Fire Code adopted by Travis County.
9. **Height Increases:** If height increases will be utilized, provide calculations and code references to support the proposed increases.

FIRE SYSTEMS

10. **Fire Sprinkler:** Explain whether a fire sprinkler system will be provided. If so, identify the type of system and provide a note stating the system will be installed in accordance with (insert the correct NFPA Standard per sprinkler design) and the Travis County Fire Code. Provide a note which specifies the fire sprinkler system will require the licensed contractor to apply for a separate submittal and permit. Provide a note which clarifies that issuance of a building permit does not imply approval to install the fire sprinkler system.
11. **Fire Standpipe:** Explain whether a standpipe system will be provided. If so, identify the type of system. Provide a note stating the system will be installed in accordance with NFPA Standard 14 and the Travis County Fire Code. Provide a note which specifies the standpipe system will require a separate submittal and permit. Provide a note which clarifies that issuance of a building permit does not imply approval to install the standpipe system.
12. **Fire Alarm:** Explain whether a fire alarm system will be provided. If so, identify the type of system and provide a note stating the system will be installed in accordance with NFPA Standard 72 and the Travis County Fire Code. If the adopted fire code requires an Emergency Voice/Alarm Communication (EVAC) system, provide a note stating the fire alarm will include the required EVAC system. Provide a note which specifies the fire alarm system will require a separate submittal and permit. Provide a note which clarifies that issuance of a building permit does not imply approval to install the fire alarm system.

13. **Automatic Extinguishing Systems:** Explain whether additional fire extinguishing systems will be installed. Examples may include a kitchen suppression system, water mist system, clean agent systems, etc. If so, identify the type of system, the area where it will be installed, and provide a note stating the system will be installed in accordance with (insert the correct NFPA Standard for the system) and the Travis County Fire Code. Provide a note which specifies the additional suppression system(s) will require a separate submittal and permit. Provide a note which clarifies that issuance of a building permit does not imply approval to install the additional suppression system(s).
14. **Portable Fire Extinguishers:** Explain which type and size of portable fire extinguishers will be installed. Identify spacing requirements and verify extinguishers will be mounted and accessible. State whether extinguishers will be installed in cabinets or wall-mounted. Identify the drawing which provides the detail regarding extinguisher cabinets and installation.

LIFE SAFETY SYSTEMS

15. **Emergency Lighting:** Explain whether emergency lighting will be provided. If so, explain if emergency lighting will be provided by generator, unit lighting, or uninterrupted power supply (UPS), or code compliant means. If generator or UPS, identify the location within the building and the drawing which provides details regarding this installation.
16. **Emergency Power:** Explain whether emergency and/or standby power will be provided. If so, identify the equipment provided with backup power. Explain how the power will be provided, and identify the drawing which provides details regarding this installation.
17. **Elevators:** Explain whether elevators will be provided. If so, provide a note verifying firefighters emergency operation will be provided and that elevators will be installed in accordance with Chapter 30 of the International Building Code. Identify the drawing which provides details regarding the elevator installation.
18. **HVAC Shutdown:** Explain whether duct detectors will be provided for HVAC shutdown. If so, identify the drawings which provide details regarding duct detectors (will need to coordinate with fire alarm installer if fire alarm is required). If not, provide a note providing code support for their omission.
19. **Smoke Control System:** Explain whether smoke control and/or stair pressurization systems will be provided. If so, identify the location, purpose and drawings which provide details regarding the installation.

FIRE-RESISTIVE CONSTRUCTION

20. **Exterior Walls:** Explain whether a fire-resistance rating will be required for exterior walls based upon proximity to property lines or other buildings. If so, identify the location of the drawing which provides details regarding these assemblies.
21. **Structural Members:** Explain whether a fire-resistance rating will be required for structural members based upon type of construction. If so, identify the location of the drawing which provide details regarding structural fire protection.
22. **Horizontal Rated Assemblies:** Explain whether horizontal rated assemblies (floor-ceiling/roof-ceiling) will be provided. If so, identify the location of the drawing which provides details regarding these assemblies.
23. **Fire Rated Wall Assemblies:** Explain whether fire barriers, fire partitions, fire walls, or smoke barriers will be installed. If so, identify the locations of these rated assemblies and explain the reason for the installation. Reasons may include area separation, hazard separation, occupancy classification, separated mixed use, etc. Identify the location of the drawing which provides details regarding fire rated wall assemblies.
24. **Vertical Shafts:** Explain whether rated vertical shafts will be provided. If so, identify the location of the drawing which provides details regarding shaft construction.
25. **Corridors:** Explain whether fire-resistive corridors will be provided. If so, identify the location of the drawing which provides details regarding corridor construction.
26. **Exit Enclosures:** Explain whether rated exit enclosures will be provided. If so, identify the location of the drawing which provides details regarding stair constructions.
27. **Fire Dampers:** Explain whether fire/smoke dampers will be provided. If so, identify the location of the drawing which provides details regarding the dampers. If not, provided a note which provides code support for their omission.
28. **Interior Finish:** Provide an interior finish schedule for the building. The schedule may be provided on the code analysis sheet or a separate sheet, if necessary. Provide the schedule in a table format. Provide information regarding ceiling, wall, and floor finishes.

SPECIAL HAZARDS

29. **Hazardous Materials:** Identify the location of any hazardous materials that will be utilized inside buildings. Include the quantity of materials, the hazard classification and identify any protective measures provided (fire separations, mechanical ventilation, spill control, etc.). Identify the drawings which provide details regarding hazardous material locations.
30. **HMIS:** For facilities which contain a significant quantity of hazardous materials, a Hazardous Materials Inventory Statement and/or Hazardous Materials Management Plan may be required (reference Chapter 50 of the International Fire Code).
31. **Shop Areas:** Identify the location of laboratories, shop areas, woodworking, engine repair, spray-paint operations, etc. Identify the drawings which provide details regarding these operations.
32. **Refrigerant Rooms:** Identify the location of refrigerant machinery rooms. Identify the type, quantity and hazard classification of refrigerants that will be utilized at the facility. Identify the drawings which provide details regarding refrigerant storage.
33. **Boiler/Mechanical/Electrical Rooms:** Identify the location of boiler, furnace, mechanical and electrical rooms. Identify the size of the equipment that will be installed. Identify the drawings which provide details regarding these equipment/room locations.
34. **High-Piled Storage:** Explain whether the building will be used for high-piled storage. If so, provide information regarding the storage configuration. Identify the drawings which provide storage details.
35. **Stage or Platforms:** Explain whether a stage or platform will be installed. If so, provide information regarding the stage or platform. Identify the drawings which provide the details on the stage or platform.

- **Occupant Load and Exit Analysis:** An occupant load and exit analysis is required for each building. This analysis may be provided on the code analysis sheet or separate drawing(s). When provided on separate drawings, this analysis shall be located on the sheet immediately following the code analysis sheet and shall include the following, as applicable:

OCCUPANT LOAD

1. **Room Loads:** Provide an occupant load for each room. Identify the use of the room, the area of the room, the occupant load factor and occupant load. This may be provided on drawings or in a table format.
2. **Assembly Rooms:** For assembly rooms used for multiple purposes, show the occupant load which yields the highest density of occupants and ensure an adequate number of exits and exit capacity is provided.
3. **Floor Loads:** Provide an occupant load for each floor and ensure an adequate number of exits, and exit capacity, is provided for each floor. Identify the number of exits, show the width of each exit, the capacity factor used for each exit, and the capacity of each exit.
4. **Building Loads:** Provide an occupant load for the building and ensure adequate exits and exit capacity is provided to accommodate the occupant load. Identify the number of exits, show the width of each exit, the capacity factor used for each exit, and the capacity of each exit. Show the discharge from each exit and ensure the exit discharge provides unobstructed access to a public way.

EXITING

5. **Number of Exits:** Verify all portions of the building have access to the required number of exits.
6. **Exit Width:** Verify all exit components provide adequate width to accommodate the design occupant load.
7. **Single Exit:** For areas provided with a single exit, verify the common path of travel does not exceed the maximum allowable distance. Provide measurements on drawings or in a table format. Verify the occupant load does not require access to multiple exits.
8. **Exit Separation:** When two exits are provided, verify exits are separated in accordance with the requirements of the adopted Fire Code and show this measurement on drawings.
9. **Travel Distance:** Verify the maximum allowable travel distance is not exceeded from any portion of the building. Show travel distance measurements on the drawing.

10. **Corridors:** For corridors which contain a dead-end, show the distance of the dead-end and verify code compliance.
11. **Door Swing:** Verify egress doors swing in the direction of exit travel when required by the adopted Fire Code. Examples may include, but not limited to, doors serving an assembly area, hazardous areas, electrical rooms, stairwells, or doors serving an occupant load of 50 or more.
12. **Gates:** Identify the location of any gates, sliding doors, or overhead doors installed across an exit or exit access. Verify code compliance for the installation.
13. **Exit Discharge:** Verify that required exits discharge to the public way. Verify there are no obstructions that interfere with the exit discharge all the way to the public way and that the required number of exits, and exit capacity is not reduced.
14. **Exiting Plan:** Provide an exiting plan for each building. Indicate the primary exit that occupants from each room or area can be expected to utilize during an emergency. Ensure exits are spaced and sized so that, as much as practical, all exits will be utilized by an equal number of occupants.

ACCESSIBILITY

15. **Accessible Exits:** Identify the accessible exit(s) for each building. Verify accessible routes and components comply with requirements of the Texas Accessibility Standards Act.
16. **Accessibility Elevators:** Identify the location of any accessible elevators. Provide details of accessible elevators.
17. **Area of Refuge:** Identify the location of any areas of refuge. Provide details of each area of refuge.
18. **Accessible Discharge:** Verify that accessible exits discharge to an improved public way, or improved sidewalk which leads to a public way.

- **Architectural Drawings:** Provide architectural drawings for the project. Provide a note verifying the building will be constructed in accordance with the Travis County Fire Code and referenced documents. The following information is required in the architectural drawings:

GENERAL DRAWINGS

1. **Provide structural and foundation drawings.**
2. **Provide interior and exterior elevation drawings.**
3. **Provide a roof plan.**
4. **Provide a reflected ceiling plan.**
5. **Provide floor plans.**
6. **Provide a furniture plan, where applicable.**
7. **Provide glazing details.**
8. **Provide insulation details.**
9. **Provide wall sections.**

In addition, provide detailed information regarding the following subjects:

DOORS

- Provide drawings of the floorplan which indicates the location of all doors and assign an identification number to each door.
- Drawing(s) of the floorplan must clearly indicate the direction of door swing and whether the door opens to 90 or 180 degrees.
- Verify that open doors will not obstruct required width of exit components (aisles, corridors, landings, and stairs).
- Verify floors are essentially level on each side of every door.
- Indicate door landings for exterior doors. Verify landings comply with minimum size requirements.

- ☐ Provide a door schedule. Provide a legend which clearly identifies abbreviations used. The door schedule must provide the following information:
  - Door number
  - Location
  - Door size (height and width)
  - Clear width of door opening
  - Door type (wood, metal, or reference detail)
  - Door swing (swinging door, overhead, French, etc.)
  - Door glazing
  - Fire rating (if any)
  - For fire doors, whether doors will be self-closing or automatic-closing
  - Hardware type
- ☐ Provide details and/or notes of all door types.
- ☐ Provide details of all fire-rated doors and frames.
- ☐ Provide details for automatic-closing door operations. Explain how doors will activate and show location of smoke detectors when provided.
- ☐ Provide a door hardware schedule. Door and hardware schedules may be combined if all required information can be provided in a legible format. Provide a legend which clearly identifies abbreviations used. The door hardware schedule must provide the following information:
  - Door Number
  - Location
  - Type of hardware installed
  - Whether the door will be provided with electronic access-control
- ☐ Provide details and/or notes of all hardware types.
- ☐ Provide details and notes for electronic access-control systems.

FIRE RESISTIVE CONSTRUCTION

- ☐ Provide a legend identifying how each type of fire-resistive assembly will be marked on drawings.
- ☐ Clearly indicate the location of all smoke barriers, fire barriers, fire partitions, fire walls, and fire-related assemblies.
- ☐ Show the horizontal and vertical parameters of each barrier (through elevation or sectional drawings).
- ☐ Provide details of each fire barrier and the UL design number.
- ☐ Provide a copy of each UL design specification referenced in the drawings. These should be provided in a note format, not in a specification book.

- For remodels of existing buildings, when existing walls are to remain, provide the statement, “similar to UL Design Number” and insert the appropriate number.
- Provide a note or detail describing how penetrations through barriers will be sealed.
- Examples of fire-resistive construction which must be identified include:
    - Area separation walls
    - Corridor partitions
    - Exterior walls based upon proximity to buildings or property lines
    - Hazard separation (boiler rooms, electrical rooms, H rooms, etc.)
    - Membrane protection of the structural frame
    - Occupancy separation walls
    - Fire-protection provided for structural elements
    - Vertical shaft construction for HVAC systems, elevators, and stairs.

INTERIOR FINISH

- Provide an interior finish schedule for floors, walls, and ceilings. This is normally provided in a table format. Provide a legend which clearly identifies abbreviations used. The interior finish schedule must provide the following information:
    - Identify the room or area
    - Provide columns for floor, wall, ceiling
    - Identify the interior finish material for each exposed surface
    - Provide a flame-spread rating for each material (use NC for non-combustible)
    - Provide a smoke-development rating for each material (NA for non-combustible materials which do not have a flame-spread rating)
    - Provide manufacturers’ documentation of flame-spread and smoke-development ratings. Provide this in a note format.
    - Verify code compliance for interior finish materials.

RAMPS AND STAIRS

- Identify the number of exit ramps and stairs that will be installed. Provide a separate identifier for each ramp or stair. Identifiers should be directional (North stair) or alphabetical (Ramp A). Our office recommends that ramps and stairs not be identified by a numerical designation.
- Provide sections and details for all ramps and stairs.
- Provide details for stair treads and risers.
- Provide details for guardrails and handrails.

- Provide a barrier for stairs which continue below the level of exit discharge. Provide a detail of the barrier.
- Provide floor number signs for stairs which connect 4 or more floors. Provide a detail of floor number signs.
- Verify enclosed ramps and stairs do not share an HVAC system with the building.
- Verify all penetrations into exit enclosures are code compliant. Provide a note or detail describing how penetrations into enclosures will be sealed.
- Identify any smokeproof enclosures. Provide details and notes of enclosure design.

- **Electrical Drawings.** Provide a note verifying electrical systems will be installed in accordance with the National Electric Code (NFPA 70) and referenced documents. Provide an electrical cover sheet with includes a legend. The cover sheet shall be located at the beginning of the electrical drawings. The following information is required in the electrical drawings:

  GENERAL

  - **Legend.** Provide a legend showing symbols used on drawings as adopted by nationally recognized societies or as explained on the drawings.
  - **Service Equipment.** Show the type, location, and capacity of all service equipment and meters.
  - **Circuit Protectors.** Show interrupting ratings of circuit protective devices specified and available symmetrical short circuit current at each panel and switchboard location where fault current is greater than (10,000) amperes.
  - **Emergency Shutoff.** Show the location of the emergency power shutoff for the building. The emergency power shutoff should be located on an exterior side of the building.
  - **Grounding.** Show service entrance grounding conductor, sized and located, and method of grounding.
  - **Outlets.** Show locations of every proposed outlet, including switches.
  - **Circuits.** Show circuiting of every electrical outlet with size of conductor and raceway.
  - **Appliances.** Provide location, voltage, horsepower, kilowatt, or current rating of every motor, generator, transformer, or fixed appliance.

- **Schedules.** Provide details of the panel board, switchboard, and distribution centers. Include schedule of equipment panel board or switchboard schedules and show connected and demand wattage or amperage, number of active branch circuits to be installed, and number of spare branch circuits for future use.
- **Access Control Systems.** Provide details regarding access control systems and secure door circuitry.

EXIT ILLUMINATION

- **Exit Signs.** Provide floor plans which clearly indicate the location of illuminated exit signs (egress exit signage are all required to be illuminated). Provide a legend of sign types and a note which explains how emergency power will be provided for exit signs.
- **Emergency Lighting.** Provide floor plans which clearly indicate the location of emergency lighting fixtures. Provide a legend of fixture types and a note which explains how emergency power will be provided for lighting fixtures. Verify that emergency lighting is provided at all exterior door landings.

EMERGENCY AND STANDBY POWER

- Provide a list of all equipment provided with emergency or standby power per Article 700 of the NEC.
- Identify the source of emergency/standby power.
- Verify power source is in a location where it's operation will not be impaired due to freezing, flooding, or other hazards.
- Provide details of required loads and verify emergency equipment provides required capacity.
- Provide details and location of transfer equipment and control panels.
- Verify a dedicated circuit is provided for emergency and standby power.
- Identify all emergency circuits and wiring and verify compliance with Article 700.

ELEVATORS

Provide a note verifying elevators (if planned for) will be installed in accordance with the correct code year of the International Building Code, as adopted by reference in the adopted fire code, and other referenced documents. Address the following items in the elevator drawings:

- **Elevator.** Explain whether the elevator(s) will be electric or hydraulic and provide elevator details.

- **Machine Room.** Provide details of the elevator room construction and verify room is provided with same fire-rating as the elevator shaft.
- **Shaft.** Provide details of the elevator shaft construction.
- **Hoistway.** If provided, show details of hoistway venting. If not, verify code compliance.
- **Size.** For buildings 4 stories or more in height, verify at least one elevator is sized to accommodate ambulance stretchers.
- **Sprinkler System.** Explain whether the hoistway and machine room will be protected by a sprinkler system, if so, verify a shunt trip will be installed. If not, provide code support for omission.
- **Detectors.** Explain whether smoke/heat detectors will be provided in the hoistway and machine room. If so, identify locations and sequence of operations. If not, provide code support for omission.
- **Emergency Service.** Verify that firefighter emergency service will be provided. Provide details and a sequence of operations.
- **Standby Power.** Explain whether standby power will be provided. If so, explain the method. If not, provide code support for omission.
- **Accessibility.** Explain whether an elevator will be utilized as part of an accessible route. If so, identify the elevator and provide elevator details. Verify code compliance.
- **Emergency Signs.** Verify emergency signs will be provided. Provide sign details.

SPECIAL OCCUPANCIES

- **Special Occupancies.** Explain whether special circumstances, as defined in Article 500 of the NEC, will be included in the project.
- **Location.** Identify the type and location of special occupancies.
- **Details.** Provide details of circuits, equipment and wiring associated with special occupancies and provide NEC code references to verify code compliance.
- **Classified Locations.** Explain whether hazardous (classified) locations, as defined in Article 500 of the NEC, will be included in the project. Also identify the type and location of classified locations. Provide details of circuits, equipment and wiring associated with classified locations and provide NEC code references to verify code compliance.

- **Mechanical.** Provide a note verifying mechanical systems will be installed in accordance with the correct code year of the International Mechanical Code, as adopted by reference in the adopted fire code, and other referenced documents. Provide a mechanical cover sheet which includes a legend. The cover sheet must be located at the beginning of the mechanical drawings. The following information is required in the mechanical drawings:
  - **Legend.** Provide a legend showing symbols used on drawings as adopted by nationally recognized societies or as explained on the drawings.
  - **Mechanical Equipment.** Provide details of all mechanical equipment, ducts, and ventilation systems. Show location of equipment in building.
  - **HVAC Ductwork.** Show location of all HVAC ductwork along with supply and return registers. Provide details of ductwork.
  - **HVAC Return.** Explain how return-air is circulated in the HVAC system (i.e. Ducted-return, plenum-return, or another method).
  - **HVAC Shutdown.** Explain whether HVAC shutdown will be provided. If not, provide code support for this omission.
  - **Duct Detector.** Explain whether duct detectors will be provided. If not, provide code support for their omission. Clearly identify the location of duct detectors and verify code compliance. Provide a sequence of operations for duct detectors. If a fire alarm is provided, verify detectors will be monitored by the fire alarm system.
  - **Corridor.** Explain whether corridors will be used for air-movement. If so, verify code compliance.
  - **Corridor Ceiling.** Explain whether the space above corridor ceilings will be used for air-movement. If so, verify code compliance.
  - **Fire Damper.** Explain whether fire/smoke dampers will be provided. If so, clearly indicate the location of all dampers installed in the building. Show the location of access panels. Provide details for each type of damper utilized. Provide details for access panels. Provide UL listing information for each type of damper utilized.
  - **Stair Ventilation.** Explain whether exit enclosures will be conditioned. If so, verify stair HVAC is independent of the building's HVAC system.
  - **Stair Pressurization System.** Explain whether stair pressurization will be provided. If so, provide details and supporting documentation.
  - **Smoke Control System.** Explain whether an engineered smoke control system will be provided. If so, provide details and supporting documentation. (A separate permit may be required.)

- **Cooking Operations.** Explain whether cooking operations will be conducted. If so, identify the location and type of ventilation equipment that will be installed. For commercial cooking operations that are capable of producing grease laden vapors, verify a Type I Hood and automatic fire suppression system will be installed (separate permits are required). Provide details on cooking appliances and ventilation equipment.
- **Refrigerant Rooms.** Identify the location of refrigerant machinery rooms. Identify the type, quantity, and hazard classification of refrigerants that will be utilized at the facility. Provide details for refrigerant equipment.
- **Hazardous Equipment.** Identify the location of ventilation systems provided for hazardous equipment. Examples include boilers, systems designed to ventilate chemical or flammable liquid vapors, dust collection systems, laboratory fume hoods, etc. Provide details and supporting documentation.

- **Plumbing.** Provide a note verifying plumbing systems will be installed in accordance with the correct code year of the International Plumbing Code, International Fuel Gas Code, as adopted by reference in the adopted fire code, and other referenced documents. Provide a plumbing cover sheet which includes a legend. The cover sheet must be located at the beginning of the plumbing drawings. The following information is required in the plumbing drawings:
  - **Legend.** Provide a legend showing symbols used on drawings as adopted by nationally recognized societies or as explained on the drawings.
  - **Floor Plan.** Provide a floor plan and riser diagram. Include information on waste, ventilation, water, and gas piping systems.
  - **Details.** Provide details, schedules, and calculations for piping and risers.
  - **Fixtures.** Provide a fixture schedule and material specifications.
  - **Gas Piping.** Explain whether natural gas or LPG will be provided. If so, provide the following information:
    - If storage tanks are utilized, show the location of the tanks, tank capacity, and provide the tank details.
    - Include piping and riser diagrams.
    - Show the location of equipment supplied by gas piping.
    - Verify isolation and shutoff valves are provided per code.
    - Verify all piping is marked in accordance with code and all appliances are provided with code compliant ventilation.

- **Medical Gas.** Explain whether medical gas or oxygen systems will be provided. If so, provide the following information:
  - If storage tanks are utilized, show the location of the tanks, tank capacity, and provide the tank details.
  - Include piping and riser diagrams.
  - Show the location of equipment supplied by piping.
  - Verify all piping is marked in accordance with code.
  - Verify isolation and shutoff valves are provided per code.
- **Hazardous Materials.** Explain whether other hazardous materials will be utilized at the facility. Examples may include compressed natural gas, gaseous hydrogen, liquid nitrogen, Argon, or other materials. If so, provide detailed information regarding the type of materials, quantity of materials, hazard classification, and safety features installed to protect personnel and equipment (separate permits may be required).

- **Other Required Items.** Every project is unique. Your project may also require these items:
  - **Occupancy Classification Letter.** An occupancy classification letter is required detailing the following, if utilized in the building:
    - Warehousing or retail storage.
    - Rack or high piled storage.
    - Manufacturing.
    - Sales/storage of upholstered furniture.
  - **Material Safety Data Sheets (MSDS).** Provide MSDS for all chemicals to be used and/or stored in the building. Provide a statement from the owner, on letterhead, indicating the quantity of each material to be used or stored.