

Fire Alarm/ Electrical Fire Plan Review Checklist

Department of Development Services | Building & Safety Bureau
411 W. Ocean Blvd., 2nd Floor, Long Beach, CA 90802
(562) 570-7648 longbeach.gov/lbds

INFORMATION	PROJECT NO.:	EXPIRATION DATE:	STATUS:	
	PROJECT ADDRESS:			
	WORK DESCRIPTION:			
	APPLICANT'S NAME:		TEL. NO.:	
INSTRUCTIONS	<p>Your application for a permit, together with plans and specifications, has been examined and you are advised that the issuance of a permit is withheld for the reasons hereinafter set forth. The approval of plans and specifications does not permit the violation of any sections of the Fire/Electrical Code or other local ordinances or state laws.</p> <p>In an effort to streamline the plan review process, please follow the steps outlined below to ensure that there is no delay in processing your application and reviewing your responses to these plan check comments.</p> <ul style="list-style-type: none"> Comments with circled item numbers apply to this plan check. Revised plans and calculations shall incorporate or address all comments marked on the original checked set of plans, calculations, and this plan review checklist. Provide a written response to each comment and show where and how it has been addressed. Identify the sheet number and detail or reference note on the revised plans where the corrections are made. Time spent searching for the corrected items on the revised plans or calculations will delay the review and approval process. Once all comments on the plans, calculations, and this checklist have been addressed, contact the plan check staff to SCHEDULE AN APPOINTMENT to review the changes made or to RESUBMIT the plans. 			
	PLAN REVIEWER: _____		TEL. NO.: 562-570-_____	
	ADDRESS: 411 W. OCEAN BLVD., 2nd FLOOR, LONG BEACH, CA 90802			
	EMAIL: _____		@longbeach.gov WEBSITE: www.lbds.info	
	<p>Should you have any questions or need clarification pertaining to the comments made on your project, you may contact the plan check staff by telephone from 7:30 AM (8:30 AM Wed) to 4:30 PM (M T W TH F).</p> <ul style="list-style-type: none"> Bring the original checked set of plans and calculations along with this checklist to the appointment meeting. Do not schedule an appointment meeting with the plan check staff until all comments have been addressed. We will ensure that the appointment meeting or re-submittal of the plans for recheck will proceed as expeditiously as possible. If an impasse is reached during the appointment meeting, you may request that the plan check supervisor be summoned for a 2nd opinion or to attempt to resolve and/or clarify the matter. Major revisions to the plans that necessitate additional review time may be subject to re-submittal and additional plan check fees as authorized by Section 18.12.150 of the Long Beach Municipal Code. Reviewed plans and/or calculations not picked up within 60 days of notice will be discarded. 			
NOTE	<p>Numbers within the parenthesis () refer to the section of the applicable code. 2016 California Building Code (CBC). 2016 California Fire Code (CFC) Table (T). 2016 California Electrical Code (CEC). 2016 California Mechanical Code (CMC). Long Beach Municipal Code (LBMC). Health and Safety Code (HSC). National Fire Protection Association 72, 2016 ed (NFPA) National Fire Protection Association 70, 2014 ed.</p>			

A. PERMIT APPLICATION

1. Valuation provided or determined during the initial submittal process was not accurate. Valuation is revised to \$_____. Pay additional required _____ plan check fee of \$_____.
2. When all required approvals are obtained, the permit application must be signed by the licensed contractor, or authorized agent at the time the permit is to be issued:

For contractor electrical permits: Prior to the issuance of a electrical permit, the contractor shall have the following:

- i. Certificate of workers Compensation Insurance made out to the Contractors State License Board.
- ii. Copy of Contractors State License or pocket ID.
- iii. Copy of city business tax registration certificate or a newly paid receipt for one.
- iv. Notarized letter of authorization for agents.

B. ADMINISTRATION

1. Each sheet of the construction documents must bear stamp, wet signature, registration number and expiration date of the Responsible Party. The Responsible Party is the Registered Electrical Engineer, Factory Certification, or Licensed Electrical Contractor (C-10).
2. The address of the project and the name/address of the owner are required on the first sheet or title sheet of the construction documents. Include the name/address of the registered design professionals and/or consultants on the construction documents where applicable.
3. Three final set(s) of construction documents will be required during permit issuance. Construction documents must be:
 - a. Quality blue or black line drawings with uniform and light background color.
 - b. Provide a copy of the installing California State Contractors License with registration number, class and expiration date. Fire Alarm contractor is to provide **wet signature** on all sheets of the Fire Alarm plan.
 - c. Max. 36" x 48" size with min.1/8" lettering size.
 - d. Provide a complete and accurate Fire and Electrical Permit application.
 - e. Scaled floor plans, including north reference.
4. Remove all plans, details or notes that do not pertain to the project from the final set of construction documents.

C. FIRE ALARM - PLAN CHECK COMMENTS

1. Provide an address on the plans. CFC 907.1
2. Provide the name of owner or occupant on the plans. CFC 907.1
3. Provide the contact name and phone number of the person responsible for designing these plans. CFC 105.4
4. Provide the correct state codes, NFPA standard and sections for alarm design. The applicable codes and standards are the 2016 California Fire Code (CFC), 2016 California Building Code (CBC), 2016 California Electrical Code (CEC) and NFPA 72, 2016 ed. NFPA 72, 10.4.1
5. Provide the building code occupancy classification(s). CFC 907.1.2
6. Identify on the plans what type of system or service involved (example: Automatic Fire Alarm System or Manual Fire Alarm System, etc.). NFPA 72, Ch. 3
7. Provide a written sequence of operations/matrix table. NFPA 72, 14.6.1.1.
8. Provide the central or remote station monitoring company name, address, phone number, UL Listing number & certificate. CFC 907.1.2
9. Provide a floor plan that indicates the use of all rooms. CFC 907.1.2
10. Provide locations of fire alarm control unit, transponders, notification power supplies and annunciator. CFC 907.1.2
11. Provide details of ceiling heights and construction. CFC 907.1.2
12. Provide location of all sprinkler control valves/water flow switches (if applicable). CFC 907.1.2
13. Provide specifications and details of through-penetration fire stopping, if required. CFC 907.1.2
14. Provide device mounting heights for manual pull boxes and visible notification appliances. CFC 907.1.2
15. Specify pathway class designations per NFPA 72 12.3.
16. Specify pathway survivability per NFPA 72 12.4.
17. Plans and specifications shall include location of all alarm-initiating and alarm-signaling devices; annunciation; power connection; make, model and state fire marshal listing number for all equipment, devices and materials requiring listing; and wiring or cable type and sizes. CFC 907.1.2

18. Provide conduit fill calculations or NEC reference CEC Article 760
19. Specify all Initiating, Indicating, and Signaling line circuit styles currently installed and what is being installed. CFC 907.1.2
20. Provide a legend for all symbols. CFC 907.1.2
21. Highlight equipment data sheets for all fire alarm equipment to be installed (style, type, model, amps, volts, mfg., etc.) for the fire alarm system(s). CFC 907.1.2
22. Provide current State Fire Marshal (SFM) Listings. The listing has expired.
23. Provide voltage drop, circuit amperage, and power supply (battery) calculations to include standby and alarm conditions. CFC 907.1.2
24. Provide a diagram showing a typical wiring configuration for each of the system devices and the point of connection at the panel. CFC 907.1.2
25. Indicate the location of all devices, end of line (EOL) devices, conduit/wire runs, conduit sizes, number and size of conductors, list conduit fill (40% max.) for each device and/or circuit for the area work is being performed. Initiating Zone 1 shall be indicated as Z-1 and Indicating Circuit 1 shall be indicated as C-1. The zone indication shall be placed adjacent to the appropriate end-of-line device(s). CFC 907.1.2
26. Provide a riser diagram indicating the device installation, wiring sequence, the number of devices per zone and zone assignments for the area work is being performed. All other areas just show the total amps and watts used per circuit and zone identification. CFC 907.1.2
27. Provide a matrix of the manufacturer, model numbers, and listing information for all equipment, devices, and materials. Include the CSFM listing numbers and the quantities of each component. CFC 907.1.1
28. Voltage drop calculations shall be on the plans. The voltage drop shall not exceed the minimum device specifications needed to meet their listing. Voltage drop calculations shall be provided for the most demanding circuit(s) in the area of work. CFC 907.2.1
29. Standby battery calculations shall be on the plans. These shall include both standby and alarm conditions. Calculations are to be performed for 100% of the load. NFPA 72 10.6.7.2.1, CFC 907.1.1
30. The exterior alarm device shall be a horn and strobe device, located on the address side of the building, closest to the location of the fire department connection. If no FDC, the horn and strobe device shall be located closest to the annunciator. (LBMC 18.48.500)
31. At least one (1) additional horn and strobe device is required on the interior of a building at the main entrance or in a location as approved by the fire code official. (LBMC 18.48.510)
32. At least one (1) manual pull station is required on the interior of a building at the main entrance or in a location as approved by the fire code official. (LBMC 18.48.510)
33. Manual fire alarm boxes shall be located within 5 ft. of each exit doorway on each floor. (NFPA 72, 17.14.8.4)
34. A remote annunciator shall be provided at the main entrance, the first suite in a multi suite building, or in a location as approved by the fire code official. The remote annunciator shall have the capacity to silence and reset the system via a key, located in the knock box, or other approved means. (LBMC 18.48.540)
35. Provide a means of monitoring the batteries and charger integrity so that a battery charger failure is detected. NFPA 72 10.6.3.4
36. CELLULAR COMMUNICATION PATHS
(Include in the matrix, specific to Cellular)
 1. Radio Communications Failure Condition (RFC) (Supervisory)
 2. Low/Missing Battery Condition (LBC) (Trouble)
 3. AC Failure Condition (ACFC) (Trouble)

D. NOTES

COMPLETE AND PLACE THE FOLLOWING NOTES, VERBATIM, ON THE PLAN:

1. The applicable codes and standards are the 2010 California Fire Code (CFC), 2010 California Building Code (CBC), 2010 California Electrical Code (CEC) and NFPA 72, 2010 ed.
2. Fire alarm locked panel shall be accessible only to Fire Dept. personnel, authorized maintenance personnel and shall be marked "Fire Alarm Control Panel".
3. Upon completion of the Fire Alarm System installation. A satisfactory test of the entire system shall be made in the presence of the enforcing agency.

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4. Failure of the battery charger shall result in the initiation of a trouble signal in accordance with Section 10.12 NFPA 72, 10.6.10.6.2
5. All fire alarm system modifications made after the initial installation shall be recorded on a revised version of the original record of completion (As-builts). NFPA 72, 7.5.6.6.1
6. Where the battery is not marked with the month/year by the manufacturer, the installer shall obtain the date-code and mark the battery with the month/year of battery manufacture. NFPA 72 10.6.1.2
7. Storage batteries shall be permanently marked with the month and year of manufacture, using the month/year format. The marking shall be permitted to be applied by either the battery manufacturer or the installer. NFPA 72 10.6.10.1.1
8. Fire Alarm circuits shall be grounded in accordance with C.E.C. – Article 250.
9. Power limited cable which is run within 7 feet of the finished floor must be protected from physical damage Article 760.130(B)(1).
10. Power limited fire alarm cables cannot be installed in the same raceway, enclosure, or cables with cables from electric light, power, Class 1, or nonpower limited fire alarm wiring. Article 760.136(B).
11. Electric power circuits supplying Fire Alarm systems shall be a dedicated branch circuit. The circuits shall be mechanically protected capable of being locked in the on position with an approved mechanical clip. Circuit disconnect means shall have a "Red Marking", accessible to only authorized personnel and be identified as "Fire Alarm Circuit". The location of the circuit disconnect means shall be permanently identified at Fire Alarm Control Panel.
12. Through penetration fire stopping for all fire walls, floor/ceilings, and assemblies shall have an "F" or "T" rating per the CBC and standards. Installation of fire stopping shall comply with approved methods.
13. The circuit disconnect breaker providing power to the fire alarm unit shall only be accessible to authorized personnel, and shall be identified as "FIRE ALARM CIRCUIT".
14. All fire sprinkler systems shall be monitored except those noted in CFC 903.4.1.
15. Where detection is not required during construction, detectors shall not be installed until after all other construction trades have completed cleanup. NFPA 72, 17.7.1.11.3
16. Where a building fire alarm or monitoring system is installed, automatic fire extinguishing systems shall be monitored by the building fire alarm or monitoring system.
17. The system shall report to central station, point-for-point, device specific. LBMC 18.48.480
18. All smoke detectors, including duct detectors, shall be tested with smoke. Refer to manufacture for type of smoke.

E. Additional comments:

No.	Comment	Code Sec. No.
