

July 1, 2010	<b>SANTA ROSA FIRE DEPARTMENT</b> FIRE PREVENTION BUREAU PLAN REVIEW CHECKLIST
	<b>TENANT IMPROVEMENTS</b>

<b>Address:</b>		<b>Permit #:</b>
<b>Inspector:</b>	<b>Date:</b>	<b>Status:</b>
<b>Inspector:</b>	<b>Date:</b>	<b>Status:</b>
<b>A-Approved; AC-Approved w/comments; I-Incomplete; D-Denied</b>		

**This Checklist outlines general requirements. Information contained herein applies to typical instances and may not address all circumstances.**

**FILE REVIEW:**

- |    |                          |                          |   |
|----|--------------------------|--------------------------|---|
|    | <b>Y</b>                 | <b>N</b>                 |   |
| 1. | <input type="checkbox"/> | <input type="checkbox"/> | Review Permits Plus, Office Link, and the project folder for any previous fire department conditions.       |
| 2. | <input type="checkbox"/> | <input type="checkbox"/> | Permit fees entered in Permits Plus. 3 <sup>rd</sup> or greater checks require an hourly fee for the review |
| 3. | <input type="checkbox"/> | <input type="checkbox"/> | Phase 1 Environmental Site Assessment approved.   |
| 4. | <input type="checkbox"/> | <input type="checkbox"/> | Specific Conditions of Planning Permit apply.   |
| 5. | <input type="checkbox"/> | <input type="checkbox"/> | Approved Alternate Materials or Methods of Construction apply.  |

**COVER SHEET: (THE FOLLOWING INFORMATION IS SHOWN AND IS ACCURATE)**

- |     |                          |                          |                                |
|-----|--------------------------|--------------------------|--------------------------------|
| 6.  | <input type="checkbox"/> | <input type="checkbox"/> | Project Address                |
| 7.  | <input type="checkbox"/> | <input type="checkbox"/> | Owner' contact information     |
| 8.  | <input type="checkbox"/> | <input type="checkbox"/> | Designer's contact information |
| 9.  | <input type="checkbox"/> | <input type="checkbox"/> | Applicable Codes               |
| 10. | <input type="checkbox"/> | <input type="checkbox"/> | Occupancy Type                 |
| 11. | <input type="checkbox"/> | <input type="checkbox"/> | Construction Type              |
| 12. | <input type="checkbox"/> | <input type="checkbox"/> | Tenant Improvement Area        |

**COVER SHEET: (THE FOLLOWING INFORMATION IS LISTED AS DEFERRED SUBMITTAL)**

- |     |                          |                          |   |
|-----|--------------------------|--------------------------|---|
| 13. | <input type="checkbox"/> | <input type="checkbox"/> | Automatic sprinkler system to be modified per reference standard        |
| 14. | <input type="checkbox"/> | <input type="checkbox"/> | Automatic fire alarm system to be modified per reference standard       |
| 15. | <input type="checkbox"/> | <input type="checkbox"/> | Fire pump and/or standpipe system to be provided per reference standard |

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- |     | Y                        | N                        |   |
|-----|--------------------------|--------------------------|---|
| 16. | <input type="checkbox"/> | <input type="checkbox"/> | Special Extinguishing System to be provided per reference standard                                    |
| 17. | <input type="checkbox"/> | <input type="checkbox"/> | Emergency Evacuation plans to be provided in E, B, E, H, I R and some M's (CFC 404)                   |
| 18. | <input type="checkbox"/> | <input type="checkbox"/> | Vegetation Management Plan to be provided (building is in WUI Fire Area)                              |
| 19. | <input type="checkbox"/> | <input type="checkbox"/> | In-Building Public Radio System to be provided if building >25,000 sf or >3 stories (SRCC 18-44: 511) |
| 20. | <input type="checkbox"/> | <input type="checkbox"/> | Hazardous Materials to be used or stored as part of this project                                      |
| 21. | <input type="checkbox"/> | <input type="checkbox"/> | High Piled Storage to be part of this project   |

**SITE PLAN:** (May not apply if T.I. is strictly interior to an existing building)

- |     |                          |                          |  |
|-----|--------------------------|--------------------------|--|
| 22. | <input type="checkbox"/> | <input type="checkbox"/> | Drawn to scale and/or dimensions of Fire Service features noted  |
| 23. | <input type="checkbox"/> | <input type="checkbox"/> | Apparatus access to within 150 feet hose-pull distance of all first floor exterior walls (CFC 503.3.1.1) |
| 24. | <input type="checkbox"/> | <input type="checkbox"/> | Apparatus access vertical clearance minimum 13 feet 6 inches (CFC 503.2.1)                               |
| 25. | <input type="checkbox"/> | <input type="checkbox"/> | Apparatus access minimum 20 feet wide for buildings to 30 feet tall (CFC 503.2.1)                        |
| 26. | <input type="checkbox"/> | <input type="checkbox"/> | Two apparatus access roads provided for buildings over 30 feet tall (SRCC 18-44: D104.1)                 |
| 27. | <input type="checkbox"/> | <input type="checkbox"/> | Two apparatus access roads provided for buildings over 62,000 sf (CFC D104.2)                            |
| 28. | <input type="checkbox"/> | <input type="checkbox"/> | Two apparatus access roads provided for more than 50 dwelling units (CFC D106.1)                         |
| 29. | <input type="checkbox"/> | <input type="checkbox"/> | Apparatus access minimum 26 feet wide for buildings over 30 feet tall (CFC D105.2)                       |
| 30. | <input type="checkbox"/> | <input type="checkbox"/> | Apparatus access 15 to 30 feet from building for buildings over 30 feet tall (CFC D105.3)                |
| 31. | <input type="checkbox"/> | <input type="checkbox"/> | Apparatus access paved (CFC 503.2.3)   |
| 32. | <input type="checkbox"/> | <input type="checkbox"/> | Apparatus turn-around per COSR Standard 203F is provided (CFC 503.2.5)                                   |
| 33. | <input type="checkbox"/> | <input type="checkbox"/> | Apparatus access bridge or elevated surface per AASHTO Standards (SRCC 18-44: 503.2.6)                   |
| 34. | <input type="checkbox"/> | <input type="checkbox"/> | Apparatus access gates have Knox lock or Knox override if powered  |
| 35. | <input type="checkbox"/> | <input type="checkbox"/> | Apparatus access gates 20 feet into site from public roadway   |
| 36. | <input type="checkbox"/> | <input type="checkbox"/> | Fire lane curb markings and/or signage provided (FPB Standard)   |
| 37. | <input type="checkbox"/> | <input type="checkbox"/> | Site Map with building addresses provided at multi-building site entrances (FPB Standard)                |
| 38. | <input type="checkbox"/> | <input type="checkbox"/> | Fire hydrants every 300 ft on public roads and apparatus access roads (SRCC 18-44: 508.5.1)              |
| 39. | <input type="checkbox"/> | <input type="checkbox"/> | Fire hydrants at least 40 feet from building (NFPA 24)   |
| 40. | <input type="checkbox"/> | <input type="checkbox"/> | Sprinkler system FDC on street address side of building  |
| 41. | <input type="checkbox"/> | <input type="checkbox"/> | Sprinkler system FDC within 50 ft of fire hydrant (SRCC 18-44.C105.1)                                    |

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- |     | <b>Y</b>                 | <b>N</b>                 |  |
|-----|--------------------------|--------------------------|--|
| 42. | <input type="checkbox"/> | <input type="checkbox"/> | Guard posts provided where hydrants, tanks, generators, gas meters subject to vehicle impact (CFC 508.6) |
| 43. | <input type="checkbox"/> | <input type="checkbox"/> | All exterior doors have paved access walkway to required apparatus access road (CFC 504.1)               |
| 44. | <input type="checkbox"/> | <input type="checkbox"/> | Twenty foot wide pedestrian access from main exit to public way in A and E Occupancies                   |
| 45. | <input type="checkbox"/> | <input type="checkbox"/> | Level ladder staging area provided at all emergency egress windows (FPB Standard )                       |
| 46. | <input type="checkbox"/> | <input type="checkbox"/> | Fire Department key box provided at main building or site entrance (CFC 506)                             |

**FLOOR PLANS:**

- |     |                          |                          |   |
|-----|--------------------------|--------------------------|---|
| 47. | <input type="checkbox"/> | <input type="checkbox"/> | Allowable height and area shall be per CBC Section 503 and Table 503                    |
| 48. | <input type="checkbox"/> | <input type="checkbox"/> | Mixed uses shall be separated as required by CBC Section 508                            |
| 49. | <input type="checkbox"/> | <input type="checkbox"/> | Exterior wall fire resistiveness shall be per CBC Section 704                           |
| 50. | <input type="checkbox"/> | <input type="checkbox"/> | Openings in rated exterior walls shall have protections as specified in CBC Section 715 |

**FLOOR & ROOF:**

- |     |                          |                          |   |
|-----|--------------------------|--------------------------|---|
| 51. | <input type="checkbox"/> | <input type="checkbox"/> | Verify roof rating and surface comply with CBC Chapter 15   |
| 52. | <input type="checkbox"/> | <input type="checkbox"/> | TJI/Composite Wood Joists. Composite wood joists in sprinklered buildings. Maximum 16" in depth or comply with one of the exceptions (drywall on underside, sprinkler within, fill joists with non-combustible insulation). |
| 53. | <input type="checkbox"/> | <input type="checkbox"/> | TJI/Composite Wood Joists. Open joists require fire stopping of channels into 300 ft/2 areas. Closes joists (ceiling on the underside) require fire-stopping into 160 ft/3 areas.   |
| 54. | <input type="checkbox"/> | <input type="checkbox"/> | Draft stops shall be installed in attics per CBC 717.4. See exceptions for fire sprinklered attics  |
| 55. | <input type="checkbox"/> | <input type="checkbox"/> | Skylights, if provided, are not installed within the area, based upon distance to property line, to be protected  |
| 56. | <input type="checkbox"/> | <input type="checkbox"/> | Smoke and heat vents and draft curtains shall be provided, when required, by CBC Section 910.   |
| 57. | <input type="checkbox"/> | <input type="checkbox"/> | Roof access shall be provided and new buildings four or more stories shall provide a stairway (CFC 504)   |

**GENERAL REQUIREMENTS, EXITING, DOOR SCHEDULE:**

- |     |                          |                          |  |
|-----|--------------------------|--------------------------|--|
| 58. | <input type="checkbox"/> | <input type="checkbox"/> | Two exits if >50 occupants or above/below ground floor (CFC 1015.1, CFC 1019)              |
| 59. | <input type="checkbox"/> | <input type="checkbox"/> | Doors swing in direction of exit travel if serving >50 occupants (CFC 1008.1.2)            |
| 60. | <input type="checkbox"/> | <input type="checkbox"/> | Panic hardware on doors of A, E occupancies with >50 occupants (CFC 1008.1.9)              |
| 61. | <input type="checkbox"/> | <input type="checkbox"/> | "No knowledge, single-action" hardware on all exit doors, including gates (CFC 1008.1.8.3) |
| 62. | <input type="checkbox"/> | <input type="checkbox"/> | Manually operated flush or bolt locks are not permitted on egress doors (CFC 1008.1.8.4)   |

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- |     | Y                        | N                        |  |
|-----|--------------------------|--------------------------|--|
| 63. | <input type="checkbox"/> | <input type="checkbox"/> | The number of doors for each room or area complies with CFC 1015, Table 1015.1, and 1019   |
| 64. | <input type="checkbox"/> | <input type="checkbox"/> | Exits do not pass through laboratories, store rooms, kitchens, hazardous use areas (CFC 1014.2)  |
| 65. | <input type="checkbox"/> | <input type="checkbox"/> | Exits separated min 1/3 diagonal of space if sprinklered or 1/2 diagonal if not sprinklered (CFC 1015.2)   |
| 66. | <input type="checkbox"/> | <input type="checkbox"/> | Common Path of Egress Travel Distance per CFC 1027.17.2  |
| 67. | <input type="checkbox"/> | <input type="checkbox"/> | Exit Access Travel Distance per CFC Table 1027.17.2  |
| 68. | <input type="checkbox"/> | <input type="checkbox"/> | Egress Widths per CFC Table 1005.1   |
| 69. | <input type="checkbox"/> | <input type="checkbox"/> | Occupant load calculations are provided for the rooms and assembly areas, and occupant load signs are processed for assembly areas (CFC 1004).   |
| 70. | <input type="checkbox"/> | <input type="checkbox"/> | Maximum Occupant Load signage if >50 occupants in A Occupancies (CFC 1004.3)   |
| 71. | <input type="checkbox"/> | <input type="checkbox"/> | Illuminated exit signs clearly delineate path of egress all spaces >50 occupants. Signs at directional changes in hallways, visible from any direction of egress travel and where necessary. (CFC 1011.1)  |
| 72. | <input type="checkbox"/> | <input type="checkbox"/> | Exit signs are flush or perpendicular to mounting surface so they are in the field of view   |
| 73. | <input type="checkbox"/> | <input type="checkbox"/> | Signage detail is provided for the landing areas of vertical stairways more than 3 stories. Signage states location – East, West, etc., terminus-roof access or not, floor number and floors served by stairs. Signs to be 5 foot above floor landing (CFC 1020.1.6) |
| 74. | <input type="checkbox"/> | <input type="checkbox"/> | Type 1 hood with 1-hour exhaust duct installed at all commercial cooking appliances (CFC 609)  |
| 75. | <input type="checkbox"/> | <input type="checkbox"/> | One 2A:10B-C fire extinguisher is provided per 3,000 sf, max 75 ft travel distance   |
| 76. | <input type="checkbox"/> | <input type="checkbox"/> | Type, size, mounting height, and travel distance are appropriate for the hazard and are detailed on the plans, CFC 906.  |
| 77. | <input type="checkbox"/> | <input type="checkbox"/> | Signage at HVAC, sprinkler, electrical, and fire alarm control location required (CFC 510)   |
| 78. | <input type="checkbox"/> | <input type="checkbox"/> | SFM regulated occupancies: >2 stories or without straight-run stairs have at least one elevator sized for medical gurney - min 80 in x 54 in cab interior (CFC 807)  |

**INTERIOR ELEVATIONS AND FINISH SCHEDULE:**

- |     |                          |                          |   |
|-----|--------------------------|--------------------------|---|
| 79. | <input type="checkbox"/> | <input type="checkbox"/> | Wall and Ceiling finish material Classes per CFC Table 803.3                                  |
| 80. | <input type="checkbox"/> | <input type="checkbox"/> | SFM regulated occupancies: decorative materials treated for flame spread and smoke production |

**EXTERIOR ELEVATIONS:**

- |     |                          |                          |   |
|-----|--------------------------|--------------------------|---|
| 81. | <input type="checkbox"/> | <input type="checkbox"/> | 12 inch illuminated address characters on street elevation (FPB Standard )      |
| 82. | <input type="checkbox"/> | <input type="checkbox"/> | Doors swing in direction of exit travel if serving >50 occupants (CFC 1008.1.2) |

**MECHANICAL PLANS:**

- |     |                          |                          |   |
|-----|--------------------------|--------------------------|---|
| 83. | <input type="checkbox"/> | <input type="checkbox"/> | Air-handling units >2,000 cfm have smoke detector in supply duct for automatic shutdown |
|-----|--------------------------|--------------------------|---|

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- |     | <b>Y</b>                 | <b>N</b>                 |  |
|-----|--------------------------|--------------------------|--|
| 84. | <input type="checkbox"/> | <input type="checkbox"/> | Fire Dampers are shown and detailed. Activation method is specified and listing is for passive or dynamic. |
| 85. | <input type="checkbox"/> | <input type="checkbox"/> | If handling hazardous materials, provide 1 cfm per ft <sup>2</sup> .                                       |

**ELECTRICAL PLANS:**

- |     |                          |                          |  |
|-----|--------------------------|--------------------------|--|
| 86. | <input type="checkbox"/> | <input type="checkbox"/> | Path of egress from all spaces to the public way is illuminated to 1 foot candle (CFC 1006.2)  |
| 87. | <input type="checkbox"/> | <input type="checkbox"/> | Egress illumination has 90 minute backup power per CFC 1006.3  |
| 88. | <input type="checkbox"/> | <input type="checkbox"/> | Emergency alarm required in accordance with CFC 908  |
| 89. | <input type="checkbox"/> | <input type="checkbox"/> | If to be equipped with a fire alarm system, reference the Fire Alarm Power Supply Standard specifically to address the need for a separate disconnect, locking of the disconnect, color and signage. |
| 90. | <input type="checkbox"/> | <input type="checkbox"/> | If to be equipped with a fire pump, reference the Fire Pump Standard to ensure the special electrical conductor protections are provided at the time of building construction                        |
| 91. | <input type="checkbox"/> | <input type="checkbox"/> | Provision for elevator shunt-trip, if required, are noted on the electrical drawings   |
| 92. | <input type="checkbox"/> | <input type="checkbox"/> | If commercial cooking equipment, provisions are made for shunt-trip on appliance power circuit   |

**ALTERNATE OR CLEAN AGENT GAS:**

- |     |                          |                          |   |
|-----|--------------------------|--------------------------|---|
| 93. | <input type="checkbox"/> | <input type="checkbox"/> | Room use or type of hazard and/or process is detailed on the plans.               |
| 94. | <input type="checkbox"/> | <input type="checkbox"/> | Equipment and devices data sheets, voltage and battery calculations are provided. |
| 95. | <input type="checkbox"/> | <input type="checkbox"/> | Concentration and discharge calculations are provided.                            |

**USE AND PROCESS SPECIFICS:**

**Group R Occupancies**

- |     |                          |                          |  |
|-----|--------------------------|--------------------------|--|
| 94. | <input type="checkbox"/> | <input type="checkbox"/> | Smoke detectors are located in sleeping rooms, hallway and adjacent room if vaulted ceiling, also at the top of stairs and lower level, 907.3.2. |
|-----|--------------------------|--------------------------|--|

**Assembly Use**

- |     |                          |                          |   |
|-----|--------------------------|--------------------------|---|
| 95. | <input type="checkbox"/> | <input type="checkbox"/> | Occupant loads certificates for assembly rooms are created, 1004.3.   |
| 96. | <input type="checkbox"/> | <input type="checkbox"/> | Exit door hardware; panic hardware is on all exit doors except main entry, no other security bolt hardware allowed with panic hardware, 1008.1.9. |
| 97. | <input type="checkbox"/> | <input type="checkbox"/> | Data sheets for fire-resistive decorative materials are provided, 804, 806, and 807.  |

**Battery Rooms**

- |     |                          |                          |  |
|-----|--------------------------|--------------------------|--|
| 98. | <input type="checkbox"/> | <input type="checkbox"/> | Spill control method and materials are detailed, CFC 608.5.  |
| 99. | <input type="checkbox"/> | <input type="checkbox"/> | When ventilation is required, calculations are provided to verify ventilation rate maintains the room atmosphere to 1 percent by volume of hydrogen or a minimum ventilation rate of 1 cfm/ft <sup>2</sup> of floor area, 608.6.1. |

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- Y N
100.   Door signed stating room contains lead-acid batteries, energized electrical circuits, and corrosive liquids are detailed on the plans, 608.7.
101.   Battery systems are seismically braced and room smoke detection is provided, 608.8 and 608.9.

**Fuel-Dispensing Station**

102.   Details for dispensing unit or island, and emergency shut-off location are provided, and tank construction is in accordance with CFC Chapter 22 and 34.

**Hazardous Materials**

103.   Hazardous Materials, CFC 27 always applies then the chapter specifics.
104.   Spill control and secondary containment, CFC 2704.2, 2705.1.3, 2705.2.1.3, 2705.2.1.4, 3404.3.7.3, 3404.3.7.8.2, 3404.4.3, 3405.3.7.5.3 and 3405.3.7.5.6.3.
105.   Spill control and secondary containment shall be liquid tight, i.e. compatible floor coating, 2704.2.1(1) and (2), 2704.2.2.1 (1) and (2).
106.   Cryogenics, CFC 32.
107.   Compressed Gases, CFC 30.
108.   Flammable Combustible Liquids, CFC 34.
109.   Highly Toxic and Toxic Materials, CFC 37.
110.   Oxidizers, CFC 40.
111.   Unstable and Water Reactive materials, CFC 43 and 44.

**HPM Workstations, Gas Cabinets Exhausted Enclosures, Silane Gas, and Ozone Systems**

112.   Complies with CFC Chapters 18, 27, and 37.

**High-piled Storage**

113.   Speculation buildings with potential to house high-pile storage but not designed for high-piled storage is requiring demarcation lines (12 ft. above floor level) and verbiage on walls ("No storage permitted above this line by the authority of the Fire Marshal's Office.") and letter from owner agreeing that building is not designed for nor will it be used for high-piled storage, 2304.3.
114.   The 14 items in CFC 2301 are detailed or provided, 2301.1.
115.   Aisle width and rack locations are on the plans, 2301.1.
116.   Exterior fire access doors are on the plans, 2301.1.
117.   Detection and suppression systems are provided, 2301.1.
118.   Smoke removal system or heat vents or curtain boards are detailed on the plans, 2301.1.
119.   Need product hazard classifications, quantities, location, etc, consult additional information in the High Pile Standard. 2301.1.

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**LPG Tanks**

120.  **Y**     **N**    Location on a site plan is provided, CFC 38 and NFPA 58. Consult the LPG Install Standard

**Medical Gases**

121.         Quantity, location and room construction are provided and detailed, CFC 30 and consult the Medical Gas Standard.
122.         Paint Booth, Powder Coating, Electrostatic Spray Operations
123.         Manufacture data sheets for the booth and equipment are provided, CFC 15 and consult the Spray Booth Standard.
124.         Construction and ventilation details for spray booths, areas or rooms are provided.

**Welding Operations**

125.         Location is detailed, signage detailed, type of gases, storage location and quantity of gases, CFC 26.