

# Commercial Building Checklist



**DEVELOPMENT  
SERVICES  
DEPARTMENT**

Development Services Customer Service Center | 1 Exchange Plaza, Suite 400 | Raleigh, NC 27601 | 919-996-2495

TO BE COMPLETED BY APPLICANT	YES	NO	N/A
<b>PUBLIC UTILITY REQUIREMENTS</b>			
1. Show location and size of grease traps with approval letter from the Fats, Oils and Grease Supervisor (919) 250-7825	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. If a swimming pool is proposed, show how water will be discharged to sanitary sewer system (limit 50 GPM)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>ZONING REQUIREMENTS</b>			
1. Copy of the Approved Site Plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Floor plans and building elevations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>STORMWATER REQUIREMENTS</b>			
1. Reference set of approved Site Plan and/or Infrastructure Construction Drawings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. If in flood hazard area, identify Regulatory Flood Protection Elevation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. A Flood Study is required for any encroachment into a regulatory floodway and must be sealed by the design engineer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>TREE CONSERVATION REQUIREMENTS</b>			
1. A copy of the latest Recorded Plat showing the tree conservation areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Show tree conservation areas on plan and reference book of maps and page where they are recorded	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>FLOODPLAIN REQUIREMENTS</b>			
1. Proposed finished floor elevation of building, electrical, and mechanical equipment should be shown on architectural plans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Identify Regulatory Flood Protection Elevation (RFPE) on all architectural plans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Wet or Dry Flood Proofing: Provide all structural and installation details for flood proofing measures including retrofits and proposed building materials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Provide Emergency Preparedness Action Plan: The plan is a document detailing how flood protection measures are to be installed and the responsible parties for floodproofed buildings. (A sample plan may be obtained from the Stormwater Engineer's office.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>GENERAL PLAN REVIEW REQUIREMENTS</b>			
1. Wind Speed - <b>100 MPH, Fastest wind speed three second gust</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Snow Load for Raleigh, NC - <b>15 lbs.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Frost Depth - <b>12 inches</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. The following shall be indicated on all plans: Reproduction of Design Criteria of Fire Resistive Designs, Fire Walls, Fire Barriers, Floor/Ceiling assemblies, Smoke Resistant Walls, Smoke Barriers, Fire Resistive Joints, Penetrations, Smoke Tight Walls and Exit passageways	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Drawings must indicate the required fire resistive systems used in the projects, their locations on the plans, as well as how to be constructed in accordance with approved tested procedure (i.e. UL/FM)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. The manufactured listed components as tested shall be reproduced on all sheets (i.e. Building, Mechanical, Electrical, Plumbing, and Fire Protection)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. A wall legend of each type of rated and non-rated wall systems to be used in the project must be provided on all floor plans throughout the set	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>ARCHITECTURAL PLAN REVIEW REQUIREMENTS</b>			
1. Provide architectural floor plans of each floor showing the location and <b>ratings of all walls</b> proposed for the project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The square footage of each floor must be shown on the corresponding floor plans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. A door schedule that defines the applicable rated doors, frames, and hardware should be provided	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Indicate hazardous area locations for glass	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Elevations with dimensions defining overall building height, floor-to-floor heights, or heights to ridge and eave as applicable to the type of building construction proposed should be shown	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. A roof plan showing roof slopes, drainage system and through wall scuppers must be provided, if applicable to the project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Wall sections showing material sizes, construction and fire-rated assemblies, as applicable to the project, must be provided	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>TO BE COMPLETED BY APPLICANT</b>	<b>YES</b>	<b>NO</b>	<b>N/A</b>
8. Shell building plans shall show all proposed plumbing, HVAC and electrical work on the plans, if any are to be included	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Masonry construction requires type of brick ties, spacing of weep holes, control joints, flashing, shelf and relief angles indicated on plans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. A floor slab vapor barrier must be shown	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. For pre-engineered metal buildings, submit the manufacturer's letter of engineering certification, an engineered sealed foundation plan and complete architectural plans. The letter of engineering certification shall state the model number, size and design loads for the building. The letter also should state that the structural integrity of the building will be maintained as shown in the architectural plans and that the building meets the <b>North Carolina State Building Code</b> for live and dead loads for Raleigh. These loads must be stated in the correspondence. The foundation plans must be designed by a registered architect or engineer and show the size and reinforcement of footings or turn-down slab and reaction loads for all columns. Also, specify reinforcing, bolt pattern and bolt size for the building. Metal building drawings and columns reactions shall be submitted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. For any building constructed with any part of the structure below the regulatory flood plain elevation, flood-proofing certification must be provided at time of plans submittal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. If appropriate for the proposed occupancy, complete City of Raleigh <b>Hazardous Material Summary form</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. All fabric awnings or canopies must be accompanied by a letter of certification of fire resistance from the manufacturer. Fabric awnings and canopies must meet the ground snow loads and be constructed to support all live and dead loads	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Provide on the plans the calculations for the means of egress, widths for the entire floor occupancy load and the exiting capacity of all exits including all stairs, doors, corridors and ramped exits. See <b>Building Code Summary</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Posting of Occupant load will determine minimum facilities count	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Assembly Occupancies and Assembly Use areas will require: Clearly indicate type of assembly on area or rooms (A-1, A-2, etc)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Seating Arrangement, if used for occupant load	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Exit capacity for the means of egress	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>ELECTRICAL REQUIREMENTS</b>			
1. Power plans for each area (alteration/renovation) must indicate all device and equipment locations/direct hook-ups	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Show and size all equipment disconnects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Show lighting plans (on reflected ceiling plans) for each area of alteration/renovation must indicate control locations, fixture and lamp types, number of lamps and ballast(s) and voltage operation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Specify location of all service, service disconnects, panels, transformers and distribution equipment (new and existing) within space and/or where affected by this project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Provide all panel schedules (new and existing) within space and/or where affected by this project must include branch wiring and O.C. device size(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Show both (new and existing) 'connected' and 'code' load calculations for all panels, busses, feeders, generators, and services, including continuous/non-continuous contributions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Provide a single line-riser diagram showing service and feeder wire, equipment grounds, conduit and O.C. device sizes, fuse types, maximum available, fault current and equipment and device bracing. Include transformer sizes, grounding electrodes, conductors and grounding bonding jumper sizes and identifying ground electrodes to be used	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Indicate location of all (new and existing) services with plaques, if required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Show compliance and distance per DOI interpretation regarding entrance distances. Horizontally not more than twice the nominal width of the service enclosure and vertically not more than the greater of 5' or twice the nominal height of the service enclosure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Show wiring methods to be used, including conductor material and insulation types, and conduit types. Compliance with NCSBC, Volume X for all "new work". Indicate both specified and allowed values for interior exterior application	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Approval of overhead service. (Note: Within a development (subdivision or site plan), all utilities that serve a project shall be underground and originate from pad mounted or subterranean distribution points located off the public right of way. Comply with the City of Raleigh Ordinance 10-3059c.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>PLUMBING REQUIREMENTS</b>			
1. Show isometric riser and floor plan view for water service/distribution system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Show proper protection of potable water supply	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Provide plumbing fixture schedule. Show floor plan of fixtures with gender identification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Show complete DWV isometric and floor plan view for all plumbing fixtures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Show all traps, interceptors and separators. <b>Oil for grease interceptors</b> require Public Utilities' approval with a minimum of 1000 gallon capacity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Show sizing compliance for storm drainage (primary and secondary) roof drain location with complete isometric diagram	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Provide details and dimensions for all elements pertaining to the Accessibility Code (ANSI A117.1 and Chapter 11 of the NCBC-2009). Coordinate with architect for plan location of elements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>TO BE COMPLETED BY APPLICANT</b>	<b>YES</b>	<b>NO</b>	<b>N/A</b>
8. For alteration/renovation show code compliance for all equipment changes/addition of system. See above requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>MECHANICAL REQUIREMENTS</b>			
1. Show ventilation air compliance for all habitable space. (Outside air; system controls)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Show exhaust systems compliance. (Type, discharge, pressure equalization, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. The size of all ducts shall be clearly labeled and delineated on mechanical plans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Provide location and type of damper. Fire, fire/smoke, or smoke damper must be clearly shown	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Show compliance for all boiler/water heaters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Show calculations for refrigerant limits and machinery room compliance, when required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Commercial kitchen equipment information shall be sealed by a Design Professional for code compliance (i.e. Canopy Hoods)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Provide all mechanical equipment location and clearances on mechanical plans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. For alteration/renovation, show code compliance for all equipment changes/addition of system. See above requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Provide total square footage of refrigerated area for walk in coolers, freezers, refrigerated cases or refrigerant systems not part of a heating/cooling system to be installed by licensed refrigerant contractor for permit fee	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>FUEL GAS PLAN REVIEW REQUIREMENTS</b>			
1. Show developed length, type of gas, and pressure supplied to equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Design shall be shown by isometric drawing with location and line sizing identified	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Provide equipment identification at branch termination with BTUH listing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>STRUCTURAL PLAN REVIEW REQUIREMENTS</b>			
1. Complete footing and foundation plans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. A footing schedule defining footing sizes and the required reinforcing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. The established footing depth below grade must be shown	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. The thickness of the floor slab and size of reinforcing must be shown	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Provide location, size and amount of reinforcing steel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Provide strength of concrete according to design	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Wood beams, joists, girders, headers and rafters with details of connections and supports must be shown	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. The sizes, species, and design strength of all members must be provided	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. All steel columns, girders, joists, purlins, beams and base plates must be provided	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. A complete lintel schedule must be provided	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Indicate the type of anchoring for steel bearing directly on masonry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Complete shop drawings for engineered components (pre-cast, wood trusses, etc.) shall be submitted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. The total of dead and live loads for floor areas, roofs, balconies, porches, breezeways, corridors, stairs, mezzanines and platforms must be shown. Also, show concentrated loads, such as file rooms, machinery and fork-lift areas, if greater than those shown on the Code Summary Sheet. Identify shear walls, bracing, strapping, fastening, reinforcement and any special anchoring required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Indicate on roof framing plan where concentrated loads (such as mechanical equipment, cranes, etc.) may be placed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Complete structural plans for canopies over entrances, exterior exit stairs and gas pumps, if applicable, should be included in the submittal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>FIRE REQUIREMENTS</b>			
1. Reference complete guide for <b>Fire Protection Requirements</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Reference guide for <b>Fire Protection Requirements</b> for fuel tanks (sections: 21.0 Above ground storage tank requirements and 22.0 Underground storage tank requirements)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Does business store or use Hazardous Materials? If yes, submit <b>Hazardous Materials Permit Application</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>