Social Circle Fire Department (2021) **OCC ID_____**

Fire Marshal's Office **Plan Review**	**Fire Sprinkler System Checklist[1] – NFPA 13, 2019** **CONTRACTOR MUST COMPLETE THIS FORM AND THE CHECKLIST** **NEW:** ☐ **REVISION:** ☐ **TENANT FINISH:** ☐ **RETROFIT:** ☐ Job Name: _____ Address: _____ City: _____ Zip: _____ Bldg./Suite: _____ Phone:(___) ____-_____ GENERAL BUILDING INFORMATION Occupancy Type: _____ Permit Number: _____ Contractor: _____ Phone: (___)____-_____Contact Email: _____ Type: Wet: ☐ Dry: ☐ Pre-action: ☐ Combination: ☐ **CURRENT VENDOR: YES:** ☐ **NO:** ☐ Total heads: _____

Provide the **Sheet Number** or enter **NA =** Not applicable/Existing	**SHEET #**
PROVIDE A SYMBOL WITH THE CORRESPONDING CHECKLIST ITEM # ON THE DRAWING	
1) Email or Submit the checklist, drawings, submittal data, calculations, and signed "Owners Certificate" in one combined file.	
2) Declaration of Applicable Current Codes: IFC/IBC 2018, NFPA 13 (2019), NFPA 101 (2018), 120-3-3 Rules and Regulations, and any City of Social Circle Ordinances.	
3) Certificate of Competency or PE seal including original signature **(120-3-19-.10(3))**	
4) Use a common scale (1/8" = 1' is preferred) and provide a graphic scale **[27.1.3]**	
5) Location key map and north arrow in order to define the location of work within a building [**27.1.3]**	
6) Label all rooms and specify hazard class per area **[27.1.3]**	
7) Provide a legend for system components and sprinkler heads: Quantity (total page & total project), SIN #, Make, Type, Sensitivity, K-Factor, Diameter, Temp Rating, Max spacing **(27.1.3)**	
8) Provide a copy of the FIRE LINE APPROVED utility plan stamped by SCFMO for new sprinkler systems**;** Show location of FDC; PIV and related supply as required on site plans. **[27.3.1]**	
9) Provide an accurate riser detail. **[27.3.1]**	
10) Detailed of system as required by **[27.3.1 inclusive]**	
11) Show document cabinet on plans as required by **[120-3-3 modification to NFPA 13 28.7.1]**	
SPRINKLER COVERAGE[2] (9.5) / SYSTEM / RISERS / FDC / PIV (9.1.1)	
12) Basic Requirements: Verify spacing, location and position of sprinklers **[9.1]**	
13) Provide intermediate temperature heads for coolers/freezers **[9.4.2.5 (10)]**	
14) Provide note & code reference requesting to omit sprinklers. **[9.2, 9.2.1.19, 9.3.19] Letter required**	
15) Provide total square footage for area protected by fire sprinkler system **[4.5]**	
16) Show ceiling heights and branch line elevations with deflector positions. **[10.2]**	
17) Identify small room rule (S.R.R) locations and dimensions for light hazard areas only **[10.2.5.3]**	
18) Show PRV locations and settings (i.e. PRV ≤ 175 psi). **[16.9.8, 16.10.4.5, 28.2.4] PRV's on standpipes have special requirements from NFPA 14 chapter 7.2]**	
19) Show main drain diameter and discharge location, floor drains are not allowed **[16.10.4.6]**	
20) Show method of freeze protection and include details **[16.4.1]**	
21) Identify the FDC piping, pipe size, check valve location, and ball drip. **[16.12]**	
22) Provide inspectors test, auxiliary drains and remote drains **[16.14]**	
23) Provide a method for flushing at systems demand when a backflow device is required **[16.14.5]**	
24) Provide hanger detail for each hanger used and show spacing per table **[27.3.1, Chapter 17]**	

25) Provide details and note to secure the end of branch lines when static pressure is >100 psi **[17.4.3.4.4]**	
26) Cloud ceiling must comply with **[9.2.7]**	
27) Provide pipe venting for wet systems **[8.1.5 and 16.7]**	
28) Provide sprinkler in elevator hoist way and machine room **[9.3.6]**	
29) HVLS fan must comply with **[19.2.7]** shunt trip disconnects required	
OBSTRUCTIONS, CONCEALED SPACES AND SPECIAL SITUATIONS (8.X.5 and 8.15)	
30) Identify ceiling pockets, stairways (void spaces under), elevators/hoist way, exterior projections, electrical/mechanical/janitorial rooms, overhead doors, storage/warehouse rooms **[9.3]**	
31) Identify deflector to deck and ceiling construction type, insulated or non-insulated and provide slopes of ceilings **[9.5.4, 9.5.3, 9.5.2]**	
32) Identify the clearance between the deflector and the top of the storage/contents of the room. **[9.5.5]**	
33) Identify obstructions to sprinkler discharge pattern development. **[9.5.5]**	
34) Skylights shall comply with **[9.3.16 and 9.2.17]** many situations no longer require sprinklers	
35) Identify obstructions > 4' on plans including ductwork, open grate floors, show coverage as required **[9.5.5]**	
36) Identify temperature restrictive areas, hanging heaters or other heat producing devices; **provide a general note. [9.4.2.5]**	
37) Identify all canopies, loading docks or similar areas; **provide a general note.** See item 13 above	
CONSTRUCTION AND MATERIALS[3]	
38) Breezeway Crossings: Require a P.E. / F.P.E. stamp, job specific, worse case crossing calculations per permit. Include UL number for penetration details. Multiple calculations may be required.	
39) Show all pipe materials, schedules, pipe sizes, cut lengths, and routing to include changes in elevations **[27.1.3]**	
40) Provide documentation to support that all materials, system components and hardware are listed for fire service or intended use. **[27.1.3]**	
41) Provide a listed detail for penetrations & identify any fire walls, fire barriers or partitions. **[27.1.3]**	
42) Provide elevation drawings showing ceiling/floor slope and construction and incorporate sprinkler system: multiple elevation drawings maybe required **[9.5 and 23.1.3]**	
43) Provide a detail showing exposed dry barrel length (min. 2" from face of fitting to insulation) **[15.3]**	
DRY/PREACTION SYSTEM	
44) Provide capacity in gallons for dry pipe systems **[16.14]**	
45) Identify the time requirement for water delivery of dry system. **[8.2.3]**	
46) Identify the slope and direction of slope for sprinkler piping. **[16.10.3]**	
47) Show the location of remote drains where required. **[16.10.4, 16.10.5]**	
48) Show type and location of alarms and valves for pre-action, dry or deluge pipe valve **[27.1.3]**	
49) Show inspectors test location on the hydraulically remote branch line **[16.14.2]**	
HYDRAULIC CALCULATIONS - REQUIRED FOR ALL NEW or MODIFICATION OF SPRINKLER WITH 30 OR MORE HEADS	
50) All remote areas are clearly defined & call out the design data for the remote area. **[27.2.4.2]**	
51) Water demand requirements and design areas are clearly marked for the applicable areas (occupancy hazard/special design) **[19.2.4]**	
52) Dry and ceiling slopes must comply with **[Table 27.2.4.7.2]** 30% increase rule	
53) Provide a map locating flow/static hydrants, elevation, date, and witness of the flow test within 6 months of submittal. Flow test must conform to SCFMO standards (10% difference between static/residual & pitot under 50 PSI)	

54) Provide a 24-hr pressure test for all new systems within 6 months of submittal on the plans; the witness name and account for lowest pressure over any 30 min. **[27.4.5.4, 27.4.2, 27.1.3]**	
55) Call out the backflow model and meter. **[27.1.3]**	
56) Provide static pressure, residual pressures and flow of the water supply **[27.4.5.4]**	
57) Provide elevations of the hydrant, the base of riser, sprinklers and junction points **[27.4.5.4]**	
58) Hydraulic reference points must be shown; include the test hydrant, meter, and backflow **[27.4.5.4]**	
59) Provide details of the hydraulic placard that will be posted on the riser and include all hazards. **[28.6]**	
STORAGE AND COMMODITY ASSESSMENT[4] REQUIRED FOR STORAGE OCCUPANCIES TO BE APPROVED	
60) Completed CPA, OIC, Request to omit letter and Sprinkler Assessment Letter provided by approved Social Circle sprinkler vendor[4]	

[1]The above is not an all-inclusive list; all applicable codes must be met.
[2] All non-applicable items must be documented on the plans.
[3] All components are required to be listed for the intended use.
[4] *A completed CPA maybe required before sprinkler plans are reviewed. Information for storage areas to include: Type of storage, class type (I-IV and group A plastics), max storage height, ceiling height, method of packaging, shelving/piled methods, encapsulated or non-encapsulated, and fire sprinkler design requirements or current hydraulic placarding.*

Flow Test Date: _____ 24 hr. Test Date: _____

Static: _____ psi Residual: _____ psi Pitot : _____ Flow: _____ gpm

Design Density/Area: _____ gpm/ _____ ft^2

Comments:

Reviewer: _____ Date: _____