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	11310 - APPLIANCES SUMMARY ASection Includes: 1Owner provided appliances SUBMITTAL ASubmit informations per the requirements in Division 01 Section "01330-Submittal Procedures and Requirements." BAppliance Schedule: Submit schedule of appliances, using the same room designations on Contract Drawings. CAAdd any requirements beyond section 01330 for review and approval. QUALITY ASSURANCE APre-installation Conference: Conduct conference at Project site to comply with requirements in Division 01 Section "01310-Project Management and Coordination." BRequired Qualifications. 1PROJECT CONDITIONS ACoordinate the work with location and placement of utilities. Coordinate characteristics of utilities with requirements of residential appliances. PRODUCT ARefer to Contract Drawings for appliances types, responsibilities and locations. EXAMINATION AExamine surfaces and adjacent areas where products will be installed and verify that surfaces conform to product manufacturer's requirements for substrate conditions. BAExamine roughing-in for plumbing, mechanical, and electrical services, with Installer present, to verify actual locations of services before appliance installation. CBeginning of installation indicates acceptance of substrate conditions. INSTALLATION AGeneral: Comply with manufacturer's written instructions. BBuilt-in Equipment: Securely anchor units to supporting cabinets or countertops with concealed fasteners. Verify that clearances are adequate for proper functioning and rough openings are completely concealed. CFreestanding Equipment: Place units in final locations after finishes have been completed in each area. Verify that clearances are adequate to properly operate equipment. DUilities: Refer to plumbing and electrical Contract Drawings. ADJUSTING AND CLEANING ATest each item of appliances to verify proper operation. Make necessary adjustments. BVerify that accessories required have been furnished and installed. CRemove packing material from residential appliances and leave units in clean condition, ready for operation.							
		211300 Fire Sprinkler Systems Part 1 - General 1.1 Related Documents A Drawings and general provisions of the contract, including general and supplementary conditions and division 01 specification sections, apply to this section. 1.2 Summary ASection includes: 1Pipes, fittings, and specialties. 2Fire-protection valves. 3Fire-department connections. 4Sprinklers. 5Alarm devices. 6Pressure gages. 1.3 Performance Requirements A Delegated design: design sprinkler system(s), including comprehensive analysis by a qualified designer, using the performance requirements and design criteria indicated within this document. B Sprinkler system design shall be approved by authorities having jurisdiction. 1Margin of safety for available water flow and pressure: greater of 5 psi or 10 percent, including losses through water-service piping, valves, and backflow preventers. C Occupancy hazard classifications 1General storage/janitor's areas: ordinary hazard, group 1 to include floor areas with racks or shelving below 8 feet in height. 2Mechanical equipment rooms: ordinary hazard, group 1. 3Office and breakroom/public areas: light hazard. D Minimum density for automatic-sprinkler piping design: 1Ordinary-hazard, group 1 occupancy: 0.15 gpm over 1500-sq. Ft. 2Light-hazard occupancy: 0.10 gpm over 1500-sq. Ft. 3Design area may be reduced when allowed per nfpa 13 and authority having jurisdiction. E 4maximum protection area per sprinkler: 1Ordinary-hazard, group 1 occupancy: 130-sq. Ft. Light-hazard occupancy: 225-sq. Ft. 2The maximum protection area per sprinkler may be exceeded when extended coverage sprinklers are utilized where allowed by nfpa 13 and installed per their listing. 3Provide sprinklers in exterior canopies and combustible concealed spaces where required by code or where storage of combustibles is present. Verify requirements with the authority having jurisdiction and provide protection for these areas when required. 4If sprinkler system in any area is subject to freezing, then use non-freeze dry pipe system or dry sprinklers from a heated space. 1.4 Submittals AProduct data: for each type of product indicated, provide manufacturers catalog information. BQualification data: for qualified installer. CApproved sprinkler piping drawings: working plans, prepared according to nfpa 13, that have been approved by authorities having jurisdiction, including hydraulic calculations. DFire-hydrant flow test report. EField test reports and certificates: indicate and interpret test results for compliance with performance requirements and as described in nfpa 13. Include "contractor's material and test certificate for aboveground piping." FOperation and maintenance data: for sprinkler specialties to include in emergency, operation, and maintenance manuals to be submitted to owner upon completion. 1.5 Quality Assurance AInstaller qualifications: 1Qualifications (installer): company specializing in performing work of this section with minimum three years experience and have a nicet level iii fire sprinkler designer on staff B NFPA standards: sprinkler system equipment, specialties, accessories, installation, and testing shall comply with the following: 1NFPA 13, "Installation of sprinkler systems." 2NFPA 14, "Installation of standpipe and hose systems." 3NFPA 24, "Installation of private fire service mains and their appurtenances." 4NFPA 291, "Recommended practice for fire flow testing marking of hydrants." 1.6 Coordination A Coordinate layout and installation of sprinklers with other construction, including partitions, ceilings, and structural elements. Location of mechanical and electrical equipment shall be taken into consideration during design. 1.7 Extra Materials A Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents. 1Sprinkler cabinets: finished, wall-mounted, steel cabinet with hinged cover, and with space for minimum of twelve spare sprinklers plus sprinkler wrench. Include number of sprinklers required by NFPA 13 and sprinkler wrenches for each type.						
		Part 2 - Products 2.1 Materials AProvide UL listed (for fire protection) or FM approved (for fire protection) materials complying with NFPA 13, unless noted otherwise in contract documents 2.2 Steel Pipe and Fittings ASchedule 40, galvanized and black steel pipe: ASTM a 53/a 53m. Threaded pipe ends. BSchedule 10, galvanized and black-steel pipe: ASTM a 135 or ASTM a 795/a 795m. Roll grooved ends. CNonstandard od, thin wall black-steel pipe: ASTM a 135 or ASTM a 795. Roll grooved ends. DFittings: provide one of the following: 1Cast-iron threaded flanges: ASME b16.1. 2Cast-iron threaded fittings: ASME b16.4. 3Malleable-iron threaded fittings: ASME b16.3. 4Steel threaded couplings: ASTM a 865. 5Steel welding fittings: ASTM a 234, ASME b16.9, or ASME b16.11. 6Steel flanges and flanged fittings: ASME b16.5. 7Steel, grooved-end fittings: UL-listed and FM-approved, ASTM a 47, malleable iron or ASTM a 536, ductile iron; with dimensions matching steel pipe and ends factory grooved according to AWWA c606. 8Roll groove only (under 2" is allowed), cut groove unacceptable. E Galvanized pipe, fittings, and hangers shall be used for dry pipe systems. Galvanized pipe, fittings, and hangers shall be used for wet pipe systems located in non-conditioned spaces. F Fitting type shall match pipe type G Mechanical couplings shall be installation ready type, direct stab without disassembly of the coupling. Victaulic 009/109, or equal for 1-1/4" and up. Victaulic IGS 1" system or equal is allowed. H Crimp-type couplings shall not be used. 2.3 Fire-Protection Valves A General requirements: 1Standard: UL's "fire protection equipment directory" listing or "approval guide," published by FM global, listing. 2Pressure rating: 175 psig minimum. 3Butterfly valves: victaulic 705 or equal 4Check valves: victaulic 717 or equal 5Devices: aWet pipe, victaulic 717r, or equal bDry pipe, victaulic 768n, fire sac, or equal. 6Pressure reducing valves; bermad or equal 7Riser check or floor control assembly: victaulic model UMC or equal 2.4 Fire-Department Connections AIt shall be the contractors responsibility to confirm final location, type, and size of fire department connection with the authority having jurisdiction before proceeding with work. Provide one of the following: 1Storz exposed-type, fire-department connection: aType: exposed, projecting, for wall mounting. bPressure rating: 175 psig minimum. cBody material: corrosion-resistant metal. dInlets: 5" storz matching jurisdiction requirements. eCaps: storz cap with gasket and chain. fEscutcheon plate: round, brass, wall type. gOutlet: back, with pipe threads. hNumber of inlets: size per system demand. iEscutcheon plate marking: similar to "auto spkr". 2Threaded exposed-type, fire-department connection: aStandard: UL 405. bType: exposed, projecting, for wall mounting. cPressure rating: 175 psig minimum. dBody material: corrosion-resistant metal. eInlets: brass with threads according to NFPA 1963 and matching local fire-department sizes and threads. Include extension pipe nipples, brass lugged swivel connections, and check devices or clappers. fCaps: brass, lugged type, with gasket and chain. gEscutcheon plate: round, brass, wall type. hOutlet: back, with pipe threads. iNumber of inlets: size per system demand. jEscutcheon plate marking: similar to "auto spkr". 3Storz yard-type, fire-department connection: aType: exposed, freestanding. bPressure rating: 175 psig minimum. cBody material: corrosion-resistant metal. dInlets: 5" storz matching jurisdiction requirements. eCaps: storz cap with gasket and chain. fEscutcheon plate: round, wall type. gOutlet: back, with pipe threads. hNumber of inlets: size per system demand. iEscutcheon plate marking: similar to "auto spkr". 4Threaded yard-type, fire-department connection: aStandard: UL 405. bType: exposed, freestanding. cPressure rating: 175 psig minimum. dBody material: corrosion-resistant metal. eInlets: brass with threads according to NFPA 1963 and matching local fire-department sizes and threads. Include extension pipe nipples, brass lugged swivel connections, and check devices or clappers. fCaps: brass, lugged type, with gasket and chain. gOutlet: bottom, with pipe threads. hEscutcheon plate marking: similar to "auto spkr"						
			211300 Fire Sprinkler Systems - Cont'd 2.5 Sprinkler Specialty Pipe Fittings AFlow detection and test assemblies: 1Standard: UL's "fire protection equipment directory" listing or "approval guide," published by fm global, listing. 2Pressure rating: 175 psig minimum 3Body material: cast- or ductile-iron housing with orifice, sight glass, and integral test valve. 4Size: same as connected piping. 5Inlet and outlet: threaded. BFlexible, sprinkler hose fittings: 1Standard: fm1637 or ul 2443. 2Type: braided flexible hose for connection to sprinkler, and with bracket for connection to ceiling grid. Victaulic ah2/ah2oc or equal. In lieu of rigid connections to dry sprinkler heads victaulic vs1 or equal may be used. Ab6 bracket or equal may be used in cooler applications. 3Pressure rating: 175 psig minimum. 4Size: same as connected piping, for sprinkler. 2.6 Sprinklers A General requirements: 1Standard: UL's "fire protection equipment directory" listing or "approval guide," published by fm global, listing. 2Pressure rating for automatic sprinklers: 175 psig minimum. 3Characteristics: nominal 1/2-inch orifice or larger with temperature classification rating as required by application. 4Finishes: bronze, chrome plated, or factory applied paint coating B Sprinkler escutcheons: materials, types, and finishes for the following sprinkler mounting applications. 1Areas with exposed structure above: upright or pendent sprinkler, bronze. 2Areas with finished ceilings: pendent sprinkler, with two piece escutcheon plate. Escutcheon style is subject to final approval of architect and owner, confirm before submittal. C Temperature rating: 1Ordinary temperature rated sprinklers shall be used throughout the building unless otherwise required by code. D Sprinkler guards: 1Standard: UL 199. 2Type: wire cage with fastening device for attaching to sprinkler. E UL listed and FM approved victaulic v9 installation ready couplings may be used to join, 1/2", 3/4", or 1" sprinkler heads onto a 1" gss outlet, or approved equal 2.7 Pressure Gauges AWater or air / water pressure gauges. 1Standard: UL 393. 2Dial size: 3-1/2- to 4-1/2-inch diameter. 3Pressure gauge range: 0 to 250 psig minimum 4Gauge label: include "water" or "air/water" label on dial face.					
			Part 3 - Execution 3.1 Preparation APerform fire-hydrant flow test according to NFPA 13 and NFPA 291. Use results for system design calculations required in "quality assurance" article. Report test results promptly and in writing. 3.2 Service-Entrance Piping AConnect sprinkler piping to water-service piping for service entrance to building. Comply with requirements for exterior piping. BInstall shutoff valve, backflow preventer (as required), pressure gage, drain, and other accessories indicated at connection to water-service piping. Comply with local authority having jurisdiction's requirements for backflow preventers. CInstall shutoff valve, check valve, pressure gage, and drain at connection to water service. 3.3 Piping Installation ALocations and arrangements: drawing plans, schematics, and diagrams indicate general location and arrangement of piping. Install piping as indicated, as far as practical. 1Deviations from approved working plans for piping require written approval from authorities having jurisdiction. File written approval. With architect before deviating from approved working plans. B Piping standard: comply with requirements for installation of sprinkler piping in NFPA 13 retain first paragraph below if piping is required to withstand seismic design loads. C Contractor shall confirm all local requirements for seismic restraints on piping. Comply with requirements for seismic-restraint device materials and installation in NFPA 13. D Use listed fittings to make changes in direction, branch takeoffs from mains, and reductions in pipe sizes. E Install "inspector's test connections" in sprinkler system piping, complete with shutoff valve, and sized and located according to NFPA 13. F Install sprinkler piping with drains for complete system drainage. G Install alarm devices in piping systems. H Install hangers and supports for sprinkler system piping according to NFPA 13. Comply with requirements for hanger materials in NFPA 13. I Install pressure gages on riser or feed main, at each sprinkler test connection, and at top of each standpipe. Include pressure gages with connection not less than nps 1/4 and with soft metal seated globe valve, arranged for draining pipe between gage and valve. Install gages to permit removal, and install where they will not be subject to freezing. 3.4 Joint Construction AInstall couplings, flanges, flanged fittings, unions, nipples, and transition and special fittings that have finish and pressure ratings same as or higher than system's pressure rating for aboveground applications unless otherwise indicated. BReam ends of pipes and tubes and remove burrs. Bevel plain ends of steel pipe. CRemove scale, slag, dirt, and debris from inside and outside of pipes, tubes, and fittings before assembly. D Flanged joints: select appropriate gasket material in size, type, and thickness suitable for water service. Join flanges with gasket and bolts according to ASME b31.9. E Threaded joints: thread pipe with tapered pipe threads according to ASME b1.20.1. Cut threads full and clean using sharp dies. Ream threaded pipe ends to remove burrs and restore full id. Join pipe fittings and valves as follows: 1Apply appropriate tape or thread compound to external pipe threads. 2Damaged threads: do not use pipe or pipe fittings with threads that are corroded or damaged. F Welded joints: construct joints according to AWS d10.12m/d10.12, using qualified processes and welding operators according to "quality assurance" article. 1Shop weld pipe joints where welded piping is indicated. Do not use welded joints for galvanized-steel pipe. G Steel-piping, roll-grooved joints: roll rounded-edge groove in end of pipe according to AWWA c606. Assemble coupling with housing, gasket, lubricant, and bolts. Join steel pipe and grooved-end fittings according to AWWA c606 for steel-pipe grooved joints. 3.5 Valve and Specialties Installation AInstall listed fire-protection valves, trim and drain valves, specialty valves and trim, controls, and specialties according to NFPA 13 and authorities having jurisdiction. BInstall listed fire-protection shutoff valves supervised open, located to control sources of water supply except from fire-department connections. Install permanent identification signs indicating portion of system controlled by each valve. 3.6 Sprinkler Installation AFactory applied protective guards or caps on sprinklers shall be left in place until sprinklers are permanently installed. Pendent and sidewall guards or caps shall be left in place pending installation of wall and ceiling systems and then removed as final finish escutcheons are being installed. BInstall sprinklers in suspended ceilings in center of acoustical ceiling panels where practical. Maintain a minimum distance of 6 inches from any ceiling grid at all times. CWhere sprinklers are subject to mechanical injury they shall be protected with permanent listed guards. DInstall dry-type sprinklers with water supply from heated space. Do not install pendent or sidewall, wet-type sprinklers in areas subject to freezing. The clearance around all dry type sprinkler penetrations shall have an air-tight seal applied. EWhere flexible drops are used, attach sprinkler hose fittings and install hose into bracket on ceiling grid. Do not allow flexible fitting to hang unsupported or be left in a state where it will be damaged by other trades. 3.7 Fire-Department Connection Installation 1Install wall-type, fire-department connections in an accessible location approved by the local authority having jurisdiction. 2Install yard-type, fire-department connections in an accessible location approved by the local authority having jurisdiction. 1Install protective pipe bollards around each fire-department connection. 3Install automatic (ball drip) drain valve at each check valve for fire-department connection, to drain piping between fire-department connection and check valve. Install drain piping to, and spill over floor drain or to outside building. 3.8 Escutcheon Installation AInstall escutcheons for all penetrations of walls, ceilings, and floors. 3.9 Identification and Signage AProvide durable aluminum signs for all control, drain, test and alarm valves to identify their functions. Provide lettering sizes and styles per authorities having jurisdiction. Provide hydraulic placard for each sprinkler system in accordance with NFPA 13. BWhere multiple risers are installed riser/zone numbers shall be stenciled and painted on each riser. Provide a sprinkler zone map that clearly identifies the location of all: areas protected, control valves, dry pipe valve, inspector's test valves, auxiliary drains, pumps, and tanks. Sprinkler zone map shall be laminated in plastic. Permanently attach to wall in fire sprinkler riser room 3.10 Field Quality Control APerform tests and inspections. BTests and inspections: 1Leak test: after installation, charge systems and test for leaks. Repair leaks and retest until no leaks exist. 2Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment. 3Flush, test, and inspect sprinkler systems according to NFPA 13, "systems acceptance" chapter. 4Coordinate with fire-alarm tests. Operate as required. 5Verify that equipment hose threads are same as local fire-department equipment. C Sprinkler piping system will be considered defective if it does not pass tests and inspections. DPrepare test and inspection reports. 3.11 Cleaning ASprinklers shall be free from dirt, dust, and debris upon completion of installation. Sprinklers shall only be cleaned with a soft dry duster or cloth. No water or chemicals shall be used to remove debris from sprinklers. BRemove and replace any sprinklers that are covered with paint other than factory finish during construction. Painted sprinklers shall not be cleaned. 3.12 Demonstration ATrain owner's maintenance personnel to adjust, operate, and maintain completed system.					
			End of section 21 1300					

Project Number: 260050

HOME GROWN

417 MLK JR BLVD
FAYETTEVILLE, AR

ISSUE:
FOR PERMIT
Date:
04.20.26

REVISIONS

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REGISTERED ARCHITECT

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04/20/2026

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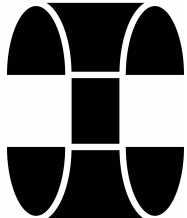
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