SECTION 15300 - FIRE SPRINKLER SYSTEMS

PART 1 - GENERAL

1.01 SUMMARY

- A. RELATED DOCUMENTS: CONDITIONS OF THE CONTRACT, DIVISION 1 GENERAL REQUIREMENTS AND DRAWINGS APPLY TO THE WORK OF THIS SECTION.
- 1.02 DESCRIPTION OF WORK
- A. PROVIDE ALL REQUIRED LABOR, MATERIALS, EQUIPMENT, TESTING AND SERVICES NECESSARY FOR A COMPLETE AND OPERATIONAL REMODELED FIRE PROTECTION SYSTEM FOR THE PROPOSED DOLLAR TREE AS HEREINAFTER DESCRIBED AND AS SHOWN ON THE ENGINEERING DRAWINGS.
- B. WORK SHALL BEGIN AT EXISTING OVERHEAD FIRE SPRINKLER SYSTEM AND SHALL INCLUDE THE FOLLOWING: 1. REMODELED WET PIPE FIRE SPRINKLER SYSTEM FOR PROPOSED DOLLAR
- TREE
- 2. COORDINATION OF WORK AND SCHEDULES WITH OTHER TRADES.
- C. INTERIOR WORK PROVIDE THE FOLLOWING: 1. OVERHEAD PIPE, FITTINGS, HANGERS AND SPRINKLERS.
- 2. AUXILIARY DRAINS.
- D. IT IS INTENDED THAT THE ENGINEERING DRAWINGS AND SPECIFICATION SHALL DESCRIBE AND PROVIDE FOR A WORKING INSTALLATION COMPLETE IN EVERY DETAIL AND ALL ITEMS NECESSARY FOR SUCH COMPLETE INSTALLATION SHALL BE PROVIDED WHETHER OR NOT SPECIFICALLY MENTIONED HEREIN OR SHOWN ON THE ENGINEERING DRAWINGS.
- 1.03 <u>REFERENCES</u>
- A. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE CODES AND REFERENCED DESIGN STANDARDS:
- 1. NEW YORK STATE BUILDING CODE 2020 EDITION 2. NEW YORK STATE FIRE CODE - 2020 EDITION
- 3. NFPA 13, SPRINKLER SYSTEMS 2016 EDITION

1.04 SYSTEM DESCRIPTION

- A. REMODELED FIRE SPRINKLER SYSTEM DESIGN CRITERIA SHALL BE STRICTLY PER THIS SPECIFICATION.
- B. REMODELED FIRE SPRINKLER SYSTEM TO PROVIDE FIRE PROTECTION FOR THE AREAS INDICATED ON THE ENGINEERING DRAWINGS.
- C. INTERFACE REMODELED FIRE SPRINKLER SYSTEM WITH BUILDING FIRE AND SMOKE ALARM SYSTEMS.
- D. OFFICE AREAS (LIGHT HAZARD WET PIPE FIRE SPRINKLER SYSTEM):
- DENSITY 0.10 GPM/SQ FT
- OPERATING AREA 1,058 SQ FT
- TEMP. CLASSIFICATION / NOMINAL K-FACTOR / RESPONSE TYPE ORD / 5.6 / QR
- HOSE STREAM ALLOWANCE 100 GPM
- DURATION 0.50 HR
- E. <u>SALES AREA</u> (ORDINARY HAZARD GROUP 2 WET PIPE FIRE SPRINKLER SYSTEM):
- DENSITY 0.20 GPM/SQ FT
- OPERATING AREA 1,058 SQ FT
- TEMP. CLASSIFICATION / NOMINAL K-FACTOR / RESPONSE TYPE ORD / 5.6 / QR
- HOSE STREAM ALLOWANCE 250 GPM
- DURATION 1.0 HR

. <u>STOCK ROOM AND RECEIVING</u> (ORDINARY HAZARD GROUP 2 WET PIPE FIRE SPRINKLER SYSTEM):

- DENSITY 0.20 GPM/SQ FT
- OPERATING AREA 1,058 SQ FT
- TEMP. CLASSIFICATION / NOMINAL K-FACTOR / RESPONSE TYPE ORD / 5.6 / QR
- HOSE STREAM ALLOWANCE 250 GPM
- DURATION 1.0 HR
- G. WATER SUPPLY:

THE SUCCESSFUL FIRE SPRINKLER CONTRACTOR SHALL PERFORM A WATERFLOW TEST AND FORWARD A REPORT OF THE TEST RESULTS TO DOLLAR TREE AND CODE CONSULTANTS, INC. SPRINKLER CONTRACTOR SHALL PROVIDE HYDRAULIC REINFORCEMENT AS REQUIRED TO PROVIDE A REMODELED FIRE SPRINKLER SYSTEM IN ACCORDANCE WITH NFPA 13. A SAFETY FACTOR OF A MINIMUM 10% OF THE STATIC PRESSURE SHALL BE APPLIED TO BOTH THE STATIC AND RESIDUAL PRESSURES FOR THE PURPOSE OF HYDRAULIC CALCULATION. PROVIDE LOCATION AND ELEVATION DIFFERENCES BETWEEN THE FLOW TEST AND THE FINISHED FLOOR OF DOLLAR TREE SPACE.

- H. EXISTING FIRE DEPARTMENT CONNECTION SHALL REMAIN.
- I. PROVIDE ALL NECESSARY OFFSETS, RAISES OR DROPS IN MAIN OR BRANCH LINE PIPING AND AUXILIARY DRAINS REQUIRED BY BUILDING CONDITIONS WHETHER OR NOT SHOWN ON THE ENGINEERING DRAWINGS.
- J. EXAMINE THE JOB CONDITIONS AND VERIFY ALL MEASUREMENTS, DISTANCES, ELEVATIONS, CLEARANCES, PIPE SIZES, ETC.
- K. IT IS UNDERSTOOD, UNLESS SPECIFICALLY INDICATED OTHERWISE, THAT THE PIPE SIZES AS SHOWN ON THE ENGINEERING DRAWINGS WILL BE USED.

1.05 QUALITY ASSURANCE

- A. INSTALLER QUALIFICATIONS:
- 1. INSTALLER'S RESPONSIBILITIES INCLUDE PREPARING SHOP DRAWING SUBMITTAL, FABRICATING AND INSTALLING SPRINKLER SYSTEMS. BASE CALCULATIONS ON WATER SUPPLY COORDINATES PROVIDED HEREIN.
- B. INSTALLER SHALL BE STATE AND LOCALLY LICENSED.
- C. EQUIPMENT AND COMPONENTS NOT SPECIFICALLY SPECIFIED SHALL BE LISTED BY
- UNDERWRITERS LABORATORIES INC. FOR FIRE PROTECTION SYSTEMS INSTALLATION. D. ALL FIRE SPRINKLER SYSTEM COMPONENTS SHALL BE INSTALLED FREE OF ANY RUST, CORROSION OR VISIBLE DAMAGE. ALL ITEMS NOT COMPLYING WITH THIS
- REQUIREMENT SHALL BE REPLACED WITHOUT COST TO THE OWNER. 1.06 PROJECT CONDITIONS
- A. INTERRUPTION OF EXISTING SPRINKLER SERVICE: DO NOT INTERRUPT SPRINKLER SERVICE TO FACILITIES OCCUPIED BY OWNER OR OTHERS UNLESS PERMITTED UNDER THE FOLLOWING CONDITIONS AND THEN ONLY AFTER ARRANGING TO PROVIDE TEMPORARY SPRINKLER SERVICE ACCORDING TO REQUIREMENTS INDICATED:
- 1. NOTIFY CONSTRUCTION MANAGER IN ADVANCE OF PROPOSED INTERRUPTION OF SPRINKLER SERVICE.
- 2. DO NOT PROCEED WITH INTERRUPTION OF SPRINKLER SERVICE WITHOUT CONSTRUCTION MANAGER'S WRITTEN PERMISSION.
- 3. PROVIDE TEMPORARY PIPING, FITTINGS AND VALVES AS REQUIRED TO MAINTAIN SPRINKLER SERVICE.
- 1.07 REGULATORY REQUIREMENTS
- A. ALL WORK SHALL MEET THE REQUIREMENTS OF SECTION 1.03.
- B. THE FIRE SPRINKLER CONTRACTOR SHALL NOT PURSUE ANY APPROVALS OR INTERPRETATIONS OF CCI'S CONSTRUCTION DOCUMENTS EXCEPT THROUGH CCI. C. SPRINKLER PIPING SHALL NOT BE CONCEALED WHERE IT IS INACCESSIBLE UNLESS
- IT IS FIRST INSPECTED AND ACCEPTED BY A REPRESENTATIVE OF THE AUTHORITY HAVING JURISDICTION. D. ANY WORK PERFORMED PRIOR TO THE SATISFACTORY REVIEW BY CCI AND
- APPROVAL BY THE AUTHORITY HAVING JURISDICTION AND THE INSURANCE UNDERWRITER WILL BE SOLELY AT THE FIRE SPRINKLER CONTRACTOR'S RISK.
- E. THE SYSTEM WILL NOT BE ACCEPTABLE UNTIL FINAL TESTING AND RECEIPT OF THE CONTRACTOR'S MATERIAL AND TEST CERTIFICATE HAS BEEN OBTAINED.
- 1.08 SUBMITTALS
- A. THE ENGINEERING DRAWINGS HAVE BEEN PREPARED USING AUTOCAD. THE ENGINEERING DRAWINGS ARE 100% CAD. THESE DOCUMENTS WILL BE MADE AVAILABLE TO THE SUCCESSFUL FIRE SPRINKLER CONTRACTOR IN EITHER ELECTRONIC FORM OR HARD COPY. UTILIZATION OF THESE DOCUMENTS FOR THE DEVELOPMENT OF SHOP DRAWINGS AND SUBMITTALS DOES NOT RELIEVE THE FIRE SPRINKLER CONTRACTOR FROM ANY OF HIS RESPONSIBILITIES REQUIRED HEREIN.
- B. SUBMIT THE FOLLOWING:
- 1. SHOP DRAWINGS. SUBMIT IN .PDF FORMAT OR TWO (2) HARD COPIES OF EACH DRAWING. DRAWINGS WILL BE RETURNED IN THE SAME FORMAT RECEIVED. SUBMITTAL MUST BE COMPREHENSIVE OF ENTIRE PROJECT, COMPLETE IN ALL DETAIL AND THE SAME SCALE AS THE ENGINEERING DRAWINGS.
- 2. HYDRAULIC CALCULATIONS. SUBMIT IN .PDF FORMAT OR TWO (2) HARD COPIES OR EACH CALCULATION. CALCULATIONS WILL BE RETURNED IN THE SAME FORMAT RECEIVED. CALCULATIONS SHALL INCLUDE PEAKING INFORMATION.
- 3. MANUFACTURER'S LITERATURE ON ALL SYSTEM EQUIPMENT. SUBMIT IN .PDF FORMAT OR TWO (2) HARD COPIES OF THE LITERATURE. LITERATURE WILL BE RETURN IN THE SAME FORMAT AS RECEIVED. LITERATURE SHALL CLEARLY IDENTIFY EXACTLY WHAT COMPONENTS ARE BEING PROVIDED WHICH SHALL INCLUDE: FINISH, SIZE, TYPE, OPTIONS, ETC. LITERATURE WHICH IS NOT CLEARLY IDENTIFIED WILL BE REJECTED.
- C. CCI WILL REVIEW THIS SUBMITTAL FOR CONSISTENCY WITH CCI'S CONSTRUCTION DOCUMENTS.
- D. AFTER THE SATISFACTORY REVIEW BY CCI, PROVIDE SUBMITTALS TO THE AUTHORITY HAVING JURISDICTION AND THE INSURANCE UNDERWRITER FOR APPROVAL.
- E. THE FIRE SPRINKLER CONTRACTOR SHALL BE RESPONSIBLE FOR RESPONDING, IN WRITING. TO ANY COMMENTS FROM THE AUTHORITY HAVING JURISDICTION OR THE INSURANCE UNDERWRITER WITHIN TEN (10) WORKING DAYS AFTER THE RECEIPT OF THEIR COMMENTS. COPIES OF THE RESPONSE SHALL BE SENT TO THE GENERAL CONTRACTOR AND CCI.

1.09 AS-BUILT DRAWINGS

A. PROVIDE AS-BUILT DRAWINGS IN ACCORDANCE WITH REQUIREMENTS OF THE GENERAL CONDITIONS OF THE CONTRACT AND NFPA 13. 1.10 OPERATION AND MAINTENANCE DATA

- A. PROVIDE OPERATING AND MAINTENANCE INSTRUCTIONS TO THE OWNER IN ACCORDANCE WITH REQUIREMENTS OF THE GENERAL CONDITIONS OF THE
- 1.11 WARRANTY
- A. REPAIR ALL DEFECTIVE WORKMANSHIP OR REPLACE ALL DEFECTIVE MATERIALS FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE BY THE OWNER. WORKMANSHIP OR EQUIPMENT FOUND TO BE DEFECTIVE DURING THAT PERIOD SHALL BE REPLACED WITHOUT COST TO THE OWNER.
- PART 2 PRODUCTS
- 2.01 <u>PIPING</u>
- A. UNDERGROUND PIPING: NONE. B. OVERHEAD PIPE: PER LOCAL REQUIREMENTS AND NFPA 13. ALL PIPE SHALL HAVE A CORROSION RESISTANCE RATIO (CRR) EQUAL TO OR GREATER THAN 1.00. REFER TO THE CURRENT UL FIRE PROTECTION EQUIPMENT DIRECTORY - STEEL SPRINKLER PIPE FOR ACCEPTABLE MANUFACTURERS, SIZES, AND JOINING METHODS.
- C. ALL WET PIPE SYSTEM RISERS, FEED AND CROSS MAINS SHALL HAVE HYDRAULIC CHARACTERISTICS EQUAL TO OR GREATER THAN SCHEDULE 40 PIPE.
- CONTRACT AND NFPA 13.

- 2.02 JOINING OF PIPE AND FITTINGS
- A. ALL PIPE SHALL BE JOINED IN ACCORDANCE WITH NFPA 13 AND MANUFACTURER'S RECOMMENDATIONS.
- B. FITTINGS SHALL BE 175 PSI SCREWED OR FLANGED BLACK CAST IRON OR APPROVED EQUAL SUCH AS MECHANICAL, GROOVED, PLAIN END OR WELDED CONNECTIONS. WHERE GROOVED FITTINGS AND COUPLINGS ARE USED TOGETHER, THEY SHALL BE OF THE SAME MANUFACTURER.
- C. BUSHINGS SHALL NOT BE USED.
- D. FLEXIBLE COUPLINGS SHALL BE IDENTIFIED ON THE SHOP DRAWINGS.

2.03 HANGERS AND SLEEVES

- A. SLEEVES SHALL BE SET FOR ALL PIPES PASSING THROUGH CONCRETE FLOORS, FOUNDATIONS AND MASONRY WALLS.
- B. PROVIDE PRIMED ESCUTCHEON PLATES AT ALL WALL PENETRATIONS WHERE THE HOLE WOULD OTHERWISE BE EXPOSED TO VIEW.
- C. ALL HANGERS TO BE OF APPROVED MATERIALS AND SPACED IN ACCORDANCE WITH
- NFPA 13 AND THE PIPING MANUFACTURER'S SPECIFICATIONS. D. THE SECTION MODULUS REQUIRED BY NFPA 13 SHALL BE PROVIDED FOR ALL

2.04 VALVES

A. INTERIOR VALVES:

TRAPEZE MEMBERS SUPPORTING PIPING.

- 1. GLOBE VALVE: BRONZE THREADED; RENEWABLE COMPOSITION DISC; 175 PSI RATED WORKING PRESSURE.
- a. ACCEPTABLE MANUFACTURERS: CRANE, MILWAUKEE, NIBCO, STOCKHAM OR APPROVED EQUAL

2.05 SPRINKLERS

- A. TYPES:
- 1. CHROME PENDENT GLASS BULB QUICK RESPONSE PENDENT SPRINKLER WITH POLISHED CHROME 2-PIECE TELESCOPING ESCUTCHEON.
- 2. BRASS UPRIGHT GLASS BULB QUICK RESPONSE UPRIGHT SPRINKLER
- 3. CHROME DRY PENDENT GLASS BULB QUICK RESPONSE DRY PENDENT SPRINKLER WITH POLISHED CHROME 2-PIECE TELESCOPING ESCUTCHEON WITH FREEZER BOOT.
- B. ACCEPTABLE MANUFACTURERS: GLOBE, RELIABLE, TYCO, VICTAULIC AND VIKING.
- C. ONLY SPRINKLERS MANUFACTURED AFTER JANUARY 1, 2021 WILL BE ACCEPTED FOR USE.
- D. ONLY SPRINKLERS MANUFACTURED UTILIZING BELLEVILLE SPRING SEALS WILL BE ACCEPTABLE FOR USE.
- E. PROVIDE AT THE RISER ONE (1) TWELVE (12) HEAD SPARE SPRINKLER CABINET STOCKED WITH SPRINKLERS AND ESCUTCHEON ASSEMBLIES PROPORTIONATE TO THOSE PROVIDED IN THE BUILDING AND ALL NECESSARY SPRINKLER WRENCHES.

2.06 SIGNS

- A. APPROVED ENAMELED METAL SIGNS SHALL BE SECURELY ATTACHED AT ALL MAIN DRAINS. AUXILIARY DRAINS ALARM TEST CONNECTIONS AND CONTROL VALVES. (SIGNS SHALL INDICATE WHICH ZONE THEY SERVE.)
- B. PROVIDE A PERMANENTLY ATTACHED PLACARD INDICATING GENERAL INFORMATION IN ACCORDANCE WITH NFPA 13 AND PLACED AT THE EXISTING RISER. A MOCK-UP OF PLACARD SHALL BE INCLUDED WITH EQUIPMENT LITERATURE.
- PROVIDE AT THE EXISTING RISER THE LOCATION OF THE LOW POINT OR AUXILIARY DRAIN VALVE. THE PLAN SHALL CLEARLY IDENTIFY THE SYSTEM ASSOCIATED WITH EACH LOW POINT AND AUXILIARY DRAIN VALVE. THIS PLAN SHALL BE FRAMED WITH A PLEXIGLASS COVER AND SHALL BE PERMANENTLY ATTACHED TO A WALL. PLAN SHALL BE LARGE ENOUGH TO CLEARLY DEFINE THE AREAS PROTECTED BY EACH SYSTEM.

2.07 DRAIN CONNECTIONS

A. AUXILIARY DRAINS CONSISTING OF PLUGS, OR GLOBE VALVES AND PLUGS WHERE CAPACITY OF TRAPPED PIPE SECTION EXCEEDS 5 GALLONS, SHALL BE PROVIDED TO DRAIN ALL POINTS IN THE SYSTEM THAT CANNOT BE DRAINED BACK TO MAIN RISER.

PART 3 - EXECUTION

3.01 COORDINATION WITH OTHER TRADES A. COORDINATE CLOSELY WITH ALL OTHER TRADES TO EXPEDITE CONSTRUCTION AND

3.02 PAINTING AND PATCHING

AVOID INTERFERENCE.

- A. PAINTING OF SPRINKLER PIPING IS NOT INCLUDED IN THIS CONTRACT. ALL EXPOSED SPRINKLER PIPING SHALL BE THOROUGHLY CLEANED, REMOVING ALL DIRT, OIL, ETC. AND MADE READY TO RECEIVE PAINT IN ACCORDANCE WITH THE GENERAL CONDITIONS OF THE CONTRACT.
- B. HOLES IN WALLS OR FLOORS CUT DURING THE PERFORMANCE OF THIS WORK SHALL BE PATCHED IF THE HOLES CANNOT BE COVERED BY STANDARD ESCUTCHEON PLATES SO AS TO COMPLETELY CONCEAL THE CUTS WHERE THEY WOULD OTHERWISE BE EXPOSED TO VIEW.
- C. FIRE STOP ALL PENETRATIONS OF FIRE RATED ASSEMBLIES.

3.03 SYSTEM TESTS

- A. HYDROSTATICALLY TEST ENTIRE SYSTEM IN ACCORDANCE WITH NFPA 13.
- B. TEST SHALL BE WITNESSED BY THE AUTHORITY HAVING JURISDICTION AND OWNER'S AUTHORIZED AGENT.
- C. PRELIMINARY TESTING PROCEDURES SHALL BE CONDUCTED AS MENTIONED ABOVE TO ASSURE PROPER OPERATION WHEN THE FINAL TESTING IS PERFORMED.
- D. THE CONTRACTOR'S MATERIAL AND TEST CERTIFICATES AS SHOWN IN NFPA 13 MUST BE COMPLETED AND SUBMITTED TO THE ENGINEER BEFORE FINAL ACCEPTANCE MAY BE GIVEN.
- E. WHEN THE SYSTEMS ARE INITIALLY COMMISSIONED (FILLED WITH WATER), USE THE MANUAL AIR VENT AND HOSE END ADAPTER AT THE END OF EACH SYSTEM, ATTACH A HOSE TO THE EXTERIOR AND OPEN THE VALVE UNTIL WATER IS DISCHARGED THROUGH THE HOSE. REPEAT THIS PROCEDURE FOR EACH SYSTEM AND ANY TIME THE SYSTEM IS DRAINED AND REFILLED.

END OF SECTION

HANGER NOTES ALL HANGERS TO BE OF APPROVED MATERIALS AND SPACED IN ACCORDANCE WITH NFPA 13 AND THE PIPING MANUFACTURER'S SPECIFICATIONS.

SPRINKLER BELOW DUCT NOTE

PROVIDE SPRINKLER PROTECTION BELOW DUCTS IN EXPOSED STRUCTURE AREAS PER NFPA 13.

CONSTRUCTION NOTES

- DURING CONSTRUCTION, FIRE SPRINKLER CONTRACTOR SHALL KEEP FIRE SPRINKLER SYSTEM OUT OF CONSTRUCTION AREA FULLY CHARGED AND OPERATIONAL DURING BUSINESS HOURS.
- COORDINATE REQUIRED SHUT-DOWN OF THE EXISTING SYSTEMS WITH THE OWNER, INSURANCE UNDERWRITER, AND FIRE DEPARTMENT.
- PROVIDE TEMPORARY PIPING, VALVES, AND FITTINGS AS REQUIRED TO MAINTAIN SERVICE TO FIRE SPRINKLER SYSTEMS DURING CONSTRUCTION.
- 4. COORDINATE CONSTRUCTION PHASES WITH OWNER AND GENERAL CONTRACTOR.

GENERAL NOTES

- PROVIDE ALL NECESSARY OFFSETS, RAISES OR DROPS IN PIPING AND AUXILIARY DRAINS REQUIRED BY BUILDING CONDITIONS WHETHER OR NOT SHOWN ON THE DRAWINGS
- EXAMINE THE JOB CONDITIONS AND VERIFY ALL MEASUREMENTS, DISTANCES, ELEVATIONS, CLEARANCES, PIPE SIZES, ETC.
- ARCHITECTURAL, CIVIL, STRUCTURAL, MECHANICAL AND ELECTRICAL BACKGROUND INFORMATION IS SHOWN FOR COORDINATION PURPOSES ONLY. REFER TO THE PROPER DRAWINGS FOR EXACT LOCATIONS, SIZES, AND QUANTITIES OF OTHER TRADES' WORK.
- THE ENGINEERING DRAWINGS HAVE BEEN PREPARED USING AUTOCAD. THE DRAWINGS ARE 100% CAD. THESE DOCUMENTS WILL BE MADE AVAILABLE TO THE SUCCESSFUL FIRE SPRINKLER CONTRACTOR IN EITHER ELECTRONIC FORM OR HARD COPY.
- SUPPLY ONLY ONE (1) SPRINKLER FROM A SINGLE BRANCH LINE OUTLET. PROVIDE NEW BRANCH LINES AS REQUIRED.
- SPRINKLERS NEAR A HEAT SOURCE (UNIT HEATERS, DIFFUSERS, STEAM MAINS, SKYLIGHTS, ETC.) SHALL HAVE TEMPERATURE RATINGS IN ACCORDANCE WITH NFPA 13.
- ALL UNUSED OUTLETS ON EXISTING BRANCH LINES SHALL BE PLUGGED.

MAXIMUM HANGER SPACING

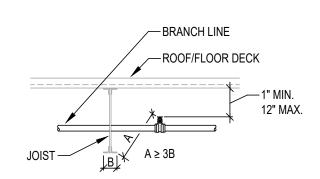
1" - 1 1/4" BLACK STEEL PIPE - 12 FT MAXIMUM HANGER SPACING 1 1/2" - 3" BLACK STEEL PIPE - 15 FT MAXIMUM HANGER SPACING

SPRINKLER NOTES

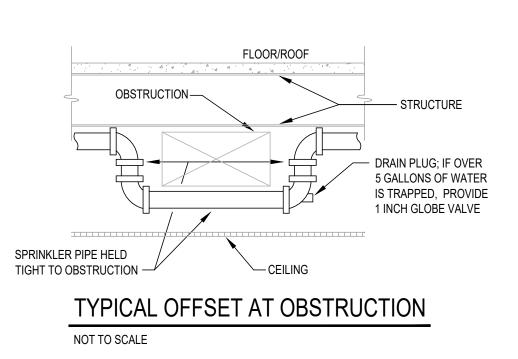
- ALL SPRINKLERS ARE AS NOTED.
- SPRINKLER SPACING IN LIGHT HAZARD AREAS MAX 225 SQ FT PER SPRINKLER AND MAX 15 FT BETWEEN SPRINKLERS.
- SPRINKLER SPACING IN ORDINARY HAZARD AREAS (STANDARD COVERAGE SPRINKLERS) - MAX 130 SQ FT PER SPRINKLER & MAX 15 FT BETWEEN SPRINKLERS

LOCK NUT REQ'D VIEW A-A BEAM CLAMP —— FIG. 100 ALL THREAD ROD — FIG. 200 ADJUSTABLE RING HANGER

TOP BEAM CLAMP, ROD AND RING NOT TO SCALE



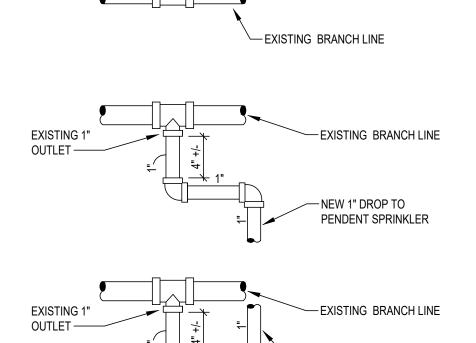
TYPICAL JOIST CLEARANCE REQUIREMENTS FOR UPRIGHT SPRINKLERS NOT TO SCALE



DEFLECTOR EVEN OR 1" BELOW BOTTOM OF LIGHT

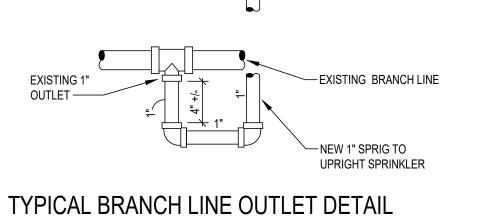
2 PIECE TELESCOPING ESCUTCHEON DETAIL

LIGHT FIXTURE



- NEW 1" SPRIG TO

UPRIGHT SPRINKLER



NOT TO SCALE

EXISTING 1"

OUTLET -

NOT TO SCALE

CHP

