

**FIRE PROTECTION GENERAL NOTES**

- FOLLOW THE LATEST REQUIREMENTS OF NFPA, THE MASSACHUSETTS STATE BUILDING CODE, INSURANCE UNDERWRITERS' AND THOSE OF ANY CITY, STATE, OR FEDERAL AGENCY HAVING JURISDICTION OVER THIS PROJECT.
- PLANS INDICATE GENERAL SCOPE OF WORK. REFER TO CONTRACT DOCUMENTS AND SPECIFICATIONS FOR DETAILS ON ENTIRE SCOPE OF WORK. LOCATIONS OF SPRINKLER OUTLETS, BRANCH LINES AND FEED MAINS ARE DIAGNAMATIC. THE DRAWINGS ARE NOT MEANT TO SHOW ALL OFFSETS AND PIPING ELEVATION CHANGES. THE CONTRACTOR SHALL VERIFY ALL NEEDED OFFSETS AND PIPE ELEVATIONS TO INSTALL THE PROPOSED SPRINKLER SYSTEM.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE THE WORK WITH THAT OF ALL OTHER TRADES. THE INSTALLING CONTRACTOR SHALL COORDINATE ALL WORK TO THE EXISTING AND/OR NEW FIELD CONDITIONS.
- ANY INTERFERENCE SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE AND SHALL BE RESOLVED PRIOR TO THE INSTALLATION OF WORK. ANY SIZES OF NEW PIPING SHOWN ON THE PLAN ARE MEANT TO BE A GUIDE FOR ESTIMATING THE WORK.
- THE CONTRACTOR SHALL PERFORM HYDRAULIC CALCULATIONS TO VERIFY PIPE SIZES ARE ADEQUATE TO PROVIDE THE NECESSARY SYSTEM DEMANDS.
- PROVIDE A NEW FLOW TEST AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION AND NFPA. USE THE RESULTS OF THE NEW HYDRANT FLOW TEST TO HYDRAULICALLY DESIGN THE SPRINKLER SYSTEMS WITHIN THE BUILDING.
- DESIGN CRITERIA
  - SPRINKLER SYSTEMS SHALL BE HYDRAULICALLY DESIGNED AND CALCULATED BY THE FIRE PROTECTION CONTRACTOR. THE FIRE PROTECTION CONTRACTOR SHALL SUBMIT ALL REQUIRED HYDRAULIC CALCULATIONS TO PROVE THE HYDRAULICALLY MOST REMOTE AREAS ARE BEING PROTECTED PER SYSTEM AND OCCUPANCY HAZARD. FABRICATION DRAWINGS AND HYDRAULIC CALCULATIONS SHALL BE SUBMITTED TO THE AUTHORITY HAVING JURISDICTION AND INSURANCE UNDERWRITERS (IF REQUIRED) PRIOR TO SUBMITTING TO THE ARCHITECT FOR REVIEW. FABRICATION DRAWINGS AND HYDRAULIC CALCULATIONS SHALL BEAR THE SEAL OF REGISTRATION OF A QUALIFIED REGISTERED PROFESSIONAL FIRE PROTECTION ENGINEER. MAINTAIN A MINIMUM OF 10 PSI CUSHION BETWEEN REQUIRED PRESSURE AND AVAILABLE PRESSURE. COMPLY WITH ALL UNDERWRITERS' AND CODE AUTHORITIES REQUIREMENTS INCLUDING MAXIMUM WATER FLOW VELOCITY IN THE FIRE PROTECTION SYSTEM.
  - AUTOMATIC SPRINKLER SYSTEMS IN AREAS OF LIGHT HAZARD OCCUPANCY SHALL BE DESIGNED WITH A MINIMUM DESIGN DENSITY OF .10 GPM PER SQUARE FOOT OVER THE HYDRAULICALLY MOST REMOTE 1500 SQUARE FEET. MAXIMUM PROTECTION AREA PER SPRINKLER HEAD SHALL BE 225 SQUARE FEET FOR UPRIGHT AND PENDENT SPRINKLER HEADS, AND 196 FEET FOR SIDEWALL SPRINKLER HEADS. PROVIDE A 100 GPM HOSE ALLOWANCE. LIGHT HAZARD AREAS INCLUDE OFFICES, OPEN OFFICE AREAS, CONFERENCE ROOMS, RECEPTION AREAS, AND SIMILAR ROOMS.
  - AUTOMATIC SPRINKLER SYSTEMS IN AREAS OF ORDINARY HAZARD OCCUPANCY SHALL BE DESIGNED WITH A MINIMUM DESIGN DENSITY OF .15 GPM PER SQUARE FOOT OVER THE HYDRAULICALLY MOST REMOTE 1500 SQUARE FEET. MAXIMUM PROTECTION AREA PER SPRINKLER HEAD SHALL BE 130 SQUARE FEET. PROVIDE A 250 GPM HOSE ALLOWANCE. ORDINARY HAZARD AREAS INCLUDE STORAGE ROOMS, COPY/MAIL ROOMS, CLOSETS AND SIMILAR ROOMS.

**FIRE PROTECTION LEGEND**

|  |       |  |
|--|-------|--|
|  | ETR   | LIGHT LINE INDICATES EXISTING PIPE TO REMAIN |
|  | RE    | REMOVE EXISTING                              |
|  | SP    | STANDPIPE (WET)                              |
|  | WS    | WET SPRINKLER PIPE                           |
|  | SD    | SPRINKLER DRAIN                              |
|  | CTE   | CONNECT TO EXISTING                          |
|  |       | UPRIGHT SPRINKLER HEAD                       |
|  |       | PENDENT SPRINKLER HEAD                       |
|  |       | EXISTING UPRIGHT SPRINKLER HEAD TO REMAIN    |
|  |       | EXISTING PENDENT SPRINKLER HEAD TO REMAIN    |
|  |       | EXISTING SPRINKLER HEAD TO BE REMOVED        |
|  |       | RISER PIPE (THRU FLOOR OR CEILING)           |
|  | CAP   | CAPPED PIPE                                  |
|  | OSY   | OS&Y VALVE WITH SUPERVISORY TAMPER SWITCH    |
|  | FHR   | FIRE HOSE RACK                               |
|  | FDV   | FIRE DEPARTMENT VALVE                        |
|  | FDC-S | STORZ TYPE FIRE DEPARTMENT CONNECTION        |
|  | C&C   | CUT & CAP                                    |
|  | LFPC  | LIMIT OF FIRE PROTECTION CONTRACT            |
|  | NIFPC | NOT IN FIRE PROTECTION CONTRACT              |
|  | NTS   | NOT TO SCALE                                 |



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**HAZARDOUS MATERIAL ENGINEER**  
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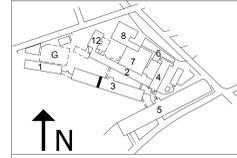
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**REVISIONS**

| NUMBER | DESCRIPTION | DATE |
|--------|-------------|------|
|        |             |      |

**STAMP**



**KEY PLAN**  
DATE.....10/19/2015  
SCALE.....N.T.S.  
DRAWN BY.....DLR  
PROJECT NUMBER.....SAR15A.00  
DRAWING TITLE  
**FIRE PROTECTION LEGEND AND NOTES**  
**3FP-001**  
DRAWING NUMBER