

**FLORIDA CITY SPRINKLER NOTES**

- REFERENCES: BUILDING CODE, 2007 EDITION  
NFPA-13, 2002 EDITION AS MODIFIED BY THE BUILDING CODE APPENDIX Q, SECTION BC Q102
- THE INSTALLATION COMPONENTS, SPACING, LOCATION, CLEARANCES, POSITION AND TYPE OF SYSTEMS SHALL CONFORM TO APPENDIX Q BC Q102 AND BC 903.
  - AS PER PARAGRAPH BC 903.2 AND CHAPTER 6 OF APPENDIX Q SECTION BC Q102 ONLY APPROVED MATERIALS WILL BE USED.
  - DIRECT CONNECTION OF SPRINKLERS TO THE PUBLIC WATER SYSTEM SHALL CONFORM TO APPENDIX Q BC Q102 SECTIONS 15.1.1(e), 15.1.8 & 15.2.1.
  - SPRINKLERS WILL BE PROTECTED AGAINST FREEZING AND INJURY AS PER SECTIONS 6.2.8 AND 8.15.3 OF APPENDIX Q BC Q102.
  - INSPECTION AND TESTS OF SPRINKLER SYSTEM SHALL BE CONDUCTED AS SPECIFIED IN BC 901.5 AND APPENDIX Q SECTION BC Q102 CHAPTER 16.
  - THE OCCUPANCY OF THE AREAS TO BE SPRINKLERED IN ACCORDANCE WITH CHAPTER 5 OF APPENDIX Q SECTION BC Q102 SHALL BE THOSE SPECIFIED ON THE PLANS.
  - WATER SUPPLY TEST PIPES AND GAUGES PROVIDED AS SPECIFIED IN SECTION 8.16.3 AND 8.16.4 OF APPENDIX Q BC Q102.
  - PIPING SPECIFICATIONS, SYSTEM TEST PIPES, PROTECTION AGAINST CORROSION, DAMAGE, FITTINGS, VALVES, HANGERS, SPRINKLERS, GUARDS AND SHIELDS SHALL BE IN ACCORDANCE WITH CHAPTERS 6 AND 9 OF APPENDIX Q SECTION BC Q102.
  - STOCK OF EXTRA SPRINKLERS WILL BE FURNISHED AS PER SECTION 6.2.9 OF APPENDIX Q BC Q102 (REQUIRED FOR EACH TEMPERATURE RATING).
  - SPRINKLER ALARMS IN ACCORDANCE WITH SECTION 8.16.1 OF APPENDIX Q BC Q102.
  - SPACING, LOCATION AND POSITION OF SPRINKLERS WILL BE IN ACCORDANCE WITH CHAPTER 8 OF APPENDIX Q SECTION BC Q102.
  - ALL BLIND SPACES EXCEEDING 6 IN. IN WIDTH OR DEPTH WHICH CONTAIN COMBUSTIBLE MATERIALS WILL BE SPRINKLERED.
  - ALL PIPING PASSING THROUGH RATED CONSTRUCTION WILL COMPLY WITH BC 712.
  - THERE IS NO PILED HIGH STORAGE AS DEFINED IN SECTION 3.3.12 OF APPENDIX Q BC Q102.
  - DISTANCE OF SPRINKLERS FROM HEAT SOURCES SHALL BE IN ACCORDANCE WITH TABLES 8.3.2.5(A), (B), AND (C) OF APPENDIX Q BC Q102.
  - AS PER SECTION BC 903.1.2 PROVIDE DEPARTMENT OF ENVIRONMENTAL PROTECTION WATER SUPPLY LETTER WITH FLOW TEST DATA IF THERE IS DIRECT CONNECTION TO THE STREET WATER SUPPLY.
  - ALL PIPES PASSING THROUGH FOUNDATION WALLS TO BE PROTECTED AS PROVIDED BY SECTION PC 305.9 OF THE PLUMBING CODE.
  - THIS APPLICATION IS NOT FILED AS A RESULT OF ACTIONS BY THE FIRE COMMISSIONER AS AUTHORIZED BY THE BUILDING DEPARTMENT TO MODIFY THE CERTIFICATE OF OCCUPANCY NOR IS SUCH ACTION PENDING.
  - ALL VALVES SHALL BE IDENTIFIED AS REQUIRED BY SECTION 6.7.4 OF APPENDIX Q BC Q102.
  - DRAINAGE TO CONFORM TO SECTION 8.15.2 OF APPENDIX Q BC Q102.
  - A ONE PIECE REDUCING FITTING OF GOOD DESIGN SHALL BE USED WHEREVER A CHANGE IS MADE IN THE SIZE OF PIPE AS PER SECTION 6.4.6 OF APPENDIX Q BC Q102.
  - ALL VALVES ON CONNECTIONS TO WATER SUPPLIES AND IN SUPPLY TO SPRINKLERS SHALL BE APPROVED OS&Y OR APPROVED INDICATOR TYPE.
  - DRAIN VALVES AND TEST VALVES SHALL BE APPROVED TYPE AS PER SECTION 6.7 OF APPENDIX Q BC Q102.
  - HANGERS SHALL BE OF A TYPE APPROVED FOR USE WITH THE PIPE OR TUBE INVOLVED, SPRINKLER PIPING SHALL BE SUPPORTED BY WROUGHT IRON U-TYPE OR APPROVED ADJUSTABLE HANGERS AS PER CHAPTER 9 OF APPENDIX Q SECTION BC Q102.
  - PROVISIONS SHALL BE MADE TO FACILITATE FLUSHING SYSTEM PIPING BY PROVIDING FLUSHING CONNECTIONS CONSISTING OF A CAPPED NIPPLE 4" LONG ON THE END OF THE CROSS MAIN AS PER SECTION 8.14.16 OF APPENDIX Q BC Q102.
  - SPRINKLERS SHALL BE OF APPROVED TYPE AS PER SECTION 8.3 OF APPENDIX Q BC Q102.
  - TEMPERATURE RATING SHALL COMPLY WITH SECTION 8.3.2 OF APPENDIX Q BC Q102.
  - PROVIDE 18" MINIMUM CLEAR TO BELOW SPRINKLER DEFLECTOR AS PER SECTION 8.5.6.4 OF APPENDIX Q BC Q102.
  - SPACING AND LOCATION OF SPRINKLERS SHALL COMPLY WITH SECTION 8.5 OF APPENDIX Q BC Q102.
  - SPRINKLER SYSTEM COMPLES WITH NFPA 13, 2002 AS MODIFIED BY THE FLORIDA CITY BUILDING CODE, APPENDIX Q SECTION BC Q102.
  - SOURCES OF WATER SUPPLY FOR SPRINKLER SYSTEMS AS PER CHAPTER 15 OF APPENDIX Q SECTION BC Q102.
  - PIPE SCHEDULES SHALL BE IN ACCORDANCE WITH SECTION 14.5 OF APPENDIX Q BC Q102.
  - AUTOMATIC INTERLOCK CUTOFF SWITCH FOR VENTILATION WILL CONFORM TO CHAPTER 6 OF THE MECHANICAL CODE (APPLICABLE ONLY IF THERE IS AN AIR SYSTEM UTILIZING RECIRCULATED AIR AND REQUIRING A THERMOSTATIC DEVICE).
  - HYDRAULICALLY DESIGNED SPRINKLER SYSTEMS SHALL BE IN ACCORDANCE WITH CHAPTER 14 OF APPENDIX Q SECTION BC Q102.
  - MINIMUM BRANCH PIPE SIZE TO BE ONE INCH (1").
  - THIS APPLICATION IS MADE ONLY FOR WORK INDICATED ON THE SPECIFICATION SHEET. ALL OTHER MATTERS SHOWN ARE NOT TO BE RELIED UPON OR TO BE CONSIDERED AS EITHER BEING APPROVED OR IN ACCORDANCE WITH APPLICABLE CODES.

**CODE OF FLORIDA LISTING OF SPECIAL INSPECTIONS**

REQUIRED	NOT PRESENT	BE CODE SECTION	DESCRIPTION
*		1704.25	THROUGH-PENETRATION FIRESTOP ASSEMBLIES
*		1707.07	SPECIAL INSPECTION FOR SEISMIC RESISTANCE - MECHANICAL AND ELECTRICAL COMPONENTS
*		1704.21	SPECIAL INSPECTION FOR FIRE SPRINKLER SYSTEM
*		1704.22	SPECIAL INSPECTION FOR FIRE STANDPIPE SYSTEM

**FIRE PROTECTION LEGEND**

SYMBOLS	
	NEW CONCEALED SPRINKLER HEAD
	NEW UPRIGHT SPRINKLER HEAD
	NEW DRY TYPE SPRINKLER HEAD
	NEW UPRIGHT SPRINKLER HEAD BELOW DUCT
	NEW SIDEWALL SPRINKLER HEAD
	NEW DRY PENDENT TYPE SPRINKLER HEAD
	FIRE STANDPIPE PIPING
	FIRE SERVICE PIPING
	SPRINKLER PIPING
	DRAIN PIPING
	FIRE DEPARTMENT SIAMESE CONNECTION
	FIRE HOSE VALVE
	ELBOW TURNED DOWN
	ELBOW TURN UP / CONN. TO VERTICAL LINE
	CHECK VALVE W/AUTO BALL DRIP
	OS&Y (OUTSIDE SCREW & YOKE) VALVE
	GATE/GLOBE VALVE
	CHECK VALVE
	AUTOMATIC BALL DRIP
	PUMP
	VALVE WITH TAMPER SWITCH (TS)
	CONTROL VALVE WITH TAMPER & WATER FLOW SWITCHES PRESSURE GAUGE AND TEST DRAIN ASSEMBLY
	DRY-PIPE VALVE ASSEMBLY
ABBREVIATIONS	
ABD	AUTOMATIC BALL DRIP
AC	ALARM CHECK VALVE
AFF	ABOVE FINISHED FLOOR
BOP	BOTTOM OF PIPE
CFM	CUBIC FEET PER MINUTE
CV	CHECK VALVE
DIA	DIAMETER
DP	DRY-PIPE
DR	DRAIN
DN	DOWN (PENETRATES FLOOR SLAB)
FHC	FIRE HOSE CABINET
FHR	FIRE HOSE RACK
FHV	FIRE HOSE VALVE
FHVC	FIRE HOSE VALVE CABINET
AHR	AUXILIARY FIRE HOSE
FD	FLOOR DRAIN
FL	FLOOR
FSP	FIRE STANDPIPE
FT	FEET
GV	GATE VALVE
GAL	GALLONS
GPM	GALLONS PER MINUTE
IN.	INCH
NTS	NOT TO SCALE
OS&Y	OUTSIDE SCREW & YOKE GATE VALVE
PSI	POUNDS PER SQUARE INCH (GAUGE)
PRV	PRESSURE REGULATING VALVE
SPKR, SP	SPRINKLER
TOP	TOP OF PIPE
TS	TAMPER SWITCH
WFS	WATER FLOW SWITCH

**SEISMIC RESTRAINT NOTES**

- THE PLUMBING CONTRACTOR SHALL PROVIDE SEISMIC RESTRAINING SYSTEMS FOR PLUMBING EQUIPMENT AND PIPING. SEISMIC RESTRAINING SYSTEMS SHALL COMPLY WITH THE LATEST EDITION OF THE FLORIDA CITY BUILDING CODE AND ALL APPLICABLE SECTIONS OF THE CONSTRUCTION SPECIFICATION.
- PROVIDE CONCRETE INERTIA BASE FOR PUMPS 5 HP AND LARGER AND NEOPRENE ISOLATORS FOR SMALLER PUMPS.
- SEISMICALLY RESTRAIN THE FOLLOWING PIPING:
  - ALL PIPING LOCATED IN MECHANICAL ROOMS THAT IS 1-1/4" AND LARGER
  - ALL OTHER PIPING 2-1/2" AND LARGER.
- TRANSVERSE PIPING RESTRAINTS SHALL BE AT 40 FT MAXIMUM SPACING FOR ALL PIPE SIZES.
- LONGITUDINAL RESTRAINTS SHALL BE AT 80 FT MAXIMUM SPACING FOR ALL PIPE SIZES.

**FLORID CITY FIRE STANDPIPE NOTES**

- REFERENCE: BUILDING CODE, 2014 EDITION, CHAPTER 9  
NFPA-14, 2007 EDITION AS MODIFIED BY BUILDING CODE APPENDIX Q, BC Q105.
- FIRE STANDPIPE PERMIT AND PLAN SHALL COMPLY WITH THE CHAPTER 9 IN ITS ENTIRETY, INCLUDING APPENDIX Q BC Q105.
  - ALL MATERIAL DEVICES AND EQUIPMENT SHALL COMPLY WITH CHAPTER 4 OF APPENDIX Q BC Q105.
  - THE SYSTEM AND EQUIPMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FULL REQUIREMENTS OF THE BUILDING CODE CHAPTER 9 AND APPENDIX Q BC Q105.
  - MINIMUM WATER SUPPLY SHALL COMPLY WITH BC CHAPTER 9 AND APPENDIX Q BC Q105.
  - INSPECTION AND VALVES TESTS SHALL COMPLY WITH SECTION 907.19.
  - PIPE AND FITTINGS SHALL COMPLY WITH SECTIONS 4.2 AND 4.3 OF APPENDIX Q BC Q105.
  - HOSE STATION SHALL COMPLY WITH SECTION 7.3.2.2 OF APPENDIX Q BC Q105 AND BC 905.
  - HOSE SHALL COMPLY WITH SECTION 4.6 OF APPENDIX Q BC Q105.
  - HOSE RACKS AND HOSE CABINET SHALL COMPLY WITH SECTION 4.6 OF APPENDIX Q BC Q105.
  - NOZZLE SHALL COMPLY WITH APPENDIX Q BC Q105 SECTION A.7.8.
  - MANIFOLD SHALL COMPLY WITH APPENDIX Q BC Q105 SECTION 7.3.2.2.
  - RISER CONTROL VALVES SHALL COMPLY WITH APPENDIX Q BC Q105 SECTION 6.2.2.
  - RISER LOCATION, NUMBER AND SIZE SHALL COMPLY WITH CHAPTER 9 AND APPENDIX Q BC Q105.
  - PRESSURE REDUCING VALVE SHALL COMPLY WITH SECTION 7.8 AND 7.2 OF APPENDIX Q BC Q105.
  - COMBINATION FIRE STANDPIPES AND SIAMESE SPRINKLER SYSTEMS SHALL BE PAINTED YELLOW AND COMPLY WITH APPENDIX Q BC Q105 SECTION 4.8.2.1.
  - SIAMESE CONNECTIONS SHALL COMPLY WITH BC Q105 SECTION 4.8.2.2 AND SHALL BE LOCATED NO MORE THAN 300 FEET APART.
  - STANDPIPES SHALL BE MARKED AND PAINTED RED.
  - PROTECTION OF THE SYSTEMS SHALL COMPLY WITH APPENDIX Q BC Q105 SECTION 6.1.2.3.
  - IF AT ANY TIME FLOOR SPACE IS DIVIDED, ADDITIONAL STANDPIPE PROTECTION SHALL BE PROVIDED.
  - FIRE STANDPIPE STANDARDS FOR INSTALLATION SHALL COMPLY WITH CHAPTER 9 AND APPENDIX Q BC Q105.
  - ELEVATOR SERVICE: AN ELEVATOR WILL BE MAINTAINED AT ALL TIMES FOR USE OF THE FIRE DEPARTMENT, AS PER BC 3003.3.
  - VOICE COMMUNICATION SYSTEMS AND FIRE COMMAND STATIONS SHALL COMPLY WITH BC 907.2.
  - WATER SUPPLY SHALL COMPLY WITH APPENDIX Q BC Q102 CHAPTER 11.
  - STATEMENT AS TO AVAILABLE PRESSURE IN STREET MAIN FOR THIS LOCATION WILL BE FURNISHED WITH THIS APPLICATION.

**ENERGY CONSERVATION CONSTRUCTION CODE OF FLORID STATE (ECCCNYS)**

THIS SECTION OF THE PROJECT CONSISTS OF WORK PERTAINING SOLELY TO THE LIFE SAFETY SYSTEMS OF THE BUILDING AND THEREFORE IS NOT REQUIRED TO COMPLY WITH THE ENERGY CONSERVATION CONSTRUCTION CODE OF FLORIDA STATE ACCORDING TO CHAPTER 1 PARAGRAPH 101.3, AND CHAPTER 8 PARAGRAPH 803.1 OF THE ENERGY CONSERVATION CONSTRUCTION CODE OF FLORIDA STATE.

**FIRE PROTECTION NOTES**

- EACH BIDDER SHALL VISIT THE SITE AND BECOME INFORMED AS TO THE CONDITION OF THE PREMISES AND THE EXTENT AND CHARACTER OF WORK REQUIRED. NO ADDITIONAL COMPENSATION WILL BE APPROVED DUE TO FIELD CONDITIONS.
- THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF AREA TO BE PROVIDED WITH SPRINKLER PROTECTION AND LOCATE EXISTING DUCT WORK WITHIN AREA THAT REQUIRE ADDITIONAL SPRINKLER PROTECTION BELOW DUCTS DUE TO INTERFERENCE OF NORMAL SPRAY PATTERN OF SPRINKLER HEADS LOCATED AT UNDERSIDE OF FLOOR SLAB ABOVE.
- SPRINKLER INSTALLATIONS SHALL BE COMPLETE WITH ALL FITTINGS, PIPES, PIPES, BRANCHES, TESTS, DRAINS AT LOW POINTS IN SYSTEM AND HANGERS.
- ALL PIPING AND EQUIPMENT SHALL BE SUBSTANTIALLY SUPPORTED FROM THE BUILDING STRUCTURE. HANGERS AND SUPPORTS SHALL BE SPECIFICALLY APPROVED FOR USE IN SPRINKLER SYSTEM.
  - WHERE OVERHEAD CONSTRUCTION DOES NOT PERMIT FASTENING OF HANGER RODS IN REQUIRED LOCATIONS, PROVIDE ADDITIONAL STEEL FRAMING AS REQUIRED AND APPROVED.
  - NO SPRINKLER PIPING SHALL BE HUNG FROM THE PIPING OF OTHER TRADES OR DUCTWORK. HANGERS SHALL BE OF HEAVY CONSTRUCTION, SUITABLE FOR THE SIZE OF PIPE TO BE SUPPORTED.
- ALL AREAS OF THE BUILDING SHALL BE SPRINKLERED.
- ALL FIRE PROTECTION WORK SHALL MEET FLORIDA CITY BUILDING CODE, NFPA REQUIREMENTS, FIRE MARSHALL AND ALL AUTHORITIES HAVING JURISDICTION.
- SPRINKLER SYSTEM MUST BE **HYDRAULICALLY CALCULATED** SYSTEM BASED ON THE FOLLOWING:
 

**APARTMENT UNITS, CORRIDORS AND LOBBY**

HAZARD: LIGHT  
MAX. AREA PER SPRINKLER: 225 SQ. FT.  
DESIGN DENSITY: 0.10 GPM / SQ. FT.  
DESIGN AREA: 1,500 SQ. FT.

**STORAGE ROOMS AND MECHANICAL ROOMS**

HAZARD: ORDINARY GROUP 1  
MAX. AREA PER SPRINKLER: 130 SQ. FT.  
DESIGN DENSITY: 0.15 GPM / SQ. FT.  
DESIGN AREA: 1,500 SQ. FT.

**PARKING GARAGE, COMMERCIAL SPACES**

HAZARD: ORDINARY GROUP 2  
MAX. AREA PER SPRINKLER: 130 SQ. FT.  
DESIGN DENSITY: 0.20 GPM / SQ. FT.  
DESIGN AREA: 1,500 SQ. FT.
- COORDINATE ALL FIRE PROTECTION WORK WITH ARCHITECTURAL REFLECTED CEILING PLANS AND OTHER TRADES.
- ALL NEW DROP NIPPLES SHALL BE 1" UNLESS OTHERWISE NOTED.
- NEW SPRINKLER PIPING TO BE INSTALLED SHALL BE A MINIMUM OF 1-INCH.
- SPRINKLER CONTRACTOR SHALL SUBMIT HIS SHOP DRAWINGS AND HYDRAULIC CALCULATIONS TO THE ENGINEER OR ARCHITECT FOR APPROVAL PRIOR TO PERFORMING THE WORK.
- SPRINKLER CONTRACTOR SHALL OBTAIN SPRINKLER PERMIT, FILE THE SHOP DRAWING WITH THE LOCAL AUTHORITY HAVING JURISDICTION AND PAY ALL NECESSARY FILING FEES.
- SPRINKLER CONTRACTOR SHALL SUBMIT AS-BUILT DRAWINGS AND HYDRAULIC CALCULATIONS TO THE ENGINEER OR ARCHITECT PRIOR TO CLOSE-OUT.
- SPRINKLER CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARATION OF HYDRAULIC CALCULATIONS OF THE SPRINKLER SYSTEM BASED ON THE AS-BUILT CONDITIONS. SPRINKLER CONTRACTOR IS ALSO RESPONSIBLE TO HAVE HIS PROFESSIONAL ENGINEER SIGN AND SEAL THE HYDRAULIC CALCULATIONS AND SPRINKLER INSTALLATION DRAWINGS AND TO SUBMIT TO THE DEPARTMENT OF BUILDING (DOB) FOR PERMIT, FINAL APPROVAL AND SIGN OFF.

**Revision notes:**

Rev:	Date:	Notes:

**Engineer/Architect Signature:**

**Drawn by:**  
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Roy Yeager Construction Co

**Project:**  
**PRO. RETIREMENT HOME**  
13002 TARPON SPRINGS ROAD ODESSA FLORIDA 33556

**Drawing Title:**  
**SHEET NAME : FIRE SPRINKLER LEGENDS & NOTES**  
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02/01/2023

**Scale @ 24X36:**  
**NTS**

**Revision:**

**FIRE PROTECTION SPECIFICATIONS**

**15C.01 GENERAL**

1. ALL WORK UNDER THIS SECTION IS SUBJECT TO THE CONTRACT DOCUMENTS, CONTRACT DRAWINGS AND THE "GENERAL CONDITIONS GOVERNING ALL CONTRACTS," ALL OF WHICH FORM A PART OF THIS SECTION AS IF WRITTEN OUT IN FULL HEREIN.

2. THE CONTRACTOR FOR WORK UNDER THIS SPECIFICATION IS REFERRED TO THE GENERAL CONDITIONS, SPECIAL CONDITIONS AND ALL CONTRACT DOCUMENTS, ALL OF WHICH ARE HEREBY MADE PART OF THIS SPECIFICATION.

3. THE CONTRACTOR SHALL PERFORM ALL NECESSARY REMOVAL, CUTTING, REPAIR, REPLACEMENT, ETC. FOR THE COMPLETION OF THIS WORK, AND PROVIDE ALL LABOR, MATERIALS, TOOLS AND EQUIPMENT REQUIRED TO PERFORM THE WORK AS SPECIFIED HEREIN AND TO COMPLY WITH THE FLORIDA CITY PLUMBING CODE, NYC LOCAL LAW # 10/1999 AND N.F.P.A. # 13 OF 1999. RUBBISH AND DEBRIS SHALL BE EXPEDITIOUSLY REMOVED FROM THE PREMISES.

4. CONTRACTOR MUST CAREFULLY EXAMINE THE SITE OF THE PROPOSED WORK, AS WELL AS ITS ADJACENT AREA, AND SEEK OTHER USUAL SOURCES OF INFORMATION FOR THEY WILL BE CONCLUSIVELY PRESUMED TO HAVE FULL KNOWLEDGE OF ANY AND ALL CONDITIONS ON, ABOUT, OR ABOVE THE SITE RELATING TO, OR EFFECTING IN ANYWAY, THE PERFORMANCE OF THE WORK TO BE DONE UNDER THIS CONTRACT WHICH WERE OR SHOULD HAVE BEEN INDICATED TO A REASONABLY PRUDENT BIDDER.

5. THE ENTIRE SPRINKLER WORK SHALL BE PERFORMED BY A LICENSED CONTRACTOR FOR MASTER FIRE SUPPRESSION OR A LICENSED MASTER PLUMBER, AS SPECIFIED BY THE NY CITY DEPARTMENT OF BUILDINGS IN A NEAT MANNER AND IN ACCORDANCE WITH THE BEST PRACTICES. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY APPLICATIONS, APPROVALS, PERMITS AND SIGN OFF FROM NY CITY DEPARTMENT OF BUILDINGS' PLUMBING DIVISION, AND SHALL COMPLY WITH ALL LOCAL, STATE AND FEDERAL RULES, REGULATIONS AND LAWS APPLICABLE TO THIS CONTRACT AND TO THE WORK TO BE DONE. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETING ALL FORMS AND DRAWINGS NECESSARY TO SECURE NY CITY DEPARTMENT OF BUILDINGS APPROVAL PRIOR TO OBTAINING ALL NECESSARY PERMITS AND PAY ALL FEES.

6. THE CONTRACTOR SHALL OBTAIN PRIOR APPROVAL FROM ARCHITECT FOR CHANGES, ADDITIONS OR MODIFICATIONS TO THE "SCOPE OF WORK", SPECIFICATIONS, AND DRAWINGS.

7. PRIOR TO COMPLETION OF CONTRACT, ARCHITECT SHALL COORDINATE WITH THE MANAGEMENT GROUP A SINGLE AUTHORIZED PUNCH-LIST FOR ISSUANCE TO THE CONTRACTOR.

8. THE CONTRACTOR SHALL FULLY FAMILIARIZE HIMSELF WITH THE JOB AND FIELD CONDITIONS BEFORE SUBMITTING HIS BID.

**9. SUBSTITUTIONS:**

A. REFERENCE IN THE CONTRACT DOCUMENT TO MATERIALS, FORM OF CONSTRUCTION, PRODUCTS, AND EQUIPMENT BY PROPRIETARY NAME, MAKE AND CATALOGUE NUMBER SHALL BE INTERPRETED AS ESTABLISHING A STANDARD OF QUALITY OF MANUFACTURE, PERFORMANCE, OR APPEARANCE, AND SHALL NOT BE CONSTRUED AS LIMITED COMPETITION.

B. SHOULD THE CONTRACTOR DESIRE TO SUBSTITUTE ANY ITEM OF BRAND OR MANUFACTURE OTHER THAN THAT SPECIFIED, HE SHOULD SUBMIT TO THE ARCHITECT A WRITTEN REQUEST FOR APPROVAL OF THE SUBSTITUTIONS HE PROPOSES AND WISHES TO MAKE. SUCH REQUESTS SHALL BE ACCOMPANIED BY DESCRIPTIVE LITERATURE, DRAWINGS, SAMPLES OR SUCH INFORMATION AS THE ARCHITECT WILL INVESTIGATE ALL SUCH REQUESTS AND RENDER DECISIONS THEREON AS PROMPTLY AS IS REASONABLY POSSIBLE, AND SUCH DECISIONS SHALL BE FINAL.

C. ANY SUBSTITUTION OF MATERIAL SPECIFIED SHALL BE EQUAL IN QUALITY AND VALUE, OR CREDIT IS DUE TO THE OWNER.

10. IMMEDIATELY UPON AWARD OF THIS CONTRACT, CONTRACTOR SHALL PREPARE A WORK PROGRAM SCHEDULE. THIS SCHEDULE SHALL ESTABLISH THE ORDER IN WHICH THE WORK SHALL PROCEED, AND THE DATES WHEN THE VARIOUS PARTS SHALL BE INSTALLED OR COMPLETED.

11. PROVIDE FOR ALL WORK FOR A COMPLETE AND WORKING SPRINKLER SYSTEM. ANY ITEMS OR SERVICES NOT INDICATED IN THE CONTRACT DOCUMENTS AND NECESSARY FOR COMPLETION OF THE SYSTEM, OR REQUIRED BY ALL CODES, MUST BE BROUGHT TO ARCHITECT'S ATTENTION PRIOR TO BIDDING. THIS CONTRACTOR IS RESPONSIBLE FOR ALL ITEMS OR SERVICES NECESSARY FOR A COMPLETE INSTALLATION OF AN APPROVED SPRINKLER SYSTEM.

**15C.02 WORK INCLUDED**

12. PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY OR INCIDENTAL TO PERFORM THE WORK OF THIS SECTION AND RELATED WORK AS INDICATED IN THE CONTRACT DOCUMENTS. REFER TO "DIVISION SCOPE OF WORK" SECTION FOR COMPLETE SCOPE OF WORK FOR THIS SECTION THAT FORM A PART OF THE CONTRACT SPECIFICATIONS. A COMPLETE OPERATIONAL SPRINKLER SYSTEM IN CONFORMANCE WITH NEW YORK CITY BUILDING CODE IS REQUIRED BY THIS CONTRACT.

**15C.03 WORK EXCLUDED**

13. PAINTING, EXCEPT AS NOTED HEREIN.

**15C.04 SUBMISSION REQUIREMENTS**

15. BEFORE WORK COMMENCES, ARCHITECT APPROVAL REQUIRED

A. SUBMIT SIX (6) CATALOG CUTS FOR SPRINKLERS, PUMPS, VALVES, PIPES, TRIMS, ETC., AND ALL ALARM/CONTROL DEVICES.

**15C.05 CODES, RULES AND CERTIFICATES**

16. PAY ALL FEES, GIVE ALL NOTICES, FILE ALL NECESSARY DRAWINGS (IF REQUIRED) AND OBTAIN ALL PERMITS AND CERTIFICATES OF APPROVAL REQUIRED IN CONNECTION WITH ALL WORK UNDER THIS CONTRACT. COMPLY WITH ALL LAWS, ORDINANCES, RULES AND JURISDICTION OVER THIS WORK AND THE STANDARDS OF THE FIRE UNDERWRITER'S ASSOCIATION. IF ANY DISCREPANCIES EXIST BETWEEN THE CONTRACT DOCUMENTS AND PREVAILING CODE REQUIREMENTS THE CONTRACTOR SHALL COMPLY WITH CODE CRITERIA AT NO ADDITIONAL COST TO THE OWNER.

**15C.06 COOPERATION**

17. COOPERATE WITH ALL CONTRACTORS EMPLOYED ON THIS SITE IN SUCH MANNER AS TO FACILITATE THE COMPLETION OF THE WORK AS A WHOLE, SUBJECT TO THE GENERAL CONTRACTOR'S COORDINATION. IF CONFLICTS EXIST, THESE MATTERS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF ARCHITECT FOR RESOLUTION.

**15C.07 REMOVAL OF RUBBISH**

18. REMOVE DAILY OR MORE OFTEN IF REQUIRED FROM THE JOB SITE, ALL DEBRIS, CLEAN ALL PARTS OF THE BUILDING EXTERIOR INCLUDING ADJACENT ROADS, SIDEWALKS AND PAVEMENT, RESULTING FROM THE EXECUTION OF HIS WORK.

**15C.08 ACCESSIBILITY**

19. ASCERTAIN THAT ALL EQUIPMENT, SUCH AS VALVES, AND SUCH OTHER APPARATUS AS MAY BE NECESSARY TO BE REACHED FROM TIME TO TIME FOR OPERATION AND MAINTENANCE, IS MADE EASILY ACCESSIBLE.

20. THE LOCATION OF EQUIPMENT MAY CONFLICT WITH THE BUILDING CONSTRUCTION AND MAY DISCLOSE THE FACT THAT THE LOCATION FOR THIS WORK DOES NOT MAKE ITS POSITION EASILY AND QUICKLY ACCESSIBLE. IN SUCH CASES, CALL ARCHITECT'S ATTENTION TO THIS FACT BEFORE INSTALLING THIS WORK AND CONTRACTOR SHALL BE GUIDED BY ARCHITECT'S INSTRUCTIONS.

**15C.09 CUTTING AND PATCHING**

21. WHEN ACCESS TO THE SPRINKLER SYSTEM IS REQUIRED, THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING OF CEILING, WALLS AND FLOORS IN APARTMENTS AND BASEMENT/CELLAR AREAS. THIS CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, TOOLS AND EQUIPMENT TO PERFORM ALL PATCHING AS FOLLOWS:

**A. PLASTER WALLS AND CEILINGS:**

1.) ALL PLASTER TO BE CUT BACK TO A PLUMB LINE AND FLORIDA ERECTED FLUSH WITH SAME.

2.) ALL NEW WORK TO BE INSTALLED OVER METAL LATH AND TO THREE COAT OPERATION CONSISTING OF SCRATCH, BROWN AND HARD WHITE FINISH.

3.) NEW PLASTER WORK OVER MASONRY WORK TO BE TWO COAT, CONSISTING OF BROWN AND HARD WHITE FINISH NOT LESS THAN 3/4" THICK.

**B. DRYWALL CONSTRUCTION:**

1.) ALL GYPSUM BOARD TO BE CUT BACK TO A PLUMB LINE AND NEW WORK ERECTED FLUSH WITH SAME.

2.) ALL NEW GYPSUM BOARD SHALL BE SCREW FASTENED WITH 1 1/4" SELF-TAPPING DRYWALL SCREWS.

3.) JOINTS SHALL RECEIVE A SCRATCH COAT WITH TAPE REINFORCEMENT, FOLLOWED BY TWO FINISH COATS OF JOINT COMPOUND, COMPOUND TO BE MANUFACTURED U.S. GYPSUM CO. OR EQUAL.

4.) MOISTURE RESISTANT GYPSUM WALLBOARD TO BE USED AT BATHROOMS, KITCHENS AND ALL LOCATIONS IN CONSIDERED "WET AREAS".

22. ALL FINISHED AREAS SHALL BE SANDED FLUSH WITH EXISTING SURFACES AS TO WHERE NO JOINTS CAN BE DETECTED. ENTIRE AREA SHALL BE PRIMED AND CONSIDERED PAINT READY.

**15C.10 EXCAVATION AND BACKFILL**

23. PERFORM ALL EXCAVATION, BACKFILLING, PUMPING AND SHEATHING REQUIRED FOR INSTALLATION OF ALL WORK DESCRIBED HEREIN. BACKFILLING SHALL BE CAREFULLY DONE AND THOROUGHLY COMPACTED. FOR EXCAVATION BELOW 8'-0", FILL SHALL BE MADE IN LAYERS NOT MORE THAN ONE FOOT DEEP AND EACH LAYER TAMPED. FILL AROUND PIPING SHALL BE FLUSHED IN WITH WATER, NO LARGE STONE OR BOULDERS SHALL BE USED. ALL BACKFILL SHALL BE INSTALLED AS PER REQUIREMENTS OF BUREAU HIGHWAYS OPERATIONS AND NEW YORK PAVING.

24. CONTRACTOR IS REQUIRED TO OBTAIN A PERMIT FROM THE DEPARTMENT OF HIGHWAYS PRIOR TO PROCEEDING WITH ANY PAVEMENT EXCAVATION.

25. ALL BACKFILL FOR PAVEMENT SHALL BE TESTED AND INSPECTED BY AN APPROVED TESTING LABORATORY AND PROFESSIONAL ENGINEER PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH BUREAU OF HIGHWAYS OPERATIONS AND FLORIDA PAVING REQUIREMENTS.

**15C.11 MATERIALS AND WORKMANSHIP**

26. AUTOMATIC FIRE SUPPRESSION SYSTEM: - PROVIDE A COMPLETE WET SPRINKLER SYSTEM IN CONFORMANCE WITH THE REQUIREMENTS OF THE F.L.C BUILDING CODE, F.L.C LOCAL LAW #10/1999 AND N.F.P.A. PAMPHLET #13 OF 1999. THE PROVISIONS OF THE PAMPHLET (UNLESS OTHERWISE SPECIFIED) SHALL BE FOLLOWED IN TOTAL WHETHER THE STIPULATIONS LISTED THEREIN ARE DIRECTED OR RECOMMENDED. THE ENTIRE SYSTEM SHALL BE INSTALLED ACCORDING TO THE PLANS BY A LICENSED N.Y.C. PLUMBING CONTRACTOR OR MASTER FIRE SUPPRESSION CONTRACTOR, AS SPECIFIED BY F.L.C BUILDING DEPARTMENT WITH A LETTER OF FITNESS FROM N.Y.C. FIRE DEPARTMENT.

A. FURNISH ALL LABOR, MATERIALS, EQUIPMENT, SERVICES, ETC., NECESSARY OR REQUIRED TO PERFORM THE WORK OF THIS SECTION AS INDICATED ON THE DRAWINGS AND/OR SPECIFIED HEREIN. THE WORK SHALL INCLUDE BUT NOT NECESSARILY BE LIMITED TO THE FOLLOWING:

1.) INSTALL SPRINKLER PIPING COMPLETE WITH SPRINKLERS IN SPACES FROM CELLAR TO BULKHEAD AS INDICATED ON THE DRAWINGS. SPRINKLERS SHALL BE CONCEALED TYPE IN ALL HUNG CEILING AREAS (APARTMENTS, PUBLIC HALLS, COMMERCIAL SPACES) AND UPRIGHT OR PENDENT IN UNFINISHED OR FINISHED AREAS WITHOUT HUNG CEILINGS (CELLAR ONLY).

2.) INSTALL CONTROL, CHECK AND O.S & Y. VALVES. PROVIDE STEEL CHAIN, STEEL PADLOCK AND TWO KEYS IN ORDER TO SECURE O.S & Y. VALVES IN OPEN POSITION.

3.) INSTALL SPRINKLER BOOSTER PUMP AND JOCKEY PUMP AT CELLAR FLOOR TO SUPPLY SPRINKLER SYSTEM.

4.) FURNISH SPRINKLER ALARM CONTROL PANEL, SPRINKLER ALARM BELLS FOR MOUNTING AND WIRING BY ELECTRICAL CONTRACTOR, SPRINKLER BELLS SHALL BE INSTALLED IN A CASE (WIRE GUARD) AND RECESSED IN THE WALL.

5.) INSTALL APPROVED FIRE DEPARTMENT SIAMESE CONNECTION. ALL SIAMESE SHALL BE FLUSH MOUNTED

6.) FURNISH ACCESS DOORS.

7.) FURNISH AND INSTALL WATERFLOW DETECTORS.

8.) TESTING, CLEANING AND ADJUSTING OF SPRINKLER SYSTEMS.

9.) THE CONTRACTOR SHALL GIVE NECESSARY NOTICES, HYDRAULIC CALCULATION TO DEPARTMENTS HAVING JURISDICTION, OBTAIN PERMITS OR LICENSES NECESSARY TO CARRY OUT THIS WORK AND PAY ALL FEES THEREFORE.

10.) SHOP DRAWINGS, SAMPLES AND INSTRUCTIONAL MANUALS, TESTS AND ADJUSTMENTS.

11.) SUPPLEMENTS, HANGERS, INSERTS, ANCHORS, GUIDES, SLEEVE, FLASHING AND SIMILAR RELATED ITEMS.

12.) TAGS, CHARTS, SIGNS, DRIP PANS.

13.) PROVIDE FOR ALL ELECTRICAL WIRING OF ALL SPRINKLER EQUIPMENT FOR COMPLETE OPERATION OF SYSTEM. ALL WORK TO BE PERFORMED BY LICENSED ELECTRICAL CONTRACTOR.

14.) GUARANTEES.

**B. AUTOMATIC FIRE PUMP AND JOCKEY PUMP.**

1.) PROVIDE AN AUTOMATIC ELECTRIC FIRE PUMP RATED AS INDICATED ON THE DRAWINGS. THE PUMP SHALL DELIVER 150% OF RATED CAPACITY AT NOT LESS THAN 65% OF RATED HEAD. SHUT-OFF HEAD SHALL NOT EXCEED 140% OF THE RATED HEAD. THE PUMP SHALL BE IN-LINE CONSTRUCTION WITH CAST IRON CASTING, BRONZE ENCLOSED IMPELLER, BRONZE CASING WEAR RING, STEEL SHAFT, BRONZE SHAFT SLEEVE, STUFFING BOX WITH ADJUSTABLE BRONZE PACKING GLAND AND BRAIDED PACKING. PUMP MANUFACTURER PEERLESS PUMP CO., HORIZONTAL SPLIT CASE FIRE PUMP MODEL MODEL NO. SA6F8N OR APPROVED EQUAL.

2.) ALL COMPONENTS ON DISCHARGE SIDE OF THE PUMP SHALL HAVE A RATED WORKING PRESSURE GREATER THAN PUMP SHUT-OFF HEAD PLUS MAXIMUM SUCTION PRESSURE. THE FOLLOWING ACCESSORIES AND FITTINGS SHALL BE PROVIDED: ECCENTRIC SUCTION REDUCER-IF REQUIRED, CONCENTRIC DISCHARGE INCREASER (IF REQUIRED), AUTOMATIC AIR RELEASE VALVE, CASING RELIEF VALVE, ETC.

3.) THE PUMP SHALL BE CLOSE-COUPLED TO A H/NEMA FRAME, VERTICAL, ELECTRIC MOTOR RATED AS INDICATED ON THE DRAWINGS WITH 1.15 SERVICE FACTOR. LOCKED ROTOR CURRENT SHALL NOT EXCEED THEN VALUES SPECIFIED IN THE NFPA PAMPHLET #20. THE PUMP AND MOTOR SHALL BE MOUNTED ON CAST IRON PEDESTAL.

4.) THE FIRE PUMP CONTROLLER SHALL BE PEERLESS/FRETROL MODEL AS INDICATED ON THE DRAWINGS, OR APPROVED EQUAL. LISTED AND FM APPROVED SPECIFICALLY FOR FIRE PUMP SERVICE. THE ENCLOSURE SHALL BE A NEMA TYPE 2. THE CONTROLLER SHALL BE COMBINED MANUAL AND AUTOMATIC LIMITED SERVICE ACROSS-THE-LINE TYPE FOR HP SPECIFIED AND INCLUDING VOLTAGE SURGE ARRESTERS. THE CONTROLLER SHALL BE CAPABLE OF INTERRUPTING A SHORT CIRCUIT CURRENT AT LEAST EQUAL TO THE AVAILABLE SHORT CURRENT IN THE CONTROLLER SUPPLY CIRCUIT. PROVIDE DISCONNECT SWITCH IN CONTROLLER WITH AN INTERRUPTING CAPACITY AS INDICATE ON THE DRAWINGS.

5.) THE CONTROLLER SHALL INCLUDE "POWER FAILURE" AND "PUMP RUNNING" DRY CONTACTS FOR REMOTE ALARM WIRING TO ALARM CONTROL PANEL AND INDICATOR LIGHTS FOR THESE CONDITIONS.

6.) THE CONTROLLER MUST BE CAPABLE OF PERFORMING OR CONTAIN THE FOLLOWING FEATURES: PRESSURE SWITCH, AUTOMATIC START ON LOW PRESSURE, AND TIMING RELAY FOR AUTOMATIC STOP, TO FIELD CHANGEABLE OR MANUAL STOP.

7.) THE JOCKEY PUMP SHALL BE MULTI-STAGE CENTRIFUGAL PUMP AS MANUFACTURED BY PEERLESS PUMP COMPANY "GRUNDFOS" SERIES C WITH A RATED CAPACITY AS INDICATED ON THE DRAWINGS, OR APPROVED EQUAL. THE PUMP SHALL BE CLOSE COUPLED TO AN ODP MOTOR WITH 1.15-SERVICE FACTOR.

8.) THE JOCKEY PUMP CONTROLLER SHALL BE PEERLESS/FRETROL MODEL INDICATED ON OR APPROVED EQUAL, IN A NEMA 2 ENCLOSURE WITH ACROSS-THE-LINE MAGNETIC STARTER, FUSIBLE DISCONNECT SWITCH, HOA SWITCH, PRESSURE SWITCH, CONTROL TRANSFORMER WITH FUSED SECONDARY AND RUNNING PERIOD TIMER.

9.) THE FIRE PUMP SHALL BE HYDROSTATICALLY TESTED AND RUN TESTED PRIOR TO SHIPMENT, BY THE PUMP MANUFACTURER. THE PUMP SHALL BE HYDROSTATICALLY TESTED AT A PRESSURE OF NOT LESS THAN ONE AND ONE HALF TIMES NO FLOW (SHUTOFF) HEAD OF THE PUMP'S MAXIMUM DIAMETER IMPELLER PLUS THE MAXIMUM ALLOWABLE SUCTION HEAD, BUT IN NO CASE LESS THAN 250 PSIG. A CHARACTERISTIC CURVE OF PUMP PERFORMANCE, EFFICIENT AND BRAKE HORSEPOWER SHALL BE DRAWN FROM THE TEST RESULTS AND FURNISHED TO THE ENGINEER FOR APPROVAL.

10.) THE PUMP MANUFACTURER SHALL PROVIDE THE SERVICE OF MANUFACTURER'S REPRESENTATIVE FOR THE FIRE PUMP INSTALLATION START-UP AND TEST RUN SUPERVISION.

11.) PUMPS SHALL BE GUARANTEED FOR FIVE (5) YEARS.

**C. FIRE SERVICE BACKFLOW PREVENTION DEVICES.**

1.) DOUBLE CHECK DETECTOR ASSEMBLY WITH BYPASS METER (DCDA): EPOXY COATED CAST IRON CHECK VALVE BODY, BRONZE SEAT AND DISK HOLDER; STAINLESS STEEL TRIM AND DURABLE, TIGHT-SEATING RUBBER CHECK VALVE DISCS, UL/FM LISTED OS&Y GATE VALVES, CFM METER AND BALL TYPE TEST COCKS, MODEL 709 DOUBLE CHECK DETECTOR ASSEMBLY WITH BYPASS METER AS MANUFACTURED BY WATTS INDUSTRIES INC., OR APPROVED EQUAL.

**D. PIPE, FITTINGS AND VALVES**

1.) ALL PIPING, FITTINGS, VALVES, ETC. SHALL BE OF MATERIALS AND WEIGHTS REQUIRED BY THE NEW YORK CITY BUILDING CODE AND THE N.F.P.A. STANDARDS AND FM APPROVED.

2.) SPRINKLER PIPING INSIDE OF THE BUILDING SHALL BE OF STANDARD WEIGHT SCHEDULE 40 BLACK STEEL PIPE SUITABLE FOR 175-PSIG MINIMUM WORKING PRESSURE. ALL PIPE OPENING SHALL BE CAPPED PLUGGED DURING CONSTRUCTION. WHEN SYSTEM PIPING PIERCES A FOUNDATION WALL CLEARANCES AND A PIPE SLEEVE SHALL BE PROVIDED TO PREVENT BREAKAGE OF PIPE. IN NO CASE SHALL THE CONTRACTOR SUBSTITUTE PIPE SIZES WITHOUT NOTIFYING THE ARCHITECT AND ENGINEER.

3.) PIPING SHALL BE INSTALLED TO BE CLEAR OF ANY AND ALL CONDUITS, LIGHTING FIXTURES, PLUMBING AND HEATING PIPING. THIS CONTRACTOR SHALL CONSULT WITH CONTRACTORS OF THE OTHER TRADES TO FACILITATE THE ERECTION OF THE SYSTEM.

4.) SPRINKLER PIPING SHALL BE LOCATED TO CLEAR STRUCTURAL MEMBERS PLATFORMS AND EQUIPMENT. (NO CUTTING OF STRUCTURAL MEMBERS SHALL BE PERMITTED UNLESS APPROVED IN WRITING BY ARCHITECT).

5.) ALL HORIZONTAL PIPING SHALL BE INSTALLED AS HIGH AS POSSIBLE (EXCEPT WHERE CONCEALED IN CONSTRUCTION) TO SLAB, BEAM, ETC., TO MAINTAIN HEADROOM.

6.) HORIZONTAL SPRINKLER MAINS AND BRANCH PIPING TO BE INSTALLED AS FOLLOWS:

a. PIPING ABOVE TOP FLOOR AREAS: PIPING TO BE CONCEALED, INSTALLED WITHIN ATTIC SPACE / COCKLOFT BETWEEN DROP CEILING AND ROOF RAFTERS. PIPING WITH PIPE WRAP INSULATION, TO BE PLACED JUST ABOVE DROP CEILING WITHIN ONE INCH OF DROP CEILING FRAMING SYSTEM. BUILDING ENVELOPE INSULATION (PROVIDED BY OTHERS) SHALL BE DRAPED UP AND OVER PIPING TO PROTECT PIPING FROM FREEZING.

b. PIPING BETWEEN APARTMENT FLOORS: PIPING TO BE CONCEALED, MOUNTED ABOVE DROP CEILING, PIPING PERPENDICULAR TO THE JOISTS MUST BE MOUNTED WITHIN ONE INCH FROM BOTTOM JOISTS. PIPING PARALLEL TO JOISTS SHALL RUN WITHIN JOIST CAVITIES, NOTCHING OR CUTTING OF STRUCTURAL MEMBERS IS NOT PERMITTED.

c. PIPING FOR CELLAR AREAS: PIPING TO BE EXPOSED.

7.) SPRINKLERS, SEE SECTION E, "SPRINKLERS".

8.) A RISER CHECK VALVE WITH RISER CHECK VALVE TRIM SHALL BE INSTALLED FOR USE IN CONJUNCTION WITH THE VANE-TYPE WATERFLOW ALARM DETECTOR. THE RISER CHECK VALVE TRIM SHALL INCLUDE APPROVED WATER SUPPLY AND SYSTEM PRESSURE GAUGES, AS WELL AS A TEST CONNECTION AND MAIN CONTROL AND DRAIN VALVES APPROPRIATELY SIZED TO MEET THE REQUIREMENTS OF THE N.F.P.A. 13 STANDARDS.

9.) INSTALL A FLOOR CONTROL VALVE ASSEMBLY ON EACH FLOOR INCLUDING CELLAR. THE O.S & Y. VALVE SHALL BE PROVIDED WITH TAMPER SWITCHES.

**E. SPRINKLERS**

1.) IN AREAS WITH DROP CEILINGS, PUBLIC HALLS, LOBBY/VESTIBULE, OFFICES ETC. PROVIDE CONCEALED PENDENT SPRINKLERS. ALL SPRINKLERS MUST BE BOTH UL, N.Y.C. LISTED AND FM APPROVED. ALL CONCEALING COVER PLATES SHALL BE FLUSH MOUNTED WITH FINISHED CEILING AND WITH MANUFACTURER'S APPLIED WHITE FINISH. FIELD PAINTED COVER PLATES ARE NOT ACCEPTABLE. "RELIABLE AUTOMATIC SPRINKLER" MODEL G4FR, NYC MEA 258-93-E.

2.) FOR APARTMENTS, PROVIDE RESIDENTIAL CONCEALED PENDENT OR SIDEWALL SPRINKLERS SUITABLE TO "RELIABLE AUTOMATIC SPRINKLER" MODEL F1-RES, NYC MEA 258-93-E, WITH WHITE COVER PLATE AS OR APPROVED EQUAL.

4.) IN AREAS WITHOUT HUNG CEILINGS (CELLAR) PROVIDE QUICK RESPONSE STANDARD COVERAGE UPRIGHT OR PENDENT TYPE CHROME PLATED SPRINKLERS. SPRINKLERS SHALL BE MODEL C, NYC MEA 258-93-E AS MANUFACTURED BY "RELIABLE AUTOMATIC SPRINKLER CO." OR APPROVED EQUAL. SPRINKLERS SHALL BE INSTALLED UPRIGHT UNLESS CEILING HEIGHTS REQUIRE PENDENT SPRINKLERS. ALL PENDENT SPRINKLERS SHALL BE INSTALLED WITH RETURN BEND ARRANGEMENT. INSTALLATION OF SPRINKLERS IN PIPE BEFORE PIPE IS ERECTED IS STRICTLY FORBIDDEN.

5.) SPRINKLER LOCATIONS SHALL BE COORDINATED WITH CEILING TYPES AND LIGHTING. SPRINKLER SHALL BE MINIMUM 12" FROM LIGHTING FIXTURES.

6.) THE SPRINKLERS SUBJECT TO FREEZING SHALL BE OF THE DRY PIPE TYPE AND PIPING HEAD TRACED AND INSULATED.

7.) ANY AND ALL SPRINKLERS PLACED IN LOCATION WHERE THEY ARE LIABLE TO BE ACCIDENTALLY HIT IN THE NORMAL COURSE OF EVENTS SHALL BE PROVIDED WITH HEAVY WIRE GUARDS.

**F. WATER FLOW DETECTORS**

1.) DETECTOR SHALL BE UL LISTED FM APPROVED VANE TYPE. THE ACTUATION MECHANISM SHALL INCLUDE A ROTARY SWITCH MOUNTED THROUGH A HOLE IN THE PIPE AND CONNECTED BY A MECHANICAL LINKAGE TO THE DELAY MECHANISM. THE DELAY MECHANISM SHALL BE A SEALED MECHANICAL PNEUMATIC UNIT WITH VISUAL INDICATION OF ACTUATION. OUTPUTS SHALL CONSIST OF DUAL SWITCHES. TWO CONDUIT ENTRANCES FOR STANDARD FITTINGS OF COMMONLY USED ELECTRICAL CONDUIT SHALL BE PROVIDED ON THE DETECTORS. MODEL WDFE SERIES AS MANUFACTURED BY STAR SPRINKLER CO., OR APPROVED EQUAL.

2.) DETECTORS SHALL BE WEATHERPROOF, DUST PROOF AND FINISHED IN RED BAKED ENAMEL.

3.) THE VANE SHALL BE POLYETHYLENE FLEXIBLE VANE ATTACHED TO AN ALUMINUM PIPE SADDLE AND ATTACHED TO PIPE WITH STEEL "U" BOLT CLAMPS.

4.) THE DETECTOR SHALL RESPOND TO WATERFLOW IN THE SPECIFIED DIRECTION AFTER A PRESET TIME DELAY.

5.) THE DETECTOR SHALL ACTIVATE THE ALARM PANEL AND LOCAL BELLS SIMULTANEOUSLY.

**G. FIRE ALARM CONTROL PANEL**

1.) FLUSH MOUNTED FIRE ALARM PANEL CONTAINING AUDIBLE AND VISUAL ALARMS FOR SPRINKLER FLOW ALARMS.

2.) PANEL SHALL BE NATIONAL ELECTRIC CODE GAUGE SHEET STEEL WITH OVERLAPPING TRIM AND HINGED DOOR WITH BULLS EYE LAMP INDICATORS AND NAMEPLATES. FLUSH MOUNTED ON DOOR. OVERALL DIMENSIONS SHALL BE KEPT TO A MINIMUM.

3.) 10" AUDIBLE BELLS INDICATING ON ALARM CONDITION SHALL BE INCORPORATED AT THE ALARM PANEL, AT EACH FLOOR AND OUTSIDE BUILDING FRONT WALL. A CUT-OFF SWITCH SHALL BE MOUNTED ON THE DOOR TO SILENCE THE BELL EXCEPT THAT THE BULL'S EYE LAMP INITIATING THE ALARM SHALL REMAIN "ON" UNTIL THE ALARM CIRCUIT HAS BEEN CLEARED. PROVIDE BLACK LAMCOID NAMEPLATES UNDER EACH BULL'S EYE AND CUT-OFF SWITCH WITH 1/2" HIGH WHITE LETTERS IDENTIFYING THE PARTICULAR ALARM. NAMEPLATES SHALL BE PERMANENTLY FASTENED WITH MACHINE SCREWS; ADHESIVES ARE NOT ACCEPTABLE. BELLS SHALL BE RECESSED IN WALL AND PROTECTED BY WIRE CAGE.

4.) PANEL SHALL BE LOCATED WHERE DIRECTED IN CELLAR AND SHALL BE SUITABLE FOR OPERATION FROM 120-VOLT SINGLE-PHASE SOURCE VOLTAGE PROVIDED BY ANOTHER TRADE. THIS CONTRACTOR SHALL PROVIDE ALL NECESSARY CONTROL WIRING FROM THE ALARM PANEL TO THE SPRINKLER FLOW ALARM AND SWITCH. ALL NECESSARY RELAYS, TERMINAL STRIPS WIRING, ETC., REQUIRED FOR A COMPLETE AND FUNCTIONING ALARM SYSTEM SHALL BE INCLUDED.

5.) AS MANUFACTURED BY ADT SECURITY SYSTEM OR APPROVED EQUAL.

H. THE CONTRACTOR SHALL REFER TO ACCOMPANYING DRAWINGS FOR LOCATION OF SPRINKLER HEADS. INSTALLATION IS SUBJECT TO FIELD CONDITIONS AND CONTRACTOR SHALL VISIT SITE TO DETERMINE DIMENSIONAL DATA. NO COMPENSATION WILL BE GIVEN FOR MINOR ROUTING CHANGES.

I. THE ENTIRE SYSTEM SHALL BE INSTALLED SO THAT THE SYSTEM MAY BE DRAINED. DRIPS AND DRAINS SHALL BE PROVIDED TO SUPPORT HIGH-PRESSURE POINTS AT THE BASE OF EACH RISER AND AT LOW POINT OF EACH HORIZONTAL MAIN.

J. A TEST CONNECTION NOT LESS THAN 1" IN DIAMETER PROVIDING A FLOW EQUIVALENT TO ONE SPRINKLER SHALL BE PROVIDED TO TEST EACH RISER AND WATER FLOW ALARM. THE TEST CONNECTION SHALL BE READILY ACCESSIBLE AND IN A LOCATION WHERE IT IS NOT PRACTICAL TO TERMINATE THE TEST CONNECTION, A SIGHT GLASS MAY BE USED. THE DISCHARGE SHALL BE TO A DRAIN CONNECTION CAPABLE OF ACCEPTING FLOW UNDER SYSTEM PRESSURE. THE TEST CONNECTION SHALL BE LOCATED AT THE HIGHEST MOST REMOTE POINT.

K. PROVIDE FERROUS HANGERS IN ACCORDANCE WITH NFPA 13/6-1.1.2. SPRINKLER HANGERS SHALL NOT BE USED TO SUPPORT NON-SYSTEM COMPONENTS. THE BASE OF THE VERTICAL PIPE SHALL BE RIGIDLY ANCHORED AND SUPPORTED TO RELIEVE ANY UNDO STRESS ON THE HORIZONTAL SECTIONS.

L. PROVIDE IDENTIFICATION SIGN OF STANDARD DESIGN FASTENED SECURELY AT DESIGNATED LOCATIONS.

M. THE SYSTEM SHALL BE ARRANGED AND EQUIPPED SO THAT ACCIDENTAL FLOW ALARMS DUE TO SURGES OR RELATED CONDITIONS WILL BE PREVENTED.

N. UPON COMPLETION OF THE WORK SPRINKLER HEADS AND TRIMMINGS SHALL BE CLEANED AND POLISHED FREE FROM ANY MARKS AND LEFT IN FIRST CLASS CONDITION. DAMAGED HEADS WILL BE REPLACED AT NO ADDITIONAL COST.

**O. SIAMESE CONNECTION**

1.) THE FIRE DEPARTMENT SIAMESE CONNECTION SHALL BE OF AN APPROVED TYPE AND HALL BE EQUIPPED WITH LISTED PLUGS OR CAPS, PROPERLY SECURED AND ARRANGED FOR EASY REMOVAL BY FIRE DEPARTMENTS.

2.) SIAMESE CONNECTIONS SHALL BE OF THE FLUSH TYPE ONLY, AND WITH THE EXCEPTION OF THE SWIVEL CAPS, SHALL NOT PROJECT BEYOND THE STREET PROPERTY LINE. THE RISER PIPE TO A FREESTANDING SIAMESE CONNECTION SHALL BE RED BRASS. WHEN SIAMESE CONNECTIONS ARE INSTALLED IN WALL RECESSES, THE RECESSES SHALL BE OF AMPLE SIZE TO PERMIT THE CONVENIENT HOSE ATTACHMENT.

3.) SIAMESE CONNECTOR SHALL BE BRASS.

4.) SIAMESE CONNECTION SHALL BE INSTALLED AS REQUIRED UNDER BUILDING CODE SECTIONS 27-940, 27-941, 27-959 AND 27-960

P. PROVIDE LOCKING ENAMELED STEEL SPRINKLER CABINET WITH APPROVED NUMBER OF HEADS (MINIMUM 6 HEADS) OF ALL TYPES AND RATING, AND TWO (2) SPRINKLER WRENCHES. CABINET SHALL BE SECURELY FASTENED TO WALL IN WATER METER ROOM.

O. THE ENTIRE SYSTEM SHALL BE FLUSHED AND TESTED BY THE CONTRACTOR IN THE PRESENCE OF AND TO THE SATISFACTION OF THE INSPECTORS OF ALL AGENCIES HAVING JURISDICTION.

R. UPON COMPLETION OF THE PIPING SYSTEM THE CONTRACTOR SHALL SUBMIT THE ENTIRE SYSTEM TO A 2-HOUR HYDROSTATIC TEST DURING WHICH A SYSTEM PRESSURE OF 175 PSI SHALL BE MAINTAINED.

**S. PIPE INSULATION**

1.) INSULATE ALL PIPES, FITTINGS AND VALVES ABOVE TOP FLOOR AREAS OR AREAS SUBJECT TO FREEZING WITH HEAVY DENSITY FIBERGLASS INSULATION WITH VAPOR RETARDER JACKET.

2.) MATERIAL TO MEET ASTM C547 CLASS 1 & 2, AND FIRE SAFETY REQUIREMENTS ASTM E84, UL 723

3.) ALL PIPE INSULATION SHALL BE 2" THICK.

4.) PIPE INSULATION SHALL BE OWENS CORNING FIBERGLASS ASJ/SSL H - II, CERTAINTED 500 SNAP-ON OR APPROVED EQUAL.

**15C.12 MAINTENANCE AND OPERATING INSTRUCTIONS**

27. SUBMIT THREE SETS OF TYPEWRITTEN MAINTENANCE AND OPERATING INSTRUCTIONS FOR ALL EQUIPMENT FURNISHED IN BUILDING.

28. GIVE FULL INSTRUCTIONS TO THE ARCHITECT AND MANAGEMENT GROUP AS TO THE LOCATION, OPERATION AND MAINTENANCE OF ALL MACHINERY, APPARATUS AND OTHER WORK INSTALLED BY HIM.

**15C.13 REQUIREMENTS AND GUARANTEE**

NOTE: ANY CHANGE FROM THE ORIGINAL INTENT (SCOPE OF WORK) MUST BE APPROVED BY ARCHITECT.

29. UPON COMPLETION OF ALL WORK TO BE PERFORMED UNDER THE CONTRACT AND ACCEPTANCE OF SAME BY ARCHITECT, THE CONTRACTOR SHALL EXECUTE AND DELIVER IN A FORM SATISFACTORY TO ARCHITECT, A GUARANTEE THAT ALL WORKMANSHIP AND MATERIALS USED IN THE PERFORMANCE OF THIS CONTRACT, SHALL REMAIN FREE FROM DEFECTS FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF EXECUTION OF THE GUARANTEE. THIS CONTRACTOR SHALL GUARANTEE TO REPAIR OR REPLACE, AS DETERMINED BY ARCHITECT, ANY DEFECTIVE PORTIONS OF THE VARIOUS SYSTEMS DESCRIBED HEREIN THE GUARANTEE PERIOD.

30. ALL WORK UNDER THIS SPECIFICATION SHALL MEET THE REQUIREMENTS OF THE NEW YORK CITY BUILDING CODE AND AGENCIES HAVING JURISDICTION.

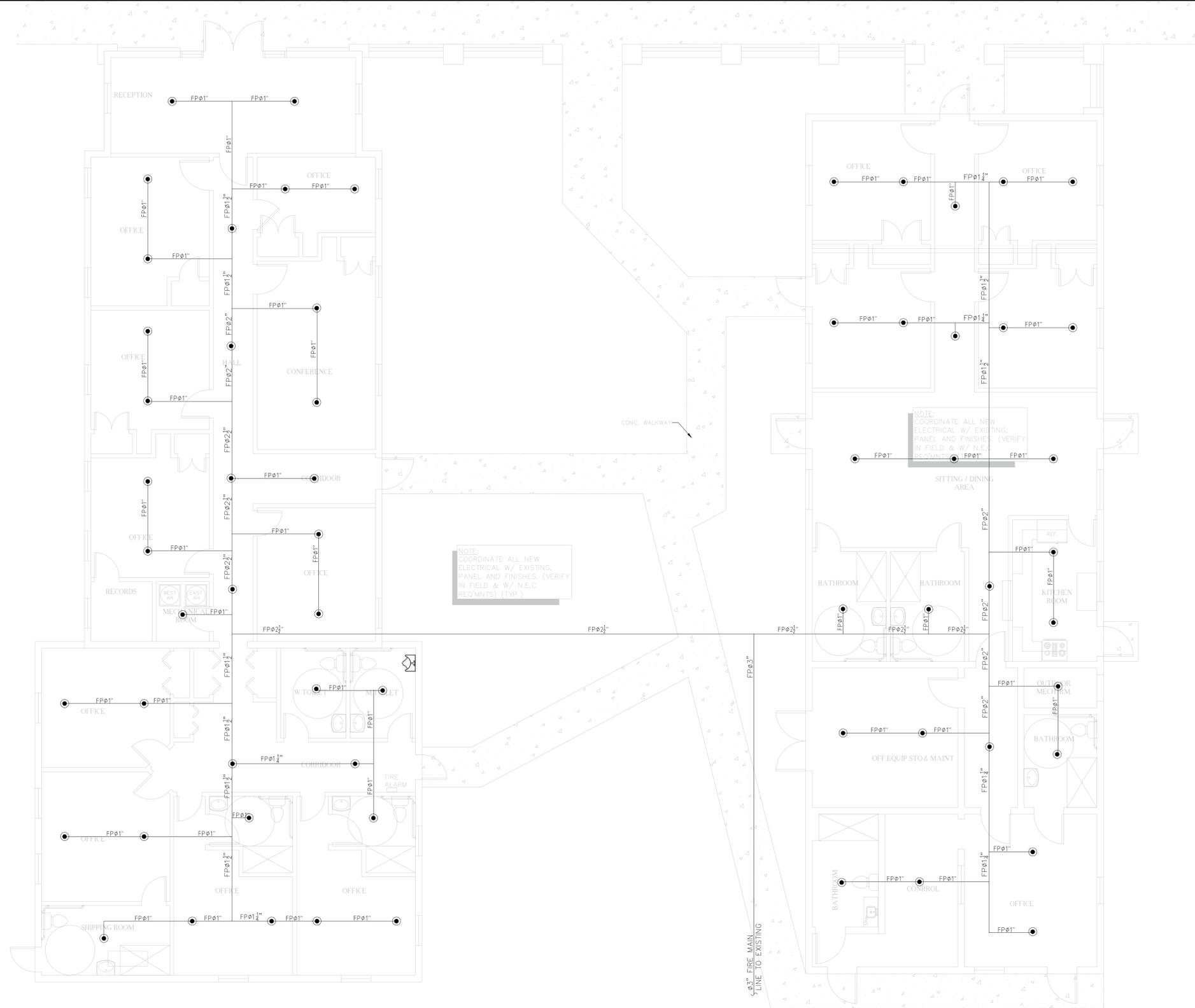
31. ALL WORKMANSHIP SHALL BE FIRST-CLASS IN EVERY RESPECT AND SHALL BE PERFORMED BY FULLY EXPERIENCED WORKMAN IN ACCORDANCE WITH BEST PRACTICES OF THE TRADE FOLLOWING THE RECOMMENDATIONS OF MANUFACTURERS.

32. ALL MATERIALS, DEBRIS, RUBBISH, ETC., RESULTING FROM THE WORK UNDER THIS SPECIFICATION SHALL BE IMMEDIATELY REMOVED BY THIS CONTRACTOR IN AN ORDERLY MANNER AND DISPOSED OF IN A LAWFUL MANNER. CLEAN ALL ADJOINING SURFACES OF SMUDGE, DIRT, GRIME, ETC., RESULTING FROM THIS WORK. BROOM SWEEP SIDEWALK AT END OF EACH WORKDAY.

33. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE STRUCTURE, ADJOINING SURFACES AND PERSONAL PROPERTY.

34. ALL WORK AND MATERIAL REQUIRED BY THIS SPECIFICATION SHALL BE FULLY PROTECTED AGAINST DAMAGE FROM ANY SOURCE. THIS CONTRACTOR SHALL REPLACE OR PAY FOR ANY MATERIAL OR WORK, WITHOUT EXPENSE TO THE CITY RESULTING FROM ANY CAUSE WHATSOEVER OR LOST BY THEFT OR VANDALISM, BEFORE FINAL ACCEPTANCE OF THE WORK.

35. THE CONTRACTOR SHALL PROVIDE ALL SCAFFOLDING NEEDED FOR COMPLETION OF THE WORK AND HE SHALL PROVIDE AND MAINTAIN AT HIS EXPENSE, ALL BARRIERS FOR PROTECTION OF PEDESTRIANS AS REQUIRED BY THE BUILDING AND TRAFFIC DEPARTMENTS. STREET AND PAVEMENTS SHALL NOT BE OBSTRUCTED OR CLOSED UNTIL



Proposed Fire Sprinkler Plan (West)  
Scale: 3/16" = 1'-0"

Proposed Fire Alarm Plan (East)  
Scale: 3/16" = 1'-0"

Revision notes:		
Rev:	Date:	Notes:

Engineer/Architect Signature:

Drawn by:  
E.ROLLE

Client:  
Roy Yeager Construction Co

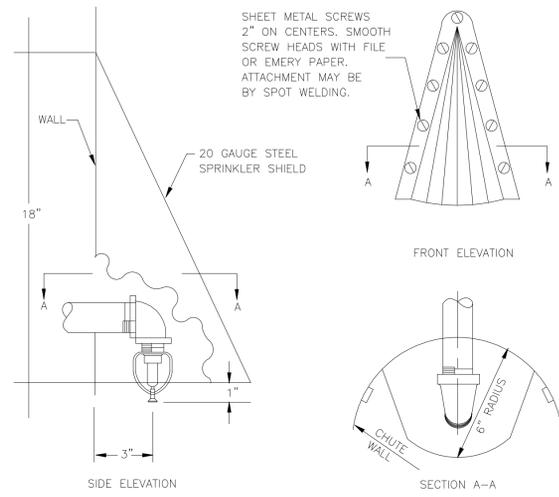
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**PRO. RETIREMENT HOME**  
13002 TARPON SPRINGS ROAD ODESSA FLORIDA 33556

Drawing Title:  
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**SHEET NO : FS1.2**

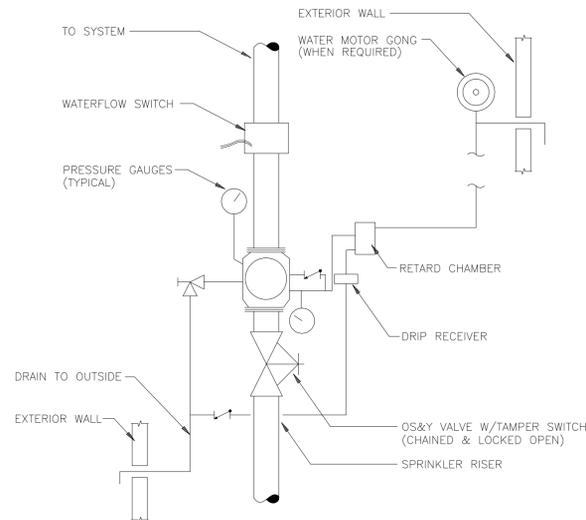
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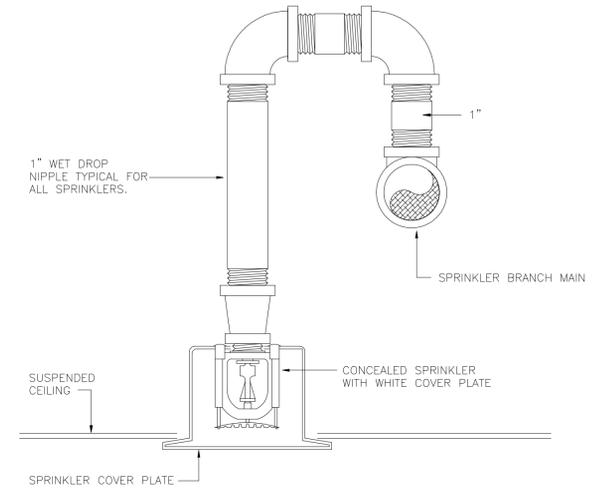
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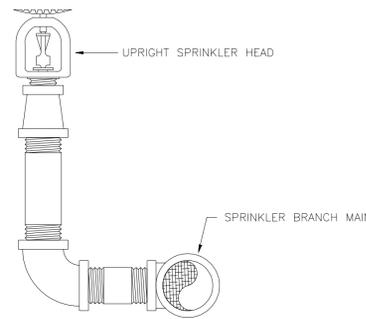
**SPRINKLER CHUTE**  
NOT TO SCALE



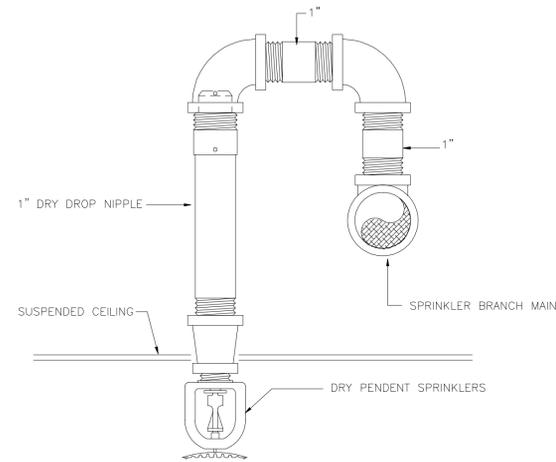
**ALARM CHECK VALVE ASSEMBLY**  
NOT TO SCALE



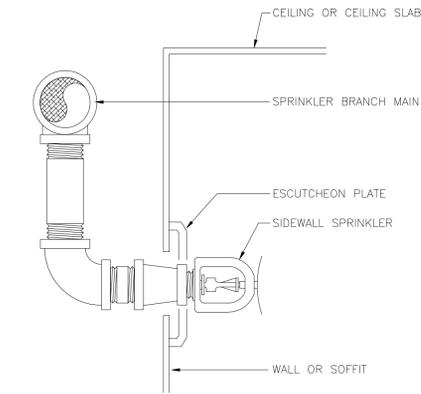
**TYPICAL CONCEALED SPRINKLERS**  
NOT TO SCALE



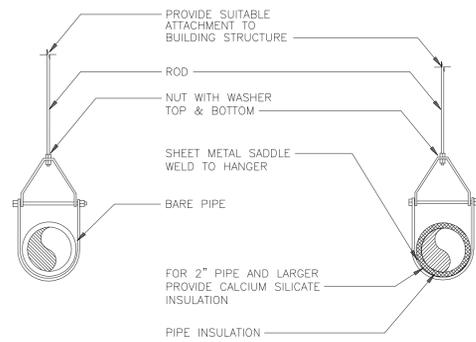
**TYPICAL UPRIGHT SPRINKLERS**  
NOT TO SCALE



**TYPICAL DRY-PENDENT SPRINKLER INSTALLATION**  
NOT TO SCALE



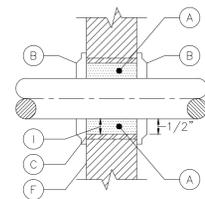
**TYPICAL SIDEWALL SPRINKLER HEAD**  
NOT TO SCALE



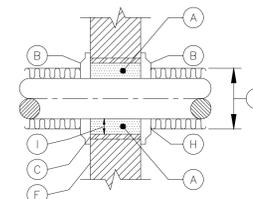
**TYPICAL HANGING DETAIL**  
NOT TO SCALE

- (A) PACK ALL SPACES FULL DEPTH W/MINERAL WOOL OR OTHER EQUALLY APPROVED FIRE RESISTIVE MATERIAL. (ASBESTOS OR FIBERGLASS SHALL NOT BE USED)  
FIRE RESISTANT FOAM SEALANT CHASE FOAM CTC P2-655(N.Y.C. MEA 58-79 M1 & 11) MAY BE USED. INSTALLATION AS PER MANUFACTURER.
- (B) ESCUTCHEON BOTH SIDES.
- (C) SLEEVE
- (D) INSULATION (OUTSIDE DIAMETER)

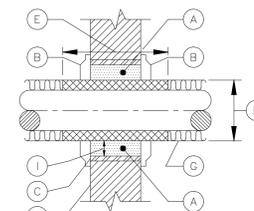
- (E) ANHYDROUS CALCIUM SILICATE INSULATION THRU SLEEVE.
- (F) FIRE RATED PARTITION, WALL OR FLOOR.
- (G) FIBERGLASS INSULATION
- (H) TERMINATE INSULATION AT ESCUTCHEON
- (I) MAXIMUM 1/2" CLEARANCE BETWEEN INSIDE OF SLEEVE & PIPE.



BARE PIPING



INSULATED PIPING



INSULATED PIPING (ABOVE 160°F)

**DETAIL OF PIPING PIERCING FIRE RATED PARTITIONS, WALLS & FLOORS.**  
NOT TO SCALE

Revision notes:		
Rev:	Date:	Notes:

Engineer/Architect Signature:

Drawn by:  
E.ROLLE

Client:  
Roy Yeager Construction Co

Project:  
**PRO. RETIREMENT HOME**  
13002 TARPON SPRINGS ROAD ODESSA FLORIDA 33556

Drawing Title:  
**SHEET NAME : FIRE SPRINKLER DETAILS**  
**SHEET NO : FS1.3**

Date:  
02/01/2023

Scale @ 24X36:  
NTS

Revision: