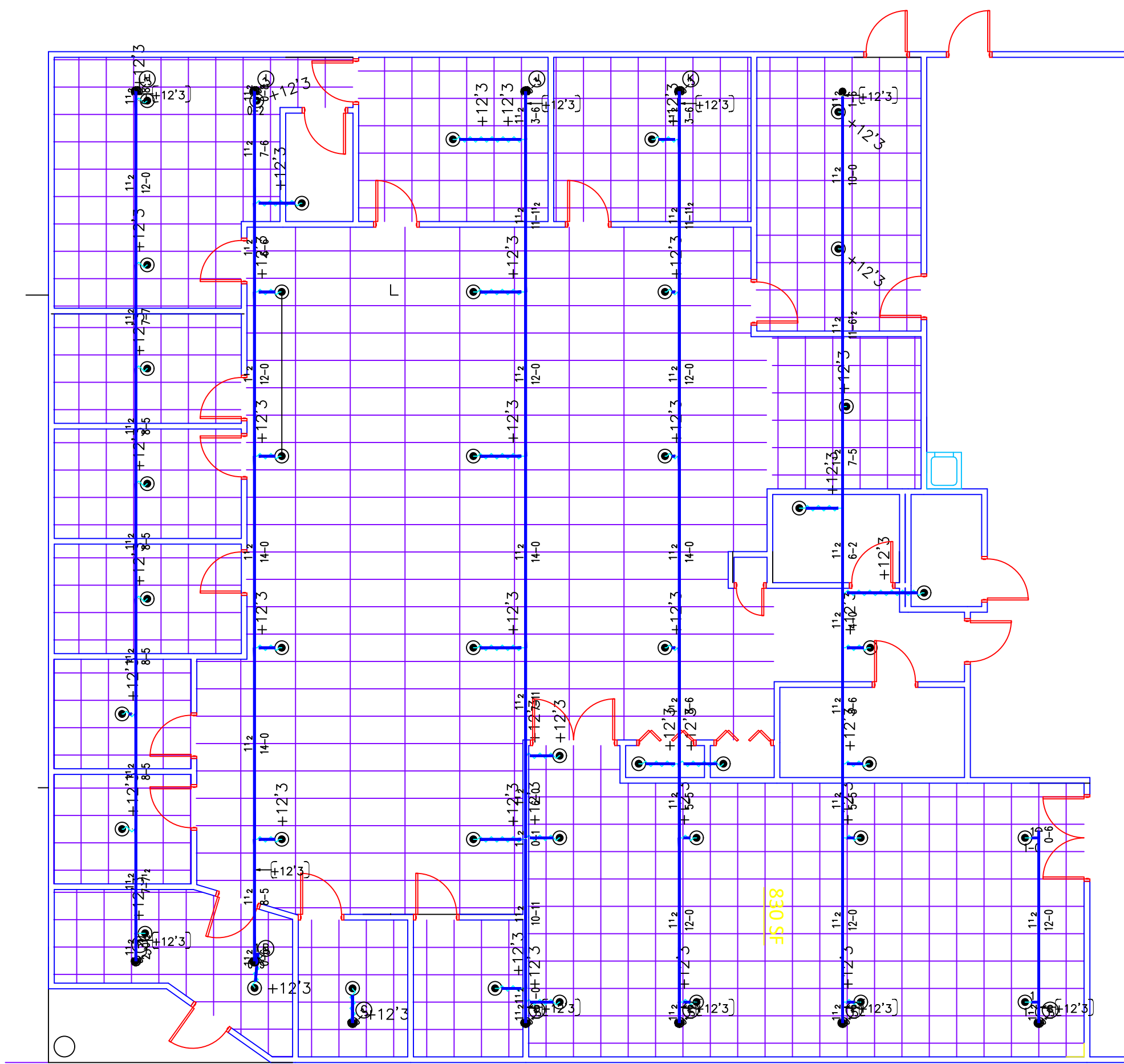




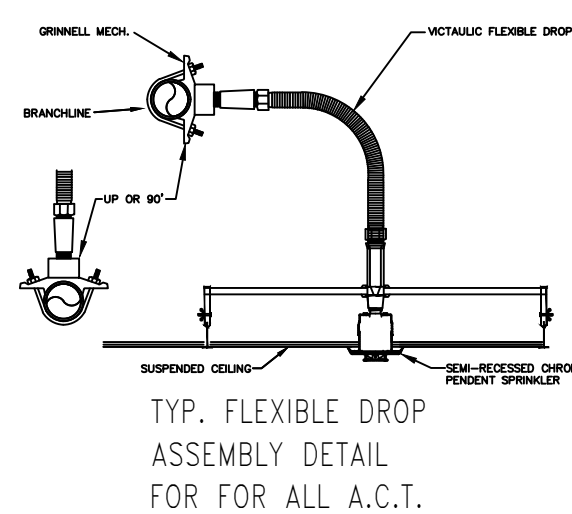
OFFICE PLAN

SCALE: 1/8"=1'-0"

M.C.S. FIRE PROTECTION NOTES

- PLANS CONFORM TO THE 2013 EDITION OF NFPA 13 AND LOCAL A.H.J. REQUIREMENTS.
- ALL THREADED PIPE 2" & SMALLER IS SCH. 40. ALL GROOVED PIPE 1-1/2" & LARGER IS SCH. 10 UNDERGROUND IS DUCTILE IRON.
- ALL FITTINGS PER NFPA 13 TO BE GROOVED FITTINGS AND COUPLINGS FOR SCH. 10 PIPE AND GROOVED, CAST OR MALLEABLE IRON SCREWED FITTINGS FOR SCH. 40 PIPE.
- FOR BUILDING OCCUPANCY, ALL SPRINKLERS SHALL HAVE THEIR DEFLECTORS INSTALLED BELOW ROOF AND/OR CEILING ASSEMBLIES BETWEEN 1" TO 12" MAXIMUM, DEPENDING ON THE TYPE OF ROOF AND/OR CEILING CONSTRUCTION CLASSIFICATION.
- OTHERS ARE RESPONSIBLE FOR MAINTAINING BUILDING TEMPERATURE AT ABOVE FREEZING.
- THE UNSUPPORTED LENGTH BETWEEN THE END SPRINKLER AND THE LAST HANGER SHALL NOT BE MORE THAN 36" FOR 1" PIPE, OR 48" FOR 1-1/4" PIPE.
- ALL ARMORS GREATER THAN 24" SHALL BE SUPPORTED BY A HANGER.
- 1" TO 4" PIPE TO BE SUPPORTED WITH 3/8" ALL THREAD ROD AND 3/8" HANGER ASSEMBLIES. 5" TO 6" PIPE TO BE SUPPORTED WITH 1/2" ALL THREAD ROD AND 1/2" HANGER ASSEMBLIES.
- CONTROL VALVES TO BE PROVIDED WITH TAMPER SWITCHES INSTALLED BY M.C.S. & CONNECTED TO FIRE DEPARTMENT REMOTE STATION. WIRING BY OTHERS.
- NO COMBUSTIBLE CONSTRUCTION WILL BE ABOVE THE CEILINGS, BELOW FLOORS, OR IN ANY CONCEALED SPACES UNLESS PROTECTED BY SPRINKLERS.
- IF HORIZONTAL OVERHEAD DOORS ARE PROVIDED, SPRINKLER PROTECTION SHALL BE PROVIDED BOTH ABOVE AND BELOW THE DOORS (UNLESS NOTED OTHERWISE).
- BEFORE ANY SPRINKLER PIPING IS CONCEALED THE SPRINKLER CONTRACTOR SHALL NOTIFY LOCAL A.H.J. INSPECTOR 48 HOURS IN ADVANCE, SO THAT THE FIRE INSPECTOR CAN INSPECT THE SYSTEMS PIPING FOR CONFORMANCE WITH CODE REQUIREMENTS.
- HYDROSTATICALLY TEST ALL NEW SPRINKLER PIPING AT 200psi FOR 2 HOURS. NOTIFY LOCAL A.H.J. AND/OR PROPER AUTHORITIES 48 HOURS PRIOR TO TEST.
- ALL OFFICE AND BREAKROOM AND RESTROOMS ARE CLASSIFIED AS LIGHT HAZARD OCCUPANCIES.
- MEZZANINE, AND STORAGE CLOSETS ARE CLASSIFIED AS ORDINARY HAZARD OCCUPANCIES.
- WAREHOUSE IS CLASSIFIED AS EXTRA HAZARD GROUP 2 OCCUPANCIES.

HYDRAULIC DESIGN DATA	
A.H.J. ROANOKE COUNTY	
DESIGN STD. NFPA 13 2013 EDITION	
PIPE TYPES	
MAINS SCHEDULE 10	
BRANCHES SCHEDULE 10/40	
SPRINKLER ORIFICE 1/2" K= 5.6	
AREA LOCATION REMOTE AREA #2	
# OF FLOWING SPRINKLERS 8	
DENSITY 40 G.P.M./SQ.FT. 2500	
REMOTE AREA 802 SQ.FT.	
DEMAND AT BASE OF RISER	
FLOW 435.5 G.P.M.	
PRESSURE 32.7 P.S.I.	
INSIDE HOSE STREAM 0 G.P.M.	
DEMAND AT SOURCE CONNECTION	
FLOW 435 G.P.M.	
PRESSURE 32.7 P.S.I.	
OUTSIDE HOSE STREAM 100 G.P.M.	



NOTE: ALL UPRIGHT SPRINKLERS TO BE 1"-12" BELOW ROOF DECK!

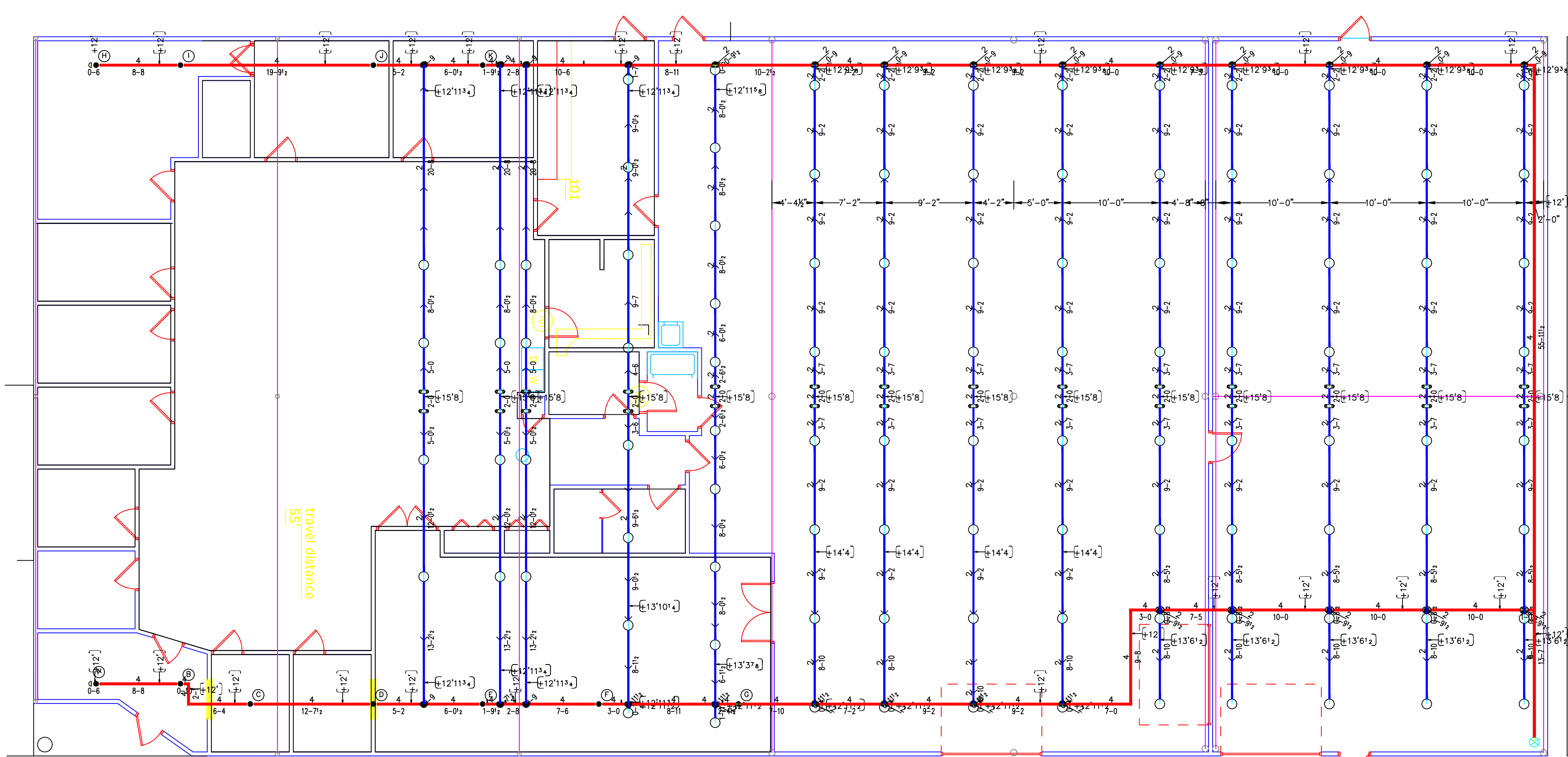
NOTE: ALL SPRINKLER HEADS IN THE WAREHOUSE ARE SPACED FOR EXTRA HAZARD GROUP 2!

NOTE: ALL SPRINKLER HEADS IN THE OFFICE ARE SPACED FOR LIGHT HAZARD!

NOTE: ALL SPRINKLER HEADS ABOVE THE OFFICE AREA ARE SPACED FOR ORDINARY HAZARD GROUP 2!

SCOPE OF WORK

MAGIC CITY SPRINKLER HAS BEEN CONTRACTED TO DESIGN & INSTALL A NEW WET AUTOMATIC SPRINKLER SYSTEM FOR DAVIDSON HOUSE ON COMMONWEALTH DR. IN ROANOKE CO. VA PLANS CONFORM TO THE NFPA-13 2013 EDITION. AND THE LOCAL AUTHORITY HAVING JURISDICTION. MAGIC CITY SPRINKLER IS NOT RESPONSIBLE FOR THE INSTALLATION OF UNDERGROUND PIPING, VAULT INSTALLATION, NOR CONNECTING TO THE CITY WATER MAIN. IT IS TO BE INSTALLED AND SUBMITTED BY OTHER.



WAREHOUSE PLAN

SCALE: 1/8"=1'-0"

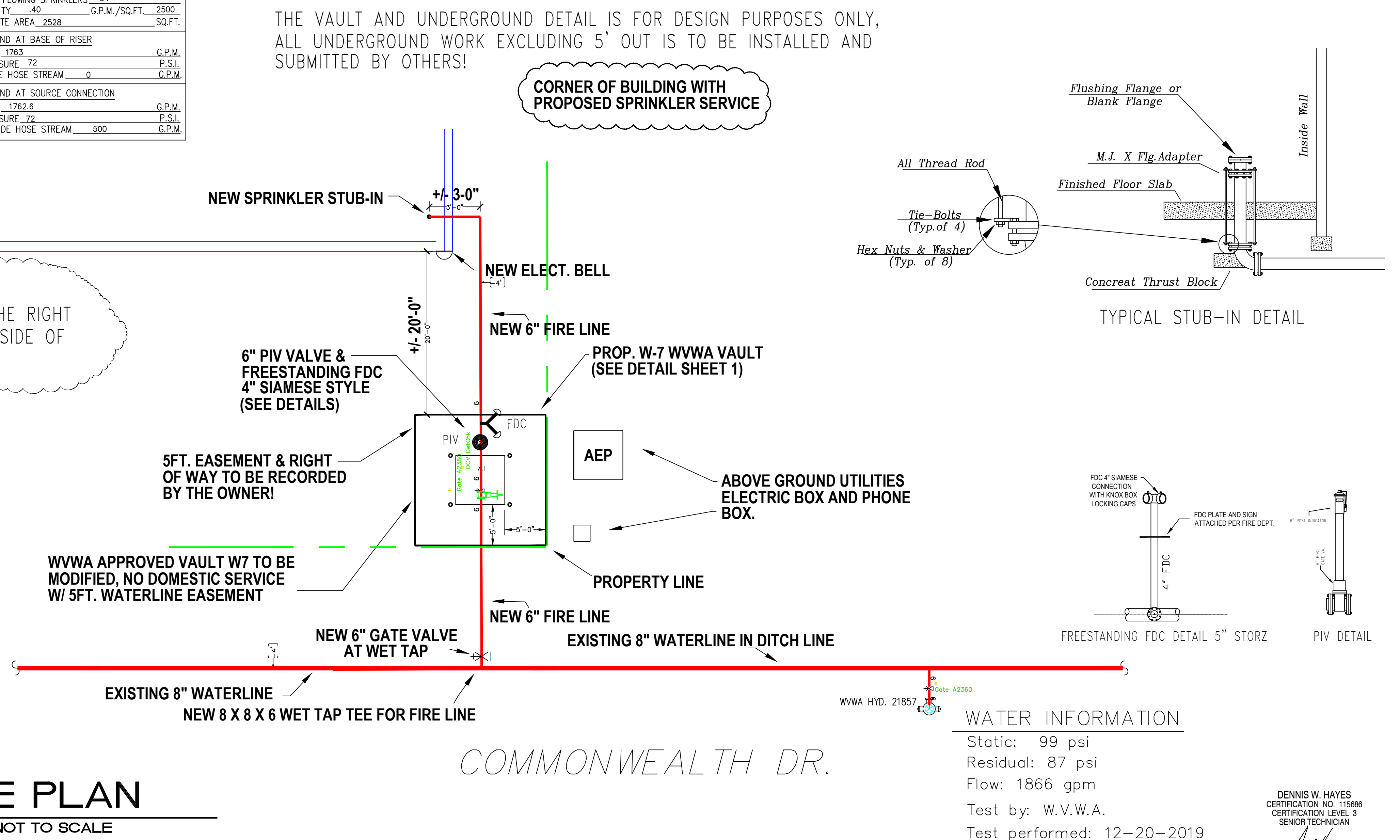
HYDRAULIC DESIGN DATA	
A.H.J. ROANOKE COUNTY	
DESIGN STD. NFPA 13 2013 EDITION	
PIPE TYPES	
MAINS SCHEDULE 10	
BRANCHES SCHEDULE 10/40	
SPRINKLER ORIFICE 3/4" K= 11.2	
AREA LOCATION REMOTE AREA #1	
# OF FLOWING SPRINKLERS 34	
DENSITY 40 G.P.M./SQ.FT. 2500	
REMOTE AREA 2538 SQ.FT.	
DEMAND AT BASE OF RISER	
FLOW 1783 G.P.M.	
PRESSURE 72 P.S.I.	
INSIDE HOSE STREAM 0 G.P.M.	
DEMAND AT SOURCE CONNECTION	
FLOW 1782.6 G.P.M.	
PRESSURE 72 P.S.I.	
OUTSIDE HOSE STREAM 500 G.P.M.	

REVISION NOTE

THE VAULT AND UNDERGROUND WAS MOVED TO THE RIGHT 3 FOOT.. ALSO THE RUN IN WAS MOVED TO THE SIDE OF THE BUILDING.

SITE PLAN

SCALE: NOT TO SCALE



WATER INFORMATION

Static: 99 psi
Residual: 87 psi
Flow: 1866 gpm
Test by: W.V.W.A.
Test performed: 12-20-2019

DENNIS W. HAYES
CERTIFICATION NO. 115686
CERTIFICATION LEVEL 3
SENIOR TECHNICIAN

JOB NORTH	
QTY.	SYM.
44	QR-SSP
102	ELQ-231-SSU
3	QR-HSW
149 TOTAL THIS SHEET	

HEAD LEGEND	
TEMP	K
FINISH	NPT
MAKE	MFG.
MODEL	SIN No.
ESCUTCHEON	
44	QR-SSP
102	ELQ-231-SSU
3	QR-HSW
PROJECT TOTAL 149	

GENERAL NOTES	
1.	ALL PIPE 2" AND SMALLER TO BE SCHEDULE 10 AND/OR 40 STEEL PIPE. PIPE 2-1/2" AND LARGER TO BE SCHEDULE 10 AND/OR 40 STEEL PIPE.
2.	ALL SPRINKLER SYSTEM MATERIALS TO BE U.L. LISTED AND/OR FACTORY MUTUAL APPROVED.
3.	PIPE HANGERS TO BE INSTALLED IN ACCORDANCE WITH THE LATEST ADOPTED EDITION OF NFPA 13 2010.
4.	IT IS THE RESPONSIBILITY OF THE OWNER TO PROVIDE AND MAINTAIN HEAT IN ALL AREAS OF SPRINKLER SYSTEM SUBJECT TO FREEZING.
5.	PAINTING AND PATCHING BY OTHERS.
6.	ELECTRICAL WIRING BY OTHERS.
7.	SPRINKLER HEADS ARE NOT REQUIRED TO BE CENTERED IN CEILING TILES ONE WAY.

TYPICAL HANGER DETAILS	
SYMBOL LEGEND	
	SYSTEM RISER - SEE RISER DETAIL
	SYSTEM CONTROL VALVE
	PIPE RISE OR DROP
	NEW PIPE
	EXISTING PIPE
	PIPE HANGER
	GROOVED COUPLING
	PIPE CENTERLINE ABOVE FINISHED FLOOR
	DISTANCE BELOW DECK IN INCHES TO CENTERLINE OF PIPE
	HYDRAULIC NODE OR REFERENCE POINT
	PIPE CAP
	SPRINKLER MAIN LINE PIPE TAG
	SPRINKLER BRANCH LINE PIPE TAG
	DDC BACKFLOW PREVENTER W/ TAMPER SWITCHES
	FIRE DEPARTMENT CONNECTION
	ACTUAL CUT LENGTH OF PIPE
	DIMENSION FROM STEEL OR WALL

REVISIONS	
DATE	DESCRIPTION
1/6/2020	SUBMITTED TO
5/28/2020	RESUBMITTED TO
6/5/2020	RESUBMITTED TO
MAGIC CITY SPRINKLER, INC.	
4601 GRANDY STREET N.E. ROANOKE, VIRGINIA 24012 (540)345-9810	
DAVIDSON HOUSE	
6410 COMMONWEALTH DR. ROANOKE, VA 24018	
FIRE PROTECTION PLAN	
Drawn by: T. OBENCHAIN	Permit #
Checked by: D.H.	File name
Scale: 1/8"=1'-0" UNO	Date: 1/6/2020
Insp. Told	Job no. 7628-19
Sheet	1 of 1