

DESIGN AREA NUMBER 2-5-A
HYDRAULIC DESIGN CRITERIA
 LOCATION= UNIT 502 ABOVE CEILING
 TYPE OF SYSTEM= NFPA 13
 AREA OF OPERATION= 1000-SQ.FT.
 NUMBER OF SPRINKLERS= 10
 DENSITY= 1.5 / HOSE DEMAND OF 100 GPM
 HAZARD CLASS= LIGHT HAZARD
 HEAD SPACING= 14.4 SQ.FT.
 SYSTEM DEMAND INCLUDING HOSE @
 BASE OF RISER= 252-GPM @ 92-PSI
 SAFETY MARGIN= 5-PSI

DESIGN AREA NUMBER 2-5-B
HYDRAULIC DESIGN CRITERIA
 LOCATION= UNIT 501 BELOW CEILING
 TYPE OF SYSTEM= NFPA 13
 AREA OF OPERATION= 1000-SQ.FT.
 NUMBER OF SPRINKLERS= 10
 DENSITY= 1.5 / HOSE DEMAND OF 100 GPM
 HAZARD CLASS= LIGHT HAZARD
 HEAD SPACING= 25.6 SQ.FT.
 SYSTEM DEMAND INCLUDING HOSE @
 BASE OF RISER= 255-GPM @ 82-PSI
 SAFETY MARGIN= 14-PSI

DESIGN AREA NUMBER 2-5-D
HYDRAULIC DESIGN CRITERIA
 LOCATION= MANUAL WET STANDPIPE STAIR 3
 TYPE OF SYSTEM= NFPA 13
 AREA OF OPERATION= 4-HEAD
 SUPPLY= 100 PSI @ 200 GPM
 SYSTEM DEMAND INCLUDING HOSE @
 BASE OF RISER= 750-GPM @ 162-PSI
 SAFETY MARGIN= 13-PSI



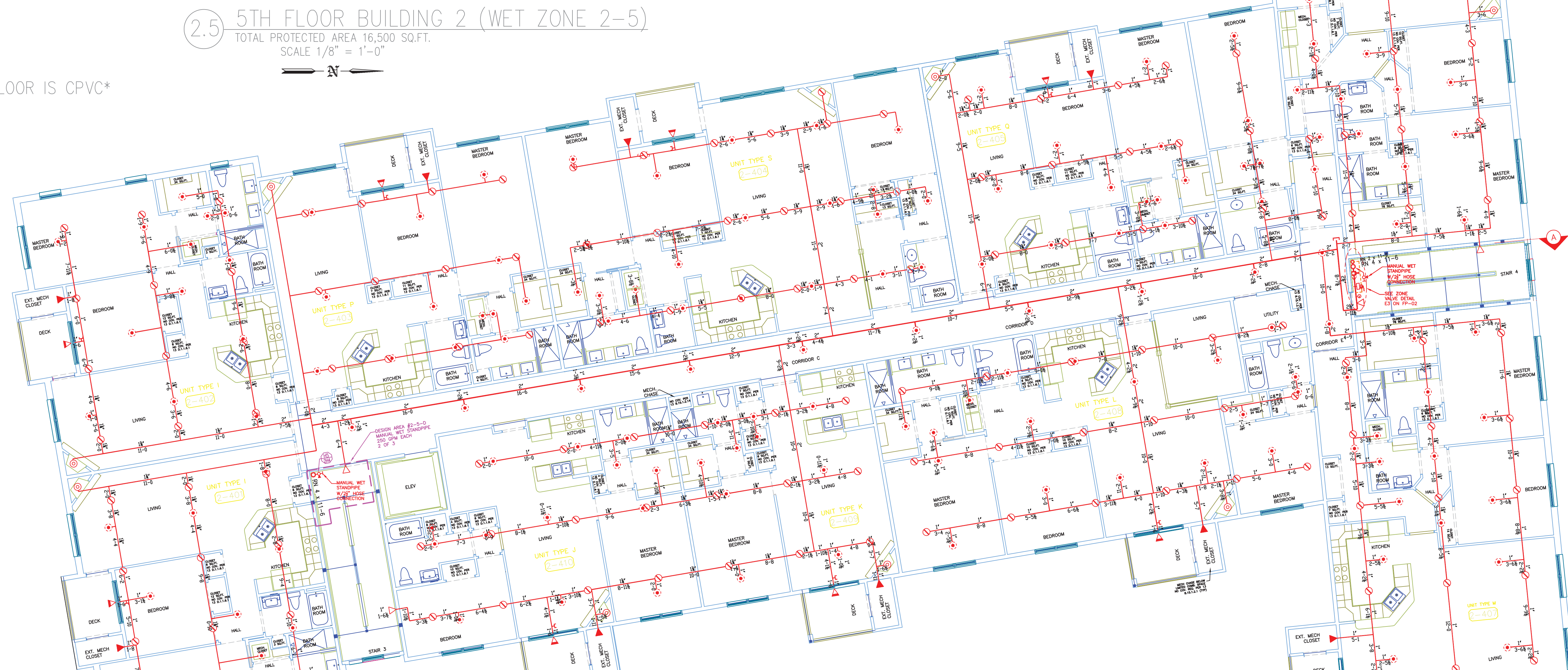
2.5 5TH FLOOR BUILDING 2 (WET ZONE 2-5)
 TOTAL PROTECTED AREA 16,500 SQ.FT.
 SCALE 1/8" = 1'-0"

ALL PIPING 2" AND SMALLER ON THIS FLOOR IS CPVC

NOTES FOR NFPA 13 2010ed. SYSTEM

- SPRINKLERS SHALL BE INSTALLED IN ALL AREAS.
- (13) 3.3.17 SMALL ROOMS
A ROOM OF LIGHT HAZARD OCCUPANCY CLASSIFICATION HAVING UNRESTRICTED CONSTRUCTION AND FLOOR AREAS NOT EXCEEDING 800 SQ FT THAT ARE ENCLOSED BY WALLS AND A CEILING ARE PERMITTED TO HAVE A HEAD SPACED 9' OFF ONE WALL.
- (13) 8.2.1 SYSTEM PROTECTION AREA
THE MAXIMUM FLOOR AREA ON ANY ONE FLOOR TO BE PROTECTED BY SPRINKLERS SUPPLIED BY ANY ONE SPRINKLER SYSTEM SHALL NOT EXCEED 52,000 SQ FT. FOR A LIGHT HAZARD OR ORDINARY HAZARD AREA.
- (13) 8.15.10.3 ELECTRICAL EQUIPMENT ROOM OMISSION
SPRINKLERS SHALL NOT BE REQUIRED IN ELECTRICAL EQUIPMENT ROOMS WHERE ALL OF THE FOLLOWING CONDITIONS ARE MET:
(1) THE ROOM IS DEDICATED TO ELECTRICAL EQUIPMENT ONLY.
(2) ONLY DRY-TYPE ELECTRICAL EQUIPMENT IS USED.
(3) EQUIPMENT IS INSTALLED IN A 2-HOUR FIRE RATED ENCLOSURE INCLUDING PROTECTION FOR PENETRATIONS.
(4) NO COMB. STORAGE IS PERMITTED TO BE STORED IN THE ROOM.
- (13) 8.15.5 ELEVATOR HOIST WAYS
SIDEWALL SPRAY SPRINKLERS SHALL BE INSTALLED AT THE BOTTOM OF EACH ELEVATOR HOIST WAY NOT MORE THAN 18" ABOVE THE FLOOR PIT.
- (13) 8.15.1.2.1.1 SPRINKLERS SHALL NOT BE REQUIRED IN A CONCEALED SPACE EVEN WITH A SMALL OPENING SUCH AS THOSE USED AS RETURN AIR FOR A PLenum.
- (13) 8.15.1.2.1.4 SPRINKLERS SHALL NOT BE REQUIRED IN VERTICAL PIPE CHASES UNDER 10 SQ.FT. WHERE PROVIDED IN MULTIFLOOR BUILDINGS WHERE THE CHASES ARE FIRESTOPPED AT EACH FLOOR USING MATERIALS EQUIVALENT TO THE FLOOR CONSTRUCTION, AND WHERE SUCH PIPE CHASES SHALL CONTAIN NO SOURCES OF IGNITION. PIPING SHALL BE WATER FILLED OR NONCOMBUSTIBLE AND PIPE PENETRATIONS AT EACH FLOOR SHALL BE PROPERLY SEALED.
- (13) D.1.1.6.1 SPRINKLERS SHALL NOT BE REQUIRED IN CLOTHES CLOSETS, LINEN CLOSETS, AND PANTRIES WITHIN THE DWELLING UNITS WHEN THE AREA OF THE SPACE DOES NOT EXCEED 12 FT SQ.

ALL PIPING 2" AND SMALLER ON THIS FLOOR IS CPVC



2.4 4TH FLOOR BUILDING 2 (WET ZONE 2-4)
 TOTAL PROTECTED AREA 16,500 SQ.FT.
 SCALE 1/8" = 1'-0"

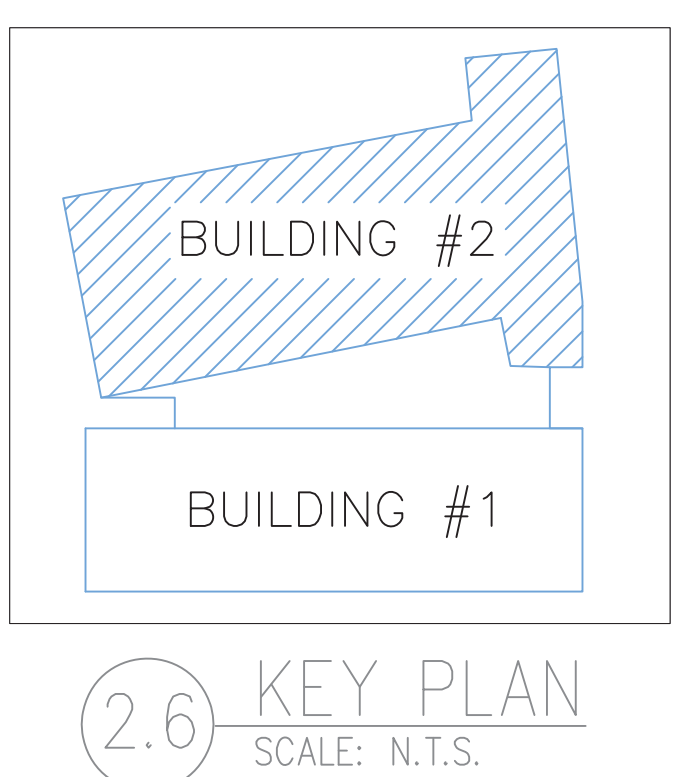
CPVC CURING TIMES
 FOR TFP-400, TFP-500
 VICTAULIC #899 & SPEARS FS-5
 CURE TIMES WITH ONE STEP SOLVENT CEMENT
 200 PSI (MAXIMUM) TEST PRESSURE

PIPE SIZE (INCHES)	AMBIENT TEMPERATURE DURING CURE PERIOD		
	60F TO 120F	40F TO 59F	0F TO 39F
3/4"	45 MIN.	1.5 HR.	24 HR.
1"	45 MIN.	1.5 HR.	24 HR.
1-1/4"	1.5 HR.	16 HR.	120 HR.
1-1/2"	1.5 HR.	16 HR.	120 HR.
2"	6 HR.	36 HR.	SEE NOTE 1
2-1/2"	8 HR.	72 HR.	SEE NOTE 1
3"	8 HR.	72 HR.	SEE NOTE 1

NOTE 1: FOR THESE SIZES, THE SOLVENT CEMENT CAN BE APPLIED AT TEMPERATURES BELOW 32F, HOWEVER, THE SPRINKLER SYSTEM TEMPERATURE MUST BE RAISED TO A TEMPERATURE OF 32F OR ABOVE AND ALLOWED TO CURE PER THE ABOVE RECOMMENDATIONS PRIOR TO PRESSURE TESTING.

CPVC HANGING NOTES
 CPVC MAXIMUM SUPPORT SPACING (FT.)

PIPE SIZE	NOMINAL PIPE SIZE				
	3/4"	1"	1-1/4"	2"	2-1/2"
HANGER SPACING	5'-1/2"	6'	6'-1/2"	7'	8'



VICTAULIC*
 MODEL V2704
 (20 / 200)
 K=5.6
 1/2" BRASS UPRIGHT ON SPRIG OR LINE
 DEFLECTORS 1" TO 6" BELOW
 COMBUSTIBLE MEMBERS

HIGH TECH FIRE PROTECTION
 P.O. BOX 156
 MINOT, ME. 04258-0258
 TEL: (207) 998-2551 FAX: (207) 998-4187
 MAINE LICENSE # 102

GENERAL CONTRACTOR ON RECORD:
 METRIC CORPORATION 55 HENSHAW STREET BOSTON, MA 02135

SPECIAL APPLICATIONS:
 DRY SYSTEM IN ACCORDANCE WITH STATE OF MAINE DRY PIPE POLICY 1/2" PITCH PER 10' ON MAINS AND SPRINKLER LINES.

LEGEND:
 ○ R/W/DN PIPE RISER UP OR DOWN
 ● AUXILIARY DRAIN
 — PROPOSED WET PIPE
 - - - PROPOSED DRY PIPE
 - - - PROPOSED DRAIN PIPE
 ⊕ SYSTEM RISER
 ⊙ HYDRAULIC CALC. POINT

DESIGN & SYSTEM NOTES:
 ALL PIPING 1/2" & LARGER TO BE SCHEDULE 10 WITH GROOVED DUCTILE IRON FITTING U.N.O.
 ALL PIPING 1/4" & SMALLER TO BE SCHEDULE 40 WITH APPROPRIATE FITTING U.N.O.
 POSITION, LOCATION, SPACING, AND USE OF SPRINKLERS SHALL BE IN ACCORDANCE WITH NFPA 13.
 HYDRAULIC CALCULATION PROCEDURES HAVE BEEN DONE IN ACCORDANCE WITH NFPA 13. (SEE PLANS FOR LOCATION OF REMOTE AREAS, HYDRAULIC REFERENCE POINTS, AND SYSTEM DEMANDS.)
 HIGH TECH FIRE PROTECTION IS TO BEGIN WORK AT 6" UNDERGROUND INSIDE OF BUILDING.
 DIMENSIONS AND LOCATIONS GIVEN FOR SPRINKLER HEADS AND PIPE MAY VARY TO ACCOMMODATE ACTUAL FIELD CONDITIONS.
 OWNER TO PROVIDE ADEQUATE HEAT THROUGHOUT BUILDING TO PROTECT WATER FILLED PIPING AND EQUIPMENT FROM FREEZING TEMPERATURES.
 ONLY TR-SEAL TAPES TO BE INSTALLED ON DRY AND OR PRE-ACTION SYSTEMS.
 OWNER IS RESPONSIBLE TO MAINTAIN THE SPRINKLER SYSTEM IN ACCORDANCE WITH THE LATEST EDITION OF NFPA 25. INSPECTION, TESTING, & MAINTENANCE OF WATER-BASED FIRE PROTECTION SYSTEMS AND/OR ALL APPLICABLE FEDERAL, STATE, AND/OR LOCAL LAWS, CODES AND ORDINANCES.
 ALL MECHANICAL, ELECTRICAL AND PLUMBING TRADES TO COORDINATE THEIR WORK WITH SPRINKLER CONTRACTOR.
 ALL ELECTRIC WORK IS TO BE DONE BY OTHERS.

HEAD LEGEND:
 GLOBE* MODEL GL5610 (326 / 155) K=5.6
 1/2" WHITE RESIDENTIAL PENDENT SEMI- RECESSED ESC. SPACING 16" X 16"
 GLOBE* MODEL GL5601 (6 / 155) K=5.6
 1/2" WHITE COMMERCIAL PENDENT SEMI- RECESSED ESC. (UTILITY ROOM AND STAIRS)
 VIKING* MODEL VK900 (280 / 175) K=4.2
 1/2" BRASS CONCEALED SPACE UPRIGHT
 GLOBE* MODEL GL5626 (24 / 200) K=5.6
 1/2" CHROME HORIZONTAL SIDEWALL SEMI RECESSED DEFLECTOR 4" TO 6" BELOW CEILING WITH HEAD CAGE
 GLOBE* MODEL GL5641 (20 / 200) K=5.6
 1/2" WHITE DRY HORIZONTAL SIDEWALL 4" TO 6" BELOW CEILING
 GLOBE* MODEL GL5626 (4 / 155) K=5.6
 1/2" WHITE HORIZONTAL SIDEWALL SEMI RECESSED DEFLECTOR 4" TO 6" BELOW CEILING
 OR APPROVED EQUAL

TOTAL HEADS ON THIS SHEET: 680
 SCALE: 1/8" = 1'-0"
 REVISIONS:
 NO. DATE: DESCRIPTION:
 DATE: MARCH 1, 2013
 DESIGNER: ED DULIN (RMS# 515)
 NICET LEVEL: IW CERT # 108534
 CHECKED BY: T. FORTIN / J. FOSS
 LOCATION:
 40 MIDDLE STREET
 PORTLAND, ME
 DRAWING TITLE:
 THE BAY HOUSE
 BLDG.2 4TH & 5TH FL.
 (WET ZONE 2-4 & 2-5)
 FIRE PROTECTION PLAN
 (NFPA 13 2010ed.)
 DRAWING NO.:
 FP-06

