

PIPING SYMBOLS	
DR	DRAIN RISER
DS	DRY PIPE SPRINKLER SYSTEM
F	FIRE MAIN, DISTRIBUTION PIPING
PS	PREACTION SPRINKLER SYSTEM
WSP	WET STANDPIPE SYSTEM
SP	WET SPRINKLER SYSTEM
→	DIRECTION OF FLOW
////	PIPING TO BE DEMOLISHED

WATER FLOW DATA

HAZARD CLASSIFICATION: LIGHT HAZARD

OBTAIN LATEST FLOW TEST RESULTS FROM OWNER FOR USE WITH NEW HYDRAULIC CALCULATIONS.

SPRINKLER HEAD SCHEDULE							
ID	TYPE	SYMBOL	DESCRIPTION	TEMP RATING	K FACTOR	ORIFICE	AREAS OF USE
A	CONCEALED	⊙	QUICK RESPONSE	155 F	5.6	1/2"	LIGHT/ORDINARY HAZARD
B	RECESSED PENDENT	⊙	QUICK RESPONSE	155 F	5.6	1/2"	LIGHT/ORDINARY HAZARD
C	SIDEWALL	◁	QUICK RESPONSE	155 F	5.6	1/2"	LIGHT/ORDINARY HAZARD
D	EXPOSED PENDENT	●	STANDARD RESPONSE	155 F	5.6	1/2"	EXPOSED AREAS
E	DRY PENDENT	●DP	STANDARD RESPONSE	165 F	5.6	1/2"	COLD ROOMS
F	EXPOSED PENDENT	●	STANDARD RESPONSE	200 F	5.6	1/2"	MECH/ELEC ROOMS
G	EXPOSED PENDENT	●	STANDARD RESPONSE	286 F	5.6	1/2"	ELEV MACHINE ROOMS
H	ESFR UPRIGHT	○	FAST RESPONSE	165 F	25	1"	WAREHOUSE AREA
I	EXPOSED UPRIGHT	○	QUICK RESPONSE	155 F	5.6	1/2"	POOL AREA
J	PENDENT	●	STANDARD RESPONSE	155 F	8.0	3/4"	ORDINARY HAZARD

* TYPE I HEAD SHALL HAVE TEFLON/POLYESTER COATING FOR CORROSION RESISTANCE

DRAWING LOG

APPLICABLE CODES:

- NFPA 13: STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS.
- NFPA 14: STANDARD FOR THE INSTALLATION OF STANDPIPE AND HOSE SYSTEMS.
- NFPA 70: NATIONAL ELECTRICAL CODE.
- NFPA 99: STANDARD FOR HEALTH CARE FACILITIES
- NFPA 101: LIFE SAFETY CODE

NO.	DESCRIPTION	DATE	BY	CHKD
FP-0	FIRE PROTECTION COVER SHEET			
FP-1	FIRE PROTECTION DEMOLITION PLAN			
FP-2	FIRE PROTECTION NEW WORK PLAN			
FP-3	FIRE PROTECTION DETAILS AND SPECIFICATIONS			

REVISION	DATE	DESCRIPTION
1	12-01-2014	REVIEW ISSUE
2	01-28-2015	STATE APPROVALS
3	03-20-2015	BLDG. DEPT. REVIEW

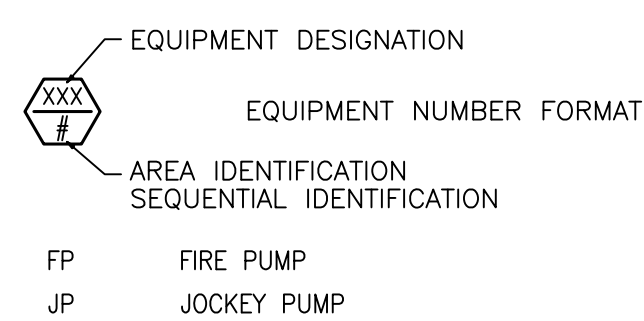
FIRE PROTECTION SYMBOLS

SYMBOL	DESCRIPTION
⊙	DRY STANDPIPE RISER
○	WET STANDPIPE RISER
⊙	DRAIN RISER
◁	ANGLE VALVE / FIRE HOSE VALVE (SIZE AS INDICATED)
▨	RECESSED CABINET (FEC), (FHC), (FHCC), (FHEC), OR (FHVC)
▨	SEMI-RECESSED CABINET (FEC), (FHC), (FHCC), (FHEC), OR (FHVC)
▨	SURFACE MOUNTED CABINET (FEC), (FHC), (FHCC), (FHEC), OR (FHVC)
⊙	WATER FLOW SWITCH
⊙	SYSTEM CONTROL VALVE (REFER TO SPECIFICATIONS FOR DESCRIPTION)
⊙	PRESSURE GAUGE
⊙	CHECK VALVE
⊙	CHECK VALVE WITH BALL DRIP
⊙	DOUBLE CHECK VALVE BACKFLOW PREVENTER
⊙	RPZ BACKFLOW PREVENTER
⊙	NON-RISING STEM VALVE (NON-INDICATING)
⊙	PRESSURE REGULATING VALVE
⊙	PRESSURE RELIEF VALVE
⊙	PRESSURE DETECTOR
⊙	ALARM CHECK VALVE
⊙	DRY PIPE VALVE
⊙	FLUSH MOUNTED (FDC) OR (WH)
⊙	SURFACE MOUNTED (FDC) OR (WH)
⊙	SIDEWALK MOUNTED FIRE DEPARTMENT CONNECTION OR TEST HEADER
⊙	SURFACE MOUNTED ROOF HYDRANT RO TEST HEADER
⊙	ROOF MOUNTED HYDRANT
⊙	OUTSIDE SCREW & YOKE VALVE
⊙	YARD HYDRANT
⊙	POST INDICATOR VALVE
⊙	WALL POST INDICATOR VALVE
⊙	PRESSURE RECORDER
⊙	SPRINKLER VALVE (PLAN)
⊙	WET PIPE SPRINKLER VALVE (ELEVATION)
⊙	DRY PIPE SPRINKLER VALVE (ELEVATION)
⊙	DELUGE SPRINKLER VALVE (ELEVATION)
⊙	PREACTION SPRINKLER DELUGE VALVE (ELEVATION)
⊙	PREACTION CONTROL PANEL
⊙	WATER MOTOR GONG
⊙	ELECTRIC ALARM BELL
⊙	SPRINKLER WITH GUARD
⊙	DRAIN AND TEST VALVES/FITTING
⊙	PIPE RISE
⊙	PIPE DROP
⊙	CLEAN AGENT STORAGE CONTAINER
⊙	PIPE HANGER
⊙	PUMP

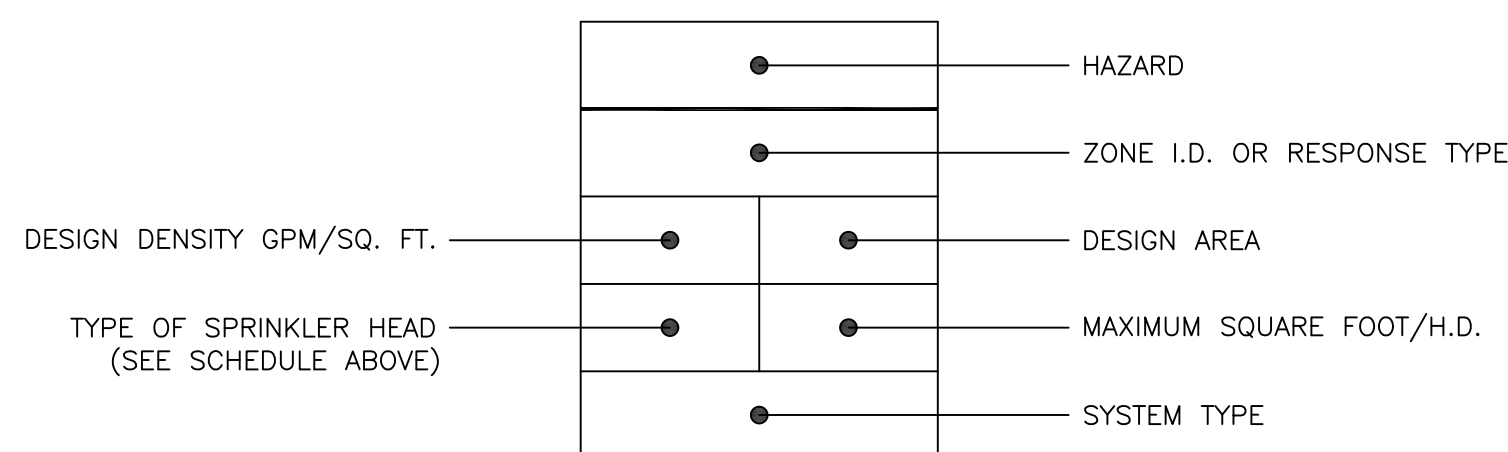
ABBREVIATIONS

ABBREVIATION	DESCRIPTION
ACV	ALARM CHECK VALVE
AFF	ABOVE FINISHED FLOOR
BFP	BACKFLOW PREVENTER
BOP	BOTTOM OF PIPE
BV	BUTTERFLY VALVE
CFM	CUBIC FEET PER MINUTE
CL	CLEAN AGENT
CLG	CEILING
COMP	COMPRESSOR
CO2	CARBON DIOXIDE
CV	CHECK VALVE
DL	DRY CHEMICAL
DIPS	DOUBLE INTERLOCKED PREACTION SYSTEM
DN	DOWN
DR	DRAIN RISER
DSP	DRY STANDPIPE
DS	DRY SPRINKLER SYSTEM
(E)	EXISTING
(ER)	EXISTING TO BE RELOCATED
FCP	FIRE ALARM CONTROL PANEL
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FDV	FIRE DEPARTMENT VALVE
FDVC	FIRE DEPARTMENT VALVE CABINET
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FH	FIRE HYDRANT
FP	FIRE PUMP
FPC	FIRE PUMP CONTROLLER
FS	FLOW SWITCH
GPM	GALLONS PER MINUTE
GV	GATE VALVE
HC	HOSE CABINET
HP	HORSE POWER
JP	JOCKEY PUMP
JPC	JOCKEY PUMP CONTROLLER
MTD	MOUNTED
(N)	NEW
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NRS	NON-RISING STEM VALVE
NTS	NOT TO SCALE
OS & Y	OUTSIDE SCREW & YOKE VALVE
PIV	POST INDICATOR VALVE
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
PR	PREACTION SPRINKLER SYSTEM
PS	PULL STATION
(ER)	EXISTING TO BE REMOVED
RPM	REVOLUTIONS PER MINUTE
SIPS	SINGLE INTERLOCKED PREACTION SYSTEM
SD	SMOKE DETECTOR
SQFT	SQUARE FEET FOOT
SPKR	SPRINKLER
SR	SPRINKLER RISER
TH	TEST HEADER
TS	TAMPER SWITCH
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
WB	WATERFLOW BELL
WF	WATER FLOW DETECTOR/SWITCH
WH	WALL HYDRANT
WM	WATER MIST
WSP	WATER STANDPIPE
WS	WET SPRINKLER SYSTEM
WT	WATER TANK
ZV	SPRINKLER ZONE VALVE

EQUIPMENT DESIGNATION



SPRINKLER SYSTEM DESIGN CRITERIA

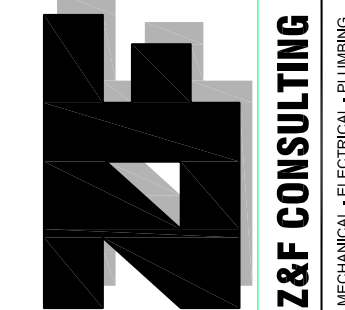


GENERAL DEMOLITION NOTES

- EXISTING WORK WHICH IS TO BE DEMOLISHED IS SHOWN DASHED. ALL OTHER WORK SHOWN ON THE DEMOLITION PLAN IS EXISTING TO REMAIN.
- REMOVE EXISTING EQUIPMENT, FIXTURES AND PIPING TO THE EXTENT INDICATED, AND DISPOSE OF IT OFF-SITE IN A SAFE AND LEGAL MANNER WHERE SUCH WORK IS INDICATED TO BE "DEMOLISHED."
- THE PURPOSE OF DEMOLITION DRAWINGS IS TO INDICATE THE SCOPE OF THE DEMOLITION WORK TO PERMIT THE INSTALLATION OF NEW WORK INDICATED ON SUBSEQUENT PLANS. COORDINATE ACTUAL DEMOLITION WORK WITH BOTH THE NEW WORK INDICATED AND THE ACTUAL FIELD CONDITIONS ENCOUNTERED.
- ANY SHUTDOWNS OF EXISTING MECHANICAL SYSTEMS SHALL BE BRIEF AND OCCUR WHEN USAGE IS NONEXISTENT OR VERY LIGHT, OR METHODS SHALL BE EMPLOYED WHICH PERMIT SYSTEMS TO STAY IN OPERATION AVOIDING SHUTDOWNS ALTOGETHER. THE OWNER SHALL DETERMINE WHEN AND IF AN EXISTING MECHANICAL SYSTEM MAY BE SHUT DOWN.
- ALL EQUIPMENT INDICATED TO BE DEMOLISHED SHALL FIRST BE OFFERED TO THE OWNER FOR HIS RETENTION. THE SCOPE OF DEMOLITION WORK, HOWEVER, SHALL INCLUDE THE DISPOSAL OF ALL DEMOLISHED EQUIPMENT OFF-SITE IN A SAFE AND LEGAL MANNER, REGARDLESS OF WHETHER THE OWNER EVENTUALLY DECIDES TO RETAIN ANY EQUIPMENT.
- PIPING WHICH SERVES OTHER AREAS, ENTERING AND PASSING THROUGH THE AREA WHERE DEMOLITION WORK IS INDICATED, SHALL REMAIN.
- CAP ANY EQUIPMENT, DUCTWORK OR PIPING ABANDONED IN PLACE AIR/WATER TIGHT. UNLESS NOTED OTHERWISE,
- PIPING INDICATED TO BE DEMOLISHED SHALL BE DEMOLISHED BACK TO THE NEAREST ACTIVE MAIN. THE MAIN, OR OTHER TERMINATION POINT, SHALL BE CAPPED AIR/WATER TIGHT. PIPING WITHIN WALLS, WHICH IS TO REMAIN WITHIN THE WALLS, SHALL BE CAPPED FAR ENOUGH INSIDE THE WALL TO ALLOW FOR PATCHING AND FINISHING OF THE WALL.
- WHERE EXISTING CEILINGS REMAIN, CAREFULLY REMOVE AND REINSTALL EXISTING CEILING TILES, AS REQUIRED, IN ORDER TO GAIN ACCESS TO DEMOLITION WORK.
- REFER TO AND COORDINATE FIRE PROTECTION DEMOLITION WORK WITH THAT OF OTHER DISCIPLINES AS SHOWN ON ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL.
- IF ANY MATERIAL IS UNCOVERED WHICH THE CONTRACTOR, SUBCONTRACTOR OR TRADESMAN SUSPECTS TO BE ASBESTOS, THEN WORK IN THE AREA SHALL CEASE UNTIL THE OWNER'S REPRESENTATIVE IS CONTACTED FOR A DETERMINATION OF WHETHER THE MATERIAL IS SAFE, SHOULD BE TESTED, OR SHOULD BE REMOVED.
- CAP THE OPEN END OF EXISTING TO REMAIN PIPING AND EQUIPMENT IMMEDIATELY AFTER OPENING PIPE/EQUIPMENT CONNECTIONS TO PREVENT DEBRIS FROM CONTAMINATING EXISTING TO REMAIN ITEMS.
- ALL EXISTING PIPING THAT IS TO BE REMOVED SHALL BE CAPPED OR PLUGGED BACK AT MAIN. REMOVED ALL UNUSED PIPING, LEAVING NO DEAD LEGS.

GENERAL NOTES

- NOT ALL SYMBOLS AND ABBREVIATIONS ARE NECESSARILY USED ON THIS PROJECT.
- ENTIRE AREA SHALL BE PROVIDED WITH HYDRAULICALLY CALCULATED WET PIPE AUTOMATIC SPRINKLERS IN ACCORDANCE WITH ALL APPLICABLE CODES, STANDARDS, AND REGULATIONS LISTED: NFPA 13, 14, 20, 24, 25, 70, 72, AND 101, INTERNATIONAL BUILDING CODE, INTERNATIONAL FIRE PREVENTION CODE, AND OWNER'S INSURANCE CARRIER.
- WATER FOR THE SPRINKLERS SHALL BE SUPPLIED FROM WET STANDPIPES OR FROM HORIZONTAL FIRE PROTECTION MAIN AS INDICATED ON DRAWINGS.
- SPRINKLER CONTROL VALVES WITH SUPERVISION, FLOW SWITCH, AND DRAIN AND TEST ASSEMBLY TO BE PROVIDED AT EACH LEVEL AT EACH SPRINKLER ZONE.
- SAFETY MARGIN OF AT LEAST 10 PSI SHALL BE INCLUDED IN HYDRAULIC CALCULATION FOR ALL ZONES. WATER VELOCITY IN PIPING SHALL NOT EXCEED 20 FEET PER SECOND.
- ALL SPRINKLERS INSTALLED IN AREAS WITH SUSPENDED CEILINGS SHALL BE LOCATED ON THE CENTER LINE OF THE TILE AND NOT LESS THAN 12" FROM EDGE OF THE CEILING TILE.
- SPRINKLERS OR SPRINKLER PIPING INSTALLED IN ELECTRICAL EQUIPMENT ROOMS SHALL NOT BE LOCATED DIRECTLY OVER SWITCHGEAR, ELECTRICAL CONTROL PANELS, OR OTHER ELECTRICAL EQUIPMENT.
- LOCATION OF SPRINKLERS AND SPRINKLER LINES AND HEADS SHOWN ON FIRE PROTECTION PLANS ARE APPROXIMATE. CONTRACTOR TO COORDINATE LOCATION OF LINES WITH THE WORK OF ALL OTHER TRADES.
- SPRINKLER PIPING SHALL NOT PASS THROUGH ELECTRICAL ROOMS OR CLOSETS, COMMUNICATIONS CENTERS, ELEVATOR HOISTWAYS OR ELEVATOR MACHINE ROOMS OR STAIRS TO SERVE OTHER AREAS.
- CONTRACTOR SHALL INSTALL SPRINKLERS IN STAIRS AT EACH FLOOR LANDING AND AT TOP OF STAIRS. IF STAIRS ARE OPEN AT THE LOWER LEVEL SPRINKLERS SHALL BE INSTALLED BELOW LOWEST LANDING.
- INSPECTOR TEST CONNECTIONS THAT DISCHARGE OUTSIDE OF THE BUILDING SHALL NOT DISCHARGE IN AN EGRESS LOCATION. OUTSIDE DISCHARGE DRAIN SHALL DRAIN TO A SPLASH BLOCK IN AN AREA APPROVED BY ARCHITECT AND ENGINEER. THIS CONTRACTOR SHALL COORDINATE LOCATION WITH ARCHITECT AND ENGINEER.
- ALL SPRINKLER DEVICES AND APPURTENANCES SHALL BE FM APPROVED AND UL LISTED.
- ALL PIPING, FITTINGS AND HANGING MATERIALS SHALL BE IN ACCORDANCE WITH NFPA 13.
- SPRINKLER HEADS LOCATED FOR REFERENCE ONLY. PROVIDE ALL REQUIRED HEADS PER NFPA 13.
- SPRINKLER HEADS AND PIPING SIZES ARE SHOWN FOR PRICING AND CLARITY. FIRE PROTECTION CONTRACTOR IS RESPONSIBLE FOR HYDRAULIC CALCULATIONS OF ENTIRE ZONE WITHIN WORK AREA. HEADS, LOCATIONS AND SIZES WILL BE BASED ON HYDRAULIC CALCULATIONS.
- REFER TO HVAC MECHANICAL DRAWINGS FOR LAYOUT OF DUCTWORK FOR SPRINKLER COVERAGE UNDER DUCTWORK AS REQUIRED BY CODE.
- WHERE HEAD LOCATIONS ARE NOT INDICATED, PROVIDE COORDINATED LAYOUT WITH ARCHITECTURAL CEILING PLAN AND OTHER TRADES. WHERE HEAD LOCATIONS ARE INDICATED, PROVIDE AT SHOWN LOCATIONS AS A MINIMUM. IF ADDITIONAL HEADS ARE REQUIRED TO CONFORM WITH THE AUTHORITY HAVING JURISDICTION OR CODES, COORDINATE BEFORE SHOP DRAWING SUBMITTALS.
- SHOP DRAWINGS: CONTRACTORS SHALL PROVIDE SHOP DRAWINGS FOR ALL SPECIFIED EQUIPMENT. CONTRACTOR SHALL PROVIDE COORDINATED SHOP DRAWINGS FOR PIPING AND SHEETMETAL, SHOWING COORDINATION WITH OTHER DISCIPLINES. NO EQUIPMENT, PIPING OR DUCTWORK SHALL BE INSTALLED WITHOUT AN APPROVED SHOP DRAWING. WORK OR EQUIPMENT INSTALLED WITHOUT ENGINEER'S APPROVAL WILL BE SUBJECT TO REMOVAL AND REWORK PER THE ENGINEER'S SOLE DISCRETION REGARDLESS OF DESIGN DOCUMENTS. ALL COST WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL ALLOW TEN (10) BUSINESS DAYS FOR ENGINEER REVIEW. ALL WORK SHALL BE INSTALLED PER THE APPROVED SHOP DRAWING. FIELD MODIFICATIONS TO THE APPROVED SHOP DRAWING SHALL BE SUBMITTED FOR ENGINEER APPROVAL PRIOR TO INSTALLATION.

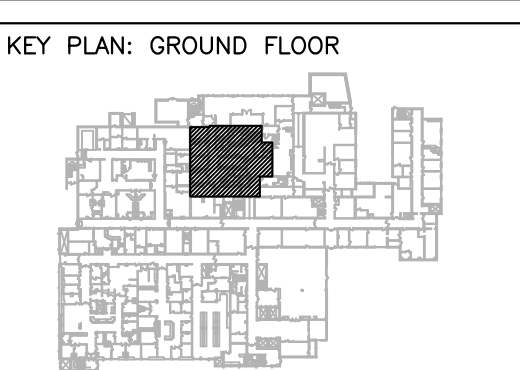


STATE: MAINE

JOHN ZABLONOWICZ, P.E.
PROFESSIONAL ENGINEER
LICENSE NO.: 13062

PROJECT:

MAINE MEDICAL CENTER
BRIGHTON CAMPUS
WOUND CARE AND HYPERBARIC MEDICINE
333 BRIGHTON AVENUE
PORTLAND, ME 04103



ISSUE DATES:

▲	JANUARY 26, 2015
▲	STATE APPROVALS
▲	MARCH 20, 2015
▲	BLDG. DEPT. REVIEW

DRAWN BY:	ECH
CHECKED BY:	BF
SCALE:	AS NOTED
PROJECT NO.:	P14110

SHEET TITLE:

FIRE PROTECTION COVER SHEET

DRAWING NO.:

FP-0