

**(PREACTION SYSTEM)
(LIBRARY STORAGE)
HYDRAULICALLY MOST
REMOTE AREA**
(2 GPM/SQ.FT. / 1534 SQ.FT.)
(ELEV. HIGHEST HEAD 116)

HYDRAULIC-SYSTEM
THIS BUILDING IS PROTECTED BY A HYDRAULICALLY DESIGNED AUTOMATIC SPRINKLER SYSTEM.

LOCATION: WET SYSTEM STORAGE

No. OF SPRINKLERS: 17
(CALCULATED)

BASIS OF DESIGN:
1. DENSITY (GPM/SQ.FT.) 2
2. DESIGNED AREA OF DISCHARGE (SQ.FT.) 1104

SYSTEM DEMAND:
1. WATER FLOW RATE (GPM) 272.4
2. RESIDUAL PRESSURE AT BASE OF RISER 47.667

HYDRAULIC DATA NAMEPLATE
TO BE MOUNTED AT SYSTEM RISER

HYDRAULIC-SYSTEM
THIS BUILDING IS PROTECTED BY A HYDRAULICALLY DESIGNED AUTOMATIC SPRINKLER SYSTEM.

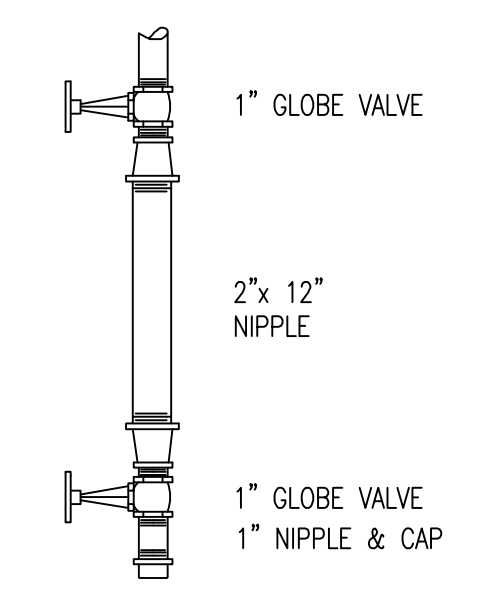
LOCATION: LIBRARY STORAGE

No. OF SPRINKLERS: 13
(CALCULATED)

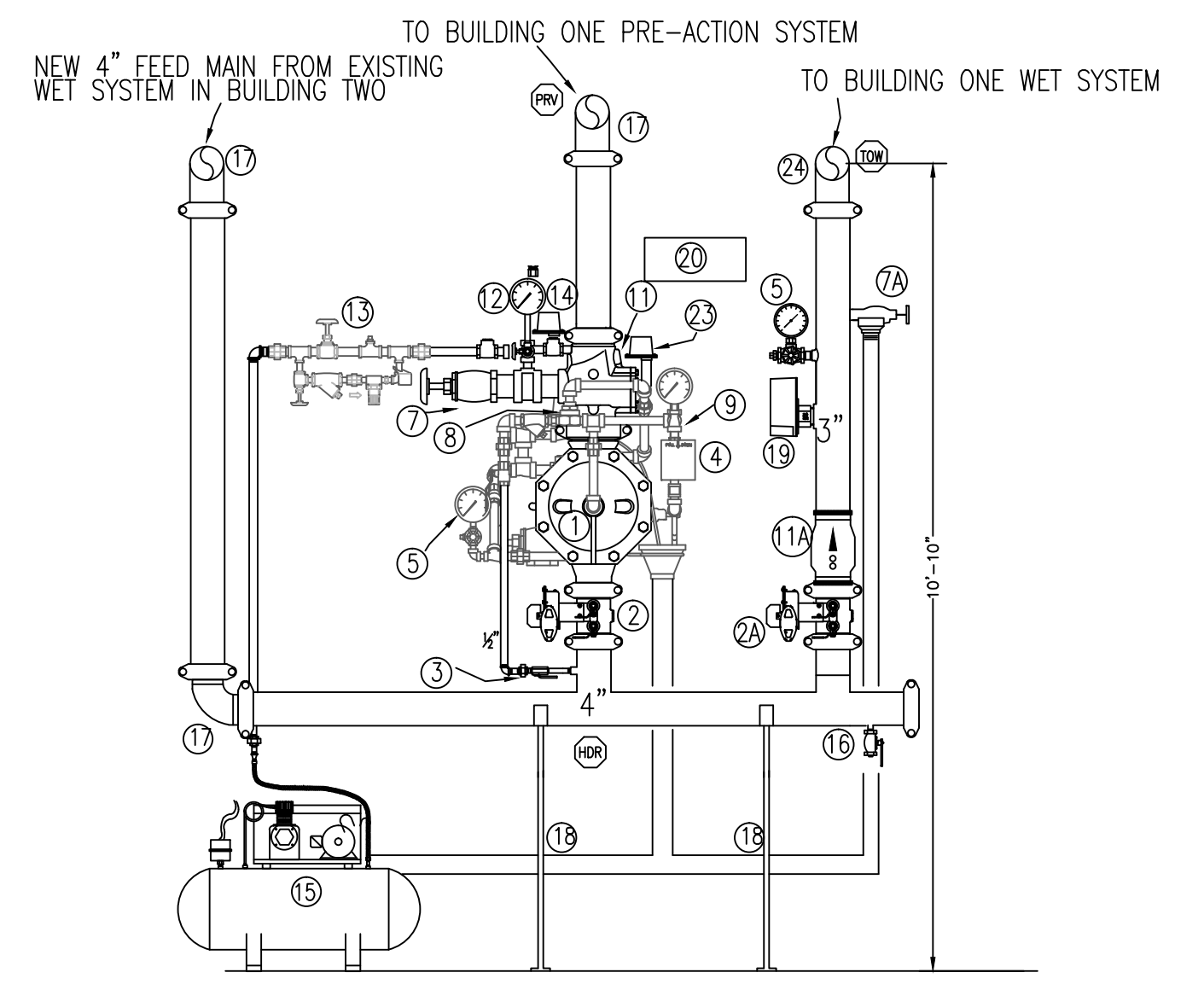
BASIS OF DESIGN:
1. DENSITY (GPM/SQ.FT.) 2
2. DESIGNED AREA OF DISCHARGE (SQ.FT.) 1552

SYSTEM DEMAND:
1. WATER FLOW RATE (GPM) 330.41
2. RESIDUAL PRESSURE AT BASE OF RISER 51.996

HYDRAULIC DATA NAMEPLATE
TO BE MOUNTED AT SYSTEM RISER



AUXILIARY DRAIN DETAIL "D"
NOT TO SCALE



SINGLE INTERLOCK PRE-ACTION / WET RISER LEGEND "D"

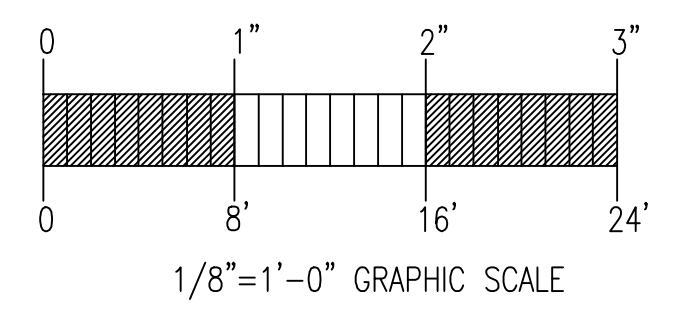
- ① 4" TYCO DV-5 DELUGE VALVE WITH ELECTRIC ACTUATION TRIM GROOVE X GROOVE
- ② 4" GROOVED BUTTERFLY VALVE (MAIN CONTROL) W/ TAMPER SWITCH N.O.
- ③ 3" GROOVED BUTTERFLY W/ TAMPER
- ④ DIAPHRAGM CHAMBER CONTROL VALVE
- ⑤ MANUAL PULL STATION
- ⑥ WATER SUPPLY PRESSURE GAUGE
- ⑦ DIAPHRAGM CHAMBER VALVE
- ⑧ 2" SYSTEM DRAIN VALVE
- ⑨ 1 1/2" TEST-N-DRAIN VALVE
- ⑩ DIAPHRAGM AUTOMATIC SHUT OFF VALVE
- ⑪ SOLENOID VALVE
- ⑫ NOT USED
- ⑬ 4" RISER CHECK VALVE TYCO CV-1FR
- ⑭ 3" GROOVED CHECK VALVE TYCO CV-1F
- ⑮ SUPERVISORY AIR PRESSURE GAUGE
- ⑯ AMD-1 AUTOMATIC AIR PRESSURE MAINTENANCE DEVICE W/ ADJUSTABLE REGULATOR SET TO 10 PSI
- ⑰ SUPERVISORY LOW PRESSURE ALARM SWITCH SET TO 5 PSI
- ⑱ CAST TANK MOUNTED COMPRESSOR (MODEL 21AF-46T-M20DX) 1/4 HP, 115/230 VOLTS, SINGLE PHASE
- ⑲ 1" AUX. DRAIN
- ⑳ 4" GROOVED ELBOW
- ㉑ PIPE STAND
- ㉒ 3" POTTER VSR FLOW SWITCH
- ㉓ SPARE HEAD BOX
- ㉔ ELECTRIC BELL (SEE BUILDING ONE PLAN)
- ㉕ EXISTING FDC (SEE BUILDING TWO PLAN)
- ㉖ POTTER PS-10 PRESSURE SWITCH
- ㉗ 3" GROOVED TEE

ALL WIRING BY OTHERS
PREACTION AIR PRESSURE IS PRE-SET @ 10 PSI MAXIMUM
N.O. = NORMALLY OPEN

GENERAL:
A MANUAL HYDRAULIC RELEASE PULL STATION WILL BE LOCATED @ THE PREACTION VALVE. OPERATION OF THIS VALVE WILL BYPASS THE DETECTION CIRCUIT, ALLOWING WATER TO ENTER THE SYSTEM. (WATER WILL NOT DISCHARGE UNLESS SPRINKLERS HAVE FUSED).
ALL SPRINKLER PIPING WILL BE COORDINATED WITH ELECTRICAL & MECHANICAL WORK.
PENDENT HEADS ON THE PREACTION SYSTEM TO BE INSTALLED ON RETURN BENDS.

SINGLE INTERLOCK PREACTION SYSTEM NOTES

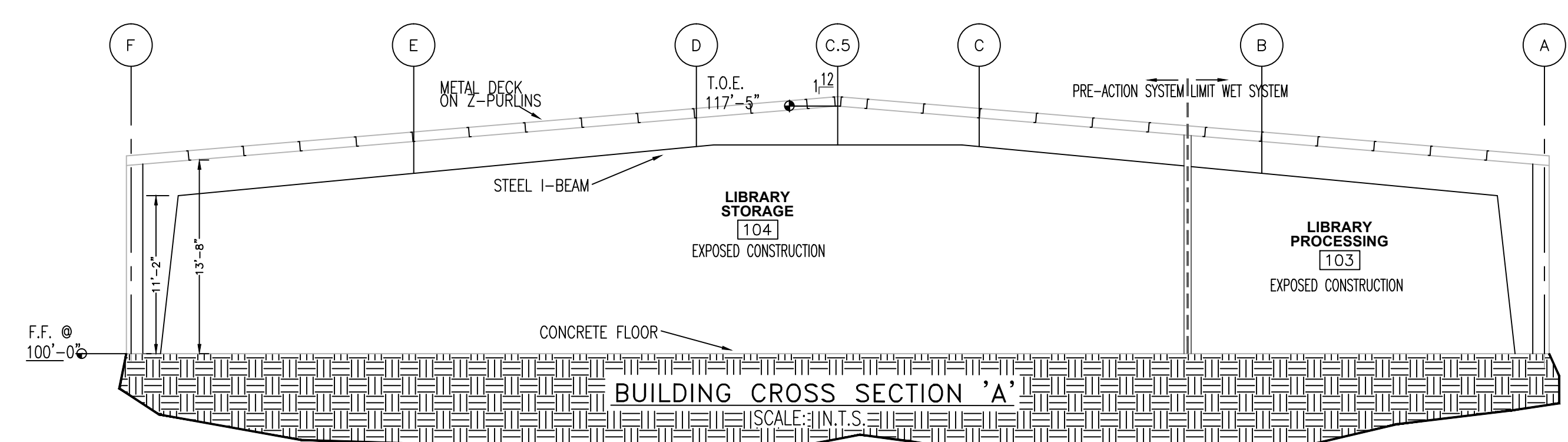
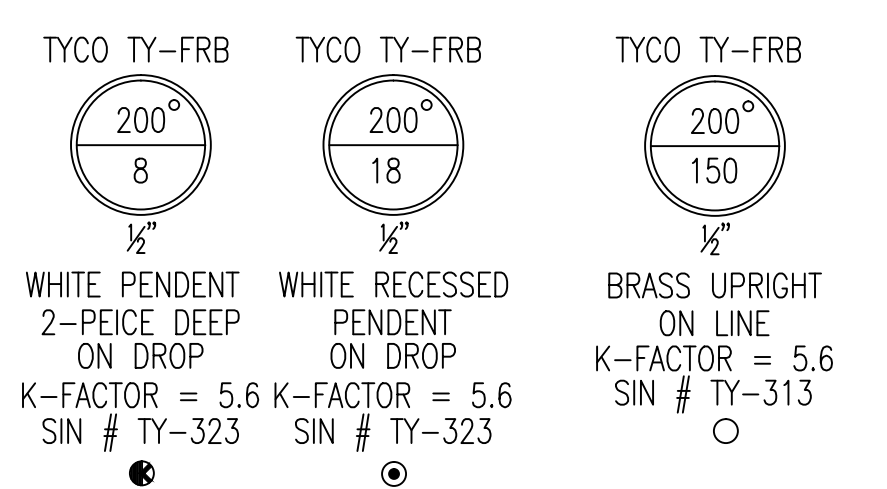
- SYSTEM SEQUENCE OF OPERATION:**
- PRIOR TO WATER DISCHARGE TWO ACTIONS ARE REQUIRED.
- 1) THE ACTUATION OF THE PREACTION SYSTEM WILL ONLY OCCUR AFTER THE DETECTION SYSTEM HAS ACTIVATED.
 - 2) ACTUATION OF THE DETECTION SYSTEM WILL OPEN THE PREACTION VALVE AND FILL THE PIPING SYSTEM
 - 3) SPRINKLERS MUST FUSE ALLOWING WATER TO DISCHARGE THROUGH THE SPRINKLER HEAD



FIRE SPRINKLER PLAN - BUILDING ONE

SCALE: 1/8"=1'-0"
AREA PROTECTED: 17,907 SQ.FT.
FINISH FLOOR ELEVATION : 100'-0"
COLOR CODE: WHITE

NOTE: AREA PROTECTED AND HEAD COUNT FOR BUILDING TWO ONLY TO MATCHLINE A-A



GENERAL NOTES	DATE	REVISIONS	REQUIRED APPROVALS	1000 RIVERSIDE 1000 RIVERSIDE ST. PORTLAND, MAINE	FIRE SPRINKLER PLANS & DETAILS
SPRINKLER SYSTEM INSTALLATION TO COMPLY WITH NFPA PAMPHLET # 13 (2013)			OWNER / ARCHITECT STATE FIRE MARSHAL PORTLAND FIRE DEPT.		
NEW BRANCH LINE PIPING (1 1/2"-1 1/4") TO BE BLACK SCH. # 40 JOINED BY THREADED DUCTILE IRON FITTINGS			DRAWN BY RJP NICET LEVEL #	CONTRACT WITH: STROUDWATER CONSTRUCTION	JOB NUMBER AU-5125-14
NEW MAIN & LINE PIPING (1 1/2"-4") TO BE SCH. # 10 BLACK WITH GROOVED ENDS & WELDED OUTLETS JOINED BY MECHANICAL COUPLINGS			CHECKED BY WAF NICET LEVEL III CERT # 095575	EASTERN FIRE PROTECTION AUBURN/LEWISTON INDUSTRIAL AIRPARK, AUBURN, MAINE 04210	SCALE AS NOTED
OWNER TO PROVIDE SUFFICIENT HEAT THROUGHOUT BUILDING TO PREVENT FREEZING OF WATER FILLED SPRINKLER PIPING AND EQUIPMENT.			CONTRACTOR LICENSE # 101 CONTRACTOR RMS # 368		DATE 3/10/14