PROPOSED BFPA:

MFR_____ **MODEL**_____ **SIZE** _____

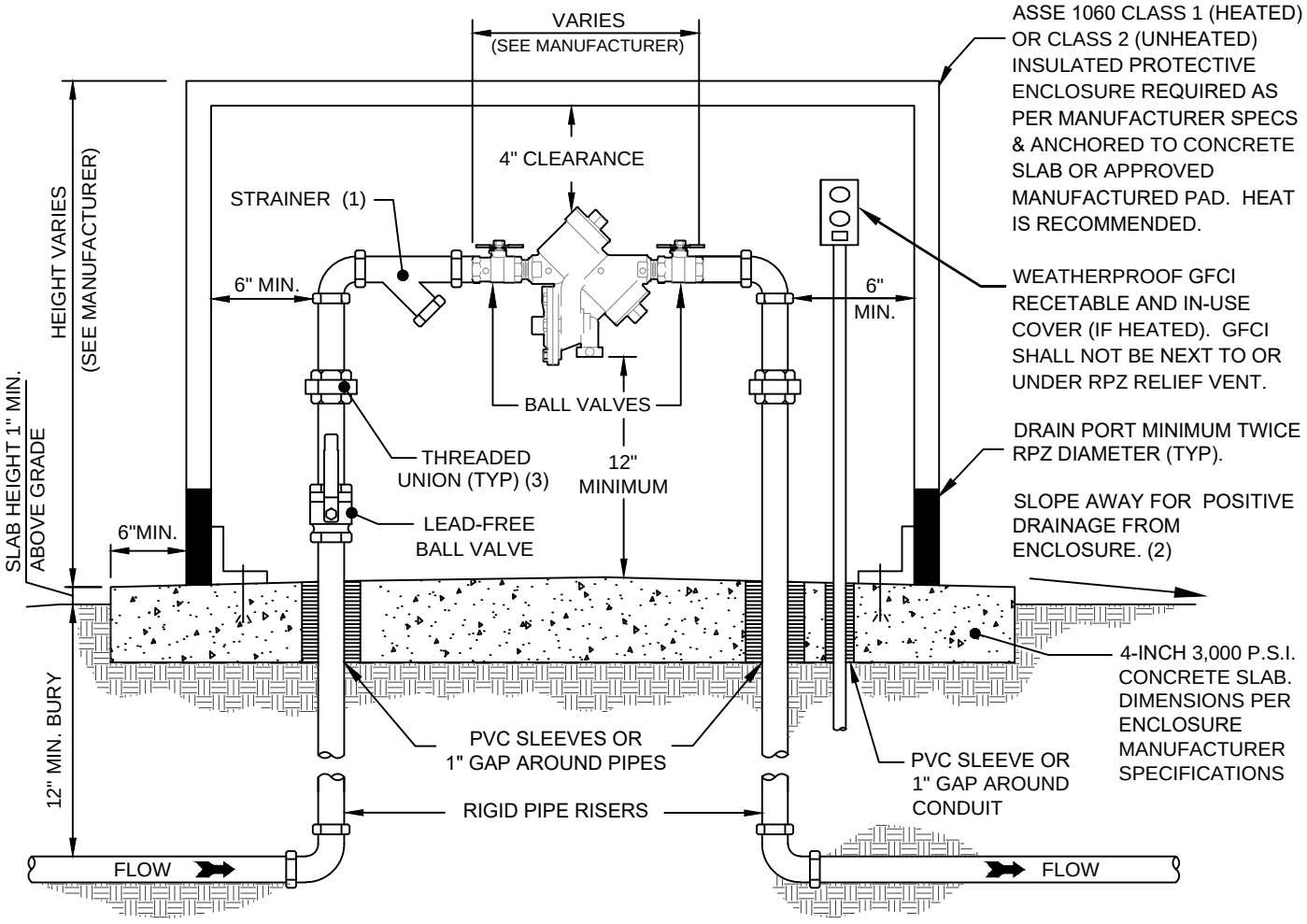
Local Roots, Global Reach
ISLE OF WIGHT
COUNTY, VIRGINIA

PROPOSED ENCLOSURE:

MFR _____ **MODEL** _____

REDUCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTION ASSEMBLY - LEAD FREE

ASSE 1013 COMPLIANT & FCCCHR-USC APPROVED



(1) STRAINERS MAY BE REQUIRED AND ARE STRONGLY ADVISED (SEE P. 2). FIRE SERVICE STRAINERS SHALL MEET NFPA STANDARDS AND BE UL/FM LISTED. DOMESTIC STRAINERS SHALL BE APPROVED FOR POTABLE WATER AND BE LEAD-FREE.

(2) DIVERT DRAINAGE AWAY FROM ENCLOSURE TO PREVENT EROSION, PONDING & HAZARDS TO VEHICLES & FOOT TRAFFIC.

(3) UNIONS ARE RECOMMENDED TO FACILITATE REPAIRS AND/OR REPLACEMENT.

BACKFLOW PREVENTION ASSEMBLY (BFPA) DETAIL UP TO 2" DIAMETER

NOT TO SCALE

PLATE W XIII

COMMERCIAL BFPA INSTALLATION REQUIREMENTS CONTINUED FROM SHEET 1

Local Roots, Global Reach
ISLE OF WIGHT COUNTY, VIRGINIA

DPU DETERMINES THE LEVEL OF HAZARD TO THE WATERWORKS. CONTAINMENT BACKFLOW PREVENTION SHALL BE INSTALLED IMMEDIATELY AFTER THE WATER METER AND BEFORE UNPROTECTED TAKE-OFF(S).

DOMESTIC, FIRE AND/OR IRRIGATION LINES SHOULD BE SEPARATED AT THE WATER METER WITH BFPA'S INSTALLED IN PARALLEL, TO AVOID DUPLICATE PRESSURE LOSSES FROM BFPA'S INSTALLED IN SERIES.

BYPASSING A BFPA IS PROHIBITED. IF UNINTERRUPTED WATER SERVICE IS REQUIRED, TWO BFPA'S OF EQUAL MODELS AND SIZES SHALL BE INSTALLED IN PARALLEL.

BFPA SHALL BE PROTECTED FROM FREEZING BY INSULATED AND/OR HEATED ENCLOSURES COMPLIANT WITH ASSE 1060. HEAT IS RECOMMENDED.

DEBRIS IS THE LEADING CAUSE OF BFPA FAILURE. STRAINERS SHALL BE REQUIRED FOR SOME FACILTIES AT DPU'S DISCRETION. STRAINERS ARE STRONGLY ADVISED FOR ALL OTHERS, TO PREVENT BFPA FAILURE, PREVENTABLE REPAIRS, CONTAMINATION, AND/OR LIABILITY FOR WATER QUALITY. FIRE STRAINERS SHALL MEET NFPA STANDARDS & BE UL/FM LISTED. DOMESTIC STRAINERS SHALL BE POTABLE & LEAD-FREE.

PLANS SHALL PROVIDE THE BFPA, ENCLOSURE & STRAINER MFR SPECS. MODELS, SIZES, STRAINERS AND HEAT SHALL BE INDICATED/HIGHLIGHTED. SUBSTITUTIONS ARE PROHIBITED WITHOUT WRITTEN APPROVAL BY DPU & THE DESIGN ENGINEER, AS PRESSURE LOSSES, APPROVALS, ETC. VARY BY MFR, MODEL & SIZE.

BFPA HOUSING SHALL BE ENTIRELY METALLIC AND LEAD-FREE. BFPA SHALL NOT BE DESIGNED, MODIFIABLE OR INSTALLED SO AS TO BE BYPASSED.

BFPA SHALL BE ASSE COMPLIANT & APPROVED BY FCCCHR-USC. INSTALLATIONS OTHER THAN HORIZONTAL REQUIRES FLOW-ORIENTATION APPROVAL BY FCCCHR-USC FOR MODEL, SERIES AND SIZE.

BFPA & ENCLOSURE SHALL BE ON PRIVATE PROPERTY & ARE THE OWNER'S RESPONSIBILITY.

BFPA SHALL NOT BE SUBMERGED, ENGULFED, LOCATED IN PITS OR OTHER AREAS SUBJECT TO FLOODING.

BFPA & ENCLOSURE SHALL BE INSTALLED AS PER VA WATERWORKS REGS, USBC, & MFR SPECS/INSTRUCS.

BFPA SHALL BE READILY ACCESSIBLE AS PER MFR SPEC & INSTRUC FOR TESTING, MAINTENANCE & REPAIR. VEGETATION, LANDSCAPING, OR OTHER OBJECTS SHALL NOT ENCROACH ON BFPA OR ENCLOSURE. BFPA RELIEF VENT OR AIR INLET SHALL NOT BE OBSTRUCTED AS INFLOW OF AIR IS REQUIRED FOR OPERATION.

BFPA & PIPING LARGER THAN 2" DIAM REQUIRES JOINT RESTRAINT. PIPING, RESTRAINT, TRENCHING, BEDDING, COMPACTION, ETC. SHALL MEET HRPDC AND/OR IOW CONSTR STD'S & RESTRAINED JOINT TABLE.

A DCVA MAY BE USED FOR LOW-HAZARD FIRE SPRINKLERS USING ONLY DOMESTIC WATER. AN RPZ IS REQUIRED FOR ALL OTHER FIRE SYSTEMS I.E. WITH FDC'S, PRIVATE HYDRANTS, AUX WTR, CHEMICALS, ETC.

BFPA CREATES A CLOSED LOOP PLUMBING SYSTEM. THERMAL EXPANSION OR PRESSURE SURGES MAY CAUSE DAMAGE. INSTALL EXPANSION TANKS, WATER HAMMER ARRESTORS, TPR VALVES, ETC. AS NEEDED.

THE CERTIFICATE OF OCCUPANCY WILL NOT BE ISSUED UNTIL DPU APPROVES THE BFPA & ENCLOSURE INSTALLATION & THE BFPA CERTIFICATION TEST. BFPA SHALL BE TESTED UPON INSTALLATION, REPAIR & ANNUALLY BY A LICENSED TESTER, USING ANNUALLY CALIBRATED TEST GAUGES & A COUNTY TEST FORM.

WARNING: BFPA AT DOWNSTREAM CROSS-CONNECTIONS SHALL DRAIN OUTDOORS WHENEVER POSSIBLE WITH THE MFR AIR GAP FITTING & PIPING. DRAIN(S) SHALL BE SIZED FOR THE MFR'S PUBLISHED MAXIMUM RELIEF VALVE DISCHARGE RATE, TO PREVENT FLOODING, SUBMERSION & NUISANCES.

BACKFLOW PREVENTION ASSEMBLY (BFPA) DETAIL

Local Roots, Global Reach
ISLE OF WIGHT
COUNTY, VIRGINIA

N-PATTERN REDUCED PRESSURE ZONE (RPZ)
BACKFLOW PREVENTION ASSEMBLY - LEAD FREE
ASSE 1013 COMPLIANT & FCCCHR-USC APPROVED

PROVIDE BFPA:

MFR _____

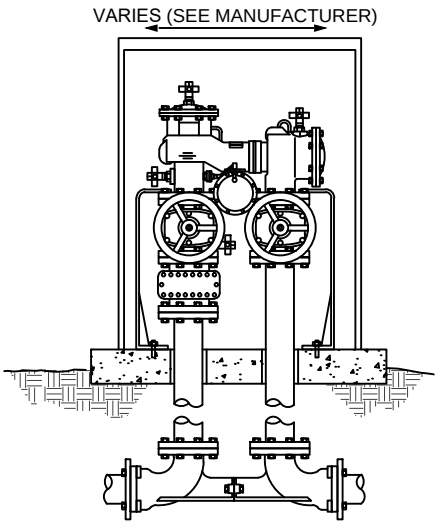
MODEL _____

SIZE _____

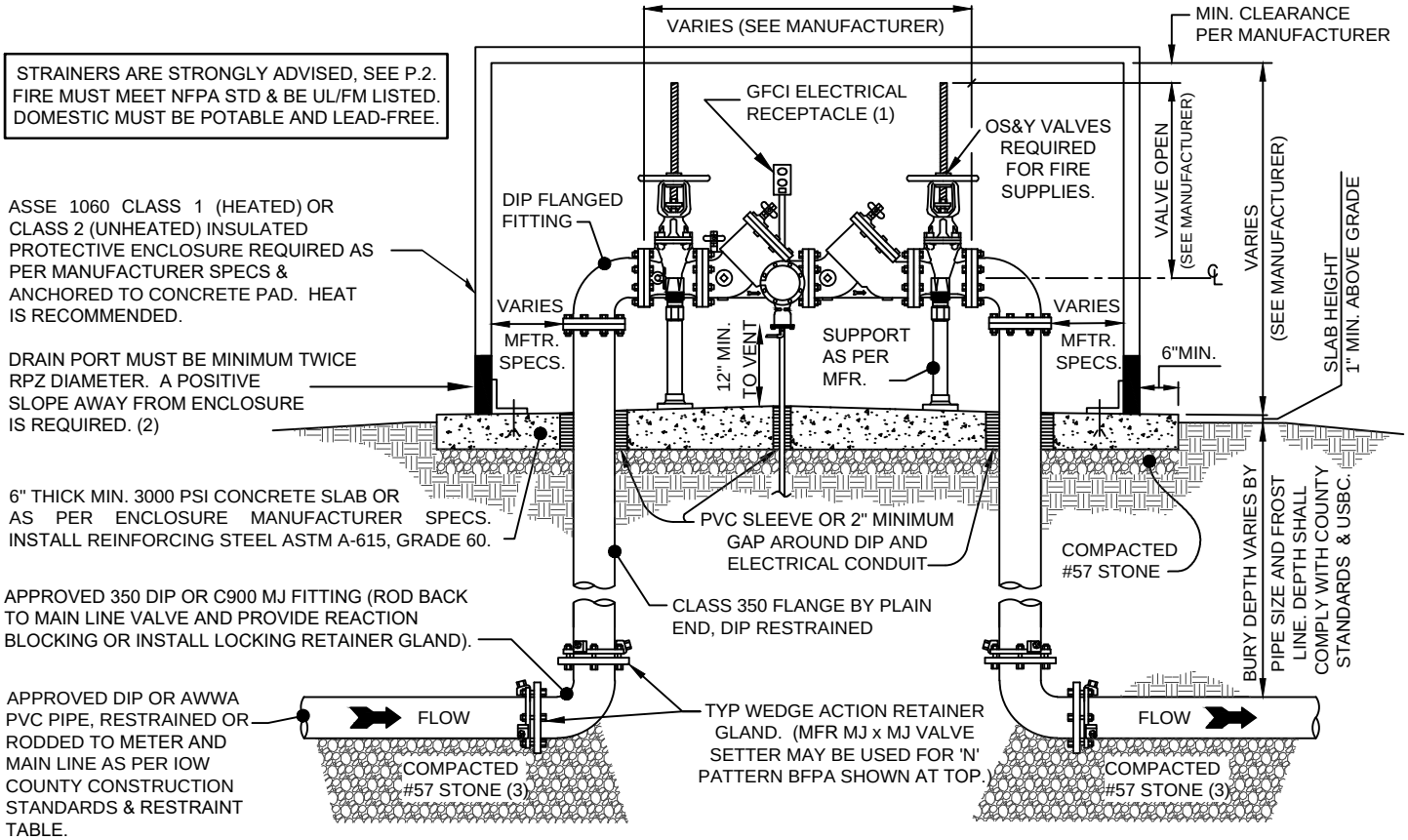
ENCLOSURE:

MFR _____

MODEL _____



REDUCED PRESSURE ZONE (RPZ)
BACKFLOW PREVENTION ASSEMBLY - LEAD FREE
ASSE 1013 COMPLIANT & FCCCHR-USC APPROVED



(1) GFCI RECEPTACLE FOR HEATER SHALL BE ABOVE RELIEF VENT OPENING AND BE WEATHERPROOF IN-USE.
(2) DIVERT DRAINAGE FROM ENCLOSURE TO PREVENT PONDING & HAZARDS TO VEHICLES & FOOT TRAFFIC.
(3) GRAVEL DEPTH & COMPACTION SHALL BE SUFFICIENT TO PREVENT PIPE DEFLECTION & DAMAGE, AND IS BASED ON THE WEIGHT AND SIZE OF THE COMPLETED INSTALLATION.

BACKFLOW PREVENTION ASSEMBLY (BFPA) DETAIL OVER 2" DIAMETER

NOT TO SCALE

PLATE W XIV

COMMERCIAL BFPA INSTALLATION REQUIREMENTS CONTINUED FROM SHEET 1

Local Roots, Global Reach
ISLE OF WIGHT
COUNTY, VIRGINIA

DPU DETERMINES THE LEVEL OF HAZARD TO THE WATERWORKS. CONTAINMENT BACKFLOW PREVENTION SHALL BE INSTALLED IMMEDIATELY AFTER THE WATER METER AND BEFORE UNPROTECTED TAKE-OFF(S).

DOMESTIC, FIRE AND/OR IRRIGATION LINES SHOULD BE SEPARATED AT THE WATER METER WITH BFPA'S INSTALLED IN PARALLEL, TO AVOID DUPLICATE PRESSURE LOSSES FROM BFPA'S INSTALLED IN SERIES.

BYPASSING A BFPA IS PROHIBITED. IF UNINTERRUPTED WATER SERVICE IS REQUIRED, TWO BFPA'S OF EQUAL MODELS AND SIZES SHALL BE INSTALLED IN PARALLEL.

BFPA SHALL BE PROTECTED FROM FREEZING BY INSULATED AND/OR HEATED ENCLOSURES COMPLIANT WITH ASSE 1060. HEAT IS RECOMMENDED.

DEBRIS IS THE LEADING CAUSE OF BFPA FAILURE. STRAINERS SHALL BE REQUIRED FOR SOME FACILTIES AT DPU'S DISCRETION. STRAINERS ARE STRONGLY ADVISED FOR ALL OTHERS, TO PREVENT BFPA FAILURE, PREVENTABLE REPAIRS, CONTAMINATION, AND/OR LIABILITY FOR WATER QUALITY. FIRE STRAINERS SHALL MEET NFPA STANDARDS & BE UL/FM LISTED. DOMESTIC STRAINERS SHALL BE POTABLE & LEAD-FREE.

PLANS SHALL PROVIDE THE BFPA, ENCLOSURE & STRAINER MFR SPECS. MODELS, SIZES, STRAINERS AND HEAT SHALL BE INDICATED/HIGHLIGHTED. SUBSTITUTIONS ARE PROHIBITED WITHOUT WRITTEN APPROVAL BY DPU & THE DESIGN ENGINEER, AS PRESSURE LOSSES, APPROVALS, ETC. VARY BY MFR, MODEL & SIZE.

BFPA HOUSING SHALL BE ENTIRELY METALLIC AND LEAD-FREE. BFPA SHALL NOT BE DESIGNED, MODIFIABLE OR INSTALLED SO AS TO BE BYPASSED.

BFPA SHALL BE ASSE COMPLIANT & APPROVED BY FCCCHR-USC. INSTALLATIONS OTHER THAN HORIZONTAL REQUIRES FLOW-ORIENTATION APPROVAL BY FCCCHR-USC FOR MODEL, SERIES AND SIZE.

BFPA & ENCLOSURE SHALL BE ON PRIVATE PROPERTY & ARE THE OWNER'S RESPONSIBILITY.

BFPA SHALL NOT BE SUBMERGED, ENGULFED, LOCATED IN PITS OR OTHER AREAS SUBJECT TO FLOODING.

BFPA & ENCLOSURE SHALL BE INSTALLED AS PER VA WATERWORKS REGS, USBC, & MFR SPECS/INSTRUCS.

BFPA SHALL BE READILY ACCESSIBLE AS PER MFR SPEC & INSTRUC FOR TESTING, MAINTENANCE & REPAIR. VEGETATION, LANDSCAPING, OR OTHER OBJECTS SHALL NOT ENCROACH ON BFPA OR ENCLOSURE. BFPA RELIEF VENT OR AIR INLET SHALL NOT BE OBSTRUCTED AS INFLOW OF AIR IS REQUIRED FOR OPERATION.

BFPA & PIPING LARGER THAN 2" DIAM REQUIRES JOINT RESTRAINT. PIPING, RESTRAINT, TRENCHING, BEDDING, COMPACTION, ETC. SHALL MEET HRPDC AND/OR IOW CONSTR STD'S & RESTRAINED JOINT TABLE.

A DCVA MAY BE USED FOR LOW-HAZARD FIRE SPRINKLERS USING ONLY DOMESTIC WATER. AN RPZ IS REQUIRED FOR ALL OTHER FIRE SYSTEMS I.E. WITH FDC'S, PRIVATE HYDRANTS, AUX WTR, CHEMICALS, ETC.

BFPA CREATES A CLOSED LOOP PLUMBING SYSTEM. THERMAL EXPANSION OR PRESSURE SURGES MAY CAUSE DAMAGE. INSTALL EXPANSION TANKS, WATER HAMMER ARRESTORS, TPR VALVES, ETC. AS NEEDED.

THE CERTIFICATE OF OCCUPANCY WILL NOT BE ISSUED UNTIL DPU APPROVES THE BFPA & ENCLOSURE INSTALLATION & THE BFPA CERTIFICATION TEST. BFPA SHALL BE TESTED UPON INSTALLATION, REPAIR & ANNUALLY BY A LICENSED TESTER, USING ANNUALLY CALIBRATED TEST GAUGES & A COUNTY TEST FORM.

WARNING: BFPA AT DOWNSTREAM CROSS-CONNECTIONS SHALL DRAIN OUTDOORS WHENEVER POSSIBLE WITH THE MFR AIR GAP FITTING & PIPING. DRAIN(S) SHALL BE SIZED FOR THE MFR'S PUBLISHED MAXIMUM RELIEF VALVE DISCHARGE RATE, TO PREVENT FLOODING, SUBMERSION & NUISANCES.

BACKFLOW PREVENTION ASSEMBLY (BFPA) DETAIL

PLATE W XIV