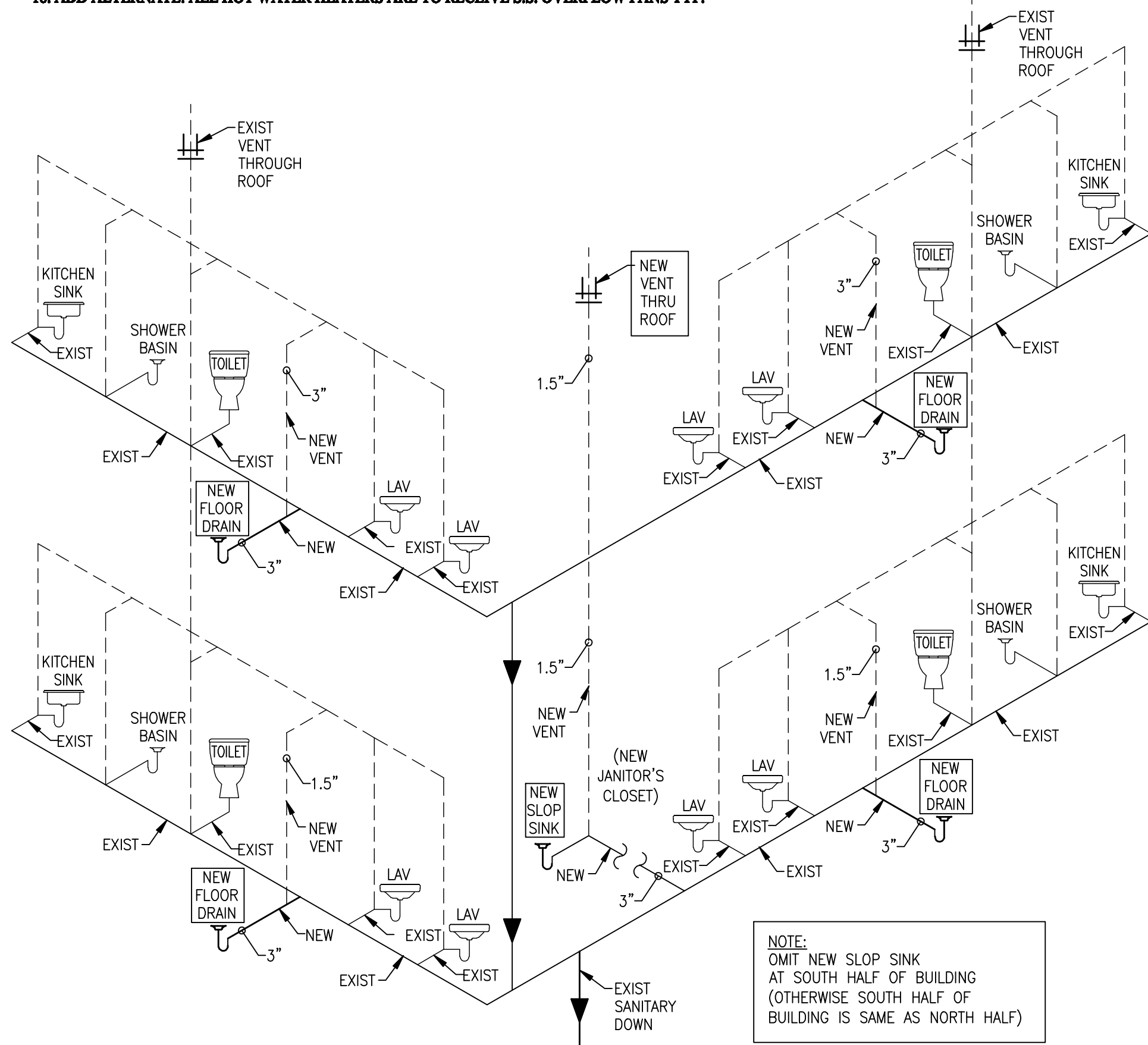


PLUMBING SPECIFICATIONS AND NOTES

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH NJAC 5:23-3.15 2009 NATIONAL STANDARD PLUMBING CODE THAT HAS BEEN ADOPTED INTO LAW BY THE STATE OF NEW JERSEY AND BE IN ACCORDANCE WITH ANY LOCAL REQUIREMENTS OF THE LOCAL BUILDING AUTHORITY HAVING JURISDICTION.
- SCOPE OF WORK SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:
  - INTERIOR SANITARY WASTE AND VENT PIPING SYSTEM, INCLUDING ANY CONNECTIONS TO EXISTING SYSTEMS WHERE APPLICABLE.
  - DOMESTIC HOT AND COLD WATER SYSTEMS TO ALL AREAS OF THE BUILDING REQUIRING SAME AS SHOWN ON PLANS
  - ADD ALTERNATE HOT WATER HEATER(S), HEATER OVERFLOW PANS AND HOT WATER RECIRCULATION PUMP(S) AND PIPING
  - VALVES AND ACCESS DOORS
  - INSULATION OF ALL DOMESTIC WATER PIPING
  - FITTINGS, UNIONS, FLANGES AND COUPLINGS OF DIFFERENT PIPING MATERIALS INCLUDING DIE-ELECTRIC FITTINGS
  - WALL AND FLOOR PLATES AND INSERTS
  - FLOOR CUTTING AND WALL CUTTING AND PATCHING
  - PLUMBING FIXTURES AND TRIM
  - CLEANOUTS AND WALL AND DECK PLATES
  - FIXTURE AND PIPING HANGERS, SUPPORTS AND SLEEVES
  - COORDINATION OF WORK WITH OTHER TRADES AND LOCAL UTILITY COMPANY
  - PERMITS AND FEES
  - INSPECTIONS AND CERTIFICATIONS
  - DETERMINATION OF PITCH OF DRAINS, 1/8 INCH PER FOOT MIN ¼ PREFERRED
  - PIPING IDENTIFICATION AND LABELING AND VALVE TAGGING
  - CLEANING OF PIPING SYSTEMS
  - PRESSURE TESTING OF SYSTEMS
- ALL WATER PIPING SHALL BE COPPER, TYPE L TUBING ASTM B8872 WITH SOLDER JOINT WROUGHT COPPER SOFT FITTINGS. BALL VALVES JENKINS 651-C OR JENKINS 624-C, JOINTS SOLDER LEAD FREE LESS THAN 0.2% LEAD, SILVERBRITE 100 OR EQUAL. UNIONS CAST BRONZE B62 WITH CAST COPPER ALLOY NUT AND THREAD AS PER ANSIB16.22, CHECK VALVES JENKINS 4093, DRAIN VALVES MILWAUKEE BA-100-4. PITCH ALL WATER PIPING TO ALLOW DRAIN DOWN OF SYSTEM.
- WHEN COPPER COMES IN CONTACT WITH DISSIMILAR MATERIAL, PROVIDE DI-ELECTRIC COUPLINGS OR DIELECTRIC FLANGES.
- PROVIDE UNION CONNECTIONS TO ALL EQUIPMENT SUCH AS HOT WATER HEATERS, PUMPS, COMPRESSORS, ETC.
- ALL SANITARY PIPING SHALL BE SERVICE WEIGHT CAST IRON NO-HUB PIPE CONFORMING TO C3301, SOIL PIPING ABOVE GROUND, BELOW GROUND EXTRA HEAVY CAST IRON SOIL PIPE ASPHALT OR COAL TAR PITCH COATED. NO-HUB SHALL BE ASSEMBLED WITH NO HUB STEEL COUPLINGS AND NEOPRENE GASKETS.
- ALL VENT PIPING SHALL BE PER NSFC TABLE 3.1.3, PART 3, NON-METALLIC PIPE AND FITTINGS AND TABLE 3.6 MATERIALS FOR VENT PIPING
- INSULATION FOR HOT AND COLD WATER DOMESTIC PIPING AND ALL HORIZONTAL RUNS OF STORM DRAINS WITHIN THE BUILDING SHALL BE OWENS-CORNING, CERTAIN-TED OR MANVILLE AND SHALL BE 1 INCH THICK FIBERGLASS WITH ASI-SL OR AP-T JACKET. USE OF PVC ONE-PIECE JACKET ACCEPTABLE FOR FITTINGS AND VALVES. ALL PARTS OF INSULATION SHALL HAVE ASTM E-84 FIRE HAZARD RATINGS OF 25 FLAME SPREAD, 50 SMOKE DEVELOPED AND 50 FUEL CONTRIBUTED.
- PROVIDE CLEANOUTS IN WASTE PIPING ON STRAIGHT RUNS NOT TO EXCEED 20 FEET AND AT CHANGES IN DIRECTIONS AND AT THE FOOT OF STACKS AND OTHER POINTS WHERE REQUIRED BY INSPECTING AUTHORITY. CLEANOUTS SHALL SUIT FINISHED CONSTRUCTION IN WHICH THEY ARE TO BE INSTALLED AND BE SAME AS PIPE DIAMETER.
- WATER HAMMER ARRESTORS SHALL BE SMITH SERIES 5000, ZURN SERIES 1700 OR JOSAM SERIES 75000.
- PIPE SUPPORTS SHALL BE ADJUSTABLE CLEVIS HANGERS OR CAST BRASS SPLIT RING HINGED HANGERS DEPENDING ON PIPE SIZE AND INSULATION. USE BEAM CLAMPS, CONCRETE INSERTS OR EXPANSION SHIELDS AS REQUIRED TO HANG. HANGER SPACING SHALL MEET THE REQUIREMENTS OF STATE AND LOCAL PLUMBING CODES BUT NOT BE GREATER THAN 10 FOOT INTERVALS.
- ALL PENETRATIONS THROUGH STRUCTURAL AND FIRE-RATED CONSTRUCTION SHALL BE RUN WITH HOT-DIPPED GALVANIZED SCHEDULE 40 SLEEVES. PACKING SHALL BE INTUMESCENT TYPE CAULKING, 3M CP25N/S CP25N/L OR EQUAL. SLEEVES THROUGH NON RATED CONSTRUCTION SHALL BE PACKED WITH SILICATE FOAM OR CERAMIC OR MINERAL FIBER WITH AN APPROVED SEALANT. SLEEVES THROUGH FOUNDATION WALL SHALL BE SEALED WATER TIGHT. RATINGS SHALL BE MAINTAINED PER ASTM E-119
- PROVIDE SHOP DRAWINGS FOR APPROVAL OF OWNER OR OWNER'S AGENT ON ALL PLUMBING FIXTURES PRIOR TO PURCHASING.
- CONTRACTOR SHALL BE RESPONSIBLE TO CALCULATE THE PROPER PITCH OF ALL DRAIN LINES USING ¼ INCH PER FOOT WHERE POSSIBLE OR 1/8 INCH PER FOOT MINIMUM TO MEET FINAL CONNECTION POINT IN STREET OR TO MEET EXISTING TIE-IN INVERTS OF EXISTING SANITARY SEWER. WHERE EXISTING LINES ARE SHOWN ON THE PLAN, THESE LINES ARE BASED UPON BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL VERIFY ACTUAL LOCATION AND INVERTS IN THE FIELD PRIOR TO MAKING ANY TIE-INS. ALL SLAB CUTTING SHALL BE DONE WITH MASONRY SAW AND BACKFILLING AND SLAB REPLACEMENT COORDINATED BY THIS CONTRACTOR.
- PROVIDE PIPING IDENTIFICATION MARKERS ON ALL HOT AND COLD WATER PIPING BY SETON OR SETMARK PER ANSI AND OSHA STANDARDS.
- TEST PRESSURIZED SYSTEMS WITH LEAK TESTS IN ACCORDANCE WITH ANSI APPLICABLE CODES FOR ONE HOUR AT ONE AND A HALF TIMES THE SYSTEM OPERATING PRESSURE BUT NO GREATER THAN 150 PSIG. TEST GRAVITY SYSTEMS AT HEADS AS SPECIFIED IN PLUMBING CODE AND MAINTAIN FOR 30 MINUTES. CLEAN, TEST AND DISINFECT DOMESTIC WATER SYSTEM USING APPROVED CHEMICAL TESTING LAB AND HAVE INSPECTOR WITNESS RESULTS.
- ADD ALTERNATE: ALL HOT WATER HEATERS ARE TO RECEIVE S.S. OVERFLOW PANS TYP.

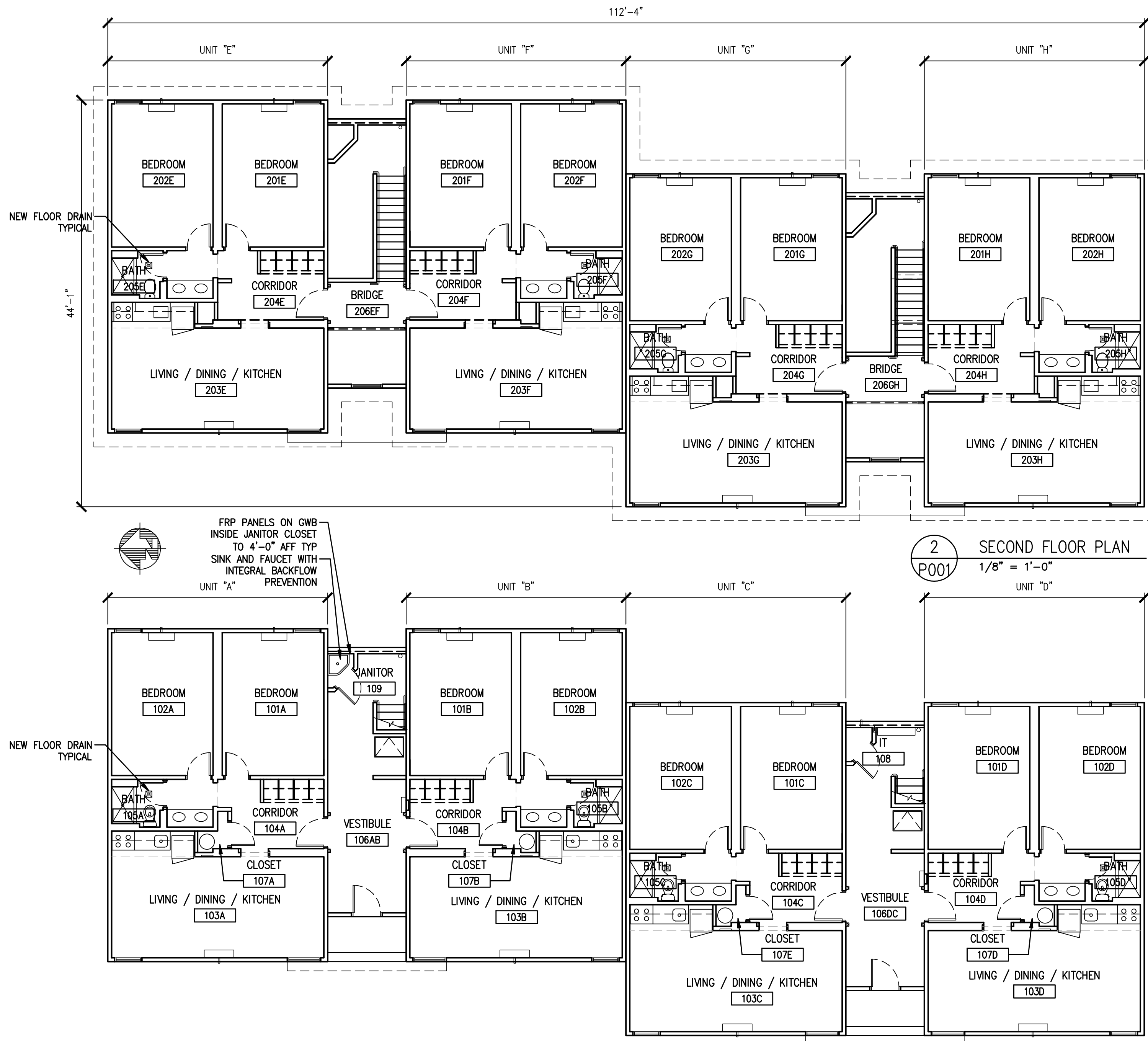


3 PLUMBING RISER DIAGRAM (NORTH HALF OF BUILDING)

1/4" = 1'-0"

PLUMBING FIXTURE CONNECTION SCHEDULE MINIMUM CONNECTION SIZES INCHES  
FIXTURE SOIL OR WASTE VENT COLD WATER HOT WATER

SERVICE "SLOP" SINK 3" 1-1/2" 3/4" 3/4"  
FLOOR DRAIN 3" MIN. 1-1/2" (WITH TRAP PRIMER LINE)



1 FIRST FLOOR PLAN

1/8" = 1'-0"

2 SECOND FLOOR PLAN

1/8" = 1'-0"

  
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**RAMAPO COLLEGE OF NEW JERSEY**  
**"BUCKEYE" RESIDENCE INTERIOR RENOVATION**  
**505 RAMAPO VALLEY ROAD, MAHWAH, NEW JERSEY**

2 REVISION 1-16-15  
DATE

DRAWING TITLE  
PLUMBING PLANS  
AND  
DIAGRAMS

DATE  
12/3/2014

SCALE  
AS NOTED

DRAWN  
JMV

CHECKED  
JMV

DRAWING #

**P001**

SHEET \_\_\_\_\_ of \_\_\_\_\_  
PROJECT # 1420