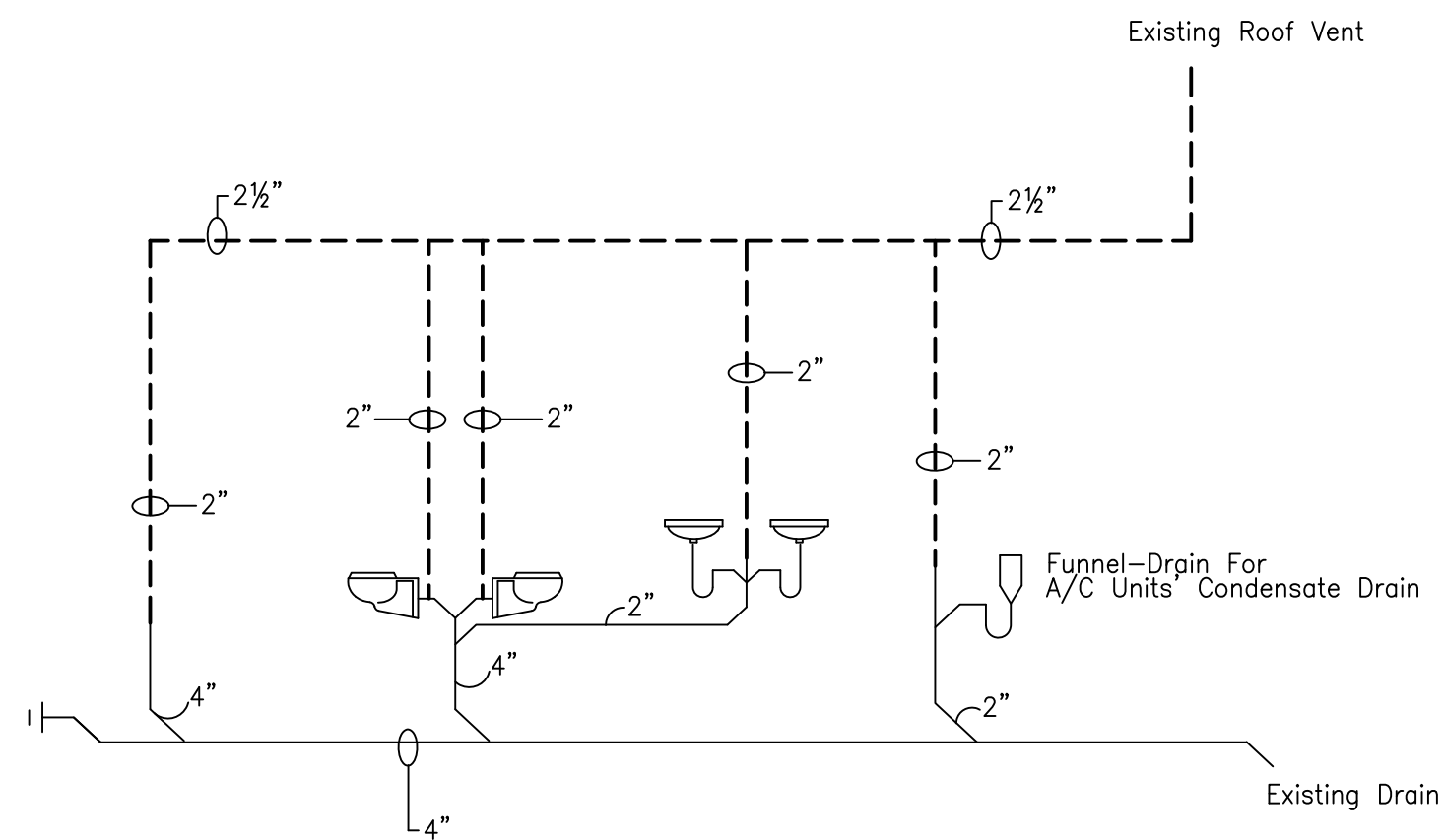


PLUMBING SPECIFICATIONS

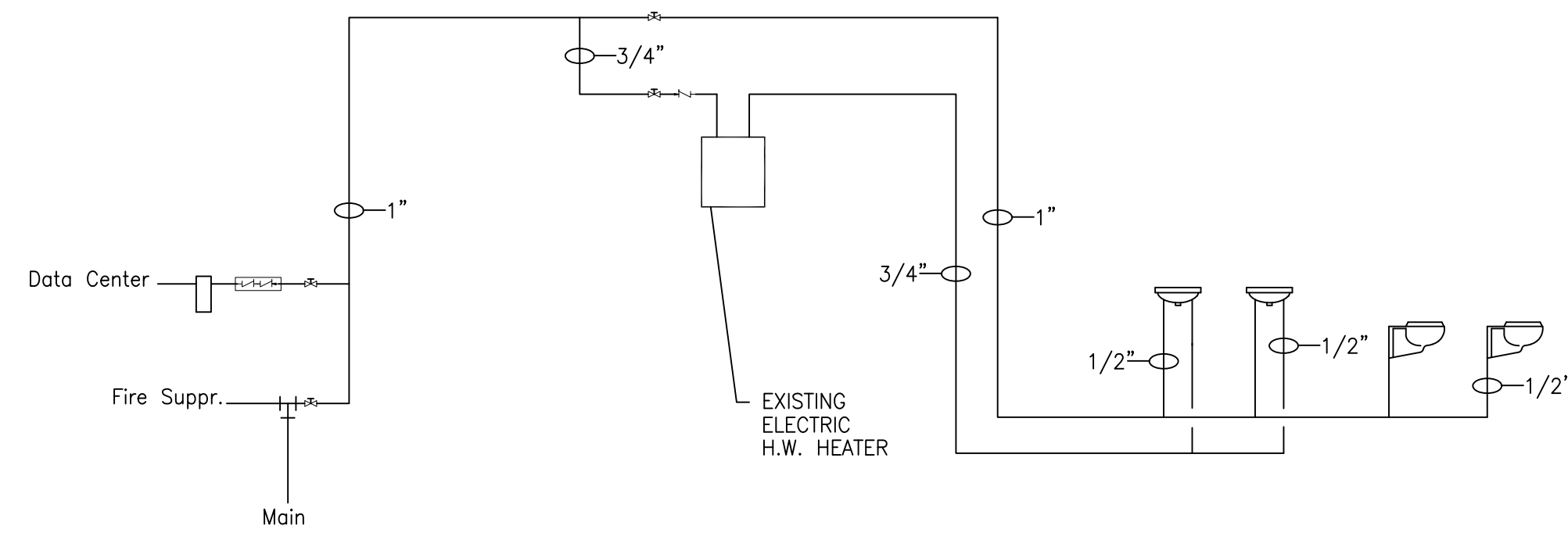
1. GENERAL
 - A. ADHERE TO THE APPLICABLE CONDITIONS INDICATED IN THE ARCHITECTURAL SPECIFICATIONS.
 - B. EXAMINE THE ARCHITECTURAL DRAWINGS AND THE DRAWINGS OF ALL OTHER TRADES AND FIELD VERIFY THE LOCATION OF ALL OTHER EQUIPMENT THAT EFFECTS THIS WORK.
 - C. VISIT AND CAREFULLY EXAMINE THE EXISTING SPACE SO AS TO BECOME FAMILIAR WITH EXISTING CONDITIONS AND DIFFICULTIES. SUBMISSION OF PROPOSAL WILL BE CONSTRUED AS EVIDENCE THAT SUCH EXAMINATION HAS BEEN MADE. THEREFORE, LATER CLAIMS FOR LABOR, EQUIPMENT OR MATERIALS REQUIRED BECAUSE OF DIFFICULTIES ENCOUNTERED, WHICH COULD HAVE BEEN FORESEEN HAD SUCH AN EXAMINATION BEEN MADE, WILL NOT BE RECOGNIZED.
 - D. BASE ALL LABOR PRICING ON REGULAR TIME (NONPREMIUM TIME). HOWEVER, ALL CONNECTION SCHEDULING MUST BE APPROVED BY THE CLIENT PRIOR TO INTERRUPTION OF ANY BUILDINGS SERVICES. SUBMIT ADDITIONAL COST FOR EVALUATION TO MAKE EACH NEW CONNECTION ON PREMIUM TIME.
 - E. REMOVE EXISTING PLUMBING FIXTURES WHERE INDICATED ON PLUMBING AND/OR ARCHITECTURAL DRAWING. PLUG AND CAP ASSOCIATED PIPING BEHIND FINISHED SURFACES. LEAVE ALL PLUGGED ENDS OF DRAINS AND VENTS LESS THAN 2 FEET LONG TO AVOID DEAD ENDS.
 - F. REPAIR OR REPLACE ALL DAMAGED PIPING OR FIXTURES DAMAGED AS A RESULT OF PERFORMING THE WORK OF THIS CONTRACT OF MATERIALS MATCHING THE EXISTING.
 - G. ALL PLUMBING FIXTURES SHALL COMPLY WITH ALL ADA REQUIREMENTS.
 - H. OBTAIN ALL THE NECESSARY PERMITS AND APPROVALS TO PROVIDE A COMPLETE JOB.
 - I. SUPPORT ALL PIPING FROM THE STRUCTURE. DO NOT HANG PIPE FROM ANY OTHER PIPING, DUCTS OR EQUIPMENT.
2. TESTING
 - A. TEST ALL PLUMBING PIPING IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE CITY OF NEW YORK.
 - B. PERFORM TEST ON ALL NEW WORK PRIOR TO CONCEALING SAME AND/OR THE INSTALLATION OF INSULATION.
3. CLEANING

AT COMPLETION OF THE WORK AND BEFORE THE FINAL INSPECTION IS MADE, THOROUGHLY CLEAN ALL FIXTURES, APPARATUS, APPURTENANCES, PIPING, BRASS AND CHROME WORK AND LEAVE SAME FREE FROM ALL MARKS, SCRATCHES, STAINS, ETC. REMOVE ALL TOOLS, DEBRIS, ETC., FROM THE PREMISES.
4. SHOP DRAWINGS
 - A. PRIOR TO PURCHASING ANY EQUIPMENT OR MATERIALS, SUBMIT FIVE (5) COPIES OF EQUIPMENT CUTS FOR ALL PLUMBING FIXTURES AS SPECIFIED HEREIN AND/OR BY THE ARCHITECT FOR REVIEW.
 - B. SUBMIT TWO (2) PRINTS OF PIPING SHOP DRAWINGS INDICATING PIPE SIZES, VALVES, ETC., AND EXACT ROUTING, FOR REVIEW.
 - C. PRIOR TO INSTALLING OR SUBMITTING FOR APPROVAL ANY PORTION OF THE WORK, COORDINATE WORK WITH ALL OTHER TRADES. AFFIX INDICATION OF THIS COORDINATION TO EACH SHOP DRAWING SUBMITTED FOR APPROVAL.
5. RECORD DRAWINGS
 - A. SUPPLY REPRODUCIBLE RECORD DRAWINGS INDICATING AN ACCURATE AND COMPLETE RECORD OF THE WORK AS INSTALLED.
6. CLEANOUTS
 - A. PROVIDE CLEANOUTS AT ALL CHANGES IN DIRECTION OF HORIZONTAL SANITARY PIPING. ALL CLEANOUT PLUGS TO BE BRASS AND LUBRICATED WITH GRAPHITE BEFORE INSTALLING.
7. PIPING AND FITTINGS
 - A. CONFORM TO THE LATEST ASTM AND/OR FS STANDARDS.
 - B. SOIL, WASTE AND VENT PIPING: NO-HUB STANDARD WEIGHT CAST IRON SOIL PIPE AND FITTINGS WITH CISPI STAINLESS STEEL CLAMPS OR GALVANIZED STEEL SCREW PIPE WITH GALVANIZED CAST IRON RECESSED DRAINAGE FITTING ABOVE GROUND TO MATCH EXISTING BUILDING STANDARD MATERIALS.
 - C. VENT PIPING: GALVANIZED STEEL PIPE, SCHEDULE 40 WITH MALLEABLE IRON STEAM PATTERN FITTINGS OR NO-HUB.
 - D. DOMESTIC COLD AND HOT WATER PIPING: TYPE "L" COPPER TUBING WITH WROUGHT COPPER OR CAST BRASS FITTINGS AND 95/5 SOLDERED JOINTS.
 - E. EXPOSED WATER PIPING AT FIXTURES: CHROME PLATED RED BRASS, EXCEPT SUPPLY RISERS MAY BE CHROME PLATED FLEXIBLE COPPER.
8. VALVES
 - A. CONTROL/SHUT OFF VALVES AND BALANCING VALVES: BRONZE BODY, UNION/THREADED END BALL VALVE, 600 WOG, APOLLO 70-300 SERIES.
 - B. CHECK VALVES: 2 1/2" AND SMALLER, SOLDER ENDS, STOCKHAM FIG. #B-309.
 - C. PRESSURE REDUCING VALVES: JRG/USE FIG. 1130. PROVIDE ON ALL CONNECTIONS WHERE PRESSURE EXCEEDS 80 PSIG.
9. CROSS CONTAMINATION PROTECTION
 - A. PROVIDE A WATTS MODEL #7C DOUBLE CHECK VALVE BACK FLOW PREVENTER ON HOT AND COLD WATER SUPPLIES TO EQUIPMENT SUCH AS COFFEE MAKERS, ICE MAKERS, DISHWASHERS AND ALL OTHER SIMILAR FOOD SERVICE EQUIPMENT.
10. WATER HAMMER ARRESTORS
 - A. INSTALL SHOCK ABSORBERS IMMEDIATELY ADJACENT TO ALL EQUIPMENT WITH QUICK-CLOSING SHUT-OFF VALVES SIMILAR OR EQUAL TO JOSAM SERIES 1485.
11. CUTTING AND PATCHING
 - A. DO NOT DISTURB ANY EXISTING STRUCTURE, PIPING, APPARATUS, OR OTHER WORK. WHERE CUTTING, DRILLING, OR REMOVALS ARE REQUIRED IN EXISTING WALL, FLOOR OR ROOF CONSTRUCTION, PERFORM THE WORK IN A MANNER THAT WILL SAFEGUARD AND NOT ENDANGER THE STRUCTURE. PRIOR TO ANY CUTTING OR REMOVALS, INVESTIGATE BOTH SIDES OF THE SURFACE INVOLVED AND DETERMINE THE EXACT LOCATION OF ADJACENT STRUCTURAL MEMBERS BY VISUAL EXAMINATION. ALL CUTTING AND PATCHING MUST BE COORDINATED BY THE GENERAL CONTRACTOR. REFER TO GENERAL CONSTRUCTION SPECIFICATION FOR ADDITIONAL REQUIREMENTS.
 - B. EMPLOY MAXIMUM USE OF CORE DRILLING FOR PENETRATIONS THROUGH THE EXISTING STRUCTURE. DO NOT JACK HAMMER OR USE ANY OTHER CHIPPING METHODS EXCEPT WHERE AND WHEN SPECIFICALLY APPROVED BY THE ARCHITECT.
12. INSULATION
 - A. COVER ALL HOT AND COLD WATER PIPING AND ALL DRINKING FOUNTAIN WASTE WITH 1/2" OWENS-CORNING FIBERGLASS LOW PRESSURE PIPE INSULATION 7 1/4 POUNDS PER CUBIC FOOT DENSITY WITH A MAXIMUM K FACTORY OF 0.24 AT 75F. PROVIDE INSULATION WITH A FACTORY APPLIED ALL PURPOSE, FIBERGLASS REINFORCED KRAFT PAPER AND FOIL FIRE TREATED JACKET WITH SEAL STRIP FIRE TREATMENT FOR A COMPOSITE TO MAXIMUM 25 FLAME SPREAD AND 50 SMOKE DEVELOPED. JACKET TO BE VAPOR-PROOF.
 - B. CONTRACTOR SHALL PROVIDE INSULATION ON ALL P-TRAPS ON ALL LAVATORIES.
 - C. FITTING AND VALVE INSULATION: SAME THICKNESS AND DENSITY AS ADJACENT PIPES AND COVERED WITH A GLASS JACKET OR APPROVED EQUAL.
 - D. SEAL ALL ENDS OF INSULATION WITH BENJAMIN FOSTER BF 30-35 SEALANT.
 - E. PROVIDE RIGID HIGH TEMPERATURE HYDROUS CALCIUM SILICATE INSULATION 12 LBS PER CUBIC FOOT ON ALL HOT AND COLD WATER PIPES PASSING THROUGH FIRE PROOF WALLS OR FLOORS.
13. SLEEVES
 - A. PROVIDE SLEEVES FOR ALL PIPING PENETRATIONS THROUGH WALLS AND POURED FLOORS.
 - B. SLEEVES TO HAVE AN INTERNAL DIAMETER 1" LARGER THAN THE OUTSIDE DIAMETER OF THE PIPE, INCLUDING COVERING, UNLESS OTHERWISE NOTED HEREIN.
 - C. CARRY INSULATION THROUGH PIPE SLEEVES.
 - D. INSTALL CAULKING BETWEEN PIPES AND PIPE SLEEVES AS FOLLOWS:
 1. FLOORS: OAKUM HEMP OR LEAD OR AS SPECIFIED FOR FIRE RATED SHAFT WALLS BELOW.
 2. WATERPROOF WALLS: PERMANENT PLASTIC WATERPROOF CAULKING COMPOUND, OR FIBERGLASS TO WITHIN 1/2" OF SURFACE AND FINISH WITH CAULKING COMPOUND.
 3. FIRE RATED SHAFT WALLS: MINERAL WOOL SEALED WITH JOHN'S-MANVILLE "DUCKSEAL". INSTALL ESCUTCHEON WITH SET SCREW ON BOTH SIDES OF THE WALL.
14. HANGERS, ANCHORS, AND INSERTS
 - A. PROVIDE SUBSTANTIAL SUPPORT AND FASTENING FOR ALL EQUIPMENT AND APPARATUS. STRAP IRON OR PERFORATED STRAPS ARE NOT ACCEPTABLE. ATTACH TO BUILDING STRUCTURE WITH BEAM CLAMPS, SHOT OR POURED INSERTS OR PHILLIPS OR OTHER 3/4" EXPANSION BOLTS OR SHIELDS.
 - B. PIPING TO BE SUPPORTED BY INDIVIDUAL CLEVIS TYPE HANGERS OR BY TRAPEZE HANGERS AT THE FOLLOWING INTERVALS:
 1. CAST IRON PIPE EVERY 5'-0" AND ON BOTH SIDES OF JOINTS.
 2. 1-1/2" AND LARGER STEEL AND COPPER AT 10'-0" INTERVALS.
 3. 1-1/4" AND SMALLER STEEL AND COPPER AT 6'-0" INTERVALS.
 4. PROVIDE SEPARATE SUPPORT ON BRANCH PIPING 5 FEET AND LONGER.
 5. DO NOT SUPPORT PIPING FROM OTHER PIPING.
 6. SUPPORT VERTICAL LINES ADEQUATELY AT THEIR BASES BY A SUITABLE HANGER PLACED IN THE HORIZONTAL LINE NEAR THE RISER AND AT EACH STORY.
 7. PROTECT INSULATED PIPES BY A SHEET STEEL SHIELD AND PROVIDE A RIGID HYDROUS CALCIUM SILICATE PIPE INSULATION INSERT AT HANGER.
17. CONNECTIONS TO EXISTING WORKS
 - A. PLAN INSTALLATION OF NEW WORK AND CONNECTIONS TO EXISTING WORK TO INSURE MINIMUM INTERFERENCE WITH REGULAR OPERATION OF EXISTING FACILITIES. SUBMIT TO THE OWNER FOR APPROVAL DATE SCHEDULE OF NECESSARY TEMPORARY SHUT-DOWN OF EXISTING SERVICES. ALL SHUT-DOWNS MUST BE MADE AT SUCH TIME AS WILL NOT INTERFERE WITH REGULAR OPERATION OF EXISTING FACILITIES AND ONLY AFTER WRITTEN APPROVAL OF THE BUILDINGS MANAGEMENT.
16. DEMOLITION
 - A. PROVIDE ALL MATERIALS, LABOR AND SUPERVISION REQUIRED TO REMOVE, RELOCATE AND ALTER THE EXISTING PLUMBING SYSTEMS AS INDICATED ON THE PLUMBING PLANS.
 - B. PERFORM THE WORK AS SCHEDULED BY THE GENERAL CONTRACTOR OR CONSTRUCTION MANAGER. PLAN INSTALLATION OF NEW AND INTERIM WORK TO INSURE MINIMUM INTERFERENCE WITH THE REGULAR OPERATING OF THE FACILITY. SUBMIT SHUTDOWN SCHEDULE TO OWNER FOR APPROVAL PRIOR TO PERFORMING THE WORK.
 - C. THIS WORK INCLUDES DISCONNECTION AND REMOVAL OF PLUMBING FIXTURES FROM WALLS OR FLOORS, DISCONNECTING PIPING AT STACKS OR RISERS AND CAPPING TO AVOID DEAD ENDS. RECONNECTING ALL SYSTEMS AS REQUIRED TO ASSURE CONTINUITY IN CIRCULATING OR SUPPLY LINES AND RAISING ALL PLUMBING LINES WHERE REQUIRED TO CLEAR NEW HUNG CEILING HEIGHTS.
 - D. ALL BULK DEMOLITION CONCEALED IN CONSTRUCTION AND OTHERWISE BETWEEN REMOVAL POINTS DESCRIBED ABOVE WILL BE PROVIDED UNDER OTHER WORK.
 - E. TURN OVER REMOVED FIXTURES, PIPING AND EQUIPMENT TO THE OWNER TO DISPOSE OF, OR AS OTHERWISE DIRECTED.
 - F. PROVIDE INTERIM WORK, IF REQUIRED, FOR CONTINUED UNINTERRUPTED SERVICE WHERE EXTENDED SHUTDOWN IS REQUIRED.
18. ACCESS DOORS
 - A. THIS CONTRACTOR TO PREPARE A LIST OF ALL ACCESS DOORS REQUIRED FOR OPERATION AND MAINTENANCE OF ALL CONCEALED EQUIPMENT, VALVES, DAMPERS, CONTROLS, AND OTHER SIMILAR DEVICES, WHICH SHALL BE SUPPLIES TO THE GENERAL CONTRACTOR WHO SHALL FURNISH AND INSTALL SAME. ACCESS DOORS TO BE OF AMPLE SIZE AND MINIMUM OF 12" X 12".
 - B. IN ADVANCE OF CEILING INSTALLATIONS, SUITABLY FIELD TAG AND IDENTIFY ALL CONCEALED EQUIPMENT, VALVES, DAMPERS ETC., WHICH REQUIRED ACCESS DOOR PROVISIONS.
19. INDIRECT WASTE PIPING

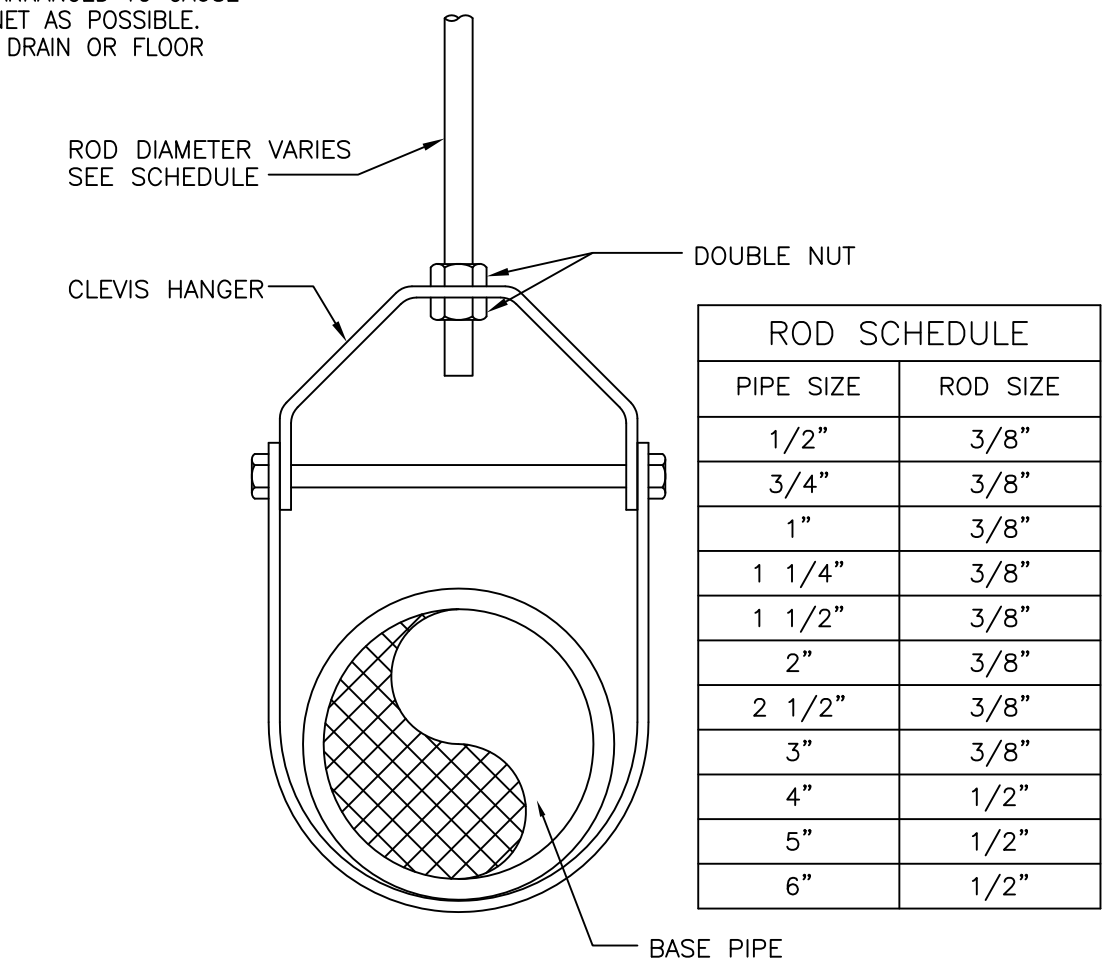
PROVIDE ALL INDIRECT PIPING. INDIRECT WASTE PIPING MATERIAL TO BE COPPER TUBING OR GALVANIZED STEEL AND SHALL BE ARRANGED TO CAUSE AS LITTLE CONGESTION BELOW EQUIPMENT AND IN CABINET AS POSSIBLE. TERMINATE DIRECT WASTE PIPING 1-INCH ABOVE FLOOR DRAIN OR FLOOR SINK. CUT END OF INDIRECT PIPE ON 45° ANGLE.



SANITARY RISER DIAGRAM
N.T.S.



WATER RISER DIAGRAM
N.T.S.



PIPE SIZE	ROD SIZE
1/2"	3/8"
3/4"	3/8"
1"	3/8"
1 1/4"	3/8"
1 1/2"	3/8"
2"	3/8"
2 1/2"	3/8"
3"	3/8"
4"	1/2"
5"	1/2"
6"	1/2"

HANGER DETAIL
NOT TO SCALE

DATE	REVISION	DESCRIPTION	BY
04/12/10	Issued For Permit		AG
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14 Self Blvd., Carteret, NJ

Drawing Title:
Sanitary & Water Riser Diagrams, Detail & Specifications

Project No.
Q10421-ALC

Drawing No.
P - 2

Scale:
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Date:
04/05/2010

Checked By:
R.J.S.

Drawn By:
A.G.

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