PIPE MATERIAL

- NO-HUB CAST IRON PIPE & FITTINGS WITH STAINLESS STEEL NO-HUB SANITARY SEWER , VENT AND STORM DRAIN COUPLINGS. WRAP ALL UNDERGROUND PIPE AS SPECIFIED. PIPING BELOW GROUND : SANITARY SEWER, VENT & STORM DRAIN SERVICE WEIGHT NO-HUB CAST IRON PIPE & FITTINGS CONFORMING TO PIPING ABOVE GROUND : THE REQUIREMENTS OF CISPI STANDARD 301, ASTM A888 OR ASTM A74 WITH TYPE 304 STAINLESS STEEL STANDARD DUTY NO-HUB COUPLINGS. 3. DOMESTIC, WATER BELOW GROUND : TYPE 'K' COPPER WITH BRAZED JOINTS. 4. DOMESTIC, WATER ABOVE GROUND : TYPE "L" COPPER TUBING WITH SOLDERED JOINTS. DOMESTIC OUTSIDE OF TYPICAL UNITS WATER PIPING SHALL UTILIZE LEAD-FREE MATERIAL AND SOLDER. DOMESTIC, WATER ABOVE GROUND : PEX TUBING INSIDE OF TYPICAL UNITS 6. CONDENSATE AND INDIRECT DRAIN PIPING : TYPE "M" COPPER PIPE & FITTINGS WITH SOLDERED JOINTS. CONDENSATE DRAIN PIPING ABOVE CEILINGS SHALL BE INSULATED WITH "AP ARMAFLEX" CLOSED-CELL ELASTOMERIC PLENUM RATED FOAM INSULATION. FLAME-SPREAD INDEX OF 25 OR LESS & SMOKE-DEVELOPED INDEX OF 50 OR LESS. 1/2" THICK FOR PIPING UP TO 1", AND 1" THICK FOR PIPING 11/4" AND LARGER. 7. NATURAL GAS PIPING ABOVE GROUND: SCHEDULE 40 BLACK STEEL PIPE WITH IRON SCREWED FITTING.
 - APPROVED POLYETHYLENE (PE) PIPE WITH FUSION JOINTS. SPIRAL WRAP ALL UNDERGROUND PIPE W/AWG 14 ELECTRIC TRACER WIRE.

GLASS FIBER PIPE INSULATION WITH FACTORY APPLIED WHITE JACKET; "J-M" MICRO-LOK 750AP. HOT WATER PIPE INSULATION SHALL HAVE A MINIMUM WALL THICKNESS OF NOT LESS THAN 1" FOR 3/4 IN. PIPE, 11/2 IN. FOR 1 IN. THRU 11/4 IN. PIPE AND NOT LESS THAN 2 IN. FOR PIPE 2" DIA. AND LARGER.

LEAD-FREE NOTE:

RETURN PIPING :

WITH THE SPECIFICATIONS.

8. NATURAL GAS PIPING BELOW GROUND :

9. INSULATION OF HOT WATER SUPPLY &

10. ALL OF THE ABOVE SHALL COMPLY

5.

ALL PIPE, FITTINGS, FIXTURES, ETC. THAT CONTACT POTABLE WATER FOR HUMAN CONSUMPTION SHALL SHOW APPROVAL TO NSF 61, ANNEX "G". EFFECTIVE JANUARY 1, 2010, THE LEAD CONTENT OF THE WETTED SURFACE AREA OF THE PIPES, FITTINGS AND FIXTURES CONVEYING POTABLE WATER FOR HUMAN CONSUMPTION, OF NOT MORE THAN 0.25%, SHALL BE DETERMINED PURSUANT TO A PRESCRIBED FORMULA AS DETERMINED BY THIRD PARTY CERTIFIERS TO NSF STANDARD 61, ANNEX "G". FOR SOLDER AND FLUX, THE LEAD CONTENT SHALL BE NOT MORE THAN 0.2 PERCENT WHERE USED IN PIPING SYSTEMS THAT CONVEY OR DISPENSE WATER FOR HUMAN CONSUMPTION.

| 1. | SEE ARC |
|-----|----------------------------------|
| 2. | COORDI |
| 3. | ALL 2 1/2 HORIZON SHALL BI |
| 4. | ALL HOR NOTED C |
| 5. | COORDIN BEFORE |
| 6. | Coordii Piping C |
| 7. | THE LOC |
| 8. | ALL VAL\ WALLS, F |
| 9. | ALL OUTI WORK, S |
| 10. | ALL PLUC 4 INCHES |
| 11. | ALL PLUC FROM BC |
| 12. | SEE RISE |
| 13. | FIRE PRO Shop dr With Ro |
| 14. | FIRE RIS |
| 15. | ALL WAL OTHERW APPROV |
| 16. | THESE D VERIFIED START O |
| 17. | PENETR/ SHALL BI |
| 18. | ALL HOT |
| 19. | ALL REQ |
| 20. | ROOF DF |
| 21. | CLEANO |
| 22. | NEW BUI REPAIRE |
| 23. | DIELECT |
| 24. | ALL VEN |

PLUMBING GENERAL NOTES

RCHITECTURAL DRAWINGS FOR EXACT LOCATION OF ALL PLUMBING FIXTURES, DRAINS AND EQUIPMENT. DINATE ALL LOCATIONS, SIZES AND ELEVATIONS OF ALL SLEEVES THROUGH BEAMS, SLABS AND FOOTINGS WITH TURAL AND ARCHITECTURAL DRAWINGS.

/2" OR SMALLER HORIZONTAL WASTE LINES SHALL BE RUN AT A MINIMUM SLOPE OF 1/4" PER FOOT. ALL 3" TO 6" ONTAL WASTE LINES SHALL BE RUN AT A MINIMUM SLOPE OF 1/8" PER FOOT. ALL 8" OR LARGER HORIZONTAL WASTE LINES BE RUN AT A MINIMUM SLOPE OF 1/16" PER FOOT.

RIZONTAL STORM DRAINS AND OVERFLOW DRAIN LINES SHALL BE RUN AT A SLOPE OF 1/8" PER FOOT UNLESS OTHERWISE) on plan. DINATE AND VERIFY EXACT LOCATION, SIZE, POINTS OF CONNECTION AND INVERT ELEVATIONS OF UTILITY SERVICE PIPING

RE TRENCHING OR INSTALLATION. DINATE WITH ARCHITECTURAL DRAWINGS FOR WALL AND PARTITION CONSTRUCTION AND THICKNESS WHERE PLUMBING OR EQUIPMENT IS INDICATED.

DCATION AND ELEVATION OF ALL PLUMBING PIPING SHALL BE VERIFIED AND COORDINATED WITH ALL OTHER TRADES, TURAL CONDITIONS AND BUILDING CONSTRUCTION PRIOR TO START OF INSTALLATION. LVES AND COCKS SHALL BE LOCATED TO BE READILY ACCESSIBLE. WHERE VALVES ARE INSTALLED WITHIN OR BEHIND

6, PARTITIONS OR CEILINGS, AN ACCESS PANEL SHALL BE INSTALLED. TLETS FOR FUTURE CONNECTIONS SHALL BE INSTALLED SO AS TO PERMIT EASY CONNECTION - COORDINATE WITH DUCT STRUCTURAL CONDITIONS AND ARCHITECTURAL LAYOUT.

UGGED OR CAPPED WASTE OUTLETS FOR FUTURE CONNECTIONS SHALL BE INSTALLED ABOVE CEILING WITH PIPE INVERT + ES ABOVE THE CEILING.

UGGED OR CAPPED VENT OUTLETS FOR FUTURE CONNECTIONS SHALL BE INSTALLED ABOVE CEILING WITH PIPE INVERT 12" BOTTOM OF SLAB. SER DIAGRAMS FOR ALL PIPE SIZING FOR ALL PLUMBING SYSTEMS.

ROTECTION PIPING AND EQUIPMENT SHOWN IS FOR REFERENCE ONLY. FOR FIRE PROTECTION PIPING SEE FIRE SPRINKLER DRAWINGS. FIRE SPRINKLER DESIGN/BUILD CONTRACTOR SHALL COORDINATE HIS WORK DURING SHOP DRAWING PHASE, ROOF DRAINS AND LINES AS SHOWN AND SHALL MAKE PROVISIONS FOR FUTURE DUCTWORK AND FINISHED CEILINGS.

ISERS SUBJECT TO FIRE AUTHORITY APPROVAL. ALL MOUNTED ACCESS PANELS AND WALL CLEANOUTS SHALL BE MOUNTED AS LOW AS POSSIBLE UNLESS NOTED WISE OR AS INDICATED IN ARCHITECTURAL PLANS OR AS REQUIRED. CONTRACTOR SHALL GET ARCHITECT AND ENGINEER VAL FOR ALL LOCATIONS PRIOR TO INSTALLATION OF WALL GYPSUM BOARD.

DRAWINGS ARE DIAGRAMMATIC . THE LOCATION & ELEVATION OF ALL PLUMBING PIPING IS APPROXIMATE AND SHALL BE ED AND COORDINATED WITH ALL OTHER TRADES, STRUCTURAL CONDITIONS AND BUILDING CONSTRUCTION PRIOR TO OF INSTALLATION.

RATIONS OF PIPES, ETC , IN WALLS REQUIRING PROTECTED OPENINGS SHALL BE FIRE STOPPED. FIRE STOP MATERIAL BE A TESTED ASSEMBLY APPROVED BY THE STATE FIRE MARSHAL.

T AND COLD WATER PIPE SHALL BE INSULATED INCLUDING PIPING IN THE WALLS. QUIRED CLEANOUTS SHALL BE INSTALLED AS PER SECTION 707.0 OF THE PLUMBING CODE.

DRAIN AND OVERFLOW PIPING WITHIN THE BUILDING SHALL UTILIZE APPROVED DRAINAGE FITTINGS.

OUTS FOR BUILDING STORM DRAINS SHALL COMPLY WITH THE REQUIREMENTS OF SECTION 719.0 OF THE PLUMBING CODE. UILDING STORM DRAINAGE SYSTEM AND PARTS OF EXISTING SYSTEMS THAT HAVE BEEN ALTERED, EXTENDED OR

RED SHALL BE TESTED AS DESCRIBED IN SECTION 1109.0 OF THE PLUMBING CODE. CTRIC UNIONS SHALL BE USED AT ALL POINTS OF CONNECTION WHERE THERE IS A DISSIMILARITY OF METALS.

INTS THROUGH ROOF SHALL MAINTAIN A MINIMUM OF 25 FT. CLEARANCE AND 3 FEET ABOVE OF ANY WINDOW, DOOR, NG, AIR INTAKE OR VENT SHAFT.

| LEGEND | <u>ABBR.</u> | DESCRIPTION |
|----------|--------------|-------------------------------------|
| | S OR W | SOIL OR WASTE ABOVE FLOOR OR GRADE |
| | S OR W | SOIL OR WASTE BELOW FLOOR OR GRADE |
| SD | SD | STORM DRAIN ABOVE FLOOR OR GRADE |
| SD | SD | STORM DRAIN BELOW FLOOR OR GRADE |
| OD | OD | OVERFLOW DRAIN ABOVE FLOOR OR GRADE |
| SPD | SPD | SUMP PUMP DISCHARGE |
| SED | SED | SEWAGE EJECTOR DISCHARGE |
| SEV | SEV | SEWAGE EJECTOR VENT |
| | V | SANITARY VENT |
| | CW | DOMESTIC COLD WATER |
| NPW | NPW | |
| | μ\\\/ | |
| | | |
| | | |
| | F | |
| U | D | |
| CD | CD | |
| PCD | PCD | PUMPED CONDENSATE DRAIN |
| MG | MG | MEDIUM PRESSURE FUEL GAS |
| G | G | FUEL GAS |
| TP | TP | TRAP PRIMER |
| | | DIRECTION OF FLOW |
| <u> </u> | P.G. | PRESSURE GAUGE W/PETE COCK |
| | G.C. | GAS COCK |
| | P.R.V. | PRESSURE REDUCING VALVE |
| N | C.V. | CHECK VALVE |
| lol | L.B.V. | LOCKING BALL VALVE |
| <u> </u> | B.V. | BALL VALVE |
| | G.V. | GATE VALVE |
| φ | FCO | FLOOR CLEANOUT |
| lı | WCO | WALL CLEANOUT |
| | | DOWN |
| o | | RISE |
| | | UNION |
| | | SLOPE IN DIRECTION OF FLOW |
| | WHA | WATER HAMMER ARRESTOR |
| Ð | P.O.C. | POINT OF CONNECTION |
| | RPBP | REDUCED PRESSURE BACKFLOW PREVENTER |
| | ABV | ABOVE |
| | AFF | ABOVE FINISHED FLOOR |
| | AP | ACESS PANEL |
| | BEH | BEHIND |
| | BEL | BELOW |
| | CLG | CEILING |
| | CONT. | CONTINUATION |
| | CO. | CLEAN OUT |
| (E) | EXIST. (E) | EXISTING |
| | FDC | FIRE DEPT. CONNECTION |
| | FIN. | FINISHED |
| | F.F.E. | FINISHED FLOOR ELEVATION |
| | FLR. | FLOOR |
| | FR. | FROM |
| | G.P.F. | GALLONS PER FLUSH |
| | GR | GRADE |
| | 9.1 9.1 | HEADER |
| | ושוז ו ב | |
| | | |
| | U.S. & Y. | |
| | PIV | |
| | VTR | VENT THROUGH ROOF |

LEGEND

| | PLUMBING SHEET INDEX |
|-----------|-----------------------------------|
| P0.01 | PLUMBING LEGEND AND ABBREVIATIONS |
| P0.02 | PLUMBING SCHEDULES |
| P2.2A.01U | PLAN - TOWER A LVL BU |
| P2.2A.01 | PLAN - TOWER A - LVL B |
| P2.2A.02 | PLAN - TOWER A - LVL P2 |
| P2.2A.11 | PLAN - TOWER A - LVL 1 |
| P2.2A.12 | PLAN - TOWER A - LVL 2 |
| P2.2A.13 | PLAN - TOWER A - LVL 3 |
| P2.2A.14 | PLAN - TOWER A - LVL 4 |
| P2.2A.15 | PLAN - TOWER A - LVL 5 |
| P2.2A.16 | PLAN - TOWER A - LVL 6 |
| P2.2A.R | PLAN - TOWER A - ROOF |
| P2.2AB.11 | |
| P2.2B.010 | |
| P2.2D.01 | |
| P2 2B 03 | |
| P2 2B 11 | PLAN - TOWER B - LVL 1 |
| P2 2B 12 | |
| P2 2B 13 | PLAN - TOWER B - LVL 3 |
| P2 2B 14 | PLAN - TOWER B - LVL 4 |
| P2 2B 15 | PLAN - TOWER B - LVL 5 |
| P2 2B 16 | PLAN - TOWER B - LVL 6 |
| P2.2B.17 | PLAN - TOWER B - LVL 7 |
| P2.2B.R | PLAN - TOWER B - ROOF |
| P2.2BC.11 | PLAN - TOWER BC CONNECTOR |
| P2.2C.01U | PLAN - TOWER C -LVL P1U |
| P2.2C.01 | PLAN - TOWER C - LVL P1 |
| P2.2C.11 | PLAN - TOWER C - LVL 1 |
| P2.2C.12 | PLAN - TOWER C - LVL 2 |
| P2.2C.13 | PLAN - TOWER C - LVL 3 |
| P2.2C.14 | PLAN - TOWER C - LVL 4 |
| P2.2C.15 | PLAN - TOWER C - LVL 5 |
| P2.2C.16 | PLAN - TOWER C - LVL 6 |
| P2.2C.17 | PLAN - TOWER C - LVL 7 |
| P2.2C.19 | PLAN - TOWER C - LVL 8 |
| P2.2C.R | PLAN - TOWER C - ROOF |
| P2.4.A | UNIT PLAN - TOWER A/B-UNIT A |
| P2.4.B | UNIT PLAN - TOWER A/B-UNIT B |
| P2.4.C | UNIT PLAN - TOWER A/B-UNIT C |
| P2.4.D | UNIT PLAN - TOWER A/B-UNIT D |
| P2.4.E | UNIT PLAN - TOWER A/B-UNIT E |
| P2.4.F | UNIT PLAN - TOWER A/B-UNIT F |
| P2.4.G | |
| P2.4.П | |
| P2.4.1 | |
| P2.4.5 | |
| P2.4 X | UNIT PLAN - TOWER A/B-UNIT P & O |
| P2.41 | UNIT PLAN - TOWER C-UNIT I |
| P2.4.M | UNIT PLAN - TOWER C-UNIT M |
| P2.4.N | UNIT PLAN - TOWER C-UNIT N |
| P2.4.0 | UNIT PLAN - TOWER C-UNIT O |
| P2.4.R | UNIT PLAN - TOWER C - UNIT R |
| P5.01 | PLUMBING ENLARGED PLANS |
| P5.02 | PLUMBING ENLARGED PLANS |
| P6.01 | DETAILS |
| P6.02 | DETAILS |
| P6.03 | DETAILS |
| P7.01 | DOMESTIC WATER RISER DIAGRAM |
| P7.02 | SANITARY RISER DIAGRAM |
| P7.03 | STORM RISER DIAGRAM - TOWER A/B |
| P7.04 | STORM RISER DIAGRAM - TOWER C |
| P7.05 | GAS RISER DIAGRAM |
| (P7.06) | SANITARY RISER DIAGRAM - TOWER C |
| P7.07 | SANITARY RISER DIAGRAM - TOWER C |
| P7.08 | SANITARY RISER DIAGRAM - TOWER C |
| <u>A</u> | |

