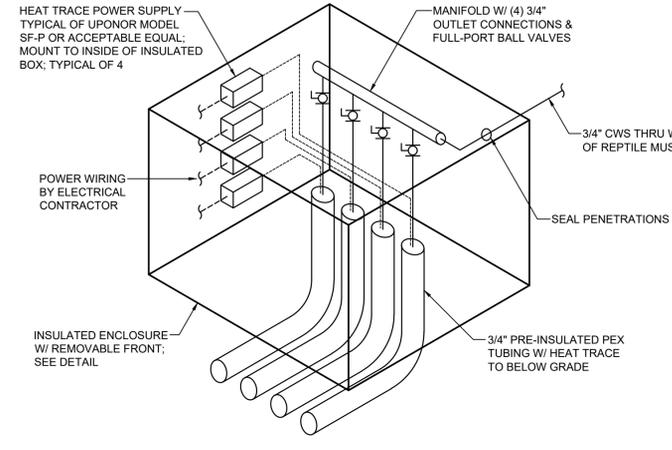
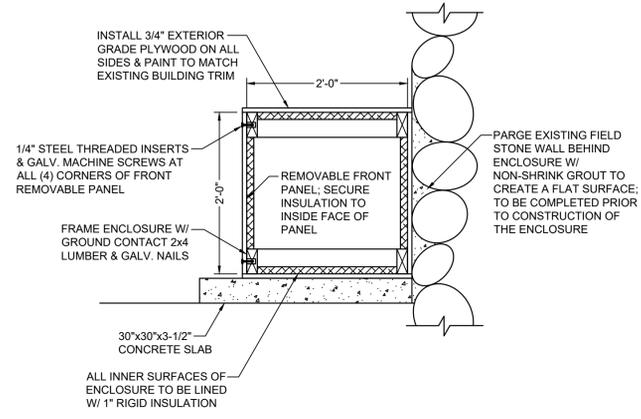


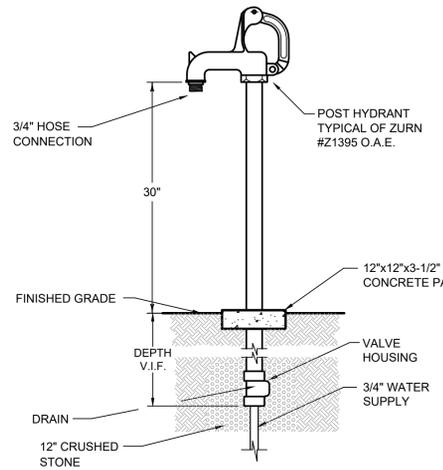
1 Water Distribution Plan  
P1 1/8" = 1'-0"



3 Water Distribution Manifold Detail  
P1 N.T.S.



2 Insulated Enclosure Detail  
P1 N.T.S.



4 Non-Freeze Post Hydrant Detail  
P1 N.T.S.

**Plumbing Notes:**

- ALL MATERIALS AND EQUIPMENT ARE TO BE NEW, UNUSED, AND FREE FROM DEFECTS OF ANY KIND. THE BASIS OF QUALITY SHALL BE THE LATEST REVISION OF ASTM, ANSI, OR OTHER ACCEPTABLE STANDARDS.
- THESE DRAWINGS ARE DIAGRAMMATIC, AND INDICATE GENERAL ARRANGEMENT OF WORK. THE CONTRACTOR SHALL BE RESPONSIBLE TO HAVE REVIEWED THE SITE FOR HIS WORK PRIOR TO HAVING SUBMITTED HIS PROPOSAL. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR CONDITIONS FOUND DURING THE COURSE OF THE CONTRACT.
- THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THAT OF ALL OTHER TRADES.
- ALL WORK INCLUDING LABOR AND MATERIALS SHALL BE FULLY GUARANTEED FOR ONE (1) YEAR FROM THE DATE OF PAYMENT AND FINAL ACCEPTANCE BY THE OWNER AND ENGINEER.
- ALL CUTTING, PATCHING, FIRE-STOPPING, AND SURFACE RESTORATION IN CONNECTION WITH THIS TRADE SHALL BE COMPLETED BY THIS CONTRACTOR.
- A MINIMUM OF FOUR (4) COPIES OF SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO ORDERING AND INSTALLATION OF THE EQUIPMENT AND/OR MATERIALS. BY SUBMITTING SHOP DRAWINGS, THE CONTRACTOR REPRESENTS THAT ACTUAL FIELD CONDITIONS ARE VERIFIED BY HIM AND ARE REFLECTED ON HIS SUBMITTALS.
- THIS CONTRACTOR SHALL PAY ALL FEES, GIVE ALL NOTICES, FILE ALL NECESSARY DRAWINGS, AND OBTAIN ALL PERMITS, INSPECTIONS AND CERTIFICATES OF APPROVAL REQUIRED IN CONNECTION WITH WORK UNDER THIS CONTRACT.
- ALL WORK IN ASSOCIATION WITH THIS CONTRACT SHALL BE COMPLETED IN STRICT COMPLIANCE WITH THE 2015 INTERNATIONAL BUILDING CODE & 2015 INTERNATIONAL PLUMBING CODE (W/ 2017 NEW YORK STATE UNIFORM CODE SUPPLEMENT), AND THE 2015 INTERNATIONAL ENERGY CONSERVATION CODE (W/ 2016 SUPPLEMENT TO THE NEW YORK STATE ENERGY CONSERVATION CONSTRUCTION CODE).
- WHERE THE PROJECT INVOLVES A GAS SERVICE, THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION, APPLICATIONS AND FEES OF ALL WORK ASSOCIATED WITH THE LOCAL GAS UTILITY COMPANY. ALL WORK INVOLVING THE GAS UTILITY COMPANY SHALL BE COMPLETED IN ACCORDANCE WITH THEIR REGULATIONS AND GUIDELINES.
- ALL DOMESTIC COLD AND HOT WATER PIPING AND FITTINGS ARE TO BE INSULATED WITH 1" THICK RIGID ONE-PIECE MOLDED SECTIONAL FIBERGLASS PIPE COVERING WITH UNIVERSAL JACKET. ALL JOINTS ARE TO BE COMPLETELY SEALED A MINIMUM OF 6" BEYOND JOINT ENDS.
- ALL PIPING SHALL BE PROPERLY SUPPORTED AND ROUTED PARALLEL OR PERPENDICULAR TO BUILDING WALLS. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL SUPPORT HANGERS AND MISCELLANEOUS METALS REQUIRED FOR PROPER INSTALLATION OF WORK.
- PIPING SYSTEM MATERIALS ARE TO BE AS FOLLOWS:
  - BELOW GRADE DOMESTIC WATER PIPING - PRE-INSULATED PEX TUBING W/ HEAT TRACE WIRE. TUBING TO BE MANUFACTURED BY THE ENGEL-METHOD (PEX-a) PROCESS & LISTED TO ASTM F876 & F877. TUBING IS TO BE SURROUNDED BY MULTI-LAYER CLOSED-CELL, PEX-FOAM INSULATION AND WATER-RESISTANT, CORRUGATED HDPE JACKET. HEAT TRACE WIRE IS TO BE SELF-REGULATING W/ A MAX. OUTPUT OF 7W PER LINEAR FOOT.
  - ALL EXPOSED PIPING, FITTINGS, TRAPS, ESCUTCHEONS, VALVES, ETC. SHALL BE CHROME PLATED.
  - ALL JOINTS FORMED WHERE FIXTURES COME IN CONTACT WITH WALLS OR FLOORS SHALL BE SEALED.
  - ALL DOMESTIC WATER SUPPLY PIPING SHALL BE THOROUGHLY AND COMPLETELY FLUSHED AND DISINFECTED IN STRICT COMPLIANCE WITH PROCEDURES ESTABLISHED BY AWWA AND ACCEPTABLE TO THE NEW YORK STATE HEALTH DEPARTMENT AND AS FOLLOWS:
    - FLUSH SYSTEM WITH CLEAN POTABLE WATER UNTIL DIRTY WATER DOES NOT APPEAR AT OUTLETS.
    - FILL SYSTEM WITH A WATER-CHLORINE SOLUTION OF 50 PPM FOR 24 HOURS (OR 200 PPM FOR 3 HOURS).
    - AFTER STANDING TIME, FLUSH AGAIN WITH CLEAN POTABLE WATER UNTIL CHLORINE IS PURGED.
    - PERFORM BACTERIOLOGICAL EXAMINATION (BY CERTIFIED INSPECTION AGENCY). REPEAT THE PROCESS IF TESTS ARE UNSATISFACTORY.
  - TEST PIPING AND PROVE TIGHT FOR AT LEAST TWO HOURS IN ACCORDANCE WITH REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION AND/OR AS SPECIFIED. TEST SHALL BE PERFORMED IN THE PRESENCE OF THE ENGINEER AND LOCAL INSPECTOR. TEST SHALL BE REPEATED IF NECESSARY UNTIL FINAL APPROVAL OF SYSTEM IS OBTAINED.
  - WATER & GAS PIPING TO BE AIR-PRESSURE TESTED TO 1-1/2 TIMES MAXIMUM WORKING PRESSURE.
  - DRAINAGE, WASTE & VENT PIPING TO BE TESTED BY FILLING THE SYSTEM WITH WATER TO 10-FEET ABOVE HIGHEST POINT.
  - CONTRACTOR SHALL FURNISH & INSTALL HAMMER ARRESTORS CONFORMING TO ASSE 1010 ON BRANCH PIPING WHERE QUICK-CLOSING VALVES (e.g. - WATER CLOSET AND URINAL FLUSH VALVES) ARE INSTALLED.
  - SUPPORT HORIZONTAL PIPING UTILIZING A SPACING PER PIPING MANUFACTURER'S REQUIREMENTS.
  - INSTALL VALVES ON THE ENTIRE DISTRIBUTION SYSTEM, SO LOCATED AS TO GIVE COMPLETE CONTROL TO ALL FIXTURES AND EQUIPMENT.
  - INSTALL DRAIN VALVES AT BASE OF ALL RISERS AND AT LOW POINTS OF PIPING SYSTEM.
  - THE CONTRACTOR IS RESPONSIBLE TO TEST ALL EQUIPMENT, PIPING, FIXTURES, AND SYSTEMS INSTALLED UNDER THIS CONTRACT TO ENSURE PROPER OPERATION PRIOR TO FINAL ACCEPTANCE BY THE OWNER AND ENGINEER.
  - THE CONTRACTOR IS RESPONSIBLE TO DETERMINE WHETHER SPECIAL LICENSING IS REQUIRED IN ORDER TO PERFORM THE REQUIRED WORK IN THE MUNICIPALITY WHERE THE PROJECT IS LOCATED. IF THE CONTRACTOR CANNOT OBTAIN THE REQUIRED LICENSING TO COMPLETE THE WORK WITHIN THE PROJECT SCHEDULE, THEN THE CONTRACTOR SHALL NOT BE PERMITTED TO BID ON THIS PROJECT.
  - CONTRACTOR IS RESPONSIBLE TO CREATE AND SUBMIT RED-LINE "AS-BUILT" PLANS TO THE ENGINEER AT THE END OF THE PROJECT. AS-BUILT PLANS SHALL ACCURATELY REPRESENT THE SYSTEMS AS THEY WERE INSTALLED.

# TRAILSIDE MUSEUMS AND ZOO

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Number	Revision	Date



100% CONSTRUCTION DOCUMENTS



236 PASADENA PLACE  
ORLANDO, FL 32803  
407-603-7039

Job #	0191
Project	ANIMAL HABITAT IMPROVEMENTS
Drawn By	MB
Checked	MB
Date	02 April 2021
Scale	1/8" = 1'
Drawing Title	Plumbing Plan

# P1.00