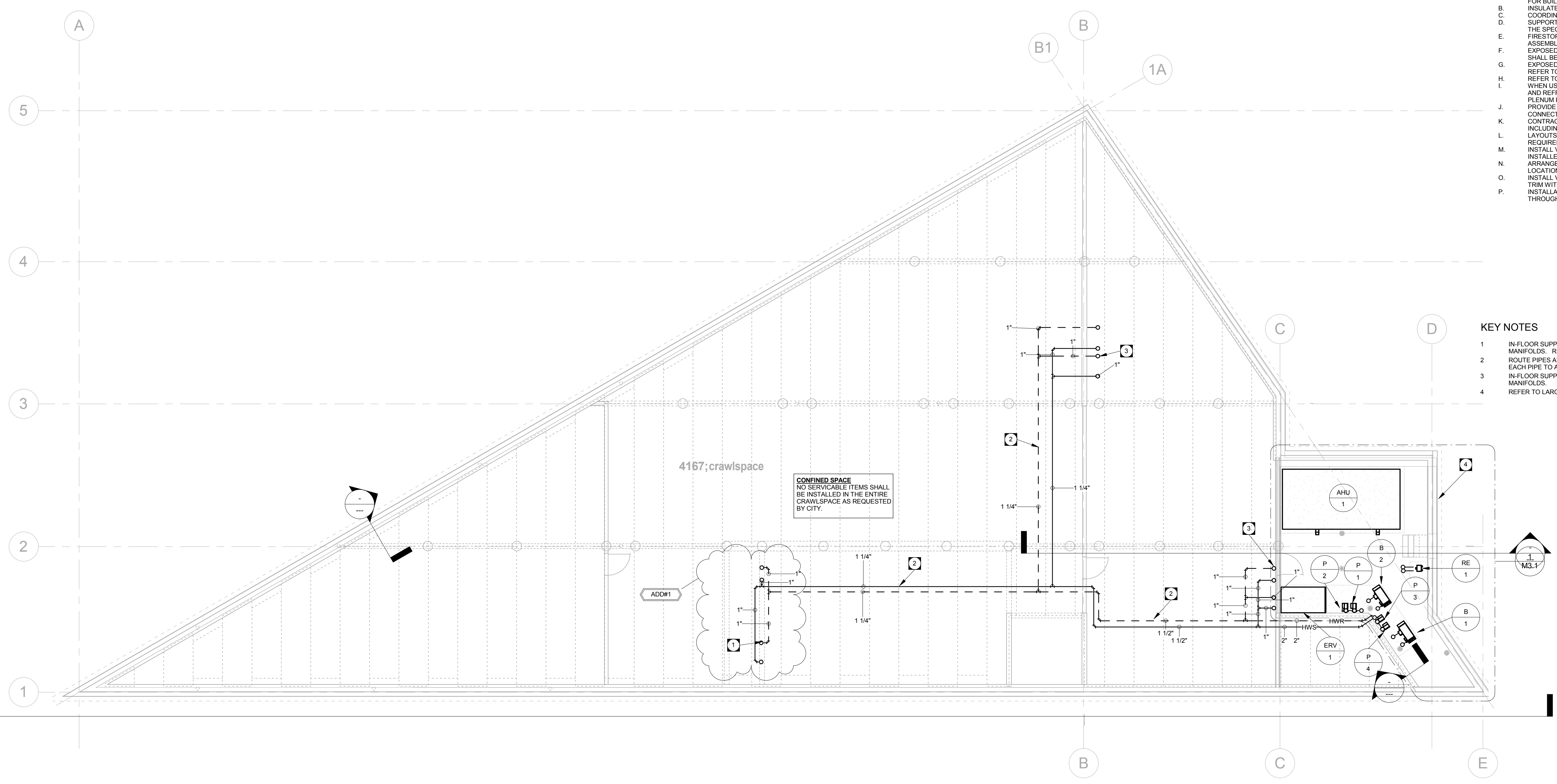


**GENERAL NOTES**

- A. PIPING SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH ASME B31.9 CODE FOR BUILDING SERVICES PIPING.
- B. INSULATE ALL HYDRONIC PIPING IN ACCORDANCE WITH THE SPECIFICATIONS.
- C. COORDINATE PIPE RUNS IN THE BULKHEAD WITH OTHER TRADES TO AVOID CONFLICTS.
- D. SUPPORT PIPING IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS AND THE SPECIFICATIONS.
- E. FIRESTOP ALL MECHANICAL PENETRATIONS THROUGH FIRE-RATED FLOOR AND WALL ASSEMBLIES. SEE ARCHITECTURAL DRAWINGS FOR LOCATION AND TYPE OF RATINGS.
- F. EXPOSED PIPING IN MECHANICAL ROOMS AND CRAWLSPACES AND OCCUPIED AREAS SHALL BE ENCLOSED WITH PVC JACKET.
- G. EXPOSED PIPING IN OCCUPIED SPACES SHALL BE PAINTED BY THE PAINTING CONTRACTOR. REFER TO ARCHITECTURAL NOTES.
- H. REFER TO SCHEMATIC AND DETAILS FOR PIPING AND EQUIPMENT ARRANGEMENT.
- I. WHEN USED IN RETURN AIR PLENUMS, INSULATION MATERIALS FOR DOMESTIC HYDRONIC AND REFRIGERANT PIPING TO MEET SMOKE AND FLAME SPREAD REQUIREMENTS FOR PLENUM INSULATION.
- J. PROVIDE A MINIMUM OF TWO 90-DEGREE CHANGES IN DIRECTION AT EACH BRANCH CONNECTION TO ALLOW FOR PIPE MOVEMENT.
- K. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR FIELD-FABRICATED EXPANSION LOOPS INCLUDING ANCHORS AND GUIDES.
- L. LAYOUTS ARE SCHEMATIC. ADDITIONAL OFFSETS AND ELBOWS SHALL BE INSTALLED AS REQUIRED TO ACCOMMODATE ALL EXISTING CONDITIONS.
- M. INSTALL VALVES WITH THE STEMS VERTICAL. WHEN THIS IS NOT POSSIBLE, THEY MAY BE INSTALLED ROTATED BUT NEVER LESS THAN HORIZONTAL UNDER ANY CIRCUMSTANCE.
- N. ARRANGE ISOLATION VALVES STAGGERED WHERE THEY ARE INSTALLED IN A COMMON LOCATION SO THEY ARE COMPLETELY AND CONVENIENTLY ACCESSIBLE.
- O. INSTALL VALVES WITH ADEQUATE ROOM TO PERMIT REMOVAL OF THE BONNET, DISK, AND TRIM WITHOUT REMOVING THE VALVE FROM THE LINE.
- P. INSTALLATION SHALL PROVIDE MINIMUM 200mm (8") OF CLEAR HEAD ROOM THROUGHOUT ALL MECHANICAL ROOMS.

**KEY NOTES**

- 1 IN-FLOOR SUPPLY AND RETURN PIPING TO RISE/DROP THROUGH FLOOR AND CONNECT TO MANIFOLDS. REFER TO STRUCTURAL FOR DETAIL AND ROUGH-IN REQUIREMENTS.
- 2 ROUTE PIPES AT HIGH LEVEL WITHIN THE CRAWLSPACE. MAINTAIN ONE ELEVATION FOR EACH PIPE TO AVOID AIR VENTS.
- 3 IN-FLOOR SUPPLY AND RETURN PIPING TO RISE/DROP THROUGH FLOOR AND CONNECT TO MANIFOLDS.
- 4 REFER TO LARGE SCALE MECHANICAL PLANS.



**1** CRAWLSPACE PLAN - HYDRONIC  
 MY2.1 SCALE: 1/8" = 1'-0"

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- O 16-03-31 Issued for Construction

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**PROJECT**  
 Windsor Park Library  
**ADDRESS**  
 1201 Archibald Street

**DATE**  
 April 20, 2016

**SCALE**  
 As indicated

crawlspace -  
 hydronic  
**MY2.1**