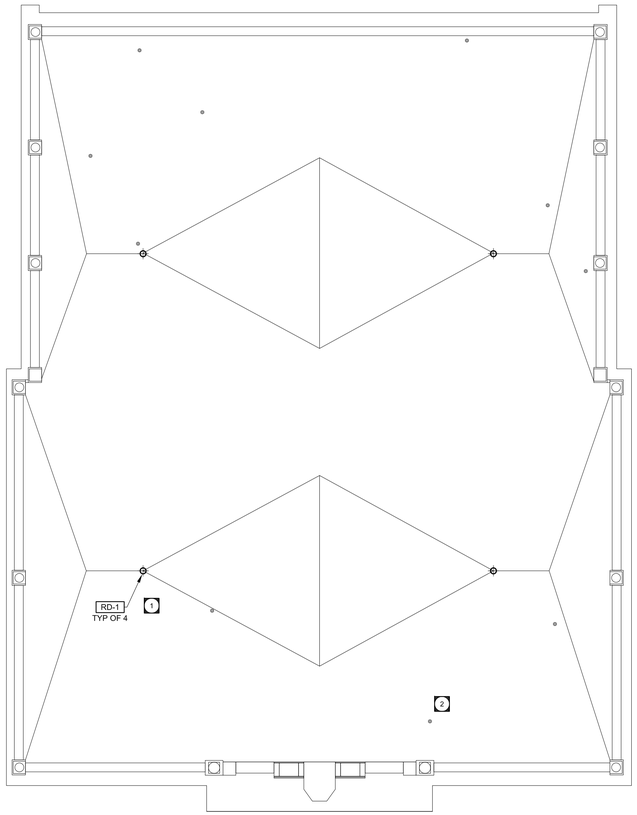
DATE: YEAR.MM.DD FILE NAME:

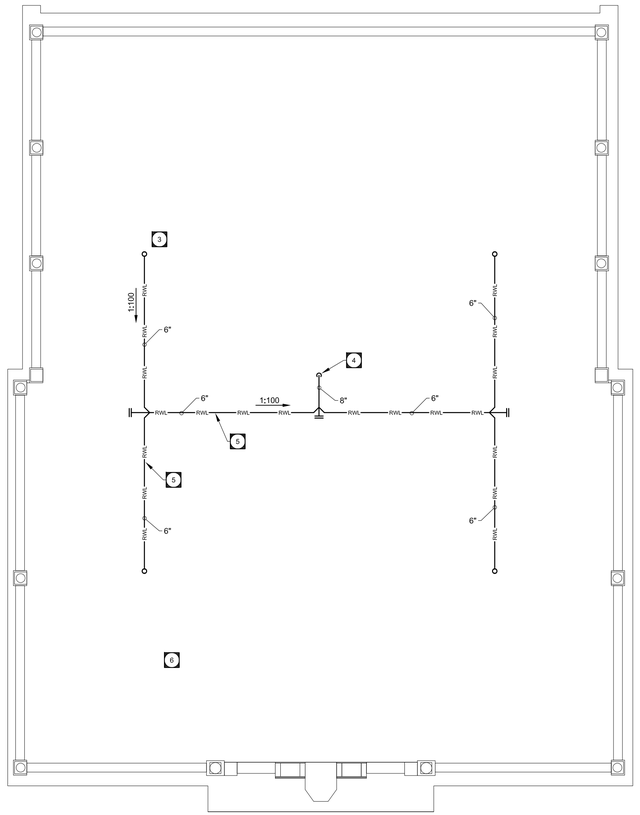
SHEET TITLE:

PROJECT No: 1261

ADDRESS:



1 M1.1 ROOF PLAN
SCALE: 3/32" = 1' - 0"



2 M1.1 ATTIC PLAN
SCALE: 3/32" = 1' - 0"

KEY NOTES

1. NEW ROOF DRAINS, REFER TO SPECIFICATION FOR ROOF DRAIN TYPE.
2. EXTEND ALL PLUMBING VENTS AS REQUIRED TO MEET THE NEW ROOF SURFACE ELEVATION, INSTALL NEW VENT TERMINATIONS FOR ALL LOCATIONS, C/W ALL REQUIRED FLASHING AND WATERPROOFING.
3. ROOF DRAINS ABOVE.
4. EXISTING CAST-IRON RAIN WATER LEADER TO REMAIN, REMOVE EXISTING PORTIONS OF PIPE WITHIN THE ATTIC TO ACCOMMODATE THE INSTALLATION OF A NEW TEE FITTING TO ALLOW CONNECTION OF NEW RAIN WATER LEADERS FROM EACH SIDE AS SHOWN. CAP THE VERTICAL PIPE IN THE ATTIC BELOW ROOF LEVEL OR ABOVE THE TEE CONNECTION(S).
5. FULLY INSULATE THE HORIZONTAL RAINWATER LEADERS WITHIN THE ATTIC FROM THE ROOF DRAIN HOPPERS TO THE CENTRAL RWL.
6. THERMALLY INSULATE ALL PLUMBING VENTS WITHIN THE ATTIC SPACE, TYPICAL ALL LOCATIONS.

SYMBOLS

	ROOF DRAIN
	CLEAN OUT
EQ-##	FIXTURE TAG
NO.	GENERAL NOTE
1 / M1.1	DRAWING HEADER

LINE TYPE

RWL RWL	RAIN WATER LEADER

SPECIFICATIONS

PERMITS, INSPECTION, AND TESTING

.1 File all necessary notices and approved layouts, obtain and pay for all Local Authority and Fire Underwriters Inspections, approvals and permits applicable to each Mechanical Section. Make changes required to secure Local Authorities approval, without extra cost. Where conflicting requirements occur, comply with most stringent regulation. Note that requirements shown or specified may exceed minimum standards set by Local Authorities.

EXAMINATION

.1 Inspect existing conditions, including elements or adjacent Work subject to irregularities, damage, movement, including Work during cutting and patching.

.2 After uncovering, inspect conditions affecting performance of the Work.

.3 Examine all contract documents to ensure work can be performed without changes to the Work as shown on plans. No allowance will be made later for necessary changes, unless notification of interferences have been brought to Consultant's attention in writing, prior to bid closing.

.4 Verify that materials and equipment can be delivered to the place of the work and that sufficient space and access is available to permit installation as shown on the drawings.

.5 Verify the locations and inverts of service lines leaving and entering building to ensure their proper function prior to commencing work.

FABRICATION AND WORKMANSHIP

.1 Employ skilled mechanics in their respective trades, under competent supervision, and where required by Provincial or Local regulations holder of acceptable qualification certificates.

COORDINATION

.1 Ensure cooperation of workers in laying out Work. Maintain efficient and continuous supervision.

.2 Be responsible for coordination and placement of openings, sleeves and accessories.

.3 Check levels shown before commencement to ensure adequate falls for sewers and pipes and report discrepancies immediately. Failure to so check and report does not relieve this section from responsibility for consequent extra expenditures.

.4 Where space is indicated as reserve for future equipment, leave clear and install piping and other work so that connections can be made to future equipment.

.5 Secure approval where necessary to cut holes in either finished or unfinished work, employ section whose work is involved, cut openings no larger than necessary and without damage to adjoining work and carefully repair all damage to match adjacent work. Note the Mechanical Division is responsible for all required cutting and patching relating to this Contract, except as specifically noted otherwise.

.6 Provide and set bolts, templates, sleeves and fixing materials for fixing work under this section securely to work provided under other sections, in advance of other work, where required.

.7 Locate all openings in walls, partitions, beams, etc. required for installation of ducts, pipes and equipment, etc. specified in this section of the specifications and frame all openings as required.

WORK FOR OTHER TRADES

.1 The Mechanical Contractor shall rough-in for and/or connect up all equipment requiring mechanical services, as shown on drawings or mentioned elsewhere in the specifications.

.2 Supply other trades with all necessary details, rough-in drawings, wiring diagrams, etc. as required.

ALTERATION WORK

.1 Where work is to be done in existing buildings, accurately survey, provide for avoidance of damage and interference to existing work and rectify any such damage due to work under Mechanical Sections. Accept existing work as it exists at time of tendering.

.2 Carefully dismantle existing mechanical equipment to be removed or relocated. Temporarily disconnect, remove, and reinstall existing equipment, piping, ductwork, conduit, light fixtures, and similar items, which interfere with the new installation after completion of new work. Store equipment and materials on the premises as directed by the Owner.

.3 All usable salvaged equipment and materials shall remain the property of the Owner unless specifically noted otherwise. Such material shall be removed from the building and be safely and neatly stored on the site for removal by the Owner. The Contractor shall remove all rejected salvage from the site and legally dispose of it off site.

.4 Safely cap and seal disconnected mechanical services within finished surfaces.

.5 The abandonment of existing equipment and material in place is not acceptable. All redundant services are to be removed back to active mains, which shall then be capped at existing point of connection.

.6 All mechanical equipment conflicting with new equipment being installed shall be moved or disconnected, without damage, by Contractor and shall remain property of the Owner. Remove ducts and piping not required in revised systems and interfering with new installation. This material shall become property of Contractor.

.7 Disconnect existing equipment indicated, intended to be reused, rough-in in new position, and after replacement connect up ready for use.

.8 Removal and relocation of mechanical equipment by relevant Mechanical Sections.

FASTENINGS

.1 Provide metal fastenings and accessories in same texture, colour and finish as adjacent materials, unless indicated otherwise.

.2 Prevent electrolytic action between dissimilar metals and materials.

.3 Space anchors within individual load limit or shear capacity and ensure they provide positive permanent anchorage. Wood, or any other organic material plugs are not acceptable.

.4 Keep exposed fastenings to a minimum, space evenly and install neatly.

PIPE SUPPORTS AND ANCHORS

.1 Conform to ASME B31.9.

.2 Hangers for Pipe Sizes 50 mm (2 inches) and Over: Carbon steel, adjustable, clevis.

.3 Wall Support for Pipe Sizes 100 mm (4 inches) and Over: Welded steel bracket and wrought steel clamp.

.4 Vertical Support: Steel riser clamp.

.5 Floor Support: Cast iron adjustable pipe saddle, lock nut, nipple, floor flange, and concrete pier or steel support.

.6 Caulk the space between pipes and floor sleeves or openings, to prevent water seeping down, with an approved caulking compound.

.7 Perforated strap or wire hangers will not be permitted.

.8 In no case shall the hanging of piping directly from roof decking be allowed, unless special permission is obtained from the Consultant.

.9 Place hangers within 300 mm (12 inches) of each horizontal elbow.

.10 Support horizontal cast iron pipe adjacent to each hub, with 1.5 m (5 feet) maximum spacing between hangers.

.11 Support M.J. pipe on both sides of joint. Provide with sway braces and anchors to Consultant's approval. At multiple fittings, or short lengths, support every 300mm (12").

.12 Support riser piping independently of connected horizontal piping.

.13 Design hangers for pipe movement without disengagement of supported pipe.

.14 All hanger rods shall have sufficient threaded length to allow for vertical adjustment of hangers after pipe is in place. Use 2 nuts on each rod, one above the clevis or angle iron and one below.

.15 On insulated pipe of 63 mm (2½") and above, the hangers shall be sized to suit the O.D. of the insulation and protection saddles, as described above shall be installed.

FLASHING

.1 Provide flexible flashing and metal counterflashing where piping and ductwork penetrate weather or waterproofed walls, floors, and roofs.

SANITARY SEWER PIPING, ABOVE GRADE

.1 75mm (3") and over - Cast Iron Pipe: CISPI 301, hubless, service weight. Class 4000
  .1 Fittings: Cast iron.
  .2 Joints: CISPI 310, neoprene gaskets and stainless steel clamp-and-shield assemblies.

STORM WATER PIPING, ABOVE GRADE

.1 Cast Iron Pipe: CISPI 301, hubless, service weight. Class 4000
  .1 Fittings: Cast iron.
  .2 Joints: Neoprene gaskets and stainless steel clamp-and-shield assemblies.

RD-1 ROOF DRAINS

.1 MIFAB Series R1100-EU (or equal) lacquered cast iron roof drain with anchor flange, cast iron waterproofing membrane clamp ring with integral gravel stop, adjustable cast iron extension flange, underdeck clamp and galvanized steel dome strainer with a free area of 43 square inches. Roof drains shall be sized for 6" diameter outlets.

INSULATION

.1 Fiberglas Pipe Insulation with ASJ. Factory applied all-service jacket (ASJ), rated for a maximum service temperature of 850F (454C). Circumferential joints shall be sealed with butt strips that are compatible with ASJ facing. Sufficient thickness of insulation shall be used to maintain the outer surface temperature of the operating system below +150F (65C).

.2 On rain water leaders and plumbing venting, all penetrations of the facing and exposed ends of insulation shall be sealed with a mold resistant vapor barrier mastic. Jacket shall be a suitable vapor retardant for high humidity applications (>90%). Mastic pipe section ends at every fourth pipe section joint and at each fitting to provide isolation of water incursion.

.3 Application:
  .1 Plumbing venting shall be insulated to 2" thickness. Insulate within 10' of the exterior envelope.
  .2 Roof drain bodies and roof drainage piping shall be insulated to 2" thickness. Insulate all piping runs in the attic from the roof drains to the vertical riser.

NOTES:

N

APEGM
Certificate of Authorization
Epp Siepman Engineering Inc.
No. 4035 Date: 12.11.08

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mechanical engineers
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Winnipeg, MB
R3L 1Y5
p 204.453.1080
f 204.453.1335
ese@eppsiepman.com

DRAWING LIST

SHEET No:	SHEET TITLE
M1.1	MECHANICAL ROOF DRAINS

No.	REVISION/DESCRIPTION	BY	DATE
0	ISSUED FOR PERMIT AND CONSTRUCTION	DAE	12.11.08

AGER LITTLE ARCHITECTS INC
202C - 275 Broadway · Winnipeg, MB R3C 4M6 · (204) 414-9191

SEAL

DRAWN	CHECKED	DESIGNED	APPROVED
DK	DAE	DAE	DAE
DATE	USER APPROVAL		
12-11-08			

Winnipeg

THE CITY OF WINNIPEG
PLANNING, PROPERTY AND DEVELOPMENT DEPARTMENT
MUNICIPAL ACCOMMODATIONS DIVISION

PROJECT 3-65 GARRY STREET, R3C 4K4

CARNEGIE LIBRARY
ROOF REPLACEMENT

380 William Ave, Winnipeg, MB

SHEET TITLE

MECHANICAL ROOF DRAINS

SCALE	PROJECT No:	SHEET No:
AS SHOWN	1261	M1.1

DRAWING SHEET SIZE: XX (841mm x 594mm) PLOT 1:1