



RESIDENTIAL ADDITIONS

REQUIRED INFORMATION WHEN APPLYING FOR A PERMIT

- 1. A completed building permit application with **EPA certificate and contractor's license**, if applicable.
- 2. Rules related to wetlands, floodplain and erosion control are under the jurisdiction of the MCWD. You are directed to contact the Minnehaha Creek Watershed District (MCWD) at 952-471-0590 or at permitting@minnehahacreek.org related to applicable permits that may be needed to undertake your project. **The building permit will not be released until the City is provided a copy of the MCWD permit(s) and/or receipt of written/email confirmation from the MCWD that no permit is needed for the project.**
- 3. An accurate, scaled drawing of the property including: all existing property lines, existing buildings and proposed addition(s) and distances from buildings to property lines (see sample on pg. 4). A Certificate of Survey may be required if individual issues warrant.
- 4. Hardcover Calculation Sheet
- 5. Building Height Calculation form and required drawing
- 6. Property Owner as Building Permit Applicant form (if applicable)
- 7. Plans. Two sets of plans should be **drawn to scale** and indicate the following:

NOTE: On large additions a \$1000 erosion control escrow and a \$5000 project management escrow may be required at the discretion of staff.

FLOOR PLAN:

- Location of exterior walls
- Location of all existing and proposed interior walls
- Name of each existing and proposed room
- Location and sizes of windows and doors
- Wall construction materials
- Location of existing or proposed plumbing fixtures, furnace, water heater, etc.
- Location of stairways, fireplaces, etc.
- Location of smoke detectors

CROSS SECTION PLAN:

- Proposed finished ceiling height
- Finish materials for walls, floor, and ceiling
- Existing and proposed insulation and vapor barrier

REQUIRED INSPECTIONS

Call MnSpect at (952) 442-7520 to make an appointment. All inspection requests require a 24-hour notice. Required inspections are as follows:

1. **Preconstruction Site Inspection** – May be required depending on site conditions. Separate fee will be charged at permit issuance.
2. **Footing and/or Foundation** – Inspect footing prior to placement of concrete; foundation prior to backfilling. When applicable, damp-proofing and insulation must be in place.
3. **Framing/ Insulation** - to be made after all framing, insulation and ductwork is in place and the rough electrical, and plumbing systems are approved.

4. **Final** - to be made when work is complete and after final approval of electrical.

SMOKE DETECTORS

Required. See attached "Smoke Detectors" handout for details.

MINIMUM CLEAR DIMENSIONS

2'6" Width for toilet (centered)
3'0" Hall width
3'0" Stairway width
7'6" Ceiling height in habitable rooms (living, sleeping, eating, cooking)

ESCAPE WINDOWS AND WINDOW WELLS

Required. See attached "Emergency Escapes" handout for details.

NATURAL LIGHT

All habitable rooms shall be provided with aggregate glazing area of not less than 8 percent of the floor area of such rooms. Natural ventilation shall be through windows, doors, louvers or other approved openings to the outdoor air. Such openings shall be provided with ready access or shall otherwise be readily controllable by the building occupants. The minimum openable area to the outdoors shall be 4 percent of the floor area being ventilated.

FRAMING

Lumber shall be grade-stamped. The bottom wall plate shall be treated wood and securely fastened to the floor slab with nails/screws or construction adhesive. Engineered floor trusses/beams shall not be notched, or altered without written approval from the manufacturer.

STAIRWAYS

Minimum stairway headroom clearance is 6'8" (measured vertically from a plane parallel and tangent to the stairway tread nosing to the above at all points). Landings at the bottom of the stairways required 36" of depth before the door or the wall. All interior and exterior stairways shall be provided with a means to illuminate the stairs, including the landings and treads.

ENCLOSED AREA UNDER STAIRS

The walls and ceiling of an enclosed space below an interior stairway shall be protected with one layer of 1/2" type X gypsum board. If the area is greater than 100 square feet, a heat run shall be provided to the area for ventilation.

INSULATION

Foundation walls require R-10 insulation. Framed walls require R-19 insulation. Attic requires R-44 insulation. Rigid foam insulation with a frame spread rating greater than 75 and/or a smoke density rating greater than 450 shall be protected with 1/2" gypsum board or 1/4" plywood. Bathtub trap openings and other penetrations in the floor above shall be filled with fiberglass or foam insulation.

A vapor barrier (4 mil poly or equal) is required on the warm side of insulated exterior walls. This includes behind the showers and tubs on exterior walls. Water resistive gypsum board cannot be applied over another vapor barrier (such as 4 mil poly), or on ceilings.

CERAMIC TILE

Ceramic tile in the shower/tub area shall be applied over concrete board.

SAFETY GLAZING

Safety glazing is required in doors and enclosures for hot tubs, whirlpools, saunas, steam rooms, bathrooms and showers. Glazing in any portion of a building wall enclosing these compartments where the bottom exposed edge of the glazing is less than 60" above the walking surface.

Safety glazing is required in fixed or operable panels adjacent to a door where the nearest exposed edge of the glazing is within a 24" arc of either vertical edge of the door in a closed position and where the bottom exposed edge of the glazing is less than 60" above the walking surface.

MECHANICAL – Separate permit required

All habitable rooms shall be provided with a heating system capable of maintaining 72 degrees Fahrenheit at a point three feet above the finished floor.

Main trunk lines are to be adequately sized to allow additional supply branch ducts to be provided to any additional finished rooms. Provide return air ducts, the same size as the supply ducts, to all rooms but the kitchen and bathroom.

Each bathroom requires an exhaust fan to the exterior. The ducts shall be insulated to an R-4.2 the first three feet from the exterior wall, and terminate at least three feet from any opening such as an openable window or combustion air duct in the exterior wall.

FIREPLACES – Separate permit required

PLUMBING – Separate permit required

An access panel is required for hose bib shutoff valves and upper level tub traps. A shower or combination shower/bath must be equipped with an anti-scald type shower control valve. The valve must be the thermostatic or pressure-balancing type.

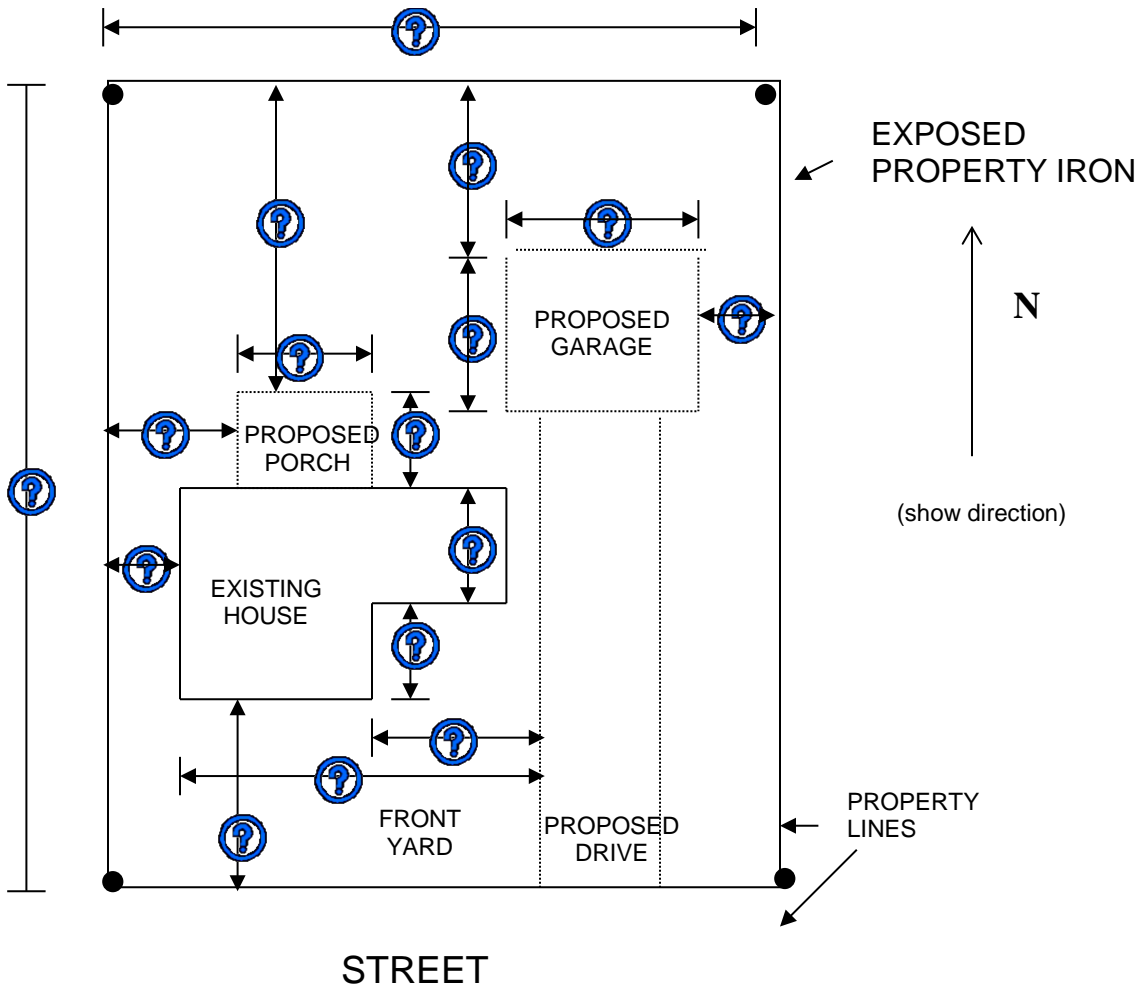
ELECTRICAL

A separate State Electrical Permit is required for any new wiring and must be obtained by the person doing the work. The application form is available at the City Building Inspections Department or on line at cityofmound.com.

NOTE: IT WILL TAKE APPROXIMATELY 7 TO 10 BUSINESS DAYS TO GET A PERMIT ONCE THE PLANS AND APPLICATION HAVE BEEN REVIEWED FOR COMPLETENESS, ZONING COMPLIANCE, AND SUBMITTED FOR BUILDING OFFICIAL REVIEW.

SAMPLE OF SITE PLAN

1 INCH = ____ FEET





BUILDING HEIGHT CALCULATION HOW-TO FORM

Job Address _____

Per Mound City Code, Section 129-2, building height and building line are defined as follows:

Building Height The vertical distance to be measured from the average grade of a building line to the top, to the cornice of a flat roof, to the deck line of a mansard roof, to a point on the roof directly above the highest wall of a shed roof, to the uppermost point on a round or other arch type roof, to the mean distance of the highest gable on a pitched roof.

Building Line A line parallel to the street right-of-way or the ordinary high water level at any story level of a building and representing the minimum distance which all or nay part of the building is set back from said right-of-way line or ordinary high water level.

COMPLETE THE FOLLOWING

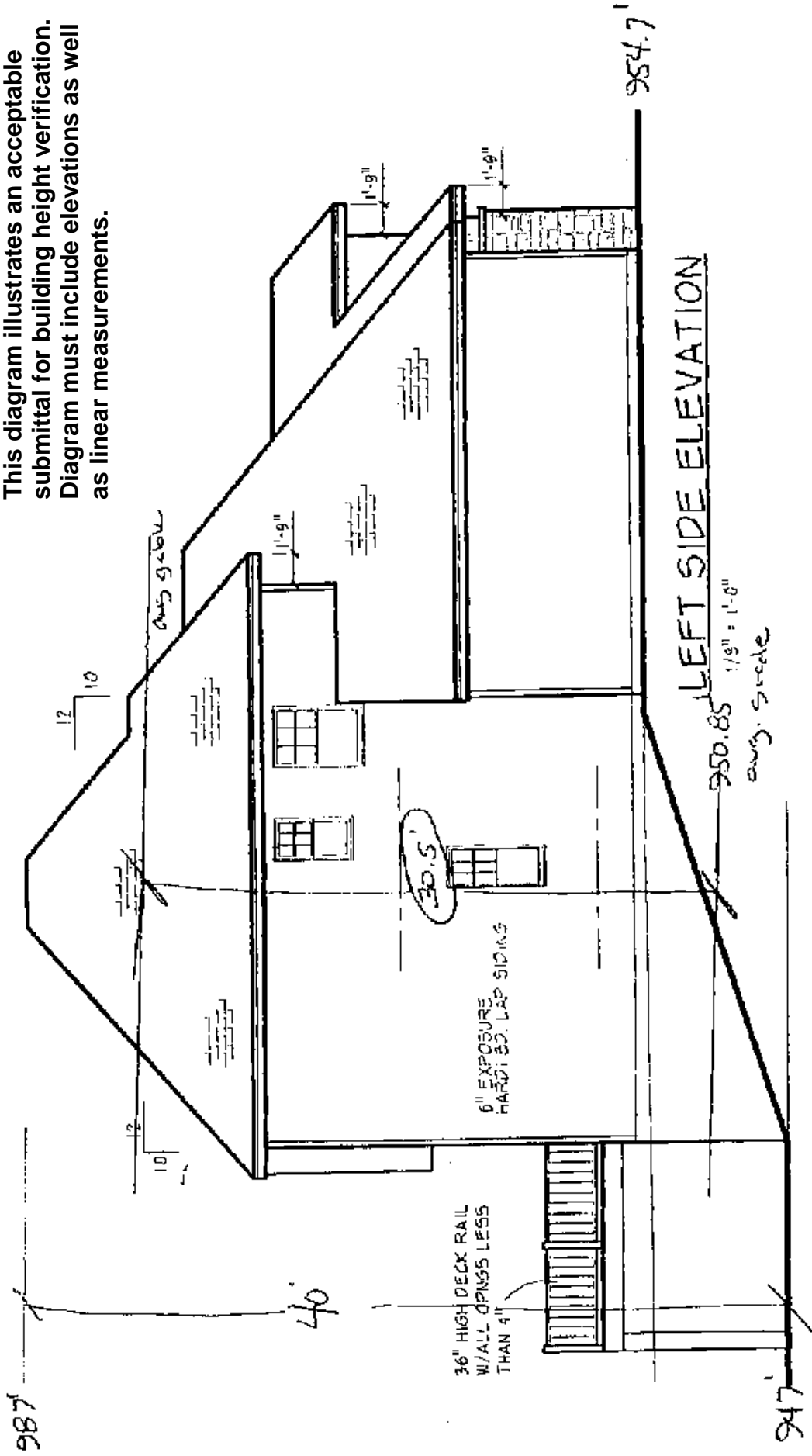
1. Describe the type of roof style proposed (i.e., pitched, flat, shed roof, etc.)

2. Provide the average grade elevation of the building line facing the street:
_____ based on proposed grades referenced on submitted survey.
3. Provide the average grade elevation of the building line facing the rear of the lot or lake:
_____ based on proposed grades referenced on submitted survey.
4. Provide the average grade elevation of the building line(s): _____
5. Provide the height of the proposed structure as measured from the lowest grade elevation to highest point of structure: _____.
6. Provide the proposed height of the structure based on the definition of building height referenced above: _____
7. **Attach diagram** - Graphic documentation, usually an elevation drawing, must be provided to confirm that the proposed height of the new structure, based on the Zoning Ordinance definition, meets the height regulations of the applicable zoning district. Graphics document must be scaled to allow for checking by staff.

Measuring Building Height

A building height verification must be submitted with the building permit application on any new home construction or addition.

This diagram illustrates an acceptable submittal for building height verification. Diagram must include elevations as well as linear measurements.



COMBUSTION AIR/MAKE-UP AIR WORKSHEET

Date: _____

Name: _____ Site Address: _____

Total floor Area (including basement): _____

Size of Room with Combustion Equipment: _____

Average Ceiling Height _____ Number of Bedrooms _____

***Check all that apply**

Year Home was Constructed

Pre-1994

1994-2003

2004 and After

Combustion Equipment (Existing & New)

Atmospheric
Vent

Fan Assist/
Power Vent

Direct
Vent

Electric

Water Heater Input: _____ BTU

Furnace/Boiler Input: _____ BTU

Furnace/Boiler Input: _____ BTU

Other _____

Fireplace

Gas D.V.

Gas Log Insert

Wood Burning/Solid Fuel

Factory Wood Burning/
Solid Fuel Closed
Combustion with
Combustion Air

Ventilation System/Per Energy Code, Not Mechanical Code

Exhaust Only

Balanced

Fan 1 CFM: _____

Fan 2 CFM: _____

Exhaust Systems

Yes

N/A

Kitchen

CFM: _____

Central Vacuum

CFM: _____

Other _____

CFM: _____

New Code Requirements from the IMC and IFGC (with applicable State Amendments)

- Pressure equalization – Make-up Air and Combustion Air worksheets
1346.501.4 & 1346.5304
- Stud Cavities shall not convey air from more than one floor level *IMC 602.3*
- All exposed gas lines (except black steel) shall be labeled “GAS” and include the working pressure of the line *IFGC 401.5 & 1346.5401.5.1*
- Gas piping protection - nail plates must extend 4” beyond wall plates and studs *IFGC 404.5*
- Sediment trap – drip leg must be a minimum of 3” in length *1346.5408.4*
- Piping support – ½” O.D. tubing supports spaced at intervals not exceeding 4’ *IFGC 415.1*
- Testing of gas piping – test pressure of not less than 25psi, test duration of 10 minutes (with prior approval from the Building Official), test gauge with 2psi increments or less with a pressure range of not greater than twice the test pressure applied, and the test pressure shall be within the middle 50 percent of the test gauge pressure range *1346.5406.4.1 – 1346.5406.4.3*

Exit Terminations of vents, exhausts, and intakes	<u>Windows/Doors/Gravity Air Inlets</u>	<u>Grade Level</u>	<u>Forced Air Inlet</u>	<u>Gas meter</u>
<u>Kitchen, Bath, Dryer, HRV Exhausts</u>	3 foot min. any direction	1 foot min. above finish grade	3 foot min. below, if within 10 feet horizontally	
<u>Mechanical Draft Equipment</u>	4 foot min. below or 4 foot min. to the side, 1 foot min. above	1 foot min. above finish grade	3 foot min. above within 10 feet horizontally	3 foot min. to the side, not directly above meter
<u>Combustion Air Intake</u>	0 feet clearance needed	1 foot min. above finish grade	0 feet clearance needed	3 foot min. below, within 10 feet horizontally
<u>HRV Exhaust</u>	3 foot min. any direction	1 foot min. above finish grade	3 foot min. below, if within 10 feet horizontally	
<u>Direct Vent Appliance</u>	Input(btu/hr) <10k = 6” 10k-50k = 9” >50k = 12”	1 foot min. above finish grade	Input(btu/hr) <10k = 6” 10k-50k = 9” >50k = 12”	

NOTICE

This notice is to be given to the homeowner

The improvements undertaken at this property require the inspection of properly installed smoke alarms and carbon monoxide alarms, as required by MN Statute 299F.362, 299R.51, and in accordance with NFPA 72 and MN Residential Code (MRC) R314 & R315.

This notice is intended to inform the homeowner of the requirements at the beginning of the project in an effort to minimize any inconvenience and/or cost associated with an additional inspection if the work described in this handout is not completed before the final inspection.

The guidelines below are to assist you in completing the require installation. For questions please call MNSPECT at 952-442-7520 or 888-446-1801.

REQUIREMENTS FOR SMOKE & CARBON MONOXIDE ALARMS

- This handout is intended only as a guide. It shall not be considered a complete set of requirements.
- Materials and installation must comply with the current Minnesota State Building Code and the manufacturers' installation specifications for each product.

SMOKE ALARMS:

Smoke alarms are required:

- MN Statute 299R.662 requires smoke alarms installed in every residential dwelling in Minnesota. Each dwelling until must be provided with UL 217 listed smoke alarms installed in accordance with NFPA 72 and MRC 314. (Combination smoke and carbon monoxide alarms are permitted in lieu of smoke alarms and must be listed UL 217 and UL 2034.)

Smoke alarms must be installed:

- In each sleeping room.
- Outside AND within the immediate vicinity (within 21' per NFPA 72) of each separate sleeping area.
- On each additional story of the dwelling including basements and habitable attics.

Installation requirements:

- Smoke alarms shall be installed not less than 3' horizontally from the door or opening of a bathroom that contains a shower or tub unless this would conflict with other placement requirements such as minimum distance from a bedroom.
- Ionizing alarms shall not be installed closer than 20' to a cooking appliance. Ionization alarms with a silencing switch may be placed no closer than 10' to a cooking appliance.
- Photoelectric alarms shall not be installed closer than 6' to a cooking appliance.
- Wall mounted alarms should be located inside an area not more than 12" and not less than 4" from the ceiling (or per the manufacturer's requirements).
- Ceiling mounted alarms should be no closer than 4" from a side wall or peak of a vaulted ceiling.

- Alarms must be more than 36" from the tip of a ceiling fan blade, forced air supply register, or door to a bathroom that contains a tub or shower.
- Smoke alarms shall not be installed within a 36-inch horizontal path from the supply registers of a forced air heating or cooling system and shall be installed outside of the direct airflow from those registers.
- Alarms should be mounted on an interior wall.
- Alarms should be mounted away from windows and exterior doors.

Interconnection:

- Where more than one alarm is required to be installed, the devices shall be interconnected either by physical interconnection, or by a wireless interconnection.
Exception: Interconnection is not required in existing areas where the alterations or repairs do not involve the removal of interior ceiling or wall finishes exposing the structure.

Power Source:

- Smoke alarms shall receive their primary power from the building wiring & shall have a battery backup.
Exception:
 - Battery operated alarms shall be permitted in buildings without commercial power.
 - Alarms in existing areas shall be permitted to be battery operated when the alterations or repairs do not involve the removal of the interior ceiling or wall finishes exposing the structure.
- Smoke alarms should be replaced every 10 years (or per manufacturer's instructions).
- Smoke alarm batteries should be changed every year.

CARBON MONOXIDE ALARMS:

Carbon monoxide (CO) is a silent killer. It is a poisonous, colorless, odorless, and tasteless gas produced by burning gasoline, wood, propane, charcoal, or other fuel. Improperly ventilated appliances and engines may allow carbon monoxide to accumulate to dangerous levels. Large amounts of CO can overcome you in minutes without warning.

Carbon monoxide alarms are required:

- MN Statue 299R.51 & MRC R315 require carbon monoxide alarms to be installed in every residential dwelling that:
 - Contains a fuel-fired appliance, and/or
 - Has an attached garage that communicates with the dwelling unit.

Carbon monoxide alarms shall be listed UL 2034. (Combination smoke and carbon monoxide alarms are permitted and must be listed UL 217 and UL 2034.)

Carbon monoxide alarms must be installed:

- Outside and within 10' of every sleeping room.
- On each level containing a sleeping room.
- Inside each sleeping room where that room or an attached bathroom contains a fuel-fired appliance.

Interconnection:

- Where more than one alarm is required to be installed, the devices shall be interconnected either by physical interconnection, or by a wireless interconnection.
Exception: Interconnection is not required in existing areas where the alterations or repairs do not involve the removal of interior ceiling or wall finishes exposing the structure.

Power Source:

- CO alarms shall receive their primary power from the building wiring & shall have a battery backup.
Exception:
 - Battery operated alarms shall be permitted in buildings without commercial power.
 - Alarms in existing areas shall be permitted to be battery operated when the alterations or repairs do not involve the removal of the interior ceiling or wall finishes exposing the structure.
- Carbon Monoxide alarms should be replaced every 6 years (or per manufacturer's instructions).
- CO alarm batteries should be changed every 6 months.

EMERGENCY ESCAPE & RESCUE OPENINGS (EERO)

- This handout is intended only as a guide. It shall not be considered a complete set of requirements.
- Materials and installation must comply with the current Minnesota State Building Code and the manufacturers' installation specifications for each product.
- A building permit is required for the installation of an emergency escape and rescue opening (EERO), **also known as an egress window or door**. Basements, habitable attics, and every sleeping room shall have at least one operable emergency escape and rescue opening (R310.1).
- If you have an existing home and you add a sleeping room in a basement, the code requires that you install an EERO in the sleeping room. Where basements contain one or more sleeping rooms, an EERO shall be installed in each sleeping room, and is not needed elsewhere in the basement (R310.1).

BUILDING Permit Submittal shall include:

- Building Permit Application**, completed in its entirety, including signature and valuation.
- One set of plans** (drawn to scale) showing the proposed design, and including:
 - Floor plan with all EERO locations identified.
 - Header sizes and opening sizes (existing and proposed).
 - All interior bearing walls and number of stories which bear above the EERO.
 - Floor and roof truss directions.
 - Rooms labeled according to use (i.e kitchen, laundry, bedroom, etc.).
 - Elevation / section for window wells, including proposed size, depth and drainage.
- A site plan** (or **Certificate of Survey** if required by municipality) drawn to scale and dimensioned, identifying measurements from window well(s) to the property line(s), as well as any easements.
Check with your municipality to determine setback requirements for the property.
- Additional information may be required by the plan reviewer.

PERMIT CARD AND APPROVED PLANS (throughout the project) shall be:

POSTED prior to start of work - **VISIBLE** from street or driveway - **ACCESSIBLE** to the inspector.

INSPECTION REQUIREMENTS:

Inspections **MUST** be scheduled during office hours **AT LEAST** one business day prior to inspection. If a specific date and time is required, additional notice may be needed. Failure to cancel a scheduled inspection may result in a reinspection fee.

- **Office Hours:** Monday - Friday • 8:00 a.m. - 4:30 p.m.
- **Phone:** (952) 442-7520 or (888) 446-1801

Inspections: (Refer to your permit card regarding project-specific inspections)

- **Someone 18 years or older must be present at the time of inspection**
- **Framing:** After all framing is complete, including the header.
- **Pre-backfill:** After the window well and drainage system is installed, but prior to backfill.
- **Final:** After the window is installed, flashed and caulked; and window well installation is complete.

NOTICE: Construction or work for which a permit is required shall be subject to inspection by the Building Official, and such **construction or work shall remain accessible and exposed for inspection purposes until approved**. It is the responsibility of the permit applicant to be in attendance on site and provide access to the Building Official for all required inspections. If work is concealed and/or work is not complete at time of inspection, an additional inspection is required and a **reinspection fee may apply**.

Note: The State of Minnesota requires all residential building contractors, remodelers, roofers, plumbers, and electricians to obtain a state license, unless they qualify for a specific exemption. Any person claiming an exemption must provide a copy of a Certificate of Exemption from the Department of Labor & Industry to the Municipality before a permit will be issued.

Note: To determine contractor requirements, or to check the licensing status of a contractor, please call the Minnesota Department of Labor & Industry at 651-284-5065 or toll free 1-800-342-5354.

Note: For specific code requirements, contact the Building Inspection Department at 952-442-7520 or 888-446-1801 or e-mail: info@mnspect.com.

PROJECT CHECKLIST:

The following is a guideline to assist in compliance with the requirements of the MN State Building Code.

- The home address must be visible from the street.
- Smoke alarms and carbon monoxide alarms must be installed and operational. (See handouts regarding smoke and CO alarms for requirements.)
- Each sleeping room must have at least one EERO with the following dimensions (using normal operation of the window):
 - ✓ Width – 20” minimum clear opening
 - ✓ Height – 24” minimum clear opening
 - ✓ Total openable area – minimum net clear opening of 5.7 square feet. (Exception: grade floor openings shall have a minimum net clear opening of 5 square feet. A “grade floor opening” is a window or other opening located such that the sill height of the opening is not more than 44 inches above or below the finished ground level adjacent to the opening.) See the charts on the following page for allowed dimension combinations.
 - ✓ Sill height – not more than 44” above the finished floor
- Window wells (required when the sill is below the adjacent grade) must:
 - ✓ Allow the EERO to be fully opened.
 - ✓ Provide 9 square feet of “floor area,” with a minimum dimension of 36” in width and length.
 - ✓ Contain a permanently affixed ladder or steps for climbing out if the window well depth exceeds 44”. Ladders or rungs shall have an inside width of at least 12”, shall project at least 3” from the wall, and shall be spaced not more than 18” O.C. vertically for the full height of the window well. The ladder cannot be obstructed by the open window.
 - ✓ Be connected to the building foundation drainage system unless in well-drained Group 1 soils.
- Area wells (required when the door is below the adjacent grade) must:
 - ✓ Allow the EERO to be fully opened.
 - ✓ Be a minimum dimension of 36” in width.
 - ✓ Contain a permanently affixed ladder or steps for climbing out if the area well depth exceeds 44”. Ladders or rungs shall have an inside width of at least 12”, shall project at least 3” from the wall, and shall be spaced not more than 18” O.C. vertically for the full height of the area well. The ladder cannot be obstructed by the open door.
 - ✓ Be connected to the building foundation drainage system unless in well-drained Group 1 soils.
- The egress path under decks, overhangs, etc. must have a minimum 36” clearance (height and width) above grade.
- Bars, grills, covers, screens, or similar devices are permitted to be placed over emergency escape or rescue window wells, provided they are releasable or removable from the inside without the use of a key, tool, special knowledge, or force greater than that which is required for normal operation of an emergency escape and rescue opening.
- EEROs are not required in basements where the home is fully sprinkled and there is one means of egress complying with R311 and one EERO **or** two means of egress complying with R311.

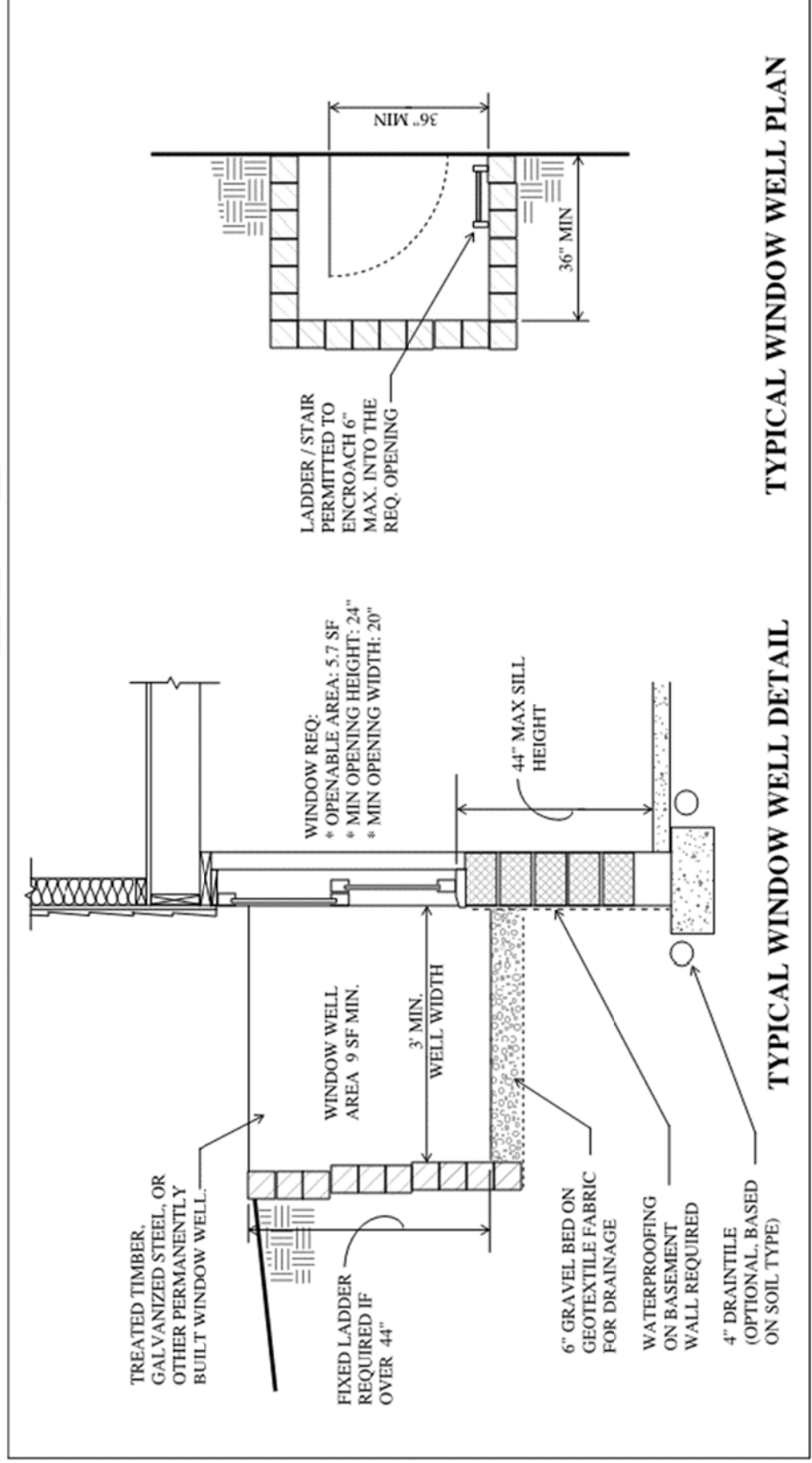
All emergency escape and rescue openings shall have a minimum net clear opening of 5.7 square feet.
 Exception: *Grade floor openings shall have a minimum net clear opening of 5 square feet.
 *A grade floor opening: window or opening with a sill height not more than 44 inches above or below the finished grade.

Min. Emergency Escape & Rescue Opening Net Clear Height & Width Requirements For 5.7 ft² (820.8 square inches)

W	20.00	20.50	21.00	21.50	22.00	22.50	23.00	23.50	24.00	24.50	25.00	25.50	26.00	26.50	27.00	27.50	28.00	28.50	29.00	29.50	30.00	30.50	31.00	31.50	32.00	32.50	33.00	33.50	34.00
H	41.00	40.00	39.25	38.25	37.50	36.50	35.75	35.00	34.25	33.50	33.00	32.25	31.75	31.00	30.50	30.00	29.50	29.00	28.50	28.00	27.50	27.00	26.50	26.25	25.75	25.50	25.00	24.50	24.00

Min. Emergency Escape & Rescue Opening Net Clear Height & Width Requirements For 5.0 ft² (720 square inches)

Width	20.00	20.50	21.00	21.50	22.00	22.50	23.00	23.50	24.00	24.50	25.00	25.50	26.00	26.50	27.00	27.50	28.00	28.50	29.00	29.50	30.00	30.50	31.00	31.50	32.00	32.50	33.00	33.50	34.00
Height	36.00	35.25	34.50	33.50	32.75	32.00	31.50	30.75	30.00	29.50	29.00	28.25	27.75	27.25	26.75	26.25	25.75	25.50	25.00	24.50	24.00	23.50	23.00	22.50	22.00	21.50	21.00	20.50	20.00





SURVEY REQUIREMENTS

PERMIT & ZONING APPLICATION AND AS-BUILT SURVEY REQUIREMENTS

Each certified land survey shall indicate that permanent iron monuments are in place at each lot corner. The survey shall also show the following:

1. North arrow and scale of drawing.
2. Legal description of parcel.
3. Lot area of parcel measured in square feet and dimension of all lot lines. Lot area is measured above the Ordinary High Water as listed below (929.4 for Lake Minnetonka).
4. Dimensions and location of all known easements, and type of easement.
5. Location of all existing buildings. For remodeling or addition permits, dimensions of each building and reference distances from the lot lines to the nearest point of each building must be shown.
6. Location of existing utilities, including but not limited to manholes, hydrants, catch basins, power poles, and telephone boxes. Show all **existing and proposed sewer and water service locations, and where they come into the structure with dimensional ties**. Water shut off cannot be located in the driveway.
7. Front, side, and rear yard setback dimensions to existing and proposed buildings; all outside dimensions of buildings, including **decks, fireplaces, and cantilevers**.
8. Setback dimensions to existing buildings located on adjacent lots if they are within 25 feet of side lot line; first floor and at grade elevations of corners of buildings on adjacent lots.
9. Location of irons at each side lot line establishing proposed front building line. The maintenance of these irons, once established by the surveyor, shall be the responsibility of the building permit applicant. Wood stakes or lath shall be placed at the four corners of the proposed building.
10. Location of proposed driveway, future garage site if not included with building permit application and minimum of two (2) off-street parkway spaces (325 S.F. per stall).
11. Benchmark elevation to National Geodetic Vertical Datum (N.G.V.D.) and description of location. Benchmarks are available at City Hall, 952-472-0603.
12. Grade elevations at the following points (additional elevations may be required):
 - a. Existing and proposed at each lot corner.
 - b. Existing street elevations (centerline and top of curb) at each lot line extended and both sides of proposed driveway at intersection with street.
 - c. Existing elevations on side lot lines, at extension of proposed front and rear building lines and any major grade changes.
 - d. Proposed lowest floor, garage floor, and top of foundation elevations.
 - e. Existing and proposed elevations at all major corners of building.
 - f. Existing and proposed elevations at top and bottom of any major slopes.
 - g. Proposed finished grade at front building line and/or ordinary high water line.
 - h. **TOP OF BLUFF AND SETBACK FROM TOP OF BLUFF.**
13. Location and elevations at top and bottom of any proposed retaining walls.

14. Dimension of lot frontage on public street and at Ordinary High Water Mark.
15. Lot width dimension as measured at the minimum front setback line and at the 50 foot lakeshore setback from the Ordinary High Water Mark.
16. Proposed direction of surface water drainage indicated by arrows and elevations, and percent of slope on driveway if applicable.
17. The Ordinary High Water elevation/contour must be shown if lot abuts body of water or is within 50 feet of said water.
18. The Floodplain elevation/contour must be shown and labeled (Both MCWD and City). Any possible wetlands should also be marked. Filling within the floodplain and wetlands shall not occur without permission from the City of Mound and the Minnehaha Creek Watershed District.

	Ordinary High Water	Flood Elevation	Lowest Floor Elevation
LAKE MINNETONKA	929.4	MCWD 931.5 / CITY 931	933
DUTCH LAKE	939.2	940	942
LAKE LANGDON	932.1	935	937

FOUNDATION SURVEY REQUIREMENTS

As part of the pre-construction site inspection the following staking is required to be completed:

1. Setback dimension stakes on the property line with setback dimension measurement to at least three foundation corners of the proposed structure.
2. Offset and grade stakes to proposed foundation corners.

After foundation is in place and prior to construction proceeding, contractor is to have surveyor verify in the field the location and elevation of building foundation per building plan requirements and a survey copy given to the City of Mound for approval to proceed.

NOTE: Foundation survey verification documentation requirement may be waived if the setbacks for the subject property are 5 feet or greater over the established minimums of front, side, and rear setback requirements for the district.



HARDCOVER CALCULATIONS

(IMPERVIOUS SURFACE COVERAGE)

PROPERTY ADDRESS:

OWNER'S NAME:

LOT AREA _____ SQ. FT. X **30%** = (for all lots)

LOT AREA _____ SQ. FT. X **40%** = (for Lots of Record)

* Existing Lots of Record may have 40 percent coverage provided that techniques are utilized, as outlined in Zoning Ordinance Section 129-385 (see back). A plan must be submitted and approved by the Building Official.

	LENGTH		WIDTH		SQ FT	
HOUSE	_____	X	_____	=	_____	
	_____	X	_____	=	_____	
TOTAL HOUSE						_____
DETACHED BUILDINGS (GARAGE/SHED)	_____	X	_____	=	_____	
	_____	X	_____	=	_____	
TOTAL DETACHED BUILDINGS.....						_____
DRIVEWAY, PARKING AREAS, SIDEWALKS, ETC.	_____	X	_____	=	_____	
	_____	X	_____	=	_____	
	_____	X	_____	=	_____	
TOTAL DRIVEWAY, ETC						_____
DECKS Open decks (1/4" min. Opening between boards) with a pervious surface under are not counted as hardcover.	_____	X	_____	=	_____	
	_____	X	_____	=	_____	
	_____	X	_____	=	_____	
TOTAL DECK						_____
	_____	X	_____	=	_____	
	_____	X	_____	=	_____	
TOTAL OTHER						_____

TOTAL HARDCOVER / IMPERVIOUS SURFACE.....

UNDER / OVER (indicate difference)

PREPARED BY _____ DATE _____

SUMMARY OF HARDCOVER RULES

Excerpts from the Mound Zoning Ordinance

Section 129-2 Definitions

Impervious cover means any surface impervious or resistant to the free flow of water or surface moisture. The term "impervious cover" shall include, but not be limited to, all driveways and parking areas whether paved or not, tennis courts, sidewalks, patios and swimming pools. Open decks (one-quarter-inch minimum opening between boards) shall not be counted in impervious cover calculations.

Lot area, minimum, means the area of a lot in a horizontal plane bounded by the lot lines, but not including any area below the ordinary high-water level as determined by the city or department of natural resources. (The ordinary high-water level for major lakes in the city: Lake Minnetonka = 929.4; Dutch Lake = 939.2; Lake Langdon = 932.1.)

Section 129-196 Requirements applicable to all residential districts

(a) Lot coverage. Impervious surface coverage of lots in residential zones shall not exceed 30 percent of the lot area. On existing lots of record, impervious coverage may be permitted to up to a maximum of 40 percent consistent with the provisions identified in section 129-385(g)(2)a.

Section 129-385 Zoning - Shoreland Management

(2) Specific standards.

- a. Impervious surface coverage of lots in residential zones shall not exceed 30 percent of the lot area. On existing lots of record, impervious coverage may be permitted by a maximum of 40 percent providing that the following techniques are utilized as applicable:
 1. Impervious areas should be drained to vegetated areas or grass filter strips through the use of crowns on driveways, direction of downspouts on gutters collecting water from roof areas, etc.
 2. Dividing or separating impervious areas into smaller areas through the use of grass or vegetated filter strips such as the use of paving blocks separated by grass or sand allowing infiltration.
 3. Use grading and construction techniques which encourage rapid infiltration such as the installation of sand or gravel sump areas to collect and percolate stormwater.
 4. Install berms to temporarily detain stormwater thereby increasing soil absorption.
- b. Impervious surface coverage in lots in the business and industrial zones shall not exceed 30 percent of the lot area. In business and industrial zones that are included within areas covered by an approved stormwater management plan, impervious surface coverage shall not exceed 75 percent of the total lot area.

Supplemental Information for Building Permits Indigenous Mounds and Earthwork Sites

*Indigenous burial mounds and/or earthwork sites have been discovered in and around the City of Mound. While many of the sites have been severely impacted by development over the years, they do receive protection under state law. **Penalties will be imposed for the unauthorized disturbance of indigenous sites.** Additional information may be obtained through the Minnesota State Archeologist.*

Any formal investigation of a site, including a determination of whether a mound or burial area exists on a subject site, is the responsibility of the property owner or developer. The issuance of permits by the City of Mound to do work on a site does not relieve the owner or developer of that responsibility.