

Planning and Zoning Commission
Agenda for Wednesday, January 21st, 2026
5:30pm

1. **Planning and Zoning Call to Order**
2. Roll call: **Hernesmaa, Councilor Roose, Heil, Palcher, Anderson.** *Staff Kochendorfer.*

Excused: *White*
3. **Approval of Minutes from November 19th, 2025.**
4. **Additions or Deletions from Agenda**
5. **Requests to Appear**
6. **Reports**
 - a. Planning and Zoning Administrator
 - b. Projects Committee
 - c. Council
7. **New Business**
 1. Board Vacancies update
 2. Board Positions
 3. Sanitation committee appointee
 4. Comp Plan Steering Committee appointee
 5. Wood Boilers
8. **Old Business:**
 - a. Permissible Uses List
 - b. Fence Ordinance
9. **Adjournment**

**Planning and Zoning Commission (Unapproved)
Meeting Minutes for Wednesday, November 19th, 2025**

Planning and Zoning Called to Order @ 6:04 PM

Roll call: **Hernesmaa, Councilor Roose, Heil, Palcher, Anderson.** *Staff Kochendorfer.*

Excused: White

Approval of Minutes from October 20th, 2025.

Motion Anderson to approve the October 20th, 2025 Minutes/ Second Heil. Motion carried.

Additions or Deletions from Agenda

Requests to Appear

Reports

- a. Planning and Zoning Administrator – Kochendorfer reported that he is staying busy with permits and hearings, and also sending out violation notice letters.
- b. Projects Committee – Hernesmaa reported the November meeting was cancelled.
- c. Council – Roose reported that council approved the rezoning of 15 and 25 N 3rd Ave W, and there will be a public hearing next month. The steering committee that planning and zoning recommended was approved, but would like a recommendation on how to choose at large members. Roose presented a suggest procedure/form for the process of choosing members (information included in the agenda packet as an addition). The committee would be made of one at large, preferred low income, one member from downtown businesses, one at large, one council, and one from planning and zoning. The applications could be ranked by PZ Admin, PZ member, and council member, by the application scoring process.

It was clarified that the city council asked planning and zoning to put an application form together, to present to them. Also, the planning and zoning commission member would be a member on the committee, excluding the planning and zoning administrator. The planning and zoning administrator will be a non-voting member of the steering committee.

Motion Heil to recommend the City of Ely Comprehensive Plan Steering Committee Application as presented by Roose to the City Council for approval/ Second Anderson.

There was clarification that no other boards are on this commission, but a reminder that all of the steering committee meetings are open to the public, and anyone from other committees is welcome to attend.

Motion carried.

New Business

1. Jim Burke Resignation-

Kochendorfer explained that Burke had to resign due to a change in employment. We would like to wish Burke the best in his new role, and his expertise on real-estate will be missed.

2. Board Member Appointments

Kochendorfer talked about incorporating boards and commissions input on applicants who apply to vacant positions, before they go directly to city council. Currently (2) applicants applied to be on the Planning and Zoning Commission, Kristen Anthony, and Amy Saxton. Both introduced themselves, and would like to continue to serve the Ely Community by being on the planning and zoning commission. Roose will mention to council that both applicants seemed to be a good fit for the commission. It was reminded that applications are still being accepted, so there could be more to chose from.

3. December Meeting

Kochendorfer explained that due to the busy holiday seasons, and low agenda items, we may want to look at canceling December's meeting unless a hearing needs to be scheduled.

Motion Hernesmaa to cancel the December Planning and Zoning Meeting unless a conditional use, rezoning or variance application are submitted/ Second Heil. Motion carried

4. KJ's Hardware Parking

Old Business:

- a. IUP Process Update- No new discussion
- b. Permissible Uses List- No new discussion. Working with the City Attorney on this in the future.
- c. Fence Ordinance- No new discussion at this time.
- d. KJ's Hardware Parking- Kochendorfer met with the owners, and they have communicated a plan to the city and will file administrative paperwork for a driveway proposal. This can be taken off old business.

Adjournment at 6:20 PM without objection.

Board of Adjustment Public Hearing (Unapproved)
Minutes For Wednesday, November 19th, 2025 for 1759 N Pioneer Rd CUP

1. **Called to Order at 5:15 PM by Chair Roose.**
2. **Roll Call: Hernesmaa, Councilor Roose, Heil, Palcher, Anderson.** Staff Kochendorfer.
Excused: White

3. **Additions or Deletions from Agenda**

4. **Public Hearing for the consideration of a Conditional Use Permit Application for 1759 N Pioneer Rd-**

The conditional use permit public hearing procedure was read by chair Roose.

The Public hearing notice was read by Planning and Zoning Administrator Kochendorfer

5. **The applicant, Patrick Knudson, explained the request**

Knudson explained that the plan is to build (5) new rental units over the next 5-6 years. Consideration will be made to both the current local land owners and any potential future guests. The buildings will consist of (3) bedroom, (1) bath buildings, designed for short term rental. The project will prioritize keeping the landscape as natural and undisturbed as possible. The homes will blend into the environment and natural surroundings, which will be open year-round. The resort will operate as a small, simple resort, with a common space, all while maintaining a natural environment. This opportunity will also allow for cost analysis for any future home projects that may be developed. The building of these units will also double as model homes for future home development for the working class.

The property boarder's residential homes to the west, and vacant land to the east. The vegetation will be maintained, and additional screening will be added if necessary. Traffic will remain light, as these are temporary guests, and not full-time residents. Natural beauty will be brought in and maintained on the property.

Using MN Plumbing code, the usage is well within the guidelines for the site.

The five dwellings are going to be built, along the lakeside. There may be some additional tree removal, but all required permits will be applied for through the city of Ely, and the State of Minnesota. The proper procedures for erosion control will be followed. The intent is to preserve the history of this location. Eventually, there will be a commons area, with a path to the lakeshore. The intent is to protect the land, and make it enjoyable for everyone. A lot of time and effort has been spent on the business plan and to continue to expand and make Rock Country Masonry a success.

6. Letters received/ or phone call comments read into record

- Ely Chamber of Commerce- Letter of Support
- Marcia Mahoney, 2201 Sibley Drive- Letter of opposition

7. Those in support may comment

- Joe Pioreschi, 1325 N 19th Ave E- Supports the current proposal
- Jonathan Oberg, 1468 Hwy 120- Just moved back to Ely, and finding housing was difficult, and is in support of this project.
- Andy Hill, 2111 Sibley Drive- Any negative comments or concerns should have validity before being brought forward. Development in Ely can then take a step up, and not a step back.
- Mike Nielson, 1979 Sotlich Rd- Supports the project.
- Doug Whitney, Ely Building Official- There is a need for short-term, and long-term rentals in town. Workforce housing is also needed.

8. Those opposed may comment

- None

9. Comments from those who wish to provide additional information

- None

10. Applicant will have the opportunity to answer additional questions

- Heidi Favet, 1648 N Pioneer Rd- Confused on the distinction of a resort, and short-term rentals, as well as providing housing. What makes it a resort versus just being short-term rentals. Would just like clarity, and also would like to know how the neighbors can stay informed on what's going on.
- Knudson explained that a "resort" is the label that's being placed on the property, but the intent will be for short-term renting of the units. It will look and feel like a resort, with a property manager on site, which will be located at the front of the property.
- Knudson explained that the business plan currently is to build these units as short-term rentals, which allow to get the project moving forward. The homes are being built as if they were to function as a home. This is the only way to figure out a fixed rate cost to build these homes. This opportunity would not exist without this type of business plan. The plan is to have affordable working-class family homes, in the future.
- Knudson explained that he is the owner of Rock Country Masonry, and he can be reached at any time, and the plan is to have open communication.

- Building Official Whitney explained that “resorts” don’t fall under the rental limitations so long as they meet the definition of a “resort”.

11. Closure of the hearing @ 5:45 PM

12. Reading of the Finding of Facts

Planning and Zoning Administrator Kochendorfer read the findings of the facts for 1759 N Pioneer Rd (included in the agenda packet). **Planning and Zoning Administrator recommends approval of the rezoning on the following finding of facts:**

- **Summary:** Applicant, Patrick Knudson (prospective buyer) is currently the owner of Rock Country Masonry, located in Ely, MN. The business is looking to purchase the property at 1759 N Pioneer Rd and build and develop (5) additional structures/enclosures, intended to be short-term rental dwellings. The property will be run and licensed as a resort. The existing house the property will also be a future rental. The total number of rental units will be (6).
- The dwelling units will be approximately 1,095 square feet in size. They will be available for year-round use. The resort will also offer shared community spaces, while maintaining a clean and welcoming nature-based space.

Shoreland Requirements

1. The proposal is located in the Shoreland Overlay District of Miners Lake. Miners Lake, or “Mine Pit” Lake is considered a Public Waterway by Ely City code, but not by MN DNR standards. The Authority of the waterway is that of the City of Ely.

2. Miners Lake is stocked with Trout by the DNR, and because of this, it is considered a sensitive shoreland area. Resorts that are constructed in “sensitive shoreland areas” are required to complete an EAW (Environment Assessment) with the construction of (15) or more units.

3. Impervious lot coverage may not exceed 25% of total lot area.

4. Excavation permits will be required before any work may be completed.

5. The City of Ely consults with the MN DNR, and North St. Louis County Soil and Water for any Shoreland Overlay District development.

6. Total Impervious lot coverage (including the current proposal): (831,996 square feet of land) (proposed and current building coverage 13,492 square feet). Total allowed square footage (207,999).

7. The applicant has submitted plans for vegetation management, stormwater management, and erosion and sediment control.

8. Units will be set-back at least 100 feet from the shoreline of Miners Lake. The required set-back is 75 feet.

DNR Requirements/Feedback

1. The MN DNR does not have regulatory jurisdiction on Miners Lake, as it is only considered a "Public Water" through Ely City Ordinance. Miners Lake is stocked with Trout, which managed under the authority of the DNR Fisheries.

2. The DNR was still made aware of this proposal. No feedback has been received at the time of this report.

North St. Louis County Soil & Water District Feedback

1. No feedback has been received at the time of this report.

EAW Requirements

1. The City of Ely is not requiring an EAW due to the threshold of development not exceeding (15) units, as required by MN Statute 4410.4300

Planned Unit Development

1. The Planned Unit Development authority around Miners Lake (Mine Pit Lake) are that of the City of Ely. Miners Lake is not classified under the DNR Shoreland classifications for Public Water Basins list, and therefore is governed by Ely City Code 12.05 Subd. (8) (C)(5). The following requirements will be followed:

- Licensing provisions and procedures
- Waste treatment and disposal regulation
- Water supply regulations
- Building Codes
- Safety regulations
- Regulations concerning the appropriation and use of public waters as defined in MN Statute 1976, Chapter 105 (Not applicable)
- Applicable regulations of the MN Environmental Quality Council

Infrastructure/Land

1. The applicant submitted a utility capacity and usage form. For sewer and water, the usage falls well within usage limits established for the area. The applicant plans to replace and upgrade utilities within the property boundaries. No improvements or upgrades are needed in relation to the utilities located in the public ROW.

2. Electrical utilities are already located on the property.
3. The current/existing driveway access will be used and maintained for property access.
4. Total property square footage: 831,996 Square feet or 19.1 acres
5. Each unit 1,095 square feet

- **FACT: That the conditional use permit will not be injurious to the use and enjoyment of the environment and other property in the immediate vicinity, nor substantially diminish and impair the property values within the surrounding neighborhood:**

- FINDING: The intended use of the property as a resort will not substantially diminish or impair property values in the neighborhood. The intention is to maintain the property to standards of the city code. The property is located adjacent to residential housing to the west and north, with undeveloped lands to the east and south. A majority of the land to the south and east is owned by the City of Ely.
- The rental units will be built to residential building standards, and conform Ely City code, minimum building requirements. The units will be set back from the roadway, and will not be seen from the public roadway.
- The increased traffic volume will be minimum

- **FACT: That the proposed development will not increase local or State expenditures in relation to costs of servicing or maintaining neighboring properties**

- FINDING: There will be no state or local money spent on this project, and all costs associated with the proposal will be provided by the prospective buyer/applicant. Maintenance of the property will be solely on the property owner. The property will provide taxable income to the area.

- A. FACT: That the establishment of the conditional use permit will not impede the normal and orderly development and improvement of surrounding property for uses predominant in the area; and**

- FINDING: The property is located in the Shoreland Mixed Use (SMU) Zoning district. This allows for mixed uses of residential

and light commercial development. Resorts are allowed by conditional use permit only in this zoning district.

- Currently, the property is mostly sitting vacant, with old infrastructure from past uses. The property was previously a campground, sawmill, and a greenhouse operated on the property. A conditional use permit still exists for the property to allow for up to (16) camping and RV sites.

- **FACT: That the location and character of the proposed development are considered to be consistent with a desirable pattern of development for the locality in general**

- FINDING: The general development of the area along Pioneer Road is mixed between commercial, public and residential properties, and changes with the needs of the community. There continues to be a need for short and long-term rental units in Ely. There are currently (2) other short-term licensed rental properties along the Pioneer Rd corridor.

Kochendorfer further explained, that after clarification, it was determined that the previous conditional use permit conditions were not fully followed, as the RV Park has not been in operation for over a year, as well as any construction or further planning has not continued for over (1 year). Kochendorfer recommends the commission to revoke the current CUP (Conditional Use Permit), as a condition for this CUP.

Hernesmaa inquired if the RV Park would still be part of the permit. Roose explained that Kochendorfer mentioned that a condition upon approving the new CUP would have to revoke the previous CUP.

Kochendorfer further explained that the Conditional Use Permit issued by city council on September 7th, 2021, has language that the permit will be revoked in the event that any proposed construction, alteration, or operation has not been started within one year. Currently, these conditions have not been met.

There was a question as to where the driveway access crosses property outside of the owned property boundary on the northeast corner of the lot. Kochendorfer explained that this would not affect the proposal and would be up to the property owner to figure out. Any changes in driveway access are handled through an administrative permit with city hall staff, if necessary.

Roose mentioned she would be abstaining from voting on this matter.

13. Decision rendered by the Planning Commission

Motion Anderson to accept the conditional use permit to allow for the property to be used as a “resort”, with (5) additional cottages/enclosures (6) total, for short term rental, and to revoke the previous conditional use permit dated September 7th, 2021 allowing the property be used as an RV Park/ second Palcher. Roll call vote: Hernesmaa- Yes, Roose- abstain, Heil- Yes, Palcher- Yes, Anderson- Yes. Motion carried 4-0-1.

14. Adjournment at 6:01 PM

**Board of Adjustment Public Hearing (Unapproved)
Minutes For Wednesday, November 19th, 2025 for 900 E Miners Dr Rezoning**

1. **Called to Order at 5:00 PM by Chair Roose.**
2. **Roll Call: Hernesmaa, Councilor Roose, Heil (arrived at 5:09 PM), Palcher. Staff Kochendorfer.
Excused: White**

3. **Additions or Deletions from Agenda**

4. **Public Hearing for the consideration of a Rezoning request for 900 E Miners Dr**

The rezoning public hearing procedure was read by chair Roose.

The Public hearing notice was read by Planning and Zoning Administrator Kochendorfer

5. **The applicant, (City of Ely) PZ Admin Kochendorfer explained the request**

Kochendorfer briefly explained that this part of continued discussion on this property, as we have already approved a subdivision request. This property is part of the original business park plat from the 1980's and 1990's, and was originally zoned Industrial, until it was changed to Public. Kochendorfer mentioned that the reason it was probably zoned to Public, was because the plat connected with the rec center and outdoor rink. Now that the land has been re-surveyed, and subdivided, this is no longer necessary. The neighboring property is zoned (C1), which would further allow future commercial development to the area. Public zoning is more restrictive on what is allowed.

6. **Letters received/ or phone call comments read into record**

- None

7. **Those in support may comment**

- Andy Hill, 2111 Sibley Drive – Supports development in Ely

8. **Those opposed may comment**

- None

9. **Comments from those who wish to provide additional information**

- None

10. **Applicant will have the opportunity to answer additional questions**

11. **Closure of the hearing @ 5:09 PM**

Commissioner Heil arrived at 5:09 PM

12. Reading of the Finding of Facts

Planning and Zoning Administrator Kochendorfer read the findings of the facts (included in the agenda packet). **Planning and Zoning Administrator recommends approval of the rezoning on the following finding of facts:**

- **Section 11.40 Permissible Uses.**
 - Commercial zoning allows for a wide range of businesses and services. Public zoning has far fewer allowed uses, and is much more restrictive.
- **Compressive Plan: Update the community zoning code to reflect current demands and development conditions.**
 - The original Ely Business Park plan is much different now than it was when it was created in 1988. The current zoning of this property being Public, does not allow for any commercial businesses or services, and does not allow for further business development.
- **Comprehensive Plan: Ensure that commercial zoning and development regulations are sufficiently flexible to encourage redevelopment and expansion of existing commercial land uses within commercial corridors and the downtown area.**
 - The neighboring property is currently zoned Commercial (C1). By changing the zoning from P1 to C1 zoning, this would further allow the flexible redevelopment, and encouragement of development to this parcel that has sat vacant for decades.
- **Comprehensive Plan: Recognize and distinguish the different types of existing and future developments identified in the future land use map**
 - Other changes have been made since 1988 to the city zoning code. This change falls in line with the current and future goals of the city. Commercial space in Ely is limited, and this would further help expand a local business needs.

- **Vision of the Comprehensive Plan: Ely supports business, industry, and entrepreneurship, providing long-term, quality employment and economic vitality.**
 - Through this proposal, Ely can continue to support business and entrepreneurship, by providing space for growth and development of businesses.

- **Set-back Facts: Currently, as being zoned P1, the set-back requirements are such as: Front 25 feet, side 25 feet, corner 25 feet, rear 25 feet, and total building coverage may not exceed 35%. In C1 zoning, the setbacks are as follows: There are no set-back requirements unless you are on a corner lot, which this property is not. The total building coverage cannot exceed 90% in C1 zoning.**
 - C1 zoning allows for more building coverage, which allows more building options. This property layout is also quite unique, and having the property zoned C1 would allow more options for building on the property.

13. Decision rendered by the Planning Commission

Motion Hernesmaa to recommend the approval of rezoning 900 E Miners Drive from Public (P1) Zoning to Commercial (C1) Zoning/ Second Palcher. Motion carried, with four votes approving, and Heil abstaining due to missing the beginning of the meeting. (4-0-1)

14. Adjournment at 5:14 PM

AN ORDINANCE FOR ZONING FOR SOLID FUEL-FIRED HEATING DEVICES (SFHDS)

ADD I. IF YOUR COMMUNITY HAS, WILL ALLOW, PROHIBITS, OR WILL PROHIBIT SFHDS:

I. ADMINISTRATIVE PROVISIONS

- A. PURPOSE.** Model Community adopts the regulations in this ordinance controlling the use, installation and operation of outdoor wood or other solid fuel-fired heating devices (SFHDS) to achieve the following purposes:
- 1. Health.** To protect citizens from environmental hazards and to safeguard community health. In particular, to protect the health of citizens from fine particles in emissions generated by SFHDS. The Clean Air Act (CAA) required the U.S. Environmental Protection Agency (EPA) to establish standards for particulate matter. EPA's daily and annual fine particle National Ambient Air Quality Standards (NAAQS) were developed to protect the public from adverse health effects associated with exposure to fine particle pollution exposure. Sensitive populations protected by the CAA include persons who already have heart or lung diseases, children, and older adults. They experience serious health effects such as heart attacks, strokes, acute and chronic bronchitis, asthma episodes, reduced lung function, and other respiratory illnesses as a result of inhaling fine particle smoke which imbeds in their respiratory and circulatory systems. In addition to health effects, scientific studies show inhalation results in increased hospital and emergency room visits, lost work and school days, and in rare cases, premature death.
 - 2. Fire safety.** To protect citizens and structures from fire safety risks from SFHDS that are not properly installed, do not have proper safety equipment such as spark arresters, or are installed in close proximity to other buildings.
 - 3. Welfare.** To ensure the welfare of citizens and value of neighboring property are protected from negative effects of SFHDS.
 - 4. Education.** To educate citizens about the proper use, installation and operation of SFHDS and assist property owners and managers in maintaining compliance with these regulations.
- B. STATUTORY AUTHORITY.** Model Community has the legal authority to adopt planning and zoning regulations. This legal authority exists in common law and in statute as listed below:
- 1. All cities and towns.** Minn. Stat. §§ 462.351 through 462.365 (planning and zoning authority).
 - 2. Counties.** Minn. Stat. §§ 394.21 through 394.37 (planning and zoning authority).

- C. DEFINITIONS.** For this ordinance, words not defined have the main meaning found at <http://www.m-w.com>. These words and phrases are defined as listed here:
1. **Accessory structure.** A structure on the property designed to serve a main residence but also including a garage, housing for animals, or other supplementary land use structure which may use heat from an SFHD if it is not the SFHD.
 2. **Clean wood.** Wood that has no paint, stains, varnish, or other types of coatings; that has not been pressure treated with preservatives, including but not limited to, copper chromium arsenate, creosote, or pentachlorophenol; that does not contain laminate, glue, or bonding agents; or is not co-burned with any prohibited fuels listed in **Section I.C.19**.
 3. **Code official.** The officer or other designated authority charged with the administration and enforcement of this code or a duly authorized representative.
 4. **Dual-fuel.** An SFHD which is designed by a manufacturer to burn another fuel in addition to wood.
 5. **EPA.** The U.S. Environmental Protection Agency.
 6. **Existing SFHD.** An SFHD that is installed and has been operating at its current location within Model Community within the year prior to the effective date of this ordinance.
 7. **Heating degree day season.** The time period during which the outdoor ambient temperature on an average daily basis falls below 65 degrees Fahrenheit.
 8. **LGUs.** Local governmental units, including townships, cities, and counties, depending on which has jurisdiction under state law, but not including unorganized territory under county control.
 9. **Manufactured.** Built and operational, and subsequently ready for shipment whether packaged or not.
 10. **Manufacturer.** Any person who constructs or imports into the United States an SFHD.
 11. **New SFHD.** An SFHD installed after the effective date of this ordinance.
 12. **NSPS.** EPA's Standards of Performance for New Residential Hydronic Heaters and Forced-Air Furnaces, published in the Federal Register March 16, 2015 (<http://www.gpo.gov/fdsys/search/citation.result.FR.action?federalRegister.volume=2015&federalRegister.page=13715&publication=FR>) and codified at 40 CFR 60 Subpart QQQQ.
 13. **Nuisance.** The creation of a public health, safety, fire, or private danger or interference by constructing or installing an unsafe structure potentially injurious to human, plant or animal life or to property, or that unreasonably interferes with the comfortable enjoyment of life and use of private or public property.
 14. **PM.** Particulate matter.
 15. **Particulate matter.** Total particulate matter including coarse PM10 or larger and fine PM2.5, as defined in <https://www.revisor.mn.gov/rules/?id=7005.0100>.
 16. **Pellets.** Refined and densified wood shaped into small pellets or briquettes that are uniform in size, shape, moisture, density and energy content.
 17. **Permit.** An official document or certificate issued by Model Community which authorizes performance of a specified activity under specified conditions.
 18. **Person.** An individual, partnership, corporation, company, or other association.

19. **Prohibited fuels.** Animal carcasses; asphalt products; coal; chemicals; composition board; construction and demolition debris; food wastes; furniture; garbage; glossy or colored papers; hazardous solid waste; industrial solid waste; lawn clippings, yard waste or other vegetative matter; manure; materials containing plastic; materials containing synthetic or natural rubber; newsprint; packaging; paints and paint thinners; particleboard; plywood; sheetrock; tires; waste petroleum products; wiring; wood products that are painted, varnished, or treated with preservatives, and any wood that does not fit the definition of clean wood.
20. **Rain cap.** A protective cover installed at the top of a chimney stack for the purpose of preventing rain from entering the stack. A spark arrester with a solid cap that is capable of slowing the exit velocity of combustion byproducts is a rain cap.
21. **Setback.** The distance measured from a property boundary or structure to the nearest edge of the center of the SFHD or to the nearest edge of a structure housing an SFHD.
22. **SFHD.** A Solid Fuel-Fired Heating Device, also known as a solid fuel-fired heating appliance.
23. **Solid.** A material that has a melting point, decomposes, or sublimates at a temperature greater than 68° Fahrenheit (20° Celsius).
24. **Solid Fuel-Fired Heating Device (SFHD).** A solid fuel-burning device manufactured or used to burn wood and designed to create heat on a continual basis, by sending heat through water, antifreeze or steam into interconnected piping. An SFHD may also be called by other names, such as: outdoor wood furnace; outdoor wood boiler; outdoor wood burner; closed combustion solid-fuel-burning appliance; accessory boiler; alternative fuel-burning device; or outdoor wood-fired hydronic heater.
25. **Spark arrester.** Any device which prevents the emission of flammable debris from SFHDs, fireplaces, and wood burning stoves.

D. PERSONS AND EQUIPMENT COVERED BY THIS ORDINANCE.

1. **Persons covered.** Any person who installs, operates, or owns an outdoor SFHD must comply with the provisions in this ordinance.
2. **Types of fuels used by SFHDs covered in this ordinance.** The provisions of this ordinance apply to SFHDs that are manufactured or used to burn any of the following:
 - a. Wood;
 - b. Wood pellets; or
 - c. Wood and another fuel (a dual-fuel SFHD).
3. **SFHD equipment covered.** The provisions of this ordinance apply to all outdoor SFHDs, whether a primary, supplemental, residential, or commercial/industrial heat source, which include the following components:
 - a. SFHDs and their piping, chimney stacks, flues, and/or fans; and
 - b. Any other equipment, device, appliance or apparatus, or parts thereof, which are intended to be used as part of an SFHD.
4. **Surrounding structure covered.** Any accessory structure designed to surround the SFHD must meet the provisions of this ordinance. Accessory structures are also regulated by Model Community's zoning and subdivision ordinances.

- E. EQUIPMENT AND ACTIVITIES NOT COVERED BY THIS ORDINANCE.** This ordinance does not apply to:
- 1. Outdoor grills.** Outdoor devices, equipment, appliance and/or apparatus used to grill or cook food using charcoal, wood, propane, or natural gas;
 - 2. Fireplaces.** Natural gas-fired fireplaces or traditional wood-burning fireplaces in the interior of a residential dwelling;
 - 3. Non-SFHD heaters.** Indoor heating devices which are not SFHDS, such as wood stoves;
 - 4. Liquid fuel devices.** Industrial gas or liquid petroleum fuel devices used on site of temporary construction, demolition, or maintenance activities;
 - 5. Recreational fires.** Recreational fires within the limits set by the Minnesota State Fire Code (Minn. R. 7511.0307) and campfires as defined in Minn. Stat. Chapter 88.01 Subp. 25 (<https://www.revisor.mn.gov/statutes/?id=88.01>);
 - 6. Fire training and open burning sites.** Fire training or permanent tree and brush open burning sites permitted under Minn. Stat. Chapter 88.17 Subp. 3 (<https://www.revisor.mn.gov/statutes/?id=88.17>);
 - 7. Forced air furnaces.** Forced air furnaces designed to burn fuel that warms spaces other than the space where the furnace is located, by the distribution of air heated by the furnace through ducts; and
 - 8. Masonry heaters.** Masonry heaters, either site built or factory built devices, in which the heat from intermittent fires burned rapidly in the firebox is stored in the refractory mass for slow release to building spaces. Masonry heaters typically have a firebox and heat exchange channels built from refractory components, through which flue gases are routed.
- F. EFFECT OF A COURT HOLDING.**
- 1. Severability.** If a court holds that any portion of this ordinance is unconstitutional, inoperative or void, that holding will not affect the remaining portions of this ordinance.
 - 2. Applicability.** If a court holds that any portion of this ordinance does not apply to any person, group of persons, property or kind of property, or circumstances or set of circumstances, that holding will not affect the application of this ordinance to any other person, property or circumstance.
 - 3. Intent remains.** The intent of Model Community in adopting this ordinance will remain in effect for all portions and all circumstances of this ordinance not affected by a court holding.
- G. INCORPORATION OF DOCUMENTS BY REFERENCE.** This ordinance sometimes references emissions standards, emission levels, or requirements in other documents or other laws created and maintained by other entities. When referenced in this ordinance, the requirements in the referenced document or law will become a requirement of this ordinance (as provided for cities and towns under [Minn. Stat. § 471.62](#)). The referenced document or law may be revised in the future by the entity that created and maintains the document or law. Any such revisions will also become a requirement of this ordinance.

ADD II. IF YOUR COMMUNITY HAS AN EXISTING SFHD:

II. EXISTING SFHDS TO BECOME NONCONFORMING

- A. EXISTING MODELS WHICH DO NOT MEET THE NSPS.** Because of their higher emissions, any existing SFHD model which EPA has not approved as meeting the NSPS, is classified as a legal nonconforming land use. Any existing SFHD which is a model EPA has approved as complying with Step 1 requirements of the NSPS retains its conformance status until May 15, 2020. Unless this SFHD model also meets the Step 2 requirements of the NSPS, its status shifts to legal nonconforming land uses on May 15, 2020.
- B. REMOVAL WHEN USEFUL LIFE ELAPSES.** When the use of a nonconforming existing SFHD is discontinued for a period of more than one year, it must be immediately removed from the property by the property owner and not installed elsewhere in the Model Community.
- C. REMOVAL AFTER DESTRUCTION BY FIRE OR OTHER PERIL.** If any nonconforming existing SFHD is destroyed by fire or other peril to the extent of greater than 50% of its market value, and no building permit has been applied for within 180 days of when the property is damaged, the SFHD may only be replaced by a conforming SFHD.
- D. NO EXTENSION, ENLARGEMENT, OR EXPANSION.** No existing legal nonconforming SFHD shall be extended, enlarged, or expanded after the date of effectiveness of this ordinance.
- E. RELOCATION PROHIBITED.** An existing legal nonconforming SFHD shall not be relocated to another parcel in Model Community if that parcel has a different property description than the site on which the nonconforming SFHD was located on the effective date of this ordinance.

ADD III., IV., AND V. IF YOUR COMMUNITY WILL ALLOW NEW SFHDS:

III. REQUIREMENTS FOR NEW SFHDS

New SFHDS must meet all of the following requirements:

- A. NSPS.** New SFHDS must meet the NSPS requirements for certification, installation, operation, and maintenance.
- B. MINNESOTA CODES.** New SFHDS must meet the most restrictive of applicable chimney stack height and design, and setback requirement found in the state of Minnesota Building, Mechanical, or Fire Code.
- C. SETBACK AND CHIMNEY STACK HEIGHT.** New SFHDS, when installed, must meet the following requirements:
 - 1. The chimney stack must not have a rain cap installed.
 - 2. The minimum exit height of the chimney stack must be at least 10 feet from the ground.
 - 3. The minimum setback of the SFHD from the nearest property line must be 100 feet.

IV. INTERIM USE ZONING PERMIT REQUIRED FOR NEW SFHDS

An interim use zoning permit or certificate is required from the Model Community before the start of construction and installation of a new SFHD. Model Community may combine this interim use zoning permit with a building or operational permit, or certificate, on forms provided by the Model Community. Failure to submit an application for the permit is a violation of this ordinance. Violation of the permit terms is grounds for Model Community to terminate the permit and take additional enforcement actions.

- A. PURPOSE OF PERMIT FOR NEW SFHDS.** The purpose of the interim use permit/certificate is to ensure that setback locations, chimney stack heights, and storage of fuel for a new SFHD meet all requirements of Model Community's ordinance and new SFHDS meet federal equipment performance regulations. Requirements for the permit application are listed in **Section V.**
- B. REQUIREMENTS OF ZONING DISTRICT.** This permit must contain a condition that the SFHD be operated in a manner in compliance with requirements of the zoning district in which it operates, and within the requirements of **Section II.**

C. LIMITATIONS ON ZONING DISTRICTS IN WHICH NEW OUTDOOR SFHDS CAN BE INSTALLED.

New outdoor SFHDS are accessory structures which are interim permitted uses only in agricultural and industrial zoning districts. They are explicitly prohibited in residential districts and within a half mile of congregate care homes, lands dedicated to public or institutional uses, and medical facilities.

- D. PERMIT APPLICATION FEE REQUIREMENTS.** The initial application must be submitted by the owner of the land on which the SFHD is proposed with an application fee at the same time. The amount of the application fee must be determined by Model Community and may change periodically.

V. MINIMUM APPLICATION INFORMATION FOR NEW SFHDS

Prior to the start of building or installation of a new SFHD, a zoning permit/certificate application must be submitted to Model Community on a form provided by it, containing the information requested directly below. The Model Community shall review the information and issue a preliminary decision within the time limits set forth in <https://www.revisor.mn.gov/statutes/?id=15.99>. Failure to obtain the permit and build, install, or operate without an issued permit, is a violation of this code. The information required is:

- A. Contact information.** Name, address, and phone number of property owner;
- B. Legal description.** A legal description of the property prepared by a registered land surveyor or from the county property tax bill;
- C. Site plan.** A site plan or survey illustrating the dimensions of the property, including:
- 1. Location and identification of buildings on the site.** Location and identification of buildings on the site on which the SFHD will be located;
 - 2. Location and identification of adjacent buildings.** Location and identification of buildings and the nearest residences on adjacent properties;
 - 3. Location of the SFHD.** Location of the SFHD sufficient to establish exterior boundaries of the SFHD unit or any enclosing accessory structure required by the Model Community code/ordinance for SFHDS;
 - 4. Fuel storage areas.** Fuel storage areas relative to the lot lines and distances from neighboring residences on adjacent properties;
 - 5. Information on manufacturer and specifications.** SFHD manufacturer, model number, date manufactured, specifications for installation, operation, and maintenance, and enough information to determine whether the SFHD meets the specifications.
 - 6. Modifications.** Description of any modifications to the SFHD since date of manufacture;
 - 7. Chimney construction.** Chimney stack materials and height;
 - 8. Building and fire code compliance.** Evidence that the SFHD meets applicable building code and fire code requirements;
 - 9. Safety standard compliance.** Evidence that the SFHD meets safety standards issued by the Underwriters Laboratories (UL), American National Standards Institute (ANSI), or Canadian Standards Association (CSA) listing;

10. **Proposed dates of operation.** The proposed dates of operation, limited to dates in the heating degree day season, each year; and
11. **Other information needed by Model Community.** Other information as requested by Model Community staff.

ADD VI. IF YOUR COMMUNITY WILL PROHIBIT NEW SFHDS:

VI. NEW SFHDS PROHIBITED

For the reason detailed in Sections I.A, new SFHDS are prohibited in Model Community. No person shall sell or distribute, install, or operate any new SFHD in Model Community.

ADD VII. IF YOUR COMMUNITY HAS OR WILL ALLOW SFHDS:

VII. COMPLIANCE REQUIREMENTS FOR LANDOWNERS OF SFHD SITES

Any landowner on which an SFHD is located or proposed to be located must comply with all applicable laws, regulations, rules, ordinances, codes, and permit conditions of Model Community or other levels of government concerning building, construction, installation, or zoning of any SFHD.

ADD VIII. AND IX. IF YOUR COMMUNITY HAS, WILL HAVE, PROHIBITS, OR WILL PROHIBIT SFHDS:

VIII. ENFORCEMENT

- A. **RIGHT OF ENFORCEMENT.** Model Community's code official is authorized to enforce the provisions of this ordinance, render interpretations of this code, and adopt policies, procedures, rules and regulations in order to clarify the ordinance provisions. Such interpretations, policies, rules and regulations must comply with the intent and purpose of this Code and not have the effect of waiving requirements specifically provided for in this Code. A representative of a local or community board of health may also enforce this provision according to its general authority to inspect nuisance conditions granted under [Minn. Stat. § 145A.04](#), subd. 7 and subd. 10.
- B. **RIGHT OF ENTRY.** The code official is authorized to enter the property on which the SFHD is located to inspect or perform the duties if the code official makes an inspection to enforce the provisions of this code, or has reasonable cause to believe that an SFHD on a premise is violating this ordinance, imposed by this code. The code official must present credentials and request entry to the property. If entry to the property is refused, the code official can

use every legal remedy to secure entry.

- C. **RIGHT OF INSPECTION.** The Model Community's code official designated to review applications and issue permits regulated by this code, can inspect the SFHD for which the permits have been issued, to enforce compliance with the provisions of this code not already regulated by the Minnesota building, mechanical, and fire codes.
- D. **PROCEDURE FOR PERMIT REVOCATION.** If the Model Community determines that an SFHD on a premise is violating the requirements of any individual or combined certificate or permit issued by the Model Community, Model Community can revoke the certificate or permit after a hearing is held by the governing body, upon 30 days' written notice given to the permit holder, landowner, or operator.

IX. PENALTIES

- A. **ADMINISTRATIVE PENALTY OPTION.** Model Community can issue an administrative penalty order to any person who violates a provision of this ordinance. Administrative penalty procedures are informal, cost-effective, expeditious alternatives to criminal charges for violations, and often are more effective than criminal charges in zoning violations for bringing the desired results. The procedures are voluntary for persons who have been charged with violations, and the person charged can withdraw any time from participation. If the person charged does not pay the monetary penalty that Model Community imposes, Model Community can seek to collect costs of administrative penalty procedures as imposed. Model Community can also seek to collect costs of administrative penalty procedures as part of a subsequent criminal sentence, if the person is charged and if found guilty of the criminal violation. The amount payable must be determined according to the schedule adopted by resolution of the Model Community governing body periodically, and paid directly to Model Community.
- B. **CRIMINAL CHARGES.** A landowner or operator who violates or has a permit revoked, or does not meet the requirements of Sections II.-VII. is guilty of a violation of this code until the cause of the violation is corrected to the satisfaction of the code official. Each day of violation is considered a separate violation of this code. The penalty for each violation shall be a misdemeanor as defined in [Minn. Stat. § 609.02](#), subd. 3, and subject to the maximum penalty of 90 days in jail and/or a \$1000 fine, plus the costs of prosecution.
- C. **INJUNCTIVE AND OTHER FORMS OF RELIEF.** If Sections IX.A. or IX.B. do not produce a halting of the zoning violation, Model Community may seek injunctive or other forms of relief to obtain compliance with this code.

SOLID FUEL-FIRED HEATING DEVICES MODEL ORDINANCES

Supplemental Information for Section III

This appendix provides technical air quality information to support Minnesota local governmental units (LGUs) establishing and implementing ordinances for Solid Fuel-Fired Heating Devices (SFHDs). Minnesota Pollution Control Agency (MPCA) staff conducted air dispersion modeling analyses of multiple scenarios of residential SFHDs with varying combinations of stack heights and setbacks (from the property line of the nearest neighbor) using the PM_{2.5} National Ambient Air Quality Standards (NAAQS) as a public-health measurement or benchmark for how far a setback would be needed. The air dispersion modeling underlying the Table 1 evaluation was conducted for SFHDs.

Solid Fuel-Fired Heating Devices (SFHDs) have the potential to adversely impact air quality and the quality of life and health for nearby residents. LGUs are empowered by statute to protect residents from air quality-related environmental health hazards and public health nuisances that may occur from SFHDs (See generally, Minn. Stat. ch. 145A). The MPCA shares similar air quality goals with LGUs on a state-wide basis through the Federal Clean Air Act, and supports LGUs through technical, and, if necessary, regulatory assistance (See Minn. R. 7009.0080).

Specific MPCA technical support is provided to LGUs in the form of setback distances between SFHDs and nearest neighbors based on air quality dispersion modeling and a health-based evaluation benchmark for particulate matter less than 2.5 microns (PM_{2.5}). The MPCA SFHD setbacks and related air quality evaluation may provide some support in the removal and abatement of an SFHD if it is declared a public health nuisance (Minn. Stat. § 145A.04, subd. 8).

I. AIR DISPERSION MODELING STUDY

MPCA developed a technical support document describing the air dispersion modeling study used to develop the information in Table 1. Air quality dispersion modeling is a computer simulation that predicts air quality concentrations from various types of emission sources. For pollutants emitted through a chimney stack, the modeling considers the emission rate, chimney stack height, chimney stack diameter, and chimney stack gas temperature and velocity, as well as the effect of nearby buildings and terrain. Air quality dispersion models use meteorological data such as temperature, wind direction, and wind speed to calculate concentrations. Five years of National Weather Service (NWS) meteorological data is used for air quality modeling.

The modeling technical support document is available on the MPCA website. Assumptions for modeling and modeling results are contained in the technical support document.

As with any modeling analysis, there are considerations that should be kept in mind when using the information in Table 1:

A. Table 1 is not based on physical safety considerations or code.

The first column in Table 1 presents the chimney stack heights studied in MPCA's air quality modeling study. Communities may have safety concerns with some chimney stack heights; however, the analyses conducted by MPCA and the findings presented in Table 1 are strictly based on air quality, not on safety or code considerations. The chimney stack heights in the Table may exceed manufacturer recommendations or they may not comply with Minnesota Building, Mechanical, and Fire Codes.

Stack installation must be properly designed and installed in accordance with manufacturer specifications and Minnesota Building, Mechanical, and Fire Codes.

B. More extreme site conditions may require greater setbacks or chimney stack heights.

The chimney stack height and setback combinations presented in Table 1 are based on the findings from MPCA's general air dispersion modeling study of outdoor SFHDs. This is a list of factors that may be present under site-specific conditions and could result in air quality impairments.

1. Factors that can interfere with airflow and could negatively affect dispersion of the emissions:

- a. Using rain caps. Rain caps "slow down" the rate at which chimney stack gases leave the chimney stack. Modeling demonstrates that using a rain cap significantly interferes with the dispersion of particulate matter, and resulted in unacceptably high ambient air concentrations. Rather than establishing very high setback distances, the model ordinance bans the use of rain caps.
- b. Not installing, operating or maintaining the equipment according to manufacturer's instructions. The NSPS requires manufacturers to specify in the owner's manual proper wood heater installation, including location, chimney stack height and achieving proper draft. User's manuals often recommend raising the chimney stack 2 feet above nearby buildings including the neighbor's home. Adequate dispersion of pollutants requires that the chimney stack discharge at an elevation higher than nearby buildings that can block air movement.
- c. Locating the SFHD in areas with significant valleys, hills or bluffs (meaning the landscape is taller than the height of the chimney stack) is likely to worsen air quality compared to the results shown in Table 1;
- d. The nearby presence of buildings taller than 28 feet; or
- e. Installing the SFHD closer to a building than the 30 feet separation distance assumed in the modeling.

2. Factors that can increase emission rates:

- a. Poorly operating or maintained equipment.
- b. Burning unseasoned (wet) wood.
- c. Burning fuel not intended for the equipment.
- d. The use of homemade heaters which likely produce higher emissions.
- e. Using SFHDs larger than the modeled residential sizes (such as SFHDs serving commercial buildings or very large residential heat demands).
- f. Equipment that is over-sized for the actual heating demand.

- 3. Factors that can increase the ambient air concentrations:**
 - a. The presence of more than one SFHD in close proximity.
- C. The setback and chimney stack height combinations from Table 1 should reduce, but it may not eliminate, the chance of nuisance conditions.**

Table 1 is based on general conditions evaluated with standard air dispersion modeling methods. Various general assumptions were modeled that may not be consistent with conditions at a specific location if site-specific conditions are outside the scope of the general modeling assumptions.

The setback evaluation for Table 1 was conducted using the 24-hour and annual PM_{2.5} NAAQS as the evaluation benchmark. The modeling evaluation focused on PM_{2.5} because relatively more emissions data is available for PM than for other pollutants and because PM_{2.5} was considered a relevant criteria air pollutant with well-documented inhalation health risks and an established regulatory value.

The recommended setback distance is based on that distance from an operating SFHD where resulting ambient air concentration from the emission of the SFHD added to existing background ambient air concentrations falls below the 24-hour and annual PM_{2.5} NAAQS.

For uncertified SFHDs, setback distances are large because available emissions data shows that particulate matter emission rates from an operating unit are very high.

While certified SFHDs currently available for sale will meet EPA 2015 standards in the lab setting during certification testing, some emissions studies indicate that not every SFHD will meet the EPA standard when being operated in the field. An SFHD's ability to perform to the level of the standard can be confounded by poor sizing, installation or operation, especially if fuel is not properly seasoned. If a homeowner is unable to secure dry wood during the heating season, there is nothing within the devices that will prevent unseasoned wood from being burned. Therefore, the MPCA is recommending setback distances based on modeling of SFHD with emissions higher than the EPA certification standard. These SFHD are still far cleaner than uncertified SFHD.

For SFHD's that meet the 2020 certification standard, smaller setback distances could be possible than that shown in Table 1. Only a few cordwood burning SFHD models currently meet the 2020 standard and limited emissions data was available to justify establishing a setback distance less than 100 feet.

As more emissions information becomes available, the MPCA may revise the setback values in Table 1.

This information in this supplement is offered to help local decision-makers reduce the chance of air quality concerns on neighboring properties but not at the resident's property itself. It does not eliminate the possibility of nuisance conditions and cannot guarantee that the amount of PM_{2.5} in the ambient air would always meet applicable air quality standards. The modeling performed cannot be used to demonstrate compliance

with an applicable ambient air quality standard. Further, other exposure time periods, wood smoke pollutants and associated odors were not evaluated.

TABLE 1. SFHD SETBACKS FROM PROPERTY LINE BASED ON CHIMNEY STACK HEIGHT AND SFHD CERTIFICATION STATUS

Landscape	Uncertified SFHD		EPA NSPS Certified SFHD
	Flat to Rolling	Steep	All
Chimney stack Height from the Ground	Distance in Feet from SFHD chimney stack to Nearest Property Line		
8'	1,000	1,300'	Not allowed
10'	860'	1,118'	100'
18'	500'	650'	
24'	100'	130'	
30'	100'	130'	

- Uncertified SFHD – SFHD is not certified to meet the EPA 2015 (Step 1) or the 2020 (Step 2) NSPS emission standards for hydronic heaters.
- EPA NSPS certified SFHD – SFHD meets the EPA 2015 or 2020 NSPS emission standards for hydronic heaters and has the EPA-required permanent label with “Certified to comply with the 2015 particulate emission standards” or “Certified to comply with the 2020 particulate emission standards”.

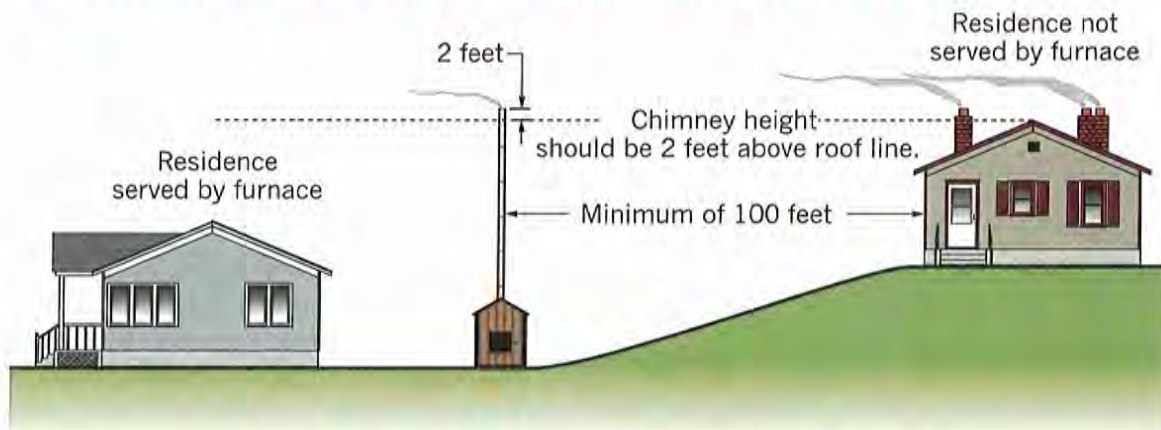
II. MORE INFORMATION

EPA’s list of certified SFHDs (hydronic heaters) which meet EPA’s NSPS (Standards of Performance for New Residential Hydronic Heaters and Forced-Air Furnaces) requirements is located at <http://www2.epa.gov/compliance/list-epa-certified-hydronic-heaters>. MPCA’s Wood Smoke Coordinator can provide general wood smoke information and more information about using this model ordinance. A technical support document describing the modeling is available on MPCA’s webpage www.pca.state.mn.us/yhiz4d3 or from MPCA’s Wood Smoke Coordinator. Residential wood smoke information is also available on MPCA’s Wood smoke webpage at www.pca.state.mn.us/yhiz4d3.

OUTDOOR WOOD FURNACE BEST BURN PRACTICES

1. Read and follow all operating instructions supplied by the manufacturer.
2. **FUEL USED:** Only those listed fuels recommended by the manufacturer of your unit. Never use the following: trash, plastics, gasoline, rubber, naphtha, household garbage, material treated with petroleum products (particle board, railroad ties and pressure treated wood), leaves, paper products, and cardboard.
3. **LOADING FUEL:** For a more efficient burn, pay careful attention to loading times and amounts. Follow the manufacturer's written instructions for recommended loading times and amounts.
4. **STARTERS:** Do not use lighter fluids, gasoline, or chemicals.
5. **LOCATION:** It is recommended that the unit be located with due consideration to the prevailing wind direction.
 - Furnace should be located no less than 100 feet from any residence not served by the furnace.
 - If located within 100 feet to 300 feet to any residence not served by the furnace, it is recommended that the stack be at least 2 feet higher than the peak of that residence.

Chimney Height Installation Scenario



6. Always remember to comply with all applicable state and local codes.



OUTDOOR FURNACE MANUFACTURERS CAUCUS

July 2006