

# **Lus Qhia Tsim Tsa Khw Ua Mov Noj**

## **Food Establishment Construction Guide**

**KEV UA ZAUB MOV, KEV SAU ZAUB MOV THIAB TSO ZAUB  
MOV**

**FOOD, POOLS, AND LODGING SERVICES**

Lub 2 Hlis Xyoo 2019

FEBRUARY 2019

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*Xav tau cov ntaub ntawv no ua tus qauv txawv qhov no, hu rau: 651-201-4500.  
To obtain this information in a different format, call: 651-201-4500.*

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## Hmong

### Lub ntsiab

Cov lus qhia hauv no yuav pab koj sau tej hom phiaj ntawm koj lub tswv yim ua lab noj mov mus rau koom haum Minnesota Department of Health (MDH). Kev tsim tsa, twj tais, thiab lub lab ua noj yuav tsum muaj li cas nyob hauv txheem lus tswj xyuas khw ua zaub mov hauv Minnesota ([Minnesota Food Code](http://www.health.state.mn.us/communities/environment/food/rules/foodcode/index.html)) ([www.health.state.mn.us/communities/environment/food/rules/foodcode/index.html](http://www.health.state.mn.us/communities/environment/food/rules/foodcode/index.html)).

Nyob hauv Minnesota, muaj ntau lub koom haum ua tau daim ntawv lais xees ua zaub mov thiab muag dej cawv tau. Lub lab ua noj daim menu qhia txog tej khoom noj lawv ua thiab qhov chaw ua noj nyob twg yuav qhia tawm seb lub koom haum twg yog tus lav ntsuam xyuas phau hom phiaj thiab tej ntaub ntawv lais xees. Yog xav paub seb lub koom haum muaj lais xees tau, mus xyuas MDH lub vej xaij [Lais xees](http://www.health.state.mn.us/communities/environment/food/license/index.html) ([Licensing](http://www.health.state.mn.us/communities/environment/food/license/index.html)) ([www.health.state.mn.us/communities/environment/food/license/index.html](http://www.health.state.mn.us/communities/environment/food/license/index.html)) los sis hu rau MDH ntawm 651-201-4500.

### Cov lus txhais

#### Chaw ua zaub mov thiab muag dej cawv

*"Chaw ua zaub mov thiab muag dej cawv" txhais tau tias yog ib lub tsev los sis ib feem ntawm ib lub tsev loj, uas tswj los, qhauj raws li, los sis muab ua zoo li yog ib lub chaw uas npaj ua zaub mov, muag zaub mov, los sis dej cawv rau tibneeg noj haus. – Minnesota Statutes, section 157.15, subdivision 5*

#### Hom phiaj HACCP

## English

### Purpose

This guide will help individuals or groups submit food establishment plans to the Minnesota Department of Health (MDH). Construction, equipment, and physical facility standards outlined in this guide are [Minnesota Food Code](http://www.health.state.mn.us/communities/environment/food/rules/foodcode/index.html) ([www.health.state.mn.us/communities/environment/food/rules/foodcode/index.html](http://www.health.state.mn.us/communities/environment/food/rules/foodcode/index.html)) minimum requirements.

In Minnesota, different agencies license food and beverage establishments. The food establishment's menu and location of operation determine which agency is responsible for plan review, licensing and inspection. To find out which agency is responsible, visit the MDH [Licensing](http://www.health.state.mn.us/communities/environment/food/license/index.html) ([www.health.state.mn.us/communities/environment/food/license/index.html](http://www.health.state.mn.us/communities/environment/food/license/index.html)) website or call MDH at 651-201-4500.

### Definitions

#### Food and beverage service establishment

*"Food and beverage service establishment" means a building, structure, enclosure, or any part of a building, structure, or enclosure used as, maintained as, advertised as, or held out to be an operation that prepares, serves, or otherwise provides food or beverages, or both, for human consumption. – Minnesota Statutes, section 157.15, subdivision 5*

#### HACCP plan

*"Hom phiaj HACCP" txhais tau tias ib tsab ntauv uas sau txog tej txheej txheem los ua raws kev cai cheem qhov muaj teeb meem hauv chav ua noj raws li Kev ntsuas qhov teeb meem thiab kev nrhiav seb yam twg yog yam ua mob rau tej zaub mov (Hazard analysis critical control point, HACCP) uas tsim los ntawm lub The National Advisory Committee on Microbiological Criteria for Foods (koom haum tsim tej txheem lus los tswj kom zaub mov nyab xeeb noj tau). – Minnesota Statutes, section 157.15, subdivision 17*

## Kev ua zaub mov noj rau tej koob tsheej

*"Kev ua zaub mov noj rau tej koob tsheej (Food catering)" txhais tau tias kev ua zaub mov noj rau tej koob tsheej loj xws li rooj txais tos, party, pluag mov su, rooj sib txoos, koob tsheej, los sis koob tsheej uas lag luam qhauj lawv lub lag luam. Ib lub lab ua mov noj uas ua catering muaj lub luag haujlwm los tswj xyuas kom tej zaub mov zoo los npaj ua zaub noj koj mus rau sab nraud. – Minnesota Rules, part 4626.0020, subpart 32a*

## Kev txwv

### Kev ntsuas hom phiaj HACCP

[Tej Txheej Txheem Tshwj Xeeb Siv Hauv Tej Chaw Ua Zaub Mov \(PDF\) \(Specialized Processes in Retail Food Establishments\)](http://www.health.state.mn.us/communities/environment/food/docs/fs/specialprofs.pdf) ([www.health.state.mn.us/communities/environment/food/docs/fs/specialprofs.pdf](http://www.health.state.mn.us/communities/environment/food/docs/fs/specialprofs.pdf)) yuav kom koj muaj ib phau hom phiaj HACCP.

### Kev ua zaub mov noj rau tej koob tsheej loj (catering)

Kev npaj, kev muab khoom noj cia, kev thauj kom mus txog chaw, thiab muab zaub mov

*"Hazard analysis critical control point (HACCP) plan" means a written document that delineates the formal procedures for following the HACCP principles developed by the National Advisory Committee on Microbiological Criteria for Foods. – Minnesota Statutes, section 157.15, subdivision 17*

## Food catering

*"Food catering" means food that is prepared for service in support of an event with a predetermined guest list such as a reception, party, luncheon, conference, ceremony, or trade show. A food establishment doing catering is responsible for maintaining control of and ensuring the safety of the food from preparation to service to the consumer. – Minnesota Rules, part 4626.0020, subpart 32a*

## Restrictions

### HACCP plan review

[Specialized Processes in Retail Food Establishments \(PDF\)](http://www.health.state.mn.us/communities/environment/food/docs/fs/specialprofs.pdf) ([www.health.state.mn.us/communities/environment/food/docs/fs/specialprofs.pdf](http://www.health.state.mn.us/communities/environment/food/docs/fs/specialprofs.pdf)) require a HACCP plan review.

## Catering

Preparing, storing, transporting, and serving large volumes of food at catered events

ntau rau coob leej tau noj yuav ua rau ib qho kev phom sij rau zaub mov. Sau txog seb yuav ua lag luam catering li cas hauv daim ntawv qhia seb yuav qhib lab ua noj li cas thiab yuav siv tej tshuab li cas hauv [kev ua zaub mov noj rau tej koob tsheej loj \(Catering\) \(PDF\)](http://www.health.state.mn.us/communities/environment/food/docs/fs/cateringfs.pdf) ([www.health.state.mn.us/communities/environment/food/docs/fs/cateringfs.pdf](http://www.health.state.mn.us/communities/environment/food/docs/fs/cateringfs.pdf)) thaum ntsuas hom phiaj.

## Tej khoom siv uas tau kev pom zoo

Tej lab ua noj yuav tsum tsis txhob siv los sis ua mov noj uas yog los tom tsev los. Tag nrho cov zaub mov uas muab npaj, muag los sis tso tawm muag hauv ib lub lab ua noj yuav tsum los ntawm [Tej Khoom Siv Uas Tau Kev Pom Zoo \(Approved Sources for Food Products\) \(PDF\)](http://www.health.state.mn.us/communities/environment/food/docs/fs/apprvdsrcefs.pdf) ([www.health.state.mn.us/communities/environment/food/docs/fs/apprvdsrcefs.pdf](http://www.health.state.mn.us/communities/environment/food/docs/fs/apprvdsrcefs.pdf)).

## Kev Xa Hom Phiaj Mus thiab Kev Ntsuas

Tej hauj lwm uas yuav tsum ntsuas hom phiaj ua ntej

- [Tsim tsa tshiab \(New construction\) \(PDF\)](http://www.health.state.mn.us/communities/environment/food/docs/license/newconstrplanapp.pdf) ([www.health.state.mn.us/communities/environment/food/docs/license/newconstrplanapp.pdf](http://www.health.state.mn.us/communities/environment/food/docs/license/newconstrplanapp.pdf)): Tsim tsa ib lub tsev tshiab los sis hloov kho ib lub tsev qub los ua lab ua zaub mov noj.
- [Hloov kho los sis ntxiv rau \(Remodel or addition\) \(PDF\)](http://www.health.state.mn.us/communities/environment/food/docs/license/remaddplanapp.pdf) ([www.health.state.mn.us/communities/environment/food/docs/license/remaddplanapp.pdf](http://www.health.state.mn.us/communities/environment/food/docs/license/remaddplanapp.pdf)): Qhov yuav muab ib lub tsev twg hloov kho tshiab los sis kev ua zaub mov twg yuav tsum tau kev pom zoo hauv cov ntaub ntawv qhia txog

presents increased food safety risks. Include catering operations in the project description so that equipment needs specific to [Catering \(PDF\)](http://www.health.state.mn.us/communities/environment/food/docs/fs/cateringfs.pdf) ([www.health.state.mn.us/communities/environment/food/docs/fs/cateringfs.pdf](http://www.health.state.mn.us/communities/environment/food/docs/fs/cateringfs.pdf)) are considered during the plan review process.

## Approved source

Food establishments must not use or serve food that was stored or prepared in a private home. All food prepared, sold or served in a food establishment must come from [Approved Sources for Food Products \(PDF\)](http://www.health.state.mn.us/communities/environment/food/docs/fs/apprvdsrcefs.pdf) ([www.health.state.mn.us/communities/environment/food/docs/fs/apprvdsrcefs.pdf](http://www.health.state.mn.us/communities/environment/food/docs/fs/apprvdsrcefs.pdf)).

## Plan Submittal and Review

Projects that require plan review

- [New construction \(PDF\)](http://www.health.state.mn.us/communities/environment/food/docs/license/newconstrplanapp.pdf) ([www.health.state.mn.us/communities/environment/food/docs/license/newconstrplanapp.pdf](http://www.health.state.mn.us/communities/environment/food/docs/license/newconstrplanapp.pdf)): A building that is newly constructed or conversion of an existing building for use as a food establishment.
- [Remodel or addition \(PDF\)](http://www.health.state.mn.us/communities/environment/food/docs/license/remaddplanapp.pdf) ([www.health.state.mn.us/communities/environment/food/docs/license/remaddplanapp.pdf](http://www.health.state.mn.us/communities/environment/food/docs/license/remaddplanapp.pdf)): The extensive remodeling of a food establishment or a change of type of food establishment or food operation if the regulatory authority determines that plans and specifications are necessary to ensure compliance.



hom phiaj yuav npaj hloov kho tshiab li cas yog tias cov neeg tswj cai kom muaj seb puas ua raws li tej kev cai uas teev tseg.

Yuav tsum sau daim hom phiaj qhib lab li cas mus rau MDH li ntawm 30 hnuv ua ntej pib tsim tsa lub lab, los sis hloov kho ib lub tsev uas twb muaj nyob lawm. Ib yam hloov twg uas koj xav ua yuav tsum muab ua tib txhij sau rau thaum ntsuas hom phiaj. Yog tias koj pib tsim tsa koj lub lag luam ua ntej koj tau txais kev pom zoo, MDH kuj muaj cai kom koj tsum tsis txhob ua lawm yog tias lawv pom koj ua tsis raws cai. - Minnesota Rules, part 4626.1720, subpart D and F

Thov tiv tauj MDH ntawm 651-201-4500 yog tias koj muaj lus nug txog seb koj puas nij ntsuas hom phiaj los tsim tsa koj lub lab.

### Txheej txheem ntsuas hom phiaj

1. Xa koj cov ntaub ntawv ntsuas hom phiaj, tag nrho tej ntaub ntawv uas tsim nyog thiab them tus nqi tso ntaub ntawv rau:

Chaw Nyob Xa Ntawv	Txoj Kev Ntawm Chaw Nyob
Minnesota Department of Health Food, Pools, and Lodging Services - Plan Review P.O. Box 64975 St. Paul, MN 55164-0975	Minnesota Department of Health Orville L. Freeman Building 625 Robert Street North St. Paul, MN 55155

Kev ua ntaub ntawv ntsuas hom phiaj:

- Tsim tsa tshiab (New construction) (PDF) ([www.health.state.mn.us/communities/environment/food/docs/license/newconstrplanapp.pdf](http://www.health.state.mn.us/communities/environment/food/docs/license/newconstrplanapp.pdf))
- Hloov kho los sis ntxiv rau (Remodel or Addition) (PDF) ([www.health.state.mn.us/communities/](http://www.health.state.mn.us/communities/))

Plans must be submitted to MDH at least 30 days before beginning construction, extensive remodeling or conversion of an existing structure to a food establishment. Changes to your proposed plan may be required during the plan review process. If you begin work before plans are approved, MDH may order work to stop when it determines work may lead to noncompliance. – Minnesota Rules, part 4626.1720, subpart D and F

Please contact MDH at 651-201-4500 if you have questions about whether a plan review is needed for your food establishment.

### Plan review process

1. Submit your plan review application, all required information and appropriate fee to:

Mailing Address	Street Address
Minnesota Department of Health Food, Pools, and Lodging Services – Plan Review P.O. Box 64975 St. Paul, MN 55164-0975	Minnesota Department of Health Orville L. Freeman Building 625 Robert Street North St. Paul, MN 55155

Plan review applications:

- [New Construction \(PDF\)](http://www.health.state.mn.us/communities/environment/food/docs/license/newconstrplanapp.pdf) ([www.health.state.mn.us/communities/environment/food/docs/license/newconstrplanapp.pdf](http://www.health.state.mn.us/communities/environment/food/docs/license/newconstrplanapp.pdf))
- [Remodel or Addition \(PDF\)](http://www.health.state.mn.us/communities/environment/food/docs/license/remaddplanapp.pdf) ([www.health.state.mn.us/communities/environment/food/docs/license/remaddplanapp.pdf](http://www.health.state.mn.us/communities/environment/food/docs/license/remaddplanapp.pdf))

environment/food/docs/license/remadd planapp.pdf)

Thov tiv tauj MDH ntawm 651-201-4500 yog tias koj muaj lus nug txog seb yuav siv daim ntawv tso npe twg.

2. Cov ntaub ntawv ntsuas hom phiaj no yuav pib ntsuas raws li neeg xa tuaj ib daim zuj zus mus. Xa tag nrho tej ntaub ntawv uas sau nyob hauv ntu Cov Ntsiab Lus Yuav Tsum Muaj Nyob Hauv Phau Hom Phiaj hauv phau ntawv no. Yog tias koj cov ntaub ntawv tsis muaj txhij, yuav siv sij hawm ntev dua los ua kom tiav.
3. Tus ntsuas koj phau hom phiaj mam li qhia koj seb hnuv pib ntsuas yog hnuv twg, thiab mam li tiv tauj koj los nug txog tej ntaub ntawv tsis muaj tiav los sis ntaub ntawv ntxiv.
4. Thaum ntsuas tag, mam li xa ib tsab ntawv tuaj qhia rau koj tias pom zoo raws li koj cov hom phiaj lawm.
5. Tos mentsis tom qab koj txais daim ntawv pom zoo ua ntej koj pib ua.

## Minnesota Department of Labor and Industry (DLI)

### Kev ntsuas hom phiaj kav dej

Cov kav dej yuav tsum tsim ua dhos thiab tswj raws li cov txheem lus [Minnesota Rules, chapter 4714](http://www.revisor.mn.gov/rules/4714/) ([www.revisor.mn.gov/rules/4714/](http://www.revisor.mn.gov/rules/4714/)), txheem lus tswj xyuas kev txuas kav dej siv (Minnesota plumbing code).

Lub Minnesota Department of Labor and Industry (DLI) ntsuas tej hom phiaj kav tsim txuas kav dej thiab tswj xyuas seb puas ua raws li cov txheem lus tswj xyuas kev txuas kav dej siv. Tiv tauj ib tus kws kho kav dej uas muaj lais xees pab koj npaj koj cov hom phiaj txuas kav dej. Tom qab txuas cov kav

Please contact MDH at 651-201-4500 if you have questions about which application to use.

2. Plan review applications are reviewed in the order they are received. Submit all required information listed in the [Required Plan Contents](#) section of this guide. If your application is incomplete, the review process may take longer.
3. Your plan reviewer will notify you when review starts, and will contact you to request any missing or additional information.
4. When review is complete, you will receive a letter approving your plans.
5. Wait to begin your project until after plans are approved.

## Minnesota Department of Labor and Industry (DLI)

### Plumbing plan review

Plumbing must be designed, constructed, installed and maintained according to [Minnesota Rules, chapter 4714](http://www.revisor.mn.gov/rules/4714/) ([www.revisor.mn.gov/rules/4714/](http://www.revisor.mn.gov/rules/4714/)), Minnesota plumbing code.

The Minnesota Department of Labor and Industry (DLI) reviews plans for proposed plumbing projects and conducts inspections to ensure compliance with the Minnesota plumbing code. Contact a licensed plumbing contractor for assistance with preparing and submitting plumbing plans. After the plumbing

dej tag, DLI mam li mus kuaj xyuas cov kav dej.

Yog xav paub ntxiv thiab mus muab ntawv tso npe ntsuas hom phiaj li cas, mus xyuas DLI lub vej xaij [Kev Ntsuas Hom Phiaj kav Dej \(Plumbing Plan Review\)](http://www.doli.state.mn.us/business/get-licenses-and-permits/plumbing-plan-review) ([www.doli.state.mn.us/business/get-licenses-and-permits/plumbing-plan-review](http://www.doli.state.mn.us/business/get-licenses-and-permits/plumbing-plan-review)) los sis hu DLI ntawm 651-284-5063 los sis 1-800-342-5354.

### Tshawb cov nab npawb hauv zos (local code lookup)

Siv qhov DLI [tshawb cov nab npawb \(local code lookup\)](http://workplace.doli.state.mn.us/jurisdiction/) ([workplace.doli.state.mn.us/jurisdiction/](http://workplace.doli.state.mn.us/jurisdiction/)) los nrhiv seb yuav tiv tauj leejtwg yog tias koj muaj lus nug txog seb cov nab npawb (code) twg muaj feem txog qhov tsim tsa ib lub tsev, txuas kav dej, txuas xaij fais fab, thiab lwm yam txuas hluav taws xob los sis twj muaj feem txog koj.

### Tej ntsiab lus yuav tsum muaj nyob hauv phau hom phiaj

Ua tib zoo muaj tag nrho cov nyob hauv qab no thaum koj ua ntaub ntawv ntsuas hom phiaj yuav qhib lab li cas thiab them tus nqi ntsuas.

- Daim menu qhia seb yuav ua pes tsawg yam zaub mov noj.
- Piav qhia txog lub lab seb yuav muaj chaw txawb khoom noj npaum li cas, yuav npaj zaub mov li cas, yuav muab muag los sis tso tawm muag li cas.
- Muab sau thiab kos cov duab kom yooj yim nyeem tau txog tag nrho tej tshuab siv (tshuab siv ua zaub mov noj, lub nqus pa ntawm qhov cub, tub yees, tej rooj npaj ua zaub mov, tej dab ntxuav tes, tej dab ua peb kem, thiab lub dab ntxuav zaub mov).

system is installed, DLI will conduct an inspection of the system.

For further information and plan review applications, visit the DLI [Plumbing Plan Review](http://www.doli.state.mn.us/business/get-licenses-and-permits/plumbing-plan-review) ([www.doli.state.mn.us/business/get-licenses-and-permits/plumbing-plan-review](http://www.doli.state.mn.us/business/get-licenses-and-permits/plumbing-plan-review)) website or contact DLI at 651-284-5063 or 1-800-342-5354.

### Local code lookup

Use the DLI [Local Code Lookup](http://workplace.doli.state.mn.us/jurisdiction/) ([workplace.doli.state.mn.us/jurisdiction/](http://workplace.doli.state.mn.us/jurisdiction/)) search tool to find out whom to contact with questions about how building, plumbing, electrical and mechanical codes apply to your project.

### Required plan contents

Make sure to include all the following when you submit your completed plan review application and the required fees.

- The intended menu.
- A description of the proposed project including the anticipated volume of food to be stored, prepared, sold or served.
- Easily readable layout drawn to scale indicating the location of all equipment (e.g., cooking equipment, ventilation hood, refrigerators, food prep counters, handwashing sink(s), three-compartment sink, and food prep sink).
- Finish materials for floors, base coves, walls, and ceilings.

- Tej khoom uas ua tiav lawm los dho rau plag tsev, vuas luaj pua tsev tom ntug, phab ntsa, thiab qab nthab.
- Tej tshuab yuav npaj siv uas muaj nws hom, tus tsim hom tshuab ntawd, thiab seb tus nab npawb lo rau yog li cas (model number).
- Tus tsim lub tshuab ntawd daim ntawv qhia meej meej ib qho zuj zus siv lub tshuab tshiab li cas.
- Tej duab kos txog tej txe rau khoom thiab tub rau khoom, thiab yuav kho tej tub rau khoom kom zoo tiav li cas (countertop finish).
- Seb cov dej los qhov twg los (los ntawm ib lub koom haum me los sis hauv zos) los rau koj lub lab. Sau tub nab npawb qhia txog tej dej nyob hauv av yog tias los ntawm cov koom haum me tso dej siv.
- Seb yuav muab tej khib nyiab pov tseg rau twg (los ntawm koom haum me los sis hauv zos). Ntxiv nrog ntawv pov thawj ua raws txoj cai tu dej tawm thiab tso dej tawm.
- Ib daim ntawv luam tso cai ua tsev los ntawm cov tsoom fwv hauv zos.

HACCP yuav tshuaj cov ntaub ntawv uas muab xa tuaj, yog tias nij kom muab, uas muaj xws li:

- Daim Foos Thov HACCP Ntsuas Hom Phiaj
- Tag nrho cov ntaub ntawv txhawb ib puas tsav yam koj lub lab yuav tsim tsa ua hauv phau hom phiaj HACCP
- Tus tus nqi HACCP ntsuas hom phiaj uas yog \$500 (them rau Minnesota Department of Health)

Kuj tseem yuav nug txog ntaub ntawv ntxiv thaum sij hawm ntsuas koj cov ntaub ntawv

- Proposed equipment list that includes types, manufacturers and model numbers.
- Manufacturer’s specification sheets for new equipment.
- Counters and cabinetry shop drawings, indicating cabinet construction, and countertop finish.
- The source of water (private or public) for your food establishment. Include unique well number for private systems.
- The method of sewage disposal (public or private) for your food establishment. Include individual sewage treatment system certificate of compliance for individual sewage disposal systems.
- A copy of the zoning approval or building permit from the local unit of government.

HACCP plan review submittals, if required, must include:

- HACCP Plan Review Submittal Form
- All supporting documents relating to your establishment’s HACCP plan
- \$500 HACCP plan review fee (payable to Minnesota Department of Health)

Additional information may be requested during the plan review process to allow for a thorough review. For further information, please visit the MDH [Plan Review \(www.health.state.mn.us/communities/environment/food/license/planreview.html\)](http://www.health.state.mn.us/communities/environment/food/license/planreview.html) website, or contact MDH at 651-201-4500.

hom phiaj qhib lab kom thiaj li ntsuas kom tob. Yog xav paub ntxiv, thov mus xyuas MDH lub vej xaij [Kev Ntsuas Hom Phiaj \(Plan Review\)](http://www.health.state.mn.us/communities/environment/food/license/planreview.html) ([www.health.state.mn.us/communities/environment/food/license/planreview.html](http://www.health.state.mn.us/communities/environment/food/license/planreview.html)) los sis hu MDH ntawm 651-201-4500.

## Kev ua daim lais xees thiab kev tshuaj ntsuam ua ntej qhib tau lub lab

Thaum kev tsim tsa koj lub lab twb ze qhov yuav tiav lawm, ua raws li cov kauj ruam no:

1. Tso npe ua daim lais xees.

Tiv tauj cov neeg ua hauj lwm hauv MDH uas muab sau nyob hauv koj phau hom phiaj los mus ua ntawv lais xees. Xa cov ntaub ntawv ua lais xees tiav thiab them tus nqi ua ntej hu neeg tuaj tshuaj lub lab ua ntej qhib tau. Tus nqi ua daim lais xees txawv ntawm tus nqi ntsuas hom phiaj.
2. Hu neeg tuaj kuaj koj lub lab ua mov noj.

Hu rau cov neeg ua hauj lwm hauv MDH uas sau nyob hauv koj phau hom phiaj 14 hnuv ua ntej yuav npaj qhib lab kom nws tuaj kuaj seb puas zoo qhib tau. Qhov tuaj kuaj koj lub lab yuav kuaj tag nrho tej uas tau kev pom zoo xws li:

  - Cov tshuab siv yeej muaj nyob, dhos yog thiab yeej ua hauj lwm tau.
  - Cov plag tsev, phab ntsa thiab qab nthab yeej dhos raws li kev pom zoo.
  - Kev txuas kav dej uas tau kev pom zoo los ntawm tej nom tswv tswj kav dej.

## Licensing and preoperational inspections

Once your project is near completion, follow these steps:

4. **Apply for license.**

Contact MDH staff listed on your plan review approval letter to request a license application. Submit the completed license application and required license fee prior to the preoperational inspection. **The license fee is separate from the plan review fee.**
2. **Have your food establishment inspected.**

Contact MDH staff listed on the plan review letter 14 days before the intended opening date to schedule a preoperational inspection. The inspection will cover all aspects of your approved project, including:

  - Equipment is present, correctly installed and operational.
  - Floor, wall and ceiling finishes are installed as approved.
  - Mechanical and plumbing installations are approved by the appropriate authority.
3. **Post the license in the food establishment.**

After a successful preoperational inspection, MDH will issue a license. Prominently post the original license in

3. Muab daim lais xees tso tawm hauv lub lab.

Tom qab dhau tej kev kuaj lub lab tag, MDH mam li muab lais xees rau koj. Tso tawm daim lais xees nyob rau hauv lub lab txhua sij hawm. Daim lais xees zoo siv kom txwm ib xyoos ces tom qab ntawd yuav tsum ua dua tshiab txhua xyoo.

## Ntaub Ntawv Txog Tej Tshuab

Sau qhia meej meej ib qho zuj zus yuav siv tej tshuab no ua dab tsi raws li sau nyob hauv phau hom phiaj qhib lab. Daim menu thiab kev npaj ua noj yuav qhia tawm tau tias yuav nij siv yam twj twg. Tej kev ua noj uas siv sij hawm ntev mam tiav kuj yuav nij tej tshuab siv uas tshwj xeeb.

### Kev tsim txuas tshuab siv

Tej txhia tshuab yuav tsum muaj ntawv pov thawj tiv thaiv kev mob nkeeg los ntawm American National Standards Institute (ANSI) rau tej khoom siv xws li:

- Lub dab ntxuav ub no
- Lub dab ntxuav tais diav uas nws ua nws tus kheej
- Tej tub yees tshwj tsis yog cov uas yug nkag tau mus rau hauv
- Cov tub yees khov uas taug kev nkag mus tau
- Cov dab tso zaub mov kom sov
- Tej twj siv ua zaub mov noj tshwj tsis yog cov twj rhaub mov los sis ci nplem
- Tej tshuab ua dej khov
- Cov tshuab hlais nqaij

the food establishment at all times. The license is valid for one year and must be renewed annually.

## General Equipment Information

Include specifications, proposed locations and intended use for all new and used equipment in submitted plan. Menu and food processes determine the type of equipment required. Complex food processes may require additional or specialized equipment.

### Equipment design and construction

Some equipment must be certified or classified for sanitation by an American National Standards Institute (ANSI) accredited certification program for food service equipment and include:


- Manual warewashing sinks
- Mechanical warewashing equipment
- Mechanical refrigeration units except for reach-in or chest freezers
- Walk-in freezers
- Food hot-holding equipment
- Cooking equipment, except for microwave ovens and toasters
- Ice machines
- Mechanical slicers

- Cov tshuab ua nqaij mos thiab zom nqaij
- Tej npoo rooj npaj ua zaub mov noj los sis tej dab siv los npaj zaub mov

Yog tias muaj ntawv pov thawj tiv thaiv kev mob nkeeg los ntawm ANSI rau ib lub twj twg, ces lub twj ntawd yuav tsum yog:

- Tsim los siv hauv lag luam.
- Ruaj, du lug, yooj yim tu.
- Tu tau yooj yim.
- Tej npoo rooj npaj ua zaub mov uas tsis muaj kuab lom tau neeg.

### Cov koom haum uas muaj ntawv pov thawj los ntawm ANSI

Pab Pawg Muab Ntawv Pov Thawj	Lub Cim
NSF International (NSF)	
Intertek Cim tias "ETL Sanitation."	
Underwriters Laboratory (UL) Cim tias "Classified UL EPH."	
Canadian Standards Association (CSA) Cim tias "CSA Sanitation rau NSF/ANSI."	
Baking Industry Sanitation Standards Committee (BISSC) Cim tias "Certified BISSC."	

### Pes tsawg lub twj siv thiab qhov ntim tau

- Mechanical tenderizers and grinders
- Food preparation surfaces including sinks used for food preparation

If there is no certification or classification for sanitation by an ANSI accredited certification program for a piece of equipment, the equipment must:

- Be designed for commercial use.
- Be durable, smooth, and easily cleanable.
- Be readily accessible for cleaning.
- Have food-contact surfaces that are not toxic.

### Most common ANSI accredited certification programs

Certifying Group	Mark
NSF International (NSF)	
Intertek Marked "ETL Sanitation."	
Underwriters Laboratory (UL) Marked "Classified UL EPH."	
Canadian Standards Association (CSA) Marked "CSA Sanitation to NSF/ANSI."	
Baking Industry Sanitation Standards Committee (BISSC) Marked "Certified BISSC."	

### Equipment numbers and capacities

Sau txog seb lub tshuab siv ntawd puas ua noj tau, cia kom txias tau, rov rhaub dua, puas dim pa tau thiab puas tuav tau tej khoom noj kom kub txias tau. Dhos thiab siv lub tshuab yam li siv tsim nyog.

Tej lub sij hawm uas yuav tsum muaj tej tshuab tshwj xeeb yog:

- Cov tub yees uas taug kev nkag mus tau uas txuas sab nraum zoov yuav tsum txuas kom ib nyuag kho zog thiaj tiv thaiv tau daus thiab dej khov.
- Tej twj tiv thaiv zaub mov, cov tub tso khoom saib los sis lwm yam kev los tiv thaiv zaub mov kom txhob tsuas.
- Yuav tsum muaj cov thooob tso zaub mov uas tswj tau zaub mov kub txias yam kab mob tsuas tsis tau yog tias yuav thauj khoom noj mus rau tus sab nraud los sis ua mov rau ib lub koob tsheej twg.

### Chaw txawb yam khoom siv thiab txuas yam khoom siv

Nrhiaiv los sis txuas cov tshuab zoo kom yooj yim tu ib puas ncig thiab kom tsis txhob sib kis kab mob rau tej zaub mov.

Yog tias tsis zoo txav lub tshuab, mus lo rau lub phab ntsa ntawd los sis txhos ceg rau.

- Tej tshuab uas siv rau ntawm rooj yuav tsum muaj ceg txhos kom siab li 4 inch.
- Tej tshuabuas siv rau plag tsev yuav tsum muaj ceg txhos kom siab li 6 inch.

Piv txwv tej tshuab los sis chaw rau khoom uas muaj neeg nquag tso rau hauv lawv lub hom phiaj tiam sis **tsis tau kev pom zoo** yog:

- Muab lub tshuab tso hauv qab tus ntaiv nce
- Hauv chav tso khoom txuas hluav taws xob los sis twj txuas khoom
- Hauv chav tso khib nyiab

Provide mechanical equipment that meets the cooking, cooling, re-heating, ventilation and hot and cold holding needs of the food establishment. Install and use equipment as intended by the manufacturer.

Some common circumstances with special equipment requirements include:

- Walk-in refrigeration units installed outside must be designed for extra structural loads from snow and ice.
- Food guards, display cases or other effective means must be provided to protect unpackaged food from contamination while on display.
- Food grade containers capable of maintaining food at proper hot and cold holding temperatures in a sanitary manner are required for delivery or catering.

### Equipment locations and installation

Locate or install equipment so that food and food-contact surfaces are not exposed to contamination and the areas around and beneath the equipment are accessible for cleaning.

If equipment is not easily moveable, seal it to the surface or mount it on legs.

- Four-inch legs are required for table-mounted equipment.
- Six-inch legs are required for floor-mounted equipment.

Examples of equipment and storage locations that are frequently submitted but **not approved** include:

- Under an open stairwell
- In a mechanical room
- In a garbage room



- Hauj qab raj dej uas tsis thaiv zoo
- Hauj chav qhov viv
- Hauj qab cov kav dej uas dej ua hws
- Saum tej khoom noj uas tsis khwb zoo, xws li tub twj tshuab tso dej haus thiab lub tshuab tso dej khov.

## Lub dab ntxuav ub no

Sau txog hom khoom, qhov chaw yuav npaj muab txawb thiab yuav siv cov dab li cas.

### Cov dab ntxuav tes

Txuas cov dab ntxuav tes uas yooj yim rau cov neeg ua hauj lwm uas:

- Npaj ua zaub mov tso dej los sis muab zaub mov dej pov tseg.
- Ntxuav ub no.
- Siv chav dej.

Txhua lub dab ntxuav tes yuav tsum muaj dej sov los sis txias txaus ntxuav tes li 15 chib ntawm tus kais dej sib koom ua ke. Ib tug kais dej uas maj mam kaw nws tus kheej los sis lub ntswj dej tawm ntau npaum cas yuav tsum tso dej tawm li 15 chib yam tsis tas yuav rov muab taws dua.

MDH kuj kom koj muab tej ntaub tiv thaiv kom dej txhob txaws tuaj txuas rau ntawm lub dab ntxuav tes kom thiaj li tsis kis mob tau rau zaub mov, tej twj tais uas twb ntxuav tas lawm, thiab tej khoom siv uas siv ib zaug xwb.

### Lub dab ntxuav ub no

Yog tias koj cov ntaub ntawv hom phiaj tsis muaj lub dab ntxuav ub no uas ntxuav tau yam khoom uas loj tshaj plaws thiab twj tais uas loj tshaj plaws, ces koj yuav tsum muaj tej khoom siv tau los ntxuav (manual warewashing).

- Under a sewer line that is not shielded
- In a toilet room
- Under piping on which water has condensed

Above unprotected food, such as beverage dispensing equipment above an ice bin

## Sinks

Include specifications, proposed locations and intended use for all sinks.

### Handwashing sinks

Install handwashing sinks to provide easy access for all employees who are:

- Preparing or dispensing food and beverages.
- Conducting warewashing.
- Using the toilet room.

Each handwashing sink must be equipped to provide water at a temperature to allow handwashing for at least 15 seconds through a mixing valve or combination faucet. A self-closing, slow-closing, or metering faucet must provide a flow of water for at least 15 seconds without the need to reactivate the faucet.

MDH may require splash guards on handwashing sinks to limit contamination of food, clean equipment and utensils, and single-service and single-use articles.

### Manual warewashing sink

If your plans do not include a warewashing machine that can accommodate the largest piece of equipment and utensils, provide equipment for manual warewashing.

Provide a sink with at least three compartments and drainboards on each end.

Muaj ib lub dab uas muaj peb kem thiab lub phiaj tso dej tawm rau ob tog tib si. Cov kem thiab phiaj tso dej tawm yuav tsum yog los ntawm tib qho xwb. Koj dhos tsis tau cov phiaj tso dej tawm kom thiaj li ua raws li qhov no hais. Kuj yuav kom muaj tej chaw rau diav rawg los sis rooj noj mov rau cov siv tag thiab cov tsis tau siv.

Cov kem hauv lub ntxuav tais diav yuav tsum loj txaus txuav yam khoom siv los sis twj tais uas loj tshaj plaws hauv lub lab.

Cov dab ntxuav ub no yuav tsum muaj ntawv pov thawj los sis muaj npe raws li American National Standards Institute (ANSI).

### Lub dab npaj ua zaub mov

Muaj ib lub dab npaj ua zaub mov yog tias phau menu muaj ib yam khoom noj uas yuav tau muab ntxuav los sis tso kom yaj hauv ib lub dab.

Cov dab npaj ua zaub mov yuav tsum muaj ntawv pov thawj los sis muaj npe raws li American National Standards Institute (ANSI).

### Lub dab ntxuav ub no

Muaj ib lub dab ntxuav ub no tso ncaj chaw yooj yim siv los sis ib lub dab txawb hauv av ntxuav tej khoom tu tsev, thiab kom thiaj hliv tau tej kua phem pov tseg. Hauv koj phau hom phiaj, sau txog tej kev uas koj yuav muab cov pas txhuam tsev tso li cas thaum koj tsis siv lawm es cov pas no thiaj li tsis ntub tej phab ntsa, lwm yam khoom siv.

### Lwm cov dab ntxuav ub no

Cov dab sab rau saud txwv qhov nws siv tau. Lwm cov dab uas nquag siv nyob hauv tej lab ua mov no yog:

All compartments and the drainboards must be part of the same piece of equipment. You cannot attach drainboards to meet this requirement. Utensil racks or tables may be required for storing all dirty and clean equipment and utensils.

Sink compartments must be large enough to allow immersion of the largest piece of equipment and utensils.

Manual warewashing sinks must be certified or classified for sanitation by an American National Standards Institute (ANSI) accredited certification program.

### Food preparation sink

Provide a designated food preparation sink if the proposed menu includes a food product that requires washing or thawing in a sink.

Food preparation sinks must be certified or classified for sanitation by an American National Standards Institute (ANSI) accredited certification program.

### Service sink

Provide one conveniently located service sink or curbed cleaning facility equipped with a floor drain for the cleaning of mops or similar wet floor cleaning tools, and for the disposal of mop water and similar liquid waste. In your plans, include a way to store mops between uses so that they do not soil or damage walls, equipment or supplies.

### Other sinks

The sinks listed above have use limitations. Other common sinks used in a food establishment may include:

- Lub dab nchuav tej kua dej tsis huv - rau cov npos ua dej cawv haus, cov zom dej haus thiab chaw ua kas fes haus.
- Lub dab dej me me uas muaj dej los tsis tu ntxuav tej twj siv hauv chav ua mov - siv rau cov daus ais xim khees (ice cream scoop).

## Cov Tshuab Ntxuav Tais Diav Hauv Chav Ua Mov Noj

Sau qhia meej meej ib qho zuj zus seb yog hom tshuab twg thiab yuav npaj tso rau twg rau tag nrho cov tshuab. Cov phiaj tso dej tawm, chaw rau diav rawg, los sis rooj noj mov uas muaj los rau tej khoom uas siv tag thiab cov tsis tau siv.

Cov dab ntxuav ub no yuav tsum muaj ntauv pov thawj los sis muaj npe raws li American National Standards Institute (ANSI).

### Siv tshuaj khes mis kauj los tiv thaiv kev mob nkeeg

Feem	Yuam tsum muaj li cas
Lub twj qhia sij hawm tu kom huv tsis muaj kab mob	Lub cim tau lub suab thiab cim pom duab thaum theem tshuaj tua kab mob qis lawm
Chaw txawb khoom ziab qhuav	Tsawg kawg los muaj tsib daim phiaj
Cheb tsam muab tu ua ntej	Lub dab siv los txuag khoom, chaw tso khib nyiab los sis lwm qhov chaw tso khib nyiab
Kev siv ob lub qhov rooj kaw rau ib chav (cov tshuab ntxuav tais diav uas tsis muaj qhov cua)	Yuav cheem lub qhov rooj kom txhob qhib coos kuaj lub tshuab ntxuav tais ua tag hauj lwm tso.

- Dump sink – for bars, blender drinks and espresso areas.
- Dipper well sink – for in-use utensils such as ice cream scoops.

## Warewashing Machines

Include specifications and proposed locations for all warewashing machines. Drainboards, utensil racks, or tables are required for storing dirty and clean equipment and utensils.

Warewashing machines must be certified or classified for sanitation by an American National Standards Institute (ANSI) accredited certification program.

### Chemical sanitizing

Component	Requirement
Sanitizer alarm	Audible or visual indicator of low sanitizer level
Space for air-drying	Minimum of five racks
Pre-cleaning area	Spray sink, garbage disposal or other means for disposal of garbage
Interlocking door device (ventless dish machines)	Prevents the door from opening until the vent cycle operation is complete May be an additional accessory for the machine

	Tej zaum yuav qhov khoom los dhos rau lub tshuab ntxiv
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## Dej kub los ntxuav tiv thaiv kab mob

Feem	Yuam tsum muaj li cas
Chaw rau kom ziab qhuav	Tsawg kawg los muaj 3 daim phiaj
Cheeb tsam muab tu ua ntej	Lub dab siv los txuag khoom, chaw tso khib nyiab los sis lwm qhov chaw tso khib nyiab
Kev siv ob lub qhov rooj kaw rau ib chav (cov tshuab ntxuav tais diav uas tsis muaj qhov cua)	Yuav cheem lub qhov rooj kom txhob qhib coos kuaj lub tshuab ntxuav tais ua tag hauj lwm tso. Tej zaum yuav qhov khoom los dhos rau lub tshuab ntxiv

## Kev Nqus Lim Pa

Sau qhia meej tias hom twg thiab yuav npaj muab tso rau qhov chaw los lim pa uas sau nyob hauv phau hom phiaj. Tsim txuas thiab dhos kev lim nqus lim pa raws li cov txheem lus hauv [Minnesota Rules, chapter 1346 \(www.revisor.mn.gov/rules/1346/\)](http://www.revisor.mn.gov/rules/1346/), txheem lus tswj xyuas pa roj hauv Minnesota (Minnesota mechanical and fuel gas code). [Minnesota Rules, part 1346.0507 \(www.revisor.mn.gov/rules/1346.0507/\)](http://www.revisor.mn.gov/rules/1346.0507/) muaj ntaub ntawv qhia txog tej yam kev cai rau lub qhov cub ua mov noj hauv tej khw ua mov li cas.

Tej twj ntawm lub nqus pa ntawm qhov cub yuav tsum loj txaus los sug cov roj los sis hws kom tsis txhob mus rau tej phab ntsa thiab qab nthab. Yuav tsum muaj lub nqus pa ntawm qhov cub thiab ntxiv cua kom txaus es thiaj li tsis ua kom chav ua noj vom vom, muaj hws, tsw lwj tswj phem, thiab tsis txhob ncho pa.

## Hot water sanitizing

Component	Requirement
Space for drying	Minimum of three racks
Pre-cleaning area	Spray sink, garbage disposal or other means for disposal of garbage
Interlocking door device (ventless dish machines)	Prevents the door from opening until the vent cycle operation is complete May be an additional accessory for the machine

## Ventilation Systems

Include specifications and proposed locations for ventilation hoods in submitted plans. Design and install ventilation systems according to [Minnesota Rules, chapter 1346 \(www.revisor.mn.gov/rules/1346/\)](http://www.revisor.mn.gov/rules/1346/), Minnesota mechanical and fuel gas code. [Minnesota Rules, part 1346.0507 \(www.revisor.mn.gov/rules/1346.0507/\)](http://www.revisor.mn.gov/rules/1346.0507/) provides commercial kitchen hood requirements for some equipment.

Ventilation hood systems and devices must be sufficient in number and capacity to prevent grease or condensation from collecting on walls and ceilings. Adequate ventilation and make-up air is required for equipment that produces excessive steam, condensation, vapors, obnoxious or disagreeable odors, smoke and fumes.

Design ventilation systems to prevent grease or condensation from draining or dripping

Tsim lub nqus lim pa los cug roj los sis nqus hws kom tsis txhob txeej los sis ntwis mus rau zaub mov, khoom twj siv, diav rawg, phab ntsa, qab nthab, ntaub, thiab tej khoom siv ib zaug. Cov ntaub lim roj uas siv nyob hauv lub nqus pa ntawm qhov cub los sis lwm yam twj los siv cug roj yuav tsum tsim los kom yooj yim hloov tau thiab/los sis dhos dua lub tshiab yog tias tsis yog lub uas tshem tawm coj los ntxuav.

## Rooj Luj Khoom, Txee Rau Khoom thiab Rooj Noj Mov

Sau qhia meej seb yog hom twg, qhov chaw twg uas npaj tias yuav muab txawb thiab yuav npaj siv li cas rau tag nrho tej tub txee thiab cov tub txee uas cia rau cov neeg yuav khoom siv raws li nyob hauv koj phau hom phiaj.

### Tej npoo rooj uas zaub mov chwv

Ib qho npoo rooj uas zaub mov chwv yog yam uas cia ib yam twj los sis diav rawg chwv kiag cov zaub mov. Tej rooj uas zaub mov chwv kuj yog ntawm npoo twj los sis diav rawg uas zaub mov ntwis los sis ntub, xws li lub thoob tso khoom kom txias.

Tej npoo rooj ua zaub mov yuav tsum muaj ntawv pov thawj los sis muaj npe raws li American National Standards Institute (ANSI).

Tej npoo rooj npaj ua mov yuav tsum:

- Nyab xeeb siv tau
- Ruaj khov, ua puas tsis tau thiab tsis muaj peev xwm nqus tau kua
- Yeej tuab txaus thiab them taus qhov muab ntxuav mus ntxuav los
- Lub rooj yeej du lug thiab tu tau yooj yim

onto food, equipment, utensils, walls, ceiling, linens and single-service articles. Grease filters used in an exhaust ventilation hood or other grease extracting equipment must be designed to be readily removable for cleaning and/or replacing if not designed to be cleaned in place.

## Counters, Cabinetry and Tables

Include specifications, proposed locations and intended uses for all counters, cabinetry, tables, and customer self-service areas in submitted plans.

### Food-contact surfaces

A food-contact surface is a surface of equipment or utensil that directly contacts food. Food-contact surface also includes a surface of equipment or utensil from which food may drain, drip or splash, such as an interior of a reach-in cooler.

Food-contact surfaces must be certified or classified for sanitation by an American National Standards Institute (ANSI) accredited certification program.

Food-contact surfaces must be:

- Safe
- Durable, corrosion-resistant and nonabsorbent
- Sufficient in weight and thickness to withstand repeated warewashing
- Finished to have smooth, easily cleanable surface

- Cov hlau yuav tsis txawj puas zuj zus, yuav tsis txawj dam, tawg tau, khawb tau, khij tau, tig ntseev tau, thiab lwj tsis tau

Piv txwv tej yam uas ua lub npoo rooj npaj ua zaub mov tau kev pom zoo:

- Tsuav, hlais los sis sib xyaw zaub mov nyoos
- Siv tau tej twj los ua mov noj xws li ci, kib, tiaj tiaj, los sis qhov cub ci nqaij
- Ua tej xaav vem (sandwich) noj los sis xam lav
- Muab khoom txawb tau rau saud tom qab ntxuav tag
- Lwm yam hauj lwm uas yuav txaws tau, zaub mov yuav tsuas rau los sis yuav tau tu kom huv tsis tu ncu.

## Tej npoo rooj uas tsis chwv zaub mov

Tej npoo uas tsis muaj zaub mov chwv yog xws li lub rooj uas txiav ntoo ua rooj tog. Tej npoo rooj uas tsis chwv zaub mov yuav tsum siv tej khoom txuas lub rooj ntawd kom tsis txawj xeb, tsis nqus kua, thiab tu dug kom thiaj thev taus cov dej txaws, zaub mov ncuag rau los sis lwm yam kua uas tsuas rau.

Tej npoo rooj uas tsis chwv zaub mov yuav tsum tsis txhob muaj laj rooj uas tsis tsim nyog thiab xib pleb thiab tsim los kom yooj yim tu thiab tswj taus.

Tej yam uas tej npoo rooj uas zaub mov tsis chwv muaj xws li:

- Cheeb tsam ua dej hauv xws li tso kas fes, los sis tshuab tso dej qab zib haus
- Lub rooj rau khoom tso zaub mov kom qab uas cov neeg yuav khoom nws tso nws tau

- Resistant to pitting, chipping, crazing, scratching, scoring, distortion, and decomposition

Examples of activities requiring approved food-contact surfaces include:

- Chopping, cutting or mixing raw foods
- Cooking foods using equipment such as grills, deep fryers, flat tops, or ovens
- Assembling foods such as sandwiches or salads
- Storing equipment before and after warewashing
- Other activities creating splash, food soiling or requiring frequent cleaning.

## Non-food-contact surfaces

A non-food contact surface is a surface of equipment that does not directly contact food, such as surfaces of millwork and cabinetry. Non-food-contact surfaces of equipment that are exposed to splash, spillage, other food soiling or that require frequent cleaning must be constructed of a corrosion-resistant, nonabsorbent, and smooth material.

Non-food-contact surfaces must be free of unnecessary ledges, projections, and crevices, and designed and constructed to allow easy cleaning and to facilitate maintenance.

Examples of areas with non-food contact surfaces include:

- Beverage service areas for beverage dispensers such as espresso or coffee machines, or pop dispensers
- Customer self-service areas such as condiment display stations

- Kev them nyiaj los sis chaw auv dawm khoom noj tom npos los sis chaw tos

Tsis pub siv cov ntoo uas tsis tau tiav. Txhua cov npoo rooj (xws li cov ntoo txiav, sab hauv qab lub txee thiab lub txee) yuav tsum ua tiav kom zoo siv mam li coj los tau. Tsis pub siv cov tub uas haus paus khoob lug. Lub qab txee rau khoom yuav tsum mub ceg txhos kom li 6 in los sis yam hauv paus uas ruaj khov.

## Plag tsev, Phab ntsa thiab Qab nthab

Sau txog yuav siv tej khoom li cas ua kom ua tiav tej plag tsev, phab ntsa thiab qab nthab. Cov plag tsev, phab ntsa thiab qab nthab yuav tsum du lug, tsis nqus kua, ruaj khov thiab tu yooj yim raws li cov hauv qab no:

- Cheeb tsam npaj ua zaub mov los sis dej cawv
- Cov tub yees uas taug kev nkag mus tau los sis tub yees khov khoom
- Cheeb tsam ntxuav ub no
- Chav qhov viv
- Cheeb tsam ua zaub mov
- Cheeb tsam muaj lub dab ntxuav ub no
- Chaw rau khoom uas tsis ntub dej
- Tej chaw uas yuav tau ntxuag tshuaj tu los sis yaug tawm

Ua ntej xaiv yam plag tsev twg, yam phab ntsa thiab qab nthab twg, tus tswv, cov tsim tswv yim txuas, thiab lwm cov uas muaj feem kho tsev yuav tsum npaj lub hom phiaj xav ntsoov txog tej hauv qab no:

- Hom twg thiab yuav siv pes tsawg
- Hom dab tsi yuav los tsuas qhov ntawd thiab yuav tu li cas thiaj rov huv
- Yuav kav ntev npaum cas

- Cashier or ordering areas at bar or wait stations

Unfinished wood is not allowed. All surfaces (e.g., cutouts in millwork, underside of countertops and shelving) must be properly finished. Cabinets with enclosed hollow bases are prohibited. Base cabinets must be provided with six-inch legs or a solid base.

## Floors, Walls and Ceilings

Include proposed finish materials for all floor, wall and ceiling surfaces. Provide smooth, nonabsorbent, durable and easily cleanable floors, walls and ceilings in the following areas:

- Food and beverage preparation areas
- Walk-in refrigerators or freezers
- Warewashing areas
- Toilet rooms
- Servicing areas
- Service sink areas
- Dry storage
- Areas subject to flushing or spray cleaning methods

Prior to selecting floor, wall and ceiling surfaces, owners, design professionals, and others involved in preparing the plans should consider the following factors:

- Type and amount of use
- Type of soil and cleaning methods
- Life span of the surface

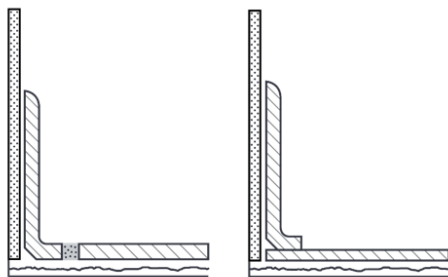
## Plag tsev

Xaiv thiab dhos thiab npoo plag tsev uas zoo rau koj lub lab. Ua raws li tus tsim tej yam khoom ntawd tej lus qhia.

Ib txhia kev txwv yog:

- Yuav tsis pub siv cov av ci uas nplaum tau kev tiv thaiv lawm tshwj tsis yog nyob rau chav tso khib nyiab los sis siv rau khoom.
- Yuav tsis pub siv ntaub pua tsev ze li peb feet ntawm tej tub npos thiab npos daus zaub mov thiab lwm yam twj siv ua zaub mov.
- Tej daim lev pua tsev thiab txiag siv los pua kev kom taug mus dhau yuav tsum yog tsim los kom yooj yim tshem tawm tau thiab tu tau yooj yim.

Txuas lub vuas luaj pua tsev tom ntug rau txhua plag tsev nyob ntawm phab ntsa. Xaiv thiab dhos vuas luaj pua tsev tom ntug raws lub tus tsim kom ua. Daim duab 1 yuav qhia seb yuav dhos yog thiab tsis yog cov vuas luaj pua tsev tom ntug li cas.



Daim duab 1: Ua Yog (sab laug); Ua Tsis Yog (sab xis)

## Phab ntsa thiab qab nthab

Xaiv thiab txuas tej phab ntsa thiab qab nthab kom zoo rau koj lub lab. Ua raws li tus tsim tej yam khoom ntawd tej lus qhia.

Ib txhia kev txwv yog:

## Floors

Select and install flooring surfaces that meet the needs of your establishment. Follow all manufacturer’s recommendations.

Some specific restrictions are:

- Sealed concrete is not allowed except in garbage rooms, or areas used for closed case lot storage.
- Carpeting is not allowed within three feet of permanently installed bars and salad bars and other food service equipment.
- Mats and duckboards must be designed to be removable and easily cleanable.

Install a coved base at all floor-wall junctions. Select and install coved base according to manufacturer’s specifications. Figure 1 shows correct and incorrect positioning of coved base tile relative to flooring surface.

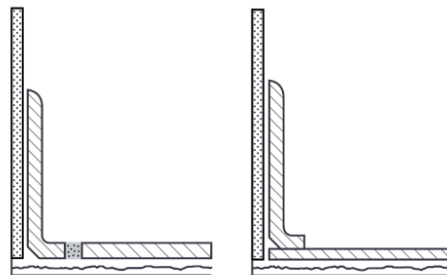


Figure 1: Correct Method (left); Incorrect Method (right)

## Walls and ceilings

Select and install wall and ceiling surfaces that meet the needs of your establishment. Follow all manufacturer’s recommendations.

Some specific restrictions are:



- Yuav tsis pub siv tej thoog av ci uas tsis tau tiav tshwj tsis yog txuas rau chav rau khoom rau tej yam qhuav xwb.
- Tej teeb, cov npog lub qhov cua, kiv cuas los sis lwm yam txuas rau phab ntsa thiab qab nthab yuav tsum yooj yim tu tau.
- Yuav tsis pub muaj cov dhos rau sab nraud (exposed studs), nqaj tsev thiab qhab tsev tshwj tsis yog rau chav tso tej khoom uas tsis tau qheb.

## Tej cheeb tsam uas tsis muaj zaub mov

Sau qhia txog tej cheeb tsam uas tsis ua zaub mov xws li chav qhov viv, chav rau khoom rau cov neeg ua hauj lwm, khib nyiab thiab kaus poom thiab chav ntxhua khaub ncaws. Muaj tej chav uas tsis ua zaub mov uas zoo rau koj lub lab.

### Chav qhov viv

Yog tias tsis muaj chav qhov viv rau sawvdaws tau siv los yuav tsum muaj ib chav qhov viv thiab dab ntxuav tes rau cov neeg ua hauj lwm siv. Mus saib [Minnesota Rules, chapter 4714](https://www.revisor.mn.gov/rules/4714/) ([www.revisor.mn.gov/rules/4714/](https://www.revisor.mn.gov/rules/4714/)), txheem lus tswj xyuas kev txuas kav dej siv (plumbing code), seb yuav tsum muaj pes tsawg chav qhov viv hauv koj lub lab. Cia kom chav dej ntawd nyob rau nws ib chav thiab siv ib lub qhov rooj liaj kom khov.

### Khib nyiab thiab kaus poom

Muaj ib cheeb tsam uas nyob deb ntawm chav ua noj thiab chav rau khoom los kom thiaj khaws thiab pov tseg tau tej khib nyiab thiab kaus poom.

Siv xuab zeb ci, daim ntaub pua kev (asphalt), los sis lwm yam khoom uas nqus

- Unfinished, porous concrete blocks or bricks are not allowed except in dry storage areas.
- Light fixtures, vent covers, fans or other wall and ceiling attachments must be easily cleanable.
- Exposed studs, joists and rafters are not allowed except in areas used only for the storage of unopened packages.

## Non-food Areas

Include proposed locations for non-food areas such as toilet rooms, storage of employee personal items, garbage and recyclables and laundry facilities. Provide non-food areas to meet the needs of your establishment.

### Toilet rooms

If public toilet rooms are not available, provide at least one toilet and handwashing sink for employee use. Refer to [Minnesota Rules, chapter 4714](https://www.revisor.mn.gov/rules/4714/) ([www.revisor.mn.gov/rules/4714/](https://www.revisor.mn.gov/rules/4714/)), plumbing code, for minimum number of toilets required for your food establishment. Completely enclose the toilet room(s), and provide a tight-fitting and self-closing door.

### Garbage and recyclables

Provide an area separate from food preparation and storage areas for collection and storage of garbage and recyclable materials.

Use concrete, asphalt, or other nonabsorbent material for outdoor garbage and recyclable

tsis tau dej los siv rau cheeb tsam tso khib nyiab thiab kaus poom. Daim ntaub pua kev yuav tsum du lug, ruaj khov thiab txhim kho kom tso tau dej tawm.

## Tej khoom siv ntiag tug

Tej chaw xauv khoom los sis lwm chav zoo rau cov neeg ua hauj lwm li khoom yuav tsum du lug thiab tsis txhob sw.

## Chaw ntxhua khaub ncaws

Yog tias muaj cav ntxhua khaub ncaws nyob hauv lub lab, qhia seb lub ntxhua khaub ncaws thiab lub ziab nyob rau twg ces ua tib zoo tiv thaiv kom tsis txhob kis tau zaub mov, kom tej khoom huv nws nyob nws chaw, tej diav rawg los nyob nws chaw nrog rau tej ntaub, tej khoom siv ib zaug tag muab pov tseg.

## Cov chaw hauj lwm xws li hluav taws xob, roj thiab dej

Sau qhia txog tej dej siv los qhov twg, lub rhaub dej nyob twg, yuav muab cov dej siv tag pov tseg twg, thiab lwm yam hauj lwm siv raws li sau hauv phau hom phiaj. Muaj hluav taws xob dej siv nyob hauv koj lub lab.

Muab tej kav dej thiab kav hluav taws xob, nrog rau tej yas tso dej qab zib kaw kom thiaj nyab xeeb. Txuas tej kav dej thiab kav hluav taws xob kom zoo es thiaj li cuam tshaum tau rau thaum txhuam tsev, txhuam phab ntsa los sis qab nthab.

## Tsev tuav dej siv

Qhia seb cov dej siv rau koj lub lab los qhov twg los raws muaj nyob hauv koj phau hom phiaj.

material storage areas. The pad must be smooth, durable and graded to drain.

## Personal items

Lockers or other suitable facilities must be used for the orderly storage of employee clothing and other possessions.

## Laundry facilities

If laundry facilities are provided on-site, locate the washer and dryer to prevent contamination of food, clean equipment, utensils, linens, or unwrapped single-service or single-use articles.

## Utilities

Include specific information for water supply, water heaters, sewage disposal system, and other utilities in submitted plans. Provide utilities to meet the needs of your food establishment.

Enclose utility service lines and pipes, including beverage lines. Install utilities so they do not obstruct or prevent cleaning of the floors, walls and ceilings.

## Water supply

Identify the source of the water for your establishment in submitted plans.

A safe and adequate supply of water must be provided to meet the needs of your food

Yuav tsum muaj tej dej huv thiab txaus siv los rau koj lub lab siv. Tej dej siv rau hauv koj lub lab yuav tsum los ntawm tsev tuav dej siv uas ua raws li cov txheem lus hauv Minnesota Rules, [chapter 4720 \(www.revisor.mn.gov/rules/4720/\)](http://www.revisor.mn.gov/rules/4720/), Public Water Supplies; thiab [chapter 4725 \(www.revisor.mn.gov/rules/4725/\)](http://www.revisor.mn.gov/rules/4725/), Wells and Borings.

Ib tus sawv cev hauv Minnesota Department of Health mam li tuaj xyuas seb cov dej koj siv hauv koj lub lab puas ua raws li daim ntawv lais xees uas raug rau koj lub lab.

## Cov rhaub dej

Sau qhia seb cov rhaub dej yog hom dab tsi thiab yuav npaj txawb rau twg raws li phau hom phiaj tau hais. Xaiv thaib txuas cov rhaub dej (cov muaj lub thoob rhaub dej los sis tsis muaj) uas loj txaus siv rau lub sij hawm koj lub lab siv dej kub heev tshaj plaws.

## Kev muab cov dej siv tag pov tseg

Qhia seb yuav siv yam tswv yim los muab tej dej siv tag pov tseg twg (hauv zos los sis rau ib qho chaw txawv) raws li koj muab sau hauv phau hom phiaj. Muaj qhov kev muab cov dej siv tag pov tseg kom txaus raws li thaum koj lub lab nij thaum lub sij hawm siv dej ntau tshaj plaws.

Cov thoob loj cug tej dej uas siv tag yuav tsum tsim txuas thiab tswj raws li cov txheeb lus sau hauv [Minnesota Rules, chapter 7080 \(www.revisor.mn.gov/rules/7080/\)](http://www.revisor.mn.gov/rules/7080/), tej kav dej uas txuas siv rau ib lub tsev xwb (individual subsurface sewage treatment systems, SSTS) thiab txhooj cai [Minnesota Rules, chapter 7081 \(www.revisor.mn.gov/rules/7081/\)](http://www.revisor.mn.gov/rules/7081/), tej kav

establishment. Water for your establishment must be obtained from a municipal water supply or a water supply that meets the requirements of Minnesota Rules, [chapter 4720 \(www.revisor.mn.gov/rules/4720/\)](http://www.revisor.mn.gov/rules/4720/), Public Water Supplies; and [chapter 4725 \(www.revisor.mn.gov/rules/4725/\)](http://www.revisor.mn.gov/rules/4725/), Wells and Borings.

A representative from the Minnesota Department of Health may conduct an onsite evaluation of your water supply prior to licensing your establishment.

## Water heaters

Include specifications and proposed locations for water heaters in submitted plans. Select and install water heaters (traditional and tankless) that are adequately sized to meet the peak hot water demands of the food establishment.

## Sewage disposal

Identify the method of sewage disposal (public or private) for your food establishment in submitted plans. Provide a sewage disposal system that meets the peak sewage needs of your food establishment.

Septic systems must be designed, installed and maintained according to [Minnesota Rules, chapter 7080 \(www.revisor.mn.gov/rules/7080/\)](http://www.revisor.mn.gov/rules/7080/), individual subsurface sewage treatment systems (SSTS) and [Minnesota Rules, chapter 7081 \(www.revisor.mn.gov/rules/7081/\)](http://www.revisor.mn.gov/rules/7081/), midsized subsurface sewage treatment systems.

Individual and midsized SSTS requirements are adopted and enforced locally. A copy of the individual sewage treatment system certificate

dej uas txuas siv nrog rau lwm lub tsev (midsized subsurface sewage treatment systems).

Cov thoob cug dej thiab cov thoob tsis loj heev (midsized SSTS) yuav tsum ua thiab taug qab txoj cai hauv zej hauv zos. Ib daim ntawv pov thawj ua raws txoj cai rau txhua lub thoob cug cov dej siv tag yuav tsum muaj nyob hauv phau hom phiaj. Yog xav tau kev pab, tiv tauj cov nom tswv hauv koj lub zos (nras, nroog, los sis zos).

## Teeb

Muaj teeb cig kom zoo rau koj lub lab. Siv cov teeb tawg tsis tau los sis tej teeb uas muab npog thaiv.

Yuav ntsuas seb qhov teeb ci muaj ceem npaum cas pib ntawm 30 inch ntawm plag tsev mus rau saum lub teeb ci li cas. Qhov yuav tsum ua li cas yuav txawv raws tej hauj lwm hauv lab.

- Cov tees qhaim 10 feet - cov thoob rau khoom kom txias, cov tub yees khov uas taug kev nkag mus tau los sis cheeb tsam tso khoom uas tsis ntub dej
- Cov tees qhaim 20 feet - cheeb tsam cov neeg yuav khoom noj nyias pab tau nyias, cov tub yees yus nkag tau muab khoom yooj yim thiab sab hauv qab tib si, cov chav dej los sis cheeb tsam ntxuav tes, ntxuav ub no, thiab chaw rau khoom rau diav rawg
- Cov tees qhaim 50 feet - tej chaw npaj ua zaub mov noj los sis chaw kom nyab xeeb rau cov neeg ua hauj lwm nyob tseem ceeb

of compliance for individual sewage disposal systems must be provided with plans. For assistance, contact your local unit of government (county, city, or township).

## Lighting

Provide adequate lighting to meet the needs of your establishment. Use either shatter-resistant bulbs or shielded light fixtures.

Light intensity is measured 30 inches above the floor. Requirements vary depending on food activities:

- 10 foot-candles – walk-in coolers, walk-in freezers or dry storage areas
- 20 foot-candles – consumer self-service areas, inside reach-in and under-counter refrigerators, toilet rooms or areas used for handwashing, warewashing, and equipment and utensil storage
- 50 foot-candles – food preparation areas or where employee safety is a factor