CARVER COUNTY BOARD OF ADJUSTMENT

Regular Meeting – **Wednesday, December 1, 2021**
Commissioners' Meeting Room
2nd Floor Human Services Bldg
Government Center – Chaska

AGENDA

7:00 p.m.

1. Approve minutes of October 6, 2021 meeting
   Pages 1-1 through 1-2

2. **File #20210058** - Public hearing on request by Richard & Amanda Gorra for a variance. (Reduced Setback –Feedlot)
   Dahlgren Township Pages 2-1 through 2-11
   Issue Order #PZ20210058 – Richard & Amanda Gorra

3. **File #20210057** - Public hearing on request by Terry Kaiser for a variance. (Reduced Setback – Commercial Kennel)
   Benton Township Pages 3-1 through 3-12
   Issue Order #PZ20210057 – Terry Kaiser

4. **File #20210059** – Public hearing on request by David & Margaret Wecker for a variance.
   (Exceed Structure Size, Total Square Foot Storage & Structure Height in Residential Cluster Development)
   San Francisco Township Pages 4-1 through 4-43
   Issue Order #PZ20210059 – David & Margaret Wecker

Other Business

CARVER COUNTY BOARD OF ADJUSTMENT
Regular Meeting – October 6, 2021
Minutes

Members Present: Gerald Bruner, Robin Bielefeldt, Richard Kvitek, Virgil Stender, Scott Smith, Kellen Schmidt,

Members Absent: Joe Polunc

Members Late: None

Staff Present: Christina Neel, Joe Enfield, Donovan Hart

Pursuant to due call and published notice thereof, the October 6, 2021, meeting of the Carver County Board of Adjustment was called to order by Chairman Bruner at 7:00 p.m.

Agenda – Chairman Bruner asked for any changes or corrections to the agenda, or a motion to accept the agenda as printed. A motion was made by Bielefeldt to approve the agenda as printed. Kvitek seconded the motion for approval. All voted aye. Motion carried.

Minutes – Chairman Bruner asked for any changes or corrections to the minutes or a motion to accept the minutes from the September 1, 2021, meeting as printed. A motion was made by Stender to approve the September 1, 2021 meeting minutes. Smith seconded the motion for approval. All voted aye. Motion carried.

Public Hearing - File # 20210051 – David Dotzenroth – Chairman Bruner called the public hearing to order at 7:01 p.m. to consider the application of David Dotzenroth pursuant to Chapter 52 of the County Code. The purpose of the public hearing was to consider a request for reduced setback for septic tanks to the OHW of a Natural Environment Lake to Chapter 52 of the County Code. The property is in Section 13 of Watertown Township.

The following were present: David Dotzenroth, Jennifer Haag-Dotzenroth, Kate Schmidt

The following items were entered into the hearing record:

Exhibit A - Legal Description
Exhibit B - Affidavit of Publication of the Hearing Notice
Exhibit C - Affidavit of Mailing of the Hearing Notice
Exhibit D – Site Plan
Exhibit E - Letter from the Applicant dated August 22, 2021
Exhibit F – Letter to the Board of Adjustment and Watertown Township dated September 20, 2021 and all attachments

Joe Enfield, Carver County Senior Environmentalist, explained the applicant owns an approximate 17-acre parcel which is improved with a house and attached garage and an outbuilding. He is requesting a variance to allow for installation of a septic system in which the tanks would not meet the required 150-foot setback from the OHW of a Natural Environment lake. The proposed setback for the tanks from the OHW of the lake is approximately 57 feet. Enfield used a map to illustrate the location of the currently

existing tanks which will be replaced. The applicant identified a practical difficulty in that the parcel is an existing lot of record which has a large area of elevation change making it difficult for installation of a septic system. It is not feasible at this time to connect to City services based on the parcel location. The request is considered a minimum variation from the County Code requirements to alleviate the practical difficulty. The registered tanks would be installed in the same location as the existing failing tanks. The need for this variance is not the result of any actions of the applicant. The current system has a certificate of non-compliance and the proposed system will be replacing a non-compliant system. Watertown Town Board reviewed and recommended approval of the request at their September 7, 2021 meeting. The DNR replied to this request and had no concerns or objections on this application.

Bielefeldt asked if there is any significance to the 150-foot setback, or if this is an arbitrary figure.

Enfield stated the setback distance is set by the DNR and he was unsure of how that distance was determined. He stated the setback distance varies on different types of protected waters, ditches, and wetlands.

Bielefeldt stated that this variance will allow for replacement of a non-compliant tank with a compliant one.

Enfield clarified that there could be up to three tanks in this location, one or two septic tanks and a lift tank for the system. The lift tank would send the liquid up to the new drainfield location, which hasn't been identified as yet, but will be outside of the 150-foot setback area of the lake. Enfield stated the replacement system will be inspected and read the proposed conditions for consideration concerning the replacement system if the variance is approved.

Bruner, representing the Watertown Tow Board, confirmed their unanimous vote to recommend approval of the request. He stated they were in favor of replacing a non-compliant system with a new system.

Mr. Dotzenroth confirmed he is in agreement with the proposed conditions.

There was no one present from the public present to address this request.

A motion was made by Stender to close the public hearing. Smith seconded the motion to close the public hearing. All voted aye. Motion carried. The public hearing was closed at 7:08 p.m.

A motion was made by Kvitek to **approve and issue Order PZ20210051** allowing for a reduced setback OHW for septic tanks and the following conditions:

1. The required SSTS construction permit must be obtained prior to the installation of the new septic system.
2. The required SSTS Operating permit must be obtained prior to the installation of the new septic system.
3. The SSTS shall be installed according to the final design approved by Carver County Environmental Services.

Schmidt seconded the motion for approval. All voted aye. Motion carried.

Adjournment

A motion was made by Stender to adjourn the meeting. Schmidt seconded the motion for adjournment. All voted aye. The meeting was adjourned at 7:09 p.m.

COUNTY OF CARVER
PUBLIC SERVICES DIVISION
Department of Environmental Services

November 22, 2021

TO: Carver County Board of Adjustment & Dahlgren Town Board

FROM: The Environmental Services Department

SUBJECT: Application for a Variance (Reduced Setback to an Existing Feedlot for a New House).

FILE #: PZ20210058
OWNER: Richard Gorra
APPLICANTS: Richard and Amanda Gorra
SITE ADDRESS: 8280 Hwy 212, Cologne, MN 55322
VARIANCE TYPE: Reduced Setback to an existing Feedlot for New Home Construction
PURSUANT TO: Carver County Code Section 54.46 (D) 2a
LEGAL DESCRIPTION: See attached Exhibit "A"
PARCEL #: 04-008-0210

BACKGROUND:

1. Richard and Amanda Gorra own an approximate 68.51-acre parcel located in the West Half (W½) of the Southeast Quarter (SE¼) of Section 8, Dahlgren Township. The property is located within the Agricultural Zoning District, Shoreland Overlay District of a protected public water, and the CCWMO (Carver Creek Watershed). The realignment of Highway 212 is being constructed through the southern portion of the parcel.

2. The applicants, Richard and Amanda Gorra, are requesting a Variance that would allow them to construct a house and attached garage at a minimum of approximately 960 feet from an existing feedlot (Dawn Thostenson) located to the southwest of the subject property. Chapter 54 of the County Code requires a minimum setback of 1,000 feet from an existing feedlot to all new residences. Therefore, a Variance for reduced setbacks pursuant to Chapter 54 – Section 54.46 (D) (2)a has been requested.

LEGAL BACKGROUND:

§ 54.04 DEFINITIONS.
FEEDLOT, (EXISTING) ANIMAL. An animal feedlot that has registered, pursuant to Minn. Rule 7020.0350 and/or has registered with Carver County Environmental Services prior to July 7, 2003.

§ 54.46 SETBACKS.
(D) Existing feedlots as of July 7, 2003.
1) The modifications and/or expansions of animal feedlots, that are located within 200 feet of existing property lines, may be allowed if they do not further encroach on the established setback.

2) The modification or expansion of animal feedlots that are located within 1,000 feet of residences, churches, schools, regional parks, cemeteries, non-agricultural commercial and industrial activities, and restaurants may be allowed if the modification and/or expansion does not further encroach on the established setback.
   a. This setback shall be reciprocal.

STAFF ANALYSIS:

1. Richard and Amanda Gorra, the applicants, have proposed to construct a house on the property; however, based on topography, site restrictions, and setback requirements, they have minimal choices to locate the house outside of the required 1,000-foot setback from an existing feedlot. If approved, the variance would allow the applicants to construct a house and garage at a minimum of approximately 960 feet from an existing feedlot to the southwest (Dawn Thostenson). The applicants' request reflects an approximate 40-foot variance to the neighboring feedlot.

2. The applicants' letter, dated October 29, 2021, describes a practical difficulty exists based on topography and physical features located on the property. The subject parcel contains low lying land, a protected public water (Carver Creek), floodplain, woods, and tillable land. The placement of the house in the proposed location would be the best location while maintaining a feasible distance from the existing feedlot.

3. Prior to purchasing the property in 2018, Richard and Amanda worked with Carver County to understand any restrictions in place for the construction of a new residence on the subject parcel. The applicants were provided with a map that exhibited the Shoreland Overlay District boundaries, flood fringe, and the 1,000' feedlot setback buffer. The feedlot area was not field verified and contained incorrect feedlot boundaries, which generated an incorrect feedlot buffer area. The applicants believed that they had plenty of room to construct their house and garage outside of the feedlot setback area so they proceeded with hiring an architect to draft plans that would work for the intended building site. They also obtained approval for the driveway and have spent a significant amount of money to have portions of the driveway constructed up to the building site.

4. The Subsurface Sewage Treatment System (SSTS) primary and alternate locations have been reviewed by the Carver County Environmental Services staff to verify all requirements of Minn. Rules 7080-7083 and Chapter 52 of the Carver County Code of Ordinances.

5. The granting of the Variance would not conflict with the intent of the Comprehensive Plan and/or County Ordinances and would not alter the character of the neighborhood.

6. The granting of the Variance would not materially, adversely affect the health or safety of persons residing or working in the area adjacent to the property of the applicants and would not be materially detrimental to the public welfare or injurious to property or improvements in the area adjacent to the properties.

7. The Dahlgren Town Board reviewed and recommended approval of the request at their November 8, 2021, Town Board meeting without any additional conditions.

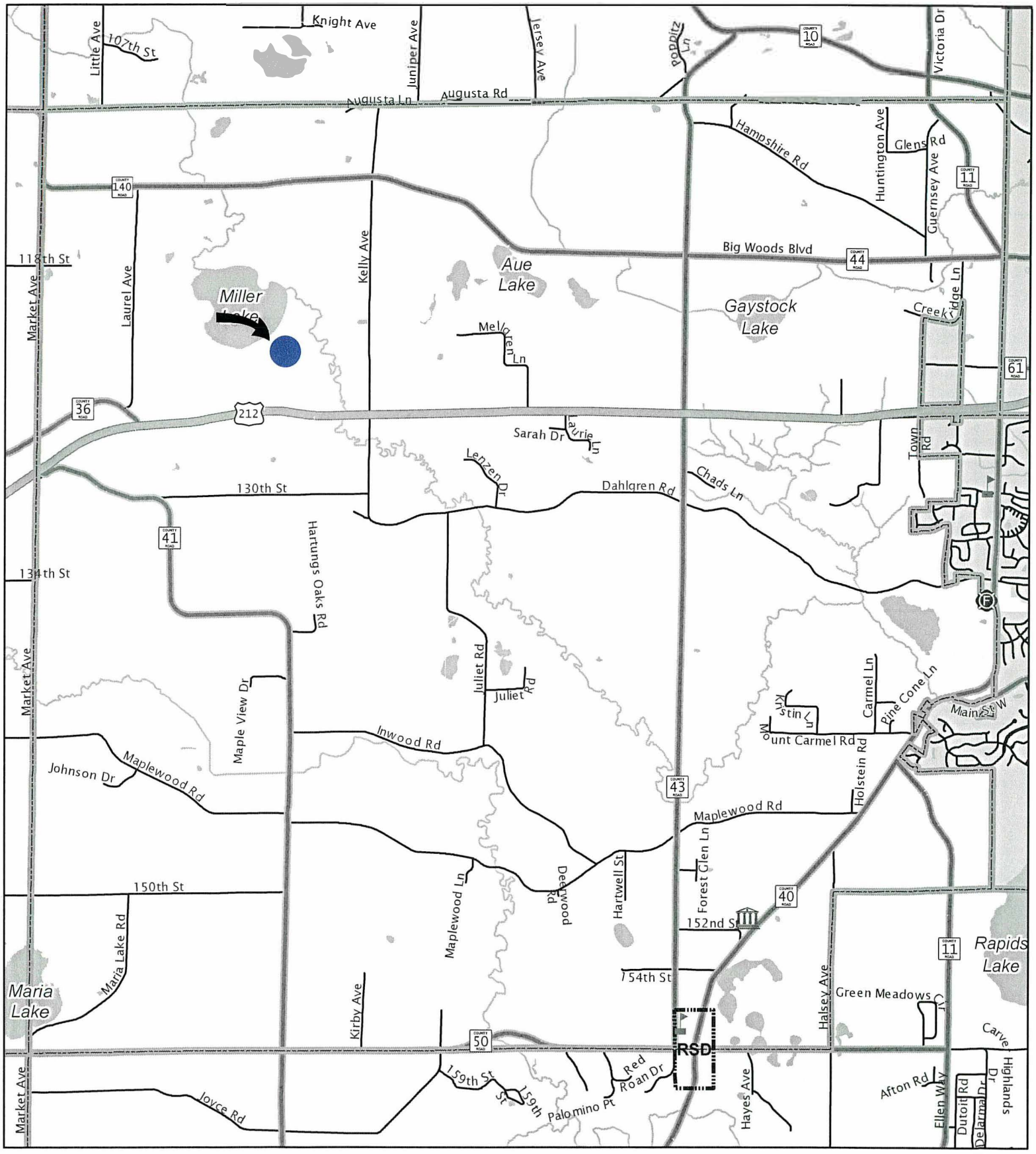
BOARD CONSIDERATION:

If the Board of Adjustment determines that a practical difficulty has been identified, and that approving the variance for the reduced feedlot setback would serve in the interest of justice, the following conditions should be considered:

1. The permittee shall obtain the appropriate building permit(s) and septic permit(s) prior to the construction of the residential house. A grading plan and erosion/sediment control plan shall also be prepared, submitted, and implemented in accordance with the CCWMO Water Rules (Chapter 153) as part of the building permit application process.

2. All construction activities shall be done in accordance with the submitted site plan(s). The new construction shall not encroach any closer to the existing feedlot than as approved as part of this permit application (Approx. 960 feet).

DAHLGREN TOWNSHIP



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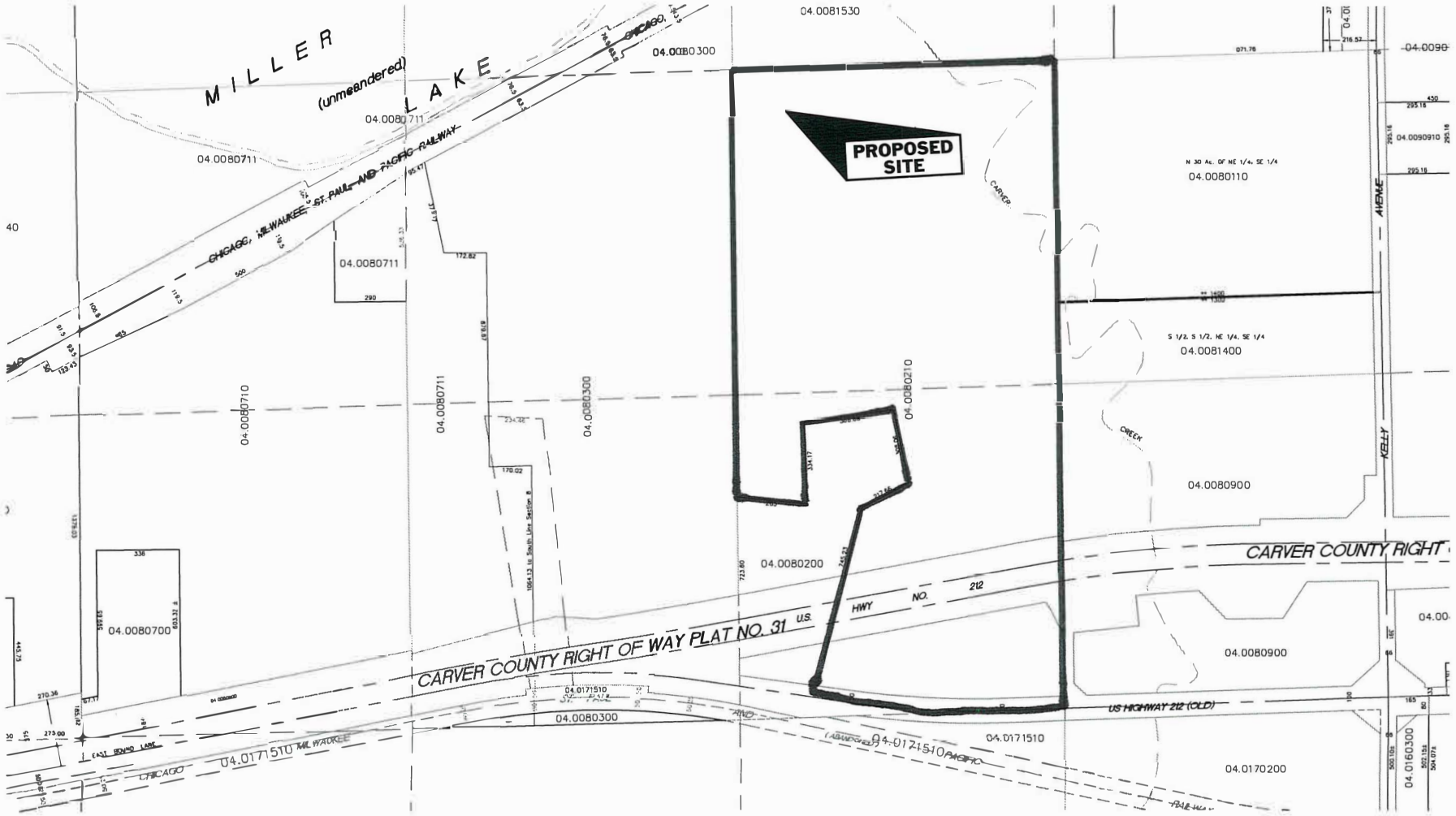
S 1/2 SEC. 8, T.115, R.24



Surveying & Mapping Office
Carver County Gov. Center
600 East Fourth Street
Chaska MN 55318

Oct 06, 2021

Richard and Amanda Gorra
8201 Stone Creek Drive
Chanhassen, MN 55317

October 29, 2021

Carver County Board of Adjustment
600 E 4th Street
Chaska, MN 55318

Dear Board Members,

We are submitting an application for a 40' feedlot setback variance to build our home at 8280 US Highway 212 in Cologne. We would like to explain our circumstances to the board.

Before we bought this land, we corresponded in person and via email, during March of 2018, with Emily Schmitz of the Land Management Dept of Carver County, Al Langesth, Feedlot Officer for Carver County and Kristen Larson, Water Resource Specialist for Carver County, in an attempt to understand all of the encumbrances and restrictions around building any homes or agricultural buildings on the land in question. We were provided with the aerial view map that we have attached, which lays out the feedlot and shoreland overlay restrictions that came with the property. After receiving this map, we felt that we would have a perfect building site for our home on the property. The most practical and buildable area on the property is at the highest elevation on the northern end of the property. The majority of the property would not be suitable for a home site due to the feedlot restriction, property line setbacks, low lying land on the eastern portion, woods and creek covering many acres and the proximity of the new highway 212 to the south.

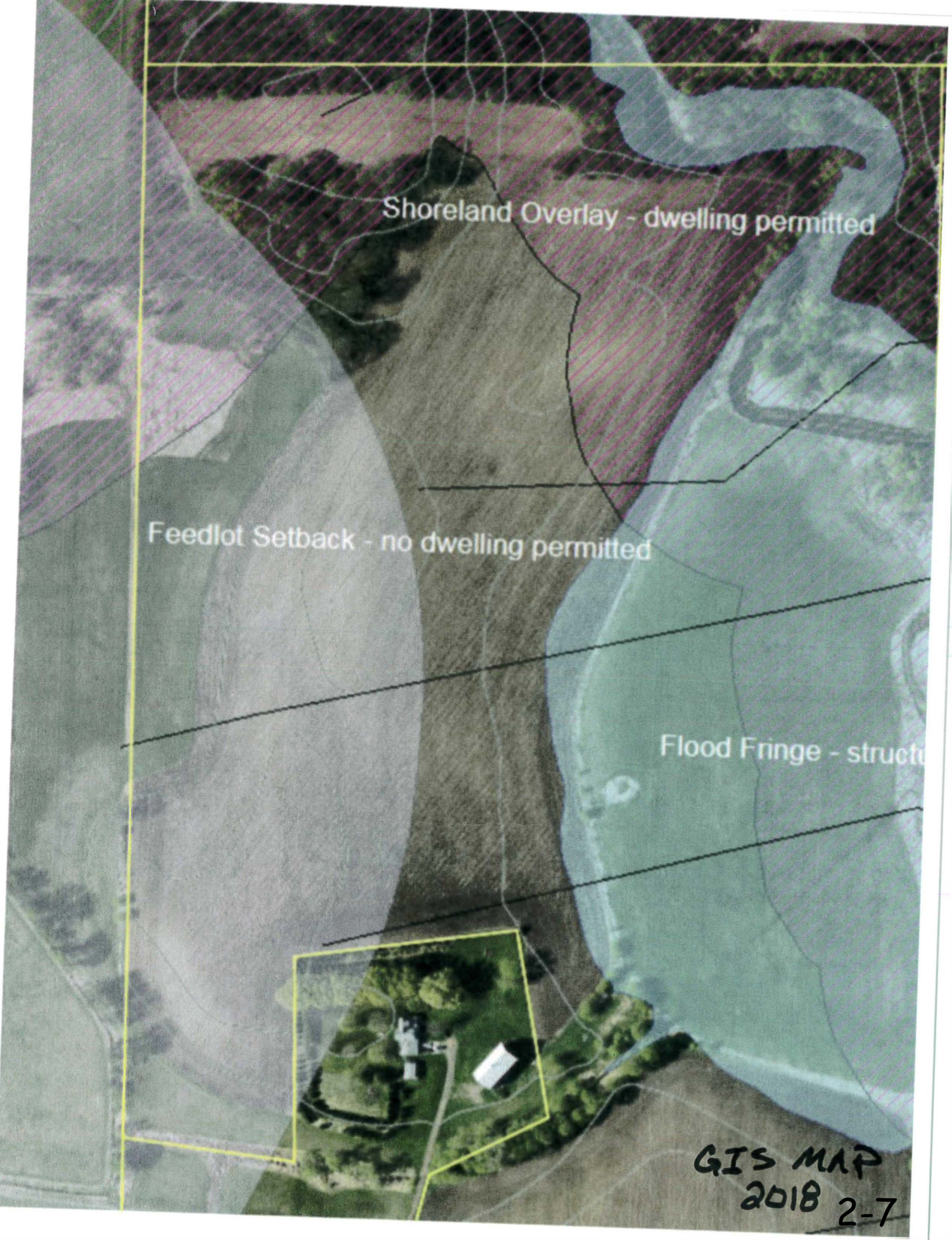
In reliance upon the information that Carver County provided us, we purchased the subject property, and we then proceeded with having an architect draft plans that would work on our building site. We met with many contractors and incurred great expense having portions of the driveway installed.

During the process of obtaining our building permit, we submitted our site plan and house plans for permit to Carver County. On October 21st, 2021, Matt Steele, Feedlot Officer, went to our property and also visited the neighbor's property to assess the feedlot parameters. We were then informed that the feedlot parameters had moved more than 250 feet and would now encroach on the area that we had planned to build our house by roughly 40'. Matt Steele and Jason Mielke informed us at a meeting on October 22nd that the County's interpretation of the feedlot zone had changed, because the person at Carver County who was determining the outlines of the feedlot had been determining them "incorrectly," based off of the County's new interpretation.

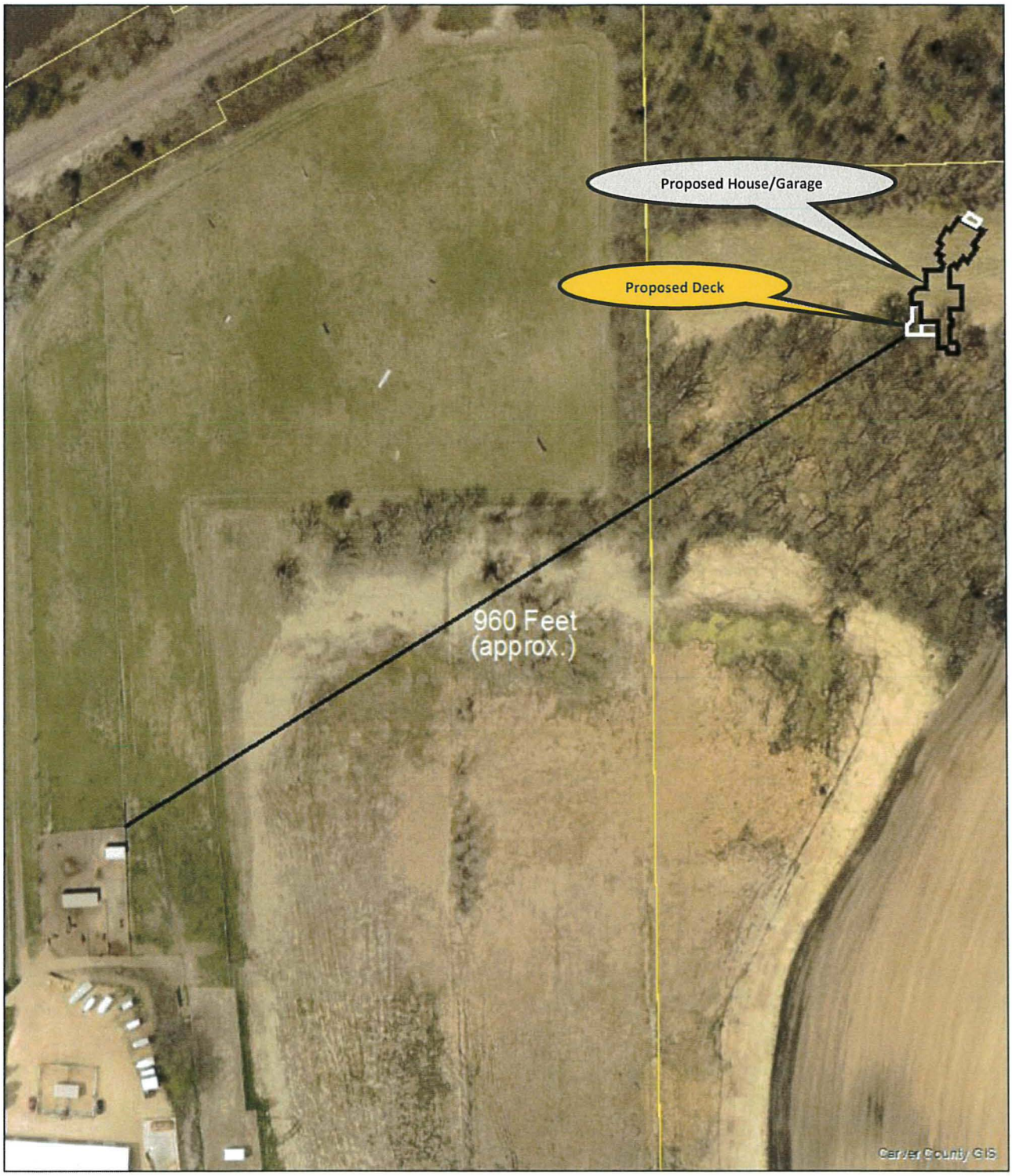
This new interpretation creates an undue hardship for us that we could not have foreseen. Because of the contours of the land, we don't believe it would be possible to move our home 40' to the east to remain outside of the new feedlot restriction and even if it were able to do so, we would incur prohibitive excavation costs. We hope that the board will grant us a variance given that we did our due diligence in asking the proper people and questions prior to even purchasing the land.

Please feel free to contact us with any questions and thank you in advance for your consideration.

Best,
Amanda and Richard Gorra
Rick - 612-245-6444, richardgorra01@gmail.com
Amanda – 612-558-0377, cvetichgorra@gmail.com


Shoreland Overlay - dwelling permitted
Feedlot Setback - no dwelling permitted
Flood Fringe - structu
GIS MAP
2018

RICHARD & AMANDA GORRA SITE MAP



CARVER COUNTY

Date: 11/18/2021

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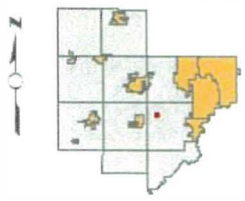

CARVER COUNTY

Date: 11/17/2021

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Return after township mtg 11-8

CARVER COUNTY

Township Presentation & Recommendation Form

PARCEL # 04 0080210	Permit # PZ20210058
Owner's Name: Richard GORRA	Owner's Mailing Address: 8201 Stone Creek drive
City: Chanhassen	Owner State: MN / Owner Zip: 55317
Applicant (if other than owner):	Site Address:

Type of Request: ○ CUP ○ IUP ○ Preliminary Plat ○ Final Plat ● Variance ○ Appeal

Description of Request:

feed lot setback variance

Date of County Public Hearing: 12-1-21 Date of Township Meeting: 11-8-21

Actions:

Township Action Taken:

- ● Recommends approval and use of the Township Road (if applicable) with the following comments:
- ○ Recommends denial for the following reasons:
- ○ No recommendation, but will comment on the request at the Planning Commission or Board of Adjustment hearing:

**Important: I understand that I must appear at the Town Board meeting to present my request and obtain their recommendation prior to appearing before the County Planning Commission or Board of Adjustment.

Richard M. Gorra — Date 11-8-2021
Signature of Applicant

Date 11-8-2021
Signature of Township Official Jeff Thompson

EXHIBIT "A" – LEGAL DESCRIPTION

PID NUMBER: 04-008-0210 File# A20210058

APPLICANT/OWNER: Richard M Gorra & Amanda Gorra

* *

The West Half of the Southeast Quarter of Section 8, Township 115 North, Range 24 West, Carver County, Minnesota, EXCEPTING THEREFROM the two following described tracts:

Tract 1: The right-of-way of the Hastings and Dakota Railway Company.

Tract 2: Commencing at the southwest corner of said Southeast Quarter of Section 8; thence on an assumed bearing of North 00 degrees 45 minutes 15 seconds West along the west line of said Southeast Quarter 191.93 feet to a point on the northerly right-of-way line of Minnesota Trunk Highway Number 212, said point being the point of beginning of the tract to be described; thence continuing North 00 degrees 45 minutes 15 seconds West along said west line 723.60 feet; thence South 84 degrees 06 minutes 56 seconds East 285.00 feet; thence North 02 degrees 09 minutes 00 seconds West 334.17 feet; thence North 81 degrees 34 minutes 50 seconds East 368.68 feet; thence South 11 degrees 34 minutes 17 seconds East 308.06 feet; thence South 62 degrees 07 minutes 31 seconds West 217.66 feet; thence South 13 degrees 54 minutes 50 seconds West 745.23 feet to said northerly right-of-way line of Minnesota Trunk Highway Number 212; thence North 81 degrees 57 minutes 36 seconds West along said right-of-way line 319.47 feet to the point of beginning.

DRAFTED BY: Carver County Land Management Department

COUNTY OF CARVER
PUBLIC SERVICES DIVISION
Department of Land Management

November 22, 2021

TO: Carver County Board of Adjustment & Benton Town Board

FROM: The Land Management Department

SUBJECT: Application for a Variance (Reduce setback to neighboring residences from a Commercial Kennel)

FILE #: PZ20210057
APPLICANT: Terry Kaiser
PROPERTY OWNER: Terry Kaiser
SITE ADDRESS: 9775 County Road 140, Cologne 55322
VARIANCE TYPE: Commercial Kennel Setback
PURSUANT TO: County Code Section 152.079 (C)(4)(a)
LEGAL DESCRIPTION: See attached Exhibit "A"
PARCEL #: 01-001-0800

BACKGROUND:

1. Ms. Kaiser owns an approximate 39.5-acre parcel located in the North Half (N½) of the Northeast Quarter (NE¼) of Section 1, Benton Township. The parcel is improved with an existing house, barn, several outbuildings and was granted Conditional Use Permit (PZ20080022) for a public equestrian facility. The property is located in the Agricultural Zoning District and the CCWMO (Carver Creek watershed).

2. The applicant is requesting a variance which would allow her to apply for a Conditional Use Permit (CUP) to operate a commercial kennel. The proposed commercial kennel operation would be located within a ½-mile from 10 or more homes as allowed by the Zoning Code; therefore, a variance has been requested.

LEGAL BACKGROUND:

§ 152.079 CONDITIONAL USES-ACTIVITIES CENTERED AROUND A HOME OR A HOME/FARM COMBINATION.

(C) Activities.
- (4) Commercial kennels under the following conditions:
  - (a) The facility is 1,000 feet from any residence except that of the owner and a minimum of ½-mile from ten or more homes existing prior to application for a permit under this provision;
  - (b) An appropriate manure and waste treatment system shall be provided for the kennel operation;
  - (c) Confinement and shelter is provided through the use of fences and structures.

STAFF ANALYSIS:

1. The County Code requires the nearest corner of the operational area for a commercial kennel be placed a minimum of ½-mile from 10 or more homes existing prior to application for a permit. Approval of the variance would allow Ms. Kaiser to apply for a commercial kennel CUP request within a ½-mile of 12 neighboring homes existing prior to the application.

2. Ms. Kaiser currently resides on the property and operates a public boarding equestrian facility from the property which was approved as a CUP in 2008. The proposed commercial kennel operational area would encompass an area that is currently being utilized as part of the equine boarding facility. Ms. Kaiser plans to convert three existing horse paddock areas to outdoor dog runs and has plans to construct the dog boarding facility (i.e. kennels, grooming, office, etc.) on the location that currently is being utilized as an outdoor riding arena. Parking would continue to be located in the existing configuration which is shared with the equine operation. Ms. Kaiser notes that the proposed operational area would be screening form Co Rd 140 and neighboring views by a privacy fence, trees and both existing and proposed buildings.

3. The applicant's letter, dated October 29, 2021, described the unique situation affecting this property and provides some details to how the property would be utilized. According to the applicant's analysis there is a conforming location for the kennel operation on the property, but it would be located on or west of the existing driveway. The letter notes that the proposed location "is more conveniently located at my barn" which is an existing structure. The resulting location has 12 neighboring homes within a ½-mile radius, three more than the Code allows. In order for Ms. Kaiser to apply for the conditional use permit, an approval of a variance is required.

4. The applicant currently owns an adjacent property that is proposed to be combined to form an approximately 50-acre parcel. The existing property was created via a warranty deed in 1986 and contains the original homestead with house and outbuildings that were built in the 1890's. The proposed kennel operation area has been chosen due to it being identified as the furthest location from the closest adjacent neighboring residences. Ms. Kaiser has stated in her narrative letter that she spoke to 9 out of the 12 neighbors which have indicated they support the proposed variance request. She is planning to speak to remaining neighbors prior to the December 1, 2021, Board of Adjustment public hearing.

5. The granting of the variance would not conflict with the intent of the Comprehensive Plan. In the Comprehensive Plan, the plan allows for limited non-agricultural / non-residential uses in the rural area. County policy LU-19 allows for small scale business activities centered around a residential or residential/farmstead use of a property. Operating a small-scale business from a parcel with a residence is a listed use in the Comprehensive Plan. Therefore, the request does not appear to be in conflict with the intent of the Comprehensive Plan.

6. The granting of the variance is in harmony with the general purpose and intent of the official control. The official control in this request is the required separation distance of a ½-mile from 10 or more residential homes and the business activity. The intent of these regulations is to lessen the potential for negative impacts from activities or sounds associated with a business in an area developed as residential. The subject parcel is separated from its closest neighbors by 1,000+ feet. In addition, the applicant has stated that any parking or outdoor dog runs associated with the business would be shielded from the view of the neighbors. Utilizing a rural parcel as a commercial kennel facility with a small equestrian boarding facility appears to be a reasonable land use. Although this request does not meet the specific standards, it appears to meet the intent of the regulations.

7. The neighborhood is comprised of agricultural uses, a commercial use, and several residences. This request would not cause a substantial change in the character of the neighborhood, nor would it have a negative impact on government services.

8. The granting of the variance would not materially or adversely affect the health or safety of persons residing or working in the area adjacent to the property of the applicant, and will not be materially detrimental to the public welfare or injurious to property or improvements in the area adjacent to the property of the applicant.

9. If the variance is approved, the applicant would apply to the Planning Commission for a Conditional Use Permit (CUP) for the establishment of a new Commercial Kennel pursuant to the Zoning Code. The site plan of the kennel operation would be reviewed by the Planning Commission as part of a CUP request. The conditions of the CUP would address the specific requirements for the project. If the CUP is denied, the variance would be considered null & void.

10. On November 12, 2021, this application was reviewed by Joe Enfield, Senior Environmentalist for Carver County. Mr. Enfield stated that there are no SSTS concerns on the subject parcel regarding the variance request.

11. The Benton Town Board has reviewed the request and recommended approval at their November 11, 2021, Town Board meeting. The Town Board did not ask for any conditions to be attached to their recommendation.

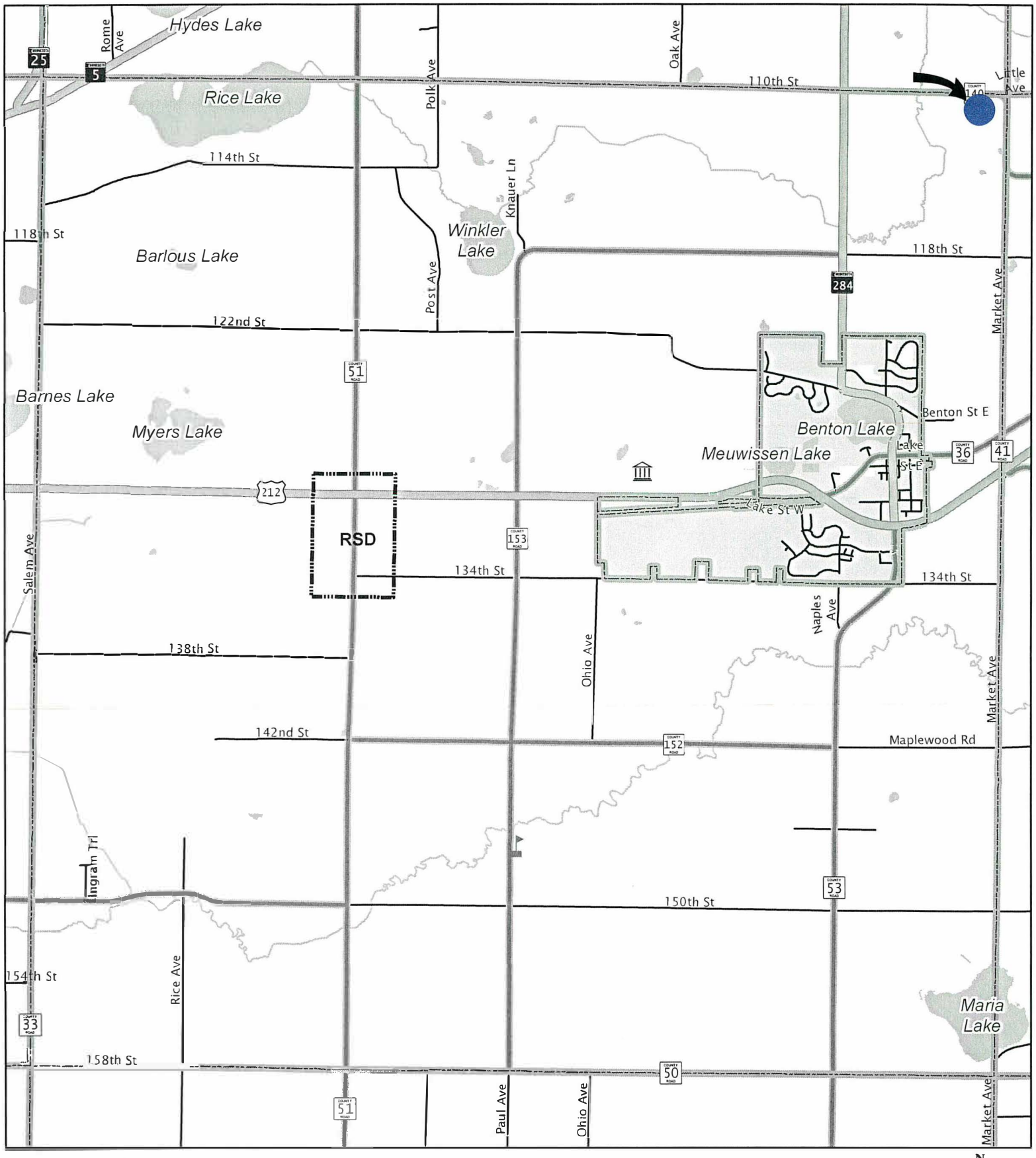
BOARD CONSIDERATION:

If the Board of Adjustment determines that a practical difficulty has been identified, and that approving the variance would serve in the interest of justice, the following condition should be attached to the approved variance:

1. Prior to the commencement of the proposed Commercial Kennel business operation, the permittee shall obtain the required Conditional Use Permit and applicable building permit(s). All work shall be done in accordance with the submitted plan. The business activity shall meet all other requirements of the Carver County Zoning Code and other Carver County Code of Ordinances, if applicable. If the Conditional Use Permit request were to be denied by the County Board, this variance request shall be considered null and void.

2. If the future CUP application is approved, the approved operational area shall not be located closer than a ½-mile from more than 12 neighboring residences (i.e. homes).

BENTON TOWNSHIP



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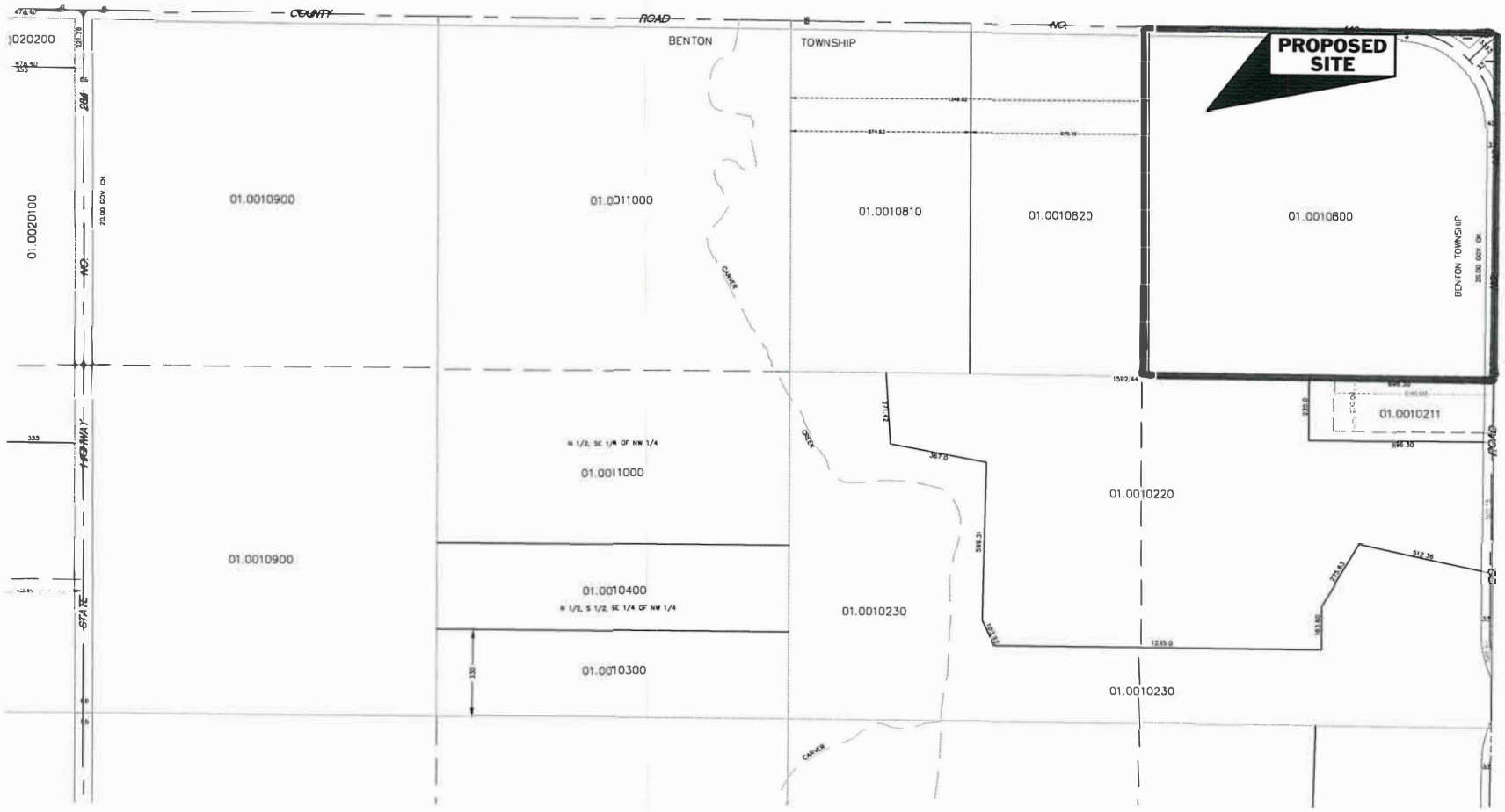
N 1/2 SEC. 1, T.115, R.25



Surveying & Mapping Office
Carver County Gov. Center
600 East Fourth Street
Chaska MN 55318

Oct 06, 2021

10/24/21

Dear Planning Commission/Board of adjustment (Variance),

I would like to operate a dog boarding facility on my 50 acre farm Located at 9975 CO. Rd. 140, Cologne, Mn. 55322 (Benton township) PID# 01.0010800, I have filled out the CUP application to the best of my Knowledge and am including the requested details in this letter. My meeting with Terry Bruetehoff, Benton township clerk, is scheduled for 11/15/21.

There is one Road Hwy 140, which is adjacent to my property. It runs along the North + East sides. My driveway, which is class 5, is located on the north side. The existing well, septic system + Buildings are Shown on attached ariels and drawings. The barn is used for horse stalls, tack room, hay storage and tools. The Paddocks and lean tos are for horse use. The tracter shed houses equipment + tools. The garage is for the house and vehicle. The house is my residence. The 40'x60' shed to the south is used for equipment + hay storage.

Water drains via a slope to the wetland on the east side and then drains North under Hwy 140. When we started the horse business 15 years ago, we used fabric logs + Silt Fences for erosion control. The grass has grown in now and the area is in good condition. If the parking area needs work, we will hire an erosion control group to help with any potential problem. The fencing for screening is indicated on pictures. The building itself will screen from Hwy 140 to the west and North. The trees on North will screen the rest of the North. The Privacy Fence on the on the East will screen the east, and Barn + Privacy fence will screen the South.

This business will be a family run operation at 1st with myself and my 2 adult Children. We plan to start with 28 Kennels. If I expand to approaching full capasity, I will hire employees accordingly. Full capasity would be 68 units. I plan to Build to code a 60'x100' building which I will equip with proper ventilation, insulation, climate control, adequate windows/doors, lighting, restroom, a grooming station, drainage for cleaning, etc. I am working with Dan Morris from Morris builders out of Glenco, Mn. I have spoken with Chip Hentges about starting with a holding tank to be pumped and later having drainage going into a septic mound if needed. I have

had Andy Kleindl come out to my farm and he inspected my septic mound and he said the mound is in compliance and this info has been recorded with the county. Chip has inspected 2 alternate septic mound sites that have been approved, one just to the east of present mound and one just to the west of present mound. I contacted Randys garbage disposal about any solid waste removal that comes from Kennel.

My proposed hours of operation dropoff/pickup will be M-F 7:30-10:30am and 3:00-6:30pm, Sat. 7:30-10:30am and 3:00-4:30pm, Sun. 7:30-8:30am and 5:00-6:30pm. The trips generated would mostly be for dog owners dropping off and picking up during those hours I mentioned. Some people will bring dogs for only day care while they are at work so they will come 2 times a day whereas some dog owners leaving the dog a week for overnights would only come 2 times that whole week. My one son would live on property with me so He + I would not be coming + going much. The number of trips all depends on how long we stay at 28 dogs and how many of these dogs will be day care or prolonged stays for overnight weeks/month stays. The vehicles for the business would be my van and the 2 cars for my children. If the business grows then the other workers I hire would make 2 trips per day when they work.

There are 30+ spots for parking. The equipment I use now is stored in my tracter shed and my 40'x60' shed. Any additional equipment needed will be in the new 60'x100' building. The Signage being used is a 3'x3' hand made wooden sign which will be 3' to west of the Driveway.

My farm was approved for a horse boarding cup by carver county and Benton Township 15 years ago and has been in operation since then. It is a very small operation and I wanted to start this dog Kennel as I see more influx of people to this area. There are more dogs that need boarding than horses.

I'm working with Carver Land Management group and I found out that I need to meet 2 requirements. I meet the 1st one of being 1000 feet from any residence. The other requirement is that there not be more than 9 residences within ½ mile of the dog Kennel. If I put the dog Kennel in my driveway I would meet that requirement but I chose to put the operation where it is more conveniently located by my barn. That makes me at 3 residents over the 9 limit. That is why I'm applying for the ½ mile varience to add one more and make it 12 acceptable residences instead of the 9.

I have spoken with 9 out of the 12 families within the ½ mile radius and all have given me a thumbs up that they are fine with it. I plan to meet with the other 4 families as soon as possible and I will send in the results. I just wanted to get this letter in before the variance + CUP meeting deadlines. The list below is of the 12 Residence owners that I have spoken with already + the 3 I have left to visit. (3)

Aaron + Amy Burkhart OK
John Bitzer OK
Bob Riebein OK
John Robling OK
Donald + Stephanie Adelman OK
Buddy Biskins OK
Bret Bauman OK
William + Rose Mossberg Nowak OK
Justin + Olesya Gache OK
Robert Duwalter ____

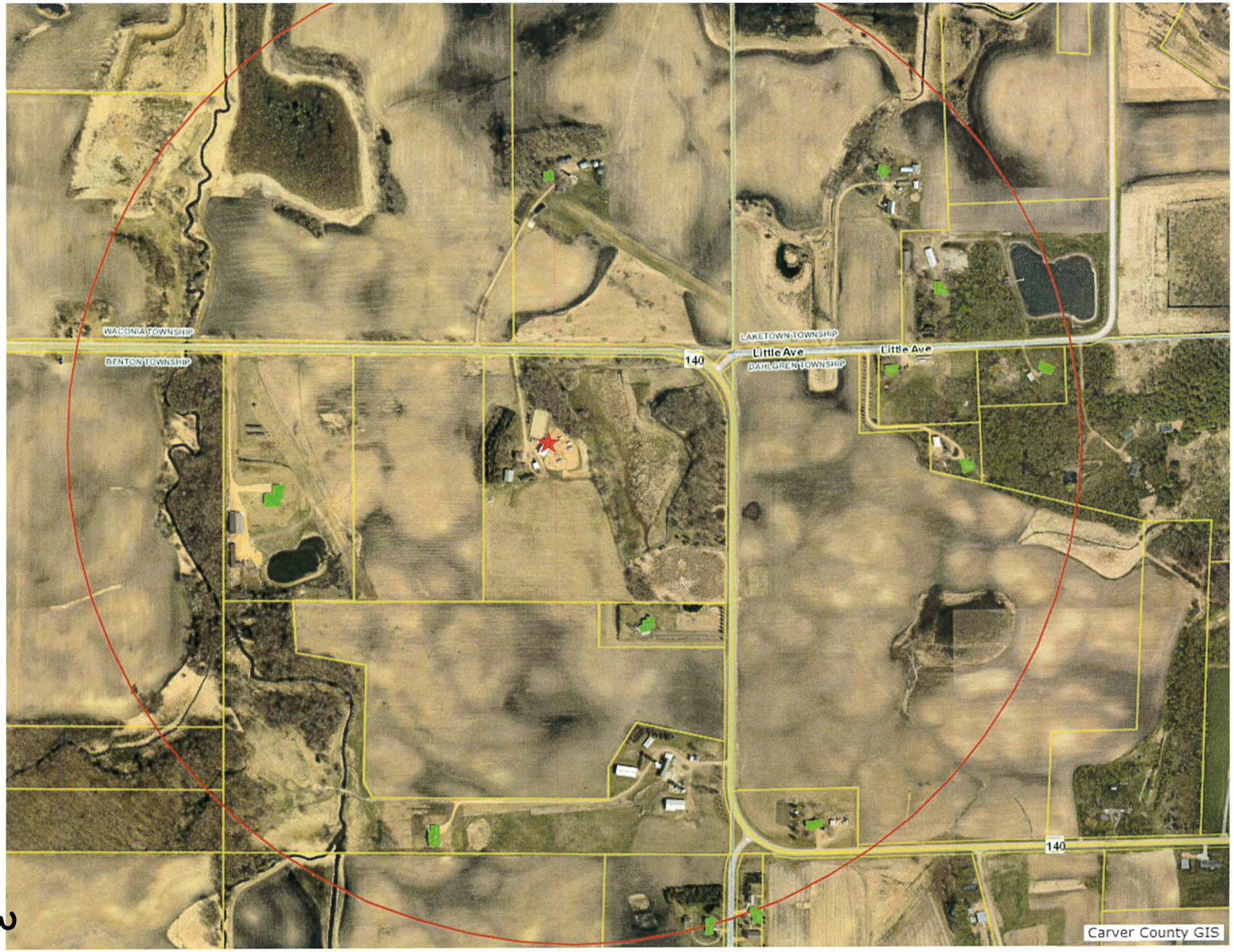
I have not discussed with them yet but I will and I will send results.

I have been working with Christina, Mary + Jason at Carver Land Management. They have been giving me guidance and trying to help me navigate all that I have to do to be in compliance. Please let me know what else I need to do. I began research on doing this dog boarding with my family about 2 years ago. I will work to make this facility a good experience for the dogs, dog owners + workers and one that Carver planning commission would be pleased to have in the county.

Thank you for considering my project.

Terry Kaiser
(612) 328-5024

T. Kaiser: 12 Homes within ½ mile radius

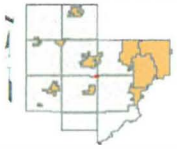


AREA OF OPERATION

CARVER COUNTY

Date: 11/2/2021
This map was created using Carver County's Geographic Information Systems (GIS). It is a compilation of information and data from various City, County, State, and Federal offices. This map is not a surveyed or legally recorded map and is intended to be used as a reference. Carver County is not responsible for any inaccuracies contained herein.

0 25 50 100 150 200 ft



CARVER COUNTY

Township Presentation & Recommendation Form

PARCEL # 01.0010800 **Permit #** PZ2021057

Owner's Name: Terry Kaiser

Owner's Mailing Address: 9775 CO Rd. 140

City: Cologne

Owner State: MN

Owner Zip: 55322

~~Applicant (if other~~ than owner):

Site Address: 9775 CO Rd. 140, Cologne, MN 55322

Type of Request: ○ CUP ○ IUP ○ Preliminary Plat ○ Final Plat ✓ Variance ○ Appeal

Description of Request:

Dog boarding facility on my farm

Date of County Public Hearing: 12/1/21 **Date of Township Meeting:** 11/11/21

Actions:

Township Action Taken:

● Recommends approval and use of the Township Road (if applicable) with the following comments:

○ Recommends denial for the following reasons:

○ No recommendation, but will comment on the request at the Planning Commission or Board of Adjustment hearing:

**Important: I understand that I must appear at the Town Board meeting to present my request and obtain their recommendation prior to appearing before the County Planning Commission or Board of Adjustment.

Terry Kaiser — Date 11-11-21

Signature of Applicant

Gary Widmer — Date 11-11-21

Signature of Township Official

EXHIBIT "A" – LEGAL DESCRIPTION

PID NUMBER: 01-001-0800 **File# PZ-20210057**

APPLICANT/OWNER: Terry B Kaiser

* *

That part of the North Half of the Northeast Quarter (N1/2 of NE1/4) of Section 1, Township 115, Range 25, lying Easterly of the Westerly 1,349.82 feet of said North Half, Carver County, Minnesota.

DRAFTED BY: Carver County Land Management Department

COUNTY OF CARVER
PUBLIC SERVICES DIVISION
Department of Land Management

November 22, 2021

TO: Carver County Board of Adjustment & San Francisco Town Board

FROM: The Land Management Department

SUBJECT: Application for a Variance (Residential Cluster Accessory Structure Standards)

FILE #: PZ20210059
APPLICANTS: David E Wecker & Margaret S Wecker
PROPERTY OWNER: David E Wecker Revocable Trust
SITE ADDRESS: 17495 Oak Hills Lane, Carver, MN 55315
VARIANCE TYPE: Residential Cluster Accessory Structure Size, Sq. Ft. & Height
PURSUANT TO: County Code Section 152.178 (C)
LEGAL DESCRIPTION: See attached Exhibit "A"
PARCEL #: 08-855-0030

BACKGROUND:

1. David and Margaret Wecker recently purchased Lot 2, Block 2 of San Francisco Acres (an approximate 2.53-acre parcel) located in the Northwest Quarter (NW¼) of the Northeast Quarter (NE¼) of Section 17, San Francisco Township. The relatively flat and partially wooded lot is currently vacant. A new house building permit application has been submitted to Carver County for review and approval but is pending. The property is located in the Residential Cluster Zoning District and the CCWMO (Bevens Creek watershed).

2. The applicants have submitted plans for building permit review for a single-family home with an approximate 804 square-foot attached garage and a approximate 3,088 square-foot future accessory structure (detached shed). The total height of the accessory structure would be approximately 20 feet. The Weckers are requesting variances to increase the total allowable personal storage square footage (from 2,000 to 3,892 square feet), maximum allowable accessory structure size (from 2,000 to 3,088 square feet). Also, the submitted plans show an accessory structure height of 20 feet; therefore, there is a variance request to increase the maximum structure height (from 17 feet to approximately 20 feet).

LEGAL BACKGROUND:

RESIDENTIAL CLUSTER DISTRICT

§ 152.175 PURPOSES OF THE DISTRICT. The implementation of the provisions of a previous comprehensive plan and zoning ordinance resulted in the rezoning of several parcels of land to the Residential Cluster District. The current plan and this chapter no longer provide for rezoning to this District. The provisions in these sections are intended to keep in place the ongoing provisions of the previous District regulations. (Ord. 47, passed 7-23-02)

§ 152.176 GENERAL PROVISIONS. (A) Application. These provisions apply to those areas that were rezoned to the Residential Cluster District prior to January 1, 2000. (B) Rezoning. No additional land shall be rezoned to this District. (C) Conditional use permits. All provisions of conditional use permits issued as a result of previous rezoning to the Residential Cluster District shall remain in effect. (D) Preliminary plat, final plat. All approvals, conditions, designation of buildable areas, approval of building lots occurring in the preliminary/final platting process under the previous District regulations shall remain in effect. (Ord. 47, passed 7-23-02)

§ 152.177 AGRICULTURAL AREA REGULATIONS. The following regulations apply to those areas designated as agricultural area in a Residential Cluster District approved under the previous regulations: (A) Permitted uses. (1) Single-family residences as provided in the conditional use permit and stipulated in the covenants; (2) Agriculture as provided in the "A" District. (B) Conditional and interim uses. The following conditional and interim use permits as provided in the "A" District are permitted conditional or interim use permits in the agricultural area provided they are not prohibited by the conditional use permit that was issued for the residential cluster: §§ 152.050, 152.077, 152.079, 152.082. No other conditional or interim use permits are permitted. (C) Accessory uses. Uses accessory to agriculture including roadside stand or to any conditional use permit provided for above. If a single-family home is permitted in the area the following as provided in §§ 152.073 and 152.074. (Ord. 47, passed 7-23-02)

§ 152.178 RESIDENTIAL AREA REGULATIONS. The following regulations apply to those areas designated as residential area in a Residential Cluster District approved under the previous regulations:

(A) Permitted uses: Single-family home.

(B) Conditional uses: None.

(C) Accessory uses:

(1) Accessory storage structures and garages. These structures shall be used only by the occupants of the residence. The structures may be used for: Storage of household goods, recreational vehicles and equipment, personal vehicles, maintenance and repair of personal vehicles and equipment, a shop or similar activity for hobby (no products or services for sale or pay or similar remuneration), keeping of animals and appurtenant equipment and supplies, and as otherwise regulated by this chapter. A total square footage of 2,000 square feet is permitted in a combination of a garage and one accessory structure. No single structure shall exceed 1,250 square feet in area. The maximum sidewall height shall be 12 feet and the total height from the average grade shall not exceed 17 feet. The roof and exterior shall be of the same or similar materials as the home.

(2) The following accessory uses as provided in § 152.073(C) through (H), (J), (K), (L), (O), (P), (Q), § 152.074(B)(3), (4), (5), and (9)(b).

(D) Keeping of animals. The keeping of animals, with the exception of dogs, cats and similar animals kept as household pets, is prohibited on any lot in the residential area.

(Ord. 47, passed 7-23-02)

BOARD OF ADJUSTMENT

§ 152.210 CREATION.

The Board of Adjustment is hereby established and invested with the authority as is hereinafter provided and as provided by M.S. §§ 394.21 through 394.37, as they may be amended from time to time.

(Ord. 47, passed 7-23-02)

§ 152.215 VARIANCES.

(D) *Grounds for variance.* The Board of Adjustment shall have the exclusive power to order the issuance of variances from the requirements of any official control including restrictions placed on nonconformities. Variances shall be granted in accordance with M.S. Chapter 394, as it may be amended from time to time, in cases where the applicant establishes that there is a practical difficulty in the way of carrying out the strict letter of any official control.

(1) A variance shall only be permitted when the following can be found as fact:

(a) The variance is in harmony with the general purpose and intent of the official control.

(b) The variance is consistent with the intent of the comprehensive plan.

(2) In addition, a variance may be granted when the applicant establishes a practical difficulty in complying with the official control. A practical difficulty is established when the following items are found as fact:

(a) The property owner proposes to use the property in a reasonable manner not permitted by an official control.

(b) The plight of the landowner is due to circumstances unique to the property, not created by the landowner.

(c) The variance will not alter the essential character of the locality.

(d) The practical difficulty includes more than economic considerations alone.

(F) Other provisions related to variances.

(1) No variance may be granted that would allow any use that is not allowed in the zoning district in which the subject property is located.

(2) Inadequate access to direct sunlight for solar energy systems is considered a practical difficulty.

(3) Variances shall be granted for earth shelter construction as defined in MN State Statute section 216C.06, subdivision 14, when in harmony with the official controls.

(4) The board of adjustment may impose conditions on the granting of any variance pursuant to subsection 152.216 (B).

(5) Granting of the variance shall not have the effect of violating a state or federal rule or law.

(6) *Floodplain standards.* A variance issued to property within the Floodplain Overlay District must meet the requirements set forth in §§ 152.143 through 152.156.

(7) Shoreland Overlay District. A variance issued to property within the Shoreland Overlay District must meet the requirements set forth in §§ 152.108 and 152.135.

(8) That the granting of the variance will not materially, adversely affect the health or safety of persons residing or working in the area adjacent to the property of the applicant and will not be materially detrimental to the public welfare or injurious to property or improvements in the area adjacent to the property of the applicant.

(Ord. 47, passed 7-23-02; Am. Ord. 70-2010, passed 1-25-11; Am. Ord. 80-2015, passed 6-16-15; Am. Ord. 88-2018, passed 11-20-18)

§ 152.216 DECISION.

(A) *Order adopted.* The Board of Adjustment shall make its decision by the adoption of an order either approving or denying the variance or appeal. The Board of Adjustment shall adopt findings of fact supporting its order. The Board of Adjustment shall make its decision in compliance with M.S. § 15.99.

(B) *Conditions.* The board of adjustment may impose conditions on the granting of any variance. Conditions are to be directly related to the variance, bear a rough proportionality to the impact created by the variance, and shall be what the board of adjustment considers reasonable and necessary to protect the public health, safety and welfare.

(C) *Floodplain standards.* For floodplain standards, see the Floodplain Overlay District regulations in §§ 152.143 through 152.156.

(D) *Final notice to applicant.* The Department shall send written notice of the Board of Adjustment's action to the applicant.

(E) *File with Commissioner of Natural Resources.* A copy of any order issued by the Board of Adjustment for property within the Floodplain or Shoreland District shall be filed with the Commissioner of Natural Resources within ten days of issuance. When a variance is approved after the Department of Natural Resources has formally recommended denial in the hearing record, the notification of the approved variance shall include the Board of Adjustment's summary of the public record/testimony and the findings of facts and conclusions which supported the issuance of the variance.

(F) *Board decision final.* All decisions by the Board of Adjustment in granting variances or in hearing appeals from any administrative order, requirement, decision or determination shall be final.

(G) *Appeal to District Court.* Any aggrieved person or persons, or any department, board or commission of the jurisdiction, or of the state shall have the right to appeal the decision to the Carver County District Court on questions of law and fact. The appeal shall be made within 30 days after receipt by the applicant of notice of the decision.

(Ord. 47, passed 7-23-02; Am. Ord. 70-2010, passed 1-25-11; Am. Ord. 88-2018, passed 11-20-18)

STAFF ANALYSIS:

1. From 1987 to 1988 Carver County conducted a land use study to further refine residential density policies and to better define the appropriate commercial, institutional, and recreational uses for rural areas. The study indicated that a substantial portion of areas "not suitable for agricultural production would be suitable for limited residential

development. Development in these areas would of necessity be clustered" and "that such developments, with proper review and control, can occur in an environmentally sound manner." In 1989, the new Land Use Plan was adopted, providing for an additional residential density option, "Residential Cluster."

2. In September 1989 the County Board amended the Zoning Code to include the Residential Cluster District. The purposes of the District are:
   - Preserve Long Term Agricultural land
   - Provide for additional residential opportunities in high amenity areas
   - Preserve natural amenities
   - Provide a flexible development process in order to best use and conserve resources
   - Provide a setting with which limited residential development & commercial agriculture can co-exist.

   The attached aerial shows the location of the subject property, circled in red, and other Residential Cluster zoned properties.

   However, in January 2000, in response to concerns about "the use of Ag land in the lots" and apparently due to a 11-lot residential subdivision approved in late 1999, the San Francisco Township Board passed a motion to "drop the Residential Cluster District and return to the Wooded Lot amenity option for Residential Density." The County Board promptly passed an interim ordinance prohibiting the creation of additional Residential Cluster Districts throughout the entire county.

3. Although the County Board eliminated the creation of new lots within the Residential Cluster District, there are still areas, such as the subject property, currently zoned Residential Cluster. The current County Code states that the District standards "apply to those areas that were rezoned to the Residential Cluster District prior to January 1, 2000." The subject property was zoned Residential Cluster in 1999 through Planning Commission Resolution #99-7. Further, the current County Code states that "All approvals, conditions, designation of buildable areas, approval of building lots occurring in the preliminary/final platting process under the previous District regulations shall remain in effect." (§ 152.17(D)). It is important to note that the recent Code changes to allow for increased accessory structure square footage in the Agricultural District do not apply to this property.

4. The applicant's letter dated October 22, 2021, states that if the property was not within the Residential Cluster District, then the variance request would not be necessary. The applicant's letter does not identify a unique situation related to the physical conditions of the property. The applicant submitted an amended Covenants and Restrictions document dated September 28, 2020, that supersedes the Protective Covenants and Restrictions previously filed for the San Francisco Acres plat in which the subject property is located. The amended document releases the property from previous restrictions, then lists restrictions on the property "in addition to other requirements as so stated in Carver County Zoning Code Chapter 152." (The standards for accessory structures and personal storage for property zoned Residential Cluster are included in Chapter 152.) The applicant also submitted UMN Extension Fact Sheets on residential cluster development, which the County Board has not adopted as part of County Code.

5. The plight of the landowner is due to circumstances created by the landowner. On October 6, 2020, the Weckers purchased the property. The existing property was platted as land within the Residential Cluster Zoning District with specific restrictions on the size of the structures allowed to be located within the plat. It was only through the rezoning the property that the lot was allowed to be created. The applicants had conversations with County staff, with inquiries about the allowable size of accessory structures on prospective properties, prior to the purchase of this parcel. Staff also informed the applicants that any proposed accessory structure size exceeding the standards pursuant to the Zoning Code would require approval of a variance which is not guaranteed.

6. The variance is not consistent with one of the purposes of the Residential Cluster District to "provide a setting within which limited residential development & commercial agriculture can co-exist." The applicant proposes residential accessory storage space which is almost 2½ times the size of the allowable square footage for an accessory structure.

7. The applicant is proposing to use the property in an unreasonable manner not permitted by an official control. The Residential Cluster District was created to provide the means to preserve Long Term Agricultural land and provide limited residential opportunities. On a daily basis, staff receives inquiries about lots zoned in the Agriculture Zoned District that are on the market and where the applicant's proposed structures would be a permitted use and allowed without a variance.

8. If granted, the variance would alter the essential character of the locality since the standards that limit the size of accessory structures would still be in place. An adjacent Residential Cluster-zoned lot was recently sold and it would be reasonable to assume that a building permit may be submitted in the short term future. The applicant's shed would be visually incompatible to future adjacent homes with conforming accessory structures. Also, issuing the requested variances would set a precedence for other Residential Cluster properties to seek enlarged accessory structures through the variance process.

9. The San Francisco Town Board reviewed and recommended approval of the request during their November 15, 2021, Town Board meeting without the addition of further conditions.

10. On November 18, 2021, the Land Management Department received a phone call from an owner of a neighboring parcel, stating "I want to comment on the variance appeal for the lot next to us. And I just want to say that when we got our shed, you would not give us a variance. We had to have a 25' by 40' shed and there was no discussion, no variance given to us. So if you're going to give it to somebody else, why even have zoning."

BOARD CONSIDERATION:

If the Board of Adjustment determines that a practical difficulty has been identified, and that approving the variances would serve in the interest of justice, the following condition should be attached to the approved variance:

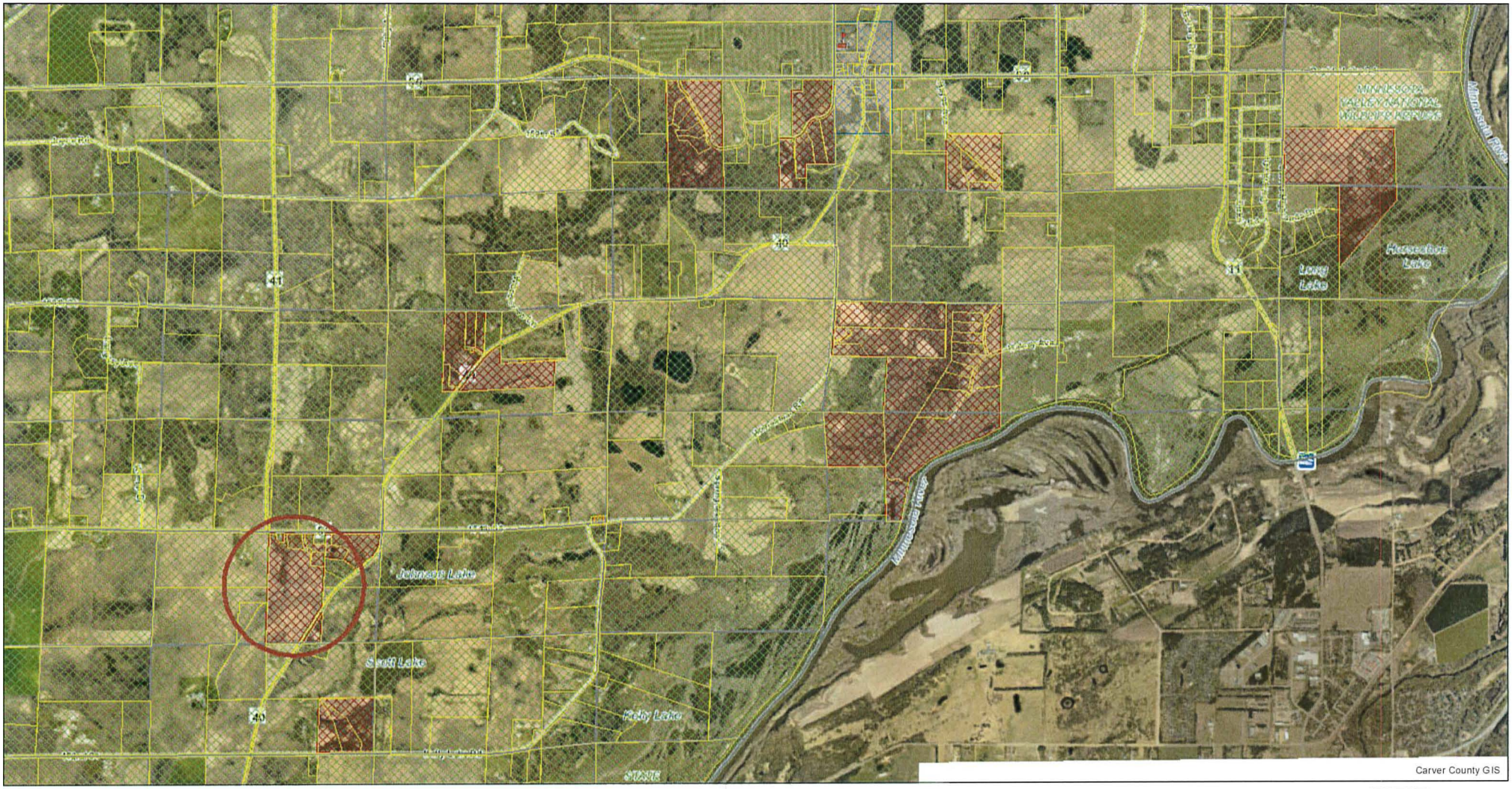
1. The permittee shall obtain the appropriate building permit(s) prior to the construction of the proposed structure. All work shall be done in accordance with the submitted plan and shall comply with the approved variances and plans.

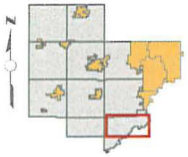
2. No building expansions shall be permitted without obtaining all necessary building permits and/or variance.

OR

If the Board of Adjustment determines that a practical difficulty has not been identified, and that approving the variances would not serve in the interest of justice, the Board of Adjustment would need to identify reasons to support the denial.

RESIDENTIAL CLUSTER DISTRICTS





Date: 11/10/2021
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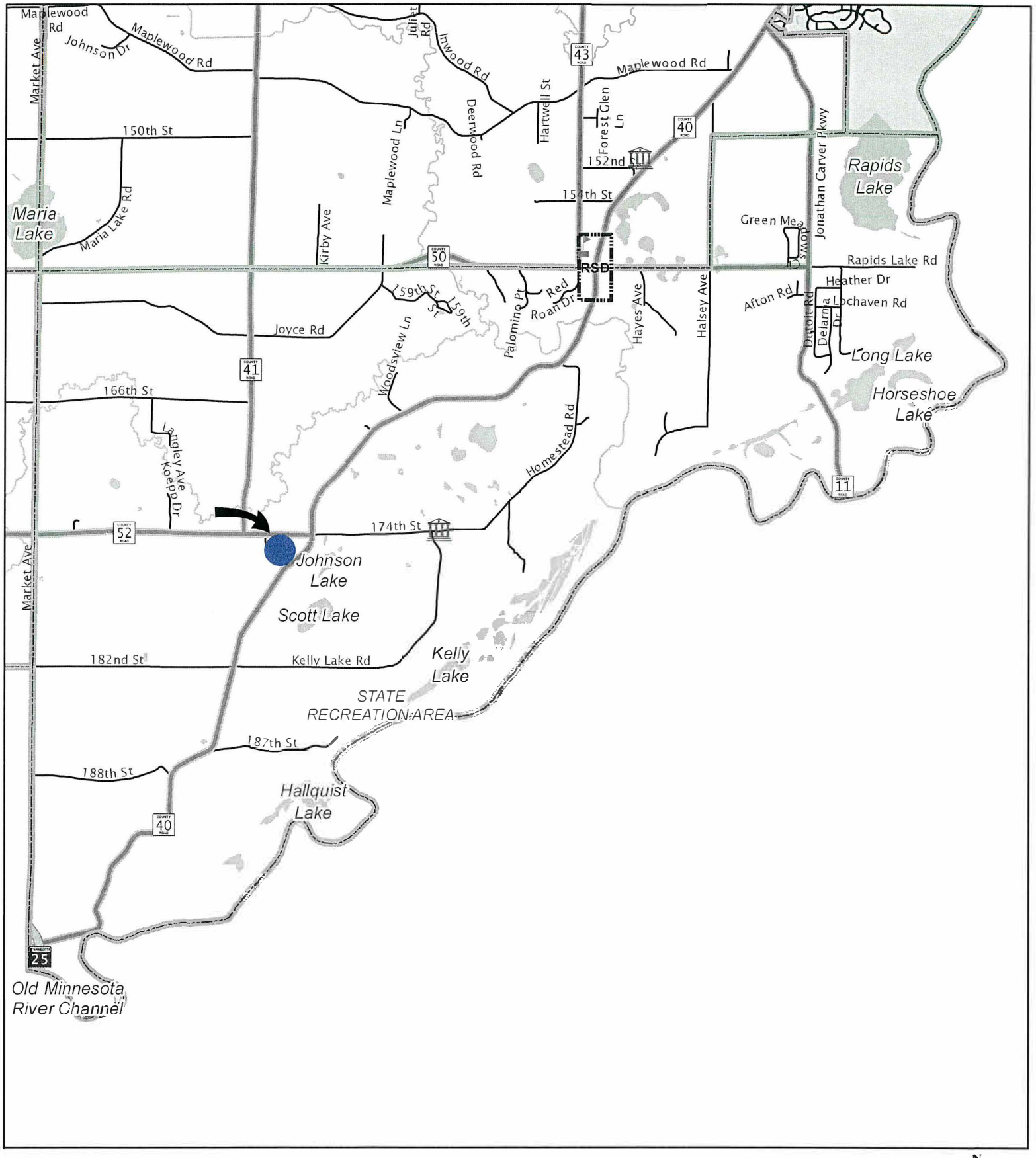
CARVER COUNTY

0 800 1,600 3,200 4,800 6,400 ft

SAN FRANCISCO TOWNSHIP



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0 1 2 Miles

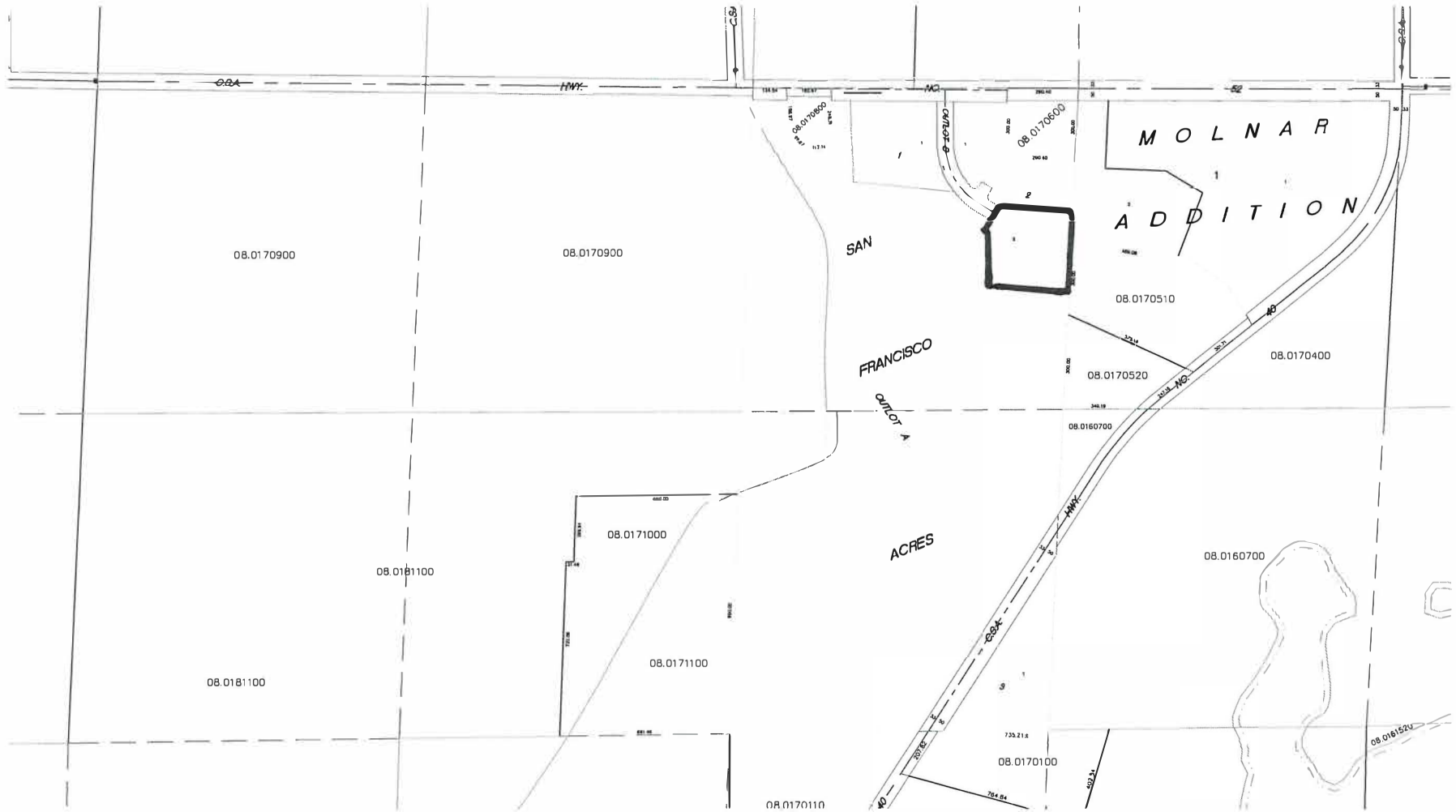
N W E S

4-7

Map Created by Carver County GIS

THIS IS NOT A LEGALLY RECORDED PLAT. THIS MAP IS A COMPILATION OF RECORDS AS THEY APPEAR IN THE CARVER COUNTY OFFICES AND OTHER SOURCES. THIS MAP IS ONLY TO BE USED FOR REFERENCE PURPOSES. THE COUNTY AND ITS AGENTS ARE NOT RESPONSIBLE FOR ANY INACCURACIES CONTAINED THEREIN.

N 1/2 SEC. 17, T.114, R.24



10/22/21

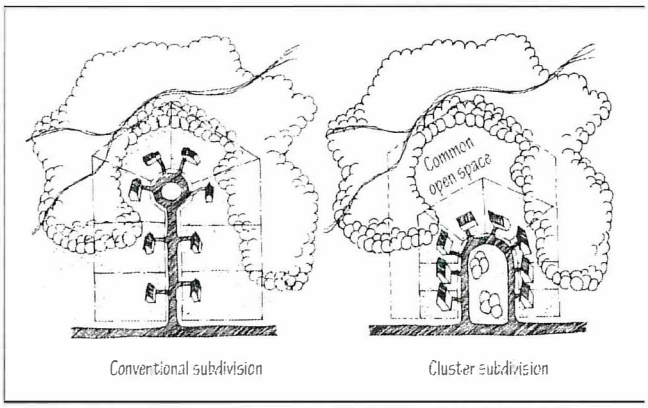
Carver County Board of Adjustment

We are requesting a variance to build a 3088 square foot shed whereby only 1250 is allowed by Residential Cluster. The house contains a 804 square foot garage so this plus the 3088 square feet would be a total of 3,892 square feet, where the Residential Cluster maximum is 2,000 square feet. We are also requesting to increase the total height of the shed to 20' where the maximum total height allowed by the Residential Cluster is 17 feet.

We are trying to build our "retirement property" and the use of the shop would strictly be used for the storage and a place for our hobby of restoring classic cars.

If our property was not listed as a residential cluster, we would not even need to apply for a variance as we would be under the current requirements for a 2 ½ acre lot.

With regard to Residential Cluster, I have attached an article from the UofM stating the original purpose of the Residential Cluster to be to allow for open space with a homeowner's association to be shared by all residences in this Cluster. There are two other lots in our "Cluster" which have not been built on yet. The people that we purchased the lot from filed a "Declaration to Amend Existing Covenants and Restrictions" for San Francisco Acres on September 28, 2020, releasing the property from the protective covenants and Restrictions because they were detrimental to the "useful enjoyment of the property". My understanding is that Carver County no longer allows Residential Cluster Classification because of the difficulties with it. Below is a picture of the difference between a Residential Cluster and a Conventional Subdivision.



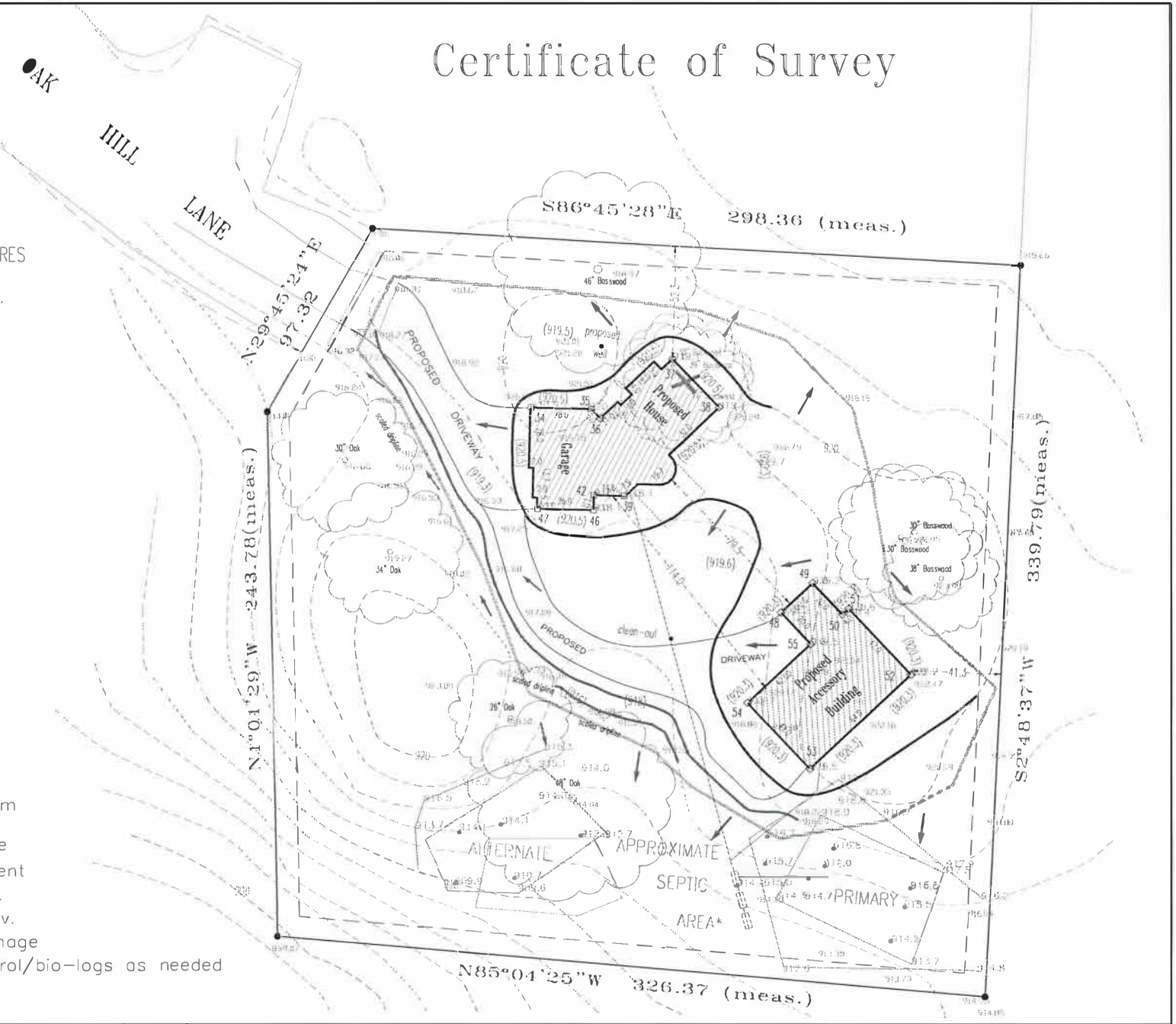
I have included the following with our information:
Variance Application
Parcel Information
Plot
Shop Plan
A Survey showing placement of home and shop
Covenant Amendment
U of M Residential Cluster Info
We also have a building permit application on file.

Any consideration that you can give us would be greatly appreciated.

Thank you for your time.

Dave and Margaret (Peggy) Wecker

Certificate of Survey



Legal Description:
Lot 2, Block 2, SAN FRANCISCO ACRES

Existing Area = 110,739.8 sq. ft.

17495 Oak Hills Lane
Carver, MN 55315

Proposed Hardcover:		
House & Garage (include entry & covered porch)	4,120	Sq. Ft.
Accessory Structure	3,088	Sq. Ft.
Driveways	8,600	Sq. Ft.
Sidewalk	180±	Sq. Ft.
	15,988	Sq. Ft.
Parcel Area	110,739.8	Sq. Ft.
Total Hardcover:	14.4%	

Proposed first floor elevation = 920.5
As-Built first floor elevation =
Proposed top of foundation elevation = 920.5
As-Built top of foundation elevation =
Proposed garage floor elevation = 920.5
As-Built garage floor elevation =
Proposed basement floor elevation = slab on grade
As-Built basement floor elevation =
Proposed accessory structure floor elevation = 920.3
As-Built accessory structure floor elevation =

*Septic by others
Dale Deon
HomeStead Septic
homesteodseptic@outlook.com

- Denotes building stoke
- Denotes iron monument
- (000.0) Denotes existing elev.
- (000.0) Denotes proposed elev.
- Denotes surface drainage
- Denotes erosion control/bio-logs as needed

Revised: 10/18/2021
Revised: 10/20/2021

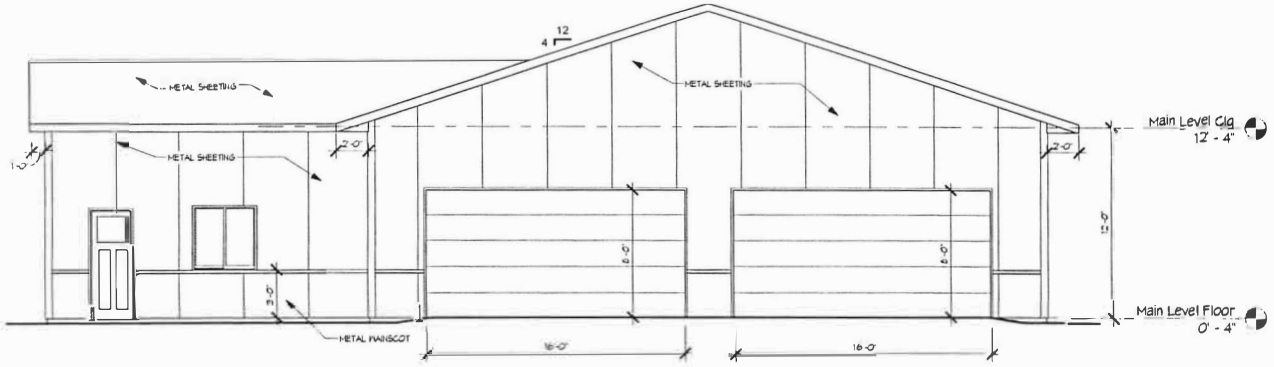
DEMARS-GABRIEL LAND SURVEYORS, INC.
2547 W. 93rd St.
Bloomington, MN 55431
(763) 559-0908
decs@westoffice.net

I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the Laws of the State of Minnesota.

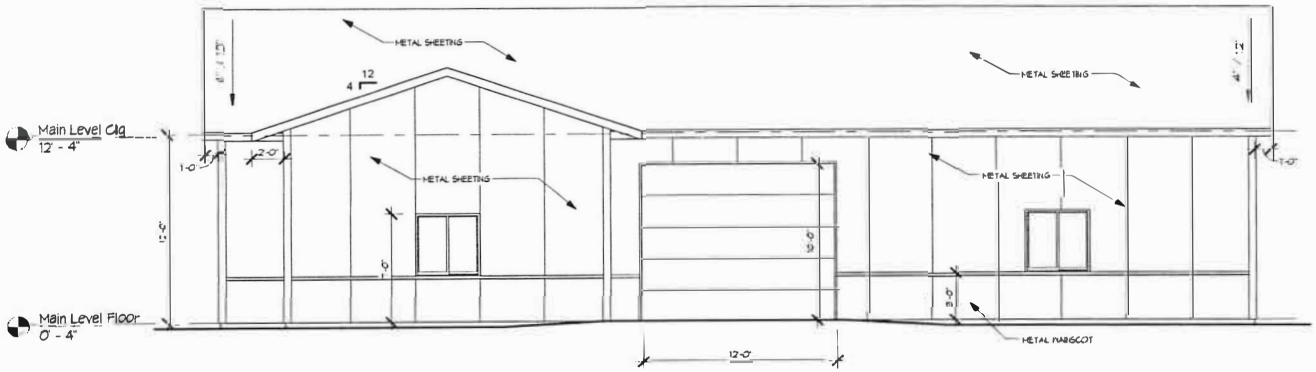
Minn. Reg. No. 22414
David E. Crook
Date: 4/07/2021

File No. 14809
Book-Page EP/DRAW
Scale 1"=30'

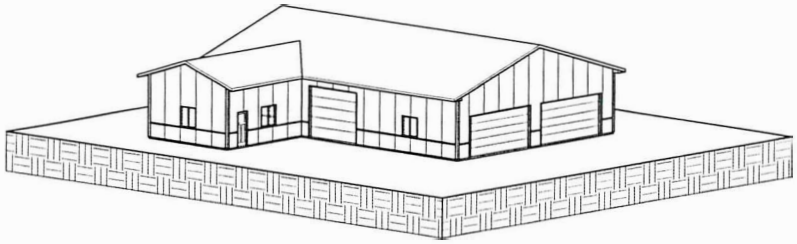
PEGGY & DAVID WECKER RESIDENCE



1 / A1 FRONT ELEVATION
3/16" = 1'-0"



3 / A1 LEFT ELEVATION
3/16" = 1'-0"



2 / A1 FRONT 3D VIEW

THIS BUILDING MEETS OR EXCEEDS ALL CURRENT MINNESOTA BUILDING CODES

TRUSS PER MANUFACTURER, TRUSS BOTTOM CHORD AND DIAGONAL BRACING BETWEEN TRUSSES PER MANUFACTURER

SHEET INDEX

A1 - EXT ELEVATIONS
A2 - EXT ELEVATIONS
A3 - FLOOR PLAN
A4 - WALL SECTION & DETAILS

CODE DATA

A. CONSTRUCTION GROUP - S-1
B. FLOOR AREA - 3088 S.F.
C. CONSTRUCTION TYPE - V-N
D. SNOW LOAD - 40 PSF BALANCED, UNBALANCED 50 PSF ONE SIDE OF RIDGE PER ASCE 7-16 FIGURE 7-5
E. WIND LOAD - 115 MPH EXP B. (90 MPH ASD)
F. SOIL BEARING - ASSUMED 2000 PSF

STRUCTURAL DATA

A. CONCRETE PIERS - 3000 PSI
B. CONCRETE FLOOR - 4000 PSI, 6% AIR ENTR.
C. POSTS - TRTD, 1200f MIN., dfl NO. 1
D. GIRTS & PURLINS - #2 HEM-FIR
E. ENGINEERED ROOF TRUSSES - 10 PSF DL + 40 PSF S.L. BALANCED, UNBALANCED 50 PSF ONE SIDE OF RIDGE PER ASCE 7-16 FIGURE 7-5

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CELL (952) 994-6682
E-MAIL mikeb@behrd-design.com

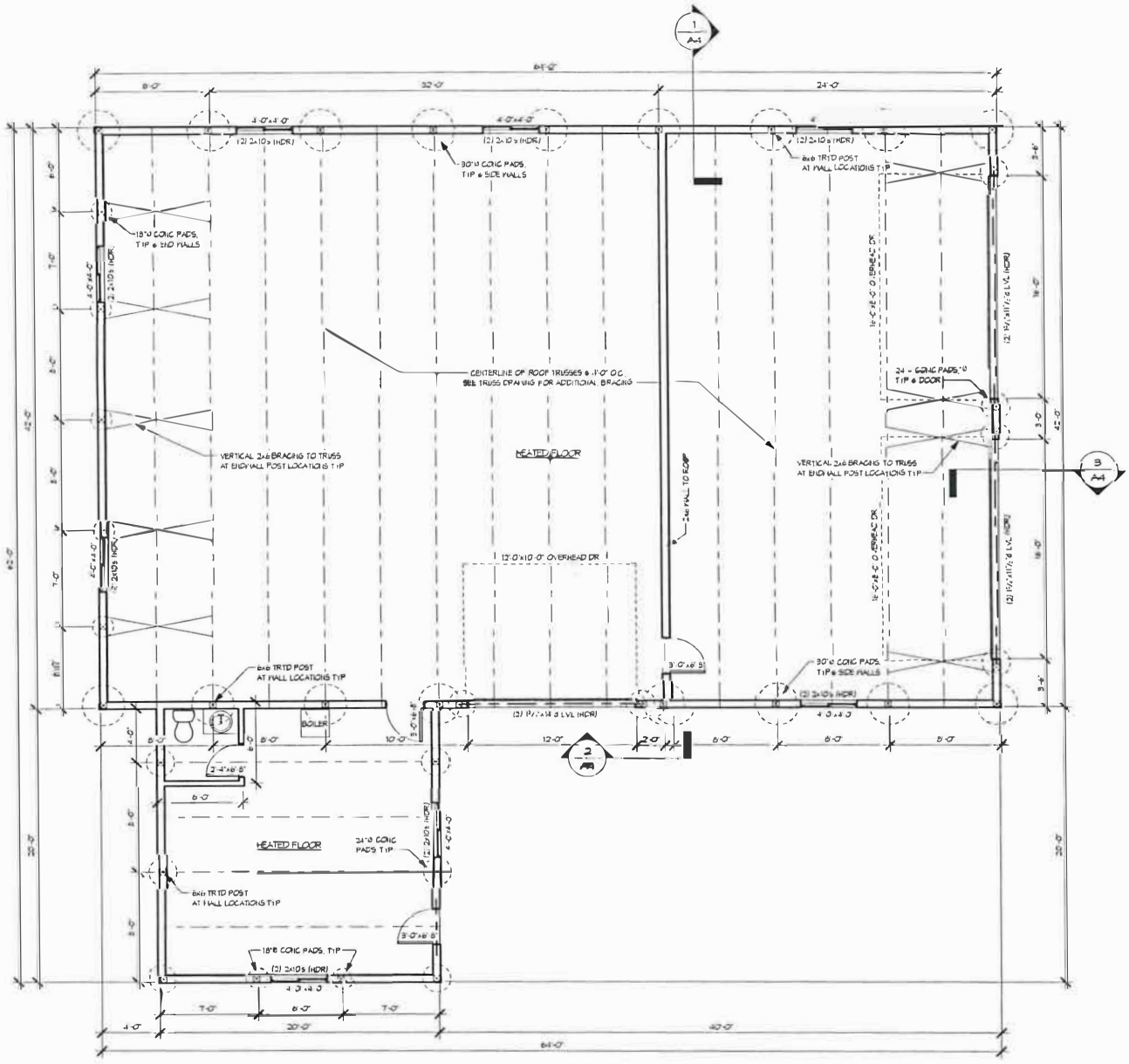
Gestach & Paulson Construction Inc.

Peggy & David Wecker
17495 Oak Hills Lane
Carver, M 55315

DATE 10 21 2021
DRAWN BY Peter K.
PROJECT # 21-015P

SHEET NO.
A1
Ext Elevations

4-11



1 / A3 MAIN FLOOR PLAN
3/16" = 1'-0"

ALL ROUGH FRAMING MEMBERS SHALL BE FRAMED, ANCHORED AND BRACED WITH NAILS AND FASTENERS COMPATIBLE WITH THE TYPE SPECIFIED SO AS TO DEVELOP THE STRENGTH AND RIGIDITY NECESSARY FOR THE PURPOSE FOR WHICH THEY ARE USED

4-12

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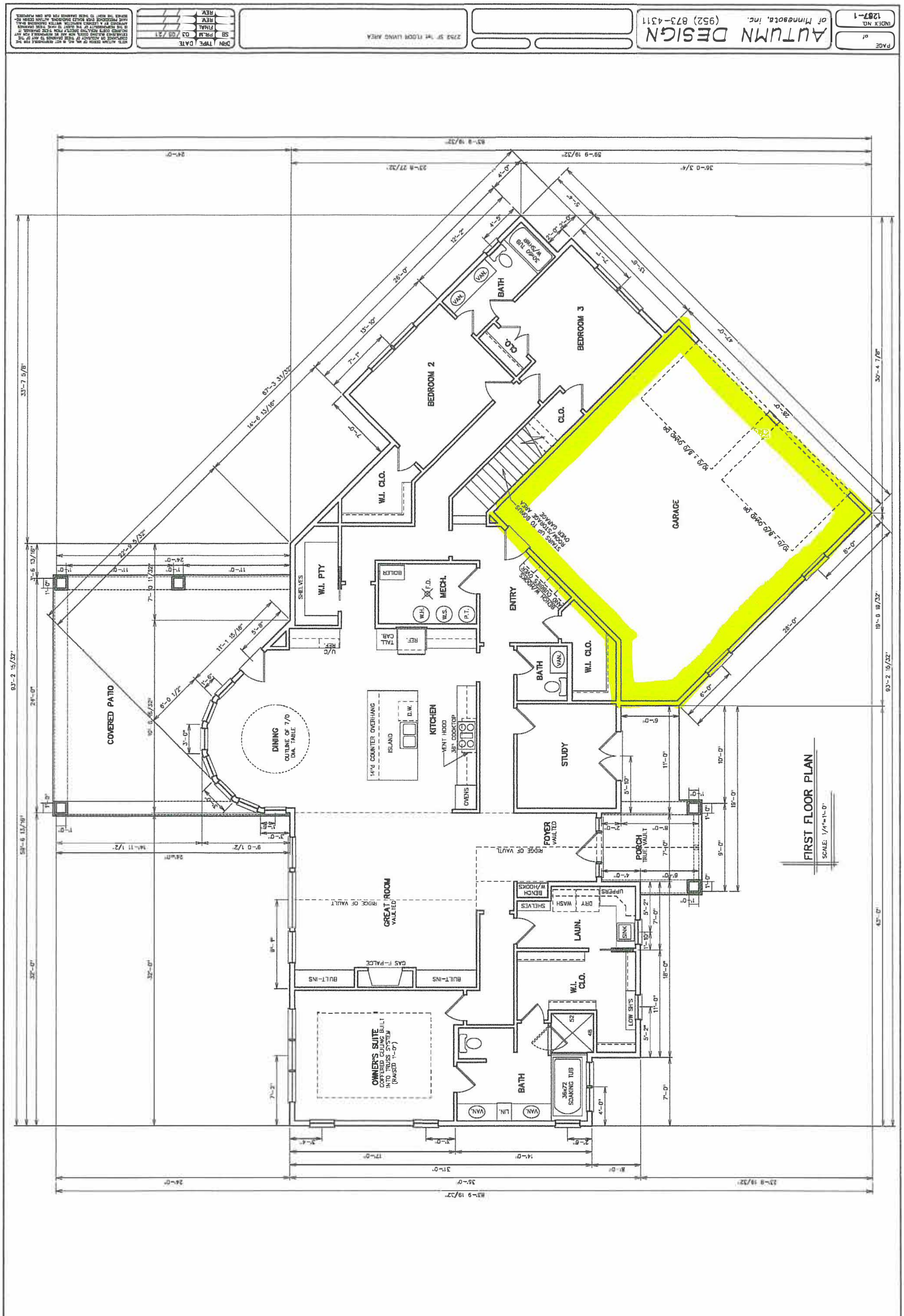
Peggy & David Wecker
17495 Oak Hills Lane
Carver, M 55315

DATE 10-21-2021
DRAWN BY Peter K.
PROJECT # 21-09

SHEET NO.
A3
Main Floor Plan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2752 SF 1st FLOOR LIVING AREA
BEDROOM 3
BEDROOM 2
BATH
CLO.
W.I. CLO.
GARAGE
W.I. PTY
MECH.
ENTRY
KITCHEN
ISLAND
DINING
COVERED PATIO
STUDY
FOYER
PORCH
GREAT ROOM
LAUN.
OWNER'S SUITE
FIRST FLOOR PLAN
SCALE: 1/4"=1'-0"

OFFICIAL PLAT

SAN FRANCISCO ACRES

PLAT FILE NO. 1136
C.R. DOC. NO. 307941

KNOW ALL MEN BY THESE PRESENTS: That Michael R. Pieper and Roxanne E. Pieper, husband and wife, fee owners, of the following described property situated in the County of Carver, State of Minnesota, to wit:

The West Half of the Northeast Quarter of Section 17, Township 114, Range 24, Carver County, Minnesota, excepting the following tracts of land:

1. Commencing at the northeast corner of the West Half of the Northeast Quarter, Section 17, Township 114, Range 24; thence South along the east line of the West Half of the Northeast Quarter of said section, 300.00 feet to a point; thence west along a line parallel with the north line of said Section 17, 290.40 feet to a point; thence North along a line parallel with the east line of the West Half of the Northeast Quarter of said section, 300.00 feet to the north line of said Section 17; thence East along the north line of said Section 17, 290.40 feet to the point of beginning.

2. Commencing at the north quarter corner of said Section 17; thence easterly along the north line of said Northwest Quarter of the Northeast Quarter of Section 17 a distance of 134.54 feet to the point of beginning of the tract to be described; thence continuing easterly, along said north line of the Northwest Quarter of the Northeast Quarter of Section 17, a distance of 182.67 feet; thence southerly, deflecting right 87 degrees 30 minutes 00 seconds a distance of 249.31 feet; thence westerly, deflecting right 85 degrees 30 minutes 00 seconds a distance of 117.14 feet; thence northwesterly, deflecting right 54°30'00" a distance of 99.87 feet; thence northerly, deflecting right 39 degrees 32 minutes 30 seconds a distance of 189.97 feet to the point of beginning.

Have caused the same to be surveyed and platted as SAN FRANCISCO ACRES and do hereby donate and dedicate to the public for public use forever the highways, and also dedicate the easements as shown on this plat for drainage and utility purposes only.

In witness whereof, said Michael R. Pieper and Roxanne E. Pieper, husband and wife, have hereunto set their hands this 22nd day of January, 20 02.

Michael R. Pieper

Roxanne E. Pieper

STATE OF MINNESOTA
COUNTY OF Wright

The foregoing instrument was acknowledged before me this 22 day of January, 2002, by Michael R. Pieper and Roxanne E. Pieper, husband and wife.

Notary Public, Wright County, Minnesota
My Commission Expires Jan 31, 2005

I hereby certify that I have surveyed and platted the property described on this plat as SAN FRANCISCO ACRES; that this plat is a correct representation of the survey; that all distances are correctly shown on the plat in feet and hundredths of a foot; that all monuments have been correctly placed in the ground as shown; and that the outside boundary lines are correctly designated on the plat and that there are no wet lands as defined in Minnesota Statutes Section 505.02, Subd. 1 or public highways to be designated other than as shown.

Tony Ellestad, Land Surveyor
Minnesota License No. 17549.

STATE OF MINNESOTA
COUNTY OF Wright

The foregoing Surveyor's Certificate was acknowledged before me this 11th day of October, 2001 by Tony Ellestad, Land Surveyor.

Notary Public, Wright County, Minnesota
My Commission Expires 1-31-2005

KELLI ANN MACHEMEHL
NOTARY PUBLIC MINNESOTA
My Commission Expires Jan 31 2005

SAN FRANCISCO TOWN BOARD

This plat of SAN FRANCISCO ACRES was approved by the Board of Supervisors of the Town of San Francisco, Carver County, Minnesota, at a regular meeting thereof held this 17th day of September, 20 01.

BOARD OF SUPERVISORS OF THE TOWN OF SAN FRANCISCO, CARVER COUNTY, MINNESOTA

By Maidi Felton Chairman Attest Peggy Hughes Clerk

COUNTY SURVEYOR, Carver County, Minnesota
Pursuant to Chapter 395, Minnesota Laws of 1971, this plat has been approved this 6th day of February, 2002.

By John E. Freemyer
John E. Freemyer, Carver County Surveyor

CARVER COUNTY BOARD OF COMMISSIONERS

This plat of SAN FRANCISCO ACRES was approved and accepted by the Board of Commissioners of Carver County, Minnesota, at a regular meeting held this 12th day of February, 20 02, and is in compliance with the provisions of Minnesota Statutes, Section 505.03, Subd. 2. All monuments will be set as specified by the County Board and as stated on this plat, according to Minnesota Statute, 505.02, Subd. 1.

BOARD OF COMMISSIONERS OF CARVER COUNTY, MINNESOTA

By John M. Siegfried Chair Attest

COUNTY AUDITOR, Carver County, Minnesota

I hereby certify that there are no delinquent taxes for all years prior to 2002 for land described on this plat and transfer entered. Dated this 12th day of February, 20 02.

Mark Lundgren
By Kay Lemke
Mark Lundgren, County Auditor

COUNTY TREASURER, Carver County, Minnesota

I hereby certify that the taxes payable for the year 20 02 for land described on this plat as SAN FRANCISCO ACRES have been paid on this 12th day of February, 20 02.

By D.F. Dahlke by D. Haskel
D. F. Dahlke, County Treasurer

COUNTY RECORDER, Carver County, Minnesota

I hereby certify that this plat of SAN FRANCISCO ACRES was filed this 12th day of February, 20 02, at 10:00 o'clock A.M. as Document No. 307941.

By Carl W. Hanson
Carl W. Hanson JR., County Recorder

Ellestad and Services

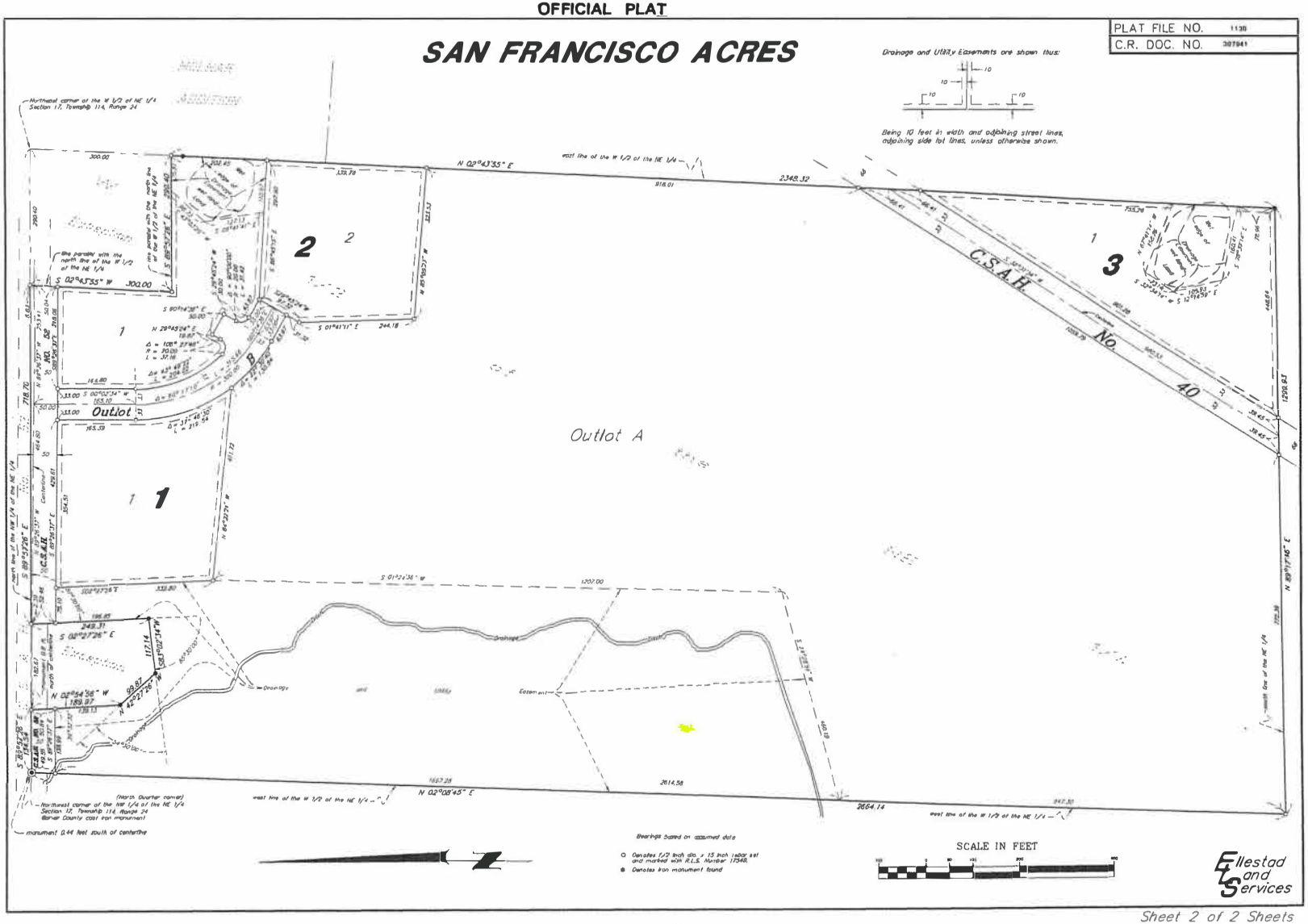
Sheet 1 of 2 Sheets

4-14

OFFICIAL PLAT

SAN FRANCISCO ACRES

PLAT FILE NO. 1138
C.R. DOC. NO. 307941



Sheet 2 of 2 Sheets

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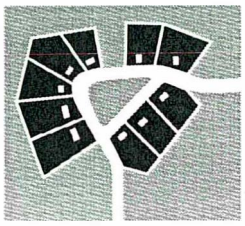
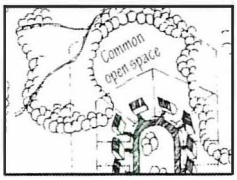
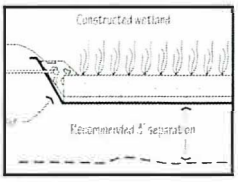


Residential Cluster Development: Fact Sheet Series



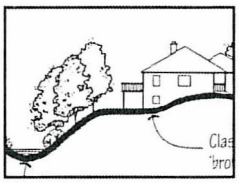
1. Overview of Key Issues

Definitions, goals and zoning implications, including important considerations of the long-term management of open space within a cluster development. By Mathew Mega et. al., University of Minnesota and SRF Consulting Group.



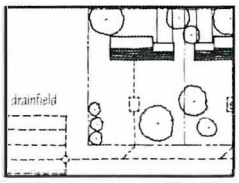
2. Alternative Wastewater Treatment Systems

Summarizes design, siting and permitting of alternatives to municipal wastewater treatment plants or individual septic tanks with drainfields. Includes design features for eight alternative systems. By J. L. Anderson, et. al., University of Minnesota.



3. Storm Water Management

Fundamentals of storm water management, highlighting a natural system of storm water management. Describes an existing subdivision that benefited from this type of design. By Robert D. Sykes, University of Minnesota.



4. Management Options

Basic management concepts used in new residential cluster developments and options available to municipalities and developers when establishing a management structure. By Mathew Mega et al., University of Minnesota and SRF Consulting Group.

Acknowledgments

Produced by Communications, University of Minnesota Extension Service with funding provided by the Metropolitan Council and a University of Minnesota Extension Service Collegiate Program Leader Collaborative Grant.

Ordering Information

To order the full series of four fact sheets, contact the University of Minnesota Extension Service Distribution Center at (800) 876-8636 or in the Twin Cities at (612) 625-8173, or your local Extension office. This series is also available on the Internet at http://www.extension.umn.edu/, and alternative formats are available upon request.

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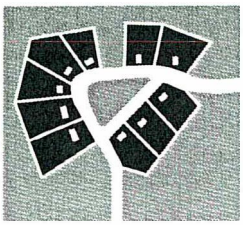

Residential Cluster Development: Overview of Key Issues

1

Mathew Mega, Barbara Lukermann and Robert Sykes

About This Series

Residential cluster development is a means of permanently protecting open space, rural character, and important environmental resources in new housing developments, while still providing homeowners with good housing and landowners with the opportunity to develop their property. This publication is the first in a series of four, all designed to help local officials, community leaders, developers and homeowners address the critical issues of residential cluster development.

These issues include the design, use, approval, and management of wastewater and storm water rural technologies. These technologies address people's legitimate concerns over the environmental degradation often associated with residential development in rural areas.

By combining the use of rural technologies with cluster development design, local officials have another option when developing their community. But to make rural technologies and cluster development possible, local officials need to incorporate new language into local ordinances and comprehensive land use plans. This series introduces the concepts for local officials considering revisions to their local comprehensive plan and zoning ordinance, as well as basic information to anyone curious about cluster development. It also provides background on how rural technologies can help preserve open space, protect environmental and cultural resources and enhance rural character.

This publication defines cluster development and gives an overview of the critical issues connected to it. The second and third publications in the series describe the engineering and design of community wastewater treatment and storm water management systems for use in cluster developments. They also provide a brief discussion of the current regulation and permitting requirements. Management issues that must be considered and management structures that can be used when establishing new cluster developments utilizing rural technologies are addressed in the final publication.

Goals of Cluster Development

- *preservation of open space*
- *protection of ecological resources*
- *preservation of agricultural land*

What Is Cluster Development ?

Cluster development is the grouping of a particular development's residential structures on a portion of the available land, reserving a significant amount of the site as protected open space. Many communities in Minnesota and across the United States are updating their comprehensive land use plans and establishing specific ordinances to guide the development and construction of residential clusters. New ordinances require design standards and identify minimum open space and density standards. These key changes have prompted some communities to opt for more descriptive terminology, including open space development or conservation subdivision design, for the more traditional cluster development. While the different terminology has created some confusion, each term still adheres to the three basic goals of cluster development: preserving open space, protecting critical ecological habitat and preserving agricultural land.

The usable open space created by a cluster development can meet a number of community goals. These goals sometimes conflict with one another. For example, the protection of wildlife habitat may be incompatible with the preservation of agricultural land. However, the key benefit is the ***availability*** of open space, space that has been preserved by clustering units on smaller lots. The landowner and the community make the ultimate decision on how the open space is used.

Current Zoning Practices

Current zoning practices establish ***minimum*** lot sizes, setbacks and widths that developers must follow when they design subdivisions. This leads to developments that maximize the number of lots based on the total acreage of a parcel. For instance, if the code requires a minimum lot size of 2.5 acres and the developer has a 40-acre parcel, the site will be developed with 16 residential units unless there are major site limitations (see

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Figure 1). The parcel is then said to have a gross density of 16 units.

Cluster development protects open space by establishing the number of units allowed for a parcel completely independent of any minimum lot size. While the gross density requirement in the example above allows a maximum of 16 units to be developed on the 40-acre site, if lot sizes can be less than 2 acres or of variable size, some clustering of units is possible. The developer is still limited to 16 total units, but has the flexibility to place them in a way that is more responsive to a site's physical characteristics. For example, Figure 1 shows a cluster development preserving 24 acres of commonly-owned land.

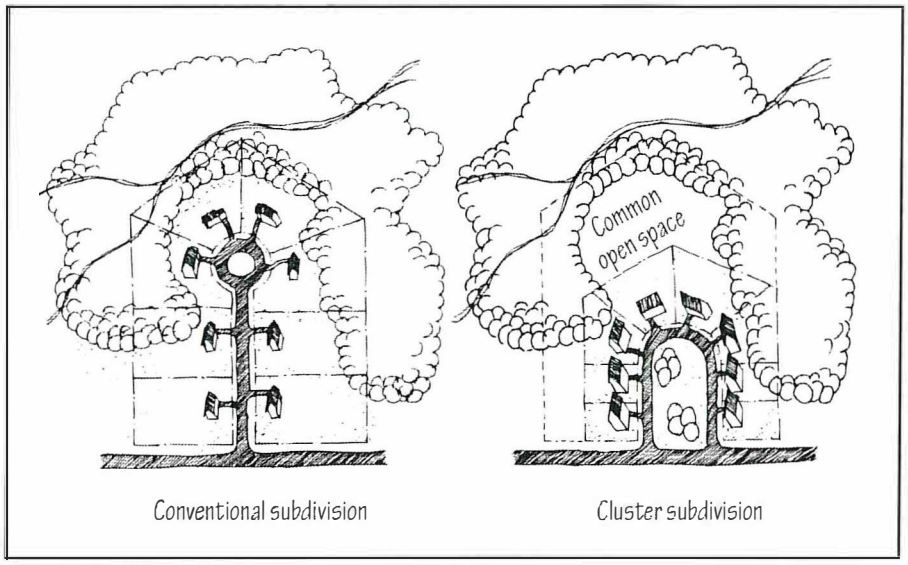

Figure 1. Two residential development scenarios

Options for Use of Open Space

The open space created by cluster developments can be used in three ways:

- *Exclusive use by residents (e.g., private trails, passive recreational areas)*
- *Preservation of agricultural land*
- *Protection of wildlife habitat*

While open space has traditionally been used exclusively by residents, a local government can encourage the other two options through its comprehensive land use plan and subdivision ordinances. Initially, the municipality needs to identify the areas that are important to the community and develop goals for these areas. These goals can then be realized by establishing physical design standards and density requirements, and by using transfer-of-development rights or other incentive programs.

Ensuring Full Potential of Development

The intent of cluster development ordinances is simple: develop less land area while allowing the same number of housing units that would be permitted under standard subdivision ordinances. By allowing the same number of units, landowners and developers aren't penalized financially for doing cluster development.

A yield plan or development plan is currently being used by a number of communities to determine the maximum number of units allowed in a cluster development. The yield plan provides a conceptual sketch of a conventional subdivision based on all standard criteria (setbacks, width, lot size, etc.). The result is the maximum number of units allowed on the parcel (its gross density). Some communities do not specifically require a yield plan, basing the maximum number of units instead on the net developable land as determined by performance standards.

Mandatory Versus Voluntary Cluster Development

Some communities mandate cluster development. In such instances, developers must meet the cluster ordinance criteria. However, many communities offer voluntary cluster ordinances, allowing the developer to choose between a standard subdivision or a cluster development.

In voluntary cluster development cases, communities usually provide developers with incentives to apply clustering. One common incentive, density bonuses, automatically provides developers with a number of additional units if they decide on a cluster development. These bonuses can also be discretionary, with the number of additional units based on the subdivision design. If the community chooses to have discretionary density bonuses, they need to be based on predetermined performance standards and incorporated into the community's comprehensive plan.

Protection of Water Resources

Cluster development may offer many other advantages to the municipality, developer and prospective homeowner. The use of rural technologies for storm water management, for example, can avoid expensive curbs, gutters and storm sewers. Instead, the development's storm water management system can be more responsive to the land's environmental constraints. And wastewater treatment systems can incorporate technologies that ensure that systems are sited appropriately and that centrally-located municipal systems or individual sewage treatment systems are avoided.

■ Storm Water Management

The design of storm water management systems in cluster developments seeks to maximize overland flow and combine the use of plants and landforms to slow, hold, and treat runoff from new development.

■ Wastewater Management

Many options are available to treat wastewater from a cluster of homes, including community drainfields, irrigation systems, and package plants. These options all have the potential to reduce infrastructure investment and allow systems to be located on sites that minimize adverse environmental impact. An example, community septic drainfields, is illustrated in Figure 2.

The specific engineering and design aspects of wastewater treatment and storm water management systems in cluster developments will be discussed in publications two and three of this series.

The Local Adoption and Approval Process

The local approval process for cluster development must be consistent with local comprehensive plans and ordinances and must satisfy the permit process for rural technologies.

Cluster developments generally follow the same review and approval process that traditional subdivisions do. This process is characterized by a preliminary and final plat review process that takes place at public hearings and planning and zoning board meetings. Typically, for a cluster development, the developer and the planning commission's staff hold a pre-application meeting. This informal meeting is used to review the proposed concept to identify any conflicts before the developer submits a formal application. The pre-application meeting incorporates much-needed flexibility into the approval process by allowing everyone to evaluate a development's impact while ensuring it stays consistent with a community's goals.

Many local permit processes have not been revised to give developers — who must undertake additional financial risk associated with new technologies — the flexibility they need. This lack of revisions has been the main difficulty in encouraging developers to use community wastewater treatment facilities and more complex storm water management technologies. Many developers, anticipating greater costs and disapproval of new methods, simply opt for more traditional systems.

Management of Common Resources

Clustering housing leaves the majority of a new development as open, shared space, mutually owned and managed. In a cluster development, that management involves controlling, directing, and handling all resources ***held in common*** by individual homeowners. These include, but are not limited to, open space, wastewater treatment systems, and storm water management facilities.

Many cluster development ordinances mandate the establishment of a homeowners association (HOA) to manage the common open space. Set up by the developer, who may remain a member until all or a specified number of units are sold, the HOA is then responsible for all management responsibilities and capital improvements.

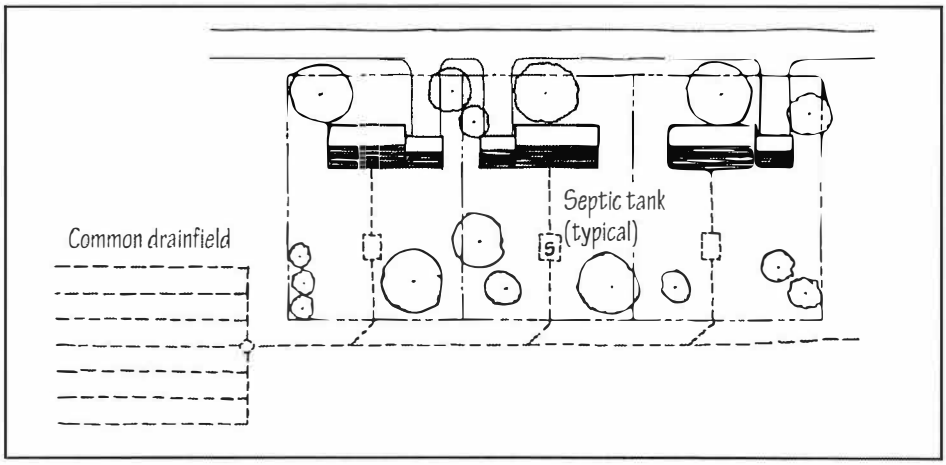

Figure 2. Typical on-site septic layout for a cluster.

■■■

In developments with many common resources, the developer may want to explore an alternative to an HOA. Several management options have emerged that replace or supplement HOA responsibilities.

There are six management options in all. Three, homeowners associations, privatized joint ventures and water quality cooperatives, are private. Three others, municipal utilities, sanitary sewer districts and subordinate service districts, involve public management. These will be discussed in greater detail in the fourth publication. Whatever management framework is created, however, it is very important that the developer and the municipality agree on a structure prior to construction or occupation of homes.

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Part of a Series

This is one in a series of four publications designed to assist local community leaders, city officials, developers and homeowners in creating viable residential cluster developments and management structures within their communities. The series includes:

1. Overview of Key Issues
2. Alternative Wastewater Treatment Systems
3. Storm Water Management
4. Management Options

Funding

Funding for these publications provided by the Metropolitan Council and a University of Minnesota Extension Service Collegiate Program Leader Collaborative Grant. For ordering information call (612) 625-8173.

Other Resources

These resources from the University of Minnesota Extension Service are available through your county Extension office or by calling the Distribution Center at:
Twin Cities local 624-4900 or Outstate 1-800-876-8636

Septic System Owner's Guide EP-6769

Septic Systems Revealed video VH-6768

Printed with agribased inks on recycled paper with minimum 10% postconsumer waste.

Produced by Communications, University of Minnesota Extension Service. The information given in this publication is for educational purposes only.

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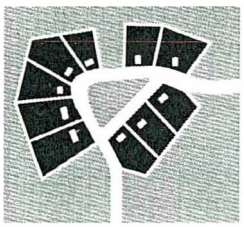

Residential Cluster Development: Alternative Wastewater Treatment Systems 2

J.L. Anderson and D.M. Gustafson

Introduction

Minnesota has a long history of providing wastewater treatment for clustered residential developments. In general, that has involved the installation of collector systems to solve existing problems. The best examples of these systems are found in lakeshore areas. Initially, most systems provided sewage treatment for resorts, where groups of cabins or lodges were hooked together by a sewer line delivering septic tank effluent to a soil-based treatment system. These systems have not been installed in new residential developments.

Some municipalities and small communities need to upgrade their wastewater treatment systems. Others are considering a cluster design for new residential developments. Local officials must decide what kind of wastewater treatment system to use. Until recently local officials had to choose from either a municipal wastewater treatment plant or a decentralized approach utilizing septic tanks and drainfields. There are now additional options available when using a decentralized approach. These alternatives include aerobic tanks, sand filters and constructed wetlands. Local officials need to review and evaluate their options carefully before selecting a specific system — including alternative systems — because the same approach won't work in every case.

Currently, these alternative systems typically provide pretreatment to septic tank effluent before being discharged to a drainfield. To use these alternatives, more than the usual amount of long-term monitoring will be necessary to ensure that these systems consistently meet the operating standards claimed by manufacturers and proponents. From both a surface and groundwater perspective, soil-based treatment systems — if properly sited, installed, and maintained — can offer a high degree of protection and reliability.

In general, alternative systems serving clustered developments require more monitoring than systems that use septic tanks for pretreatment. Usually, alternative systems require additional pumps and sewage tanks, which results in extra maintenance. That's why the organizations in charge of operating these systems need to be fiscally competent. While clustering has the potential to make operation and maintenance easier for an individual homeowner, a detailed plan for a development must be written and followed consistently. If that is not done, treatment will be less effective and there will be a greater negative impact on water resources.

Once the decision is made to use a cluster design, there are a number of factors to consider before choosing the appropriate wastewater treatment system.

Design and Siting Considerations

To be cost-effective and provide acceptable sewage treatment, the following factors must be addressed before choosing a system type and design:

1) where the wastewater will be discharged to the environment;
2) the type of collector sewer used;
3) the estimated volume of flow (a number used to design the final treatment system);
4) site characteristics (including the land footprint and projected future use);
5) system reliability and monitoring;
6) system maintenance and personnel requirements;
7) adaptability to changes in system operation.

Minnesota Pollution Control Agency Permits

When wastewater is discharged to the surface or ground waters of the state, a National Pollutant Discharge Elimination System (NPDES) or a State Disposal System (SDS) permit is required. These permits detail the wastewater source, types of requirements for discharge, the amount of monitoring necessary, and the minimum level of treatment required. The Minnesota Pollution Control Agency (MPCA) issues and administers both of these permits. Effluent limits are developed to protect water quality standards and the designated uses of waters. Both permits require monitoring to ensure the system is meeting the assigned effluent limitations.

When wastewater is discharged to the ground water via the ground's surface a State Disposal System (SDS) permit is required. Additionally, if the discharge to the ground water is via the subsurface and over 10,000 gallons per day (gpd) an SDS permits is required. Local permits are required if the volume of wastewater discharged to the subsurface is less than 10,000 gpd. Future rules regarding class V injection wells, defined as any system that serves over

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twenty people, may impact the permitting of systems used in residential clusters.

An SDS permit requires ground water monitoring to demonstrate that drinking water standards are being met at the property boundary. If the system includes a licensed facility, such as a resort, mobile home park, hospital, retirement facility, etc., the Minnesota Department of Health (MDH) must also review the plan. The permit's terms and conditions will vary depending on the ultimate disposal location of the treated wastewater.

If the discharge is to surface water, effluent limitations will be specified within an NPDES permit to protect water quality standards and the designated uses of the waters of the state. If the discharge is to ground water, the permit applicant will be required to meet drinking water standards at the property boundary. In both cases the permit will include monitoring of the effluent to ensure that standards are being met and to demonstrate that the system is operating efficiently.

To obtain an NPDES or an SDS permit, a permit application must be submitted to the MPCA at least 180 days prior to starting construction of the wastewater treatment facility.

Site Characteristics

There are several factors that should be considered when planning a wastewater treatment system that serves a cluster development and discharges to groundwater. The first is a general assessment of the suitability of a site's geology and soil. Existing water table elevations, shallow aquifers, land slope, soil texture, and permeability must all be evaluated. In sensitive areas, additional treatment of the sewage effluent will be required. Site soil type and landscape position also need to be identified.

Soil type and wastewater flow determine the size of the system. The size and location of the soil treatment unit is determined by the estimated daily sewage flow and a sizing factor based on soil texture and permeability. Although not required, it is good planning practice to make sure that there is a secondary treatment site of equal size available. In the case of larger systems, those over 10,000 gpd, it is wise to be able to accommodate 2.5 times the estimated volume of flow. Providing additional area allows maximum operational flexibility and leaves room for future expansion.

There are a number of siting factors that can have a long-term impact on the operation and use of the system. Road and sewer development need to be coordinated with system siting and construction, for example. The collector sewer needs to conform with appropriate design standards. Location of the sewage treatment site needs to fit with the overall physical plan of the development.

Figure 1. Siting of the proposed wastewater treatment system should fit in with the plan for the development.

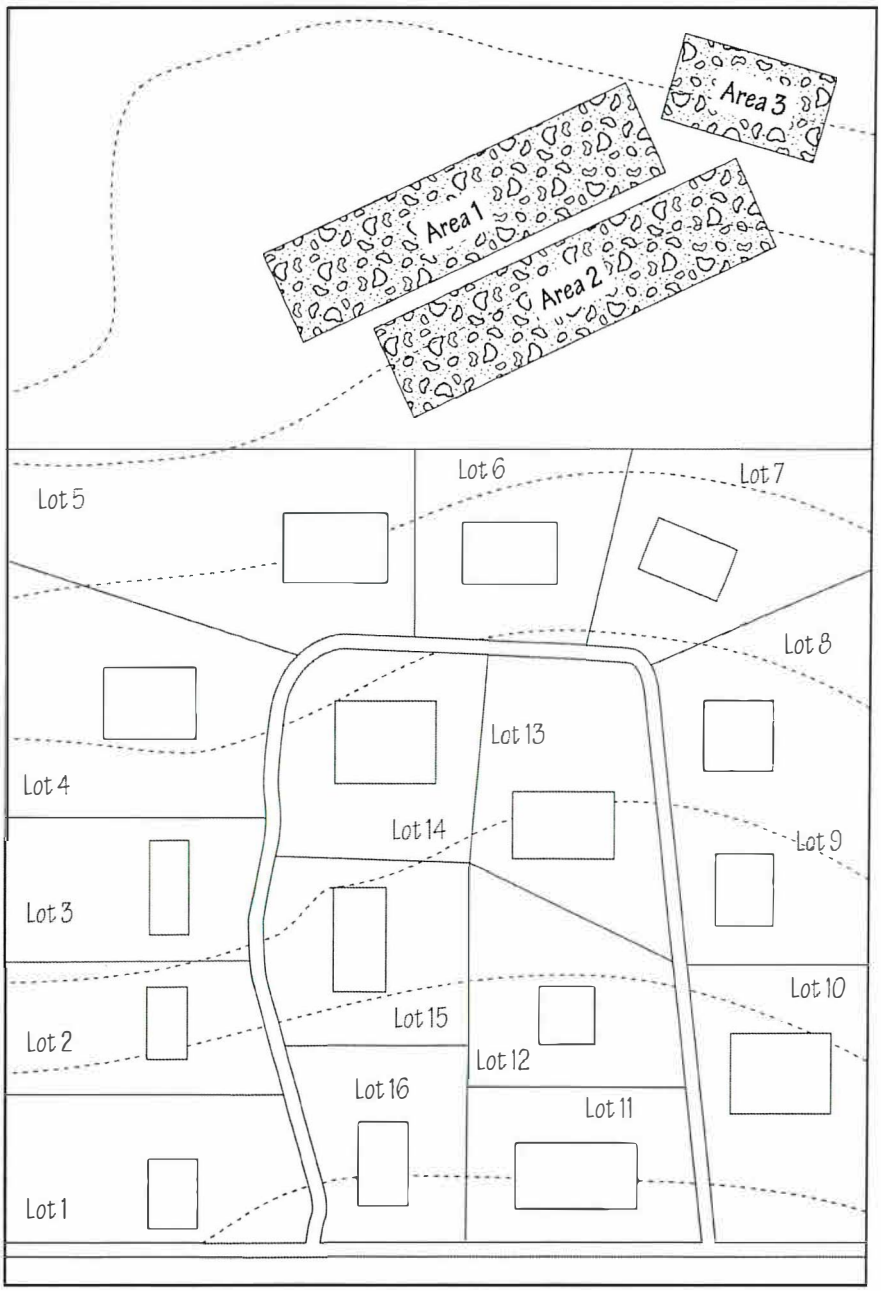

Table 1.Estimated sewage flows in gallons per day

Number of bedrooms	Type I	Type II	Type III	Type IV
2	300	225	180	
3	450	300	218	60% of
4	600	375	256	the values
5	750	450	294	in Type I, II,
6	900	525	332	or III
7	1050	600	370	columns
8	1200	675	408	

Type I: The total floor area of the residence divided by the number of bedrooms is more than 800 square feet, or more than two of the following water-use appliances are installed: automatic washer, dishwasher, water softener, garbage disposal, or self-cleaning furnace.

Type II: The total floor area of the residence divided by the number of bedrooms is more than 500 square feet, and no more than two water-use appliances are installed.

Type III: The total floor area of the residence divided by the number of bedrooms is less than 500 square feet, and no more than two water-use appliances are installed.

Type IV: Type I, II, or III homes but with no toilet wastes discharged into the sewage system.

Onsite Sewage Treatment Manual, University of Minnesota Extension Service, 1998, St. Paul.

Areas reserved for future development need to be clearly identified. And the proposed sewage site needs to fit with existing plans for open space and buffers around a development's residences (see Figure 1).

Estimated Daily Sewage Flow

Once site characteristics have been defined, an estimate can be made of the volume of sewage flow from a development. There is no simple recipe to follow when estimating such flows. It's as much an art as it is a science. However, because the estimates of flow volume will greatly influence the type of system selected and how well that system performs, it's important that system designers and community decision-makers be as accurate as possible.

The regulatory agencies, MPCA and MDH, play a major role in estimating flow volumes. If the agencies choose to continue with the current approach, considered to have a large safety factor built in, then minimal deviation from the current conservative estimates spelled out in Minnesota Rules Chapter 7080 should be used (Table 1). Currently, any reduction in flows from Chapter 7080 requires approval by the permitting authority.

Oversizing systems can have positive and negative results, depending on the final treatment system selected. For example, if a package plant (a non-soil-based treatment unit consisting of an aerobic tank followed by a chlorination process) provides wastewater treatment, oversizing leads to increased costs and lower operational efficiency.

On the other hand, some oversizing is desirable for soil-based treatment systems. Oversizing allows a treatment system's parts to be rested periodically, creating more flexible operation and extending system life. From a regulatory view, oversizing also reduces the need for monitoring and maintenance. Both of these are positives for individual systems, where it is hard to get individuals to perform such simple maintenance tasks as the regular cleaning of septic tanks.

Flow is a critical piece of the puzzle. Keep in mind that basic decisions made early in designing a wastewater system carry through the construction and operating phases, and can have a large impact on system performance.

When estimating flows, it is important to strike a balance among three considerations — the desired treatment, the level of monitoring, and costs.

System Monitoring

In cluster wastewater systems, there is more focus on flexible operation and a greater need to monitor how well a system is doing. Monitoring adds an additional burden, to the owner-operator as well as the regulatory agency, because of the need to track, evaluate and change (or add to) a system based on its operating record.

System Types

After identifying the site and flow characteristics, the type of system can be selected. There is a wide variety of choices and they all offer advantages and disadvantages. The key is understanding each system's requirements and having a plan in place that will ensure the system's long-term operation. In looking at the available treatment options, it is necessary to discuss how they fit into a development plan, and where they should be used. It is important to note that all the systems described below require pretreatment, either through septic tanks or some other kind of sewage tank.

■ Sub-surface Systems

■■■ *Community Drainfields*

For individual sewage treatment systems not limited by soil conditions, the most commonly used unit is trenches. A drainfield trench is constructed by making a level excavation 18-36 inches deep. Clean rock is placed in the bottom of the excavation to a depth of 12-24 inches; then, a four-inch diameter distribution pipe, using one pipe per trench, is placed on the rock and covered with soil (Figure 2). Pipe or chamber systems without gravel can be used as substitutes for the rock. Treatment occurs in the natural soil through interrelated physical, chemical, and biological processes. Special siting considerations for trench systems include:

— trenches need to be installed on a site's contour with the excavation depth limited by saturated soil or bedrock;
— a minimum of 10 feet on center must be maintained between trenches;
— the site must be large enough to accommodate a series of trenches laid along the natural slope.

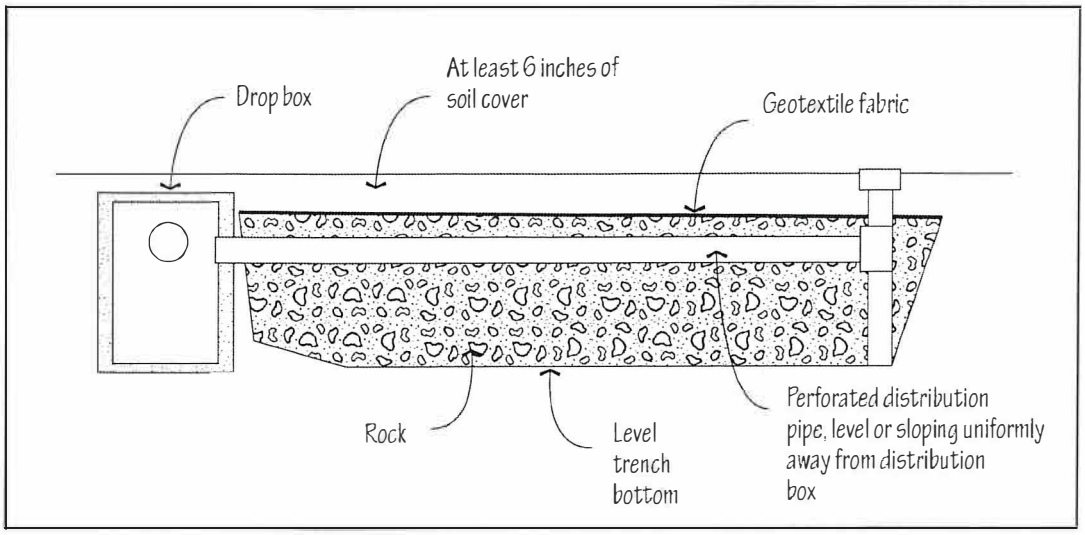

Figure 2. Left: a typical drainfield trench installation.

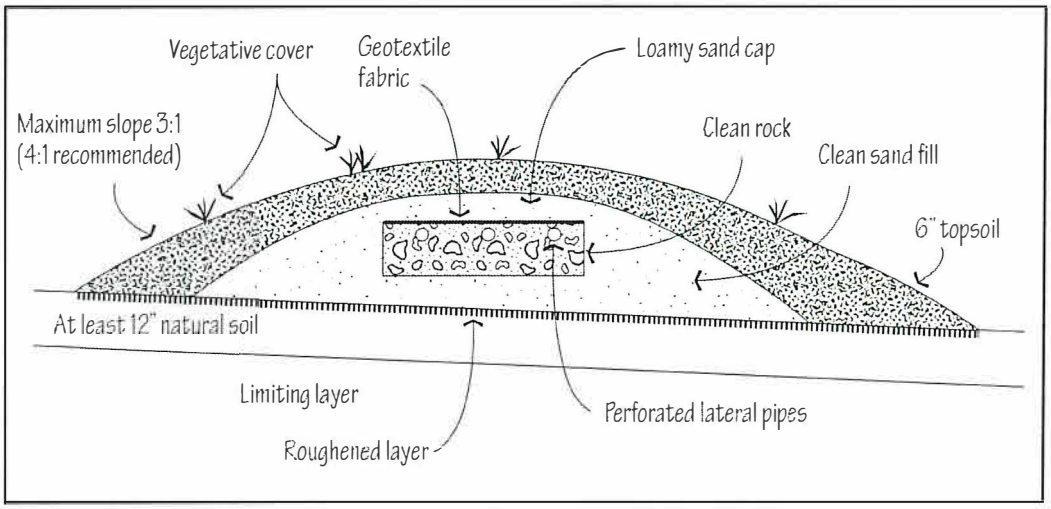

Figure 3. Right: a typical mound installation.

Figures 2 and 3 from *Onsite Sewage Treatment Manual*, University of Minnesota Extension Service, 1998, St. Paul.

Soil Treatment Mounds

In areas where limiting soil conditions do not allow the installation of sewage treatment trenches, mounds are an option. They are constructed with a layer of clean sand and leveled with a foot-deep rock layer before being covered by soil (see Figure 3). Special siting and construction considerations for cluster mound systems are:

- the configuration needs to be a long, narrow rectangle;
- mounds need to be installed on a site's contour with the special consideration that they don't act as dams for surface or subsurface flow across the site;
- if more than one mound is required (which is usually the case), there must be adequate distance between them to allow for construction and to assure they do not interfere with one another hydraulically.

Constructed Wetland Systems

Constructed wetlands treat wastewater by bacterial decomposition, settling, and filtering (see Figure 4). As in tank designs, bacteria break down organic matter in the wastewater, both aerobically and anaerobically. Oxygen for aerobic decomposition is supplied by the plants growing in the wetland. Solids are filtered and finally settle out of the wastewater within the wetland. After about two weeks in the wetland, effluent is usually discharged by gravity to an unlined wetland bed.

If these systems discharge effluent to surface ditches, they require a National Pollutant Discharge Elimination System (NPDES) permit. In theory, any wetland design could incorporate a soil treatment system for final effluent treatment, but since the wetland itself takes up a lot of space, communities are unlikely to construct a soil treatment system in addition to the wetland.

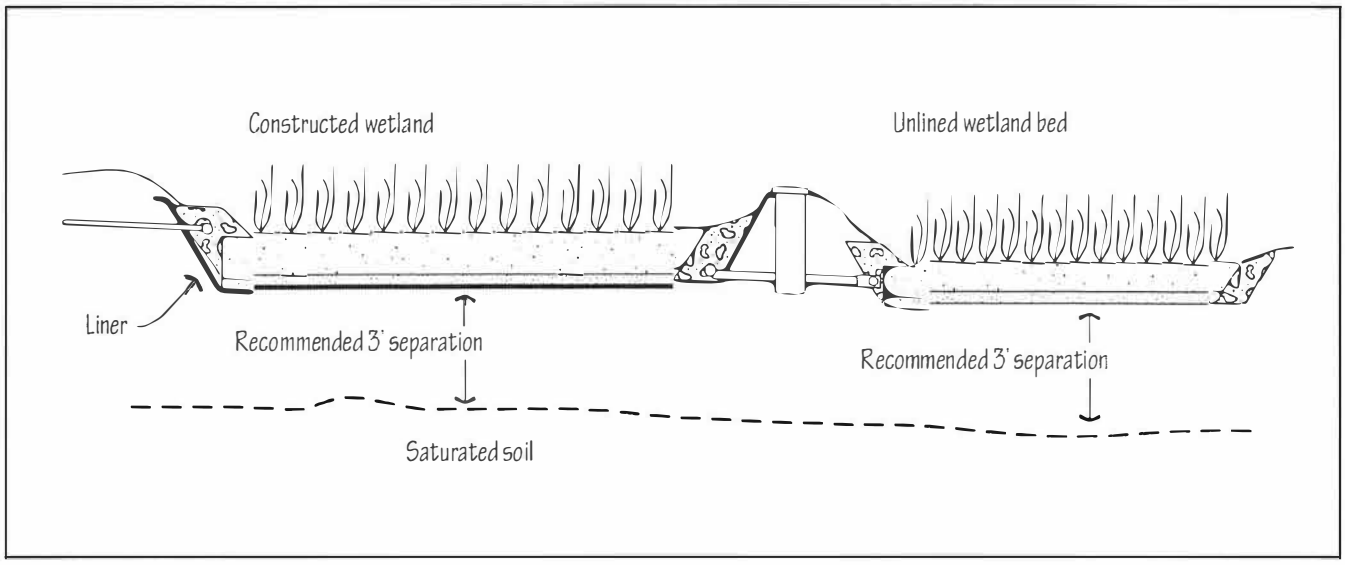

Figure 4. Above: a constructed wetland system.

■■■ *Sand Filters*

The sand filter uses sand, like a mound in a box, as a medium for treating wastewater. This system has been used with great success for over 100 years and there is a large amount of information available about design and applications (see Figure 5).

Wastewater should be introduced by pressure distribution. The goal is to load the system as evenly as possible over the filter surface. This is best accomplished by using a pump to put the wastewater under pressure inside the pipe. This allows the waste to move through the filter at a rate that maximizes treatment. This system's treatment mechanisms are physical filtering and ion exchange. A properly operating sand filter should produce high quality wastewater.

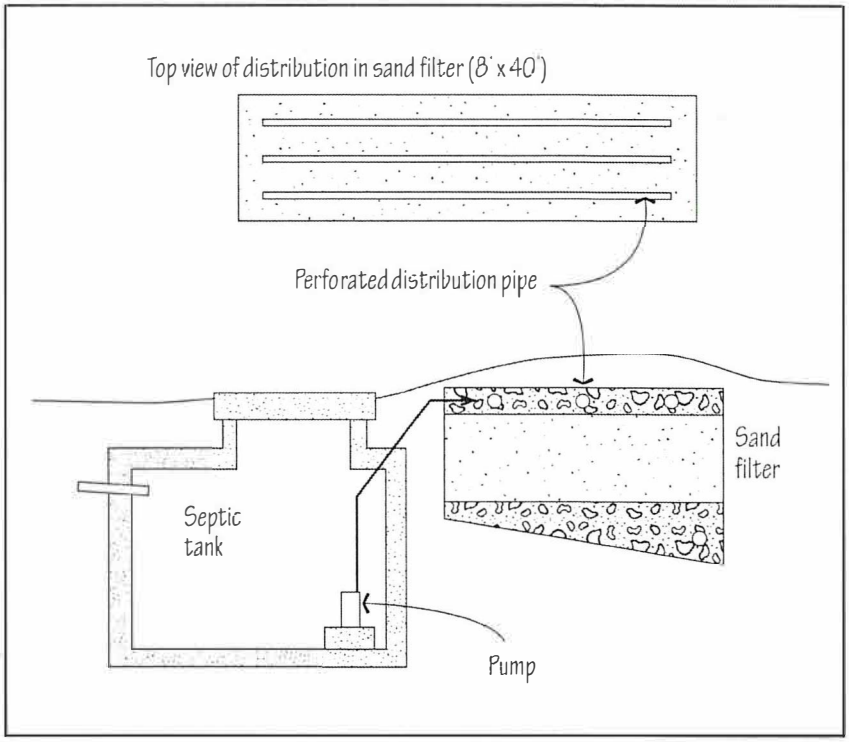

Figure 5. Above: a typical sand filter installation.

■■■ *Drip Irrigation*

This soil-based treatment system has been tested and used extensively in the southern United States. It uses small diameter tubing and a series of emitters to apply wastewater to the soil's upper layers (see Figure 6). By applying small amounts of effluent over a large area, evaporation is maximized, as is plants' ability to take up water and nutrients. The system is slightly larger than a conventional trench system. Although adding the effluent slowly over a large area increases treatment efficiency, lines freezing in winter can be a problem.

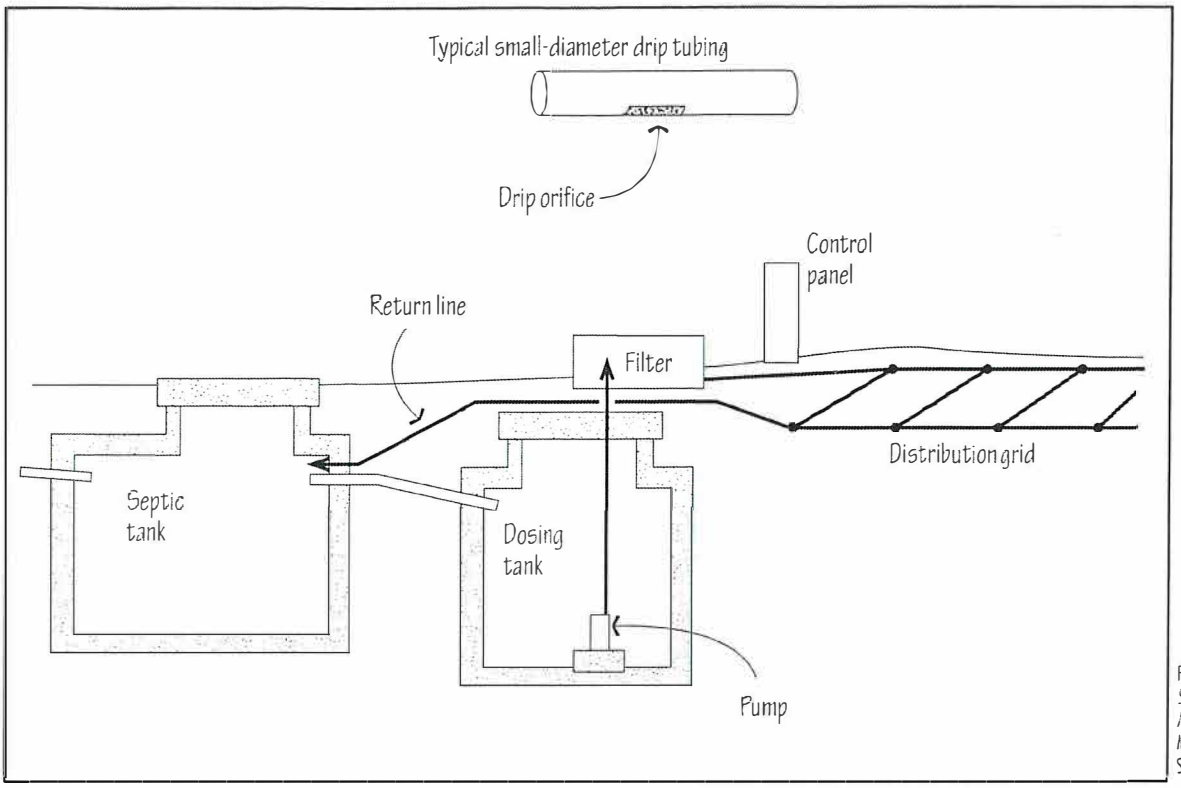

Figure 6 from *Onsite Sewage Treatment Manual*, University of Minnesota Extension Service, 1998, St. Paul.

Figure 6. A typical drip irrigation installation.

Above-surface Systems

Aerobic Tanks and Package Plants

Aerobic tanks treat wastewater far better than conventional septic tanks. This is due to the oxygen that is added to the liquid in the tank (see Figure 7). Aerobic tanks are, however, considerably more complicated to design, construct and maintain than septic tanks.

Aerobic tanks are available in residential or small-community sizes. In either case, these tanks require more maintenance than conventional septic tanks. If problems arise with the supply of air to the bacteria, an aerobic tank loses all its effectiveness. If there are problems with settling (more likely in these designs than with conventional tanks), there will be problems in the soil treatment system. It's critical that aerobic tanks be monitored regularly and repaired as needed.

For community aerobic tanks, there is a single location that needs checking and maintenance. Individual aerobic tanks provide multiple opportunities for problems and each one must be inspected as frequently as larger tanks. The aerobic tanks serving individual residences contain both the aeration and settling areas within the same tank. Since the discharge is to the soil there is no disinfection.

Package plants for small communities usually consist of an aeration tank followed by a settling tank and some type of disinfection or chlorination unit that treats the water before discharge.

Spray Irrigation

Spray irrigation uses both biological and chemical processes to treat wastewater. The pretreated and often disinfected wastewater is applied at low rates to agricultural or wooded areas.

A spray irrigation system often consists of a septic tank (that provides a highly pretreated effluent), a sand filter and a disinfection unit within a spray application site. The final product is applied to the spray field through a conventional sprinkler system (see Figure 8).

Site suitability is determined by soil permeability, the depth to saturated soil or bedrock, the availability of a buffer zone, and land slope. For proper treatment of wastewater, the soil must remain unsaturated, just as it does in subsurface systems.

Compared to other wastewater treatment alternatives, spray irrigation systems require more land. That's why they may be best suited for recreational areas (such as golf courses) and agricultural land.

System Costs

Estimates should be made of a system's capital costs and its operational costs over its expected lifetime. Capital costs include land, equipment (tanks, pumps, rock, etc.) and construction. Operational costs include electricity, pump replacement, repairs, and such routine

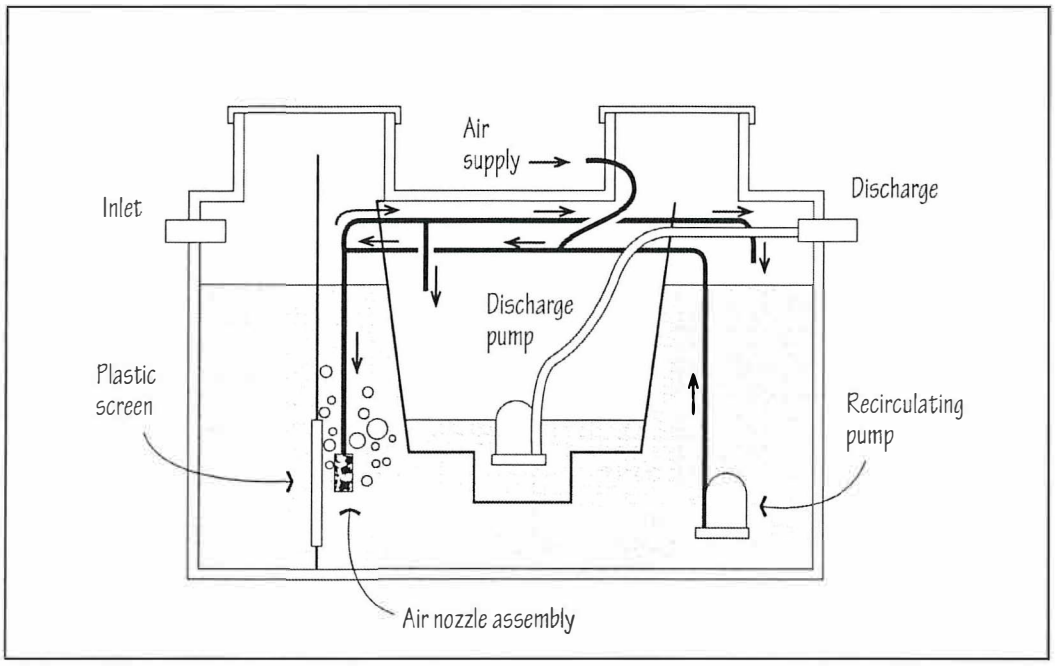

Figure 7. Left: schematic of an aerobic tank.

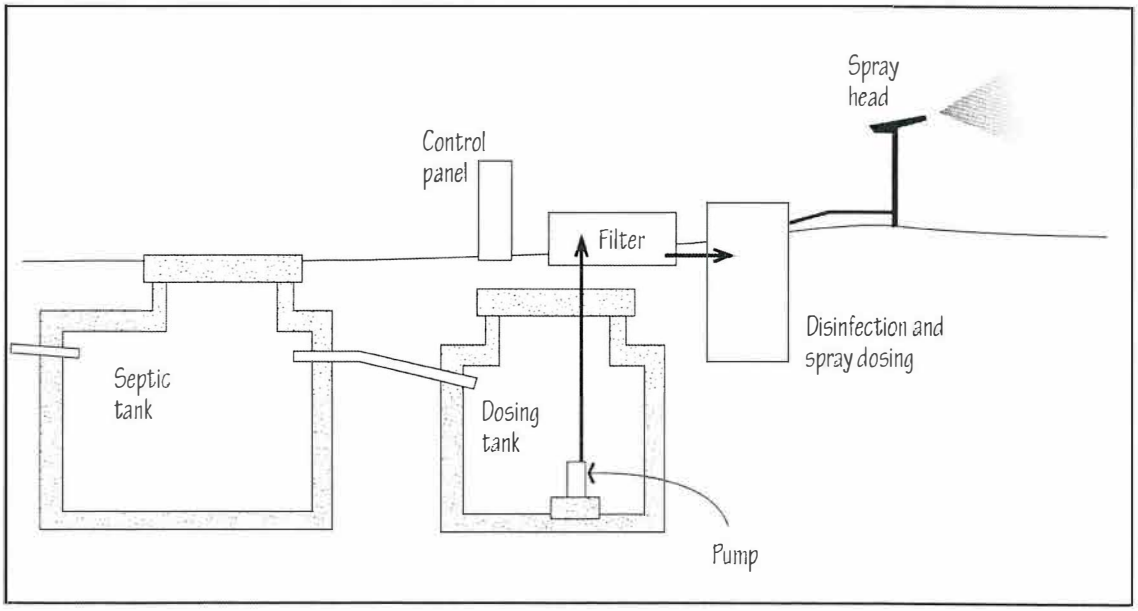

Figure 8. Right: a typical spray irrigation system.

maintenance as the periodic cleaning of septic tanks or the replacement of sand in sand filters.

It is difficult to know whether one system is better than another. That's because any comparison depends on numerous factors, including how flows are estimated and whether research will confirm that less soil treatment area is needed for effluent that is largely pretreated. Other important considerations affecting comparisons are the specific site conditions, a site's slope and the location of individual lots.

It currently appears that the standards for soil treatment units contained in Minnesota Rules Chapter 7080 are cost-effective at flows of 5,000 gpd and less. For flows between 5,000 and 15,000 gpd, the least costly system is a series of individual septic tanks (one for each residence) connected to a communal drainfield or mound system. Sand filters, aerobics tanks and package plants become more advantageous, especially if a 50 percent reduction in the size of the soil treatment area is allowed. If there is plenty of low-cost land available, spray irrigation becomes a viable, cost-effective system. For flows over 15,000 gpd municipal wastewater treatment systems such as waste stabilization ponds and mechanical treatment plants start becoming cost-effective depending on the individual situation.

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Part of a Series

This is one in a series of four publications designed to assist local community leaders, city officials, developers and homeowners in creating viable residential cluster developments and management structures within their communities. The series includes:

1. Overview of Key Issues
2. Alternative Wastewater Management Systems
3. Storm Water Management
4. Management Options

Funding

Funding for these publications provided by the Metropolitan Council and a University of Minnesota Extension Service Collegiate Program Leader Collaborative Grant. For ordering information call (612) 625-8173.

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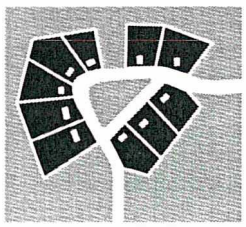

Residential Cluster Development: Storm Water Management 3

Robert D. Sykes, ASLA

Summary

Residential cluster developments offer local governments an excellent opportunity to manage storm water more effectively than they can in conventional developments. This publication reviews the fundamentals of storm water management, highlighting the problems conventional developments have in this area, and identifying the benefits of cluster design in developing a natural system of storm water management. There is also a description of an existing subdivision that benefitted from this new design.

Fundamentals of Storm Water Management

In every location there are two storm water management systems, the major and the minor. Three considerations largely shape the design of these systems: flooding, convenience and water quality. Paths taken by runoff from very large storms are called major systems. Where these systems are specifically designed, flooding is usually avoided. But where the effects of large storms are not specifically considered or planned for, flood damage can be substantial.

Systems designed with convenience in mind quickly remove runoff water from areas such as streets and sidewalks because they're difficult to use when covered with water. Convenience facilities like storm sewers, technically referred to as minor systems, quickly remove the peak flow of a runoff resulting from typical small storms.

Apart from temporary measures to control sediment in construction areas, water quality concerns in residential areas focus on the polluting substances washed from paved surfaces and carried into streams or other bodies of water during storms. Pollutants carried in runoff include sediments, nutrients, chemicals, disease-carrying organisms and heavy metals. Sources of these pollutants include grass clippings, leaves, eroded soil, fertilizer particles, oil and gasoline drippings, animal droppings, and metal flecks from vehicles. Detention ponds remove most of these suspended substances from runoff by temporarily holding it until the particles settle out (see Figure 1). Regulations require such ponds.

Storm Water Management in Conventional Developments

Since World War II, conventional zoning has typically led to the development of residential subdivisions that completely blanket a parcel with evenly-spaced lots. This results from zoning provisions that require minimum lot sizes and widths, and from local governments requiring developers to construct streets that serve every lot. In most cases, these streets must have curbs, gutters and storm sewers (see Figure 2).

The adverse effects of storm water management in traditional developments mainly occurs because of changes made to the character of the land surface. Developments introduce roofs and large areas of pavement, referred to as impervious surfaces, which substantially reduce the amount of rainfall soaking into the soil and substantially increase the amount of runoff.

Because pavements and roofs have much less surface area to wet in a rainstorm compared to plant-covered lands, more water is also free to run off these simpler, impervious smooth surfaces. Because they are smoother, water also runs off them faster. Instead of flowing off slowly over a long period of time, a larger volume of water arrives downstream at the same time much like rush hour on highway networks. More water running more quickly causes "traffic jams" of water downstream that we commonly call flooding.

This addition of impervious surfaces associated with urbanization can significantly

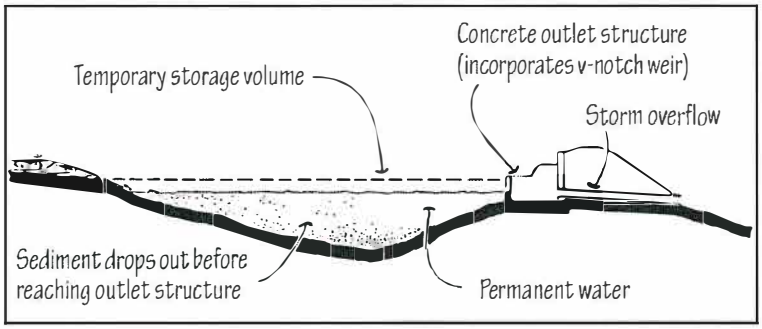

Figure 1. A wet detention pond is placed to capture runoff from residential land before it leaves the development. It settles out particles of pollution before overflowing off the site. It does not fully empty after a storm.

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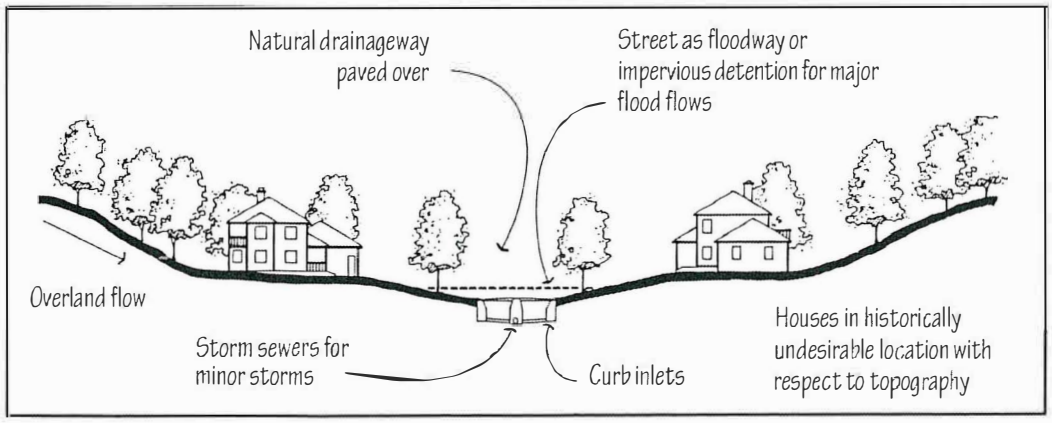

Figure 2. Traditional residential developments with storm sewers provide convenience drainage as the minor system, and overflow with major storms to augment the function of streets as flood or major system protection.

■■■

contribute to lowering the water table, both locally and regionally.* This can skew the balance of water over time into a feast-and-famine moisture pattern between storms and dry periods.

Development under conventional zoning does little to minimize, much less prevent, these ill effects. Curbs hold water in the roadway, requiring storm sewers to let it out. The round pipes used for storm sewers move masses of water very efficiently. But instead of moving runoff slowly over natural surfaces so it soaks in, runoff moves rapidly once it's inside storm sewers, with no opportunity to infiltrate the soil. The high speed of flow keeps pollutants suspended in the runoff. Constructed ponds are then required to remove pollutants and reduce peak flows. Since storm sewers are designed to flow without pumps, they tend to be put in the lowest portions of the landscape which are natural drainage-ways. Streets then follow this drainage pattern. Thus when storm sewers overflow, the street's smooth, uninterrupted, impervious surfaces become the paths flood flows follow.

The proverbial "cookie cutter syndrome" that results from conventional zoning (houses spread evenly over an entire site) leads to a large amount of pavement so the streets connect to all the houses. In addition, large lots and front yard set-backs necessitate even more pavement to connect garages and front doors to streets. With all this pavement connected, there is much less opportunity for runoff to soak into the ground. In short, conventional development carries with it a subtle but powerful bias toward maximizing both the quantity and speed of runoff.

Storm Water Management in Cluster Developments

Cluster zoning allows the same number of houses on a site as conventional zoning (see Figure 3). However, it allows developers to put the houses on smaller lots and requires the preservation of large areas of a site as open space where houses can never be built. These two provisions give local governments and developers the flexibility needed for good design and modern storm water management.

The layout for a clustered housing development can be arranged so that the steep slopes, natural drainage-ways, and areas of prime vegetation fall where the open space is (see Figure 4). And by clustering lots closer together and facing them on open spaces, shorter roads (and less pavement) are necessary. Smaller, narrower lots also help reduce the need for pavement in driveways and walks, as in Figure 3.

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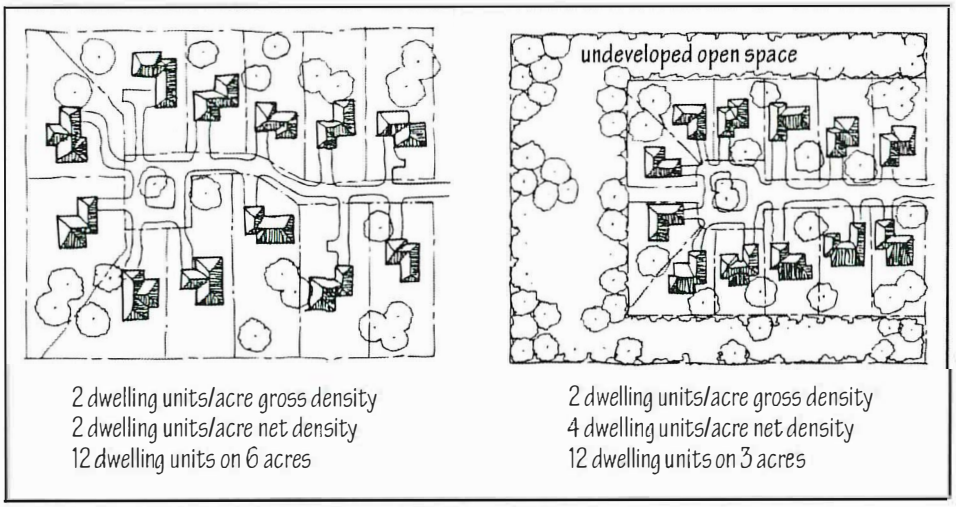
Figure 3. Cluster development reduces the quantities of pavement and site grading compared to development under traditional zoning. It also permits the preservation of large blocks of open space from initial and future development.



* This is most readily observed by drops in the depth of stream base flows (flows between rainfalls). Base flow is fed by subsurface (groundwater) runoff. Subsurface runoff is supported by infiltration of rainfall from the surface. The water table is the top of the saturated zone of soil - the top of the subsurface runoff. In urban areas, imperviousness reduces replenishment of subsurface flows and is directly reflected by drops in the water table. See Schueler, Tom (1995) *Site Planning for Urban Stream Protection*, Silver Spring, MD: Center for Watershed Protection, Ch.1; Ferguson, Bruce K. (1994) *Stormwater Infiltration*. Boca Raton, FL: Lewis Publishers, Ch. 1; and Leopold, Luna B. (1974) *Water, A Primer*. San Francisco, CA: W. H. Freeman and Company.

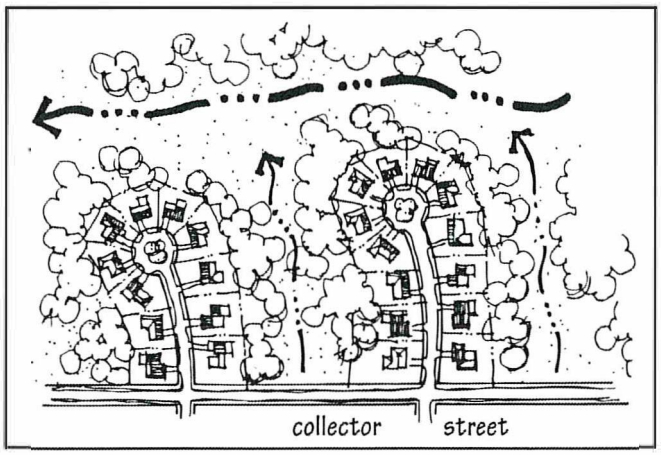


Figure 4. The layout plans for cluster housing development can be arranged so that the steep slopes, natural drainageways, and areas of prime vegetation fall into the open space areas.

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Clustering enables a better relationship between impervious surfaces and natural drainageways, too. Roads can be placed along ridge lines, with houses just off the ridges on the ridge 'brow.' This means that most pavement and roofs are located as far from the preserved natural drainage system as possible (see Figure 5). Runoff from impervious surfaces now flows slowly over pervious, vegetation-covered areas, soaking into the soil, which filters out some of the pollutants before the storm water reaches lakes, rivers and streams. Greater use is made of drainage devices such as ditches and swales. (Similar to ditches, swales are typically short, shallow and wide depressions covered with vegetation.) Costs are lowered because curbs and storm sewers are no longer needed. More rainfall is directed toward the replenishment of ground water. The development generates a smaller volume of runoff moving more slowly toward the bodies of water receiving it.

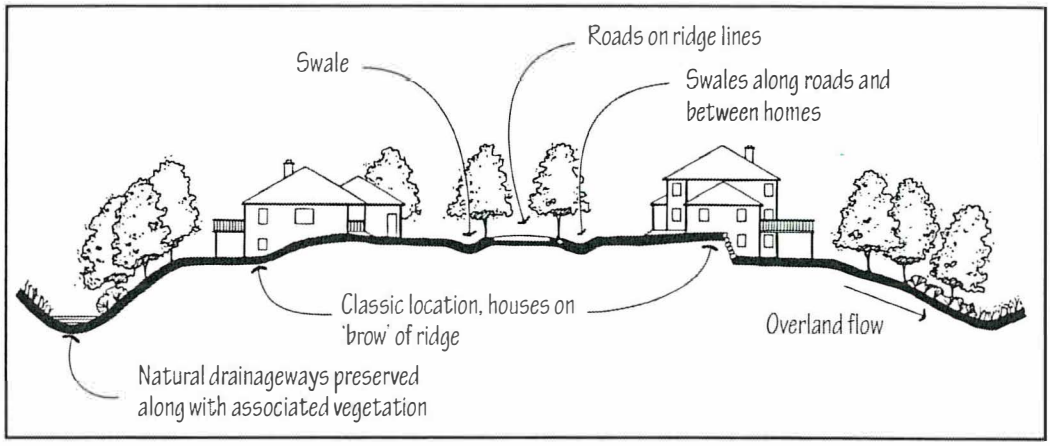

Figure 5. Clustering of houses permits roads to be placed along ridges as far as possible from preserved natural drainage-ways.

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Management of Storm Water Facilities in Cluster Developments and Open Spaces

Preservation of natural drainage systems and the use of overland swales for storm water require a different approach to maintenance and repair than traditional storm sewer systems. Most of all, this type of storm water network requires maintenance of living plants and occasional removal of sediment. This in turn requires a management organization designed and funded for that purpose. Public works departments are one alternative for managing these natural drainage systems. There are three other management options: (1) homeowners associations, (2) storm water utilities, and (3) water quality cooperatives.

■ Homeowners Associations

A homeowners association is initially established by the land developer as a nonprofit organization. Through deed restrictions, all homeowners are members of the association and bound to the subdivision. This means the association can set rules and assess membership fees for the care of commonly owned property, including storm water systems and open spaces.

■ Storm Water Utilities

In Minnesota, a local government may establish a storm water utility for the maintenance of storm water infrastructure. Many cities have done so in the last fifteen years to take care of storm water detention ponds. A storm water utility can assess the costs of its services to property owners that benefit from the storm water facilities it owns or for which it is responsible. Two Minnesota examples are the cities of Lake Elmo and Marine-on-St. Croix.

■ Water Quality Cooperatives

Individuals can also form water quality cooperatives that own and care for the storm water infrastructure discussed above. Cooperatives are non-profit, member-owned organizations that provide services to their members and are financed through a membership fee structure. These organizations can also be used to join together several homeowners associations by using the Master Association feature of the Minnesota Common Interest Ownership Act. By joining, these groups effectively improve their bargaining position when securing technical management or other services for their residents.

The Woodlands Case Study

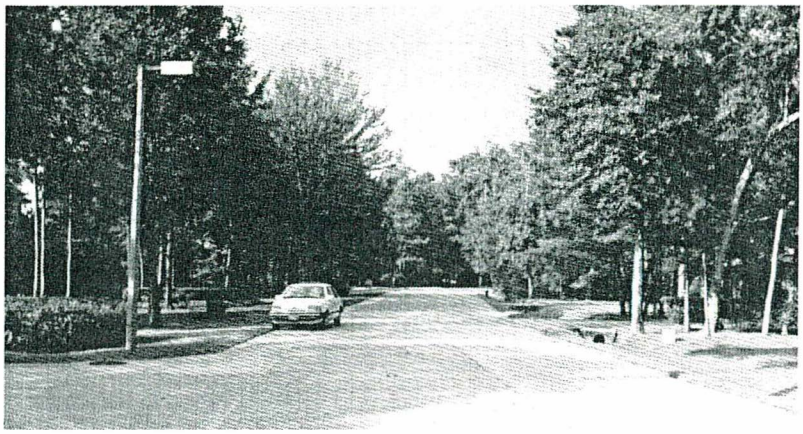

Figure 6. Typical residential street in The Woodlands, Texas. (Photo courtesy of Professor David G. Pitt, Department of Landscape Architecture, University of Minnesota)

Nationally, one of the best-known developments to use residential clustering for a natural system of storm water management is The Woodlands New Community outside Houston, Texas. This 20,000-acre town was planned and designed by Wallace, McHarg, Roberts and Todd, Landscape Architects and Planners, Philadelphia, Pennsylvania. The site is flat and heavily wooded, with extensive areas of poorly-drained soils. Clustering was included in the firm's comprehensive plan to preserve the site's natural drainage system, avoid environmentally-critical areas, work with existing topography, and maintain prevailing hydrologicol conditions.

The Woodlands' general plan used the existing natural drainage system to provide the town's major storm water system. Major roads and dense development were located along ridge lines, while preserving the natural flood plains as parks and open space. Rather than an underground storm sewer system, the minor storm water system is made up of open space and roadside and lot-line swales. The minor system focused an getting small rainstorms to soak into the soil.

In its original plan, engineers compared the capital cost of the natural drainage system to that of a conventional system and found that the natural approach saved over $14 million. In addition, a conventional storm water management approach would have cleared thousands of trees, increased runoff 180 percent, degraded downstream water quality, and caused a daily water table draw-down of 15 million gallons. The plan avoided or sharply reduced the impact of all these problems.**

The ultimate measure of The Woodlands' approach occurred one April day in 1979 when a record storm dropped nine inches of rainfall on the Houston area in less than five hours. No houses in The Woodlands experienced any flooding. But neighboring areas, with conventional storm water management systems, were hit hard by flood damage.

**For more information see Juneja, Narendra and James Beltman (1980) "Natural Drainage in The Woodlands" in *Stormwater Management Alternatives*, J. Toby Tourbier and Richards Westmacott, Newark, NJ: Water Resources Center, University of Delaware Development of the Woodlands.

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Part of a Series

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1. Overview of Key Issues
2. Alternative Wastewater Treatment Systems
3. Storm Water Management
4. Management Options

Source for Figures 2, 3, 4, and 5: Protecting Water Quality in Urban Areas: Best Management Practices for Minnesota, Ch. 3, Minnesota Pollution Control Agency, Division of Water Quality, St. Paul, MN, Oct. 1989.

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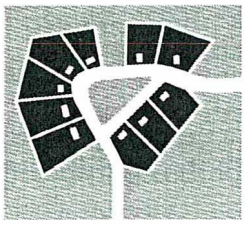

Residential Cluster Development: Management Options

4

Mathew Mega, Jon Erik Kingstad and Robert Sykes

Summary

This publication discusses basic management concepts used in new residential cluster developments, as well as the options available to municipalities and developers when establishing a management structure.

Management of Basic Functions

In a residential cluster development, the services residents are most concerned about include management of commonly-held open space, treatment of household wastewater and control of storm water runoff.

To manage these concerns, a management structure is necessary that identifies which services will be delivered, who will deliver them, and what resources will be used.

At the most basic level, management in a new cluster development means identifying individuals responsible for the construction, operation and maintenance of wastewater, storm water and open-space systems over the life of the cluster development.

■ Construction

This involves the basic design decisions about what services will be provided and defines construction standards. Construction is usually the developer's responsibility.

■ Operation

While there is operation and oversight of open space and storm water runoff, here the term operation usually refers to wastewater treatment facilities. If houses have individual on-site septic systems, the individual homeowner is responsible. As more complex wastewater treatment systems such as package plants are used, however, a professional operator will be required to oversee operations.

■ Maintenance

This is the most important function of the management structure, and its major components are the physical maintenance of wastewater and storm water systems. A good management structure should also provide a framework for future capital investment and system replacement. Management structures covering maintenance in most current developments usually do not have a future capital investment plan, which means that the developments tend to react to problems as they occur.

Current Management Situation

■ Open Space

Most residential cluster developments focus management activities on the protection of open space and the enforcement of community bylaws. This includes the maintenance of active and passive recreational areas, including ballfields, tennis courts, trails, and common areas. The majority of these issues can be addressed easily through a homeowners association (HOA). Residents automatically become members when they purchase a home and each household has an equal vote in such things as the setting of annual dues, physical design standards (e.g., house color), and the hiring of maintenance crews. Open space is protected through the use of deed restrictions, conservation easements or dedication of land to the municipality.

■ Storm Water Drainage Systems

Currently, two distinct forms of storm water management are simultaneously in place in residential cluster developments. Developers provide a basic storm water drainage system consisting of grassed swales and large detention ponds. The prevailing view is that these do not require extensive maintenance or replacement (for more information, see publication three of this series). The municipality, which controls the stormwater management structure in the majority of cluster developments, is responsible for the maintenance and upkeep of the second system, the curbs and gutters of public streets.

Many cluster developments lack a formal management structure. Once construction is complete, little attention is given to the storm water system's future needs beyond the mowing of swales, a task usually done by individual homeowners. When a problem does occur, such as the need to dredge a detention pond, the HOA must independently discover the procedure for correcting the problem. This leads to a reactionary management structure where problems are only addressed as they happen.

■ Wastewater Treatment

When there are individual septic tanks and drainfields, there is no

University of Minnesota Extension Service

formal management structure in place. Homeowners are responsible for the maintenance and upkeep of their own systems. In cluster developments, where individual drainfields may be placed in commonly-held open space, proper maintenance is still the ultimate responsibility of the individual homeowner. This fact sheet concludes with a more detailed look at wastewater management structures.

Technological Advances Lead to Increased Management Complexity

Unlike conventional subdivision developments, cluster developments explicitly incorporate greater housing density (on parts of a site), rural technologies, and innovative design to preserve more open space, to protect environmentally sensitive areas, and, sometimes, to preserve agricultural landscapes (see publication one). Technological advances in storm water drainage systems (publication three) and wastewater treatment systems (publication two) have greatly enhanced developers' ability to propose cluster designs.

Advances in wastewater treatment can ensure the protection of groundwater because systems can be located on a development's most suitable areas. Additionally, both the municipality and the developer can benefit from economies of scale by consolidating resources and minimizing duplication.

Better storm water management, including the use of vegetation and extensive overland flow systems, increases the opportunity to remove contaminants and keep sediment from discharging into local bodies of water.

However, many advances in rural technologies such as package plants, require professional maintenance and monitoring to ensure proper performance. This greater level of responsibility requires more complex management structures. Such a situation also makes it more desirable for municipalities, homeowners and developers to share this responsibility.

How to Select a Management Structure

As the complexity of residential cluster development increases, the local municipality needs to choose the management structure. This decision will be strongly influenced by the developer's design and layout proposals, however. Hopefully, the process creates a residential development that meets community goals, affords the developer appropriate financial gain, and provides homeowners with safe basic services that function properly.

■ Role of the Developer

The developer is the first and most critical stakeholder in establishing a management structure. The developer designs a cluster's layout, including the type and location of commonly-held resources and rural technologies. The physical design of the proposed cluster must conform to municipal zoning and subdivision codes. Typically, the developer is the initial petitioner for the development. The developer is also the key individual in the initial establishment and the future responsibility of the HOA. As the HOA's initial member, the developer acts on behalf of future homeowners.

■ Role of the Municipality

The municipality's primary role is to review and approve the formal design of the cluster development, ensuring its compatibility with local ordinances and codes. Usually this does not involve the establishment of a management structure except to require that developers create an HOA. But municipalities can establish formal management structures to aid local residents. An example is an environmental subordinate service district to correct a failing wastewater treatment system. As the need for alternative management structures arises, the municipality plays an expanded role in advising about and establishing new management structures.

Critical Components Influencing the Choice of Wastewater Management Structure

Three critical factors influence the choice of a wastewater management structure:

1. site characteristics,
2. design of the service system, and
3. size of the service area.

The first two are the developer's responsibility; in most cases, the municipality decides the third.

■ Site Characteristics

The physical characteristics of the site such as soil conditions, vegetative cover and areas of excessive slope determine what wastewater treatment facilities are most appropriate.

■ System Design

Once a specific system is chosen, its components determine the degree of monitoring and maintenance that is necessary, pointing almost inexorably to a specific management structure. For instance, a package plant has the capacity to service many units, but because it involves a number of mechanical components, it requires a professionally trained and licensed technician to ensure that the system runs smoothly. Community drainfields, on the other hand, with few mechanical components, require less strict monitoring (see Figure 1).

■ Service Area

The municipality should have some insight into the potential grouping of cluster developments in its community. If multiple cluster developments are close together, the municipality may choose to consolidate resources by incorporating all the clusters under a common management structure. If clusters are independent of each other, a simpler structure is usually more appropriate.

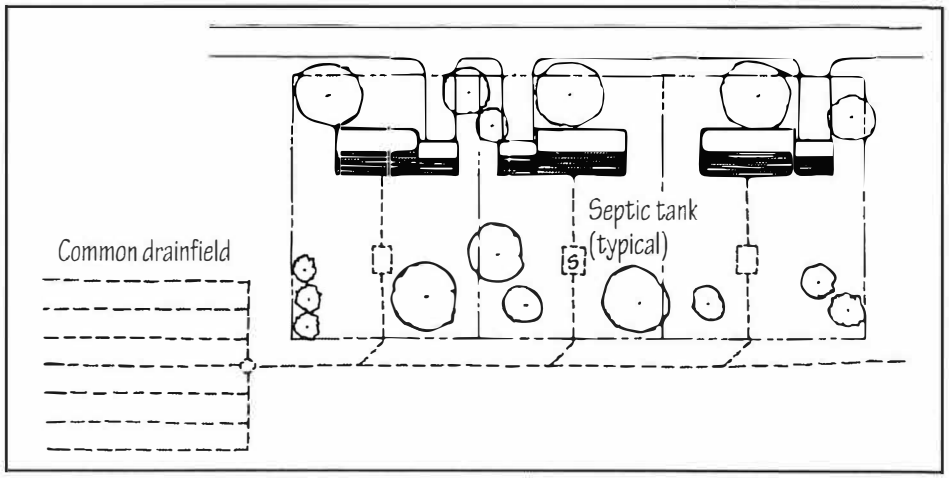

Figure 1. Typical on-site septic layout for a cluster.

■■■

Specific Management Options for Wastewater Treatment

Six management options exist to handle wastewater treatment, three public and three private.

■ Private Management Options

■■■ *Homeowners Association*

The most common management entity utilized today, the HOA's structure is determined by bylaws, which are usually typical of regulations for community property. Many municipalities require an HOA as a condition of plat approval for cluster developments and many codes state basic requirements HOAs must meet. After establishing an HOA, a developer remains a member until a set number of housing units are sold, usually around 50 percent. The primary disadvantage of the HOA is its lack of dedicated support staff and technical expertise when dealing with the additional monitoring and maintenance requirements associated with community wastewater treatment facilities.

■■■ *Privatized Joint Venture*

Private management of wastewater treatment is authorized under the Privatized Capital Intensive Services Act in Minnesota Statutes Chapter 471A. Under this statute, a local unit of government may contract for private wastewater treatment with a private vendor who provides service to residents for a user charge approved by the local unit of government. Creating the joint venture allows the HOA or the local unit of government to hire management with expertise beyond the capacities of the individual homeowners. As a permanent management structure, the joint venture also removes the burdens of monitoring and maintenance from the HOA or the local unit of government.

A privatized joint venture could be used to link a number of cluster developments' HOAs through a "master association" under the Minnesota Common Interest Ownership Act to provide wastewater treatment services beyond the capability of the individual HOA for a fee.

■■■ *Water Quality Cooperative*

Just as residents have organized rural electric cooperatives to obtain a lower-cost essential service, the cooperative framework enables individuals to obtain management expertise, monitoring, and maintenance beyond the capabilities of individual residents or even homeowners associations. The cooperative entity has the power to levy charges for its services, but the cost savings flow back to members as profits or capital credits. Legislation enacted in 1997 by the Minnesota legislature has authorized the creation of two pilot water quality cooperatives to own, operate, manage and control alternative sewage treatment systems and provide other water quality management and treatment services.

■ Public Management Options

■■■ *Municipal Utility*

The most familiar form of public management structure is a separate government entity providing basic services such as storm water, water supply or wastewater management. Municipal utilities can assess property owners who benefit from using the public service the utilities provide. Cities, counties and townships have the authority to plan, finance, construct and maintain sewer service systems within their boundaries.

■■■ *Sanitary Sewer District*

Sanitary sewer districts can be created in several ways. Townships, cities, counties or 20 percent of the voters residing and owning land in the affected area may petition the Minnesota Pollution Control Agency. Addi-

tionally, general purpose governments may enter into a joint powers agreement to create a sewer district. A county, district court and even the state legislature may create a district by passing a new law specific to the affected area.

■■■ *Subordinate Service District*

Townships use these to establish an area for improvement. An example would be upgrading a failing wastewater treatment system. Subordinate service districts are defined areas in a town in which one or more government services or additions to townwide services are provided by the town, with revenues financed from inside the area.

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Other Resources

These resources from the University of Minnesota Extension Service are available through your county Extension office or by calling the Distribution Center at:
Twin Cities local 624-4900 or Outstate 1-800-876-8636

Septic System Owner's Guide EP-6769

Septic Systems Revealed video VH-6768

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Requesting Party: MICHAEL & ROXANNE PIEPER
Pages: 1

This cover page has been added to this document by Carver County Land Records
and is now an official part of this recorded document

IN TESTIMONY WHEREOF, Michael R. Pieper and Roxanne E. Pieper have executed this Declaration to Amend Existing Covenants and Restrictions for San Francisco Acres this 28th day of September, 2020.

Michael R. Pieper

Michael R. Pieper

Roxanne E. Pieper

Roxanne E. Pieper

STATE OF MINNESOTA)
) SS
COUNTY OF Scott)

This instrument was acknowledged before me this 28th day of September, 2020, by Michael R. Pieper and Roxanne E. Pieper.

KIMBERLEA T HALVORSON
Notary Public
Minnesota
My Commission Expires January 31, 2025

(STAMP)

Kim Halvorson

Signature

Notary Public, Scott County, Minnesota

My commission expires: January 31, 2025

DECLARATION TO AMEND EXISTING COVENANTS AND RESTRICTIONS FOR SAN FRANCISCO ACRES

This Declaration, made this 28th day of September, 2020, by Michael R. Pieper and Roxanne E. Pieper, husband and wife, (hereinafter referred to as "Declarants");

WITNESSETH:

WHEREAS, The Declarants are the sole owners of the real estate legally described in Article I hereof, in fee simple, hereinafter referred to as "SanFrancisco Acres"; and

WHEREAS, as the sole owners of the real estate described herein, Declarants have determined that said Protective Covenants and Restrictions are detrimental to the useful enjoyment of the property; and

WHEREAS, as the sole owners of the real estate described herein, and there being no common areas, Declarants surrender their right to form a Homeowner's Association and relinquish any voice or powers pertaining to the administration and enforcement of any covenants and restrictions which may be associated with SanFrancisco Acres; and

WHEREAS, as the sole owners of the real estate described herein, Declarants desire to withdraw and terminate various covenants and restrictions set forth in the Protective Covenants and Restrictions executed by the Declarants, dated February 12, 2002, and filed for record in the office of the Carver County Recorder on February 12, 2002 as Document No. A307942. These new covenants set forth herein terminate and supersede those currently on file as referenced above.

NOW THEREFORE, this Declaration to Amend Existing Covenants and Restrictions for San Francisco Acres hereby terminates all such covenants and restrictions previously imposed by the undersigned, except for any such restrictions as may be imposed by the County of Carver under Carver County Zoning Code Chapter 152 or San Francisco Township.

ARTICLE I.

Property Released from Protective Covenants and Restrictions

SanFrancisco Acres. The real property being released from all previously-imposed Covenants and Restrictions is located in the County of Carver, State of Minnesota, and is more particularly described as follows:

Lot 1, Block 1; Lot 1 and Lot 2, Block 2; Lot 1, Block 3; and Outlot A and Outlot B, SanFrancisco Acres, Carver County, Minnesota, according to the plat thereof on file and of record with the Carver County Recorder, Carver County, Minnesota.

ARTICLE II.

Independent Residential Building Lots with No Common Areas

The property which is the subject of this document consists of independent building lots with no common areas. All articles set forth in the previously-recorded Protective Covenants and Restrictions, same being Article I through and including Article VIII. are no longer applicable or useful as the Protective Covenants and Restrictions are hereby terminated by this document. This document supersedes any previously-recorded Covenants and Restrictions. Oak Hills Lane is a township road and once a home is established on any one of the lots, the Township of San Francisco has acknowledged that it will assume responsibility for road maintenance.

ARTICLE III.

Carver County and SanFrancisco Township Restrictions

The property described herein will remain subject to those restrictions imposed by Carver County Zoning Code Chapter 152, as they pertain to septic locations, steep slopes, wetlands, large animals, etc. which are standard for all building lots similar to those described in this document.

As Carver County's Zoning Code and restrictions may be modified from time-to-time pertaining to Residential Cluster Standards, the most current copy of Carver County Zoning Code Chapter 152 setting out restrictions may be secured from the Carver County Land Management office. The Zoning Code:

a. prohibits the raising and breeding of animals, except for a minimal number of dogs, cats, or other household pets,
b. notes that the property is in a rural area and property owners may notice occasional odors, dirt/dust, flies, machinery noise, etc. relating to the agricultural and other rural land use activities,
c. requires an alternate sewer site,
d. requires an erosion control plan during building construction,

in addition to other requirements as so stated in Carver County Zoning Code Chapter 152.

Text of phone call received from Lavonne Behnke on Thursday November 18, 2021:

"I want to comment on the variance appeal for the lot next to us. And I just want to say that when we got our shed, you would not give us a variance. We had to have a 25' by 40' shed and there was no discussion, no variance given to us. So if you're going to give it to somebody else, why even have zoning."

CARVER COUNTY

Township Presentation & Recommendation Form

PARCEL # 08.8550030 **Permit #** PZ20210059

Owner's Name: David Wecker

Owner's Mailing Address: 10115 3rd St NE

City: Blaine

Owner State: MN

Owner Zip: 55434

Applicant (if other than owner):

Site Address: 17495 Oak Hills Lane, Carver, MN 55315

Type of Request: ○ CUP ○ IUP ○ Preliminary Plat ○ Final Plat ☒ Variance ○ Appeal

Description of Request:

Build an Accessory Structure to increase personal storage space from 2000 to and increase the square footage of the structure to from 1250 to 3088 -

Date of County Public Hearing: 12/1/21 **Date of Township Meeting:** 11/15/21

Actions:

Township Action Taken:

☒ Recommends approval and use of the Township Road (if applicable) with the following comments:

○ Recommends denial for the following reasons:

○ No recommendation, but will comment on the request at the Planning Commission or Board of Adjustment hearing:

The Way the land lay the Township Board Feels this fits the townships approval process The Board voted unanimously for approval

**Important: I understand that I must appear at the Town Board meeting to present my request and obtain their recommendation prior to appearing before the County Planning Commission or Board of Adjustment.

Signature of Applicant Date 11-15-2021

Signature of Township Official Chair Date 11-15-2021

EXHIBIT "A" – LEGAL DESCRIPTION

PID NUMBER: 08-855-0030 **File# PZ20210059**

OWNER: David E Wecker Revocable Trust
APPLICANTS: David E Wecker & Margaret S Wecker, Trustees

* *

Lot 2, Block 2, San Francisco Acres, Carver County, Minnesota.

DRAFTED BY: Carver County Land Management Department