

## **PLANNING COMMISSION AGENDA**

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**OCTOBER 1, 2018**

**7:00 pm**

- 1. CALL TO ORDER -**
- 2. PLEDGE OF ALLEGIANCE –**
- 3. ROLL CALL -**
  - a) Scott Patten
  - b) Sally Doherty
  - c) Kris Kopitzke (Chair)
  - d) Mark Nelson
  - e) Lucia Wroblewski
  - f) Jim Langan
  - g) Roger Bowman
  - h) Annie Perkins
  - i) Justin Sykora
- 4. APPROVAL OF AGENDA –**
- 5. APPROVAL OF MINUTES –**
  - A. September 10, 2018 Meeting Minutes
- 6. REPORTS AND PRESENTATIONS – None**
- 7. PUBLIC HEARINGS –**
  - A. Tom Gasser Variance Application at 4220 River Road
- 8. NEW BUSINESS – None**
- 9. OLD BUSINESS -**
  - A. Update on City Council Actions – Council Highlights from the September 18, 2018 Council meeting - attached.
- 10. ADJOURN –**

**A quorum of the City Council or Other Commissions may be present to receive information.**

CITY OF AFTON  
**DRAFT PLANNING COMMISSION MINUTES**  
**September 10, 2018**

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5 1. **CALL TO ORDER** – Chair Kris Kopitzke called the meeting to order at 7:00 PM  
6  
7 2. **PLEDGE OF ALLEGIANCE** – was recited.  
8  
9 3. **ROLL CALL** – Present: Chair Kris Kopitzke, Roger Bowman, James Langan (for first half of meeting),  
10 Mark Nelson, Lucia Wroblewski, Sally Doherty, Justin Sykora, Scott Patten. A Quorum was present. Absent  
11 was Annie Perkins, (excused).  
12 **ALSO IN ATTENDANCE** – City Council member Joe Richter, City Administrator Ron Moorse, City Clerk  
13 Julie Yoho  
14  
15 4. **APPROVAL OF AGENDA** – re-organize items and address item 7d first.  
16 **Motion/Second Patten/Bowman to approve the agenda for the September 10, 2018 Planning**  
17 **Commission as modified. Passed 8-0-0.**  
18  
19 5. **APPROVAL OF MINUTES** –  
20 A. August 6, 2018  
21 **Motion/Second Patten/Nelson to approve minutes of August 6, 2018 as corrected. Passed 5-0-3**  
22 **(Doherty, Sykora, Wroblewski abstain due to absence).**  
23  
24 6. **REPORTS AND PRESENTATIONS** – none  
25  
26 7. **PUBLIC HEARINGS – (items taken out of order)**  
27 A. Application by Eric and Kaya Cook and Ken and Linda Johnson for minor subdivision for a lot line  
28 rearrangement  
29 Chair Kopitzke opened the public hearing at 8:02 PM  
30  
31 Administrator Moorse provided the following summary:  
32 Eric and Kaya Cook and Ken and Linda Johnson have applied for a minor subdivision for a lot line  
33 rearrangement to transfer 1.8 acres of property from 3787 St. Croix Trail, to be combined with the property at  
34 3752 River Road to make the 3752 River Road parcel conforming to the minimum 5-acre lot size. The  
35 application does not create any additional lots. The application is for a minor subdivision vs. a simple  
36 subdivision because the existing parcels are nonconforming. The 3752 River Road parcel is currently  
37 nonconforming regarding lot size. The 3787 St. Croix Trail parcel is nonconforming due to its access being  
38 provided through a private easement driveway through the 3752 River Road Parcel rather than directly from its  
39 frontage on St. Croix Trail. Access from St. Croix Trail is not possible due to very steep slopes.  
40  
41 Condition of approval is scenic easement over steep slopes  
42  
43 Eric Cook, 3787 St Croix Trail, applicant; stated that the driveway extension mentioned is proposed between  
44 the garage and house.  
45  
46 No other comments  
47  
48 **Motion/Second Patten/Bowman to close public hearing. Passed 7-0-0.**  
49  
50 Public hearing closed at 8:12 pm.  
51  
52 Discussion  
53 Bowman asked if this is a private road to access multiple lots with buildings up on property.  
54 Administrator Moorse stated this application is for transferring land, driveway proposal is coming later.  
55 Wroblewski stated this is a 5 acre lot in RR with an easement. This makes it a conforming lot.

56 Doherty stated the lot size will get up to 5 acres, other things are still non-conforming.

57  
58 **Motion/Second Doherty/Wroblewski To recommend approval of the Cook/Johnson minor subdivision**  
59 **application with the following findings and conditions with exception of condition #2:**

60 **Findings**

- 61 1. The two parcels in the proposed subdivision are zoned Rural Residential  
62 2. The land to the south, west and east of the subdivision is zoned Rural Residential and the  
63 land to the north is zoned VHS-R.  
64 3. The proposed minor subdivision does not create any additional lots.  
65 4. The proposed subdivision adds 1.8 acres to the 3752 River Road parcel, which is currently  
66 nonconforming with a lot area of 3.3 acres vs. the required minimum lot area of 5.0 acres.  
67 5. The parcel at 3787 St. Croix Trail obtains its access from a private driveway easement  
68 through the 3752 River Road parcel.  
69 6. The parcels include areas with slopes of 12% and greater.

70 **Conditions**

- 71 1. Scenic easements shall be placed on all areas with slopes of 12% or greater.  
72 2. The area of the existing driveway serving the 3787 St. Croix Trail parcel shall be exempted  
73 from the scenic easement restriction regarding driveways.  
74 3. The property owners shall each execute a scenic easement agreement and shall record the  
75 scenic easement concurrent with the subdivision

76  
77 **Discussion**

78 Nelson asked about intent of leaving condition #2 out

79 Doherty replied that all slopes go into scenic easement if at 12%.

80 Doherty asked about the status on the 2<sup>nd</sup> house? (Nothing is functioning. Condition of purchase was they have  
81 to remove the kitchen and shower. Intent for use is home office/home school).

82 Administrator Moore stated that a simple bathroom is allowed, tub/shower not.

83 Nelson asked if we have ever issued a variance that covers scenic easements? Moore replied no, not since he's  
84 been here. City holds the scenic easement; if they do have to cross a slope, they will need a variance and  
85 amendment to the scenic easement.

86 **Motion/Second Doherty/Wroblewski To recommend approval of the minor subdivision as listed with**  
87 **findings and conditions; plus 4<sup>th</sup> condition requiring removal of kitchen and shower facilities before**  
88 **finalizing subdivision.**

89 **Administrator Moore amend to "before subdivision is recorded". (accepted)**

90 **Vote:**

91 **Passed 7-0-0.**

92  
93 **B. Application by Ken & Linda Johnson for a variance at 3752 River Rd**

94  
95 Chair Kopitzke opened the public hearing at 8:35 PM

96  
97 Administrator Moore provided the following summary:

98 Application by Ken and Linda Johnson for a variance at 3752 River Road to allow an addition to their existing  
99 house that would have a setback of 121 feet from the centerline of St. Croix Trail vs. the required setback of  
100 150 feet. The existing house, which was built in 1875, has a legally nonconforming setback of 100 feet from  
101 the centerline of St. Croix Trail. The proposed addition is on the side of the house facing away from St. Croix  
102 Trail, but also extends south of the existing house at a setback of 121 feet from the centerline of CR 21 vs. the  
103 required 150 foot setback, which causes the need for the setback variance.

104 The proposed addition extends to the south of the existing house to avoid eliminating the only remaining  
105 window facing east from the kitchen and family room. The existing driveway that accesses the property  
106 along the south side of the house from St. Croix Trail would be eliminated. The proposed addition would be a

107 non-rental guest apartment that would enable the Johnsons to remain in the house under the care of one of  
108 their two children at such time as that would become necessary.

109  
110 No public comments

111  
112 **Motion/Second Wroblewski/Nelson to close public hearing. Passed 8-0-0**

113  
114 Public hearing closed at 8:38 PM

115  
116 Sykora asked about well location. (near east side of house)

117 Patten asked about ordinance regarding mother in law apartments.

118 Kopitzke answered they have to be contiguous to the main house and have shared access

119 Bowman added that separate pods or structures are prohibited

120 Wroblewski asked about the non-conforming uses chapter. Does that apply?

121 Moorse answered that the Lower St Croix Riverway language was used.

122 Kopitzke stated that this is consistent with what's been done in the past

123 Bowman asked about the design (will blend in with existing)

124  
125 **Motion/Second Wroblewski/Doherty To recommend approval of the variance to the City**  
126 **Council with findings and conditions listed and additional finding that existing house has well**  
127 **making it difficult to extend.**

128 **Findings:**

129 **1. The subject property is zoned Rural Residential, as are the properties to the south, east**  
130 **and west. The property to the north is zoned VHS-R. A portion of the property is bounded**  
131 **on the east by the St. Croix River.**

132 **2. The existing house was built in 1875, prior to the existence of St. Croix Trail.**

133 **3. The existing house is located 100 feet from the centerline of St. Croix Trail vs. the required**  
134 **setback of 150 feet.**

135 **4. The proposed addition is located 121 feet from the centerline of St. Croix Trail.**

136 **5. The existing house has a kitchen that faces east located in the southeastern portion of the**  
137 **house. If the addition was to be located completely to the east of the existing house, the only**  
138 **window facing east from the kitchen and the family room would be eliminated.**

139 **Conditions:**

140 **1. The existing bituminous driveway located directly to the south of the existing house shall**  
141 **be completely removed.**

142  
143 Doherty asked about septic (sewer)

144 **Vote: Passed 7-0-0**

145  
146  
147 C. Application by Joe Bush for an amended conditional use permit

148  
149 Chair Kopitzke opened the public hearing at 7:05 PM.

150  
151 Administrator Moorse provided the following summary:

152 Joe Bush has applied for an amended Conditional Use Permit to revise four conditions of the approval of the  
153 Afton Creek Preserve PLCD subdivision to enable the existing house on the parcel at 5550 Odell Avenue to be  
154 relocated to a conforming location on the parcel rather than being removed from the property (see the attached  
155 site plan). The application does not propose any changes to the subdivision layout. The requested revisions to  
156 the four conditions would make the owner of the 5550 Odell parcel responsible for the maintenance of the  
157 parcel, rather than the developer; would enable the existing house on the parcel to be relocated to a new location

158 on the parcel, rather than being removed from the parcel; and would allow construction work on the parcel  
159 related to the relocation of the house, but not related to the construction of the subdivision.

160  
161 Joe Bush, developer; stated that the easement is an allowable use and has been done in the Cedar Bluff  
162 development.

163  
164 James Rickard, 5650 Odell; stated that after all the negotiation the developer is now asking to keep the house  
165 that the owner rents to a family member. This is a RR lot, this is no harmonious with area use. Ordinance  
166 prohibits substandard lots. Concerns over increased construction traffic.

167  
168 Doug Parker, Trading Post Trail; stated that the City has already given the developer everything, in return the  
169 developer hasn't compromised or offered concessions to neighbors.

170  
171 Bill Dickes 57<sup>th</sup> St.; owns lot contiguous to proposed road. When property was purchased the intent was it  
172 remain rural. Concerned they are bisecting lot and is making theirs a corner lot. Clearly being done for money.  
173 Does not want Afton to change, not in City's best interest.

174  
175 Dave Husebye, Osgood Ave; stated that an agreement had been reached between city and developer. House  
176 could be moved into one of the PLCD lots. What will he want next? Unfair to change, deny request.

177  
178 Kathy Graham, Trading Post Trail; stated that the developer is asking for another concession. Neighbors feel  
179 that there has been no compromise for them. Developer has gotten everything. No hardship exists.

180  
181 Perry Jagers, stated the AG zone shouldn't have 16 lots. Zoning rules not made to be changed

182  
183 Christian Dawson 5888 Trading Post Trail; stated he is confused on how we have a road here in the first place.  
184 City Council hasn't listened to the Planning Commission's recommendations on this. Does city have right to  
185 add conditions to a CUP that was agreed on? No neighbors should be adversely affected. Need protection. Has  
186 had negative run-ins with the developer. Clarify how this is PLCD related.

187  
188 James Rickard, asked how does the city ensure impervious surface rules are observed? Can't be more than 10%

189  
190 Patrick Leahey, Odell; stated he agrees with all the neighbors. Not surprising the developer is looking for more  
191 concessions from city.

192  
193 Jen Wroblewski, stated that the Cedar Bluff development should not be precedent. Many see it as a mistake.  
194 Have to be responsible how land is developed.

195  
196 Joe Bush stated that the history with parks committee was that house would be removed for a park. There are  
197 parcels near this lot that have less acreage with easements. Easement is allowed by code.

198  
199 Doug Parker stated that the parcel is not a park because it required a super majority to pass.

200  
201 **Motion/Second Doherty/Wroblewski to close public hearing. Passed 8-0-0.**

202  
203 Public hearing closed at 7:37 PM

204  
205 Discussion  
206 Doherty stated that this could become very complicated, but really is about re negotiating a few conditions on  
207 the CUP. If they want to change, then the whole thing should be opened up for negotiation.

208

209 Wroblewski quoted the CUP permit language. The Planning Commission needs to consider adverse effects.  
210 It's public record that the Planning Commission has voted against this. Recommend no change allowed to the  
211 CUP. Traffic must go as per agreement.  
212 Sykora stated that he wasn't part of this when it started. Seems like wasting resources and that the developer  
213 should have thought of this before.  
214 Kopitzke asked if the road counts as impervious surface? (yes)  
215 Patten asked when the council rejected the park concept what was the long term plan for this lot?  
216 Administrator Moorse replied that the lot would remain in a well maintained natural state maintained by  
217 developer/home owners association.  
218 Kopitzke stated that much discussion was held.  
219 Wroblewski stated that a super majority vote needed to accept the park dedication, then the issue was tabled.  
220 Council member Richter stated there was discussion and feeling that the reason for the gift was to count it as  
221 part of park dedication. Two council members were against accepting as a gift.  
222 Nelson stated that the PLCD ordinance limits average density over the entire PLCD while the Comp Plan  
223 limits quarter-quarter sections to 4 dwellings without mention of average density, so that Carlson's 6  
224 dwellings in the NW1/4 of the SW1/4 of Section 33 is noncompliant with the Comp Plan.  
225 Langan stated the biggest issue is the 10% impervious surface limit.  
226

227 **Motion/Second Bowman/Doherty Recommend the request to amend the CUP be denied based on the**  
228 **following:**

- 229 **1. The city's Planning Consultant finds the request contrary to the intent of 5 acre lot size**
- 230 **2. Change to the agreement after such a short period of time**
- 231 **3. Parcel is not part of the PLCD**
- 232 **4. Promotes unstated rolling variances**
- 233 **5. Construction equipment does not need to access here**
- 234 **6. Neighbors have expressed opposition**
- 235 **7. Never had a resident speak in favor**
- 236 **8. Owner created situation**
- 237 **8. Impervious surface**
- 238 **9. Contrary to comprehensive plan**
- 239 **10. No similarly valuable concessions for the city**

240  
241 Discussion

242 Patten asked about including the findings from staff?

243 Bowman stated findings 1,2,3,& 5 as 4 seems like an endorsement

244 **Findings**

- 245 **1. The conditions of approval of the Afton Creek Preserve PLCD subdivision include the**  
246 **removal of all structures from the 5550 Odell parcel**
- 247 **2. The parcel at 5550 Odell Avenue is five acres in size**
- 248 **3. The parcel contains an existing house**
- 249 ~~**4. The existing house could be moved to a new location on the lot that would meet all setback**~~  
250 ~~**requirements**~~
- 251 **5. The parcel is planned to have a public road running through it on a sixty foot wide public**  
252 **roadway easement**

253  
254 **Vote –Passed 8-0-0.**

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260

261 D. Application by Roger Mireau at 12225 Hudson Rd

262  
263 Chair Kopitzke opened the public hearing at 8:48 PM

264  
265 Administrator Moose provided the following summary:

266 Roger Mireau, the owner of the property at 12225 Hudson Road, would like to enable a heavy equipment rental  
267 business to operate on the 12225 Hudson Road property. The list of uses allowed in the I-1A zoning district  
268 does not include heavy equipment rental. Mr. Mireau has requested a determination that a heavy equipment  
269 rental use is substantially similar to the current use operating on the property at 12225 Hudson Road through a  
270 Conditional Use Permit (CUP). The request is based on the “Determination of Similar Uses” process set out in  
271 Sec. 12-133 of the Zoning Code.

272  
273 Tammy DeGraw, broker for owner; stated he has had several offers on the property for over a year and all have  
274 backed out after talking to the city and being told no.

275  
276 Roger Mireau, owner stated he has never had any complaints, been there since 2005.

277  
278 No other comments.

279  
280 **Motion/Second Doherty/Patten to close the public hearing. Passed 7-0-0**

281  
282 Public hearing Closed at 8:54 PM.

283  
284 Discussion

285 Doherty asked about the new buyer and how often traffic is coming and going? Is it business to business?  
286 (traffic would be early in day or late evening, business to business, year round.) Were neighbors notified for  
287 this? (within 500 feet – 10 were notified, also published).

288 Patten stated he has never seen this equipment when driving by. Bigger concern is environmental concerns.

289 Kopitzke asked if the CUP is substantially the same? (Fundamentally yes , similar use)

290 Patten asked if a CUP can go from one buyer to next? (yes)

291 Bowman asked if it will be investor owned and leased? (yes 20 – 25 yrs lease). Employees? (few) expected  
292 traffic per day? (heavy equipment will stay out on site for several months; 5-10 trips per day)

293 Doherty stated she is uneasy about establishing use for heavy equipment rental since we don’t have a definition.

294 Kopitzke stated that exterior storage and warehousing don’t describe current use. This would be business to  
295 business rental.

296 Patten noted that the owner has been operating here with no issues for years.

297 Nelson asked if there is currently rental? (yes, 10 – 15 trips a day, operator goes out with equipment. Rents out  
298 but with operator included).

299 Doherty asked if the use should be added to the industrial district ordinance? Moose replied the timing of  
300 process would be longer. In findings we could list the definition.

301 Bowman asked if CUP can be amended?

302 Moose replied yes if we amend CUP to allow rental as defined...

303 Doherty suggested defining items such as height, number of pieces, hours of use

304  
305 **Motion/Second Doherty/Bowman to recommend the City Council provide feedback on adding heavy  
306 equipment rental to ordinance and doing an ordinance change adding the use.**

307 Discussion

308 Doherty stated she doesn’t agree with “substantially similar” wording. Would deny this. Ask council if they  
309 want pc to consider use addition to ordinance

310 **Vote 7-0-0.**

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312 **8. NEW BUSINESS - none**

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**9. OLD BUSINESS –**

A. Ordinance Amendment to allow Swimming Pool Auto Covers as Alternative to Fence Enclosure  
Tabled from last month since so many members were gone. Public hearing was held in august.  
Administrator Moorse provided the following summary:

The Planning Commission, at its August 6, 2018 meeting, held a public hearing regarding the attached ordinance amendment to allow a swimming pool auto cover as an alternative to a fence enclosure, and discussed the proposed ordinance amendment. The Planning Commission had a number of questions and concerns regarding the safety and security of the auto cover vs. a fence enclosure, and continued its consideration of the ordinance amendment to its September 10 meeting.

Patten stated he likes giving the choice to the homeowner.

Bowman asked what happens in large rain event, does the water pool on top (yes – pump it off top)

Sykora asked about the design and is there a cost difference? (cost similar depending on fence size; designed to cover whole surface of pool)

Doherty asked if the cover is rigid (similar to trampoline, tucks away when not in use. Use a key or enter code to operate)

Wroblewski stated it would likely be more expensive than a fence. Upkeep is necessary on parts, motor, etc.

Bowman stated that a fence has self-closing gate and physical barrier. Pool cover can be left open.

Kopitzke stated that our ordinances are to protect public and wildlife. It can be the homeowner’s decision.

Bowman stated he is concerned about responsibility of the homeowner

Wroblewski asked what if the cover is broken and not repaired?

Nelson stated that motors break more than fences

Sykora likes the option, put responsibility on owners

**Motion/Second Patten/Sykora To recommend the City Council approve an ordinance amendment to allow a pool auto cover so long as it remains in good repair, to be used as an alternative to the current requirement of fencing to completely enclose swimming pools.**

Kopitzke friendly amendment to read “allow a pool auto cover or a fence alternatively in the AG or RR...”  
**(accepted).**

**Vote: Passed 4-3-0 (Bowman, Doherty, Kopitzke - Nay)**

B. Update on City Council actions

Council member Richter provided a summary of the Council meeting.

**10. ADJOURN**

**Motion/Second Patten/Wroblewski To adjourn. Passed 7-0-0.**

Meeting adjourned at 10:15 PM

Respectfully submitted by:

\_\_\_\_\_  
Julie Yoho, City Clerk

To be approved on October 1, 2018 as (check one): Presented: \_\_\_\_\_ or Amended: \_\_\_\_\_

City of Afton  
 3033 St. Croix Trl, P.O. Box 219  
 Afton, MN 55001

# Planning Commission Memo

## Meeting: October 1, 2018

To: Chair Kopitzke and members of the Planning Commission

From: Ron Moorse, City Administrator

Date: September 25, 2018

Re: Tom Gasser Variance Application to Allow an Addition to the Rear of the Existing House at 4220 River Road. - **Public Hearing**

### Attachments

Property location maps  
 Property surveys/site plans  
 Variance questionnaire  
 Proposed house elevations  
 Current and proposed house floor plans  
 Rain Garden plans  
 Variance application  
 Property description  
 Property deed  
 List of properties within 500 feet  
 Geotechnical Report

### Background

The applicant is proposing to remodel and construct an addition to the existing house at 4220 River Road. The addition is proposed to be constructed on the west side of the existing house, and would also extend 12 feet to the south of the existing house. The property currently has a two-story house that is substandard in terms of its setbacks from River Road (62.6 feet vs. 105 feet), from the bluffline just east of River Road (73 feet vs. 100 feet), and from the Ordinary High Water Line (OHWL) of the St. Croix River (137.3 feet vs. 200 feet). Because the proposed addition would be located to the rear of the existing house, the setbacks of the addition from River Road, the bluffline and the OHWL would be greater than the setbacks of the existing house. The house backs up to a long steep slope. Both the existing house and the proposed addition meet the required side yard setback of 10 feet. The house is connected to the "201" community septic system, so that a septic drainfield is not required.

### Grading, Drainage and Erosion Control

The proposal includes the construction of a retaining wall in a steep slope area behind the house and requires excavation in the flat area immediately behind the house for a foundation for the addition. All drainage from the roof will be captured in rain gutters and carried directly to rain gardens on the north and south sides of the front yard.

### Zoning Requirements Met

1. Meets the side yard and rear yard setback requirements.
2. The bulk of the proposed house addition would be screened from view from the river during leaf-on conditions.
3. The color of the house is proposed to be earth tone.
4. With the proposed addition, the house would not be increased in height. The house is well below the 35 foot maximum allowed height.
5. The proposed deck, which extends to the south from the existing house, parallel to the river, meets the ordinance requirement for exterior decks (see below)

Sec. 12-580

C. 3. Exterior decks attached to the structure which do not extend any roof or foundation, may be permitted to extend laterally (parallel to the river or bluffline) at the same setback as the substandard structure if such deck is visually inconspicuous in summer months as viewed from the river, and provided the deck has no roof or building foundation.

#### Zoning Requirements Not Met/Variations Requested

1. The proposed addition will have an 86.6 foot setback from the centerline of River Road vs. the required 105 foot setback.
2. The proposed addition will have a 161.3 foot setback from the Ordinary High Water Line of the St. Croix River vs. the required 200 foot setback.
3. The proposed addition will have a 97 foot bluffline setback vs. the required 100 foot setback.

#### Variance Factors

In addition to the three factors used to determine practical difficulty, the St. Croix Bluffland and Shoreland ordinance requires that when considering a proposal or zoning amendment within the St. Croix River District, the following factors are to be considered:

- A. Preserving the scenic and recreational resources of the St. Croix Riverway, especially in regard to the view from and use of the river.
- B. The maintenance of safe and healthful conditions.
- C. The prevention and control of water pollution, including sedimentation.
- D. The location of the site with respect to floodways, floodplains, slopes, and blufflines.
- E. The erosion potential of the site based on degree and direction of slope, soil type, and vegetative cover.
- F. Potential impact on game and fish habitat.
- G. Location of the site with respect to existing or future access roads.
- H. The amount of wastes to be generated and the adequacy of the proposed disposal systems.
- I. The anticipated demand for police, fire, medical, and school services and facilities.
- J. The compatibility of the proposed development with uses on adjacent land.

#### Findings

The following is a set of recommended findings. The Planning Commission may revise the findings or add or subtract findings.

1. The property is zoned Rural Residential and is located in the Lower St. Croix River Bluffland and Shoreland Management Overlay District
2. The existing house is nonconforming in terms of setbacks from River Road, the bluffline and the OHWL of the St. Croix River
3. The proposed addition would not reduce the existing setbacks
4. The proposed addition would meet side yard setback requirements
5. The bulk of the proposed house addition would be screened from view from the river during leaf-on conditions
6. The color of the house is proposed to be earth tone
7. The existing house meets the 35 foot height requirement and the proposed addition would not increase the height of the house
8. The drainage from the roof of the house is proposed to be captured by rain gutters and piped directly to two rain gardens
9. The proposal includes the construction of a retaining wall, with a height of four to six feet, in a steep slope area along the rear of the addition.

#### Conditions

If the Planning Commission recommends approval of the application, the recommendation may include conditions. The following conditions are recommended.

1. House color shall be earth tone

2. The retaining wall design and the drainage and erosion control plan shall be subject to review and approval by the City Engineer
3. The house shall be located and constructed according to the survey and plans submitted with the variance application, subject to revisions as required or approved by the City.
4. Existing vegetative screening shall be maintained, with the exception of the removal of two trees as indicated in the application.
5. Any disturbed soils shall be restored as soon as possible, and any erosion control measures recommended by the City Engineer shall be put in place prior to construction and kept in place for the period recommended by the City Engineer.

DNR Review

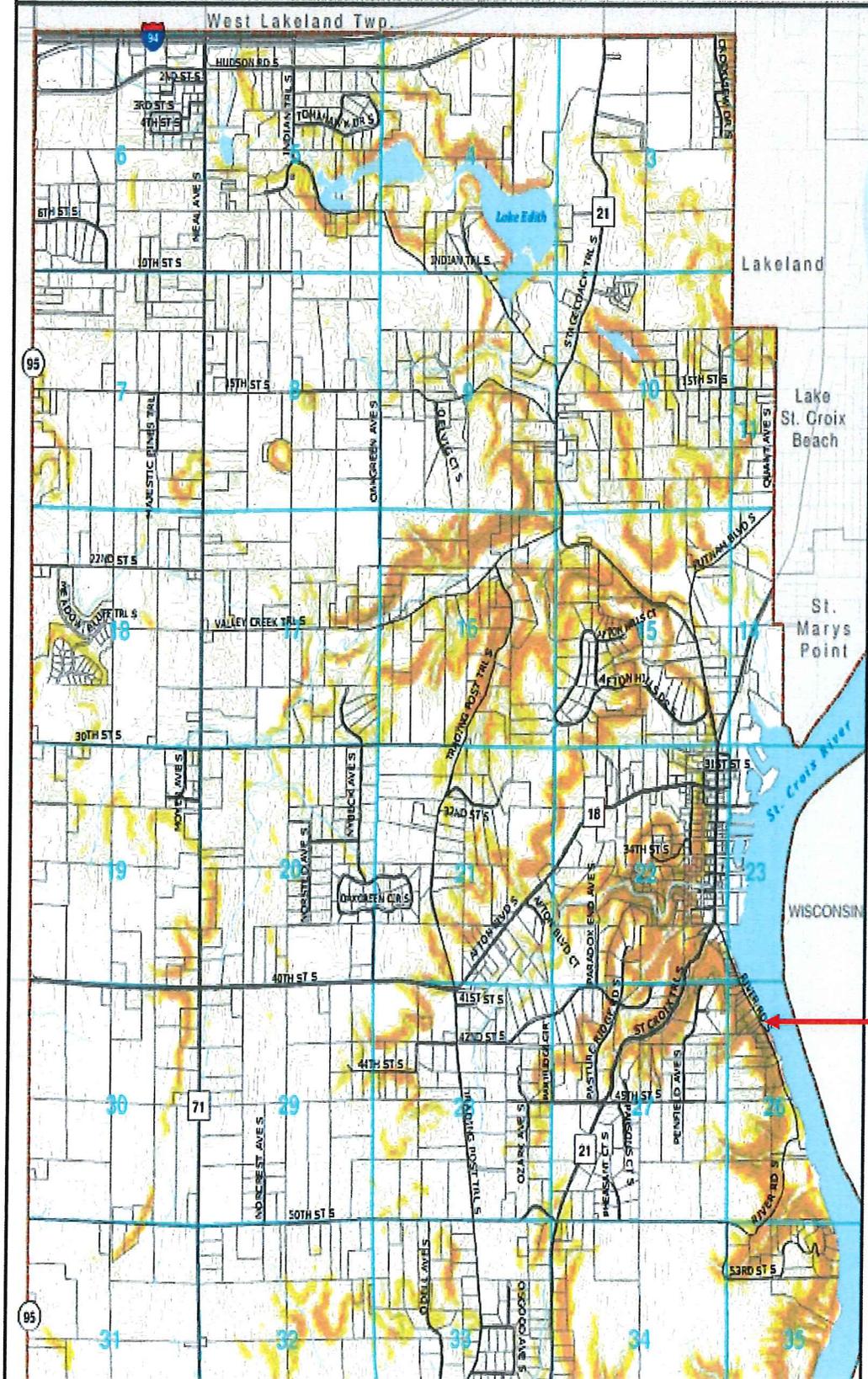
DNR staff has reviewed the proposal and is supportive of the proposal.

**PLANNING COMMISSION RECOMMENDATION REQUESTED:**

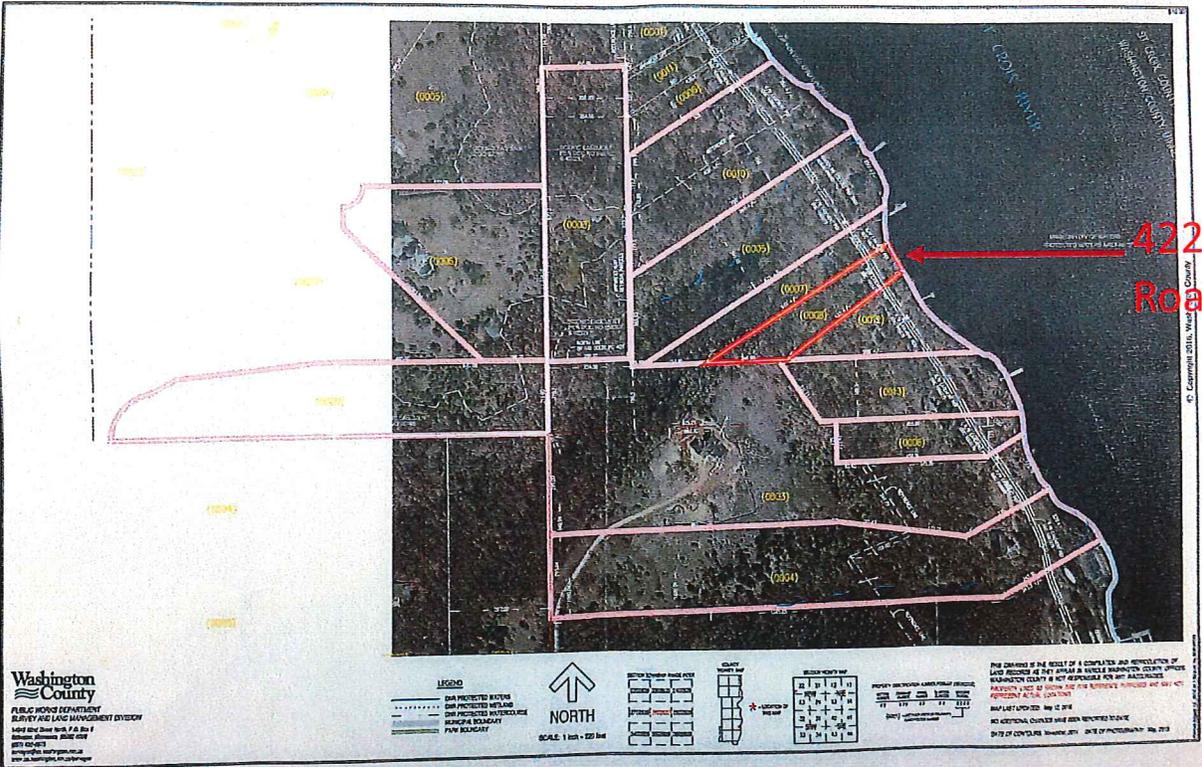
**Motion regarding the Tom Gasser Variance Application at 4220 River Road, with findings, and conditions if needed.**

# Topography & Steep Slopes

# MAP 5



4220 River Road South



4220 River Road South

**Washington County**  
 PUBLIC WORKS DEPARTMENT  
 SURVEY AND LAND MANAGEMENT DIVISION  
 1400 East State Street, P.O. Box 10  
 Astoria, Oregon 97103-0010  
 (503) 325-2100  
 www.washingtoncountyor.gov

**LEGEND**  
 --- SURVEYED BOUNDARY  
 --- SURVEYED METEAGE  
 --- SURVEYED INTERSECTION  
 --- SURVEYED BOUNDARY  
 --- PARK BOUNDARY

**NORTH**  
 SCALE: 1 inch = 250 feet

**SECTION NUMBER**

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16

**SECTION**

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16

**SECTION NUMBER**

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16

**SECTION**

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16

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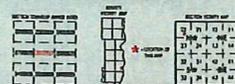
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4220 River Road South

Washington County  
 PUBLIC WORKS DEPARTMENT  
 SURVEY AND LAND MANAGEMENT DIVISION  
 1000 1st Street SW, 4th Fl  
 Olympia, WA 98501  
 360-405-4070  
 www.wa.washington.gov

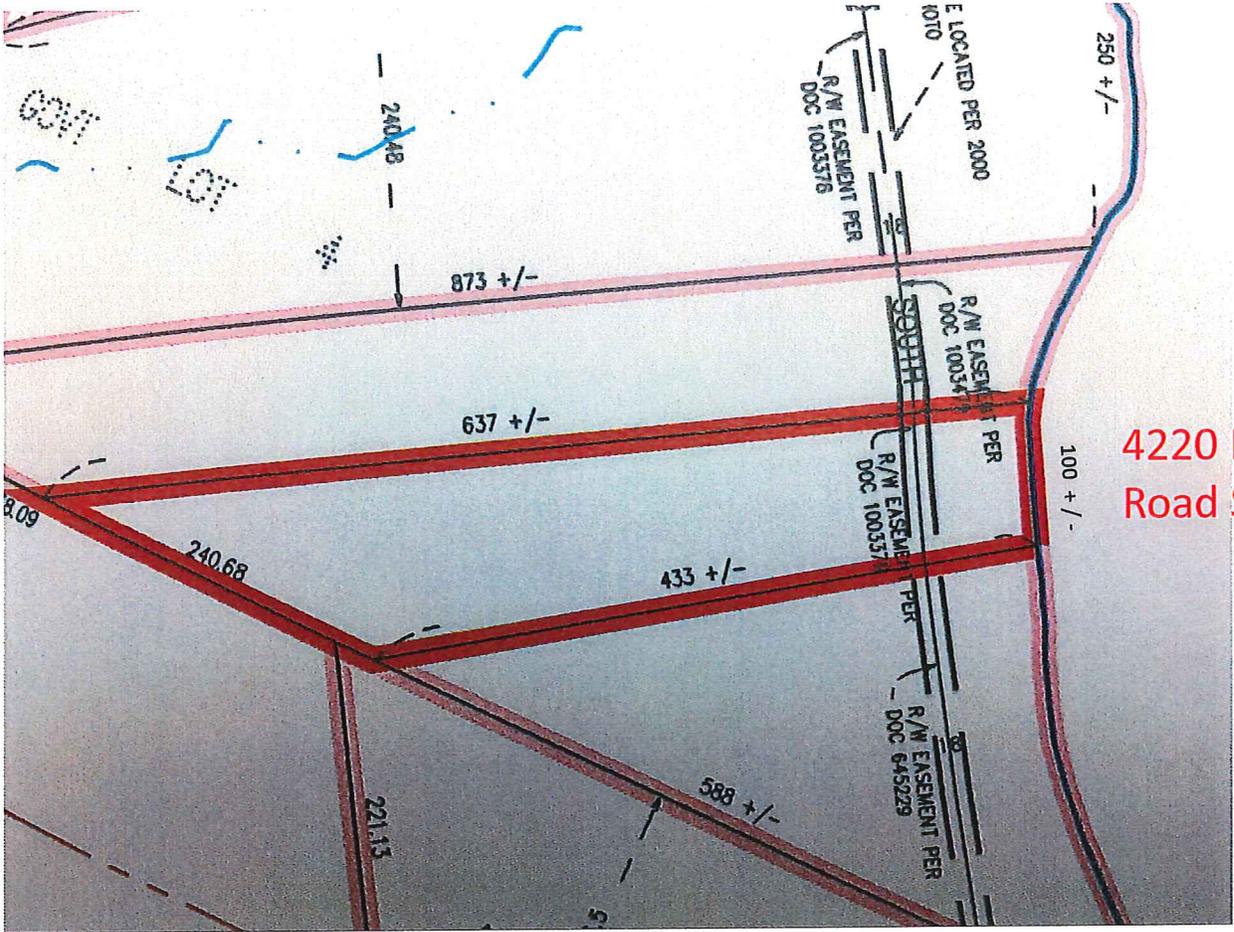
- Legend
- PROPOSED BOUNDARY
  - PROPOSED EASEMENT
  - PROPOSED INTERSECTION
  - MUNICIPAL BOUNDARY
  - FIRE BOUNDARY



SECTION CORNER MAP

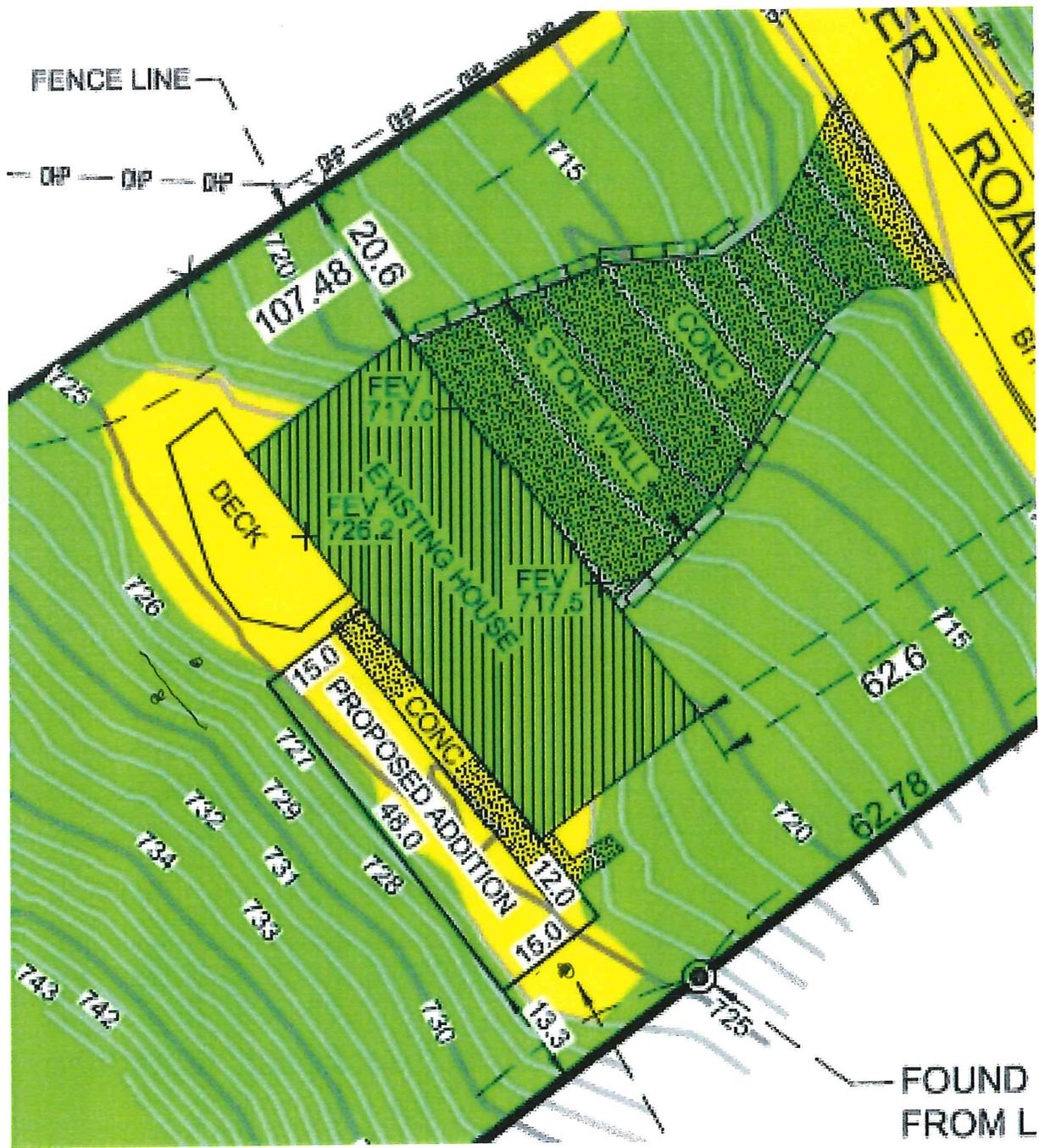
12	11	10	9
13	12	11	10
14	13	12	11
15	14	13	12

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 DATE OF COMPLETION: 06/15/2014 DATE OF REPRODUCTION: 06/15/2014









City of Afton, Minnesota

## Variance Questionnaire

Applicant(s): **Kathryn & Thomas Gasser**

Phone: **Kathryn Cell 612-325-9104**

**Thomas Cell 612-913-1119**

Mailing Address: **3801 Overlook Drive\_\_Bloomington, Mn\_\_55431**

Variance Property Address: **4220 River Road South\_\_Afton, MN. \_\_55001**

Variance request description:

Build an addition onto the back of the current house to provide (2) bedrooms and (1) bathroom that will allow renovation of the current floor plan to meet today's living standards, be more energy efficient, improve site water drainage, and better meet the goals of the St. Croix National Scenic Riverway.

City Ordinance Section number(s), that variance is requested for:

12-132-6a Minimum area, height, etc. The following chart sets out the dimensional requirements of each basic zoning district:

6. Front yard setback for all structures from centerline

1. Local Afton Roads (except 15th St., 60th St. and 50th St. west of Co. Hwy. 21)

RR = 105 ft

Proposed addition will be 86.6 ft from centerline of River Road South.

12-637 A & B Minimal District Dimensional Requirements

A. The following chart sets forth the minimum area, setbacks, and other requirements of each district:

Building setback from ordinary high-water mark

RR = 200 ft

Proposed addition will be 161.3 ft from ordinary high-water mark.

B. No structures shall be placed or grading done on any slopes greater than 12 percent (12 feet vertical rise in 100 feet horizontal distance).

Proposed addition retaining wall will require excavation into a >12% slope, retaining wall will range from 4-6 ft in height.

Answer the following questions to the best of your ability – based on the criteria found in section 12-77 of Afton’s Code (Land Use, Appeals and Variances). Completing this questionnaire will help the Planning Commission and the City of Afton evaluate your application in light of the requirements of Afton’s Variance Ordinance. It does not guarantee that your variance request will be approved. If needed use a separate page:

Background: This questionnaire is designed to help you and the City of Afton determine whether a variance should be granted. Please consult with the City Administrator who can help you with your variance application and explain the Variance Ordinance to you. The City Administrator will work with you to ensure that the variance you request is the minimum variance required to provide the same rights commonly enjoyed by other properties in the same zoning district. Because of special provisions for certain types of construction, the City Administrator will also determine whether the property is in the Flood Plane District. There are also special provisions for earth-sheltered construction.

**Criteria #1** *The requested use, must be a reasonable use in order to receive a variance.* **Applicant** – Please explain why the proposed use which requires a variance is a reasonable use for this property?

There will be no change in use of the property. The original use of the property remains as a residence except with modifications which make it safer, more accessible, more energy efficient, and more environmentally friendly.

The main house (1958) and addition (1973) met all codes when built, but are now considered substandard per the current code due to insufficient setback from the St. Croix River and River Road, preventing a remodel to bring the house up to today’s living standards. The intent of the code seems to allow for altering of structures to make them typical for living like other citizens in Afton are afforded, such as; 3 bedrooms, 2 bathrooms, modern HVAC, energy efficiency, safe electrical wiring, and a modern kitchen with a dishwasher and full-size refrigerator.

Variance request description:

Build an addition that will provide (2) bedrooms and (1) bathroom, allowing the remainder of the house to be remodeled to provide the following new modern energy efficient items; new windows, insulation, electrical wiring, HVAC, plumbing, kitchen, bathrooms, accessible doorways, hallways and stairs.

During the design process, particular attention was paid to the roof line of the proposed addition, the height of the current structure will not increase, most of the proposed addition will be behind the current structure and the entire addition will be behind the rear plane of the current structure. The roof will have

gutters/downspouts that direct water drainage into rain gardens, design input was provided by the Washington County Conservation department, eliminating potential runoff into the adjacent St. Croix River to protect the water quality.

By building an addition and remodel the current structure, versus tearing down and constructing an entirely new structure, it will minimize demolition waste disposal and consumption of new materials/natural resources, which are goals stated in the City of Afton's regulations (ref. below):

Sec. 12-53. Specific purposes

H. Conserve natural resources and to prevent their destruction or improvident exploitation.

I. Preserve the value of land and buildings throughout the community.

M. Provide for the wise use and conservation of energy resources.

An earth tone color pallet will be selected so the house will blend in with the surrounding foliage, eliminating the current light/white exterior, trim, doors, and roof which are highly visible from the St. Croix River. A dark stone laminate will cover the white basement cement block wall, providing a natural grounded look to the house. The front roof line will remain as is, in both height and pitch.

The addition will utilize energy efficient 2" x 6" construction, and both the addition and remodeled structure will include; high efficiency windows, high R value foam insulation, modern energy wrap, and siding to make the structure more energy efficient. The two furnaces (one original to 1958 house) and two air conditioning units (20+ years old), will be replaced with single modern energy efficient units, and the conventional water heater will be replaced with a modern energy efficient hot water system. The utility bills of the proposed larger structure are estimated to be ½ that of the current house.

This addition will require removal of two trees, one small tree behind the house to accommodate the retaining wall, and one tree along the south side of the house (damaged in June 2018 storm) to accommodate the addition, no St. Croix River screening vegetation will be removed.

Tom Vermeland, a longtime resident of Afton was selected as the architect for this project, one who understands the special needs of the City of Afton and the St. Croix River Valley. Tom lives <1 mile from the property, and has personal interest in seeing that this property meets the City of Afton and the St. Croix Riverway needs.

The Minnesota Department of Natural Resources (Jenifer Sorenson), Afton City Administrator (Ron Moore), architect (Tom Vermeland) and owners (Tom & Kathy Gasser) met several times to discuss design proposals that would best meet the needs of the City of Afton, Minnesota DNR, neighbors, and the homeowners, the final design proposal incorporates those decisions.

**Criteria #2** *Exceptional or extraordinary circumstances apply to the property which do not apply generally to other properties in the same zone or vicinity, and result from lot size, shape, topography, or other circumstances over which the property owner, since enactment of this Ordinance, have had no control.* **Applicant** - What exceptional or extraordinary circumstances related to the property do not apply generally to other properties in the same zone or vicinity? Extraordinary circumstances would include lot size, irregular lot shape or topography. Are there other circumstances over which you, as the property owner, have no control?

Explain?

Yes, the lot is very narrow (90 ft) and the house is pushed back against the steep river bluff, the house cannot be expanded to the;

- East - Against code.
- North – 10.6 ft to lot sideline setback, greatest neighbor impact.
- South – Well head located alongside current structure.
- Up – Against code.
- West - Only expansion option.

The proposed addition will extend past the southern wall of the current structure to;

- Bias structure away from the closest neighbor to the north.
- Allow entrance/exit/egress from the back of the house.
- Minimize bluff excavation for addition retaining wall (bluff steeper towards north side of property).

**Criteria #3** *That literal interpretation of the provisions of this Ordinance would deprive the applicant of rights commonly enjoyed by other properties in the same district under terms of this Ordinance.* **Applicant** – How does the literal interpretation of the provisions of the Afton ordinance (from which you are requesting a variance) deprive you of rights commonly enjoyed by other properties in the same zoning district?

Explain?

The current structure is faulty and deprives us of our rights to a safe and accessible home that contains the modern standards of today.

Bedrooms - All but one bedroom is currently a passage way to another room in the house, and also substandard in the following ways:

- Small Main Floor Bedroom
  - Only access to the great room is through this room
  - Very small (8' x 10').
- North Basement Bedroom
  - Only access from garage into the house is through this room.
  - Substandard 24" wide door directly inside front door.
  - One of two access points into pseudo basement bathroom.
  - Substandard insulation, electrical and HVAC.
- South Basement Bedroom
  - Door directly inside front door.
  - Access to laundry/furnace room is through a pocket door in this room.
- Bathroom
  - Main bathroom is very small and has no shower.
  - Pseudo basement bathroom has a shower and toilet but no sink, also contains the furnace and has only two hard walls.
- Kitchen
  - 6' x 8'
  - Insufficient space for a dishwasher or full-size refrigerator.
- Electrical Service (not safe)
  - 60 amp main panel with 3 added sub panels
  - Screw in fuses

- 1973 addition has aluminum wiring
- Windows – Most of the windows are original to the 1958 structure, they leak air and are energy inefficient.
- Water Management – Mold on the west lower basement wall, evidence of inadequate water management.

The goal of this remodel is to make this house safe and livable for my family of four, which means (3) legitimate bedrooms, (3) legitimate bathrooms, and a modern kitchen (with dishwasher and full-size refrigerator).

**Criteria #4** *The special conditions or circumstances do not result from actions of the applicant.* **Applicant** – How did these exceptional circumstances related to the property come about? Did actions by you create these circumstances?

Explain:

No

**Criteria #5** *That granting the variance requested will not confer on the applicant any special privilege that is denied by this Ordinance to owners of other lands, structures, or buildings in the same district.* **Applicant** – Will the granting of the requested variance confer on you, the applicant, any special privilege that is denied by this ordinance to owners of other lands, structures, or buildings in the same zoning district?

Explain:

No

With the proposed addition, this will be a modest 2,800 sq. ft. house, similar to or smaller than most Afton homes.

**Criteria #6** *The variance requested is the minimum variance which would alleviate the hardship.* **Applicant** – Is the variance you are requesting the minimum variance which would alleviate the practical difficulty or hardship for your property?

Explain:

Yes

After receiving feedback from the Minnesota DNR and the City of Afton, the decision was made to place the addition behind the house so as to not increase the overall height of the structure, minimizing the visual impact from the St. Croix River.

**Criteria #7** *The variance would not be materially detrimental to the purposes of this Ordinance, or property in the same zone.* **Applicant (Optional)** – Will the variance be materially detrimental to the purposes of this Ordinance, or to property in the same zone? How would the use of the property, if allowed by the variance, affect other properties in the vicinity?

Explain:

By granting this variance it will;

1. Increase the value of this and the surrounding properties by transforming a dated, unsafe, energy inefficient, impractical 1950's house into a modern house that meets today's living standards.
2. Have the least impact to the neighbors.
3. The addition will require removal of one tree behind the current house to accommodate a retaining wall, and one tree to the south of the house (damaged in 6/29/18 storm) to accommodate the addition, no vegetation that screens the house from the St. Croix River will be touched.
4. The design of the proposed rear addition will be minimally visible from River Road and the St. Croix River, and will be entirely behind the rear plane of the current structure.

**Criteria #8** *Economic conditions or circumstances alone shall not be considered in the granting of the variance request if a reasonable use of the property exists under the terms of the ordinance.* **Applicant** –

Explain:

This variance is not being requested for financial reasons.

**Criteria #9** *In the Flood Plain District, no variance shall be granted which permits a lower degree of flood protection than the Regulatory Flood Protection Elevation for the particular area or permits standard lower than those required by state law.* **Applicant (Optional), PC B** – Is the property in a Flood Plain District?

Yes                      No

**Criteria #10** *Variances shall be granted for earth-sheltered construction by state statutes when in harmony with this Ordinance.* **Applicant** – Is the variance for earth-sheltered construction?

Yes                      No

**ADDITIONAL CRITERIA THAT MAY BE CONSIDERED BY THE PLANNING COMMISSION (PC) AND/OR CITY COUNCIL(CC)** – Applicant response to criteria #11 and criteria #12 are optional.

**Criteria #11** *Variances shall only be permitted when they are in harmony with the general purposes and intent of the Ordinance.* **Applicant (Optional), PC** – Is the requested variance in harmony with the Afton ordinances and code? How will this variance if granted (and the proposed use of the property affected) affect the essential character of the area?

Explain:

With the proposed addition, this house will be 2,800 sq. ft., smaller than most houses on River Road or in Afton. The height (no increase), design and color pallet were selected to allow the structure to blend in with the surrounding foliage and be typical of the houses in the neighborhood. Rain gardens will be employed to collect roof runoff, preventing drainage into the St. Croix River, protecting the water quality.

**Criteria #12** *Variances shall only be permitted when they are in harmony with the general purposes and intent of the Afton Comprehensive Plan.* **Applicant (Optional), PC** – Is the requested variance in harmony with the Afton Comprehensive Plan?

Explain:

Yes

Every effort has been made with this variance application to address;

1. Structure Height - No increase in height, minimizing the view from the St. Croix River.
2. Neighbors - Addition biased away from the closest neighbor to minimize impact.
3. Materials/Design/Colors – Materials and colors will be selected to reduce the visual impact of this property from the surrounding environment and view from River Road and the St. Croix River.
4. Water Drainage – By employing rain gardens, site water drainage into the St. Croix River will be prevented, protecting the water quality.

*If you have any questions, please contact us for clarifications. We welcome you to come visit the site in person to experience the unique and practical difficulties of this lot.*

### **Gasser Project Setbacks for 4220 River Road**

Existing house to OHW = 137.3 ft at closet point

Proposed addition to OHW = 161.3 ft at closet point

Existing house to centerline of Road = 62.6 ft at closest point

Proposed addition to centerline of Road = 86.6 ft at closest point

#### South/Addition Side

Existing house to neighbor averaging line = 25.3 ft back at closest point

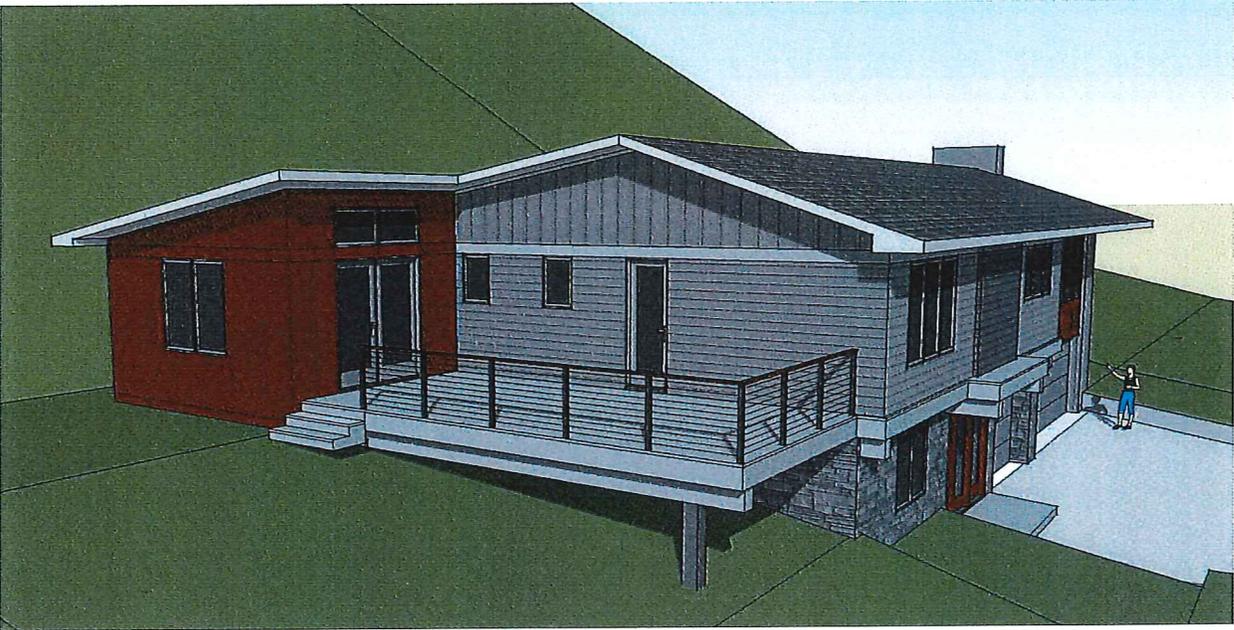
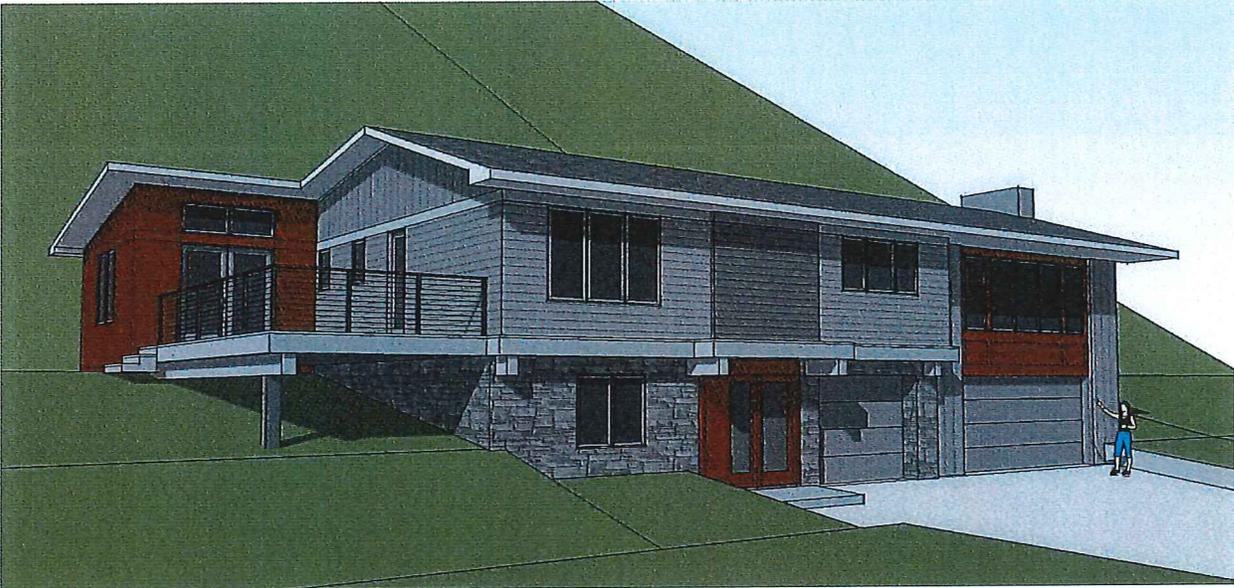
Proposed addition to neighbor averaging line = 13.3 ft back at closest point

#### North/Non-Addition Side

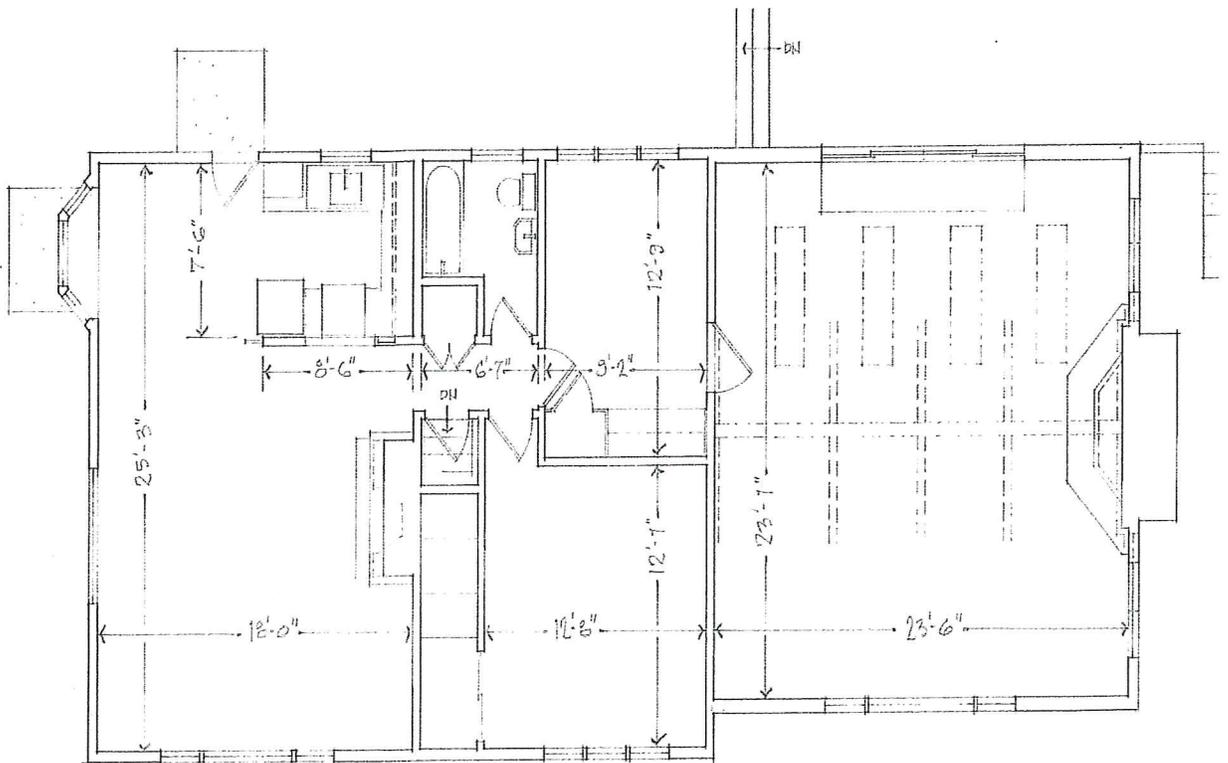
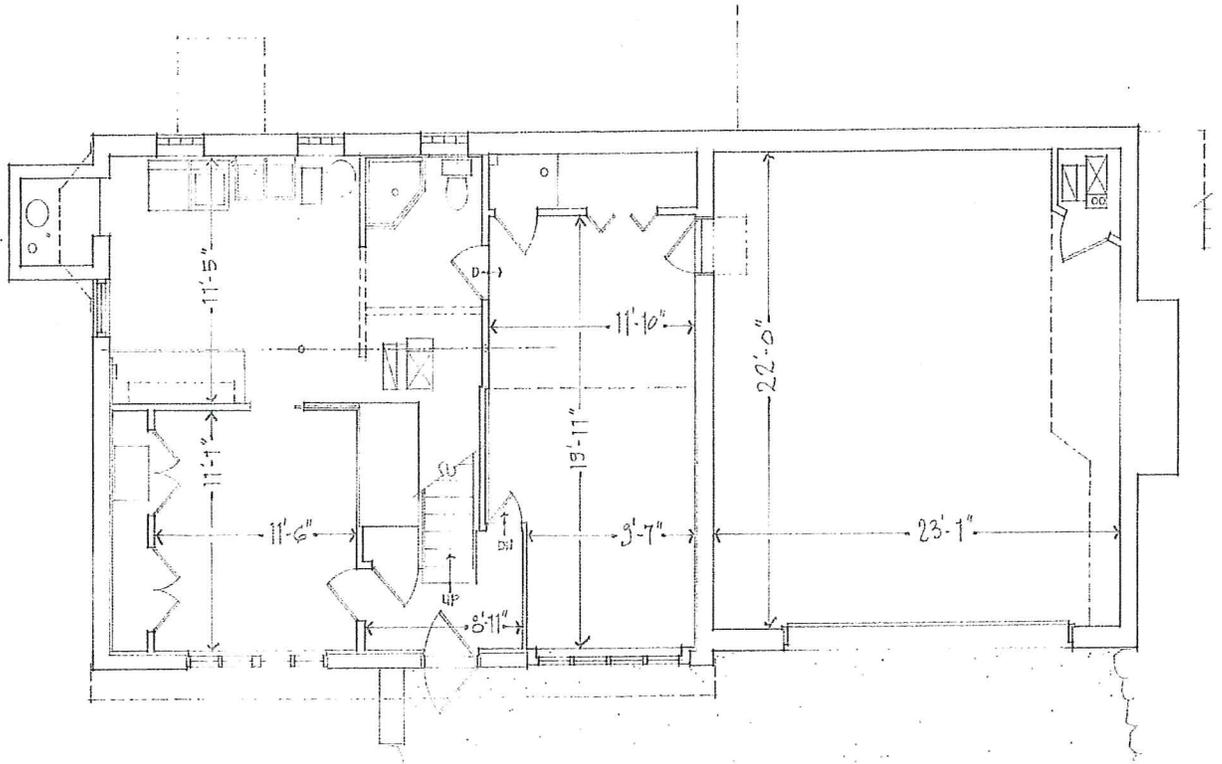
Existing house to neighbor averaging line = 20.6 ft back at closest point

No proposed change to this side of house

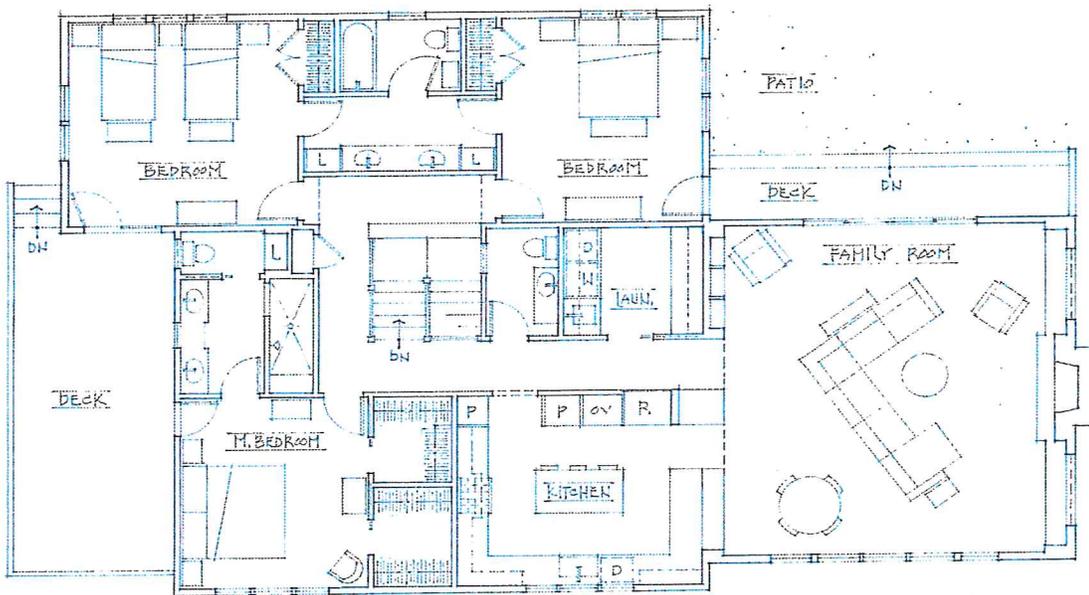
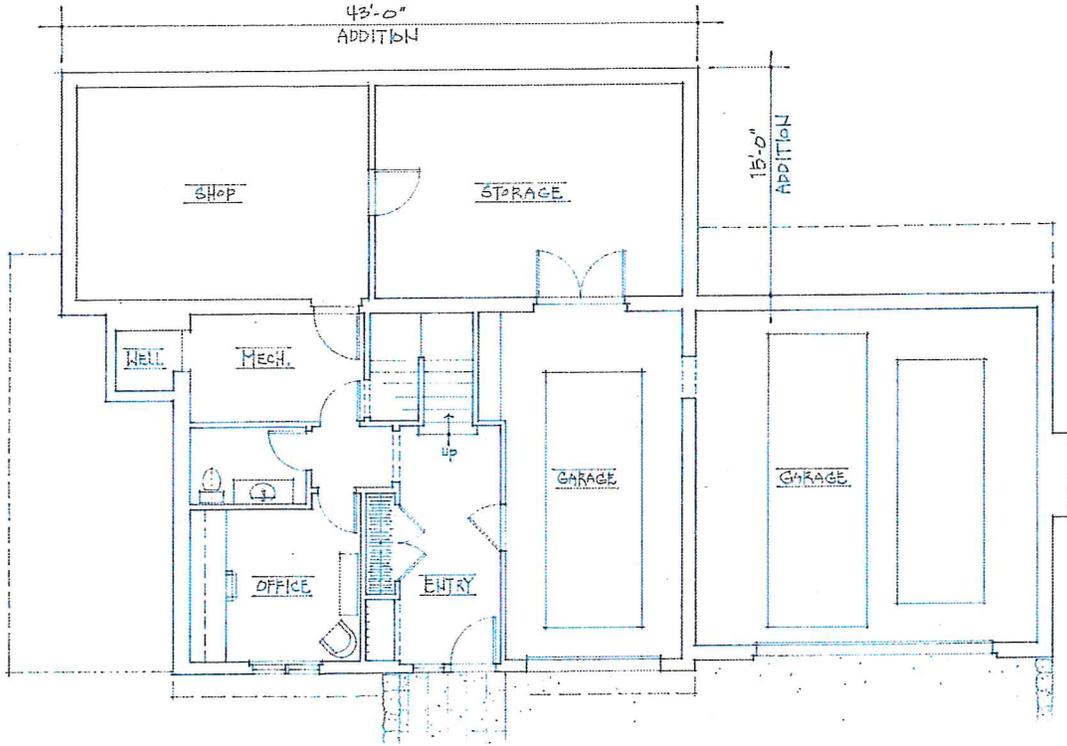
4220 Proposed House Elevations



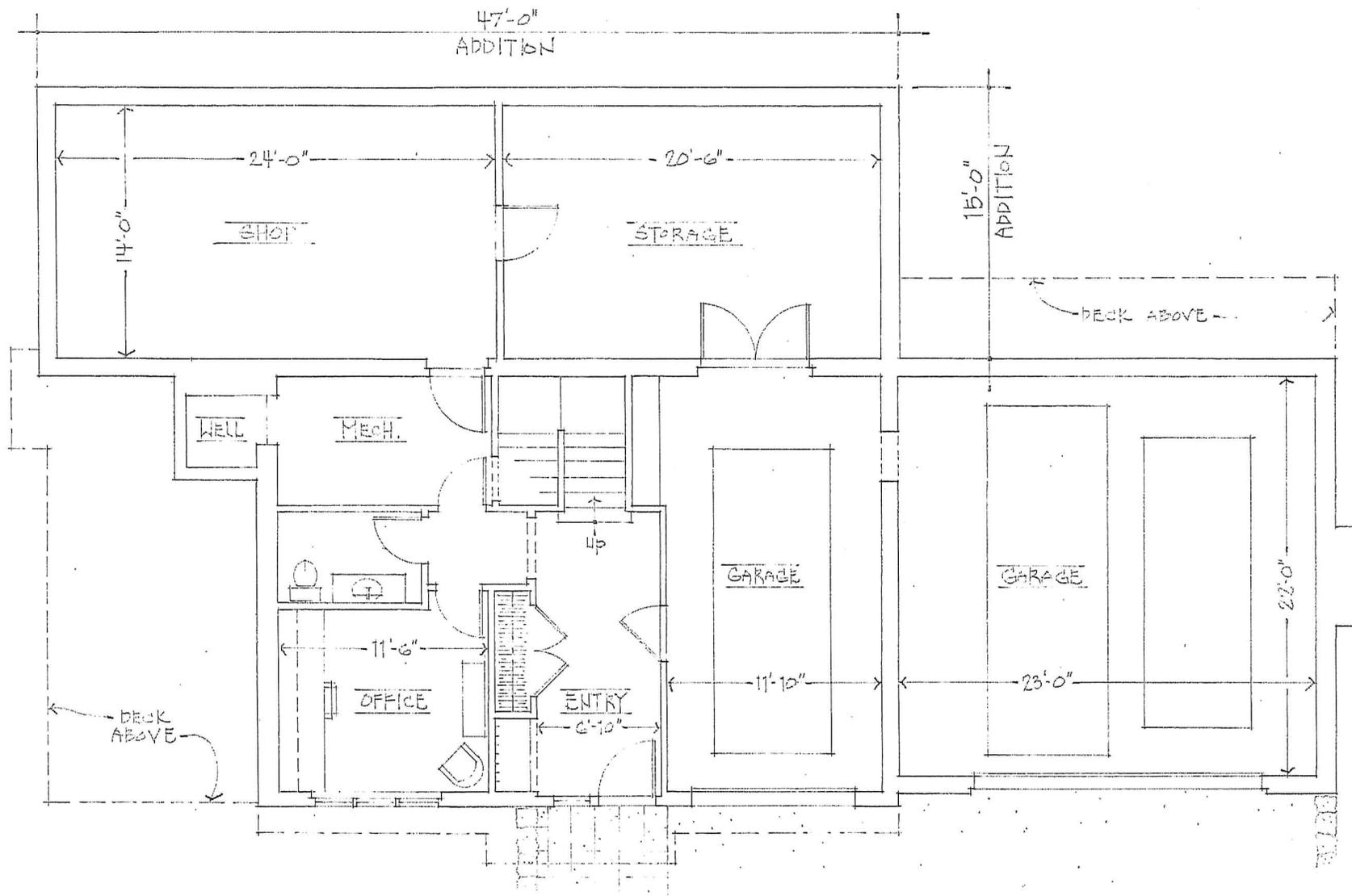
# 4220 Current House Floor Plans



# 4220 Proposed Floor Plans



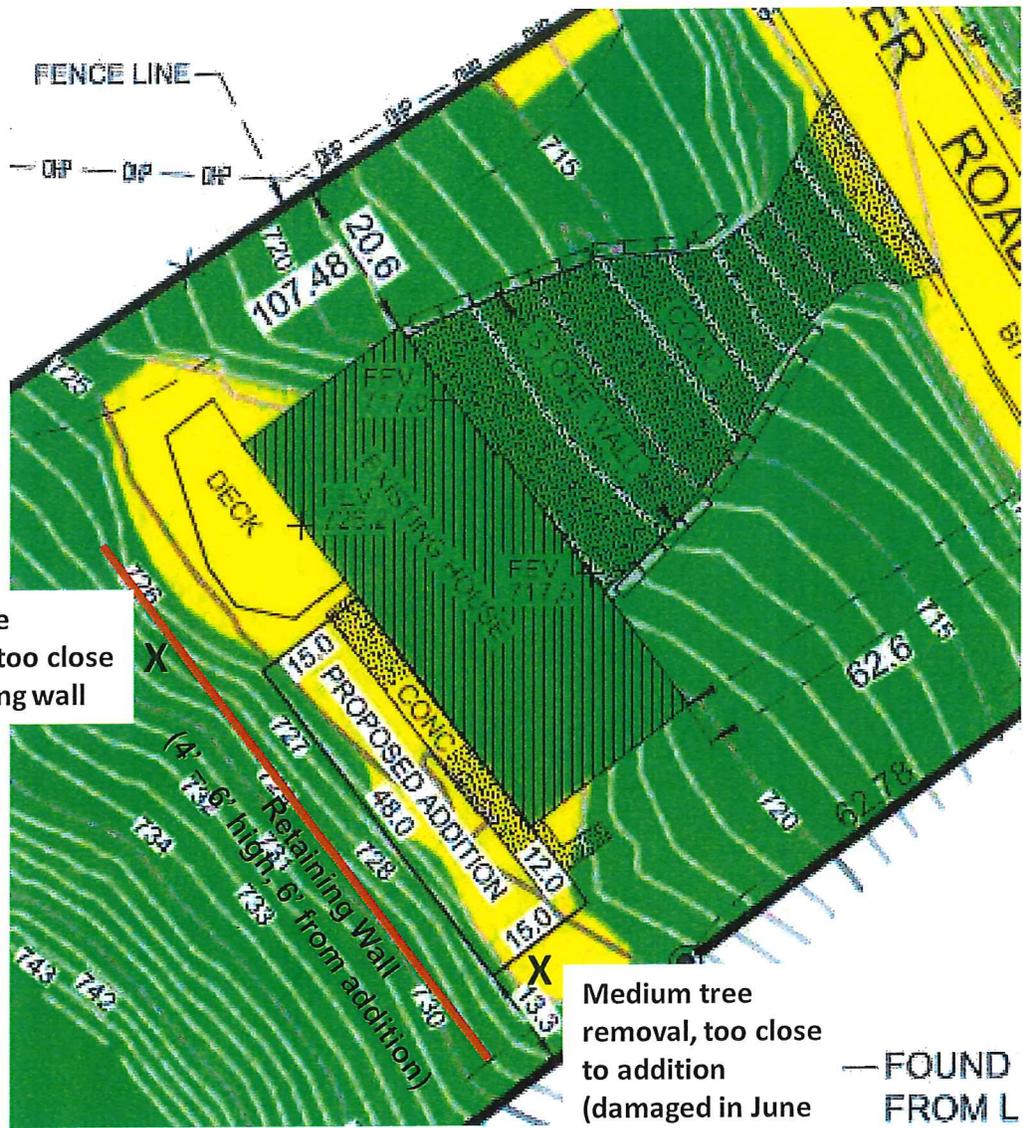




Gasser Residence

Basement Floor Plan - 3/16" = 1'-0"

September 1, 2018  
Vermeland Architects



Small Tree removal, too close to retaining wall

Medium tree removal, too close to addition (damaged in June 2018 storm)

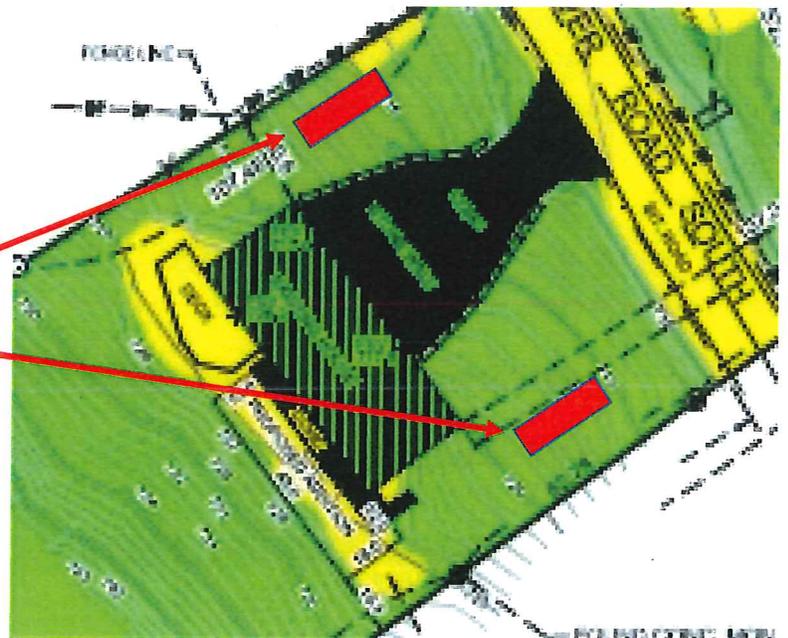
— FOUND FROM L

## Rain Garden Size & Location

Washington County  
Conservation rain  
garden size to  
handle rain from  
current house &  
addition roof = 335  
sq. ft. x 6 in. deep

Approximate size &  
location of (2) 10' x  
17' rain gardens  
depicted by red  
rectangles shown to  
the right.

Gutters will run full  
length of east &  
west side of house  
that will drain into  
the rain gardens.  
Geotechnical report  
indicated there is 6"  
of top soil on top of  
decomposed  
sandstone base  
(gravel/sand),  
providing excellent  
drainage.



# Washington County Conservation Rain Garden Design input

## Sandy Soil Rain Gardens (greater than 1-inch/hr infiltration rate)

Runoff Depth in Inches			Sub W.S. Description
24 HR Rain Fall Event (inches)			100% Impervious lot, soil group A
		1.1	
Sub W.S. A	Curve Number	98 0.89	
Sub W.S. B	Curve Number	75 0.05	
Sub W.S. C	Curve Number	75 0.05	
Sub W.S. D	Curve Number	0 0	
Sub W.S. E	Curve Number	0 0	

Runoff Volume in Cubic Feet			
Sub W.S. A	Sub-Watershed Area (sq ft)	2280 167	Impervious
Sub W.S. B	Sub-Watershed Area (sq ft)	0 0	lawn
Sub W.S. C	Sub-Watershed Area (sq ft)	0 0	other and need curve
Sub W.S. D	Sub-Watershed Area (sq ft)	0 0	
Sub W.S. E	Sub-Watershed Area (sq ft)	0 0	number
		2280 167	

RG Required Surface Area in sq ft  
 Depth (ponding height in inches) 6 335 15% Percent of

Clayey Soil Rain Gardens		Manning Roughness		total watershed
Proposed rain garden area (sq ft)	300	Class	Pipe type and dia.	Coefficient Manning roughness coefficient
Proposed ponding depth (in)	6	1	4" Single-wall corrugated plastic	
Fill Soil depth (ft)	1	2	4" Smooth-wall plastic	
Fill Permeability (in/hr)	0.1	3	6" Single-wall corrugated plastic	
Peak Inflow (in/hr)	0.2	4	6" Smooth-wall plastic	
Total flow in CF/S	0.00	5	8" Single-wall corrugated plastic	
Minimum pipe system sizing CF/S	0.3			0.0145
Manning Roughness Coefficient	0.0145			0.0105
Pipe slope (decimal equivalent)	0.005			0.0145
N (# of pipes) x D (dia. of pipes) =	5.83			0.0105
				0.0155

Rain Garden size to handle current house & addition roof runoff = 335 sq. ft. x 6 in. deep.

# Washington County Conservation Rain Garden Material/Cost input

## Cost Estimate

**VALLEY BRANCH WATERSHED DISTRICT**

*VBWD Cost-Share*

Landowner: Kathy Gasser  
 Project Address: 4220 River Rd, Afton MN  
 Mailing Address: Same  
 Property Pin: 2602820220008  
 8/28/2018



Job Description	Cost Summary	
335 sq ft raingarden, 6" depth. Approximately 10'x30'	Project Cost = \$	2,812.70
	Cost Share = \$	-
	Phosphorus Reduction (lbs/yr)	TF= 0.00

Job Estimate				
Erosion Control Materials	Qty	Unit	Unit Cost	Amount
Edging (Bullet Paver Edger- Interloc 3.375"x11.75")	80	each	\$ 1.17	\$ 93.28
<b>Erosion Control Subtotal</b>				<b>\$ 93.28</b>
Compost, Mulch, and Rock				
Double-Shredded Hardwood Mulch (3" depth)	3.0	cy	\$ 32.51	\$ 97.52
Compost	3.0	cy	\$ 42.74	\$ 128.21
<b>Compost, Mulch, and Rock Subtotal</b>				<b>\$ 225.72</b>
Drainage Accessories				
<b>Drainage Subtotal</b>				<b>\$ -</b>
Plants, Shrubs, and Trees				
Native plug	150	each	\$ 1.00	\$ 150.00
<b>Plants Subtotal</b>				<b>\$ 150.00</b>
Excavation and Grading				
Turf Kill and seed bed prep	1	job	\$ 750.00	\$ 750.00
<b>Excavation and Grading Subtotal</b>				<b>\$ 750.00</b>
Misc				
Soil Delivery	1	job	\$ 100.00	\$ 100.00
Rock Delivery	1	job	\$ 100.00	\$ 100.00
Mulch Delivery (14cy/load)	1	job	\$ 100.00	\$ 100.00
Plant Delivery	1	job	\$ 100.00	\$ 100.00
<b>Misc Subtotal</b>				<b>\$ 400.00</b>
ADDITIONAL NOTES	<b>PROJECT SUBTOTALS</b>			
				Materials \$ 319.00
				Plants \$ 150.00
				Excavation/Grading \$ 750.00
				Misc \$ 400.00
				<b>Materials Estimate \$ 469.00</b>
				Labor Estimate \$ 2,088.00
				Contingency 10% \$ 255.70
				<b>Project Estimate \$ 2,812.70</b>

RECEIVED

Z18-26

SEP 14 2018

CITY OF AFTON

CITY OF AFTON  
VARIANCE APPLICATION

(Reference Sections: 12-55, 12-77, 12-328 12-835, 12-1020, 12-1266, 12-1955, 12-2228)

Owner	Address	City	State	Zip	Phone
THOMAS M. GASSER	3801 OVERLOOK DRIVE	BLOOMINGTON	MN	55731	612-913-1119
Applicant (if different than owner)	Address	City	State	Zip	Phone
Project Address					
4220 RIVER ROAD SOUTH		AFTON	MN	55001	
Zoning Classification	Existing Use of Property	PID# or Legal Description			
RURAL RESIDENTIAL	RESIDENTIAL	2.60.28.20.22.0008			
Please list the section(s) of the code from which the variance(s) are requested.					
12-132 Ga, 12-637A, 12-637B					
Description of Request					
BUILD AN ADDITION ONTO THE BACK OF THE CURRENT HOUSE TO PROVIDE (2) BEDROOMS AND (1) BATHROOM THAT WILL ALLOW REMODEL OF THE CURRENT STRUCTURE TO PROVIDE A HOUSE THAT MEETS TODAY'S LIVING STANDARDS, IS MORE ENERGY EFFICIENT, IMPROVES SITE WATER DRAINAGE, AND IS VISUALLY INCONSPICUOUS FROM THE ST. CROIX NATIONAL SCENIC RIVERWAY.					
By signing this application, the applicant agrees to pay all expenses incurred by the City of Afton. In connection with this request, your signature constitutes permission for a representative of the City of Afton to enter your property, during business hours, to evaluate this request. This may involve minor excavating or soil borings. If you would like to be present during this evaluation, please contact the City.					
Signature of Owner/Applicant			Date		
Thomas M. Gasser			9/14/18		
Make checks payable to: <b>City of Afton</b>					
If multiple variances are necessary from the applicant only <b>one</b> fee is required. However, the deposit fee must be multiplied by the number of variances sought.					
<b>FEES:</b>		<b>ESCROWS:</b>			
Variance	\$250	\$600	TOTAL:	\$850.00	
Renewal/Extension	\$250	\$350	DATE PAID:	9-14-18	
			CHECK #:	8860	
			RECVD BY:	[Signature]	

## Property Description

**ADDRESS** 4220 River Road South Afton, MN 55001

**PID** 26.028.20.22.0008

**LEGAL DESCRIPTION:** SECTION 26 TOWNSHIP 028 RANGE 020 PT GOV LOT 4  
COM AT PT 186.5FT N OF S LINE OF SD GOV LOT 4 & 254.5FT E OR W LINE OF  
SD GOV LOT 4 SD DIST BEING MEAS AT R ANG TO SD S & W LINES  
RESPECTIVELY THN

WARRANTY DEED  
Individual(s) to Joint Tenants

Form No. 5-M  
(Top 3 Inches Reserved for Recording Data)

Minnesota Uniform  
Conveyancing Blanks (6/17/97)

DEED TAX DUE: \$ \_\_\_\_\_  
Date: 12/11/2015

FOR VALUABLE CONSIDERATION, Virginia H Woltman, a single person  
\_\_\_\_\_, Grantor,  
hereby conveys and warrants to Thomas M. Gasser and Kathryn Gasser  
\_\_\_\_\_, Grantees,  
as joint tenants, real property in Washington County, Minnesota, described as follows:

SEE ATTACHED EXHIBITA

together with all hereditaments and appurtenances belonging thereto, subject to the following exceptions:  
**Restrictions, declarations, covenants, reservations, and easements of record, if any.**

Check box if applicable:

- The Seller certifies that the Seller does not know of any wells on the described real property.
- A well disclosure certificate accompanies this document.
- I am familiar with the property described in this instrument and I certify that the status and number of wells on the described real property have not changed since the last previously filed well disclosure certificate.

Virginia H Woltman  
Virginia H Woltman

Affix Deed Tax Stamp Here

STATE OF MINNESOTA }  
COUNTY OF WASHINGTON } ss

This instrument was acknowledged before me on Nov. 18, 2015,  
(Date)

by Virginia H Woltman, a single person

NOTARIAL STAMP OR SEAL (OR OTHER TITLE OR RANK)



Anthony Alongi  
SIGNATURE OF NOTARY PUBLIC OR OTHER OFFICIAL

Check here if all or part of the land is Registered (Torrens)

THIS INSTRUMENT WAS DRAFTED BY (NAME & ADDRESS):

Home Title, Inc.  
604 Bielenberg Drive, Suite 100  
Woodbury, MN 55125  
(651)578-2230

File No: 081511369

Tax statements for the real property described in this instrument should be sent to (include name and address of Grantee):

Thomas M. Gasser and Kathryn Gasser

4220 River Road South  
Afton, MN 55001

First American Title Insurance Company

Commitment Number: 151193

**EXHIBIT A  
PROPERTY DESCRIPTION**

The land referred to in this Commitment is described as follows:

That part of Government Lot 4, Section 26, Township 28, Range 20 in said Washington County, Minnesota, described as follows:

Commencing at a point 186.5 feet North of the South line of said Government Lot 4 and 254.5 feet East of the West line of said Government Lot 4, said distances being measured at right angles to said South and West lines respectively; thence North 88 degrees 18 minutes 39 seconds East on a line parallel with the South line of said Government Lot 4 a distance of 223.75 feet to the point of beginning of the land to be described; thence continue North 88 degrees 18 minutes 39 seconds East on said parallel line a distance of 240.68 feet; thence North 53 degrees 36 minutes 17 seconds East a distance of 433 feet, more or less, to the Southwesterly shore line of Lake St. Croix; thence Northwesterly along said shore line to its intersection with a line produced Northeasterly from the point of beginning on a bearing of North 57 degrees 26 minutes 17 seconds East; thence South 57 degrees 26 minutes 17 seconds West a distance of 637 feet, more or less, to the point of beginning.

Subject to all rights for railroad right of way purposes and public road across said above described property as now located thereon and acquired.

Torrens Property-Certificate No. 21564

2018 Tax Statement

**Washington County** Department of Property Records and Taxpayer Services  
 14949 82nd Street North PO Box 200  
 Stillwater, MN 55082-0200  
 (651) 430-6175 www.co.washington.mn.us

Property ID: 26.028.20.22.0008 Bill #: 998482

Taxpayer: THOMAS M & KATHRYN GASSER  
 3801 OVERLOOK DR  
 BLOOMINGTON MN 55431-3867

TAX STATEMENT 2018			
2017 Values for Taxes Payable in			
Step	VALUES AND CLASSIFICATION		
	Taxes Payable Year:	2017	2018
1	Estimated Market Value:	400,700	459,400
	Homestead Exclusion:		
	Taxable Market Value:	400,700	459,400
	New Improvements/Expired Exclusions:		
	Property Classification:	Res Non-Hold	Res Non-Hold
Sent in March 2017			
2	<b>PROPOSED TAX</b>		
	Did not include special assessments or referenda approved by the voters at the November election		\$4,916.00
Sent in November 2017			
3	<b>PROPERTY TAX STATEMENT</b>		
	First half taxes due	May 15	\$3,032.00
	Second half taxes due	October 15	\$3,032.00
Total Taxes Due in 2018:			\$6,064.00

**\$\$\$**  
REFUNDS?

You may be eligible for one or even two refunds to reduce your property tax. Read the back of this statement to find out how to apply.

Property Address:  
 4220 RIVER RD S  
 AFTON MN 55001

Description:  
 Section 26 Township 028 Range 028 PT GOV LOT 4  
 COMM AT PT SE COR N OF S LINE OF SD GOV LOT 4  
 & 25.45 FT E OF W LINE OF SD GOV LOT 4 SD DIST  
 BEING MEAS AT A ANG TO SD S & W LINES  
 RESPECTIVELY THEN N 83.50° S 39 FT ON A LINE  
 PAR WITH S LINE OF SD GOV LOT 4 D D 7° 22.7 FT  
 TO PT OF BEG OF LAND TO

Line 13 Special Assessment Detail:  
 DOWNTOWN PROJECT 1,163.30  
 COUNTY ENVIRONMENTAL CHARGE FEE 3.00

Principal: 506.41  
 Interest: 681.29

Tax Detail for Your Property:				
Taxes Payable Year:		2017	2018	
1. Use this amount on Form M1PR to see if you are eligible for a property tax refund. File by August 15. If this box is checked, you owe delinquent taxes and are not eligible.		<input type="checkbox"/>	\$0.00	
2. Use these amounts on Form M1PR to see if you are eligible for a special refund.		\$0.00		
Tax and Credits	3. Property taxes before credits	\$4,325.00	\$4,877.30	
	4. Credits that reduce property taxes			
	A. Agricultural and rural land credits	\$0.00	\$0.00	
	B. Other Credits	\$0.00	\$0.00	
	5. Property taxes after credits	\$4,325.00	\$4,877.30	
Property Tax by Jurisdiction	6. WASHINGTON COUNTY	A. County General \$1,219.69 B. County Regional Rail Authority \$9.75	\$1,378.21 \$10.29	
	7. CITY OF AFTON	\$1,294.24	\$1,481.78	
	8. State General Tax	\$0.00	\$0.00	
	9. ISD 834 STILLWATER	A. Voter approved levies \$625.57 B. Other Local Levies \$973.01	\$702.75 \$1,056.18	
	10. Special Taxing Districts	A. Metropolitan Council	\$34.36	\$37.47
		B. Metropolitan Mosquito Control	\$18.54	\$20.22
		C. Valley Branch Watershed	\$75.00	\$108.72
		D. County CDA	\$59.09	\$67.48
		11. Non-school voter approved referenda levies	\$15.15	\$16.20
		12. Total property tax before special assessments	\$4,325.00	\$4,877.30
	13. Special assessments	\$3.00	\$1,186.70	
	14. TOTAL PROPERTY TAX AND SPECIAL ASSESSMENTS	\$4,328.00	\$6,064.00	

**PAYABLE 2018 2nd HALF PAYMENT STUB**  
 TO AVOID PENALTY PAY ON OR BEFORE: October 15

Property ID: 26.028.20.22.0008 Bill #: 998482



Taxpayer:  
 THOMAS M & KATHRYN GASSER  
 3801 OVERLOOK DR  
 BLOOMINGTON MN 55431-3867

\*ESCROW NOTE\* Your taxes have been sent to escrow agent SUNTRUST MORTGAGE INC. If you do not escrow your taxes, please pay the amount indicated in the box.

**SECOND HALF TAX AMT**  
**\$3,032.00**

MAKE CHECKS PAYABLE TO:  
 Washington County  
 P.O. Box 200  
 Stillwater MN 55082-0200

CHECK  
 CASH

No Receipt sent. Your canceled check & proof of payment. Do not send partial checks.

2602820220008 2 00000000303200 1

**PAYABLE 2018 1st HALF PAYMENT STUB**  
 TO AVOID PENALTY PAY ON OR BEFORE: May 15

Property ID: 26.028.20.22.0008 Bill #: 998482



Taxpayer:  
 THOMAS M & KATHRYN GASSER  
 3801 OVERLOOK DR  
 BLOOMINGTON MN 55431-3867

\*ESCROW NOTE\* Your taxes have been sent to escrow agent SUNTRUST MORTGAGE INC. If you do not escrow your taxes, please pay the amount indicated in the box.

**FIRST HALF TAX AMT**  
**\$3,032.00**

MAKE CHECKS PAYABLE TO:  
 Washington County  
 P.O. Box 200  
 Stillwater MN 55082-0200

CHECK  
 CASH

No Receipt sent. Your canceled check & proof of payment. Do not send partial checks.

2602820220008 1 00000000303200 3

## **Properties within 500 ft of 4220 River Road South**

**Parcel Search: September 11, 2018 at 10:16 a.m. by SURVPUB**

**500 feet surrounding 2602820220008 11 parcels, 11 labels.**

2602820220003

2602820220005

2602820220007

2602820220008

2602820220010

2602820220012

2602820220014

2602820230003

2602820230004

2602820110006

2602820110008

September 10, 2018

HGTS Project Number: 18-0616

Mr. Tom Gasser  
C/O Anderson Corporation  
100 4<sup>th</sup> Avenue North  
Bayport, MN 55003-1096

**Re: Geotechnical Exploration Report  
Proposed Addition, 4220 River Road, Afton, MN**

Dear Mr. Gasser;

We have completed the geotechnical exploration report for the proposed addition to the single-family residence at 4220 River Road in Afton, MN. A brief summary of our results and recommendations is presented below. Specific details regarding our procedures, results and recommendations are presented in the attached report.

Two test pits were excavated within in or near the footprint of the proposed addition which encountered ½ foot, or less, of topsoil overlying silty sand and gravel that generally consisted of weathered limestone. Groundwater was not encountered in the test pits.

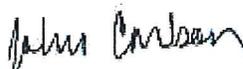
The vegetation and topsoil are not suitable for foundation support and will need to be removed and replaced with suitable compacted engineered fill. The underlying silty sand and gravel (weathered limestone), in our opinion, is generally suitable for foundation support and that the footings for the proposed addition can be designed for a net allowable soil bearing pressure up to 2,000 pounds per square foot.

Thank you for the opportunity to assist you on this project. If you have any questions or need additional information, please contact Paul Gionfriddo at 612-271-8185 or John Carlson at 612-979-3542.

Sincerely,

Haugo GeoTechnical Services, LLC

  
Paul Gionfriddo, P.E.  
Senior Engineer

  
John Carlson, P.E.  
Senior Engineer

# GEOTECHNICAL EXPLORATION REPORT

## PROJECT:

Proposed Addition to Single Family Residence  
4220 River Road  
Afton, MN

## PREPARED FOR:

Mr. Tom Gasser  
C/O Anderson Corporation  
100 4<sup>th</sup> Avenue North  
Bayport, MN 55003

## PREPARED BY:

Haugo GeoTechnical Services, LLC  
2825 Cedar Avenue S  
Minneapolis, MN 55407

Haugo GeoTechnical Services Project: 18-0616

September 10, 2018

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.



Paul Gionfriddo, P.E.  
Senior Engineer  
License Number: 23093  
Expires June 2020



**2825 Cedar Avenue S, Minneapolis, MN 55407**

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## 1.0 INTRODUCTION

### 1.1 Project Description

Mr. Tom Gasser is proposing to construct an addition to the single-family home at 4220 River Road in Afton, Minnesota and retained Haugo GeoTechnical Services (HGTS) to perform a geotechnical exploration to evaluate the suitability of site soil conditions to support the proposed addition.

### 1.2 Purpose

The purpose of this geotechnical exploration was to characterize subsurface soil and groundwater conditions and provide recommendations for foundation design and construction of the proposed addition.

### 1.3 Site Description

The project site is a single family residential lot that contained a walkout style rambler that sits on the side of a bluff overlooking the St. Croix River. A wooden deck/patio was located on the west side of the home and the lot was generally wooded except for a lawn area on the east side of the home which provided a view of the river. The proposed addition will be located on the west side of the home. The addition will have plan dimensions of about 15 feet by 48 feet for an overall footprint of about 720 square feet.

The existing home has walkout style foundation and because of the bluff, the topography of the site varied from about elevation 708 feet above mean sea level (msl) in the front yard along River Road to a walkout elevation of about 717 ½ and to about elevation 725 feet msl in the back yard. The ground surface rises rather steeply to the west beyond.

### 1.4 Scope of Services

Our services were performed in accordance with our proposal dated June 28, 2018 and under the terms of our General Conditions and were limited to the following tasks:

- Excavating, observing and backfilling two (2) shallow test pits within the proposed addition footprint.
- Visually/manually classifying samples recovered from the test pits.
- Preparing test pit logs describing the materials encountered and the results of groundwater level measurements.
- Preparing an engineering report describing soil and groundwater conditions and providing recommendations for foundation design and construction.

### 1.5 Documents Provided

We were provided with a one page plan sheet that showed the general location and dimensions of the proposed addition. Specific architectural, structural or civil engineering plans were not provided.

We were also provided a copy of a recently completed lot survey. The survey was completed by Johnson & Scofield Inc, Surveying & Engineering, and was dated September 6, 2018.

### **1.6 Locations and Elevations**

The test pit locations were selected by HGTS and were based on anticipated construction and site access.

The ground surface elevations at the boring locations were estimated from the lot survey. Because of that the elevations shown on the test pit logs and elevations referenced in the text of this report should be considered approximate.

The approximate locations of the test pits are shown on Figure 1, "Test Pit Location Sketch", in the Appendix of this report.

## **2.0 FIELD PROCEDURES**

The two test pits were excavated on July 24, 2018 with a "mini" backhoe operated by HGTS. HGTS observed the test pits and collected representative samples which were sealed in containers and returned to the laboratory at HGTS for additional soil classification. Soil samples recovered from the test pits were classified in general accordance with ASTM 2488, "Description and Identification of Soils (Visual/Manual Procedures).

A field log of each test pit was prepared by HGTS. The logs contain visual classifications of the soil materials encountered as well as an interpretation of the subsurface conditions between samples and water observation notes. The final test pit logs included with this report represent an interpretation of the field logs and include modifications based on visual/manual method observation of the samples.

The test pit logs, general terminology for soil description and identification, and classification of soils for engineering purposes are included in the appendix. The test pit logs identify and describe the materials encountered and groundwater observations.

The strata changes were inferred from the changes observed in the soil excavated from the test pits. The depths shown as changes between strata are only approximate. The changes are likely transitions, variations can occur beyond the location of the test pits.

## **3.0 RESULTS**

### **3.1 Soil Conditions**

The test pits encountered about ½ foot of silty sand topsoil that contained some roots and was dark brown in color.

Below the topsoil the test pits encountered silty sand and gravel that extended to the termination depths of the test pits. The gravel generally consisted of weathered limestone.

Test pit TP-1 met with refusal at a depth of about 6 feet below the ground surface. The cause of refusal was not determined but was likely due to large piece(s) of detached limestone or possibly the bedrock surface. Test Pit TP-2 terminated at a depth of about 9 feet below the ground surface due to limitations of the mini-backhoe.

### **3.2 Groundwater**

Groundwater was not encountered in the test pits. Groundwater appears to be below the depths explored by our test pits.

Water levels were measured on the date as noted on the test pit logs and the period of water level observations was relatively short. Groundwater monitoring wells or piezometers would be required to more accurately determine water levels. Seasonal and annual fluctuations in the groundwater levels should be expected.

### **3.3 OSHA Soil Classification**

The soils encountered in the test pits consisted mainly of granular soils (sands) corresponding to the ASTM Classification of SM. The soil identified in the test pits will generally be Type C soil under Department of Labor Occupational Safety and Health Administration (OSHA) guidelines.

## **4.0 DISCUSSION AND RECOMMENDATIONS**

### **4.1 Proposed Construction**

We understand the proposed addition will have overall plan dimensions of about 15 feet by 48 feet and will extend from the approximate middle of the home and extend southward. We assume the addition will have a basement/lower level and that floor grades will match that of the existing home.

The new home will likely consist of concrete masonry block or cast-in-place concrete foundation walls supported on concrete spread footings with above grade construction consisting of wood framing, a pitched roof and asphalt shingles.

Based on the assumed construction we estimate wall loadings will range from about 1 to 2 kips (1,000 to 2,000 pounds) per lineal foot and column loads, if any, will be less than 50 kips (50,000 pounds).

If the proposed loads exceed these values, the proposed grades differ by more than 2 feet from the assumed values or if the design or location of the proposed building changes, we should be informed. Additional analyses and revised recommendations may be necessary.

### **4.2 Discussion**

The vegetation and topsoil encountered at the surface are not suitable for foundation or floor slab support and will need to be removed from the addition and oversize areas and replaced with suitable compacted engineered fill. In addition, concrete sidewalks and/or patios in the addition area will need to be removed. Removal of these materials will likely be incidental to construction.

The underlying silty sand with weathered limestone is generally suitable for engineered fill and foundation support. However, test pit TP-1 met with refusal at a depth of about 6 feet. The cause of the refusal is not known but was assumed to be due to large piece(s) of limestone. Contractors bidding on the project should be aware that large pieces of limestone, or possibly bedrock, could be encountered during excavation activities and that conventional/typical excavation techniques may not be appropriate for foundation construction.

We assume the proposed addition will have a lower/basement level. Care will need to be taken when backfilling the foundation walls to avoid using large piece(s) of limestone which could potentially damage the masonry block foundation walls. Oversized particles (larger than 3 inches in diameter) should not be used as fill or backfill adjacent to the foundation walls because of the potential for them to damage the masonry foundation walls, especially if they are dropped into the excavation.

Groundwater was not encountered in the test pits. We do not anticipate that groundwater will be encountered during construction and do not anticipate that dewatering will be required.

### 4.3 Addition Foundation Preparation

**Excavation** We recommend that all vegetation, topsoil, and any other unsuitable materials, if encountered, be removed from the proposed addition and oversize area.

Any loose or disturbed soils should be surface compacted to increase their density and uniformity. Table 1 below summarizes the anticipated excavation depths at the test pit locations. Excavation depths may vary and could be deeper.

**Table 1. Anticipated Excavation Depths**

Boring Number	Approximate Surface Elevation (feet)	Anticipated Excavation Depth (feet)*	Anticipated Excavation Elevation (feet)*
TP-1	725	½ (cut to grade)	724 ½
TP-2	725	½ (cut to grade)	724 ½

\* = Excavation elevations were rounded to nearest ½ foot.

Ground surface elevations were not surveyed. Elevations were estimated and should be considered approximate.

**Oversizing** If the excavation extends below the proposed footing elevation, the excavation requires oversizing. We recommend the perimeter of the excavation be extended a foot outside the proposed footprint for every foot below footing grade (1H:1V oversizing). The purpose of the oversizing is to provide lateral support of the foundation.

**Backfilling** The test pits encountered pieces of limestone and some of those pieces were oversized (i.e. greater than 3 inches). Oversized particles should not be used as fill or backfill adjacent to the foundation walls because of the potential for them to damage the masonry foundation, especially if they are dropped into the excavation. We recommend that “clean” coarse sand be used for engineered fill for ease in compaction and to provide a uniform subgrade,

We recommend that backfill placed to attain site grades be compacted to a minimum of 95 percent of its standard Proctor density (ASTM D 698). Granular fill (with less than 12% passing the #200 sieve) should be placed within 65 percent to 105 percent of its optimum moisture content as determined by the standard Proctor. Remaining fill soils should be placed within 3 percentage points above and 1 percentage point below its optimum moisture content as determined by the standard Proctor. All fill should be placed in thin lifts and be compacted with a large self-propelled vibratory compactor operating in vibratory mode.

Organic soils such as topsoil or soils that are black in color are not suitable for reuse as structural fill and could be placed in green areas.

**Foundations** We recommend the perimeter footings bear a minimum of 42 inches below the exterior grade for frost protection. Interior footings may be placed immediately below the slab provided construction does not occur during below freezing weather conditions. Foundation elements in unheated areas (i.e. deck or porch footings) should bear at least 5 feet below exterior grade for frost protection.

We anticipate the foundations and floor slabs will bear on compacted engineered fill or native silty sand soils.

It is our opinion the footings can be designed for a net allowable bearing pressure up to 2,000 pounds per square foot (psf).

We anticipate total and differential settlement of the foundations will be less than 1 inch and ½ inch, respectively across an approximate 30-foot span.

#### **4.4 Dewatering**

Groundwater was not encountered in the test pits. We do not anticipate that groundwater will be encountered during construction and we do not anticipate that dewatering will be required.

#### **4.5 Groundwater Separation Considerations**

We recommend that the lowest floor level of the house be constructed at least 4 feet above observed water levels and at least 2 feet above the 100-year flood level of any nearby surface water features such the St. Croix River or wetlands.

#### **4.6 Interior Slabs**

We anticipate the floor subgrade will consist of an approximate 6 to 12-inch thick "sand cushion" overlying the native silty soils. It is our opinion a modulus of subgrade reaction,  $k$ , of 200 pounds per square inch of deflection (psi) may be used for granular soils to design the floor.

If floor coverings or coatings less permeable than the concrete slab will be used, we recommend that a vapor retarder or vapor barrier be placed immediately beneath the slab. Some contractors prefer to bury the vapor barrier or vapor retarder beneath a layer of sand to reduce curling and shrinkage, but this practice often traps water between the slab and vapor retarder or barrier. Regardless of where the vapor retarder or vapor barrier is placed,

we recommend consulting the floor covering manufacturer regarding the appropriate type, use and installation of the vapor retarder or vapor barrier to preserve the warranty.

We recommend following all state and local building codes in regard to a radon mitigation plan beneath interior slabs.

#### 4.7 Below Grade Walls

Foundation walls or below grade (basement) walls will have lateral loads from the surrounding soil transmitted to them. We recommend general waterproofing of the below grade walls.

As mentioned in Sections 4.2 and 4.3 above we recommend backfilling adjacent to the walls with sand having less than 50 percent of the particles by weight passing the #40 sieve and less than 5 percent of the particles by weight passing the #200 sieve. The sand backfill should be placed within 2 feet horizontally of the wall. The balance of the backfill for the walls can consist of the on-site materials. However, the use of excessively large pieces (greater than 3 inches in diameter) of limestone should be avoided.

We recommend installing drain tile behind the below grade walls, adjacent to the wall footing and below the slab elevation. Preferably the drain tile should consist of perforated pipe embedded in gravel. A geotextile filter fabric should encase the pipe and gravel. The drain tile should be routed to a storm sewer, sump pump or other suitable disposal site.

Active earth pressures can be used to design the below grade walls if the walls are allowed to rotate slightly. If wall rotation cannot be tolerated, then below grade wall design should be based on at-rest earth pressures. We recommend soil parameters found below in Table 2, be used for below grade/retaining wall design. These design parameters are based on the assumptions that the walls are drained, there are no surcharge loads within a horizontal distance equal to the height of the wall and the backfill is level.

**Table 2. Soil Parameters**

Soil Type	Estimated Unit Weight (pcf)	Estimated Friction Angle (degrees)	At-Rest Pressure (pcf)	Active Soil Pressure (pcf)	Passive Soil Pressure (pcf)
Sand (SP or SP-SM)	125	32	55	35	400
Silty Sand (SM)	135	28	70	50	375

Resistance to lateral earth pressures will be provided by passive resistance against the wall footings and by sliding resistance along the bottom of the wall footings. We recommend a sliding coefficient of 0.35. This value does not include a factor of safety.

#### 4.8 Exterior Slabs

The exterior slabs could be underlain by silty sand soils (weathered limestone) which are moderately to highly frost susceptible. If these soils become saturated and freeze, significant heave may occur. This heave can be a nuisance in front of doors and at other critical grade areas and can result in cracks in the slabs. One way to help reduce the potential for heaving

is to remove the frost-susceptible soils below the slabs down to bottom of footing grades and replace them with non-frost susceptible backfill consisting of sand having less than 5 percent of the particles by weight passing the number 200 sieve.

If this approach is used and the excavation bottoms terminate in non-free draining soil, we recommend a drain tile be installed along the bottom outer edges of the excavation to collect and remove any water that may accumulate within the sand. The bottom of the excavation should be graded away from the building.

If the banks of the excavations to remove the frost-susceptible soils are not sloped, abrupt transitions between the frost-susceptible and non-frost-susceptible backfill will exist along which unfavorable amounts of differential heaving may occur. Such transitions could exist between exterior slabs and sidewalks, between exterior slabs and pavements and along the slabs themselves if the excavations are confined to only the building entrances. To address this issue, we recommend sloping the excavations to remove frost-susceptible soils at a minimum 3:1 (horizontal: vertical) gradient.

An alternative method of reducing frost heave is to place a minimum of 2 inches of extruded polystyrene foam insulation beneath the slabs and extending it about 4 feet beyond the slabs. The insulation will reduce frost penetration into the underlying soil and reduce heave. Six to 12 inches of granular soil is typically placed over the insulation to protect it during construction.

Another alternative for reducing frost heave is to support the slabs on frost depth footings. A void space of at least 4 inches should be provided between the slab and the underlying soil to allow the soil to heave without affecting the slabs.

#### **4.9 Site Grading and Drainage**

We recommend the site be graded to provide positive run-off away from the proposed addition. We recommend landscaped areas be sloped a minimum of 6 inches within 10 feet of the building and slabs be sloped a minimum of 2 inches. In addition, we recommend downspouts with long splash blocks or extensions.

#### **4.10 Utilities**

We do not anticipate that new utilities (sanitary and watermain) will be installed as part of this project.

## **5.0 CONSTRUCTION CONSIDERATIONS**

### **5.1 Excavation**

The soils encountered in the test pits consisted mainly of granular soils (weathered limestone) corresponding to the ASTM Classification of SM. The soil identified in the test pits will generally be Type C soil under Department of Labor Occupational Safety and Health Administration (OSHA) guidelines. Temporary excavations in Type C soils should be constructed at a minimum of 1 ½ foot horizontal to every 1 foot vertical within excavations.

Slopes constructed in these manners may still exhibit surface sloughing. If site constraints do not allow the construction of slopes with these dimensions, then temporary shoring may be required.

## **5.2 Observations**

A geotechnical engineer should observe the excavation subgrade to evaluate if the subgrade soils are similar to those encountered in the test pits and adequate to support the proposed construction.

## **5.3 Backfill and Fills**

We recommend that fill and backfill be placed in lifts not exceeding 4 to 12 inches, depending on the size of the compactor and materials used.

## **5.4 Testing**

We recommend density tests of backfill and fills placed for the proposed house foundation. Samples of the proposed materials should be submitted to our laboratory prior to placement for evaluation of their suitability and to determine their optimum moisture content and maximum dry density (Standard Proctor).

## **5.5 Winter Construction**

If site grading and construction is anticipated to proceed during cold weather, all snow and ice should be removed from cut and fill areas prior to additional grading and placement of fill. No fill should be placed on frozen soil and no frozen soil should be used as fill or backfill.

Concrete delivered to the site should meet the temperature requirements of ASTM and/or ACI. Concrete should not be placed on frozen soil. Concrete should be protected from freezing until the necessary strength is obtained. Frost should not be permitted to penetrate below the footings.

# **6.0 PROCEDURES**

## **6.1 Soil Classification**

The soils encountered in the test pits were classified in general accordance with ASTM D 2488, "Description and Identification of Soils (Visual-Manual Procedure)." Soil terminology notes are included in the Appendix. The samples were returned to our laboratory for review of the field classification by a soils engineer. Samples will be retained for a period of 30 days.

## **6.2 Groundwater Observations**

Immediately after taking the final samples in the bottom of the test pit, the excavation was checked for the presence of groundwater.

## **7.0 GENERAL**

### **7.1 Subsurface Variations**

The analyses and recommendations presented in this report are based on data obtained from a limited number of test pits. Variations can occur away from the test pits, the nature of which may not become apparent until additional exploration work is completed, or construction is conducted. A re-evaluation of the recommendations in this report should be made after performing on-site observations during construction to note the characteristics of any variations. The variations may result in additional foundation costs and it is suggested that a contingency be provided for this purpose.

It is recommended that we be retained to perform the observation and testing program during construction to evaluate whether the design is as expected, if any design changes have affected the validity of our recommendations, and if our recommendations have been correctly interpreted and implemented in the designs, specifications and construction methods. This will allow correlation of the soil conditions encountered during construction to the soil borings and will provide continuity of professional responsibility.

### **7.2 Review of Design**

This report is based on the design of the proposed structure as related to us for preparation of this report. It is recommended that we be retained to review the geotechnical aspects of the design and specifications. With the review, we will evaluate whether any changes have affected the validity of the recommendations and whether our recommendations have been correctly interpreted and implemented in the design and specifications.

### **7.3 Groundwater Fluctuations**

We made water level measurements in the test pits at the times and under the conditions stated on the test pit logs. The data was interpreted in the text of this report. The period of observation was relatively short and fluctuations in the groundwater level may occur due to rainfall, flooding, irrigation, spring thaw, drainage, and other seasonal and annual factors not evident at the time the observations were made. Design drawings and specifications and construction planning should recognize the possibility of fluctuations.

### **7.4 Use of Report**

This report is for the exclusive use of Mr. Tom Gasser his design team to use to design the proposed structure and prepare construction documents. In the absence of our written approval, we make no representation and assume no responsibility to other parties regarding this report. The data, analysis and recommendations may not be appropriate for other structures or purposes. We recommend that parties contemplating other structures or purposes contact us.

### **7.5 Level of Care**

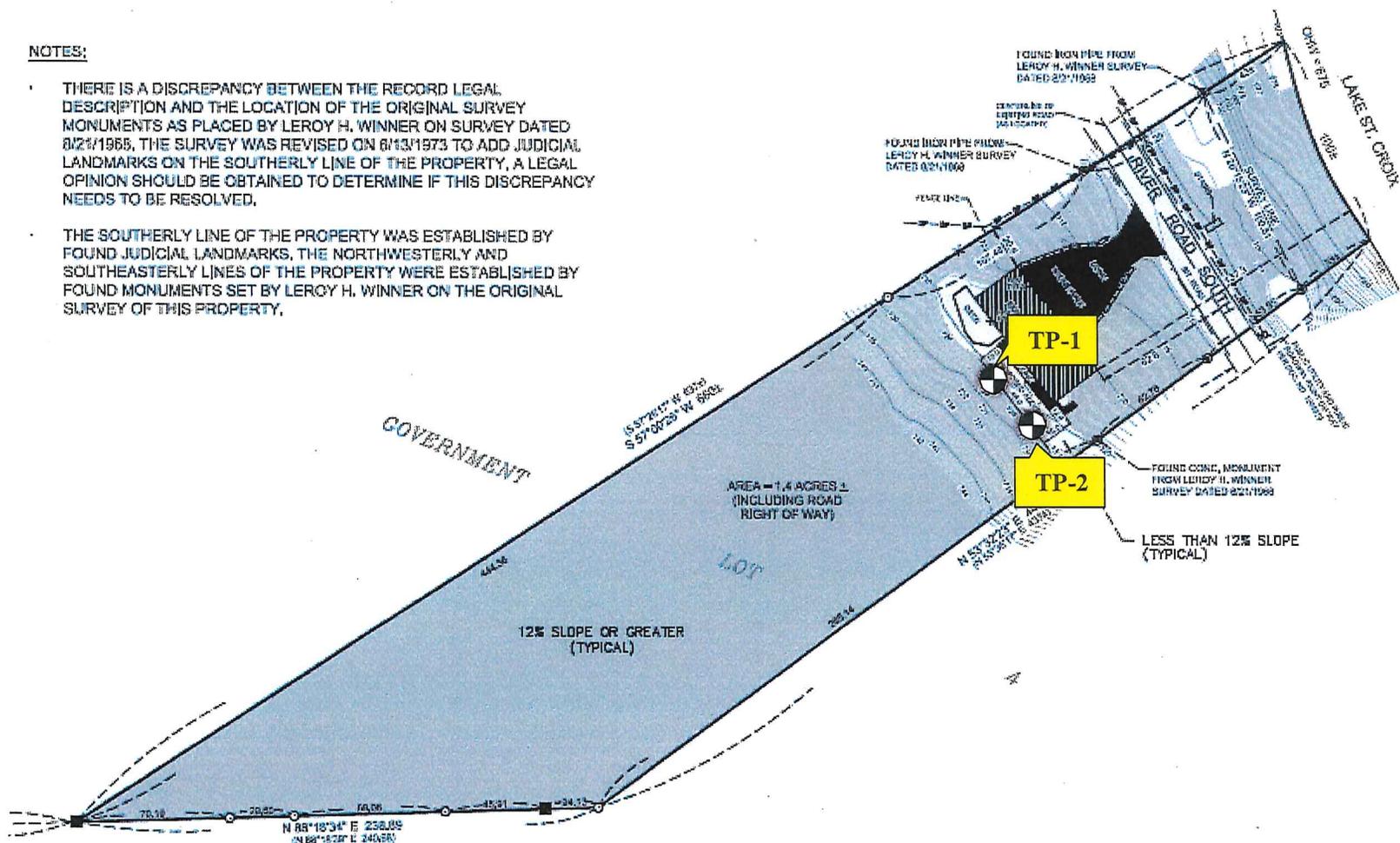
Haugo GeoTechnical Services has used the degree of skill and care ordinarily exercised under similar circumstance by members of the profession currently practicing in this locality. No warranty expressed or implied is made.

## APPENDIX

**NOTES:**

THERE IS A DISCREPANCY BETWEEN THE RECORD LEGAL DESCRIPTION AND THE LOCATION OF THE ORIGINAL SURVEY MONUMENTS AS PLACED BY LEROY H. WINNER ON SURVEY DATED 02/21/1968. THE SURVEY WAS REVISED ON 6/13/1973 TO ADD JUDICIAL LANDMARKS ON THE SOUTHERLY LINE OF THE PROPERTY, A LEGAL OPINION SHOULD BE OBTAINED TO DETERMINE IF THIS DISCREPANCY NEEDS TO BE RESOLVED.

THE SOUTHERLY LINE OF THE PROPERTY WAS ESTABLISHED BY FOUND JUDICIAL LANDMARKS, THE NORTHWESTERLY AND SOUTHEASTERLY LINES OF THE PROPERTY WERE ESTABLISHED BY FOUND MONUMENTS SET BY LEROY H. WINNER ON THE ORIGINAL SURVEY OF THIS PROPERTY.



Approximate Test Pit Location



Haugo GeoTechnical Services, LLC  
 2825 Cedar Avenue S.  
 Minneapolis, MN 55407

**Test Pit Location Sketch**  
 4220 River Road South  
 Afton, Minnesota

Figure #: 1  
 Drawn By: RD  
 Date: 9/10/18  
 Scale: None  
 Project #: 18-0161



Haugo GeoTechnical Services  
 2825 Cedar Avenue  
 Minneapolis, MN 55407  
 Telephone: 612-729-2959

# TEST PIT NUMBER TP-1

CLIENT TomGasser PROJECT NAME 4220RiverRoadS  
 PROJECT NUMBER 18-0616 PROJECT LOCATION Afton,MN  
 DATE STARTED 7/24/18 COMPLETED 7/24/18 GROUND ELEVATION 725ft TEST PIT SIZE inches  
 EXCAVATION CONTRACTOR HGTS GROUND WATER LEVELS:  
 EXCAVATION METHOD TestPit AT TIME OF EXCAVATION ---NotEncountered  
 LOGGED BY PG CHECKED BY JC AT END OF EXCAVATION ---NotEncountered  
 NOTES Elevationestimated. AFTER EXCAVATION ---NotEncountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	MOISTURE CONT. (%)	NOTES	▲ SPT N VALUE ▲						
								20	40	60	80			
0.0		Silty Sand, with Roots, dark brown, moist. (Topsoil)						PL	MC	LL				
		(SM) Silty Sand, with Limestone pieces, brown, moist. (Slopewash)												
2.5														
5.0		Test Pit terminated on possible bedrock.												

Bottom of test pit at 6.0 feet.

GEOTECH.BH PLOTS - GINT STD US LAB.GDT - 9/10/18 09:32 - C:\USERS\PUBLIC\DOCUMENTS\BENTLEY\GINT\PROJECTS\18-0616 4220 RIVER ROAD.GPJ

## Council Highlights

September 18, 2018 Regular Council Meeting

- The Council approved the Friedlander application for minor subdivision and rezoning at 2900 Stagecoach, et al, with the condition of compliance with all ordinances related to steep slopes, but without the condition requiring scenic easements on steep slopes.
- The Council approved the application by Eric and Kaya Cook and Ken and Linda Johnson for a Minor Subdivision for a Lot Line Rearrangement at 3787 St. Croix Trail and 3752 River Road.
- The Council approved the application by Ken and Linda Johnson for a Variance at 3752 River Road.
- The Council approved the request by Roger Mireau at 12225 Hudson Road regarding a Substantially Similar Use Determination regarding a heavy equipment rental use
- The Council approved the Ordinance Amendment to Allow Swimming Pool Auto Covers as an Alternative to a Fence Enclosure with the revisions that the pool auto cover as an alternative to a fence is only allowed in the Rural Residential and Agricultural zones, and the pool auto cover must be kept in good repair and the auto cover must be designed, installed and used so that the degree of protection provided by the auto cover is similar to that afforded by a fence.
- The Council approved the Comprehensive Plan Update with a number of edits proposed by Mayor Bend
- The Council approved the Nathan Landucci Application for a Simple Subdivision to Create a Private Driveway Easement Over the Parcel on Neal Avenue with Property Identification Number 17.028.20.21.0002. (This is the driveway to serve a house on the 40 acre parcel that fronts on Valley Creek Trail but does not have access from Valley Creek Trail).
- The Council adopted an ordinance Requiring the Use of Compostable or Recyclable Single-Use Food Service Ware by Food Service Businesses
- The Council approved a price quote of \$1,500 for the purchase and installation of bollards on Pike Street where it narrows to a bike trail to prevent access by motorized vehicles.