

AGENDA

RILEY COUNTY PLANNING BOARD/ BOARD OF ZONING APPEALS

Monday, September 8, 2014
7:30 p.m.

Commission Meeting Room
Courthouse Plaza East

(Procedure: Open joint meeting of the Riley County Planning Board/Board of Zoning Appeals.)

I. OPEN PUBLIC COMMENTS

II. CONSENT AGENDA

1. Consider the minutes of the August 11, 2014 meeting.
2. Consider the Report of Fees for the month of August 2014.

(Procedure: Adjourn the joint meeting of the Riley County Planning Board/Board of Zoning Appeals and convene as the Riley County Board of Zoning Appeals.)

III. GENERAL AGENDA- RILEY COUNTY BOARD OF ZONING APPEALS

1. Public Hearing to consider the request of Stacy Roberts, petitioner and owner, for a **Variance** authorization to permit the construction of a detached garage 4.7 feet below the required elevation of one (1) foot above base flood elevation (1034 ft.).

(Procedure: Adjourn as the Riley County Board of Zoning Appeals and convene as the Riley County Planning Board.)

IV. GENERAL AGENDA- RILEY COUNTY PLANNING BOARD

1. A public hearing at the request of LAWE, LLC (David H. Tegtmeier, Registered Agent), petitioner, and LAWE, LLC (David & Danielle Tegtmeier), owners, to **rezone** a tract of land from "AG" (Agricultural District) to "C-PUD" (Commercial Planned Unit Development) **and plat** a 6.61-acre portion said tract of land into one (1) lot, all in Wildcat Township, Section 8, Township 10 South, Range 7 East, in Riley County, Kansas. **ACTION NEEDED:** Take item from the Table and conduct a public hearing to **recommend approval/denial of the rezoning to the Board of County Commissioners and approve/deny the Concurrent Plat of Tegtmeier Addition.**
2. Manhattan Urban Area Comprehensive Plan update.
3. Big Blue Floodplain Management Plan update.
4. Agritourism Task Force update.

(Procedure: Adjourn the Riley County Planning Board meeting.)

MINUTES

RILEY COUNTY PLANNING BOARD/ BOARD OF ZONING APPEALS

Monday, August 11, 2014
7:30 pm

Courthouse Plaza East
Commission Meeting Room
115 North 4th Street

Members Present: Lorn Clement, Chairman
Dr. Tom Taul, Vice-Chair
Diane Hoobler
Julie Henton
John Wienck

Members Absent: None

Staff Present: Monty Wedel – Director, Bob Isaac – Planner, Lisa Daily –
Administrative Assistant

Others Present: Dave Gehrt, Dell Ann Upp, Kelly Upp, Margaret Sheriff, Patricia King, Barbara Craft, Patricia King, Tara Pierce, Kitty Pursley, Frank & Roberta Blecha, John Osarczuk, Teresa Osarczuk, Kim Iversen, Alexis Schlieper, Tara Schlieper, Sterling Knapp, Emily Knapp, Scott Iversen, Adrian Montes, David Miller, Paula Seematter, Kenneth Seematter, Tom Finney, Megan Quigley, Christina Quigley, Brian, Terry Hawk, Lynn Richter, Judy Kimball, Greg & Janet Milliken, Alex Abendschein, Mary Ann Angeles, Christina Thompson, Scott & Abby Wempe, Kent Manuel, Robert Boyd, Daryn Solden and Dave Lewis

OPEN PUBLIC COMMENTS

None.

CONSENT AGENDA

The minutes of the July 14, 2014 meeting were presented and approved. The Report of Fees for the month of July (\$3,031.75) were presented and approved.

Diane Hoobler moved to adjourn the joint meeting of the Riley County Planning Board/Board of Zoning Appeals and convene as the Board of Zoning Appeals. John Wienck seconded. Carried 5-0.

BOARD OF ZONING APPEALS

Upp – Conditional Use

Lorn Clement opened the public hearing at the request of Dell Ann Upp, petitioner and Dell Ann & Kelly Upp, owners, for a conditional use authorization to permit an events center in the "AG" (Agricultural District) zoning designation.

Bob Isaac presented the request. He explained where the conditional use boundaries are in relation to the actual property lines for the parent tract. He said the smaller tract enveloped by the parent tract is developed with a limestone house currently being refurbished by the applicant.

Mr. Isaac said it is the applicant's desire to refurbish and convert the barn into an event center for the primary purpose of hosting activities and events such as weddings, wedding receptions, charity fundraising events, corporate retreats and recreational, social or religious functions with no overnight lodging. He said that the applicant wishes to have the flexibility to also host outdoor ceremonies.

Mr. Isaac stated that the barn will serve as the principal structure of the event center, while Building A (as shown on the site plan), shall serve as the prep area for caterers; as food will not actually be prepared on site. Mr. Isaac stated that there are two entrances that serve the property; however, it is proposed that only the west entrance will serve as the ingress/egress for the event center. Mr. Isaac stated that parking will be located on the northwest portion of the site, which is already partially screened along the west property line by an intermittent row of cedar trees. Mr. Isaac stated that the applicant has designated an area for outdoor ceremonies, which is situated south of the barn near or within the wooded area along School Creek. Mr. Isaac state that the site plan indicates there will be trees planted along a walking path from the barn to this area to create a visual buffer for properties located east of the site.

Mr. Isaac stated that the Director of Riley County Emergency Management reviewed the request and stated that because the plan is for a place of assembly, the events center (barn) must meet the State of Kansas minimum building and safety code.

Mr. Isaac stated that the County Engineer Leon Hobson reviewed the request for safety concerns with sight distance along Deep Creek Road and the projected increase in traffic. Mr. Hobson stated that the site distance should not be a problem using the west entrance to the site only with a requirement that a near-level area extending 25 feet from the edge of Deep Creek Road be constructed whereas a vehicle will set nearly level while waiting to enter onto the roadway. Mr. Hobson stated that Deep Creek Road could handle the projected increase in traffic.

Mr. Isaac mentioned that the Applicant is proposing that drinking water will not be available and events will be on a "bring your own beverage" basis. He said that the long term plan is for restroom facilities to be built into the barn while the short term plan is to use professional porta-potties and hand washing stations for each event. He said that this plan was reviewed and found to be acceptable by the Riley County Environmental Health Specialist.

Mr. Isaac explained one of the most prominent concerns in the proposed use of the property is fugitive noise from amplified music. Mr. Isaac stated that a Noise/Sound analysis was completed and submitted by CollectiveTech (Henderson Engineers, Inc.) for the proposed use. He said that the analysis concluded that the estimated noise level at the nearest property line would be 45 dBA, and 42 dBA at the west property line with the barn doors closed and 50 dBA, and 47 dBA at the west property line with the doors open.

Mr. Isaac reviewed the conditions as follows:

1. This Conditional Use permit shall only be for an Events Center to host activities and events, such as weddings, wedding receptions, charity fundraising events, corporate retreats, and recreational, social or religious functions. There shall be no overnight lodging.
2. The barn (as shown on the site plan) shall serve as the principal structure of the events center. The barn and associated structures shall comply with the State of Kansas minimum building and safety codes per the 2006 IBC and the 2000 NFPA 101. A code footprint must be submitted to and approved by the Fire Chief before construction/remodeling begins.
3. All requirements of the Riley County Health Department and other health authorities shall be met. These standards include proper food and beverage safety, the provision of an adequate

potable water supply, including hand washing stations located in the food preparation areas and adequate provisions for the disposal of solid waste and wastewater. The organizer must provide a minimum of two (2) sanitary facilities, regardless of the number of participants in the event. If the organizer anticipates more than two hundred (200) participants, a sanitary facility shall be provided for each additional one hundred (100) participants. If the Riley County Environmental Health Specialist finds that additional facilities are necessary to ensure public health, the organizer shall provide the recommended number or shall restrict participants to the number that corresponds to the sanitary facilities available. For events that involve food, one (1) portable hand washing station must be provided per portable sanitary facility (if not part of the port-a-potty unit).

4. Maximum number of motor vehicles allowed on site shall be eighty-six (86).
5. All drives and parking areas (including handicap parking) shall be located within the conditional use boundary and consist of all-weather surfacing. Parking shall only be permitted in designated parking areas. Such areas shall be designed to allow for adequate maneuvering of motor vehicles. Event parking along Deep Creek Road shall be prohibited. Parking may not overlap onto adjoining property without advance written consent of the affected landowner.
6. The access drive from Deep Creek Road to the parking area shall be a minimum of 24 feet wide. Additionally, a near-level area extending 25 feet from the edge of Deep Creek Road shall be constructed whereas a vehicle will set nearly level while waiting to enter onto the roadway.
7. Any building or structure, in which dances, playing of music or other amplification of sound will occur, must be reasonably insulated to mitigate the migration of noise to adjoining properties. Noise levels from amplification of sound shall be controlled and mitigated so as to not exceed 65dBA at the property line. dBA shall be equivalent – continuous sound levels (Leq) which shall measure amplified noise generated within the property over a 10 minute period along the involved property line. Quiet hours during which no amplified sound will be permitted shall be posted on site and shall be between the hours of 11:00 PM and 11:00 AM.
8. Emergency services shall be provided the ability to respond to emergency situations, including police, fire and emergency medical response needs.
9. All proposed lighting sources shall be aimed or shielded so the direct illumination is confined to the property on which the use is located. The operation of searchlights or similar lighting sources is prohibited.
10. One non-illuminated sign subject to compliance with all applicable provisions of **Section 15 – Signs and Exterior Lights**. Way-finding signs shall be permitted within the conditional use boundary.
11. The site shall be maintained and left free of debris or litter following any event.
12. Designated personnel from Riley County Police Department, Riley County Fire District No. 1, Riley County Emergency Medical Service, Riley County Health Department and/or Riley County Planning & Development shall be authorized to inspect the events center premises for compliance with the provisions of the conditions of this authorization.
13. The maximum number of persons on site at any given time shall be 275 persons, including patrons, guests, caterers, employees, etc., regardless of age.

Staff recommended approval of the request based on the conditions listed in the staff report as it was determined that as per these conditions, the request met or exceeded the minimum

requirements for a rural resort retreat and events center as described in Use Specific Standards, Section 8 Agricultural District of the Riley County Zoning Regulations.

The Board didn't have any questions for Mr. Isaac.

Chairman Clement asked if the Applicant would like to make a statement.

Dell Ann Upp stated that she and her husband, Kelly Upp, are the property owners of the proposed conditional use site. She stated she believes this property is a true piece of Heaven and are proud to own it. She said they purchased the property with the intent to live there. Mrs. Upp explained she is a small business owner and does a substantial amount of event and wedding planning. She said that currently she averages about twenty-two (22) weddings per year, working with a high-end clientele that use a wedding planner and have a significant budget.

Mrs. Upp explained there is a great lack of event type venues within the Manhattan area. She said that she struggles with finding places to host these events and sometimes books almost two years out. She said that she doesn't have a goal of having weddings at this venue every weekend because she will be living on the property. She stated she respects the community and neighbors and doesn't want to disrupt their quality of life. She said you live in the country for a reason and a lot of that is for peace and quiet.

Mrs. Upp said they have worked with engineers to research and do everything they can to mitigate noise issues. She said that the site plan shows a significant amount of landscaping to make the property beautiful and make it a place the entire community can enjoy. She said the barn is in significant disrepair and they want to restore it. She said she feels they have gone above and beyond to alleviate any concerns.

The Board didn't have any questions for the Applicant.

Chairman Clement asked if there were any proponents within 1000 feet. There were none.

Chairman Clement asked if there any opponents within 1000 feet.

John Osarczuk stated he lives at 1715 Pollman Drive. He said he and his wife bought their two lots back in 2007 and were amazed by the beauty so close to Manhattan. He said he agrees with the Applicant that it is a true piece of Heaven but the event center will destroy what is so appealing. He said that the proposed layout basically puts a parking lot in his neighbor's backyard.

Mr. Osarczuk referred to the sound study stating it has not been ascertained or concluded as to what level of noise to expect from non-amplified sources such as people talking, laughing, yelling, etc. or loud vehicles leaving the event. He stated he was concerned with the noise level of eighty-six (86) vehicles, headlights sweeping across neighboring properties and the voices of 275 people until 11:00 pm. He said there are issues with traffic traveling on Deep Creek Road to Pillsbury Crossing. He said that Deep Creek Road is the only access where people can move in and out of the neighborhood on bicycles and horses. He mentioned that occasionally a cow will get out of the pen, due to this being an agricultural area. He stated that the conditional use activity will occur at the west end of the subject site, which will direct the noise and light into the neighborhood. He asked the Board to consider keeping this a true piece of Heaven in Riley County and leaving it the way it is. He said that the one thing that will deny us of the enjoyment of our own properties is noise.

Frank Blecha said he and his wife, Bobbie, live on the adjacent property to the east and that they are opponents of this commercial venture. He said that most of his concerns were mentioned by the previous speaker, such as noise pollution, traffic and congestion. He said he doesn't know how 275 people and 86 cars in the parking lot will not have an impact on the surrounding environment. He said he has concerns with the proposed entrance as it is located in a swell or dip and traffic is a real issue in this area. He said the port-a-potties are not a good idea. He said this is a transitional area between rural and agricultural. Mr. Blecha stated he doesn't believe this is a place to allow a commercial venture of this magnitude.

Sterling Knapp stated he and his family live at 1760 Pollman Drive. He said he is the closest property owner besides the Iversen's. He said Mrs. Upp came to him and explained that she wanted to put in a wedding venue that would maybe hold four (4) events a year. He said he had a concern that the conditional use would be for other activities such as charity fundraising events, corporate retreats and recreational, social or religious functions. HE said that is quite a few events and who makes sure that she said there would only be a couple or four (4). He said being told four (4) weddings has been a bit deceptive. Mr. Knapp said the noise is a concern. He said that from his house they can hear the cars on Deep Creek Road. He said that he understands events are supposed to end at 11:00 pm, but he doesn't believe this to be true. He pointed out that the amplified music ends at 11:00 pm and there will be noise way after 11:00 pm as people talk and cars drive away. Mr. Knapp said a parking lot will be basically in his backyard and will clearly devalue his property. He said some of his six (6) children have been very fortunate to work for some of the area farmers and sometimes have to ride their bikes to work. He said that it is already somewhat dangerous to ride a bike on Deep Creek Road. He said from time to time his animals get loose and he can only imagine them walking through her wedding party.

Mr. Knapp said once the zone changes, who will control this and asked what if the Upp's move? He asked who knows what will come in afterwards. He said that he is deeply opposed.

Scott Iversen stated he lives at 1776 Pollman Drive. He said that his biggest concerns are the noise, especially in the late hours, and traffic. He said that it is a beautiful meadow and if this proposal becomes successful, will it result in more noise and more traffic? He said that this is why they are all here tonight and this is what we are all opposed to. He said there are a lot of teenage children in the neighborhood. He said that neighbors are already scared to death with the amount of intoxicated drivers from Pillsbury Crossing. He said 275 people, one out of every two, possibly intoxicated, leaving between 11:00 pm and midnight, passing right by our properties. He said he bought his property because it is secluded, at the end of the road and the last property. He said the field to the east is one parcel and a creek to the south; no one will ever invade our space. He said if this isn't an invasion of space I am not sure what is. He said that it is on their property line but it affects everyone. Mr. Iversen stated the safety and noise are really the biggest issues. He said he purchased his property in the last five (5) years and paid a premium for land, exclaiming rural property is not cheap. He asked the Board to put themselves in their shoes and consider what they would like. He asked would you like to have this party in your backyard. He said for the record, we are strongly opposed.

Lynn Richter stated he lives at 1613 Deep Creek Lane. He said he rented the barn for seventeen years, the amount of investment it would take to refurbish it and the number of events to recoup those investments wouldn't work. He said that the valley is along a creek bordered with timbers and a high hill on the side. He said the decibel levels being referenced may be an engineer's study, and it may be relevant on paper, but it isn't relevant to the neighborhood. He invited members of the Board to come out on a quiet evening to enjoy our neighborhood and see what we stand to give up if this goes through. He said that if alcohol is part of the equation and its

11:00 pm, the party could continue in the parking lot. He asked can we control that. He said there is a time and a place for this type of venue; there is one on the west side of town that basically started out on the same premises and what it has blown into is what we are going to be facing. He said that it is not acceptable and this is not the place.

Tara Schlieper said she and her husband bought 1625 Deep Creek Lane in the fall of 2011 and it truly is a piece of Heaven. She said they have put a lot of money, time and effort into refurbishing their barn for their horses. She said that one battle she constantly faces is the beer bottles littered from the Pillsbury traffic, which are a hazard to horses. She said that she is constantly picking up trash from their pasture. She said her husband would love to be here but is currently stationed in Fort Drum, New York and both of them are deeply opposed to this.

Chairman Clement asked the Applicant if she had any rebuttal.

Dell Ann Upp said she respects everyone's concerns because she doesn't want to decrease property value for anyone. She said they felt by restoring their barn it would increase property value. She said the noise level was a concern for everyone in the neighborhood to the west and with the help of an engineer, a lot thought, measuring and landscaping would mitigate, if not completely eliminate the noise issue. She said she is willing to increase landscaping or whatever they can to help ease those concerns. Mrs. Upp said everyone is bringing up the value of *their* property. She said that this is *our* property and we invested a substantial amount of money into this piece of land. She said that while we don't want to cause a negative impact on anyone, this is our property and we want to be able to restore it and use it. She stated to be able to do this will really make us invest the money because it will take a substantial amount of money for this project and to offset some of the expense.

Mrs. Upp said a lot of concern was brought up with children and the negative impact. She said that she has a three (3) year old and never would do anything to impact her quality of life. She said that the port-a-potties were brought up and we met with the county planning department and looked at all the different options. She said that this is a short term fix until permanent bathrooms can be installed. She said that they still don't have a true grasp on the number of events per year; the four (4) events that Mr. Knapp brought up was the plan initially. She said she didn't define it in the conditions because we are truly unsure. She said that her concern is they purchased the property, are trying to make it beautiful and do something great with it. She said she feels it is unfortunate that the community around us feels they are going to be negatively impacted because she feels it could be a positive thing for everyone.

Chairman Clement asked if there were any proponents outside 1000 feet.

Dave Gehrt stated he lives at 2240 Deep Creek Road. He said he feels this would be a benefit to the community by fixing the place up and it will be a beautiful place. He said just south is the Deep Creek community school house and there have been several weddings, receptions and family reunions, with no problems. He said that on top the Deep Creek hill is the Lazy T Ranch and they have held two weddings this summer in the pasture, with no problems or more traffic than normal. He admitted that he would much rather have this than a hog lot. He cautioned the Board that neighbors could listen to hog feeders bang all night and that would be fine. He said he feels pretty lucky this is what they are wanting to do and it will keep the property in its natural state. He said people can enjoy it and see what Heaven looks like.

Mary Ann Angelos said what the Upps have brought to Aggieville through their business has been a huge asset to Manhattan. She said that everything they have done has been tastefully done; it is something that has been an addition in a positive manner to many people in

Manhattan. She said she doesn't believe that they (Upps) would go forward with something that might depreciate the value of the land around them. She said that she believed what they want to do is build Manhattan up, not bring it down. She said she understood the homeowners' feelings but they (Upps) are honestly doing everything they can with landscaping and having all the testing done that needs to be done to accommodate and to take away their fears.

Chairman Clement asked if there were any opponents outside 1000 feet.

Tom Finney stated he lives at 1506 Deep Creek Lane. He said he feels that this will cause the neighborhood to be a less peaceful area. He said that he did not intend to be living in a commercial area and even though this is farmland, the venture is a commercial venture.

Greg Milliken stated he lives at 1401 Deep Creek Lane. He said on a calm evening you can actually hear traffic on Highway 177 and the trains blow their whistles in Manhattan. He said there have been several alcohol related accidents. He stated he is concerned about drainage through the property. He said that if there are Port-a-Potties on site and a 4-inch rain happens, there could be environmental issues.

Tara Pierce stated she and her husband own property on 1620 Deep Creek Lane and further down Deep Creek Road. She said that they are opposed to the venture and want the area to stay residential and agricultural. She said the event center will completely change the community and opens the door for other commercial venues to be approved.

Margaret Sheriff stated she lives at 1450 Deep Creek Lane. She said prior to moving to Deep Creek Lane she owned and lived on a 680-acre ranch. She said that she held large events such as field days and it does have an impact on the area. Ms. Sheriff stated she has service dogs to assist with her disability and they have really good hearing. She said that she is concerned the noises from the events will panic the dogs. She said that she doesn't appreciate the event center and could understand if it was an agricultural deal that wanted to bring in more income because "ag" is not the most lucrative business in the world. She said that she doesn't see this as agricultural in any sense; it is a commercial venture. She said it would be disruptive to the life style.

Kitty Pursley stated she lives at 4421 Deep Creek Road. She said she likes to go to bed early and 11:00 pm would bother some of the neighbors. She said that her concerns for 4421 Deep Creek Road are the gravel, dust and Exit 316 off of I-70. She said a number of those coming from the Kansas City-Topeka area to events will use Exit 316. She said she is concerned about the agricultural vehicles such as tractors, four-wheelers, and horses that travel on Deep Creek Road. She warned that it is a different way of living out in the country and agricultural traffic is slower. Ms. Pursley said the school house that Mr. Gehrt brought up is usually limited to 30-75 people; a much smaller venue. She said when somebody moves into a new area and purchases that property with their vision of what it is going to be, it is almost not fair to the existing property owners to have it change significantly. She said that she is opposed.

Chairman Clement asked the Applicant if she had any rebuttal. She had none.

Sterling Knapp said in reference to Mrs. Upp's rebuttal that she would never endanger her child that he believes her. He said that regardless, he has six (6) children and want to reiterate that some of them have to ride bikes on Deep Creek Road to go to work. He said he would never do anything to endanger his children either. He said that Deep Creek Road is a dangerous road for children to be riding their bikes on, but necessary for some. He told the Board that he hoped they would remember this as they made their decision.

Alexis Schlieper stated she lives at 1625 Deep Creek Lane. She said she is opposed because her best friend, Emily, will have a parking lot in her backyard. She said she won't be able to look out and see a meadow. She said she believes they will do their best to pick up trash but it can't be guaranteed that some will not blow off into the creek and pollute it. She said that we already have an endangered minnow.

Tom Taul moved to close the public hearing. John Wienck seconded. Carried 5-0.

Tom Taul said he is a believer in personal property rights. He said the Applicant mentioned she bought the property to upgrade it and develop her vision and he can respect that. He said the Applicant purchased the property knowing it was zoned agricultural. He said that by not allowing this to happen, he doesn't feel the Applicant's rights are being taken away.

Mr. Taul stated it is too big of a venue for the area. He said that he understood the county engineer said the road is fine for the volume of traffic. He said he liked the earlier comment that you can't have 86 cars and 275 people and not impact the area. He said he is familiar with the property and has been there six or seven times over the last ten years. He said that considering the condition of the barn, the venue planned, the kind of financial input to restore it, there would have to be numerous activities.

Dell Ann Upp stated no one knows their financial situation and that is not up to the public to decide.

Tom Taul said he is not trying to make a judgment but stated nobody knows how long you will own it. He said there will be numerous activities there and it will grow. He said he has been on many boards and usually they wish new business adventures well. He said that he also knows some things start out to be a small endeavor but become a big endeavor. He said that if he were a neighbor, he wouldn't want to live there and have that parking lot full with 86 cars. He said he didn't like the idea of two Port-a-potties for 275 people. He said that the fact that there is not potable water and restroom facilities proposed; maybe when those are made available might shed a different light. He said he has a lot of background in rural areas and knows when you have a creek with hills on the other side, the noise goes up and down it. He said that there is a lot of echo in this particular area and a little bit of noise goes a long way. He said that the size and location of the venue, with all the factors of traffic, noise, lights and destruction of the area, he doesn't think a commercial venture is right for this particular area at this particular time.

John Wienck said he lived in a valley in the north end of Riley County and the closest neighbor was a mile away. He said when the calves started bawling, it sounded like they were right in your backyard so he understands that noise carries. He stated that he has concerns with traffic on Deep Creek Road with alcohol involved and the number of vehicles. He said that he also has concerns with events continuing in the parking lot after 11:00 pm. He said that he has a hard time supporting something like this in a rural agricultural community because it is not fair.

Diane Hoobler said she agrees with Tom Taul and John Wienck. She said that this is a valley and there is nowhere for the sound to go. She said the lots are not 20-acre lots, but more like 3-acre lots, which means the noise will affect a lot more people. She said she lives across the river with two rows of trees in between and can hear noise in St. George. She said that she and her family farm in the Deep Creek area and she knows what it is like taking agricultural equipment up those roads. She said it is scary because the road is narrow and there is no shoulder. She said there is a lot of traffic that goes to Pillsbury Crossing during the spring, summer and fall. She said that the light factor from the parking lot is another reason why she can't support the request in an agricultural area. She said if it was further away from so many people it would be all right.

Julie Henton said she agreed with everything the other Board members said; the traffic, dangerous road and noise. She said she couldn't add any more to what has been said.

Chairman Lorn Clement said there was a strong factor in the Applicant's favor in that she would be living as the site. He said that he believed that she has very good intentions and wants to take good care of this place. He said that however, he drives his own pickup up that road (Deep Creek) with hay on it and knows it is a dangerous road. He said he was very concerned about the Pillsbury traffic as the larger part of the context. He said that he was very concerned about the bicycle question and thinks there should be some type of accommodation for bikes. Mr. Clement stated that he knows from personal experience that the land slopes away from Deep Creek Road and down into your property, thus, when the engineers are talking about a level area of 25 feet, there will have to be some kind of fill. He said that it would put this area up in the air. He said that even if there is a level area, people who have been at parties and are driving up onto that to turn left or right may or may not be as careful as we would want them to be. He stated that he is very concerned, as well as the other Board members and the neighbors, about the number of cars so close to the property boundary and the circulation of lights. He said that despite good intentions, there are serious impacts that are going to devalue adjacent property to some degree. He reiterated that we all are concerned about property rights and the investment-backed expectations of land, but again, as Tom mentioned, this property is within the "Ag" zone and which allows the Applicant the right to use it in productive way within that zoning classification. He said that the idea of the investment-backed expectations are very, very powerful in the courts that deal with these kinds of questions and he really thinks we need to pay attention to that. He also said that he was pretty concerned about some of issues with safety, impacts and changing the character of the neighborhood. He said that noise really does travel up these valleys.

Monty Wedel said he is not advocating one way or the other but asked that Board if there was any way that the Applicant could perhaps modify the application to make this acceptable and if so, the Board needs to give the Applicant some direction.

Chairman Lorn Clement said the scale is really a big concern. He responded to an earlier statement from the Applicant regarding the use of landscaping for sound mitigation and stated that he could attest to the lack of filtering abilities of trees to attenuate sound, from his experience as a landscape architect, you don't see as much but you hear quite a bit going through vegetation. He said that he wasn't sure if the Board could work out the details tonight, but it sounds like the Applicant would need to downsize the proposal for parking and number of people by a substantial margin.

Dell Ann Upp said that from her experience in Manhattan, she has never been to a wedding with 275 people. She said the average barn size weddings are about 150-180 people.

Chairman Lorn Clement asked the Applicant to translate the 150-180 people into number of vehicles.

Dell Ann Upp said there were a lot of comments about drinking and driving and we definitely don't promote that. She said most of the events will shuttle guests from their hotels.

Diane Hoobler asked that by doing that, would there be a very limited number of vehicles?

Dell Ann Upp replied absolutely.

Bob Isaac said that if you divide 180 (persons) by 4, which is your average number of passengers, it equals 45 vehicles. He cautioned that it doesn't mean shuttle services can't be used to accommodate that number of guests. He said a number of other places do that very thing because of limited parking.

Dell Ann Upp said in response to the comments about the drinking and people visiting in the parking lot after the event, with me residing at that property, there will be very strict rules in addition to the conditions and certain things will not be allowed. She said that there are a lot of rules and regulations involved with liquor licensing. She said that they do not plan on getting a liquor license because the events will be catered and outside alcohol will not be allowed other than what the caterer brings in. She said those things will be heavily regulated and she just hasn't experienced these issues at her events. She said she has been doing this for ten years and was in a very affluent community in Vail, Colorado. She said there were people opposed to the events just like my neighbors are but once we held the events, they never had issues.

Monty Wedel cautioned the Board that the meeting was getting back into the public hearing again and other folks are going to want to weigh in. He asked the Board if they would you consider a revised application or are you prepared to say no.

Chairman Lorn Clement asked the Board what type of revisions might make this acceptable such as cars, population and scale.

Tom Taul said after hearing all the comments and everything involved, he wouldn't say he wouldn't support another application but he didn't think it could be scaled down enough to address the concerns with noise, lights, activity, disruption and change in character of the neighborhood. He stated that everything that has been discussed here, if it were scaled down to 50 persons, it would probably be about what he was thinking. He said that he just didn't think it is the right venue; we want to preserve the Ag and it's got a nearby residential neighborhood. He said that a comment was made earlier that this is a nice transition area between rural residential and agriculture. He said the other thing is, you may hear these at all kinds of meetings, but we have to look at the big picture. He said that he believes that the Applicant will have strict rules that she would enforce, but ten years from now, and she decides to sell it, the new owner has the conditional use permit and may not have the some opinions.

Dell Ann Upp asked if the conditional use could be issued on her ownership.

Tom Taul said it goes with the land.

Chairman Lorn Clement said it goes with the land.

Tom Taul said that it stays there, so we can't control what other people do but we kind of got to look out.

Monty Wedel said we control what can be done by the conditions, which carry forth to the next owner.

Tom Taul said I just don't think it is the right venue for the area.

Diane Hoobler said she agrees with Tom.

John Wienck said he agrees with Tom.

Diane Hoobler said if they become successful, it will become much bigger than what they expect it to be.

John Wienck said it is not a good thing for the community.

Chairman Lorn Clement said it doesn't sound like the Board feels there could be substantial amount of reduction in scale and scope and not have very serious impacts to the neighborhood.

Diane Hoobler moved to deny the request for a conditional use authorization to permit an events center in the "AG" (Agricultural District) zoning designation based on noise,

agricultural traffic, road safety, lighting, changing the character of the neighborhood and size of venue. Tom Taul seconded. Carried 5-0.

John Wienck moved to adjourn the Board of Zoning Appeals meeting and convene as the Riley County Planning Board. Julie Henton seconded. Carried 5-0.

RILEY COUNTY PLANNING BOARD

LAWE,LLC (Tegtmeier) – Plat & Rezone

Table a public hearing at the request of LAWE, LLC (David H. Tegtmeier, Registered Agent), petitioner, and LAWE, LLC (David & Danielle Tegtmeier), owners, to rezone a tract of land from "AG" (Agricultural District) to "C-PUD" (Commercial Planned Unit Development) and plat a 6.61-acre portion of said tract of land into one (1) lot, all in Wildcat Township, Section 8, Township 10 South, Range 7 East, in Riley County, Kansas.

John Wienck made a motion to table the item to the September 8, 2014, Riley County Planning Board meeting. Diane Hoobler seconded. Carried 5-0.

Chairman Lorn Clement stated he will not be able to attend the September 8, 2014 meeting.

Manhattan Urban Area Comprehensive Plan update

Monty Wedel said September 11th will be a Project Advisory Committee meeting to review more details on the growth areas. He said that there is a possibility of an optional community meeting the evening of September 10th but this has not been finalized yet.

Big Blue Floodplain Management Plan Update

Monty Wedel said there will be a City/County/County meeting on August 21st from 4:00-5:00 pm. He said the first half of the meeting will consist of a presentation on the operations of Tuttle Creek Reservoir and how that affected the 1993 flood. He said the second half will be a discussion on the new FEMA flood insurance rates.

Flint Hills Area Transportation Plan update

Monty Wedel said a steering committee meeting has been held. He said there have been no public meetings scheduled partly because they are waiting on the Travel Demand Model, which will predict where we are going to have issues. He said that what is needed in order to finish it is the Land Use that we are projecting through the Manhattan Urban Area Comprehensive Plan.

Agritourism Task Force update

Monty Wedel said there will be a meeting August 14th and Diane Hoobler will be attending.

Diane Hoobler moved to adjourned. Chairman Lorn Clement seconded. Carried 5-0.

The meeting was adjourned at 9:23 P.M.



**RILEY COUNTY
PLANNING & DEVELOPMENT**

REPORT OF FEES

August 2014

| <u>DATE</u> | <u>NAME</u> | <u>AMOUNT</u> |
|-------------|--------------------------------------------------|---------------|
| 08-01-2014 | McLean, copy fee | \$ 1.00 |
| 08-04-2014 | Meyer, Building Permit #14-0069 | 150.00 |
| 08-05-2014 | Funk, Radon kit x 2 | 20.00 |
| 08-06-2014 | Thomas, Water Screening Report | 2.00 |
| 08-07-2014 | Wurtz, Repair Permit | 75.00 |
| 08-07-2014 | Tucker, Well Permit | 75.00 |
| 08-11-2014 | L&L Trenching, Repair Permit | 75.00 |
| 08-11-2014 | L&L Trenching, Repair Permit | 75.00 |
| 08-11-2014 | Schaefer, Water Screening Report | 10.00 |
| 08-13-2014 | Brokenicky, Well Permit | 75.00 |
| 08-13-2014 | Brandt, Water Screening Report | 14.00 |
| 08-14-2014 | Nelson, Environmental Site Evaluation | 100.00 |
| 08-15-2014 | Woodworth, Building Permit #14-0071 | 150.00 |
| 08-18-2014 | Cook, Building Permit #14-0072 | 100.00 |
| 08-18-2014 | Westmeyer, Environmental Site Evaluation | 100.00 |
| 08-18-2014 | Smith, copy fee | .25 |
| 08-19-2014 | Pottawatomie County, Water Screening Report x 10 | 100.00 |
| 08-19-2014 | Marker, Building Permit #14-0073 | 150.00 |
| 08-25-2014 | Lanigan, Well Permit | 75.00 |
| 08-25-2014 | Schurle, Sign Permit | 50.00 |
| 08-26-2014 | Springer, copy fee | 2.00 |
| 08-28-2014 | Cragg, Environmental Site Evaluation | 100.00 |
| 08-28-2014 | Foremost, Variance | 300.00 |
| 08-28-2014 | Kendall, Variance | 300.00 |
| 08-29-2014 | Funk, Radon kit | 5.00 |
| 08-29-2014 | O'Neal, Well Permit | 75.00 |
| 08-29-2014 | Scharfe, Environmental Site Evaluation | 100.00 |

TOTAL **\$2,279.25**

DEPOSITS MADE:

| | |
|------------|----------|
| 08-13-2014 | \$ 89.00 |
| 08-15-2014 | 733.00 |
| 08-29-2014 | 1282.25 |
| 08-29-2014 | 75.00 |
| 09-02-2014 | 100.00 |

TOTAL **\$2,279.25**

| Permit # | App Date | Ownr | Type of Bldg | Use of Bldg | Const Cost | Amnt Paid | Property Address | City & Zp |
|----------|------------|-------------------------------|------------------------|-----------------------|--------------|-----------|-----------------------|-------------------|
| 14-0069 | 08/04/2014 | Jonathan E. & Hannah R. Grape | Addition (residential) | Deck | \$4,000.00 | \$150.00 | 3065 Wildcat Creek Rd | Manhattan (66503) |
| 14-0070 | 08/05/2014 | Matthew R. & Brooke L. Wurtz | Addition (residential) | Addition to house | \$136,130.00 | \$0.00 | 16250 Homestead Rd | Riley (66531) |
| 14-0071 | 08/15/2014 | Danny Woodworth | Storage (residential) | Residential storage | \$2,000.00 | \$150.00 | 6600 Martin Ave | Manhattan (66503) |
| 14-0072 | 08/18/2014 | Deam & Cook LLC | House (modular) | Residential house | \$20,000.00 | \$100.00 | 1659 Moehlman Rd | Manhattan (66502) |
| 14-0073 | 08/19/2014 | Bill Moore | Storage (commercial) | Storage for RV & boat | \$150,000.00 | \$150.00 | 4352 Rory Cir | Manhattan (66502) |
| 14-0074 | 08/22/2014 | Bruce Kaump | Barn | Ag equipment | \$65,000.00 | \$0.00 | 6830 Rose Hill Rd | Randolph (66554) |



PLANNING & DEVELOPMENT

STAFF REPORT

Variance

PETITION: (#14-21) Variance

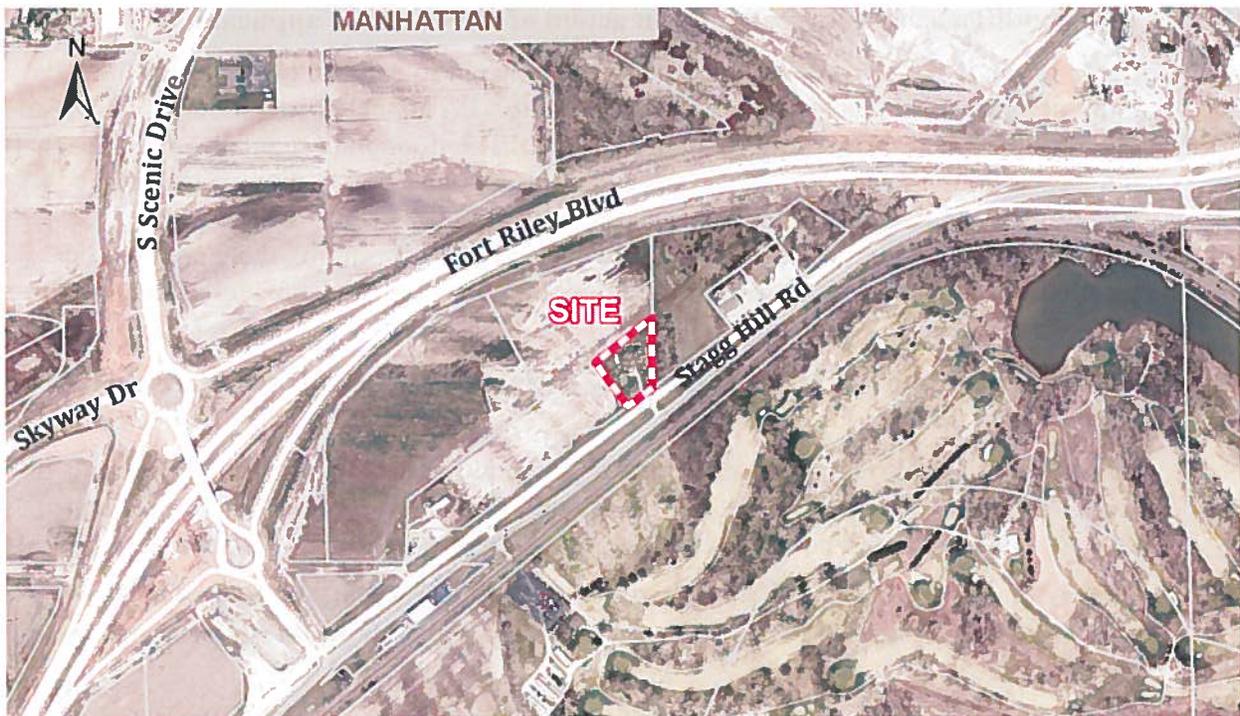
APPLICANT: Stacy Roberts
4240 Stagg Hill Rd
Manhattan, KS 66503

PROPERTY OWNER: Stacy Roberts
4240 Stagg Hill Rd
Manhattan, KS 66503

TYPE OF REQUEST: A variance to permit the construction of a detached garage 4.7 feet below the required elevation of one (1) foot above base flood elevation (1034 ft.).

SIZE OF TRACT: The subject site is approximately 1.65 acres.

LOCATION: Generally located approximately 2010 feet northeast of Scenic Drive, on the north side of Stagg Hill Road; Section 27, Township 10 South, Range 7 East; Manhattan Township.



BACKGROUND: The applicant is proposing to build a detached garage north of the existing home in order to store and secure family vehicles, boat, and other items.

DESCRIPTION:

Physical site characteristics: The site is currently developed with a single family dwelling built in 1969. A shed recently occupied the specific location where the proposed garage is to be built until a strong gust of wind leveled it. It is proposed that the remaining concrete slab will serve as the floor of the new garage.

The subject site in its entirety is located within the 1% annual change floodplain. An elevation certificate has been completed and submitted to the Riley County Floodplain Manager. According to his review of the certificate, it was determined that the aforementioned concrete slab is 4.7 feet below the required one-foot-above base flood elevation, thus requiring variance approval before a building permit can be issued.

General character of the area: The area is an eclectic mix of agricultural, light industrial, residential, highway businesses and outdoor recreation (golf course).

ZONING:

Zoning History: The subject site is currently zoned "AG" (Agricultural District) and has been zoned agricultural since at least 1974. There are no variances, conditional or special uses associated with the site.

STAFF EVALUATION OF VARIANCE CRITERIA:

- a. **The variance request arises from conditions which are unique to the property in question and which are not ordinarily found in the same zone or district and that such conditions are not created by an action of the owner or applicant.**

The portion of subject property on which the applicant intends on constructing the aforementioned structure lies within the designated 1% annual chance floodplain, which overlays the "AG" (Agricultural) zoning district. The floodplain regulations require that the lowest floor elevation of all structures be at least one (1) foot above base flood elevation. This standard is not a normal requirement of the "AG" zoning district, therefore creating a unique condition to the property. Furthermore, there are no other locations on the property not within the floodplain that could be considered suitable for such a structure.

- b. **The granting of the variance will not adversely affect the rights of adjacent property owners or residents.**

The proposed building must meet or exceed the requirements for wet-flood-proofing, as per the requirements set forth in the Riley County Floodplain Regulations. Adjacent property owners should not be adversely affected by the granting of a variance.

- c. **The strict application of the provisions of the zoning regulations from which the variance is requested will constitute unnecessary hardship upon the property owner or applicant.**

Given that the entire property is located within in the 1% annual chance floodplain, literal enforcement of the regulations would not allow the property owner to construct said accessory structure on the subject property, unreasonably forcing the applicant to build elsewhere. The proposed use does not seem unreasonable, especially considering the

applicant's ability to utilize wet-floodproofing techniques. If forced to locate this accessory structure elsewhere, it could be considered an unreasonable and unnecessary hardship upon the property owner.

d. The variance requested will not adversely affect the public health, safety and welfare.

The proposed structure is subject to the Riley County Floodplain regulations. Non habitable structures used for storage are permitted to utilize the wet-floodproofing methods. Granting a variance should not adversely affect the public health, safety and welfare.

e. The granting of the variance will not be opposed to the general spirit and intent of the regulations.

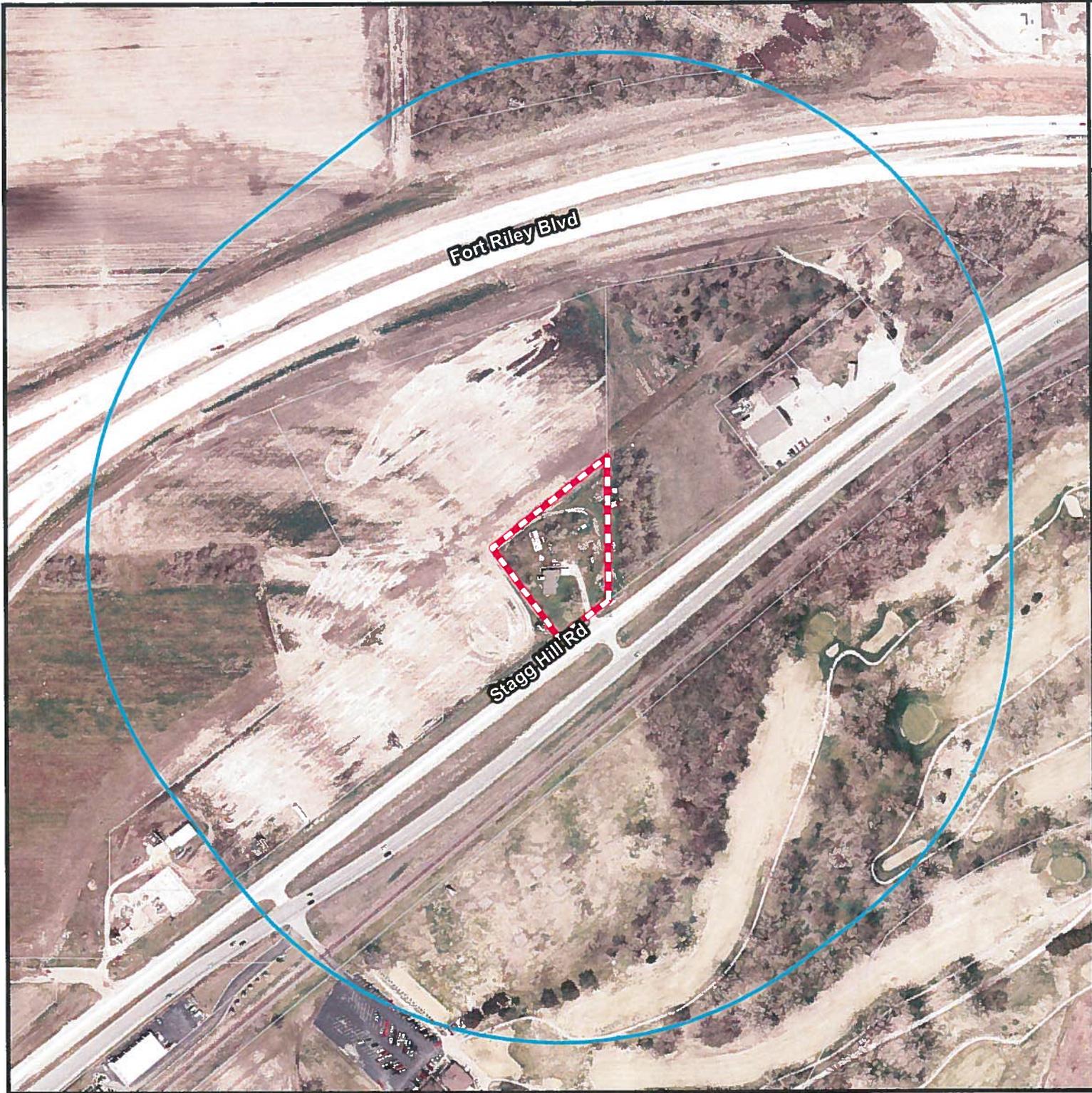
According to the Riley County Floodplain Regulations, Section 9.84, the granting of the requested variance would be consistent with the adopted criteria for variance approval.

STAFF RECOMMENDATIONS: Staff recommends that the requested variance be approved.

ATTACHMENTS:

- Vicinity/site map
- Surrounding zoning map
- Floodplain map

Prepared by: Bob Isaac, Planner
August 8, 2014



VICINITY AND SITE

Roberts

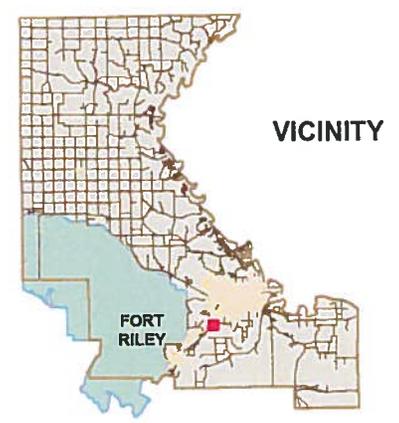
Variance #14-21

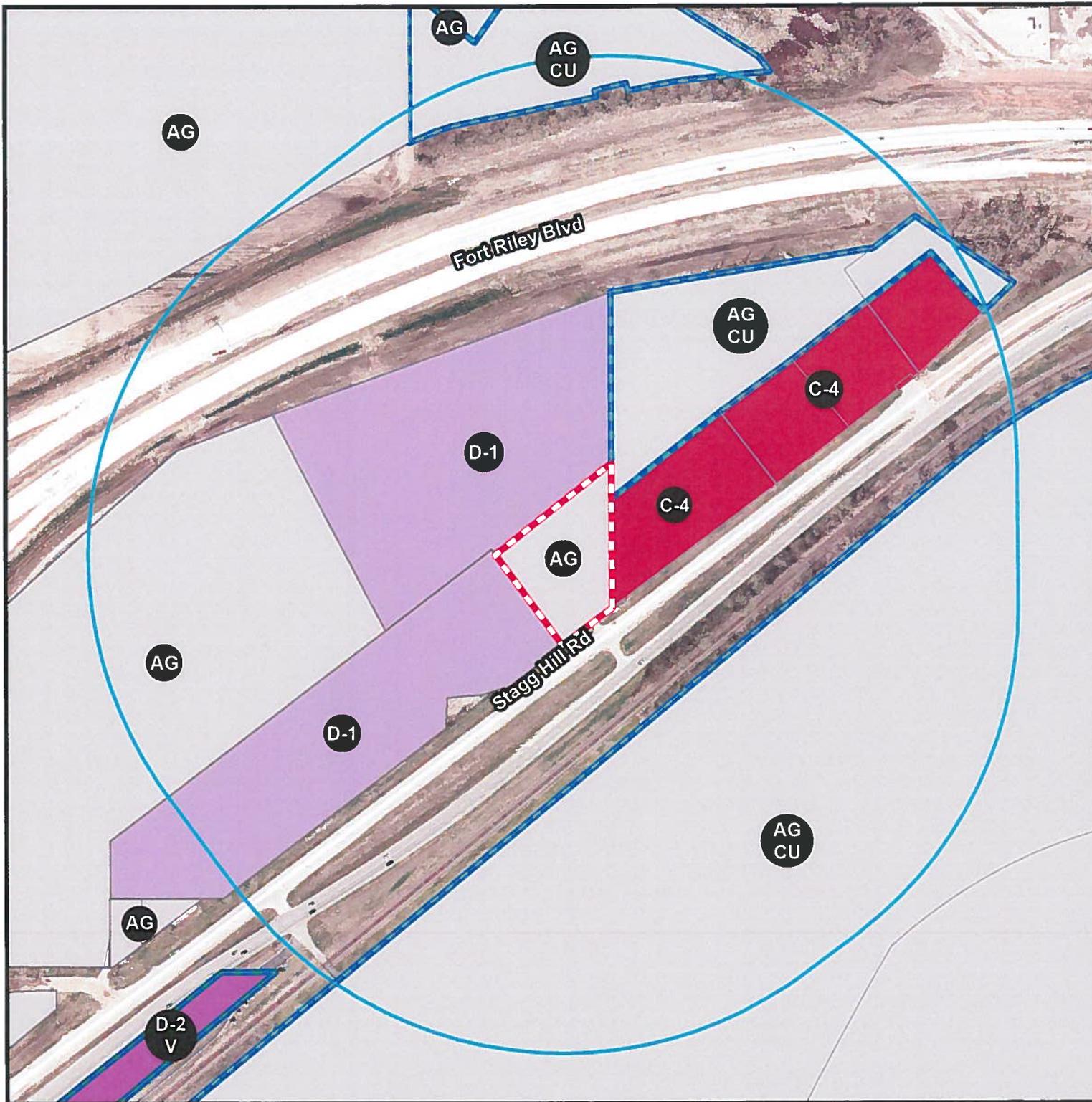
Permit detached garage 4.7ft below
base flood elevation

27-10-7

Legend

-  1000' Buffer
-  Site





SURROUNDING ZONING

Roberts

Variance #14-21

Permit detached garage 4.7ft below base flood elevation

27-10-7

Legend

-  1000' Buffer
-  Site

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
|  SF-1 Single Family |  AG Agricultural |
|  SF-2 Single Family |  N-1 Noise Hazard |
|  SF-3 Single Family |  PUD Planned Unit Dev |
|  SF-4 Single Family |  U University |
|  SF-5 Single Family |  City Boundaries |
|  B-1 Two Family |  Fort Riley |
|  B-2 Multiple Family | |
|  B-3 Mobile Home Park | |
|  C-1 Neighborhood Bus | |
|  C-2 Shopping Dist |  Special Zoning: Conditional Use |
|  C-3 General Business |  Designator Lot |
|  C-4 Highway Business |  Special Use |
|  D-1 Industrial Park |  Variance |
|  D-2 Light Industrial | |
|  D-3 Heavy Industrial | |
|  D-4 Business Park | |



FLOODPLAIN

TOPEKA SHINER HABITAT

Roberts

Variance #14-21

Permit detached garage 4.7ft below
base flood elevation

27-10-7



Legend

 Topeka Shiner Habitat

Floodplain

-  1% Annual Chance Flood (Unnumbered)
-  1% Annual Chance Flood (Numbered)
-  Floodway
-  1% Annual Chance Flood (1'-3' Depth)
-  2% Annual Chance Flood



PLANNING & DEVELOPMENT

STAFF REPORT

Platting and Rezoning

PETITION: (#14-19) Rezone from “AG” (Agricultural District) to “CPUD”
(Commercial Planned Unit Development)
(#14-20) Plat

APPLICANT: LAWE, LLC (David H. Tegtmeier, Registered Agent)
3091 State Hwy 63
Bern, KS 66408

PROPERTY OWNERS: LAWE, LLC (David & Danielle Tegtmeier)
3091 State Hwy 63
Bern, KS 66408

REPRESENTATIVE: SMH Consultants (Jeffrey Hancock)
4201B Anderson Ave. Ste 2
Manhattan, KS 66503

TYPE OF REQUEST: Rezone a 152.7- acre tract of land from "AG" (Agricultural District) to "C-PUD" (Commercial Planned Unit Development) and plat a 6.61-acre portion of said tract into a single lot.

SIZE OF TRACT: The subject site is approximately 152.7 acres.

LOCATION: Generally located approximately 9800 feet west of Scenic Drive, on the north side of Wildcat Creek Road; Section 8, Township 10 South, Range 7 East; Wildcat Township.

JURISDICTION: This application is subject to the requirements of the Riley County Subdivision Regulations.



BACKGROUND: The applicant wishes to establish a viniculture operation, with a winery and events center. He also wishes to construct a one-bedroom studio apartment over a garage with plans to eventually build a new house and convert the studio apartment into an accessory dwelling unit. It is proposed that various indoor and outdoor activities will be included, such as wine tasting events, catered parties, weddings, etc. Due to the combination of single family residential (with an accessory dwelling unit), agricultural and commercial uses proposed and due to the close proximity of rural/suburban residential uses, it was advised that a use-specific zoning designation (Commercial Planned Unit Development) zoning district be utilized, rather than a conventional commercial zoning designation. In order to minimize any detrimental effects to surrounding properties and protect the public health, safety and welfare, certain issues/concerns needed to be addressed, such as traffic, parking, dust, noise, amplified music, water and sanitation, lighting, and signage. For financing purposes, the applicant is requesting to plat the residential portion of the proposed planned unit development into a separate lot.

DESCRIPTION:

Physical site characteristics: The tract is a mix of hills covered with grasslands and heavily-wooded ravines. Currently, a single wide manufactured home occupies the site along with one accessory structure (garage); both of which are not accounted for on the preliminary

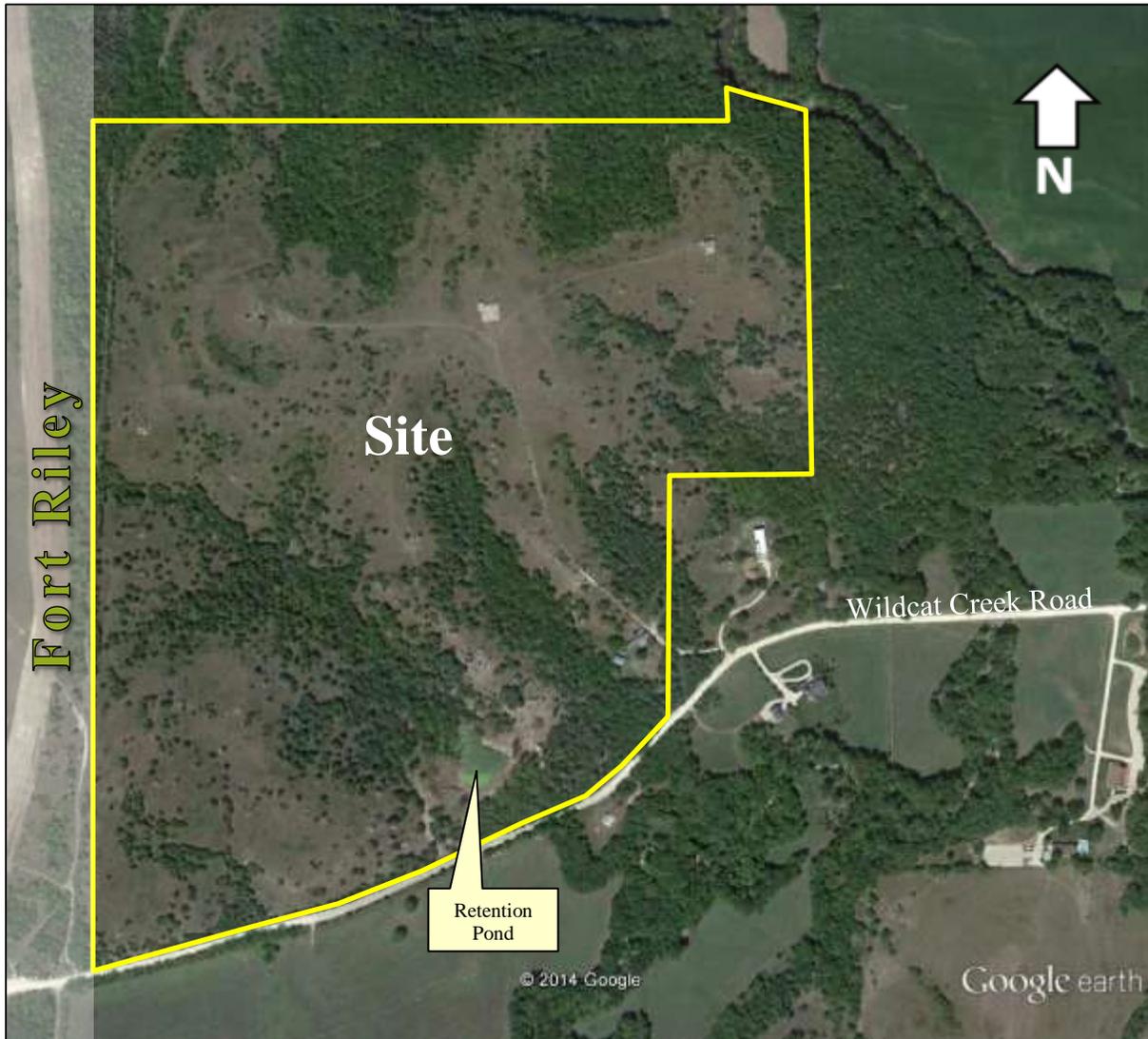


Figure 1. Site characteristics. (image courtesy of Google Earth)

development plan and are slated for removal. The proposed density of the property is consistent with the rural residential land use category described in Chapter 4 of the Manhattan Urban Area Comprehensive Plan (Table 9-Summary of Land Use Categories). The site boasts an existing on-site retention pond which is being proposed through the submitted Stormwater Drainage Study (SMH Consultants) to serve as post-development stormwater drainage control.

General character of the area: The character of the area is a mix of low-density suburban and rural, large-lot single family residential development, with open pasture/natural grasslands, situated just west of the city limits of Manhattan. According to the applicant, the site is a perfect blend between sloping topography and soil type to grow grapes.

SUITABILITY OF ZONING:

Zoning History: The subject property has been zoned agricultural since at least 1974.

Current zoning: The subject property is currently zoned “AG” (Agricultural District).

Proposed zoning: Due to the proposed mix of agricultural, commercial and residential uses, the applicant is proposing to rezone the subject property to “C-PUD” (Commercial Planned Unit Development).

| SURROUNDING ZONING/LAND USE | | |
|------------------------------------|--------------------------------------|-----------------------------------------|
| | ADJACENT ZONING | LAND USE |
| NORTH | “AG” (Agricultural District) | Open space, natural areas, agricultural |
| SOUTH | “AG” (Agricultural District) | Grassland/Residential |
| EAST | “AG” (Agricultural District) | Residential |
| WEST | N/A Fort Riley Military Installation | National Defense |

DETAILS OF DEVELOPMENT PLAN:

Due to the subject site being proposed for subdivision into two separate tracts, one of which is to be platted, the list of permitted uses and permitted structures describes what is permitted for each individual tract.

List of Permitted Uses:

Tract A

1. Viniculture
2. Manufacturing, bottling and sale of wine and cider
3. Wine cider tasting
4. Sale of promotional and products accessory to wine
5. Catered events
6. Events Center for the conduct of conferences, meetings, business or professional training, retreats, and recreational, social, or religious functions, activities or purposes. Events Center use shall be subject to the following restrictions and limitations:
 - a. No more than one hundred twenty-five (125) motor vehicles may be parked on the site at any one time. Parking may only be permitted in designated areas. Event parking along Wildcat Creek Road shall be prohibited.
 - b. Any buildings or structures in which dances or playing of music or other amplification of sound occurs must be enclosed and shall be reasonably insulated,

- including insulation of walls and entire ceiling, to mitigate the migration of noise to adjoining properties.
- c. Noise levels from amplification of sound (indoor or outdoor) shall be controlled and mitigated so as to not exceed 65 dBA at the property line (dBA shall be equivalent-continuous sound levels over a 10 minute period along the involved property line.
 - d. Quiet hours during which no amplified sound will be permitted shall be between 11:00 PM and 8:00 AM for Friday and Saturday and 9:00 PM and 8:00 AM for Sunday – Thursday.
 - e. A maximum indoor occupancy for the event center shall be 375 persons.

LOT 1 Tegtmeier Addition

1. All permitted uses in the “SF-5” (Single Family Residential) zoning district, subject to the use limitations listed for that district.
2. Accessory apartment (as defined in Section 2 – Definitions of the Riley County Zoning Regulations)

List of Permitted Structures:

Tract A

1. Winery/Events Center
2. Accessory structures associated with agricultural activities, including implement storage

LOT 1 Tegtmeier Addition

1. One single family residential dwelling (subject to the restrictions of the “SF-5” Single Family Residential zoning district)
2. Accessory structures (subordinate in size to the principal building, except those dedicated solely for housing stock animals)
3. One single bedroom accessory apartment (as defined in Section 2 – Definitions of the Riley County Zoning Regulations)

Notes:

1. Bearings used on this survey are based on deed description.
2. No gaps and overlaps were found on this property.
3. Easements, setbacks, restrictions or encumbrances of record, if any, affecting the title to this tract are not shown.
4. If it is determined that an entrance pipe is needed, a pipe shall be sized in accordance with Riley County Standards and Specifications. In no case shall the pipe be less than 18 inches in diameter.
5. All drives and parking areas shall consist of all-weather surfacing and properly maintained. The drive accessing the events center shall be at least 20 feet wide in accordance to fire code and to provide two-way traffic.
6. The gravel driveway to the events center and winery shall be maintained in condition that is traversable by emergency response vehicles.
7. Owners will resurface and maintain all drives and parking area surfaces on a regular schedule or as needed to provide overall good-looking appearance for visitors. The road will be fully maintained for complete access to all vehicles year round.
8. Site and all uses therein shall be in compliance with the Riley County Sanitary Code. Lot 1 Tegtmeier Addition is currently served by Rural Water and sanitary lateral field. At build-out, Lot 1 will either be served by two separate lateral fields or an on-site

wastewater lagoon. Tract A will be served by Rural Water District #1 and an on-site wastewater lagoon.

9. Location(s) and extent(s) of fencing, trails and service/agricultural drives shown hereon may be modified at the owner's discretion as required to serve the permitted uses.
10. Buildings and structures shall comply with State of Kansas minimum building and life safety codes per the 2006 IBC and the 2000 NFPA 101. Maximum permitted occupancy shall be posted in the winery/events center building.
11. The winery/event center building(s) shall meet the minimum building code requirements as per the State Fire Marshall.
12. All structures and signs are shown in approximate locations.
13. All proposed lighting will have directional control or appropriate cut-offs to minimize spillage and light trespass.
14. Existing riparian areas and native tree stands shall remain intact as much as possible to act as an audio and visual buffer to surrounding properties. All areas, unless improved, will remain agricultural.
15. All stormwater drainage from the developed areas of Lot 1 Tegtmeier Addition and the winery/events center shall be directed to the existing pond.
16. All signs shall be subject to Section 15 – Signs of the Riley County Zoning Regulations.
17. Prior to construction of any buildings on the described property, a Fort Riley, Kansas Area of Military Impact Real Estate Disclosure Form, provided by Riley County Planning & Development, shall be signed and filed in the Office of the Register of Deeds.
18. The landowner has 100% interest in the land to be developed. The landowner controls the land and is financially capable to effectuate the proposed plan.

POTENTIAL IMPACTS:

Streets and bridges: The site has direct access to Wildcat Creek Road, a gravel two-lane county road. The existing entrance that serves the site (Tract A) will be relocated so that it does not cross the adjoining property to the east. A (new) separate entrance will be needed to serve Lot 1 Tegtmeier Addition. According to the Traffic Impact Study completed by SMH Consultants (see attached), all existing bridges can remain in place without widening according to AASHTO's "Guidelines for Geometric Design of Very Low-Volume Local Roads" assuming there is no evidence of a site-specific safety problem related to the width of the bridge. No such safety problems were identified since all bridges between Scenic Drive and the Tegtmeier Winery and Event Center entrance exceed or match the width of the road. West of the Tegtmeier Winery and Event Center is a single lane bridge that has sufficient visibility for yielding and is clearly identified with signs. At this time, there are no reports of specific concerns at a particular bridge. According to the study, other factors associated with the proposed winery/events center that may have an impact on local drivers were analyzed. In summary, the study concluded the following:

- **Sight Distance:** Proper stopping sight distances are essential to the safety of drivers at all intersections. AASHTO's "Guidelines for Geometric Design of Very Low-Volume Local Roads" presents criteria for stopping sight distance along the entirety of the road, which is satisfied along Wildcat Creek Road. Stopping sight distance for Wildcat Creek Road is 200ft according to AASHTO's "A Policy on Geometric Design of Highways and Streets" (2004 Edition, Exhibit 3-1). Stopping sight distances were determined using a viewer of height of 4.0ft and object height of 0.0ft. Using LiDAR (Light Detection and Ranging) data provided by Riley County, it was measured that the stopping sight distances along Wildcat Creek Road in both the east and west direction of the proposed entrance to the Tegtmeier Winery and Event Center and Tegtmeier family Residence will exceed this 200ft minimum. Intersection sight triangles should also be determined at the

entrance to the Tegtmeier Winery and Event Center, entrance to the Tegtmeier residence and the intersection of Wildcat Creek Road and Scenic Drive. The sight triangles along Wildcat Creek Road were calculated using AASHTO's "A Policy on Geometric Design and Highways and Streets" (2004 Edition, Chapter 9) have a minor leg length of 14.5ft and major length of 335ft. Line of sight for intersection sight triangles used a viewer height of 3.5ft and object height of 3.5ft. To the west and west of the entrance to the Tegtmeier Winery and Event Center and Tegtmeier Family Residence, LiDAR analysis showed the sight distance to be greater than the 335ft minimum and therefore adequate. These assumptions are dependent upon the approval of the proposed entrance to the Tegtmeier Winery and Event Center.

At the Wildcat Creek Road and Scenic Drive intersection, the minor leg length should be 14.5ft along Wildcat Creek Road from the western edge of Scenic Drive. The major leg length should be 560ft. in both directions along Scenic Drive from the intersection. Sight distances exceed this minimum with the intersection of Anderson Road and Scenic Drive being visible to the north (approximately 900ft) and the intersection of Highland Ridge Drive and Scenic Drive being visible to the south (approximately 675ft).

- **Signage:** Existing signs on Wildcat Creek Road from the more frequently used entrance along Scenic Drive include a 30 mph speed limit sign facing westbound traffic 800ft west of the intersection with Scenic Drive, a "curves next 2 miles" sign facing westbound traffic roughly 1600ft west of the intersection, numerous object markers and warning chevrons around one horizontal curve. There is also a 30mph speed limit sign facing westbound traffic just west of the proposed entrance to Tegtmeier Winery and Event Center. All bridges and culverts are marked with OM-3 object markers. Eastbound traffic from Tegtmeier Winery and Event Center will not encounter a speed limit sign.
- **Bridges:** All existing bridges can remain in place without widening according to AASHTO's "Guidelines for Geometric Design of Very Low-Volume Local Roads" assuming there is no evidence of a site-specific safety problem related to the width of the bridge. No such safety problems were identified since all bridges between Scenic Drive and the Tegtmeier Winery and Event Center entrance exceed or match the width of the road. West of the Tegtmeier Winery and Event Center is a single lane bridge that has sufficient visibility for yielding and is clearly identified with signs. At this time, there are no reports of specific concerns at a particular bridge.
- **Horizontal Curves:** Exhibit 16 of AASHTO's "Guidelines for Geometric Design of Very Low-Volume Local Roads" states the minimum radius of curvature for a gravel road (assuming a 0.5 coefficient of traction) is 200ft at 30 mph. A detailed survey of the existing road was beyond the scope of this traffic study. Without a detailed survey and lacking any site-specific safety problems, no recommendations can be made regarding the adjustments of the horizontal curves along Wildcat Creek Road.
- **Clear Zones:** AASHTO states "it is not generally cost-effective to provide clear zones, also known as clear recovery areas, on very low-volume roads." Riley County has recently cleared the clear zone of branches and debris; then reseeded the clear zones extending to the right of way along much of Wildcat Creek Road. These clear zones should be maintained and free of all large debris and growth. Several driveways and locations along Wildcat Creek Road have fixed objects near the road. These items (that are within the right of way), including fixed objects and trees, should be removed where practical.

- **Dust:** Wildcat Creek Road is a gravel road resulting in dust behind all driving vehicles. While Tegtmeier Winery and Event Center will generate traffic outside of typical peak hours, significant traffic may be generated during a relatively short period of time creating a high level of dust. This dust reduces visibility during high traffic periods and increases the likelihood of accidents. Steps have already been taken to increase safety along Wildcat Creek Road including reducing the speed limit to 30 mph. Several options for dust control include seasonal watering, annual application of magnesium chloride, application of a bituminous surface treatment or application of a thin membrane surface. It is advisable that a dust control alternative be used for localized dust treatment at existing entrances and curves to ensure proper visibility based on current conditions without the addition of a winery and events center.

Water: The site is located outside of the Urban Service Area. The applicant is proposing that both Tract A and Lot 1 Tegtmeier Addition will be served by rural water. A 2.5-inch rural water district line runs east/west, along the south right-of-way of Wildcat Creek Road, extending from an 8-inch line, that extends southward past the airport and into the City of Ogden (see Figure 2).

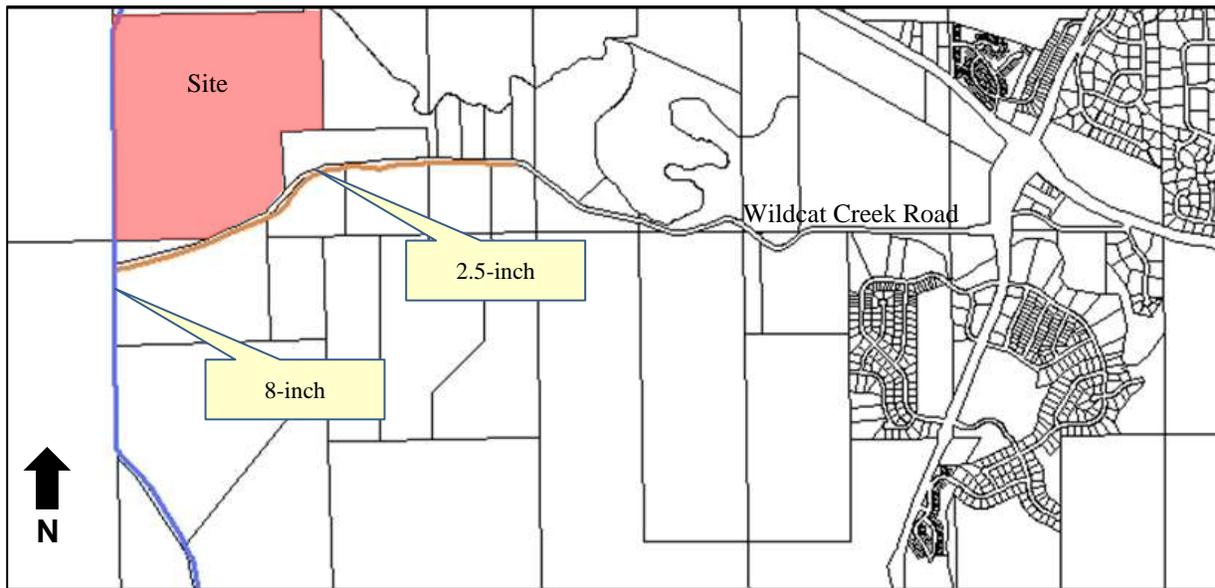


Figure 2. Rural water lines

Sewer: The applicant is proposing that Tract A and Lot 1 Tegtmeier Addition will be served by individual adequately sized on-site wastewater lagoons. Regardless of the option implemented, the Preliminary Development Plan requires that prior to Certificates of Occupancy being issued or the commencement of certain approved uses or activities, the property and associated facilities must be in compliance with Riley County Sanitary Code.

Fire: Riley County Fire District #1 will serve the site. The nearest County Fire Station is the Keats Station, located at 3141 69th Avenue. The subject site is not located within five (5) road miles of a fire station. Consequently, this results in the property receiving the highest ISO rating of 10 and increased response times. Due to the proposed uses of the existing structures, there was a determination made by Pat Collins, Director of Riley County Emergency Management/Riley County Fire Chief that the aforementioned structures were subject to the State of Kansas minimum building and life safety codes and required a code footprint to be submitted for the proposed structure. Project architect Dan Knight and Mr. Collins met to discuss the proposed method(s) of fire protection. Mr. Knight stated that the entire building is

anticipated to be provided with an NFPA 13 automatic sprinkler system. While the rural water district will not provide a water line large enough to facilitate the operation of the sprinkler system with the required fire flow/pressure, they are providing a 2-inch water line from the 8-inch line along the west property line, extending over to the driveway north of the parking lot. In order to provide an adequate volume of water and pressure to operate the building sprinkler system, a storage tank and pump will be provided by the owner. Mr. Collins concurred with Mr. Knight's findings and added that the storage tank shall have a dry hydrant connection and that the Fire District will supply the Fire Department Connection (FDC).

Stormwater Drainage: Although the total area proposed to be disturbed (cleared/developed) is relatively small in relation to the size of the entire site, the parent tract is extremely hilly and spans across six different watersheds. Thus, depending on the location and intensity of such disturbance, certain areas could be negatively impacted by erosion and increases of peak run-off during storm events. Considering that the applicant is proposing an all-weather surfaced (gravel) access drive and parking area to serve the approximately 10,000 sq. ft. winery/event center, and a separate all-weather drive to serve a single family residence and garage, staff recommended that a stormwater drainage study be completed.

Thus, a stormwater drainage study was completed and submitted by SMH Consultants (see attached). The study found that the subject site rests upon along a ridge and consists of 6 partial watersheds. Watershed 1 (the northwest watershed), watershed 2 (the northeast watershed), watershed 3 (the southeast watershed), watershed 4 (central southeast watershed) and watershed 6 (the southwest watershed) drain offsite. Watersheds 1, 2 and 3 drain directly into Wildcat Creek; watershed 4 drains to a stone culvert, 4ft by 2.5ft, underneath Wildcat Creek Road; watershed 5 drains to an onsite retention pond; and watershed 6 drains to a culvert underneath Wildcat Creek Road. The land is currently zoned agriculture and used as pasture.

The study concluded that the impact of the proposed plan for Tegtmeier Winery and Event Center on watershed 1, 2, 3 and 6 has no measurable impact since the land will continue to be used for agricultural purposes with a consistent runoff coefficient. The impact of the proposed plan on watershed 4 is offset by the removal of existing site improvements and therefore the comparative runoff coefficients between the existing and future condition are also consistent. The majority of the impact on drainage caused by the Tegtmeier Winery and Event Center will occur within watershed 5. Due to the retention pond in watershed 5, the impact of the proposed Tegtmeier Winery and Event Center to offsite drainage is negligible and can be offset with a small modification to the size of the discharge pipe from the pond. Even during a 100-year storm with the proposed plans, the discharge from the pond only increases 0.12cfs (a 2.1% increase) in the pond's existing configuration. After the addition of the parking lot, event center, and secondary wedding site, the maximum storage before utilizing the weir is not met during any of the analyzed storms. In fact, during the 100-year storm, 70,000 cuft of water storage remains before the weir would be utilized. The slightly increased discharge will be accounted for by leaving the heavy vegetation and trees around the discharge point, thereby slowing the runoff to near pre-developed rates.

Sound/Noise: One of the most prominent concerns regarding the proposed use of the property is fugitive noise emanating from the site. Although the City of Manhattan has policies in place that regulate sound/noise levels (City of Manhattan Code of Ordinances Chapter 22 OFFENSES, Article V, Sections 22-54, 22-55, 22-56), Riley County does not. However, in an effort to address these concerns, the applicant has proposed that the development plan include language

that states noise levels from amplification of sound shall be controlled and mitigated so as to not exceed 65dBA at the property line, with “quiet hours” established for the entire facility.

A Noise/Sound analysis was completed and submitted by CollectiveTech, Inc. for the proposed use (see attached). After reviewing the proposed preliminary development plan and detailed construction and design plans for the event center, certain factors and conditions were used in completing the analysis and are as follows:

- Room attenuation by the internal volume of the venue;
- Low frequency sound absorption provided by the room finishes; and
- Attenuation due to distance between the winery and property lines (920 feet to nearest property line).

The submitted construction and design plans for the event center demonstrated efforts to mitigate the transmission of sound from the structure when hosting events that include amplified sound. The analysis concluded that at a peak level of 110 dBA occurring inside of the event center, the resultant sound level experienced at the nearest property line would be 26 dBA.

The analysis also took “outdoor” events into consideration. The preliminary development plan indicates an area for outdoor wedding ceremonies, which is located approximately 735 feet from the residential property line. The analysis revealed that even if peak levels of 100-110 dBA are reached at this location, the level at the property line shouldn’t exceed 53 dBA, which is still below the recommended level of 65 dBA.

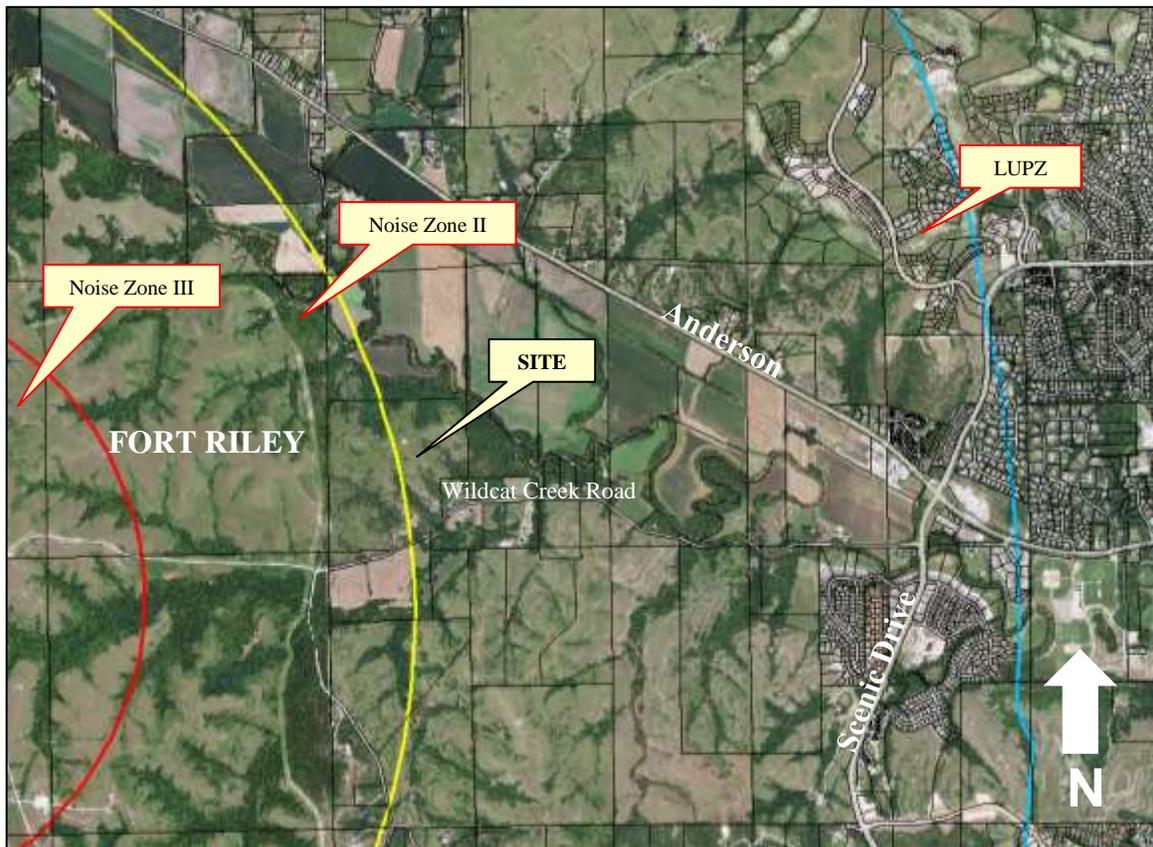


Figure 3. Fort Riley noise

Staff Comment: For comparison purposes, the noise contours depicted in the Joint Land Use Study (2005) reflect an annualized noise measure that converts noise varying from peak bursts to relative quiet into a steady measure of acoustic energy over a 24 hour period. The contours essentially take all operations that occur at Fort Riley over the year and divide by 365 days, producing the average day-night sound level (DNL). Noise Zone III is generally associated with the impact areas, totally within the boundaries of Fort Riley. Noise Zone II, although not as intense as Noise Zone III, is considered incompatible with residential land uses. The Land Use Planning Zone (LUPZ), from heavy weapons firing covers over 36,000 acres off post primarily to the north and east of Fort Riley. The noise contours for the LUPZ, 65 ADNL and 62 CDNL, represent an annual *average*. Obviously, the closer one is to the source of the sound, the greater the decibel level. Interestingly, the proposed maximum decibel level allowed at any property line, as written on the preliminary development plan, is 65 dBA. This is not an average level but a constant, thus more restrictive in sound level than the area (LUPZ) in which the subject site is located (Figure 3).

Yet another comparison is the Manhattan Regional Airport's Airport Noise and Land Use Compatibility Planning Study 2010. The 65 DNL contour is the primary noise level to be considered per Part 150 guidelines, especially in regard to effects of aircraft noise on people and community annoyance levels.

Traffic: The aforementioned Traffic Impact Study was completed by SMH Consultants (see attached) and reviewed by the County Engineer. Although the complete study is attached for review, it concluded the following:

From the traffic distribution analysis under full build-out of Tegtmeier Winery and Event Center in 2024, Wildcat Creek Road and the intersection of Wildcat Creek Road and Scenic Drive will continue to operate adequately. Scenic Drive will continue to operate at LOS A and Wildcat Creek Road will continue to operate at LOS B during A.M. and P.M. peak hours. With an increase in the average peak hour delay time at the intersection of Wildcat Creek Road and Scenic Drive of only 0.15 seconds, essentially insignificant, due to the Tegtmeier Winery and Event Center; the conservative estimate of additional traffic caused by the winery and event center will have insignificant effects upon the flow of traffic. Wildcat Creek Road will continue to operate at its current classification as a very low-volume local road in 2024 with the addition of Tegtmeier Winery and Event Center and relatively low growth rates associated with the G1 zoning. The infrequent high traffic volumes generated by the Tegtmeier Winery and Event Center will likely not occur during Wildcat Creek Road or Scenic Drive's peak hours of operation. The existing bridges on Wildcat Creek Road do not require improvements given its classification as a very low-volume local road. However, any reports of site-specific safety issues regarding existing bridges or curves should be reviewed by local authorities to determine if safety improvements are needed. Continued maintenance of the clear zones and sight triangles is necessary.

The study also recommended the following:

An additional 30 mph speed limit sign should be placed facing eastbound traffic just east of the entrance/exit to the Tegtmeier Winery and Event Center. This will insure departing drivers are aware of the speed limit. With drivers abiding by the speed limit, dust will be more controlled compared to uninformed drivers exceeding 30 mph. Currently a 30 mph speed limit sign facing westbound traffic is located approximately 50ft west of the proposed entrance to the Tegtmeier Winery and Event Center. It is

recommended this sign be moved further west along Wildcat Creek Road to aid with the field of vision when pulling out of Tegtmeier Winery and Event Center. The trees immediately surrounding the entrance to Tegtmeier Winery and the Tegtmeier family residence shall be removed to provide clear sight triangles at least 335ft in both directions. These clear sight triangles should be maintained periodically to prevent re-growth. Since a clear sight triangle is not possible to the east of the Tegtmeier Winery and Event Center entrance, a warning sign should be placed on the east side of the ridge, facing westbound traffic, indicating a hidden entrance. Local dust control application should continue to be placed east of the Tegtmeier Winery and Event Center site to reduce visibility-related safety concerns. In addition to locations where dust control is already occurring east of the proposed site the western limits of the dust control should be extended west of the proposed entrance to the winery and events center for a distance of 350ft to increase visibility westward from the proposed entrance.

Effect on public facilities and services: Although it is anticipated that the volume of traffic on Wildcat Creek Road will increase as a result of the proposed development (if approved), the studies that have been submitted and reviewed conclude that the existing public facilities will adequately handle such increases. Although the site is currently beyond five (5) road miles from a fire station, it is not anticipated that the proposed development will have an adverse impact on public services.

Effect on nearby property: It is the general purpose of zoning to protect the health, safety and welfare of the general public. Regulations must be written with reasonable considerations of the character of the district and its peculiar suitability for particular uses. Furthermore, they must also maintain a view toward conserving the value of buildings and lands and encouraging the efficient and best use of land. The factors that go into the decision to rezone a property appear to be more than the list of concerns stated herein. For example, certain criteria spelled out in the Kansas Supreme Court case Golden vs. Overland Park, 224 K. 591, 584 P. 2d 130, also examine the following:

1. Is the rezoning compatible with the character of the neighborhood?
2. Is the rezoning compatible with the zoning and uses of properties nearby?
3. Will removal of the current restrictions by rezoning detrimentally affect nearby property?
4. Will the gain to the public health, safety and welfare by denying rezoning not be as great as the hardship imposed upon the individual landowner?

With the specific use limitations noted on the Preliminary Development Plan, restricting the type and intensity of the commercial activity, it is not anticipated that the proposed development will have an unreasonable adverse impact on nearby property. Furthermore, as per the requirement listed on the development plan, the property owner will be required to sign a "Fort Riley, Kansas Area of Military Impact Real Estate Disclosure Form" and file it in the Office of the Register of Deeds.

CONFORMANCE TO THE LAND USE PLAN:

According to the Future Land Use Map (Southwest Planning Area) found in the 2003 Manhattan Urban Area Comprehensive Plan, the area south of Wildcat Creek Road is projected for agricultural use, although a few tracts of land, have already been developed with single family dwellings. Certain areas north of Wildcat Creek Road have been developed with rural/suburban residential dwellings for several years. These areas are indicated on the Future Land Use Map - Southwest Planning Area in pale yellow (see Figure 4).

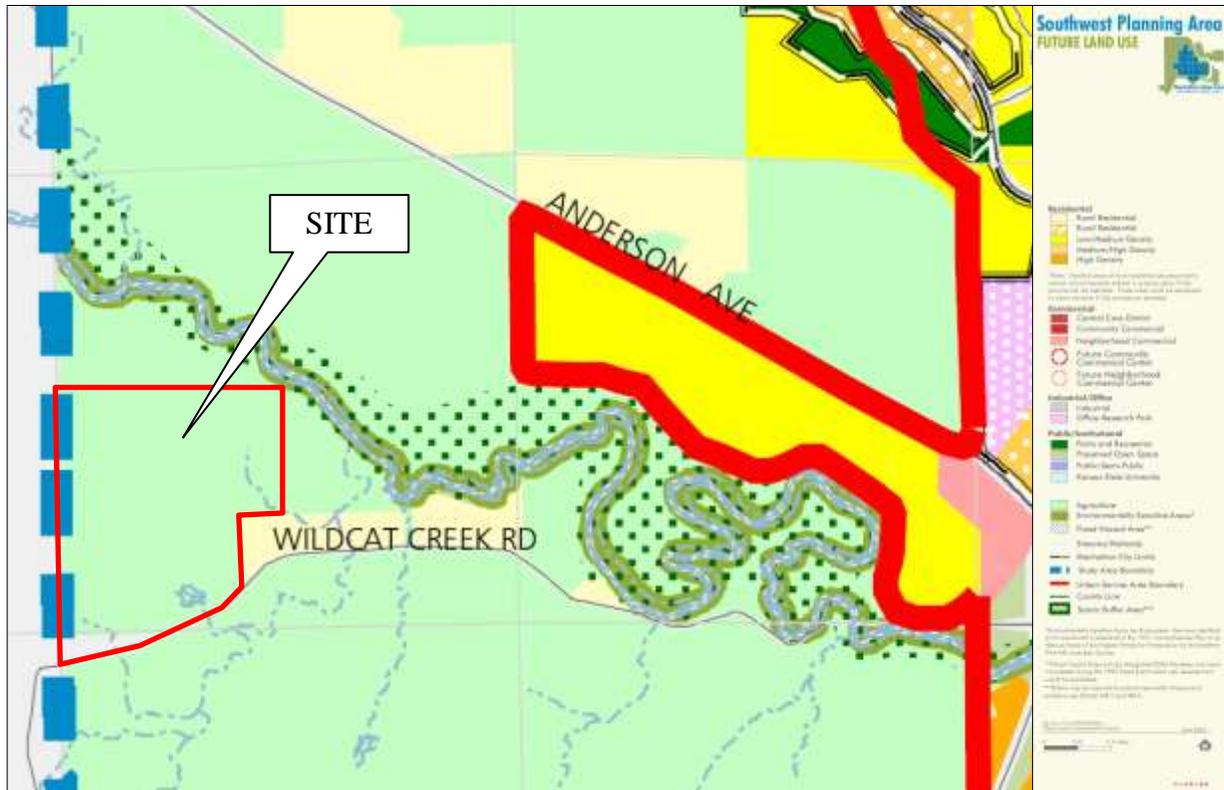


Figure 4. Manhattan Urban Area Comprehensive Plan - Future Land Use Map

Although the applicant is proposing that the development will continue to be used predominantly as an agricultural operation, it is being proposed that the development will also have an “event center” component, which may include the following:

- Winery/wine tasting room
- Corporate retreats
- Wedding events
- Banquets
- Group accommodations
- Meeting space
- Retreat facility

The Comprehensive Plan emphasizes that new development should be held to a high standard of design that strengthens the physical appearance of the area as a quality living and business environment, while protecting the area’s natural resources. The applicant is proposing that any physical changes to the appearance of the site, including man-made structures, be minimized to ensure that the rural character/setting of the property is maintained.

STAFF COMMENTS ON PLAN REVIEW:

The predominant land use of the subject property shall remain agricultural (viniculture), which is the projected land use shown on the Future Land Use Map of the Comprehensive Plan. The proposed zoning of the subject property combines agricultural, residential and very limited commercial aspects, under a tailor-made zoning district designed to harmoniously blend these uses with the rural setting. The parameters of the approved development plan, including use limitations, ensure that uses not included/listed shall not be permitted without first amending

such development plan through Board approval. However, nearby property owners may have some concerns due to the commercial element of the proposed zoning. The intent of the Commercial land use policies (Chapter 4) of the Plan states:

“Commercial developments must be located and designed to balance market opportunities with access and location. In addition, the location and design of commercial areas must be incorporated into surrounding areas, rather than altering the character of surrounding neighborhoods.”

Although the Future Land Use Map indicates that the subject property is within an area projected to be Rural Residential/Agricultural, the Plan also emphasizes that the Future Land Use Map is not intended to provide specific land use designations for individual parcels. Instead, it establishes broad guidelines for land use patterns and should be applied in combination with the goals, guiding principles and policies contained in the document. The Plan also encourages mixed-use development. Thus, the development, as proposed, may be considered to be consistent with the Plan if it meets the policy stated above.

COMMENTS AND CONCERNS:

ENVIRONMENTAL HEALTH: Environmental Health staff has reviewed the request and found it to be in compliance with the Riley County Sanitary Code.

RILEY COUNTY CONSERVATION DISTRICT: The Riley County Conservation District staff has reviewed the request and had no comments.

COUNTY ENGINEER: (Please see attached)

LAW ENFORCEMENT CENTER: The Assistant Director of the Riley County Law Enforcement Center has reviewed the request and had no objections.

STAFF RECOMMENDATIONS: Staff recommends that if the Planning Board determines that the potential issues associated with the proposed development have been adequately addressed by the preliminary development plan, the Board should forward a recommendation to the Board of County Commissioners of Riley County to approve the request to rezone the proposed property based on the following:

- The predominant use of the tract will be agriculture; any land not developed will be left in a natural state;
- Many of the activities being proposed are directly associated with or accepted as “agritourism” (wine making, wine tasting, weddings, etc.), which is listed as a permitted use within the current zoning designation of the subject property;
- The development of the site has shown on the site plan will be minimal, creating little or no impact on stormwater run-off;
- Although there will be increases of traffic along Wildcat Creek Road prior to and following events, the Traffic Impact Study submitted and reviewed by the County Engineer concluded that Wildcat Creek Road can sufficient handle such increases;
- Continued residential use of the property (Lot1), in addition to the agricultural use and winery will sustain the tax value of the property;

Staff also recommends approval of the request to plat that portion of the parent tract, as it has been determined that all requirements of the Riley County Subdivision Regulations, Zoning Regulations and Sanitary Code have been met.

POSSIBLE MOTION(S)**ACTION NEEDED:**

- A. **Move** to forward a recommendation of approval to the Board of Commissioners of Riley County to rezone an unplatted tract from “AG” (Agricultural District) to “C-PUD” (Commercial Planned Unit Development).
- B. **Move** to forward a recommendation of denial to the Board of Commissioners of Riley County to rezone an unplatted tract from “AG” (Agricultural District) to “C-PUD” (Commercial Planned Unit Development).
- C. **Move** to table the request to rezone the described property to a specific date, indicating the reasons for tabling.

REASONS TO CONSIDER REZONING:

- The rezoning is compatible with the character of the neighborhood.
- The rezoning is compatible with the zoning and uses of properties nearby.
- The subject property is not suitable for the uses allowed by the current zoning.
- Removal of the current restrictions by rezoning will not detrimentally affect nearby property.
- The subject property has remained vacant as zoned for a substantial time period.
- The gain to the public health, safety and welfare by denying rezoning is not as great as the hardship imposed upon the individual landowner.
- The rezoning is consistent with the recommendations of permanent or professional staff.
- The rezoning conforms to the adopted comprehensive plan.
- The rezoning will not detrimentally affect the conservation of the natural resources of the County.
- The rezoning will result in the efficient expenditure of public funds. The rezoning will promote the health, safety, convenience, prosperity and general welfare of the inhabitants of the County.

ACTION NEEDED FOR PLAT:

- A. Motion to approve the request to plat the subject property into one (1) lot, as it has been determined that it meets the requirements of the Riley County Subdivision Regulations.

Or

- B. Motion to deny the request to plat the subject property into one (1) lot, as it has been determined that it does not meet the requirements of the Riley County Subdivision Regulations.

ATTACHMENTS:

- Vicinity/site map
- Surrounding zoning map
- Preliminary Plat map
- Final Plat map
- Preliminary Development Plan
- Traffic Study

- Stormwater Drainage Study
- County Engineer's Review
- Noise/Sound Study
- Letter affirming no residual radioactivity on site
- Email summary discussion between project architect and Fire Chief
- Architect's Renderings

Prepared by: Bob Isaac, Planner
August 27, 2014



VICINITY AND SITE

Tegtmeier

Rezone #14-19 from AG to CPUD

Plat #14-20 Tegtmeier Addition

8-10-7

Legend

-  1000' Buffer
-  Rezone
-  Plat

FORT RILEY

Wildcat Creek Rd

VICINITY





SURROUNDING ZONING

Tegtmeier

Rezone #14-19 from AG to CPUD

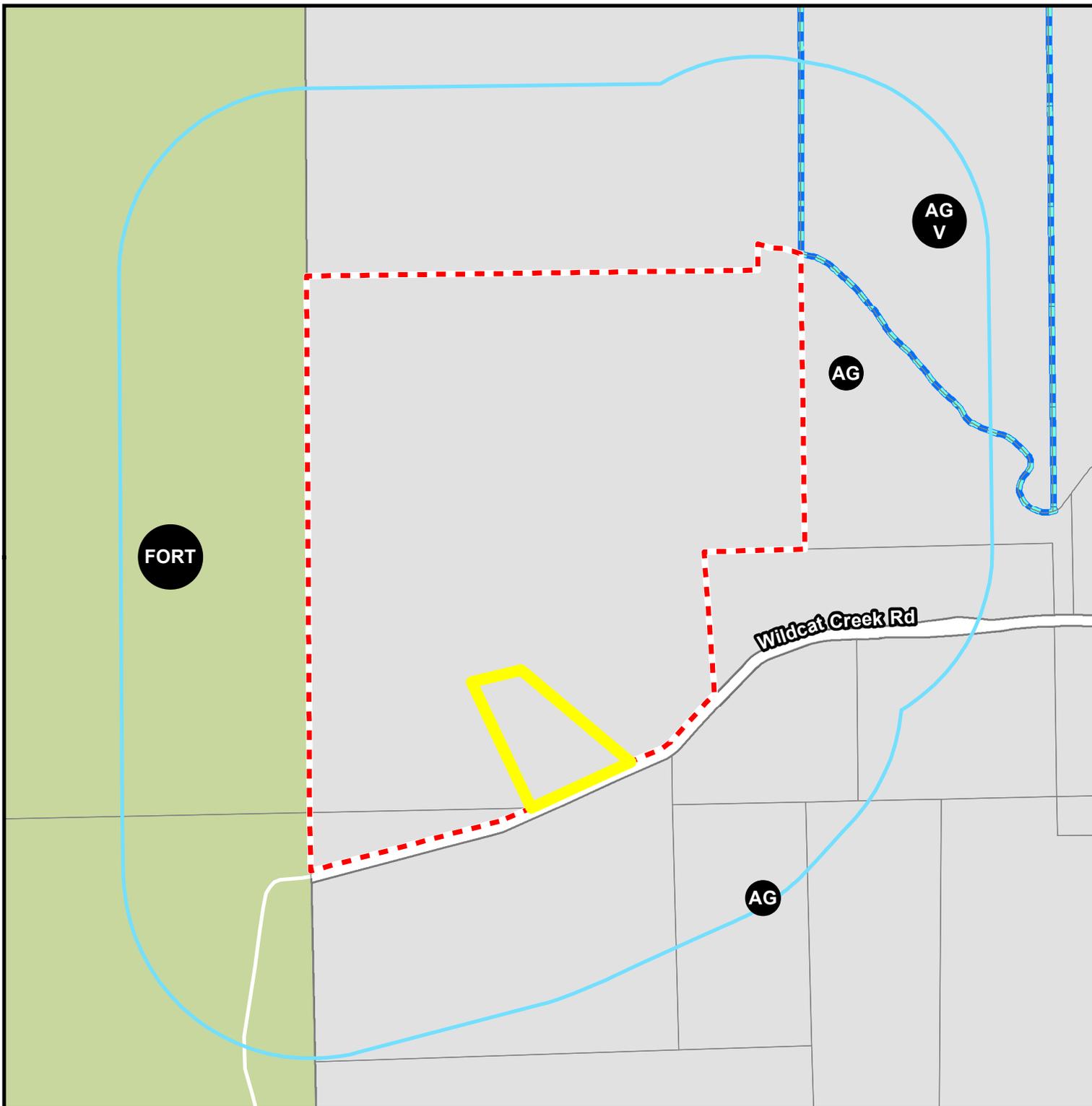
Plat #14-20 Tegtmeier Addition

8-10-7

Legend

- 1000' Buffer
- Site

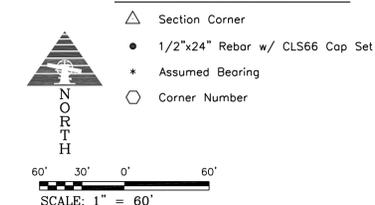
- | | |
|----------------------|---------------------------------------------------------------------------------|
| SF-1 Single Family | AG Agricultural |
| SF-2 Single Family | N-1 Noise Hazard |
| SF-3 Single Family | PUD Planned Unit Dev |
| SF-4 Single Family | U University |
| SF-5 Single Family | City Boundaries |
| B-1 Two Family | Fort Riley |
| B-2 Multiple Family | |
| B-3 Mobile Home Park | |
| C-1 Neighborhood Bus | |
| C-2 Shopping Dist | Special Zoning: Conditional Use Designator Lot Special Use Variance |
| C-3 General Business | |
| C-4 Highway Business | |
| D-1 Industrial Park | |
| D-2 Light Industrial | |
| D-3 Heavy Industrial | |
| D-4 Business Park | |





VICINITY MAP
(NOT TO SCALE)

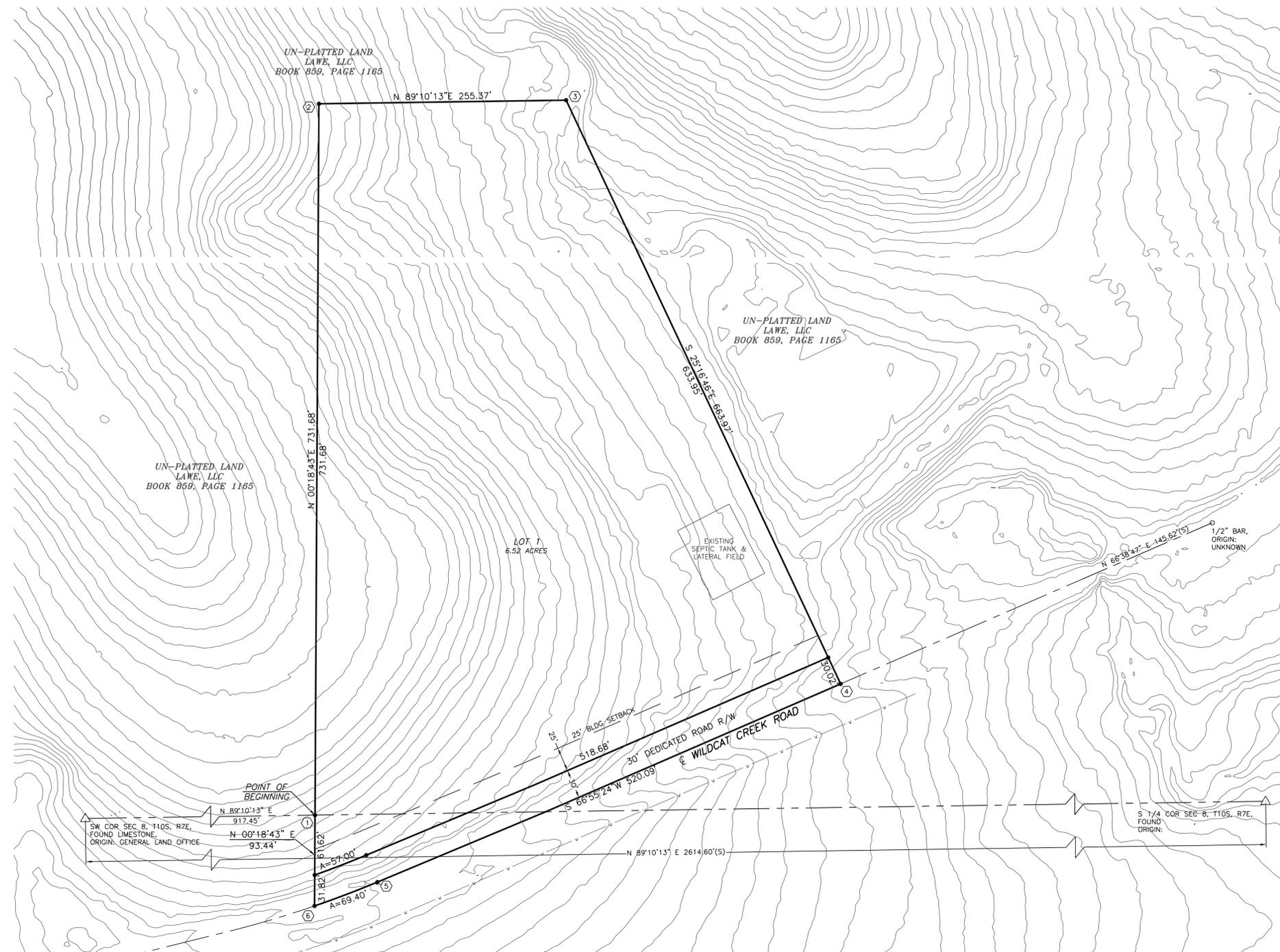
LEGEND



NOTES:

- No gaps or overlaps exist.
- There are no lines of possession that affect this survey.
- There are no existing buildings on the subject property.
- Parent Tract is recorded in Book 788, Page 218, Register of Deeds Office, Riley County, Kansas.
- If an entrance pipe is required, the minimum size shall be calculated in accordance with the Riley County Standards and Specifications. In no case shall the diameter of the pipe be less than 18 inches.

FLOOD INFORMATION NOTE:
Flood Insurance Rate Map, Map Number 20161C0333F, identifies this property as situated in Zone X. Zone X stated as "Areas determined to be outside the 0.2% annual chance floodplain".
FIRM effective date: November 19, 2003.



Preliminary Plat
TEGTMEIER ADDITION
in the Southwest Quarter of Section 8,
T10S, R7E, Riley County, Kansas

DESCRIPTION:
A tract of land in the Southwest Quarter of Section 8 and the Northwest Quarter of Section 17, Township 10 South, Range 7 East of the Sixth Principal Meridian, Riley County, Kansas described as follows:
Beginning at a point that is N 89°10'13" E 917.45 feet from the Southwest Corner of the Southwest Quarter of said Section 8, said point being on the South Line of the Southwest Quarter of said Section 8 and Corner 1, marked by a 1/2" rebar; thence N 00°18'43" E 731.68 feet to Corner 2, marked by a 1/2" rebar; thence N 89°10'13" E 255.37 feet to Corner 3, marked by a 1/2" rebar; thence S 25°16'46" E 663.97 feet to the centerline of Wildcat Creek Road and Corner 4, marked by a 1/2" rebar; thence
Along the centerline of Wildcat Creek Road the following 2 courses,
Course 1: S 66°55'24" W 520.09 feet to Corner 5, marked by a 1/2" rebar,
Course 2: On a curve to the right with a radius of 1075.00 feet an arc length of 69.40 feet, chord being S 69°15'38" W 69.39 feet to Corner 6, marked by a 1/2" rebar; thence N 00°18'43" E 93.44 feet to the point of beginning, containing 6.92 acres.
Subject to easements and restrictions of record.



4201B Anderson Avenue, Suite 2 • Manhattan, Kansas 66503
(785) 776-0541 • FAX 776-9760 • Email: tim@smhconsultants.com
Project #1405MN4018 DD #94

JULY 2014

DESCRIPTION:

A tract of land in the Southwest Quarter of Section 8 and the Northwest Quarter of Section 17, Township 10 South, Range 7 East of the Sixth Principal Meridian, Riley County, Kansas described as follows:

Beginning at a point that is N 89°10'13" E 917.45 feet from the Southwest Corner of the Southwest Quarter of said Section 8, said point being on the South Line of the Southwest Quarter of said Section 8 and Corner 1, marked by a 1/2" rebar; thence N 00°18'43" E 731.68 feet to Corner 2, marked by a 1/2" rebar; thence N 89°10'13" E 255.37 feet to Corner 3, marked by a 1/2" rebar; thence S 25°16'46" E 663.97 feet to the centerline of Wildcat Creek Road and Corner 4, marked by a 1/2" rebar; thence Along the centerline of Wildcat Creek Road the following 2 courses,

Course 1: S 66°55'24" W 520.09 feet to Corner 5, marked by a 1/2" rebar.
Course 2: On a curve to the right with a radius of 1075.00 feet an arc length of 69.40 feet, chord being S 69°15'38" W 69.39 feet to Corner 6, marked by a 1/2" rebar; thence N 00°18'43" E 93.44 feet to the point of beginning, containing 6.92 acres.
Subject to easements and restrictions of record.

OWNER'S CERTIFICATE

STATE OF KANSAS) SS
COUNTY OF RILEY)

This is to certify that the undersigned is/are the owner(s) of the land hereon described on this plat, and that said owner(s) has/have caused the same to be surveyed and subdivided as indicated thereon, for the uses and purposes herein set forth, and does hereby acknowledge and adopt the same under style and title indicated.

All street rights-of-way as shown on this plat are hereby dedicated to the public. Any easements or licenses as shown on this plat, to locate, construct and maintain or authorize the location, construction and maintenance of poles, wires, conduits, water, gas and sewer pipes or required drainage channels or structures upon the area marked for easements on this plat, are hereby granted to the public.

Given under my hand at _____, Kansas this _____ day of _____, 2014.
LAWE, LLC, a Kansas Limited Liability Company

Owner Name _____ Spouse Name _____

NOTARY CERTIFICATE

STATE OF KANSAS) SS
COUNTY OF RILEY)

BE IT REMEMBERED, that on this _____ day of _____ A.D. 2014, before me, the undersigned, a notary public in and for the County and State aforesaid, came _____ as Resident Agent of LAW, LLC, a Kansas Limited Liability Company

personally known to me to be the same persons who executed the foregoing Owner's Certificate, and duly acknowledged their execution of the same.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my notarial seal on the day and year last above written.

Notary Public
My appointment expires: _____

CERTIFICATE OF THE COUNTY COMMISSION

STATE OF KANSAS) SS
COUNTY OF RILEY)

Approved this _____ day of _____, 2014.
Board of Commissioners, Riley County, Kansas.

Chairperson _____ Commissioner _____

Commissioner _____ Attest: County Clerk _____

CERTIFICATE OF THE REGISTER OF DEEDS

STATE OF KANSAS) SS
COUNTY OF RILEY)

This instrument was filed for record on the _____ day of _____ A.D. 2014, at _____ o'clock _____ M. and duly recorded in Book _____ on Page _____.

Register of Deeds _____

Deputy _____

RILEY COUNTY PLAT REVIEW SURVEYOR SIGNATURE BLOCK

This plat has been reviewed and approved for filing pursuant to and in compliance with K.S.A. 58-2005 and with the requirements of Riley County Resolution No. 082913-58. No other warranties are extended or implied.

Approved: _____

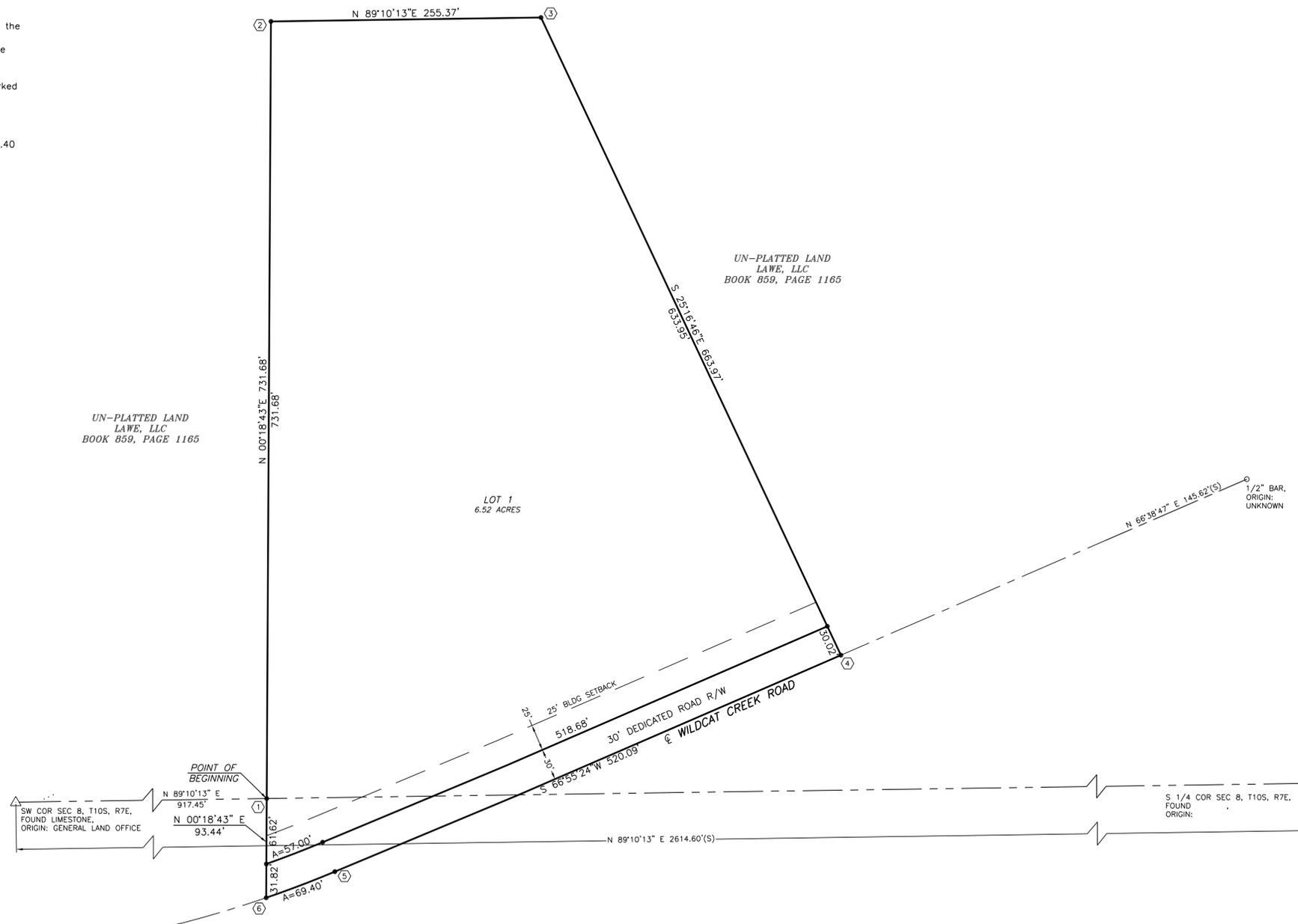
License Number: _____ Date: _____

UN-PLATTED LAND
LAWE, LLC
BOOK 859, PAGE 1165

UN-PLATTED LAND
LAWE, LLC
BOOK 859, PAGE 1165

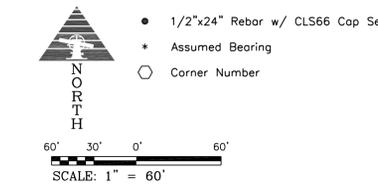
UN-PLATTED LAND
LAWE, LLC
BOOK 859, PAGE 1165

LOT 1
6.52 ACRES



VICINITY MAP
(NOT TO SCALE)

LEGEND



NOTES:

- No gaps or overlaps exist.
- All distances shown on this plat are surveyed.
- There are no existing buildings on the subject property.
- Parent Tract is recorded in Book 788, Page 218, Register of Deeds Office, Riley County, Kansas.
- If an entrance pipe is required, the minimum size shall be calculated in accordance with the Riley County Standards and Specifications. In no case shall the diameter of the pipe be less than 18 inches.
- All development within the Tegtmeier Winery Planned Unit Development shall conform to the approved Final Development Plan and Resolution No. _____ dated _____ (as may be amended).

FLOOD INFORMATION NOTE:
Flood Insurance Rate Map, Map Number 20161C0333F, identifies this property as situated in Zone X. Zone X stated as "Areas determined to be outside the 0.2% annual chance floodplain".
FIRM effective date: November 19, 2003.

APPROVAL OF COUNTY OFFICERS

STATE OF KANSAS) SS
COUNTY OF RILEY)

County Engineer _____

County Counselor _____

Environmental Health Specialist _____

RILEY COUNTY PLANNING BOARD CERTIFICATE

STATE OF KANSAS) SS
COUNTY OF RILEY)

Approved this _____ day of _____ A.D. 2014.

Riley County Planning Board.

Chairperson _____ Member _____

Member _____ Member _____

Member _____

SURVEYOR'S CERTIFICATE

STATE OF KANSAS) SS
COUNTY OF RILEY)

I, the undersigned, do hereby certify that I am a Registered Land Surveyor in the State of Kansas, with experience and proficiency in land surveying; and that the heretofore described property was surveyed and subdivided by me, or under my supervision, that all subdivision regulations of Riley County, Kansas, have been complied with in the preparation of this plat, and that all the monuments shown herein actually exist and their positions are correctly shown to the best of my knowledge and belief.

Given under my hand and seal at Manhattan, Kansas this _____ day of _____, A.D., 2014.

SMH Consultants
By: Tim Sloan
Tim Sloan, P.S.
President
KANSAS LAND SURVEYOR
LS-783

Final Plat
TEGTMEIER ADDITION
*in the Southwest Quarter of Section 8,
T10S, R7E, Riley County, Kansas*



4201B Anderson Avenue, Suite 2 • Manhattan, Kansas 66503
(785) 776-0541 • FAX 776-9760 • Email: tim@smhconsultants.com
Project #1405MN4018 DD #94

JULY 2014

DESCRIPTION:
TRACT 1:

A tract of land in the Northwest Quarter (NW¼) of Section 8, Township Ten (10) South, Range Seven (7) East of the 6th P.M., Riley County, Kansas, described as follows: Beginning at the Southwest corner of the Northwest Quarter of Section 8; thence North on Section line 3 Chains; thence East 36 Chains; thence North to the left bank of Wildcat Creek; thence in a southeasterly direction along left bank of Wildcat Creek to the Quarter Section line, running North and South in Section 8; thence South of the Quarter Section line 3 ½ chains to Southeast Corner of the Northwest Quarter of Section 8; thence West on Quarter Section line 40 chains to point of beginning; and

All that part of the Southwest Quarter (SW¼) of Section Eight (8), Township Ten (10) South, Range Seven (7) East of the 6th P.M., Riley County, Kansas, which lies North of the township road;

LESS the following two tracts:

All that part of the following described tract which lies in said Southwest Quarter to-wit: A tract of land in the SW¼ of the SE¼, and the SE¼ of the SW ¼ of Section 8, Township 10 South, Range 7 East of the 6th P.M., in Riley County, Kansas, described as follows: Beginning at the Northwest corner of said SW¼ of the SE¼ being Corner 1, marked by a 3/8 inch iron bar; thence North 88°32'13" East 1321.71 feet along the North line of said SW¼ of the SE¼ to the NE Corner thereof being Corner 2, marked by a 3/8 inch iron bar; thence South 2°16'40" East 397.45 feet along the East line of said SW¼ of the SE¼ to the Center of a township road being Corner 3, marked by a ½ inch iron bar; thence continuing along the Center of said township road the following courses: South 88°20'42" West 123.06 feet to Corner 4, marked by a ½ inch iron bar, South 85°05'09" West 225.78 feet to Corner 5, marked by a ½ inch iron bar, South 83°09'53" West 224.90 feet to Corner 6, marked by a ½ inch iron bar, South 88°36'49" West 525.85 feet to Corner 7, marked by a ½ inch iron bar, on a curve to the left having a radius of 1246.01 feet, an arc distance of 396.62 feet, the chord being South 79°29'41" West 394.94 feet to Corner 8, marked by a ½ inch iron bar, South 70°22'33" West 8.08 feet to Corner 9, marked by a ½ inch iron bar on a curve to the left having a radius of 561.81 feet, an arc distance of 264.98 feet, the chord being South 56°51'50" West 262.53 feet to Corner 10, marked by a ½ inch iron bar, South 43°21'08" West 162.73 feet to Corner 11, marked by a ½ inch iron bar; thence leaving said township road North 3°07'06" West 749.95 feet to Corner 12, marked by a ½ inch iron bar; thence North 88°32'13" East 528.34 feet to the point of beginning; and

LESS a tract of land lying in the SW¼ of Section 8, Township 10 South, Range 7 East of the 6th P.M., Riley County, Kansas, surveyed by Richard M. Haynie, Land Surveyor, and recorded in Quitclaim Deed, dated October 27, 2000, from Robert W. Clack, Jr. and Maria T. Clack, husband and wife, to Robert W. Clack, Jr. and Maria T. Clack, husband and wife, filed November 29, 2000, and recorded in Book 788, Page 218, in the office of the Register of Deeds of Riley County, Kansas;

TRACT 2:

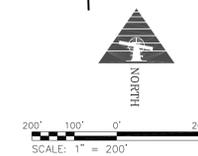
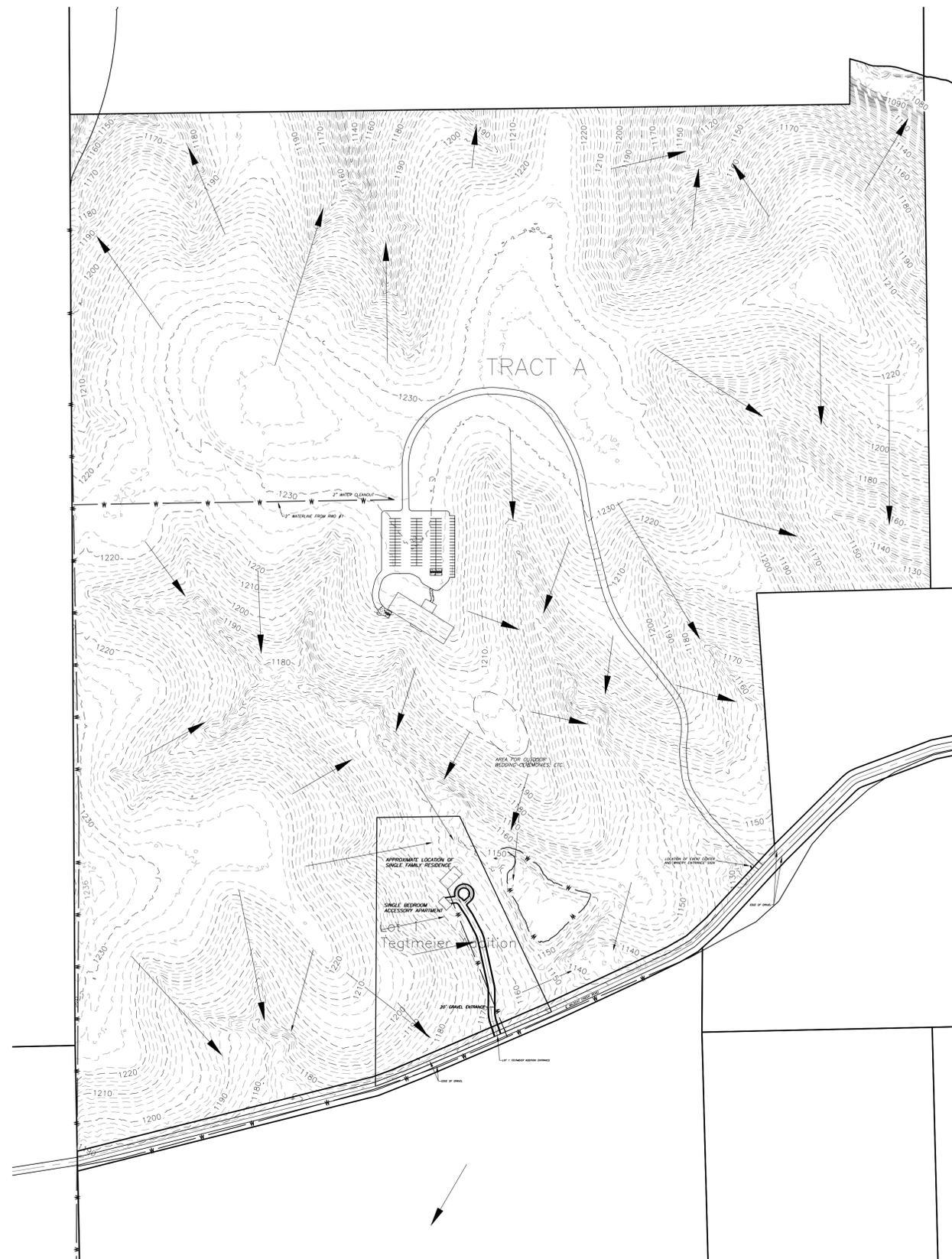
A tract of land lying in the Southwest Quarter of Section 8, Township 10 South, Range 7 East of the 6th P.M., in Riley County, Kansas, and described more particularly as follows: From the Southwest corner of the said Section 8, proceed North 88°44'40" East 1146.62 feet to a ½ inch iron bar and the Center of a township road; thence North 66°02'42" East 4.57 feet to a ½ inch iron bar and the POINT OF BEGINNING; thence North 66°02'42" East 754.71 feet along the Center line of said township road to a ½ inch iron bar; thence North 43°21'08" East 54.91 feet to a ½ inch iron bar; thence North 03°07'09" West 994.44 feet to a ½ inch iron bar and the North line of the South half of the Southwest Quarter of said Section 8; thence South 88°39'59" West 745.49 feet along the North line of the South half of said Southwest quarter to a ½ inch iron bar; thence South 03°07'05" East 1323.94 feet to a ½ inch iron bar and the POINT OF BEGINNING;

TOGETHER WITH a 60 foot easement across the 19.56 acre tract which lies East of the subject property, and is set forth in Corporation Deed, from the Kansas State University Foundation to David Adams and Carol Adams, filed December 18, 1991, and recorded in Book 595, Page 319 in the office of the Register of Deeds of Riley County, Kansas;

TRACT 3:

All that part of the North Half (N½) of the Northwest Quarter (NW¼) of Section Seventeen (17), Township Ten (10) South, Range Seven (7) East of the 6th P.M., in Riley County, Kansas, which lies North of the Township Road;

Subject to easements and rights of way of record.



Preliminary Development Plan
TEGTMEIER WINERY
a Winery and Event Center
in the SW Quarter of Section 8
Township 10 South, Range 7 East,
Riley County, Kansas



PROJECT NO.
1405MN4018
REVISED: DATE:

CHECKED BY:
JH

DRAWN BY:
AW

DATE:
07/03/2014

SHEET NO.
1

TOTAL SHEETS
2

OWNER'S CERTIFICATE

STATE OF KANSAS)
) SS
 COUNTY OF RILEY)

This is to certify that the undersigned are the owners of record of the land hereon described on this plot, and that the undersigned have caused the same to be surveyed and subdivided as herein set forth.

The undersigned, as such owners, do hereby state that all street rights-of-way as shown on this plot are hereby dedicated to the public. Any easements and/or licenses to locate, construct, operate, inspect, replace, and maintain, or authorize the location, construction, operation, inspection, replacement and maintenance of poles, wires, conduits, water, gas, and sewer pipes; required drainage channels or structures; hard and impervious surfaces; or, other structures necessary to carry out the function of the easement, upon the area marked for easements on this plot, are hereby granted to the public. When, and if, used on this plot, the term "utility" shall include, by way of example, but not limited to, sewer, water, gas, electricity, cable t.v. and telephone. When, and if, used on this plot, the term "travel" shall include all forms of travel, by whatever means, unless the term is limited by other words or phrases, such as, "pedestrian travel", etc. The undersigned acknowledges that pursuant to K.S.A. 12-406, the dedication of rights-of-way and easements to the public constitutes a conveyance thereof to Riley County, Kansas, in trust, for the uses named, expressed or intended.

Given under my hand at _____, Kansas this _____ day of _____, 2014.

LAW, LLC
 RESIDENT AGENT
 DAVID H. TEGTMEIER

STATEMENT OF LANDOWNER'S INTEREST:

I, DAVID TEGTMEIER AND MY WIFE, DANIELLE TEGTMEIER WILL BE MANAGERS OF ALL OPERATIONS OF THE WINERY AND RELATED BUSINESS AT 1745 WILDCAT CREEK ROAD. WE WILL BE LIVING ON THE PROPERTY AND ARE CO-OWNERS OF THE LAND AND ALL BUSINESS TO BE CONDUCTED ON THE PROPERTY

PERMITTED USES:

- Tract A:
- Viniculture
 - Manufacturing, bottling and sale of wine and cider
 - Wine and cider tasting
 - Sale of promotional and products accessory to wine
 - Catered events
 - Events Center for the conduct of conferences, meetings, business or professional training, retreats, and recreational, social, or religious functions, activities, or purposes. Events Center use shall be subject to the following restrictions and limitations:
 - No more than one hundred twenty-five (125) motor vehicles may be parked on the site at any one time. Parking shall only be permitted in designated areas. Event parking along Wildcat Creek Road shall be prohibited.
 - Any buildings or structures in which dances or playing of music or other amplification of sound occurs must be enclosed and shall be reasonably insulated, including insulation of walls and entire ceiling, to mitigate the migration of noise to adjoining properties.
 - Noise levels from amplification of sound (indoor or outdoor) shall be controlled and mitigated so as to not exceed 65 dBA at the property line (dBA shall be Equivalent-Continuous sound levels (Leq) which shall measure amplified noise generated within the property over a 10 minute period along the involved property line.
 - Quiet hours, during which no amplified sound will be permitted, shall be posted on site and, shall be between 11:00 PM and 8:00 AM for Friday and Saturday and 9:00 PM and 8:00 AM for Sunday-Thursdays.
 - A maximum indoor occupancy for the Event Center shall be 375 persons.

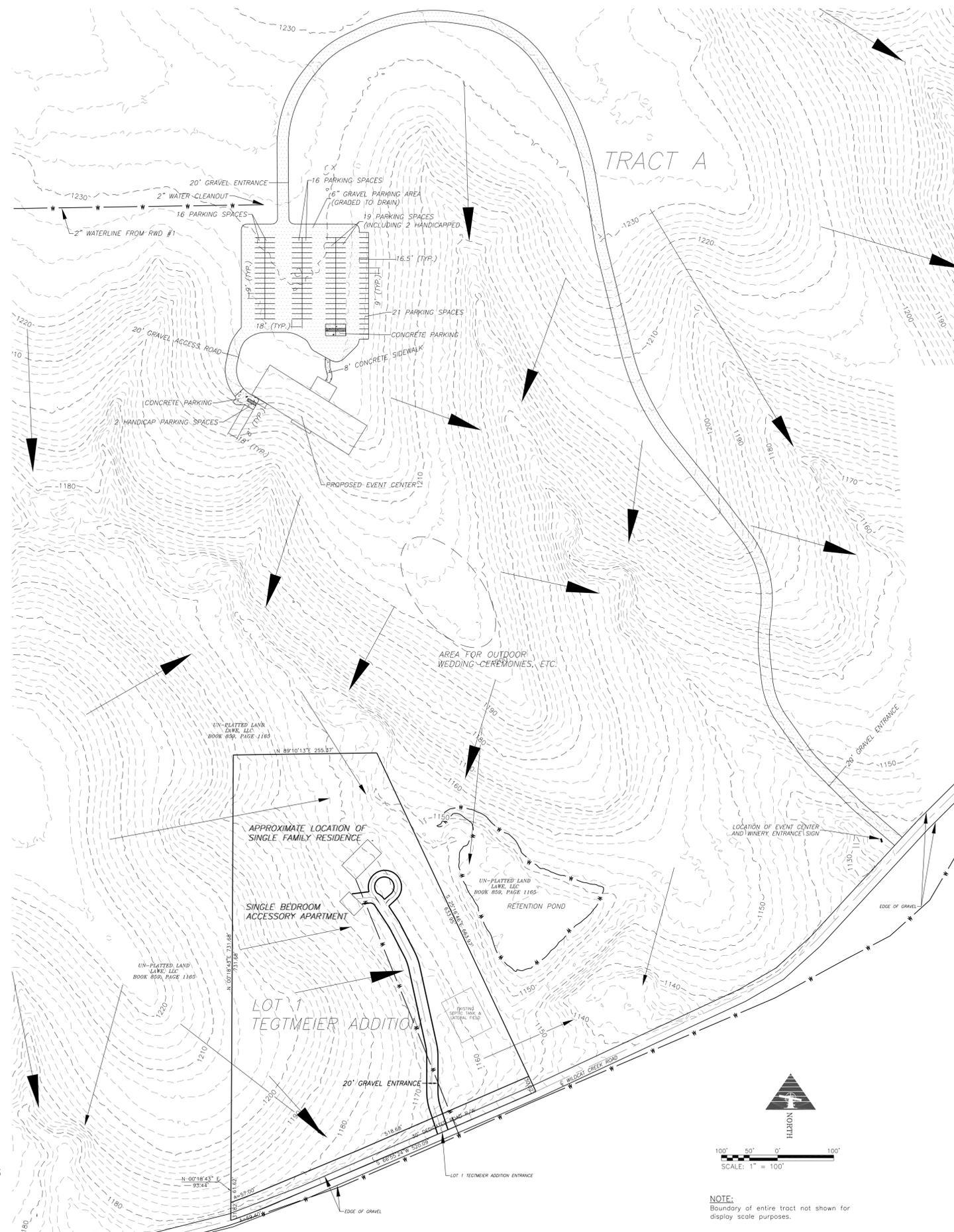
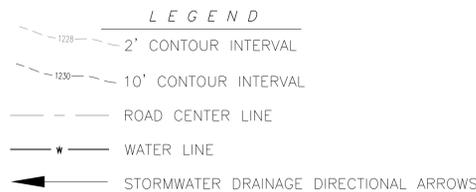
- Lot 1 Tegtmeier Addition:
- All permitted uses in the "SF-5" (Single Family Residential) zoning district, subject to the use limitations listed for that district.
 - Accessory apartment.

PERMITTED STRUCTURES:

- Tract A:
- Winery/Events Center.
 - Accessory structures associated with agricultural activities, including implement storage.
 - Entrance Sign
- Lot 1:
- One single family residential dwelling (subject to the restrictions of the "SF-5" Single Family Residential zoning district).
 - Accessory structures (subordinate in size to the principal building, except those dedicated solely for housing stock animals).
 - One single bedroom accessory apartment (as defined in Section 2 - Definitions of the Riley County Zoning Regulations).

SCHEDULE FOR IMPROVEMENTS:

- Proposed improvements shown or described herein will be completed and in place based on the following schedule:
- A garage with living space above will be constructed on Lot 1 Tegtmeier Addition by May of 2015.
 - An Events Center and Winery will be constructed on Tract A by August of 2015.
 - The parking lot and drive associated with the Events Center and Winery will be constructed on Tract A by August of 2015.
 - An entrance sign will be constructed on Tract A by August of 2015.
 - Grape vines will be planted on Tract A by August of 2016.
 - A new home will be constructed on Lot 1 Tegtmeier Addition by December of 2019.



NOTES:

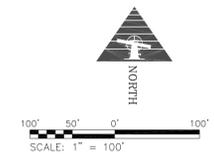
- Bearings used on this survey are based on deed description.
- No Gaps and overlaps were found on this property.
- Easements, setbacks, restrictions or encumbrances of record if any, affecting the title to this tract are not shown.
- If an entrance pipe is required, the minimum size shall be calculated in accordance with the Riley County Standards and Specifications. In no case shall the diameter of the pipe be less than 18 inches.
- All drives and parking areas shall consist of all-weather surfacing. The drive accessing the Events Center shall be at least 20 feet wide in accordance to fire code and to provide two-way traffic.
- The gravel driveway to the events center and winery shall be maintained in condition that is traversable by emergency response vehicles.
- Owners will resurface and maintain all drives and parking area surfaces on a regular schedule or as needed to provide overall good-looking appearance for visitors. The road will be fully maintained for complete access to all vehicles year round.
- Site and all uses therein shall be in compliance with the Riley County Sanitary Code. Lot 1 Tegtmeier Addition is currently served by Rural Water and sanitary lateral field. At build-out, Lot 1 will be served by an on-site wastewater lagoon. Tract A will be served with potable water by the Riley County Rural Water District #1 and an on-site wastewater lagoon.
- Location(s) and extent(s) of fencing and trails may be modified at the owner's discretion as required to serve the permitted uses.
- Buildings and structures shall comply with State of Kansas minimum building and life safety codes per the 2006 IBC and the 2000 NFPA 101. Maximum permitted occupancy shall be posted in the winery/events center building.
- The winery/event center building(s) shall meet the minimum building code requirements as per the State Fire Marshal.
- All structures and signs are shown in approximate locations.
- All proposed lighting shall have directional control or appropriate cut-offs to minimize spillage and light trespass.
- Existing riparian areas and native tree stands shall remain intact as much as possible to act as an audio and visual buffer to surrounding properties. All areas, unless improved, will remain agricultural.
- All stormwater drainage from the developed areas of Lot 1 Tegtmeier Addition and the winery/events center shall be directed to the existing pond.
- All signs shall be subject to Section 15-Signs of the Riley County Zoning Regulations.
- Prior to construction of any buildings on the described property, a Fort Riley, Kansas Area of Military Impact Real Estate Disclosure Form, provided by Riley County Planning & Development, shall be signed and filed in the Office of the Register of Deeds.
- The landowner has 100% interest in the land to be developed. The landowner controls the land and is financially capable to effectuate the proposed plan.

NOTE:
 ZONING - EXISTING
 - AG (AGRICULTURAL DISTRICT)
 ZONING - PROPOSED
 - CPUD: (COMMERCIAL PLANNED UNIT DEVELOPMENT)

BENCHMARK:
 HCP
 NORTHING: 297,775.877 EASTING: 1,691,567.426
 Elev. 1042.398

FLOOD INFORMATION NOTE:
 ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP, MAP NUMBER 200298 0333 F, DATED FEBRUARY 4, 2005, THIS PROPERTY IS LOCATED IN ZONE X. ZONE X IS DEFINED AS "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN"

OWNER/DEVELOPER:
 LAW, LLC
 3091 STATE HIGHWAY 63
 BERN, KS 66408



NOTE:
 Boundary of entire tract not shown for display scale purposes.

Preliminary Development Plan
TEGTMEIER WINERY
 a Winery and Event Center
 in the SW Quarter of Section 8
 Township 10 South, Range 7 East,
 Riley County, Kansas

TEGTMEIER WINERY
 PRELIMINARY DEVELOPMENT PLAN
 MANHATTAN, KANSAS



| | |
|----------------|------------|
| PROJECT NO. | 1405MN4018 |
| REVISED: DATE: | |
| CHECKED BY: | JH |
| DRAWN BY: | AW |
| DATE: | 07/03/2014 |
| SHEET NO. | 2 |
| TOTAL SHEETS | 2 |

TEGTMEIER WINERY PUD

RILEY COUNTY, KANSAS

TRAFFIC IMPACT STUDY

June 20, 2014

Revised: August 27, 2014

Completed by:
Jeffrey D. Hancock, P.E.
SMH Consultants

I. INTRODUCTION

The following traffic impact study is to determine the effect of the proposed Tegtmeier Winery and Event Center on traffic along Wildcat Creek Road. The study was done in accordance with Riley County guidelines.

A. Existing Site

On the existing site sits a single residence and three small outbuildings or slabs with a single gravel driveway connecting the buildings to Wildcat Creek Road. The land is zoned general agriculture and is used as pasture. The site sits on the north side of Wildcat Creek Road approximately 1.8 miles west of Scenic Drive.

B. Study Methodology

Existing annual average daily traffic (AADT) volumes on Wildcat Creek Road and Scenic Drive for the year 2012 were obtained from the KDOT traffic count map for the City of Manhattan. This is shown in Appendix A. The counts were taken along Scenic Drive 500ft South of Wildcat Creek Road and 100ft West of Scenic Drive along Wildcat Creek Road. A 1% per year increase in traffic volume is assumed for future growth along Wildcat Creek Road. This is a below-average rate of assumed growth due to the G1 (general agriculture) zoning of the area. For Scenic Drive, we assumed an average 2% per year increase in traffic volume.

The *Trip Generation Handbook* declares the Land Use of the Tegtmeier Winery to be that of Agriculture (open space). This equates to a trip count of 2 trips per acre with no peak hour ratio. For future trip generation of Tegtmeier Winery and Event Center, the *Trip Generation Handbook* does not have a Land Use which corresponds to the event center facilities proposed. Methodologies for similar types of studies for similar facilities in other locations of the United States suggest assuming a maximum booking of one large event per weekend with a trip count equal to 2.1 times the maximum number of parking stalls provided on site.

While the Tegtmeier Winery and Event Center site can be approached from the west on Wildcat Creek Road, the distance to a paved road is much shorter for traffic coming from the east. In distributing trips for the purposes of this Study, we made the following assumptions:

- 1) Of the trips generated by the Tegtmeier Winery and Event Center, 90% are assumed to go toward or come from the intersection of Scenic Drive and Wildcat Creek Road, east of the site.
- 2) These trips will be distributed 60% to the north and 40% to the south at the Scenic Drive/Wildcat Creek Road intersection.

These assumptions tend to be conservative in that they send most of the generated traffic east from the site and concentrate it at the intersection of Scenic Drive and Wildcat Creek Road.

II. EXISTING CONDITIONS

A. Street Classification

Wildcat Creek Road fits the characteristics of a rural local road. Scenic Drive is classified by the Manhattan Area Transportation Strategy (MATS) as an arterial road.

B. Street Characteristics

Wildcat Creek Road is a 22ft to 24ft wide gravel road with open ditches on either side. The road is posted with a 30 mph speed limit and has numerous horizontal and vertical curves. Wildcat Creek Road also crosses several bridges between Scenic Drive and Tegtmeier Winery and Event Center. The stop-controlled intersection of Wildcat Creek Road and Scenic Drive is approximately 1.8 miles east of the proposed entrance.

At the intersection with Wildcat Creek Road, Scenic drive is a 48ft asphalt roadway consisting of two 12ft lanes and two 12ft shoulders, with open ditch drainage on both sides. The speed limit for Scenic Drive is posted at 40 mph, and sight distances at the intersection are adequate in both directions.

C. Current Traffic Volumes

1. Wildcat Creek Road:

According to Riley County traffic counts (Appendix A), in Spring of 2012 Wildcat Creek Road had daily traffic of 299 vehicles. This translates to **305 vehicles per day for 2014**, assuming the 1% increase per year. At the time of the KDOT traffic count, the Tegtmeier Winery and Event Center land was operating as a single-family residence with agriculture land use and thus does not further affect the traffic count.

2. Scenic Drive

Riley County traffic counts (Appendix A), shows daily traffic of 9,212 vehicles on Scenic Drive 500-ft south of the Wildcat Creek Road and Scenic Drive intersection. Assuming the 2% increase per year, **9,584 vehicles per day for 2014** is projected.

D. Analysis

Under current conditions, traffic on Wildcat Creek Road averages 305 vehicles per day, which classifies it as a very-low volume local road according to AASHTO criteria

Traffic on Scenic Drive flows uninterrupted through the intersection with Wildcat Creek Road under current conditions.

HCS2000 Software was used to evaluate the Level of Service (LOS) at the intersection during the current A.M. and P.M. peak hours. Peak hour traffic volume of 10% daily traffic was assumed. For the morning peak hours, SMH assumed 75% eastbound trips and 25% westbound trips, while 64% westbound and 36% eastbound was assumed for the evening peak hour. These ratios are equivalent to those from single-family residences. Scenic Drive directional distributions were taken as 50% northbound and southbound for both peak hours. Software output is shown in Appendix C. Trip distribution through the intersection of Wildcat Creek Road and Scenic Drive is shown below. The Wildcat Creek Road approach operates at a Level of Service B, due to a control delays of 13.7 (A.M.) and 13.6 (P.M.) seconds per vehicle. The Scenic Drive approach operates at a Level of Service A.

| A.M. Peak Hr. | | | | | | P.M. Peak Hr. | | | | | |
|---------------|-------|---------|-------|-------|-------|---------------|-------|---------|-------|-------|-------|
| NB Thru | NB Lt | SB Thru | SB Rt | EB Lt | EB Rt | NB Thru | NB Lt | SB Thru | SB Rt | EB Lt | EB Rt |
| 476 | 3 | 475 | 4 | 14 | 9 | 471 | 8 | 467 | 12 | 7 | 4 |

Table 1: Existing (2014) Directional Distribution Summary

Program output detailing these results is in Appendix C.

III. FUTURE CONDITIONS WITHOUT TEGTMEIER WINERY AND EVENT CENTER (2024)

A. Trip Generation

Proposed traffic analysis data for the intersection of Wildcat Creek Road and Scenic Drive was generated assuming a 2% annual increase along Scenic Drive and a 1% annual increase along Wildcat Creek Road. The trips were projected to the year 2024, and resulted in daily traffic of **11,229 vehicles per day** along Scenic Drive and **330 vehicles per day** along Wildcat Creek Road. The peak hour traffic is therefore 1123 and 33 vehicles per day for Scenic Drive and Wildcat Creek Road, respectively.

B. Trip Distribution and Assignment

The directional distribution of the traffic was calculated using the same methodology as stated above with existing road conditions. Trip distribution through the intersection is shown below.

| A.M. Peak Hr. | | | | | | P.M. Peak Hr. | | | | | |
|---------------|-------|---------|-------|-------|-------|---------------|-------|---------|-------|-------|-------|
| NB Thru | NB Lt | SB Thru | SB Rt | EB Lt | EB Rt | NB Thru | NB Lt | SB Thru | SB Rt | EB Lt | EB Rt |
| 558 | 3 | 557 | 5 | 15 | 10 | 553 | 8 | 549 | 13 | 7 | 5 |

Table 2: Future (2024) Directional Distribution Summary without Tegtmeier Winery and Event Center

Program output detailing these results is in Appendix C.

C. Analysis

HCS2000 Software was used to evaluate the Level of Service (LOS) at the intersection for the A.M. and P.M. peak hours in 2024 without including the trips due to the Tegtmeier Winery and Event Center. During both peak hours, Scenic Drive continues to operate at LOS A. Wildcat Creek Road continues to operate at LOS B during the A.M. and P.M. peak hour, with delays of 14.2 and 13.8 seconds per vehicle respectively. This shows an average increase of control time from 2014 to 2024 of .35 seconds per vehicle.

IV. FUTURE CONDITONS PLUS TEGTMEIER WINERY AND EVENT CENTER (2024)

A. Trip Generation

Proposed future trips including Tegtmeier Winery and Event Center were generated by assuming one large event every weekend. With 125 spaces, it is assumed that each space would generate 2.1 trips per large event. It is unlikely a maximum capacity event would occur every weekend at the Tegtmeier Winery and Event Center, but these assumptions were made to generate conservative trip counts. Total weekly trip generation would therefore be 263 trips. The daily average would therefore be 38 vehicles per day. This results in 4 peak hour trips which is conservative when compared to similar event center peak hour trips (according to land use categories including assembly halls and meeting rooms) which are roughly 2% for both the A.M. peak and P.M. peak hour trip. This increase was added to the future conditions without the Tegtmeier Winery and Event Center to generate the future conditions including the winery. Trip distribution through the intersection is shown below.

It should be noted that all of the trips generated by the Tegtmeier Winery and Event Center have been spread over the course of an entire day, with 4 trips being assigned to the peak hour. It is recognized that trips generated by the Tegtmeier Winery and Event Center will likely be more concentrated during certain times. In terms of intersection level of service, the delay generated by concentrated traffic from the Tegtmeier Winery and Event during events is generally only experienced by those attending events waiting to enter Scenic Drive. It is normal practice to not design for this temporary delay caused by such event traffic.

B. Trip Distribution and Assignment

The directional distribution of the traffic was calculated using the same methodology as stated above with existing road conditions. Trip distribution through the intersection is shown below.

| A.M. Peak Hr. | | | | | | P.M. Peak Hr. | | | | | |
|---------------|----------|------------|----------|----------|----------|---------------|----------|------------|----------|----------|----------|
| NB Thru | NB Lt | SB Thru | SB Rt | EB Lt | EB Rt | NB Thru | NB Lt | SB Thru | SB Rt | EB Lt | EB Rt |
| 558 | 4 | 556 | 5 | 17 | 11 | 552 | 10 | 547 | 14 | 8 | 5 |

Table 3: Future (2024) Directional Distribution Summary with Tegtmeier Winery and Event Center

Program output detailing these results is in Appendix C.

C. Analysis

HCS2000 Software was used to evaluate the Level of Service (LOS) at the intersection for the A.M. and P.M. peak hours in 2024 including the increase of trips due to the Tegtmeier Winery and Event Center. During both peak hours, Scenic Drive continues to operate at LOS A. Wildcat Creek Road continues to operate at LOS B during the A.M. and P.M. peak hour, with delays of 14.3 and 14.0 seconds per vehicle respectively. This shows an average increase of control time from 2014 to 2024 of .5 seconds per vehicle. The addition of the Tegtmeier Winery

and Event Center does not affect the LOS of Wildcat Creek Road or Scenic Drive and impacts the control delay with an increase of .15 seconds.

D. Turn Lane Criteria

After distributing the generated trip data according to the trip direction at the intersection, turning lane criteria is not met on Scenic Drive or Wildcat Creek Road.

Trip distribution for left turn from northbound Scenic Drive is minimal with a projected occurrence of only 10 turns per peak hour. With less than 2% of total northbound traffic turning left, no left turn lane is necessary since the impact on traffic flow will be negligible during peak hours.

From southbound Scenic Drive, it is projected vehicles will turn right onto Wildcat Creek Road 14 times per peak hour. According to the KDOT Access Management Policy guidelines for two-lane highways operating at 40 mph with direction design operating volumes of 600 vph, it is not recommended to have a tapering right turn since there is negligible impedance to thru southbound traffic.

With only 28 trips per peak hour occurring off of eastbound Wildcat Creek Road and minimal control delays, no turn lanes are necessary on Wildcat Creek Road.

If, in the future, turning lanes become necessary on Scenic Drive, the existing shoulder widths may be overlaid and a smaller shoulder added to the outside as was done further south on Scenic Drive. Care should be taken in such a design, as an existing bridge over Wildcat Creek is approximately 200ft south of the intersection on Scenic Drive and an existing bridge over a tributary of Wildcat Creek is approximately 200ft west of the intersection.

V. OTHER FACTORS

Aside from the traffic generation and distribution, there are other factors associated with the increased use of Wildcat Creek Road due to the Tegtmeier Winery and Event Center that may have an impact on local drivers.

A. Sight Distance

Proper stopping sight distances are essential to the safety of drivers at all intersections. AASHTO's "Guidelines for Geometric Design of Very Low-Volume Local Roads" presents criteria for stopping sight distance along the entirety of the road, which is satisfied along Wildcat Creek Road. Stopping sight distance for Wildcat Creek Road is 200ft according to AASHTO's "A Policy on Geometric Design of Highways and Streets" (2004 Edition, Exhibit 3-1). Stopping sight distances were determined using a viewer of height of 4.0ft and object height of 0.0ft. Using LiDAR data provided by Riley County, it was measured that the stopping sight distances along Wildcat Creek Road in both the east and west direction of the proposed entrance to the Tegtmeier Winery and Event Center and Tegtmeier family Residence will exceed this 200ft minimum.

Intersection sight triangles should also be determined at the entrance to the Tegtmeier Winery and Event Center, entrance to the Tegtmeier residence and the intersection of Wildcat Creek Road and Scenic Drive. The sight triangles along Wildcat Creek Road were calculated using AASHTO's "A Policy on Geometric Design and Highways and Streets" (2004 Edition, Chapter 9) have a minor leg length of 14.5ft and major length of 335ft. Line of sight for intersection sight triangles used a viewer height of 3.5ft and object height of 3.5ft. To the west and west of the entrance to the Tegtmeier Winery and Event Center and Tegtmeier Family Residence, LiDAR analysis showed the sight distance to greater than the 335ft minimum and therefore adequate. These assumptions are dependent upon the approval of the proposed entrance to the Tegtmeier Winery and Event Center. A map of described lines of sight is attached in Appendix B.

At the Wildcat Creek Road and Scenic Drive intersection, the minor leg length should be 14.5ft along Wildcat Creek Road from the western edge of Scenic Drive. The major leg length should be 560ft. in both directions along Scenic Drive from the intersection. Sight distances exceed this minimum with the intersection of Anderson Road and Scenic Drive being visible to the north (approximately 900ft) and the intersection of Highland Ridge Drive and Scenic Drive being visible to the south (approximately 675ft).

B. Signing

Existing signs on Wildcat Creek Road from the more frequently used entrance along Scenic Drive include a 30 mph speed limit sign facing westbound traffic 800ft west of the intersection with Scenic Drive, a "curves next 2 miles" sign facing westbound traffic roughly 1600ft west of the intersection, numerous object markers and warning chevrons around one horizontal curve. There is also a 30mph speed limit sign facing westbound traffic just west of the proposed entrance to Tegtmeier Winery and Event Center. All bridges and culverts are marked with OM-3 object markers. Eastbound traffic from Tegtmeier Winery and Event Center will not encounter a speed limit sign.

C. Bridges

All existing bridges can remain in place without widening according to AASHTO's "Guidelines for Geometric Design of Very Low-Volume Local Roads" assuming there is no evidence of a site-specific safety problem related to the width of the bridge. No such safety problems were identified since all bridges between Scenic Drive and the Tegtmeier Winery and Event Center entrance exceed or match the width of the road. West of the Tegtmeier Winery and Event Center is a single lane bridge that has sufficient visibility for yielding and is clearly identified with signs. At this time, there are no reports of specific concerns at a particular bridge.

D. Horizontal Curves

Exhibit 16 of AASHTO's "Guidelines for Geometric Design of Very Low-Volume Local Roads" states the minimum radius of curvature for a gravel road (assuming a 0.5 coefficient of traction) is 200ft at 30 mph. A detailed survey of the existing road was beyond the scope of this traffic study. Without a detailed survey and lacking any site-specific safety problems, no recommendations can be made regarding the adjustments of the horizontal curves along Wildcat Creek Road.

E. Clear Zones

AASHTO states “it is not generally cost-effective to provide clear zones, also known as clear recovery areas, on very low-volume roads.” Riley County has recently cleared the clear zone of branches and debris; then reseeded the clear zones extending to the right of way along much of Wildcat Creek Road. These clear zones should be maintained and free of all large debris and growth. Several driveways and locations along Wildcat Creek Road have fixed objects near the road. These items (that are in the right of way), including fixed objects and trees, should be removed where practical.

F. Dust

Wildcat Creek Road is a gravel road resulting in dust behind all driving vehicles. While Tegtmeier Winery and Event Center will generate traffic outside of typical peak hours, significant traffic may be generated during a relatively short period of time creating a high level of dust. This dust reduces visibility during high traffic periods and increases the likelihood of accidents. Steps have already been taken to increase safety along Wildcat Creek Road including reducing the speed limit to 30 mph. Several options for dust control include seasonal watering, annual application of magnesium chloride, application of a bituminous surface treatment or application of a thin membrane surface. It is advisable that a dust control alternative be used for localized dust treatment at existing entrances and curves to ensure proper visibility based on current conditions without the addition of a winery and events center.

VI. CONCLUSIONS

From the traffic distribution analysis under full build-out of Tegtmeier Winery and Event Center in 2024, Wildcat Creek Road and the intersection of Wildcat Creek Road and Scenic Drive will continue to operate adequately. Scenic Drive will continue to operate at LOS A and Wildcat Creek Road will continue to operate at LOS B during A.M. and P.M. peak hours. With an increase in the average peak hour delay time at the intersection of Wildcat Creek Road and Scenic Drive of only 0.15 seconds, essentially insignificant, due to the Tegtmeier Winery and Event Center; the conservative estimate of additional traffic caused by the winery and event center will have insignificant effects upon the flow of traffic.

Wildcat Creek Road will continue to operate at its current classification as a very low-volume local road in 2024 with the addition of Tegtmeier Winery and Event Center and relatively low growth rates associated with the G1 zoning. The infrequent high traffic volumes generated by the Tegtmeier Winery and Event Center will likely not occur during Wildcat Creek Road or Scenic Drive’s peak hours of operation.

The existing bridges on Wildcat Creek Road do not require improvements given its classification as a very low-volume local road. However, any reports of site-specific safety issues regarding existing bridges or curves should be reviewed by local authorities to determine if safety improvements are needed. Continued maintenance of the clear zones and sight triangles is necessary.

Existing conditions tend to create dust and visibility issues; this will likely be exacerbated during the infrequent times when significant traffic is generated from the Tegtmeier Winery and Event Center.

VII. RECOMMENDATIONS

An additional 30 mph speed limit sign should be placed facing eastbound traffic just east of the entrance/exit to the Tegtmeier Winery and Event Center. This will insure departing drivers are aware of the speed limit. With drivers abiding by the speed limit, dust will be more controlled compared to uninformed drivers exceeding 30 mph. Currently a 30 mph speed limit sign facing westbound traffic is located approximately 50ft west of the proposed entrance to the Tegtmeier Winery and Event Center. It is recommended this sign be moved further west along Wildcat Creek Road to aid with the field of vision when pulling out of Tegtmeier Winery and Event Center.

The trees immediately surrounding the entrance to Tegtmeier Winery and the Tegtmeier family residence shall be removed to provide clear site triangles at least 335ft in both directions. These clear site triangles should be maintained periodically to prevent re-growth. Since a clear sight triangle is not possible to the east of the Tegtmeier Winery and Event Center entrance, a warning sign should be placed on the east side of the ridge, facing westbound traffic, indicating a hidden entrance.

Local dust control application should continue to be placed east of the Tegtmeier Winery and Event Center site to reduce visibility-related safety concerns. In addition to locations where dust control is already occurring east of the proposed site the western limits of the dust control should be extended west of the proposed entrance to the winery and events center for a distance of 350ft to increase visibility westward from the proposed entrance.

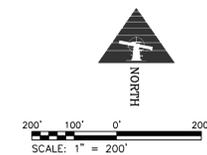
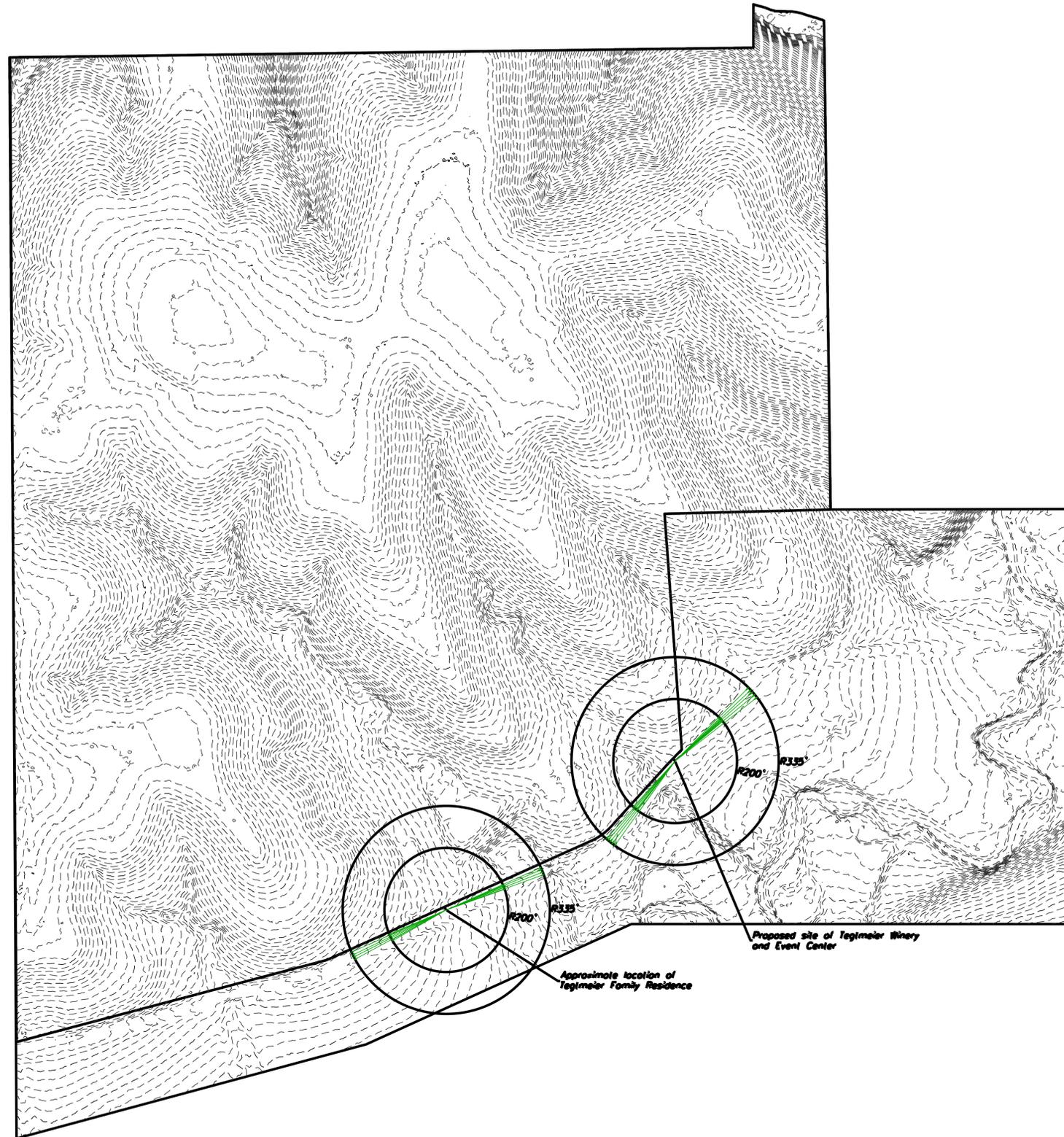
Appendix A

KDOT Traffic Count Map

| Map Code | Route Number | Roadname | Location | Winter 1994 | Summer 1995 | Spring 1996 | Fall 1997 | Winter 1998 | Summer 1999 | Spring 2000 | Fall 2001 | Winter 2002 | Summer 2003 | Spring 2004 | Fall 2005 | Winter 2006 | Summer 2007 | Spring 2008 | Fall 2009 | Winter 2010 | Summer 2011 | Spring 2012 |
|----------|--------------|----------------------|--------------------------------------|-------------|-------------|-------------|-----------|-------------|-------------|-------------|-----------|-------------|-------------|-------------|-----------|-------------|-------------|-------------|-----------|-------------|-------------|-------------|
| 166 | 408 | Scenic Dr. | 500' South of Wildcat Creek Rd. | 5101 | 5226 | 4586 | 5410 | 4916 | 5393 | 4869 | 4020 | 4448 | 3905 | 4793 | 5744 | 6363 | 4060 | 7776 | 9430 | 8443 | (S) | 9212 |
| 167 | 408 | Scenic Dr. | 1/2 mile North of RL 420 | 4787 | 3928 | 4644 | 5027 | 4514 | 5443 | 4946 | 3970 | 4483 | 4331 | 4779 | 5743 | 5978 | 4784 | 6926 | 7633 | 6954 | 7928 | 6175 |
| 275 | 408 | Scenic Dr. | 700' South of Powercat Place | | | | | | | | | | | | | | | | | | 8052 | 6621 |
| 168 | 408 | Scenic Dr. | 500' North of K 18 | 4848 | 4312 | 5035 | 5432 | 4950 | 5697 | 5200 | 3948 | 3958 | 4770 | 5130 | 5716 | 5263 | 4494 | 6895 | 7762 | 7294 | 8448 | 3907 |
| 125 | 406 | Marlatt Ave. | 750' East of Denison Ave. | 3978 | 4246 | 4234 | 4067 | 4241 | 3685 | 4239 | 4283 | 3417 | 4319 | 5191 | 5045 | 4510 | 4703 | 4138 | 2547 | 4754 | 4462 | 4606 |
| 124 | 406 | Marlatt Ave. | 500' West of Denison Ave. | 2993 | 3178 | 3155 | 3369 | 3282 | 3069 | 3540 | 3499 | 2875 | 3593 | 4376 | 4207 | 4254 | 3999 | 3688 | 2844 | 3781 | 4037 | 3980 |
| 122 | 406 | Marlatt Ave. | 200' East of College Ave. | 2838 | 3009 | 2954 | 3722 | 3155 | 2912 | 3312 | 3422 | 2723 | 3381 | 4361 | 3243 | 3999 | 3878 | 3549 | 2728 | 3674 | 3930 | 4072 |
| 280 | 416 | Skyway Dr. | 500' West of Scenic Dr. | | | | | | | | | | | | | | | | | | | |
| 121 | 406 | Marlatt Ave. | 200' West of College Ave. | 2662 | 2807 | 2873 | 3232 | 3246 | 2820 | 3379 | 3394 | 2616 | 3314 | 3605 | 3607 | 3529 | 3392 | 3167 | 3942 | 3226 | 3502 | 4112 |
| 119 | 406 | Marlatt Ave. | 100' East of Browning Rd. | 2758 | 2846 | 2827 | 3483 | 2903 | 2876 | 3130 | 3437 | 2713 | 3494 | 3648 | 3571 | 3560 | 3436 | 3141 | 2715 | 3229 | 3502 | 3587 |
| 270 | 406 | Marlatt Ave. | 250' East of Tuttle Creek Blvd. | | | | | | | | | 1307 | 1566 | 1371 | 2047 | 1966 | (R) | 1281 | 737 | 2245 | 3054 | 2304 |
| 136 | 420 | Eureka Dr. | 250' West of Scenic Dr. | 823 | 908 | 1005 | 808 | 1686 | 1537 | 1803 | 1626 | 1479 | 1821 | 1648 | 1772 | 1941 | 947(O) | 1995 | 2129 | 1340 | 2234 | 3653 |
| 114 | 412 | Anderson Ave. | 1/2 Mile West of N. Scenic Dr. | 2462 | 2456 | 2444 | 2330 | 1936 | 2493 | 2173 | 2277 | 2221 | 2383 | 2347 | 1682 | 5721 | 2237 | 2058 | 3843 | 2127 | 2680 | 2452 |
| 127 | 404 | Barnes Rd. | 500' East of K 177 | 2143 | 2595 | 2529 | 2331 | 2431 | 2408 | 2420 | 2147 | 2096 | 2471 | 2066 | 2588 | 2199 | 2205 | 2731 | 2571 | 1989 | 2155 | 2580 |
| 281 | 416 | Skyway Dr. | 250' East of Briggs Auto Parking | | | | | | | | | | | | | | | | | | | |
| 132 | 901S | McDowell Creek Rd. | 1000' South of K-18/K-177 | 1021 | 1340 | 2150 | 2123 | 942 | 1775 | 1039 | 1030 | 1377 | 1397 | 1500 | 1707 | 1093 | 1376 | 1087 | 1977 | 1384 | 2661 | 2452 |
| 126 | 903N | Denison Ave. | 1000' South of Marlatt Ave. | 2468 | 2693 | 2693 | 2312 | 2425 | 1764 | 2247 | 2075 | 1556 | 2194 | 2221 | 2127 | 1661 | 1893 | 1487 | 1774 | 1991 | 1590 | 2300 |
| 129 | 404 | Barnes Rd. | 500' North of Casement Rd. | 1403 | 1762 | 2101 | 2016 | 2018 | 1985 | 2041 | 1670 | 1727 | 1914 | 2338 | 2109 | 1588 | 1865 | 1818 | 2159 | 1638 | 1831 | 2113 |
| 229 | 420 | Wildcat Creek Rd. | 700' North of K-18 | | | | | 754 | 526 | 931 | 1038 | 1244 | 808 | 853 | 2030 | 2127 | 3585 | 1917 | 1825 | 769 | (T) | 3953 |
| 111 | 897S | Tuttle Cove Rd. | 500' West of K 13 | 1944 | 2094 | 1762 | 2123 | 1752 | 2116 | 1665 | 1881 | 1531 | 1874 | 1958 | 1834 | 1535 | 1458 | 1579 | 1600 | 1577 | 1691 | 2049 |
| 228 | 420 | Wildcat Creek Rd. | 1000' South of Sykes Blvd. | | | | | 533 | 538 | 690 | 822 | 770 | 1028 | 897 | 1375 | 1862 | 1719 | 1283 | 1297 | 288 | (T) | 4166 |
| 142 | 901S | McDowell Creek Rd. | 250' North of W. 32nd Ave. | 520 | 677 | 747 | 610 | 554 | 935 | 548 | 606 | 877 | 739 | 818 | 875 | 742 | 788 | 658 | 1042 | 975 | 1843 | 1863 |
| 133 | 903S | S. Manhattan Ave. | 500' South of Wildcat Creek Bridge | 1759 | 2872 | 1516 | 1205 | 1063 | 1363 | 1443 | 1006 | 1089 | 1529 | 1417 | 1460 | 1151 | 1461 | 1244 | 1386 | 1045 | 1458 | 1598 |
| 112 | 412 | Anderson Ave. | 1/4 Mile West of Kitten Creek Rd. | 1366 | 1448 | 1442 | 1356 | 1125 | 1527 | 1240 | 1285 | 1338 | 1310 | 1412 | 1189 | 1433 | 1469 | 1246 | 1326 | 1193 | 1432 | 1413 |
| 123 | 901N | College Ave. | 1/4 Mile South of Marlatt Ave. | 456 | 64(E) | 380 | 591 | 576 | 516 | 635 | 1790 | (J) | 777 | 1373 | 1131 | 1079 | 1096 | 944 | 953 | 1686 | 1096 | 1255 |
| 285 | 416 | Skyway Dr. | 500' West of 68th Ave. | | | | | | | | | | | | | | | | | | | |
| 283 | 416 | Skyway Dr. | 500' East of Wildcat Creek Rd. | | | | | | | | | | | | | | | | | | | |
| 138 | 420 | Eureka Dr. | 100' East of Airport Rd. | 156 | 176 | 175 | 143 | 1073 | 937 | 1006 | 1026 | 942 | 1231 | 976 | 1326 | 1485 | 242(O) | 1247 | 1075 | 438 | 951 | 2802 |
| 225 | 420 | Eureka Dr. | 550' East of Wildcat Creek Rd. | | | | | 807 | 849 | 1056 | 962 | 891 | 1170 | 906 | 1118 | 1555 | 268(O) | 1232 | 1246 | 412 | 873 | 2750 |
| 227 | 420 | Wildcat Creek Rd. | 500' South of Eureka Dr. | | | | | 900 | 903 | 934 | 1017 | 1044 | 1119 | 873 | 1119 | 1438 | (O) | 1229 | 1267 | 436 | 789 | 2754 |
| 137 | 416 | Skyway Dr. | 500' West of Fort Riley Blvd. | 1034 | 1182 | 1366 | 1028 | 1080 | 1383 | 1116 | 855 | 655 | 1027 | 1104 | 820 | 844 | 1043 | 891 | 933 | 987 | 1249 | 1176 |
| 141 | 901S | McDowell Creek Rd. | 1000' South of W. 40th Ave. | 326 | 314 | 464 | 329 | 345 | 558 | 344 | 390 | 576 | 497 | 518 | 632 | 492 | 576 | 470 | 734 | 713 | 1505 | 1487 |
| 140 | 901S | McDowell Creek Rd. | 500' North of Geary Co. Line | 309 | 287 | 431 | 379 | 283 | 545 | 303 | 374 | 530 | 452 | 455 | 606 | 313 | 557 | 461 | 702 | 723 | 1510 | 1441 |
| 97 | 412 | Anderson Ave. | 1000' South of US 24 | 1262 | 1248 | 1308 | 1371 | 941 | 1364 | 980 | 1110 | 1102 | 1130 | 1171 | 884 | 483 | 1039 | 1054 | 1058 | 970 | 1052 | 1367 |
| 95 | 396W | Welsh Rd. | 750' West K 82 | 1243 | 1275 | 1093 | 968 | 848 | 946 | 1017 | 1083 | 426 | 244 | 959 | 1019 | 430 | 1052 | 1007 | 829 | 864 | 1008 | 1183 |
| 154 | 917 | Tabor Valley Rd. | 1/2 Mile North of Pillsbury Crossing | 207 | 313 | 314 | 348 | 220 | 356 | 216 | 199 | 103 | 78 | 132 | 147 | 85 | 205 | 100 | 117 | 53 | 547 | 442 |
| 242 | 903S | Moehlman Rd. | 200' West of S. Manhattan Ave. | 318 | 1917(D) | 367 | 381 | 372 | 515 | 327 | 335 | 348 | 381 | 362 | 417 | 233 | 282 | 323 | 291 | 309 | 339 | 432 |
| 172 | 887S | Deer Trail Rd. | 100' East of W. 68th Ave. | 456 | 482 | 465 | 437 | 485 | 570 | 583 | 439 | 396 | 401 | 438 | 357 | 372 | 466 | 302 | 322 | 302 | 371 | 274 |
| 100 | 895S | Blue River Hills Rd. | 1000' North of RL 396E | 264 | 236 | 258 | 276 | 234 | 301 | 265 | 243 | 264 | 297 | 355 | 286 | 294 | 279 | 301 | 347 | 272 | 304 | 346 |
| 106 | 402 | W. 59th Ave. | 750' North of US 24 | 331 | 344 | 333 | 389 | 333 | 360 | 292 | 272 | 278 | 371 | 338 | 290 | 300 | 304 | 319 | 348 | 284 | 311 | 326 |
| 80 | 875N | Crooked Creek Rd. | 1000' North of US 24 | 231 | 267 | 257 | 292 | 273 | 327 | 273 | 324 | 227 | 261 | 359 | 272 | 286 | 496 | 393 | 496 | 337 | 285 | 363 |
| 268 | 406 | Marlatt Ave. | 225' South of US 24 | | | | | | | | | 333 | 204 | 261 | 289 | 285 | 356 | 450 | 267 | 300 | 316 | 232 |
| 279 | 899 | Charlson Rd. | 75' East of W 56th Ave. | | | | | | | | | | | | | | | | | | 255 | 159 |
| 274 | 896 | Wildcat Creek Rd. | 100' West of Scenic Dr. | | | | | | | | | | | | | | | | | | 277 | 299 |
| 75 | 875N | Crooked Creek Rd. | 500' North of RL 384W | 252 | 188 | 222 | 236 | 200 | 371 | 276 | 230 | 182 | 297 | 308 | 291 | 229 | 324 | 311 | 405 | 226 | 270 | 299 |
| 83 | 893 | Walnut Creek Rd. | 1000' North of RL 388 | 198 | 222 | 224 | 231 | 166 | 232 | 216 | 224 | 176 | 274 | 271 | 174 | 314 | 249 | 256 | 253 | 207 | 255 | 274 |

Appendix B

Line of Sight LiDAR Analysis



Appendix C

HCS2000 Software Output

| TWO-WAY STOP CONTROL SUMMARY | | | | | | | |
|------------------------------------------------------------------------|------------------------|------------|-----------|----------------------------------|------------------------------|-----------|------|
| General Information | | | | Site Information | | | |
| Analyst | Adam Wilkerson | | | Intersection | Wildcat Creek & Scenic Drive | | |
| Agency/Co. | SMH Consultants | | | Jurisdiction | City of Manhattan | | |
| Date Performed | 6/18/2014 | | | Analysis Year | 2014 | | |
| Analysis Time Period | AM Peak Hour | | | | | | |
| Project Description 1405MN4018- Tegtmeier Winery PUD - 2014 (Existing) | | | | | | | |
| East/West Street: Wildcat Creek Road | | | | North/South Street: Scenic Drive | | | |
| Intersection Orientation: North-South | | | | Study Period (hrs): 0.25 | | | |
| Vehicle Volumes and Adjustments | | | | | | | |
| Major Street | Northbound | | | Southbound | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | |
| | L | T | R | L | T | R | |
| Volume (veh/h) | 3 | 476 | | | 475 | 4 | |
| Peak-Hour Factor, PHF | 0.90 | 0.90 | 1.00 | 1.00 | 0.90 | 0.90 | |
| Hourly Flow Rate, HFR (veh/h) | 3 | 528 | 0 | 0 | 527 | 4 | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | |
| Median Type | Two Way Left Turn Lane | | | | | | |
| RT Channelized | | | 0 | | | | 0 |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 | |
| Configuration | LT | | | | | | TR |
| Upstream Signal | | 0 | | | 0 | | |
| Minor Street | Eastbound | | | Westbound | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | |
| | L | T | R | L | T | R | |
| Volume (veh/h) | 14 | 0 | 9 | | | | |
| Peak-Hour Factor, PHF | 0.90 | 0.90 | 0.90 | 1.00 | 1.00 | 1.00 | |
| Hourly Flow Rate, HFR (veh/h) | 15 | 0 | 10 | 0 | 0 | 0 | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | |
| Percent Grade (%) | | 0 | | | 0 | | |
| Flared Approach | | N | | | N | | |
| Storage | | 0 | | | 0 | | |
| RT Channelized | | | 0 | | | | 0 |
| Lanes | 0 | 1 | 0 | 0 | 0 | 0 | |
| Configuration | | LTR | | | | | |
| Delay, Queue Length, and Level of Service | | | | | | | |
| Approach | Northbound | Southbound | Westbound | | | Eastbound | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 |
| Lane Configuration | LT | | | | | | LTR |
| v (veh/h) | 3 | | | | | | 25 |
| C (m) (veh/h) | 1047 | | | | | | 438 |
| v/c | 0.00 | | | | | | 0.06 |
| 95% queue length | 0.01 | | | | | | 0.18 |
| Control Delay (s/veh) | 8.4 | | | | | | 13.7 |
| LOS | A | | | | | B | |
| Approach Delay (s/veh) | -- | -- | | | | 13.7 | |
| Approach LOS | -- | -- | | | | B | |

| TWO-WAY STOP CONTROL SUMMARY | | | | | | | |
|------------------------------------------------------------------------|------------------------|------------|-----------|----------------------------------|------------------------------|-----------|------|
| General Information | | | | Site Information | | | |
| Analyst | Adam Wilkerson | | | Intersection | Wildcat Creek & Scenic Drive | | |
| Agency/Co. | SMH Consultants | | | Jurisdiction | City of Manhattan | | |
| Date Performed | 6/19/2014 | | | Analysis Year | 2014 | | |
| Analysis Time Period | PM Peak Hour | | | | | | |
| Project Description 1405MN4018- Tegtmeier Winery PUD - 2014 (Existing) | | | | | | | |
| East/West Street: Wildcat Creek Road | | | | North/South Street: Scenic Drive | | | |
| Intersection Orientation: North-South | | | | Study Period (hrs): 0.25 | | | |
| Vehicle Volumes and Adjustments | | | | | | | |
| Major Street | Northbound | | | Southbound | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | |
| | L | T | R | L | T | R | |
| Volume (veh/h) | 8 | 471 | | | 467 | 12 | |
| Peak-Hour Factor, PHF | 0.90 | 0.90 | 1.00 | 1.00 | 0.90 | 0.90 | |
| Hourly Flow Rate, HFR (veh/h) | 8 | 523 | 0 | 0 | 518 | 13 | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | |
| Median Type | Two Way Left Turn Lane | | | | | | |
| RT Channelized | | | 0 | | | 0 | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 | |
| Configuration | LT | | | | | TR | |
| Upstream Signal | | 0 | | | 0 | | |
| Minor Street | Eastbound | | | Westbound | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | |
| | L | T | R | L | T | R | |
| Volume (veh/h) | 7 | 0 | 4 | | | | |
| Peak-Hour Factor, PHF | 0.90 | 0.90 | 0.90 | 1.00 | 1.00 | 1.00 | |
| Hourly Flow Rate, HFR (veh/h) | 7 | 0 | 4 | 0 | 0 | 0 | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | |
| Percent Grade (%) | | 0 | | | 0 | | |
| Flared Approach | | N | | | N | | |
| Storage | | 0 | | | 0 | | |
| RT Channelized | | | 0 | | | 0 | |
| Lanes | 0 | 1 | 0 | 0 | 0 | 0 | |
| Configuration | | LTR | | | | | |
| Delay, Queue Length, and Level of Service | | | | | | | |
| Approach | Northbound | Southbound | Westbound | | | Eastbound | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 |
| Lane Configuration | LT | | | | | | LTR |
| v (veh/h) | 8 | | | | | | 11 |
| C (m) (veh/h) | 1047 | | | | | | 431 |
| v/c | 0.01 | | | | | | 0.03 |
| 95% queue length | 0.02 | | | | | | 0.08 |
| Control Delay (s/veh) | 8.5 | | | | | | 13.6 |
| LOS | A | | | | | | B |
| Approach Delay (s/veh) | -- | -- | | | | | 13.6 |
| Approach LOS | -- | -- | | | | | B |

| TWO-WAY STOP CONTROL SUMMARY | | | | | | | |
|--------------------------------------------------|------------------------|------------|-----------|----------------------------------|------------------------------|-----------|------|
| General Information | | | | Site Information | | | |
| Analyst | Adam Wilkerson | | | Intersection | Wildcat Creek & Scenic Drive | | |
| Agency/Co. | SMH Consultants | | | Jurisdiction | City of Manhattan | | |
| Date Performed | 6/19/2014 | | | Analysis Year | 2024 | | |
| Analysis Time Period | AM Peak Hour | | | | | | |
| Project Description | | | | | | | |
| East/West Street: Wildcat Creek Road | | | | North/South Street: Scenic Drive | | | |
| Intersection Orientation: North-South | | | | Study Period (hrs): 0.25 | | | |
| Vehicle Volumes and Adjustments | | | | | | | |
| Major Street | Northbound | | | Southbound | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | |
| | L | T | R | L | T | R | |
| Volume (veh/h) | 3 | 558 | | | 557 | 5 | |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Hourly Flow Rate, HFR (veh/h) | 3 | 558 | 0 | 0 | 557 | 5 | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | |
| Median Type | Two Way Left Turn Lane | | | | | | |
| RT Channelized | | | 0 | | | | 0 |
| Lanes | 0 | 1 | 0 | 0 | 1 | | 0 |
| Configuration | LT | | | | | | TR |
| Upstream Signal | | 0 | | | 0 | | |
| Minor Street | Eastbound | | | Westbound | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | |
| | L | T | R | L | T | R | |
| Volume (veh/h) | 15 | 0 | 10 | | | | |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Hourly Flow Rate, HFR (veh/h) | 15 | 0 | 10 | 0 | 0 | 0 | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | |
| Percent Grade (%) | | 0 | | | 0 | | |
| Flared Approach | | N | | | N | | |
| Storage | | 0 | | | 0 | | |
| RT Channelized | | | 0 | | | | 0 |
| Lanes | 0 | 1 | 0 | 0 | 0 | | 0 |
| Configuration | | LTR | | | | | |
| Delay, Queue Length, and Level of Service | | | | | | | |
| Approach | Northbound | Southbound | Westbound | | | Eastbound | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 |
| Lane Configuration | LT | | | | | | LTR |
| v (veh/h) | 3 | | | | | | 25 |
| C (m) (veh/h) | 1019 | | | | | | 418 |
| v/c | 0.00 | | | | | | 0.06 |
| 95% queue length | 0.01 | | | | | | 0.19 |
| Control Delay (s/veh) | 8.5 | | | | | | 14.2 |
| LOS | A | | | | | | B |
| Approach Delay (s/veh) | -- | -- | | | | | 14.2 |
| Approach LOS | -- | -- | | | | | B |

| TWO-WAY STOP CONTROL SUMMARY | | | | | | | |
|----------------------------------------------------------------------------|------------------------|------------|-----------|----------------------------------|------------------------------|-----------|------|
| General Information | | | | Site Information | | | |
| Analyst | Adam Wilkerson | | | Intersection | Wildcat Creek & Scenic Drive | | |
| Agency/Co. | SMH Consultants | | | Jurisdiction | City of Manhattan | | |
| Date Performed | 6/19/2014 | | | Analysis Year | 2024 | | |
| Analysis Time Period | PM Peak Hour | | | | | | |
| Project Description 1405MN4018- Tegtmeier Winery PUD - 2024 without Winery | | | | | | | |
| East/West Street: Wildcat Creek Road | | | | North/South Street: Scenic Drive | | | |
| Intersection Orientation: North-South | | | | Study Period (hrs): 0.25 | | | |
| Vehicle Volumes and Adjustments | | | | | | | |
| Major Street | Northbound | | | Southbound | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | |
| | L | T | R | L | T | R | |
| Volume (veh/h) | 8 | 553 | | | 549 | 13 | |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Hourly Flow Rate, HFR (veh/h) | 8 | 553 | 0 | 0 | 549 | 13 | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | |
| Median Type | Two Way Left Turn Lane | | | | | | |
| RT Channelized | | | 0 | | | | 0 |
| Lanes | 0 | 1 | 0 | 0 | 1 | | 0 |
| Configuration | LT | | | | | | TR |
| Upstream Signal | | 0 | | | 0 | | |
| Minor Street | Eastbound | | | Westbound | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | |
| | L | T | R | L | T | R | |
| Volume (veh/h) | 7 | 0 | 5 | | | | |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Hourly Flow Rate, HFR (veh/h) | 7 | 0 | 5 | 0 | 0 | 0 | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | |
| Percent Grade (%) | | 0 | | | 0 | | |
| Flared Approach | | N | | | N | | |
| Storage | | 0 | | | 0 | | |
| RT Channelized | | | 0 | | | | 0 |
| Lanes | 0 | 1 | 0 | 0 | 0 | | 0 |
| Configuration | | LTR | | | | | |
| Delay, Queue Length, and Level of Service | | | | | | | |
| Approach | Northbound | Southbound | Westbound | | | Eastbound | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 |
| Lane Configuration | LT | | | | | | LTR |
| v (veh/h) | 8 | | | | | | 12 |
| C (m) (veh/h) | 1019 | | | | | | 420 |
| v/c | 0.01 | | | | | | 0.03 |
| 95% queue length | 0.02 | | | | | | 0.09 |
| Control Delay (s/veh) | 8.6 | | | | | | 13.8 |
| LOS | A | | | | | | B |
| Approach Delay (s/veh) | -- | -- | | | | | 13.8 |
| Approach LOS | -- | -- | | | | | B |

| TWO-WAY STOP CONTROL SUMMARY | | | | | | | |
|-------------------------------------------------------------------------|------------------------|------------|-----------|----------------------------------|------------------------------|-----------|------|
| General Information | | | | Site Information | | | |
| Analyst | Adam Wilkerson | | | Intersection | Wildcat Creek & Scenic Drive | | |
| Agency/Co. | SMH Consultants | | | Jurisdiction | City of Manhattan | | |
| Date Performed | 6/19/2014 | | | Analysis Year | 2024 | | |
| Analysis Time Period | AM Peak Hour | | | | | | |
| Project Description 1405MN4018- Tegtmeier Winery PUD - 2024 with Winery | | | | | | | |
| East/West Street: Wildcat Creek Road | | | | North/South Street: Scenic Drive | | | |
| Intersection Orientation: North-South | | | | Study Period (hrs): 0.25 | | | |
| Vehicle Volumes and Adjustments | | | | | | | |
| Major Street | Northbound | | | Southbound | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | |
| | L | T | R | L | T | R | |
| Volume (veh/h) | 4 | 558 | | | 556 | 5 | |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Hourly Flow Rate, HFR (veh/h) | 4 | 558 | 0 | 0 | 556 | 5 | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | |
| Median Type | Two Way Left Turn Lane | | | | | | |
| RT Channelized | | | 0 | | | | 0 |
| Lanes | 0 | 1 | 0 | 0 | 1 | | 0 |
| Configuration | LT | | | | | | TR |
| Upstream Signal | | 0 | | | 0 | | |
| Minor Street | Eastbound | | | Westbound | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | |
| | L | T | R | L | T | R | |
| Volume (veh/h) | 17 | 0 | 11 | | | | |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Hourly Flow Rate, HFR (veh/h) | 17 | 0 | 11 | 0 | 0 | 0 | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | |
| Percent Grade (%) | | 0 | | | 0 | | |
| Flared Approach | | N | | | N | | |
| Storage | | 0 | | | 0 | | |
| RT Channelized | | | 0 | | | | 0 |
| Lanes | 0 | 1 | 0 | 0 | 0 | | 0 |
| Configuration | | LTR | | | | | |
| Delay, Queue Length, and Level of Service | | | | | | | |
| Approach | Northbound | Southbound | Westbound | | | Eastbound | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 |
| Lane Configuration | LT | | | | | | LTR |
| v (veh/h) | 4 | | | | | | 28 |
| C (m) (veh/h) | 1020 | | | | | | 417 |
| v/c | 0.00 | | | | | | 0.07 |
| 95% queue length | 0.01 | | | | | | 0.21 |
| Control Delay (s/veh) | 8.5 | | | | | | 14.3 |
| LOS | A | | | | | | B |
| Approach Delay (s/veh) | -- | -- | | | | | 14.3 |
| Approach LOS | -- | -- | | | | | B |

| TWO-WAY STOP CONTROL SUMMARY | | | | | | | |
|-------------------------------------------------------------------------|------------------------|------------|-----------|----------------------------------|------------------------------|-----------|------|
| General Information | | | | Site Information | | | |
| Analyst | Adam Wilkerson | | | Intersection | Wildcat Creek & Scenic Drive | | |
| Agency/Co. | SMH Consultants | | | Jurisdiction | City of Manhattan | | |
| Date Performed | 6/19/2014 | | | Analysis Year | 2024 | | |
| Analysis Time Period | PM Peak Hour | | | | | | |
| Project Description 1405MN4018- Tegtmeier Winery PUD - 2024 with Winery | | | | | | | |
| East/West Street: Wildcat Creek Road | | | | North/South Street: Scenic Drive | | | |
| Intersection Orientation: North-South | | | | Study Period (hrs): 0.25 | | | |
| Vehicle Volumes and Adjustments | | | | | | | |
| Major Street | Northbound | | | Southbound | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | |
| | L | T | R | L | T | R | |
| Volume (veh/h) | 10 | 552 | | | 547 | 14 | |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Hourly Flow Rate, HFR (veh/h) | 10 | 552 | 0 | 0 | 547 | 14 | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | |
| Median Type | Two Way Left Turn Lane | | | | | | |
| RT Channelized | | | 0 | | | | 0 |
| Lanes | 0 | 1 | 0 | 0 | 1 | | 0 |
| Configuration | LT | | | | | | TR |
| Upstream Signal | | 0 | | | 0 | | |
| Minor Street | Eastbound | | | Westbound | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | |
| | L | T | R | L | T | R | |
| Volume (veh/h) | 8 | 0 | 5 | | | | |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Hourly Flow Rate, HFR (veh/h) | 8 | 0 | 5 | 0 | 0 | 0 | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | |
| Percent Grade (%) | 0 | | | 0 | | | |
| Flared Approach | | N | | | N | | |
| Storage | | 0 | | | 0 | | |
| RT Channelized | | | 0 | | | | 0 |
| Lanes | 0 | 1 | 0 | 0 | 0 | 0 | |
| Configuration | | LTR | | | | | |
| Delay, Queue Length, and Level of Service | | | | | | | |
| Approach | Northbound | Southbound | Westbound | | | Eastbound | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 |
| Lane Configuration | LT | | | | | | LTR |
| v (veh/h) | 10 | | | | | | 13 |
| C (m) (veh/h) | 1020 | | | | | | 415 |
| v/c | 0.01 | | | | | | 0.03 |
| 95% queue length | 0.03 | | | | | | 0.10 |
| Control Delay (s/veh) | 8.6 | | | | | | 14.0 |
| LOS | A | | | | | | B |
| Approach Delay (s/veh) | -- | -- | | | | | 14.0 |
| Approach LOS | -- | -- | | | | | B |

TEGTMEIER WINERY PUD

RILEY COUNTY, KANSAS

DRAINAGE ANALYSIS

July 3, 2014

Revised: August 27, 2014

Completed by:
Jeffrey D. Hancock, P.E.
SMH Consultants

I. INTRODUCTION

The following drainage analysis is to determine the effect of the proposed Tegtmeier Winery and Event Center on drainage basins of existing property along Wildcat Creek Road. The study was done in accordance with Riley County guidelines as part of the PUD review process.

A. Existing Conditions

The proposed Tegtmeier Winery and Event Center is located on 157 acres approximately 1.8 miles west along Wildcat Creek Road from Scenic Drive. The site rests upon along a ridge and consists of 6 partial watersheds. Watershed 1 (the northwest watershed), watershed 2 (the northeast watershed), watershed 3 (the southeast watershed), watershed 4 (central southeast watershed) and watershed 6 (the southwest watershed) drain offsite. Watersheds 1, 2 and 3 drain directly into Wildcat Creek. Watershed 4 drains to a stone culvert, 4ft by 2.5ft, underneath Wildcat Creek Road. Watershed 5 drains to an onsite retention pond. Watershed 6 drains to a culvert underneath Wildcat Creek Road. The land is currently zoned general agriculture and used as pasture.

B. Study Methodology

AutoCAD Civil 3D Hydraflow Hydrograph Extention was used to analyze the existing and future drainage characteristics of the area. Due to the overall size of the site and all watersheds being less than 300 acres, the rational method ($Q=ciA$) was used in all analysis to calculate peak runoff rates and total volume of runoff. According to the *Civil Engineering Reference Manual*, the runoff coefficient (c) for pasture and farmland is 0.05-0.3. For conservative purposes, 0.25 was utilized for all existing pasture and future winery farmland. The runoff coefficient (c) for concrete and shingled roofs is conservatively estimated at 0.9.

LiDAR data (includes contours) from the City of Manhattan was used to map watersheds. Upon mapping of the watersheds, AutoCAD 3D Civil was used to measure the drainage area of each watershed that was on the purchased property of Tegtmeier Winery and Event Center. The maximum flow length and watercourse slope were calculated within AutoCAD 3D Civil using the LiDAR data. The maximum flow length is the longest possible path a drop of water could follow to reach the drainage point. Watercourse slope is the average slope in which this drop of water will experience. The FAA (U.S. Federal Aviation Administration) equation was used to calculate the time of concentration for each watershed.

To model the retention pond within Hydraflow Hydrograph Extention, the Conic method was used to calculate the maximum storage capacity. For conservative estimates regarding runoff, the pond was modeled as filled to the brink of drainage. The retention pond has a 12in diameter steel outflow pipe (Manning's n-Value of 0.013) with an opening at elevation 1148. On the northwest edge of the pond is a Cipoletti weir approximately 21 feet wide at an elevation of 1152.

The required hydraulic storage for the 10 and 100 year storm was measured for watershed 5. Watershed 5 drains into the current retention pond and was therefore compared to the pond's outflow and change in water level elevation. The peak runoff rates Q (cubic feet per second) were calculated for watershed 4 and compared to the capacity of the culvert draining watershed 4

beneath Wildcat Creek Road. Storm data was based upon averages collected across Riley County.

Watersheds 1, 2, 3 and 6 will continue to operate as agriculture with a runoff coefficient of .25. Watershed 1, 2 and 3 watersheds have sheet flows leading directly (with no limited condition) into Wildcat Creek. The constant runoff coefficient of watershed 6 results in no change in runoff. With the peak runoff rate remaining constant, watersheds 1, 2, 3 and 6 were not analyzed.

II. EXISTING CONDITIONS

A. WATERSHED 4

Watershed 4 contains 20.0 acres of mainly pasture with trees located in the draw. For conservative estimates, watershed 4 was assumed to be entirely open pasture land in both existing and future conditions. Watershed 4 discharges under Wildcat Creek Road through a culvert measuring 4ft by 2.5ft.

The longest flow path is 1,853ft and has a time of concentration of 36.85 minutes. The modeled peak discharges (Q) are 17.02cfs and 24.88cfs for the 10 and 100-year storms respectively.

B. WATERSHED 5

Watershed 5 is 47.7 acre, currently mostly pasture with a large draw filled with trees. For conservative estimates, watershed 5 was assumed to be entirely open pasture land in both existing and future conditions.

The longest flow path is 2,353ft and has a time of concentration of 47.48 minutes. The modeled peak discharges (Q) are 35.27cfs and 51.83cfs for the 10 and 100-year storms respectively. The modeled hydraulic volume is 99,470 cuft and 146,149 cuft for the 10 and 100-year storms respectively.

C. RUNOFF POND

The runoff pond located within watershed 5 has a 12in culvert at an elevation of 1148ft and a 21ft wide Cipoletti weir at an elevation of 1152ft. Over the top of the culvert is an atrium to prevent clogging of pipe. The pond appears to be rarely full since trees are growing from elevations lower than 1148ft but for analysis purposes, the pond was assumed full. The pond has a storage capacity of 203,746 cuft before utilizing the weir and a maximum storage capacity of 275,806 cuft and maximum outflow of 77.95cfs including the weir.

The modeled maximum discharge rate for a 10-year storm is 4.60cfs and 5.62cfs for a 100-year storm. During a 10 and 100-year storm, the peak water elevation reaches 1149.98ft and 1150.71ft respectively; neither storm event utilizes the weir.

Program output detailing existing results are in Appendix A.

III. PROPOSED CONDITONS PLUS TEGTMEIER WINERY AND EVENT CENTER

A. WATERSHED 4

The area of watershed 4 did not change; however, watershed 4 will have the access road to the Tegtmeier Winery and Event Center and a small part of the parking lot after completion of the site. The existing barn, modular home and other associated existing site improvements in watershed 4 will be removed offsetting the additional runoff created by gravel that will be placed in watershed 4. SMH assumed 0.21 acre of the watershed will be gravel, accounting for the road and lot, and 19.75 acres will remain agriculture. This leads to a combined runoff coefficient of 0.25, which is equal to the existing condition based on the removal of the existing site improvements.

The longest flow path is 1,853ft and has a time of concentration of 36.41 minutes. The modeled peak discharges (Q) are 17.02cfs and 24.88cfs for the 10 and 100-year storms respectively.

| | 10-year Storm Peak Discharge (cfs) | 100-year Storm Peak Discharge (cfs) |
|---------------------|------------------------------------|-------------------------------------|
| Existing Conditions | 17.02 | 24.88 |
| Proposed Conditions | 17.02 | 24.88 |

Table 1: Watershed 4 (Existing and Proposed) Peak Discharge Summary

Program output detailing these results are in Appendix A.

B. WATERSHED 5

The overall area will not be changed but contained within watershed 5 will be the majority of the parking lot, secondary outdoor wedding space, and the event center. These areas were assumed to cover 1 acre of the watershed with concrete, thereby changing the runoff coefficient to .26.

The longest flow path is 2,353ft and has a time of concentration of 46.92 minutes. The modeled peak discharges (Q) are 36.68cfs and 53.90cfs for the 10 and 100-year storms respectively. The modeled hydraulic volume is 103,448 cuft and 151,995 cuft for the 10 and 100-year storms respectively.

| | 10-year Storm Peak Discharge (cfs) | 100-year Storm Peak Discharge (cfs) |
|---------------------|------------------------------------|-------------------------------------|
| Existing Conditions | 35.27 | 51.83 |
| Proposed Conditions | 36.68 | 53.90 |

Table 2: Watershed 5 (Existing and Proposed) Peak Discharge Summary

Program output detailing these results are in Appendix A.

D. RUNOFF POND

Under the proposed conditions, the modeled maximum discharge rate for a 10-year storm is 4.70cfs and 5.74cfs for a 100-year storm. During a 10 and 100-year storm, the peak water

elevation reaches 1150.04ft and 1150.81ft respectively; in which neither storm event utilizes the weir. The 10-year storm has a maximum storage in the pond of 89,943 cuft and the 100-year storm has a maximum storage in the pond of 134,200 cuft.

| | 10 year storm | | 100 year storm | |
|---------------------|-------------------------|----------------------|-------------------------|----------------------|
| | Maximum Discharge (cfs) | Peak Water Elevation | Maximum Discharge (cfs) | Peak Water Elevation |
| Existing Conditions | 4.60 | 1149.98 | 5.62 | 1150.71 |
| Proposed Conditions | 4.70 | 1150.04 | 5.74 | 1150.81 |

Table 3: Watershed 5 (Existing and Proposed) Peak Discharge Summary

Program output detailing these results are in Appendix A.

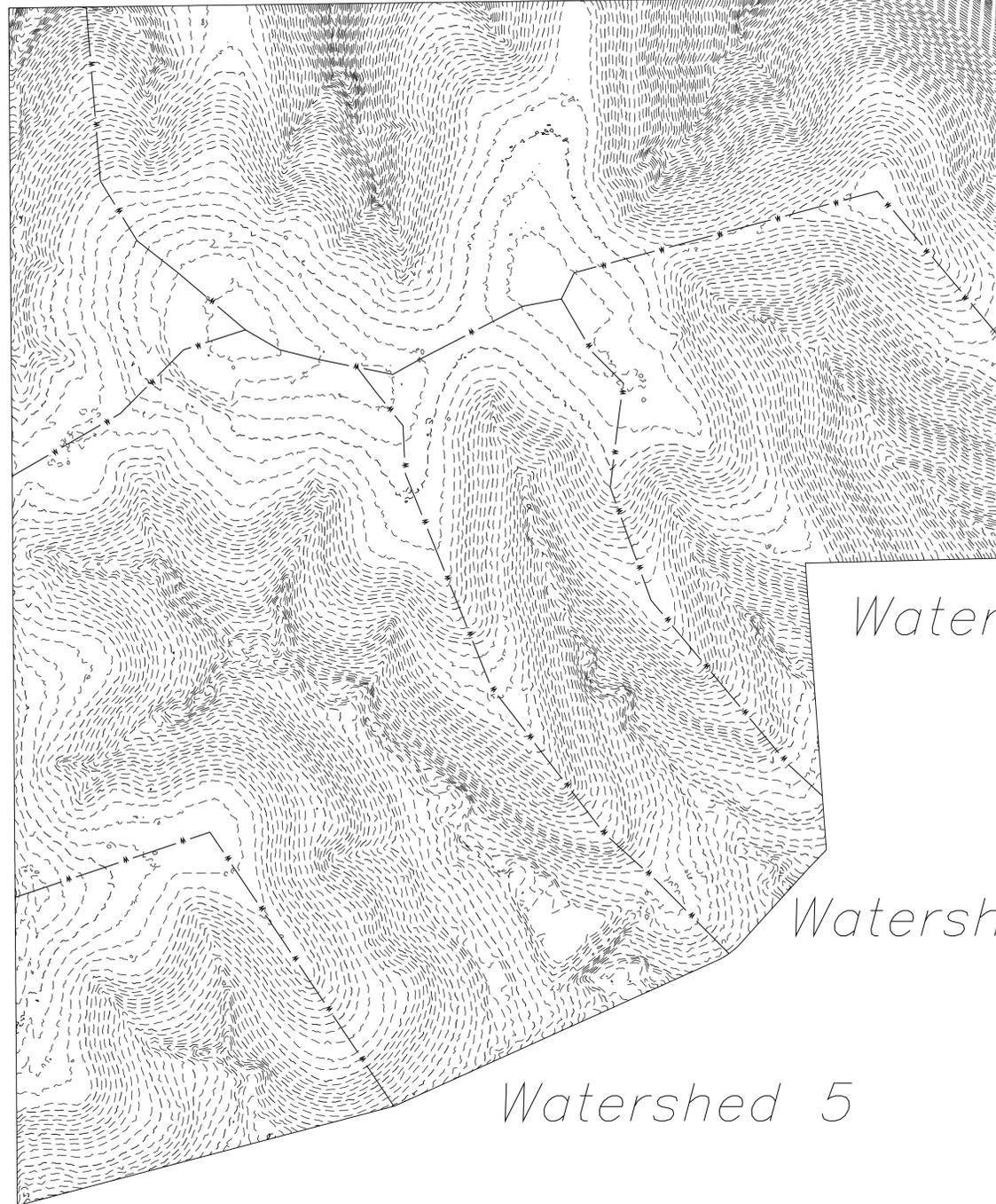
IV. CONCLUSIONS

The impact of the proposed plan for Tegtmeier Winery and Event Center on watershed 1, 2, 3 and 6 has no measurable impact since the land will continue to be used for agricultural purposes with a consistent runoff coefficient. The impact of the proposed plan on watershed 4 is offset by the removal of existing site improvements and therefore the comparative runoff coefficients between the existing and future condition are also consistent.

The majority of the impact on drainage caused by the Tegtmeier Winery and Event Center will occur within watershed 5. Due to the retention pond in watershed 5, the impact of the proposed Tegtmeier Winery and Event Center to offsite drainage is negligible and can be offset with a small modification to the size of the discharge pipe from the pond. Even during a 100-year storm with the proposed plans, the discharge from the pond only increases 0.12cfs (a 2.1% increase) in the pond's existing configuration. After the addition of the parking lot, event center, and secondary wedding site, the maximum storage before utilizing the weir is not met during any of the analyzed storms. In fact, during the 100-year storm, 70,000 cuft of water storage remains before the weir would be utilized. The slightly increased discharge will be accounted for by leaving the heavy vegetation and trees around the discharge point, thereby slowing the runoff to near pre-developed rates.

Watershed 1

Watershed 2

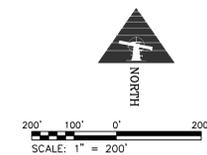


Watershed 3

Watershed 4

Watershed 5

Watershed 6



| | |
|-------------------------------------------------------|----------|
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| Hydrograph No. 2, Rational, Watershed 4 Proposed..... | 9 |
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| Hydrograph No. 4, Rational, Watershed 5 Proposed..... | 11 |

Hydrograph Return Period Recap

Hydranow Hydrographs Extension for AutoCAD® Civil 3D® 2015 by Autodesk, Inc. v10.4

| Hyd. No. | Hydrograph type (origin) | Inflow hyd(s) | Peak Outflow (cfs) | | | | | | | | Hydrograph Description |
|----------|--------------------------|---------------|--------------------|-------|-------|-------|-------|-------|-------|--------|------------------------|
| | | | 1-yr | 2-yr | 3-yr | 5-yr | 10-yr | 25-yr | 50-yr | 100-yr | |
| 1 | Rational | ----- | ----- | ----- | ----- | ----- | 17.02 | ----- | ----- | 24.88 | Watershed 4 Existing |
| 2 | Rational | ----- | ----- | ----- | ----- | ----- | 17.02 | ----- | ----- | 24.88 | Watershed 4 Proposed |
| 3 | Rational | ----- | ----- | ----- | ----- | ----- | 35.27 | ----- | ----- | 51.83 | Watershed 5 Existing |
| 4 | Rational | ----- | ----- | ----- | ----- | ----- | 36.68 | ----- | ----- | 53.90 | Watershed 5 Proposed |

Hydrograph Summary Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2015 by Autodesk, Inc. v10.4

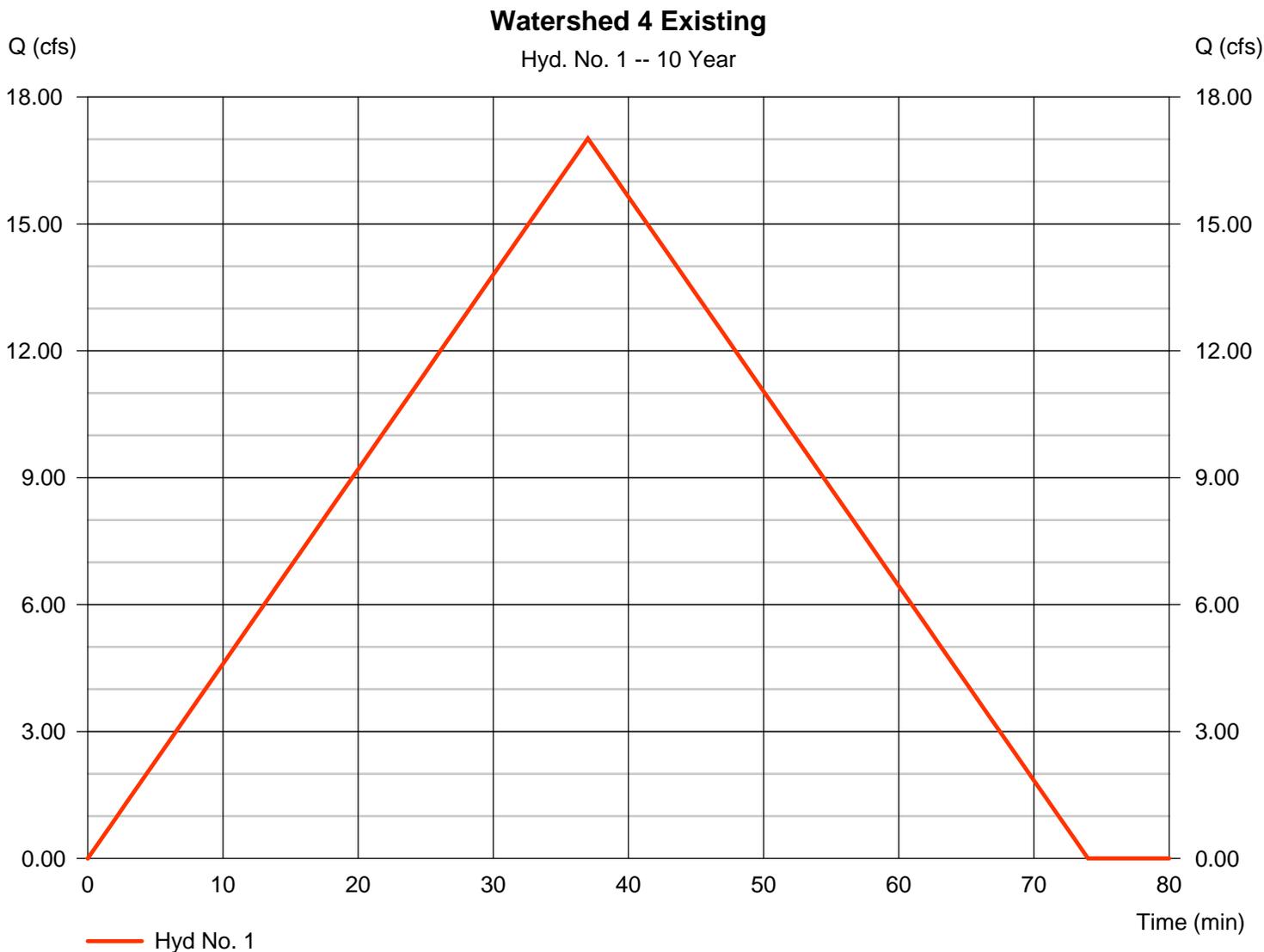
| Hyd. No. | Hydrograph type (origin) | Peak flow (cfs) | Time interval (min) | Time to Peak (min) | Hyd. volume (cuft) | Inflow hyd(s) | Maximum elevation (ft) | Total strge used (cuft) | Hydrograph Description | |
|----------------------|--------------------------|-----------------|---------------------|--------------------|------------------------|---------------|------------------------|---------------------------|------------------------|--|
| 1 | Rational | 17.02 | 1 | 37 | 37,785 | ----- | ----- | ----- | Watershed 4 Existing | |
| 2 | Rational | 17.02 | 1 | 37 | 37,785 | ----- | ----- | ----- | Watershed 4 Proposed | |
| 3 | Rational | 35.27 | 1 | 47 | 99,470 | ----- | ----- | ----- | Watershed 5 Existing | |
| 4 | Rational | 36.68 | 1 | 47 | 103,448 | ----- | ----- | ----- | Watershed 5 Proposed | |
| Tegtmeier Winery.gpw | | | | | Return Period: 10 Year | | | Wednesday, 08 / 27 / 2014 | | |

Hydrograph Report

Hyd. No. 1

Watershed 4 Existing

| | | | |
|-----------------|--------------------|-------------------|---------------|
| Hydrograph type | = Rational | Peak discharge | = 17.02 cfs |
| Storm frequency | = 10 yrs | Time to peak | = 37 min |
| Time interval | = 1 min | Hyd. volume | = 37,785 cuft |
| Drainage area | = 20.000 ac | Runoff coeff. | = 0.25 |
| Intensity | = 3.404 in/hr | Tc by FAA | = 37.00 min |
| IDF Curve | = Riley County.IDF | Asc/Rec limb fact | = 1/1 |



Hydrograph Report

Hyd. No. 2

Watershed 4 Proposed

| | | | |
|-----------------|--------------------|-------------------|---------------|
| Hydrograph type | = Rational | Peak discharge | = 17.02 cfs |
| Storm frequency | = 10 yrs | Time to peak | = 37 min |
| Time interval | = 1 min | Hyd. volume | = 37,785 cuft |
| Drainage area | = 20.000 ac | Runoff coeff. | = 0.25* |
| Intensity | = 3.404 in/hr | Tc by FAA | = 37.00 min |
| IDF Curve | = Riley County.IDF | Asc/Rec limb fact | = 1/1 |

* Composite (Area/C) = [(19.750 x 0.25) + (0.250 x 0.90)] / 20.000



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2015 by Autodesk, Inc. v10.4

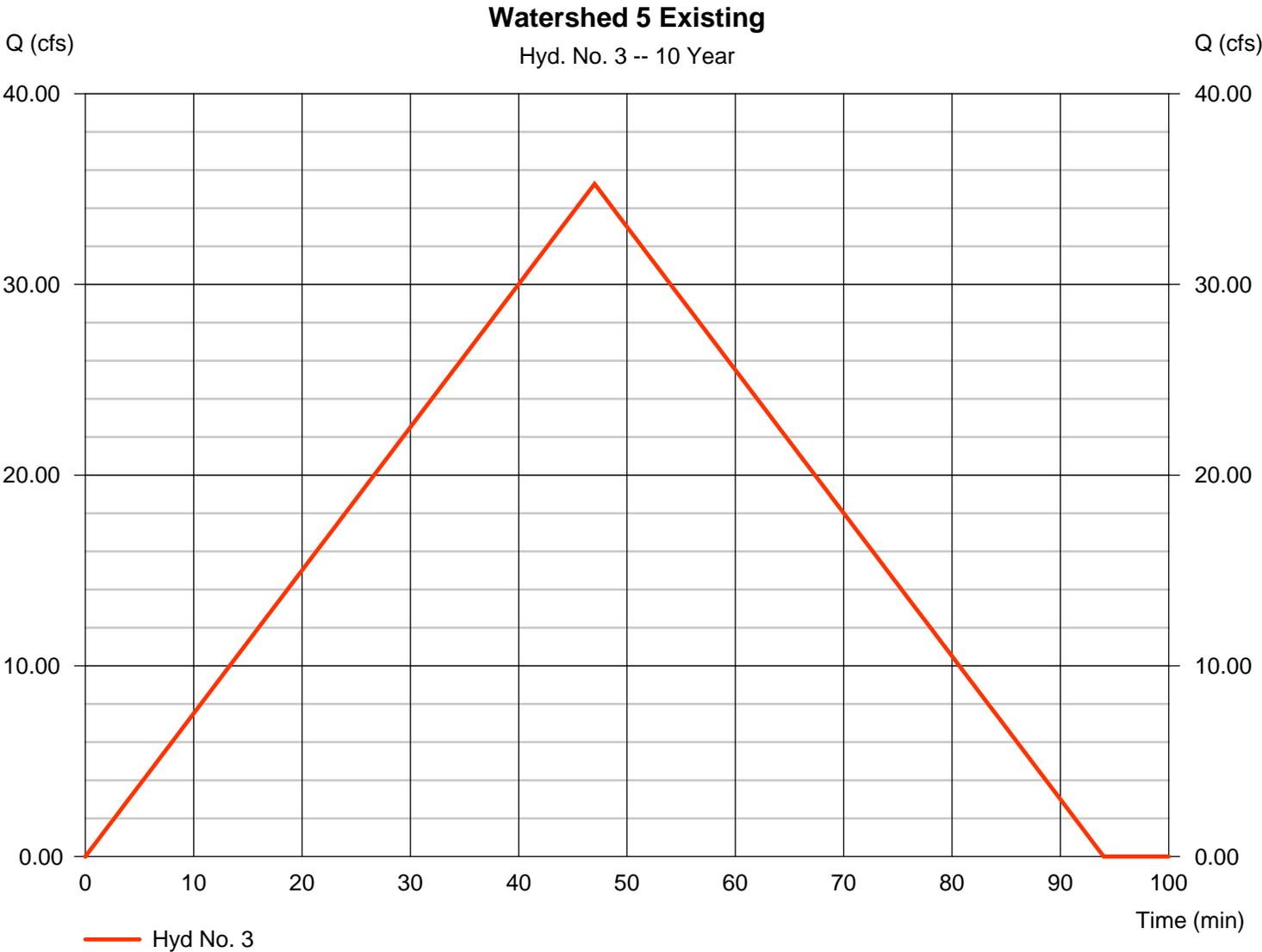
Wednesday, 08 / 27 / 2014

Hyd. No. 3

Watershed 5 Existing

| | | | |
|-----------------|--------------------|-------------------|---------------|
| Hydrograph type | = Rational | Peak discharge | = 35.27 cfs |
| Storm frequency | = 10 yrs | Time to peak | = 47 min |
| Time interval | = 1 min | Hyd. volume | = 99,470 cuft |
| Drainage area | = 47.700 ac | Runoff coeff. | = 0.25* |
| Intensity | = 2.958 in/hr | Tc by FAA | = 47.00 min |
| IDF Curve | = Riley County.IDF | Asc/Rec limb fact | = 1/1 |

* Composite (Area/C) = [(155.000 x 0.25) + (2.000 x 0.90)] / 47.700



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2015 by Autodesk, Inc. v10.4

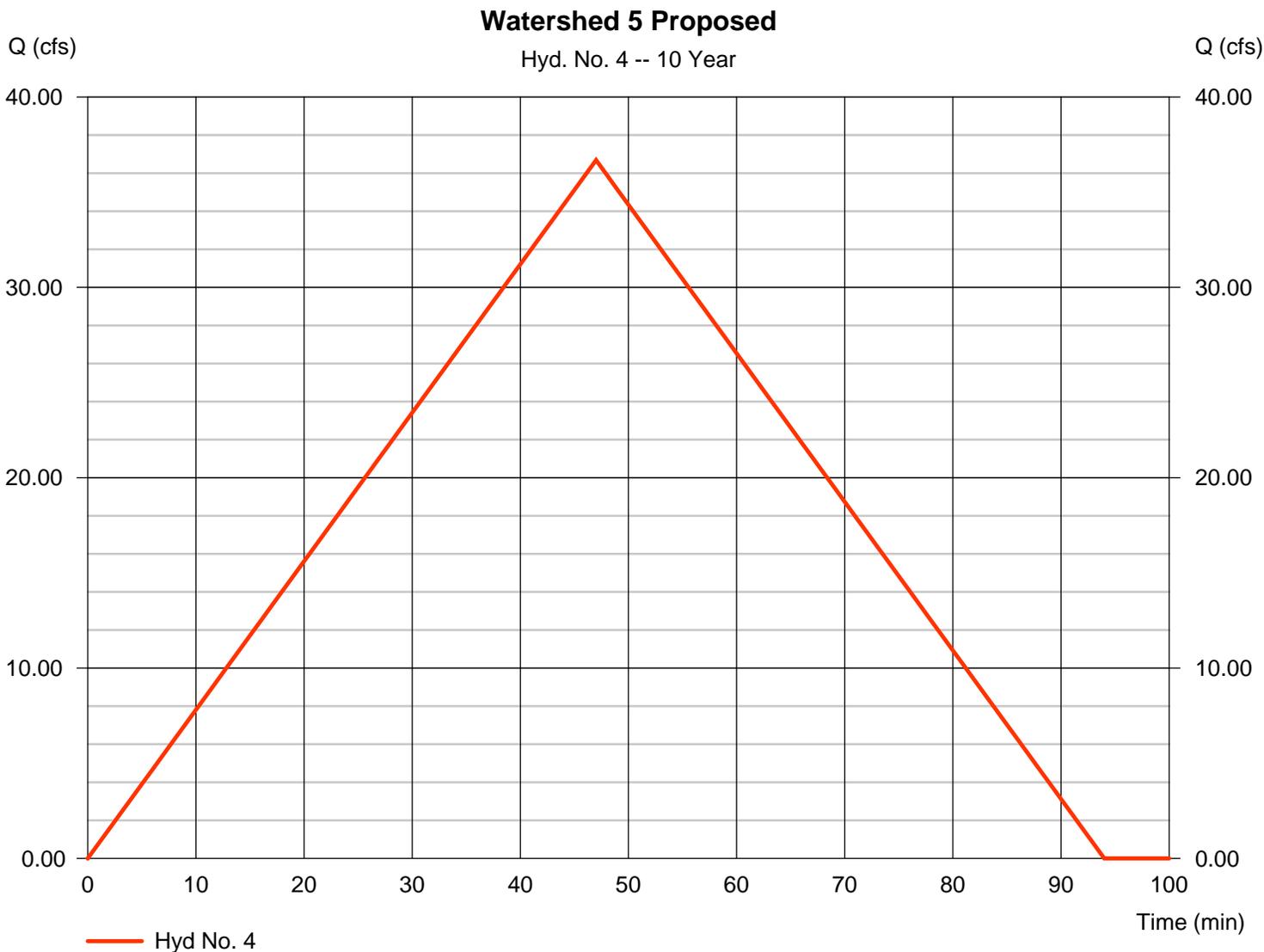
Wednesday, 08 / 27 / 2014

Hyd. No. 4

Watershed 5 Proposed

| | | | |
|-----------------|--------------------|-------------------|----------------|
| Hydrograph type | = Rational | Peak discharge | = 36.68 cfs |
| Storm frequency | = 10 yrs | Time to peak | = 47 min |
| Time interval | = 1 min | Hyd. volume | = 103,448 cuft |
| Drainage area | = 47.700 ac | Runoff coeff. | = 0.26* |
| Intensity | = 2.958 in/hr | Tc by FAA | = 47.00 min |
| IDF Curve | = Riley County.IDF | Asc/Rec limb fact | = 1/1 |

* Composite (Area/C) = [(46.700 x 0.25) + (1.000 x 0.90)] / 47.700



Hydrograph Summary Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2015 by Autodesk, Inc. v10.4

| Hyd. No. | Hydrograph type (origin) | Peak flow (cfs) | Time interval (min) | Time to Peak (min) | Hyd. volume (cuft) | Inflow hyd(s) | Maximum elevation (ft) | Total strge used (cuft) | Hydrograph Description |
|----------------------|--------------------------|-----------------|---------------------|--------------------|-------------------------|---------------|---------------------------|-------------------------|------------------------|
| 1 | Rational | 24.88 | 1 | 37 | 55,243 | ----- | ----- | ----- | Watershed 4 Existing |
| 2 | Rational | 24.88 | 1 | 37 | 55,243 | ----- | ----- | ----- | Watershed 4 Proposed |
| 3 | Rational | 51.83 | 1 | 47 | 146,149 | ----- | ----- | ----- | Watershed 5 Existing |
| 4 | Rational | 53.90 | 1 | 47 | 151,995 | ----- | ----- | ----- | Watershed 5 Proposed |
| Tegtmeier Winery.gpw | | | | | Return Period: 100 Year | | Wednesday, 08 / 27 / 2014 | | |

Hydrograph Report

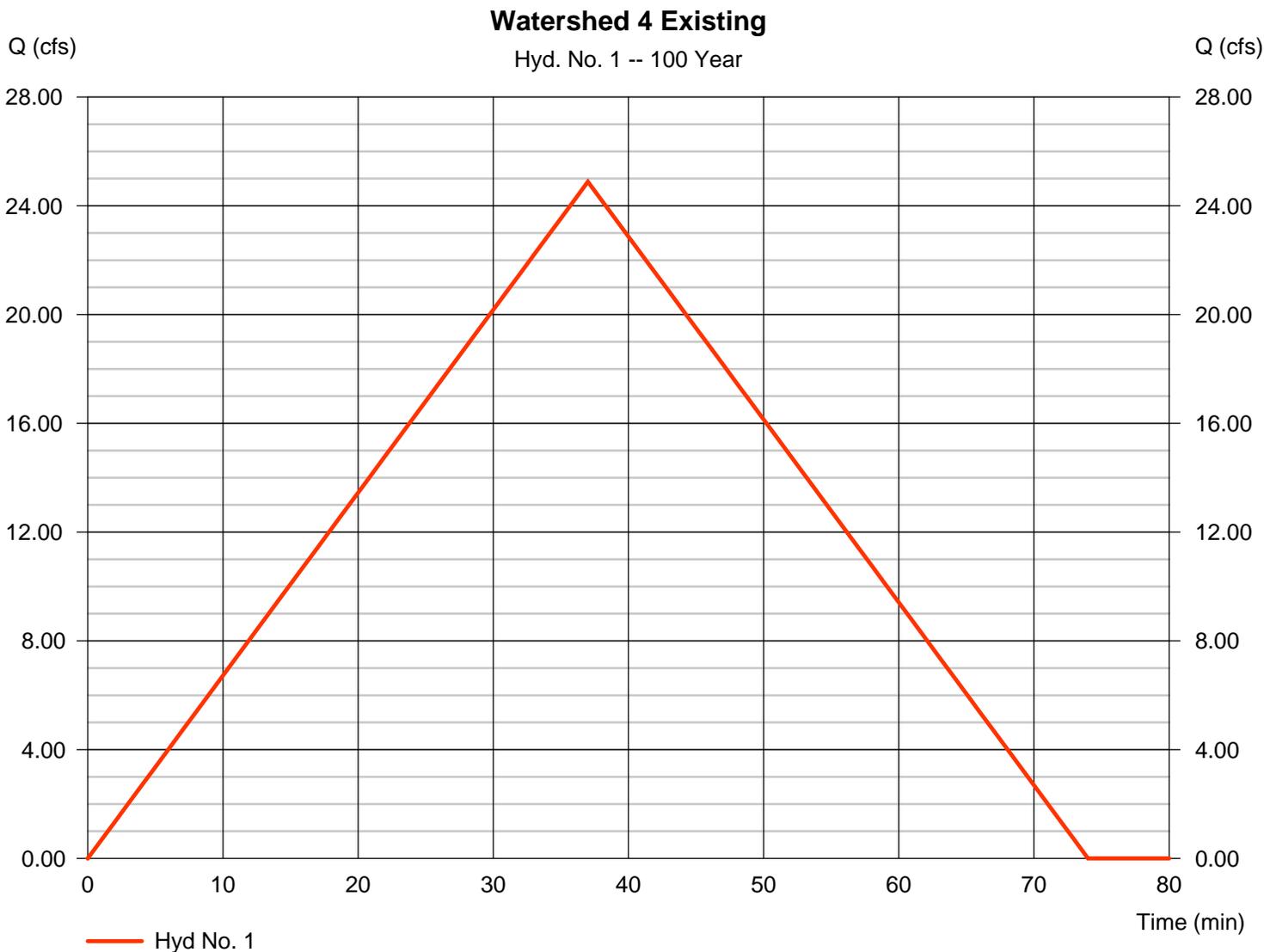
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2015 by Autodesk, Inc. v10.4

Wednesday, 08 / 27 / 2014

Hyd. No. 1

Watershed 4 Existing

| | | | |
|-----------------|--------------------|-------------------|---------------|
| Hydrograph type | = Rational | Peak discharge | = 24.88 cfs |
| Storm frequency | = 100 yrs | Time to peak | = 37 min |
| Time interval | = 1 min | Hyd. volume | = 55,243 cuft |
| Drainage area | = 20.000 ac | Runoff coeff. | = 0.25 |
| Intensity | = 4.977 in/hr | Tc by FAA | = 37.00 min |
| IDF Curve | = Riley County.IDF | Asc/Rec limb fact | = 1/1 |



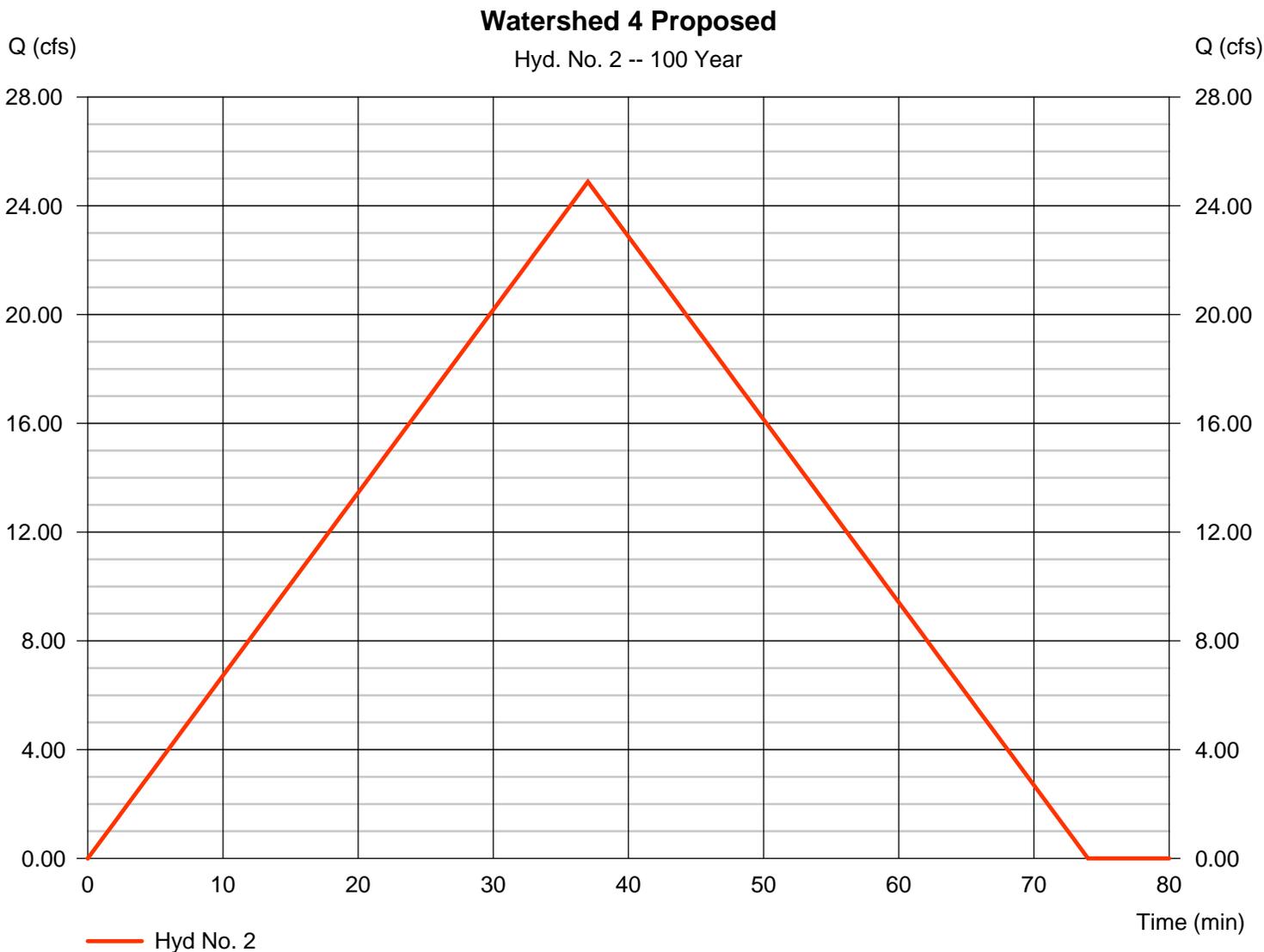
Hydrograph Report

Hyd. No. 2

Watershed 4 Proposed

| | | | |
|-----------------|--------------------|-------------------|---------------|
| Hydrograph type | = Rational | Peak discharge | = 24.88 cfs |
| Storm frequency | = 100 yrs | Time to peak | = 37 min |
| Time interval | = 1 min | Hyd. volume | = 55,243 cuft |
| Drainage area | = 20.000 ac | Runoff coeff. | = 0.25* |
| Intensity | = 4.977 in/hr | Tc by FAA | = 37.00 min |
| IDF Curve | = Riley County.IDF | Asc/Rec limb fact | = 1/1 |

* Composite (Area/C) = [(19.750 x 0.25) + (0.250 x 0.90)] / 20.000



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2015 by Autodesk, Inc. v10.4

Wednesday, 08 / 27 / 2014

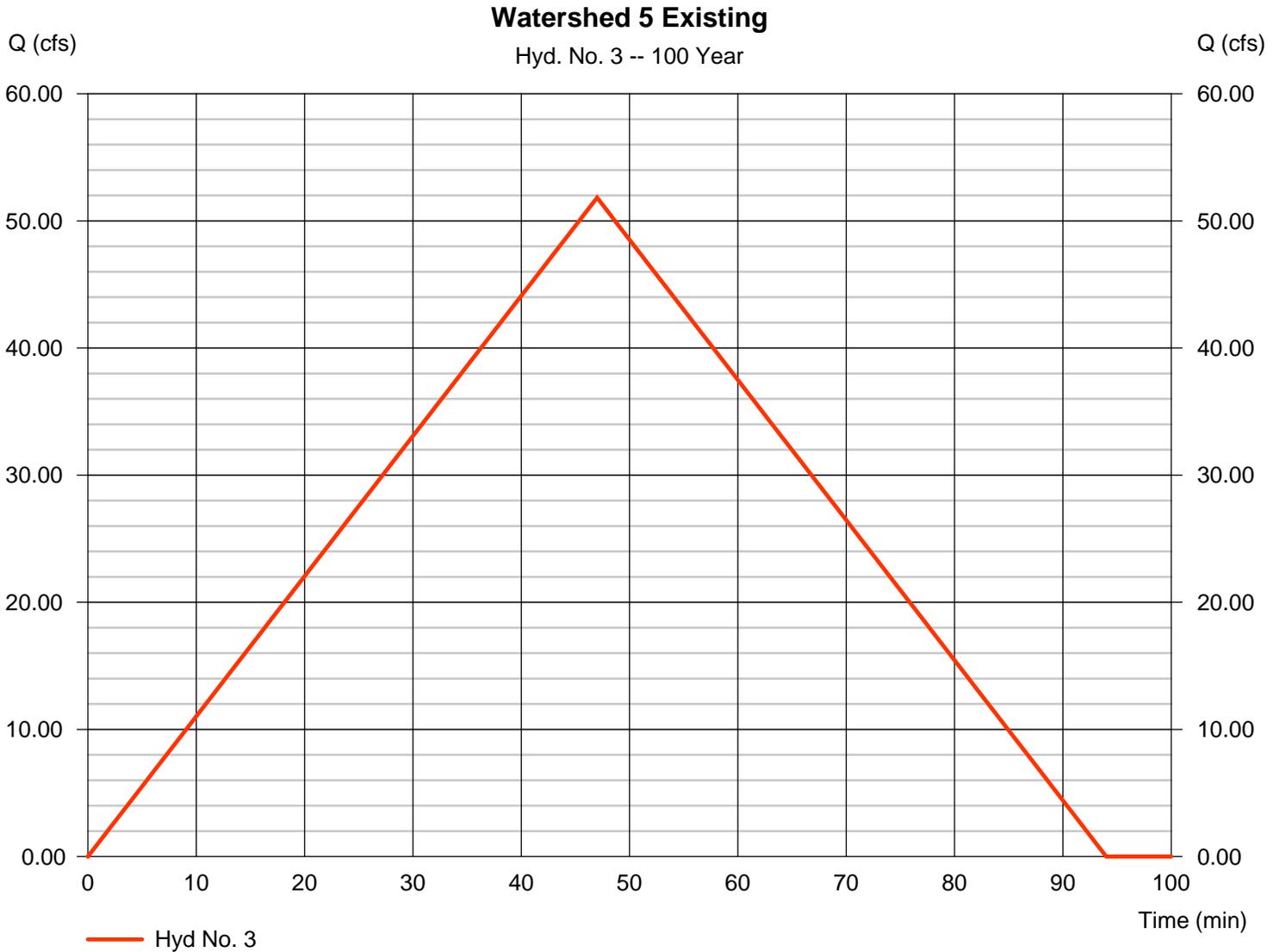
Hyd. No. 3

Watershed 5 Existing

Hydrograph type = Rational
 Storm frequency = 100 yrs
 Time interval = 1 min
 Drainage area = 47.700 ac
 Intensity = 4.346 in/hr
 IDF Curve = Riley County.IDF

Peak discharge = 51.83 cfs
 Time to peak = 47 min
 Hyd. volume = 146,149 cuft
 Runoff coeff. = 0.25*
 Tc by FAA = 47.00 min
 Asc/Rec limb fact = 1/1

* Composite (Area/C) = [(155.000 x 0.25) + (2.000 x 0.90)] / 47.700



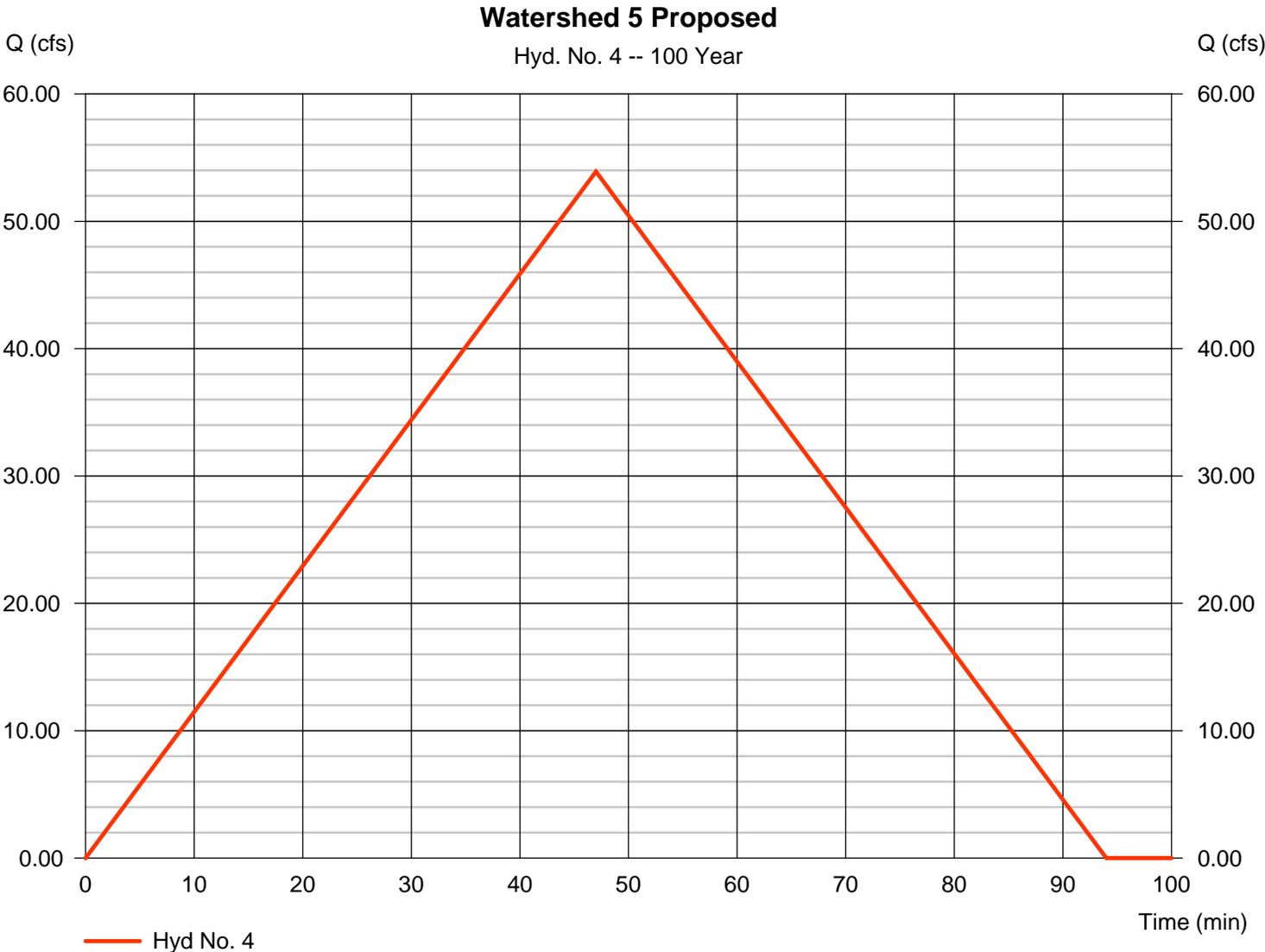
Hydrograph Report

Hyd. No. 4

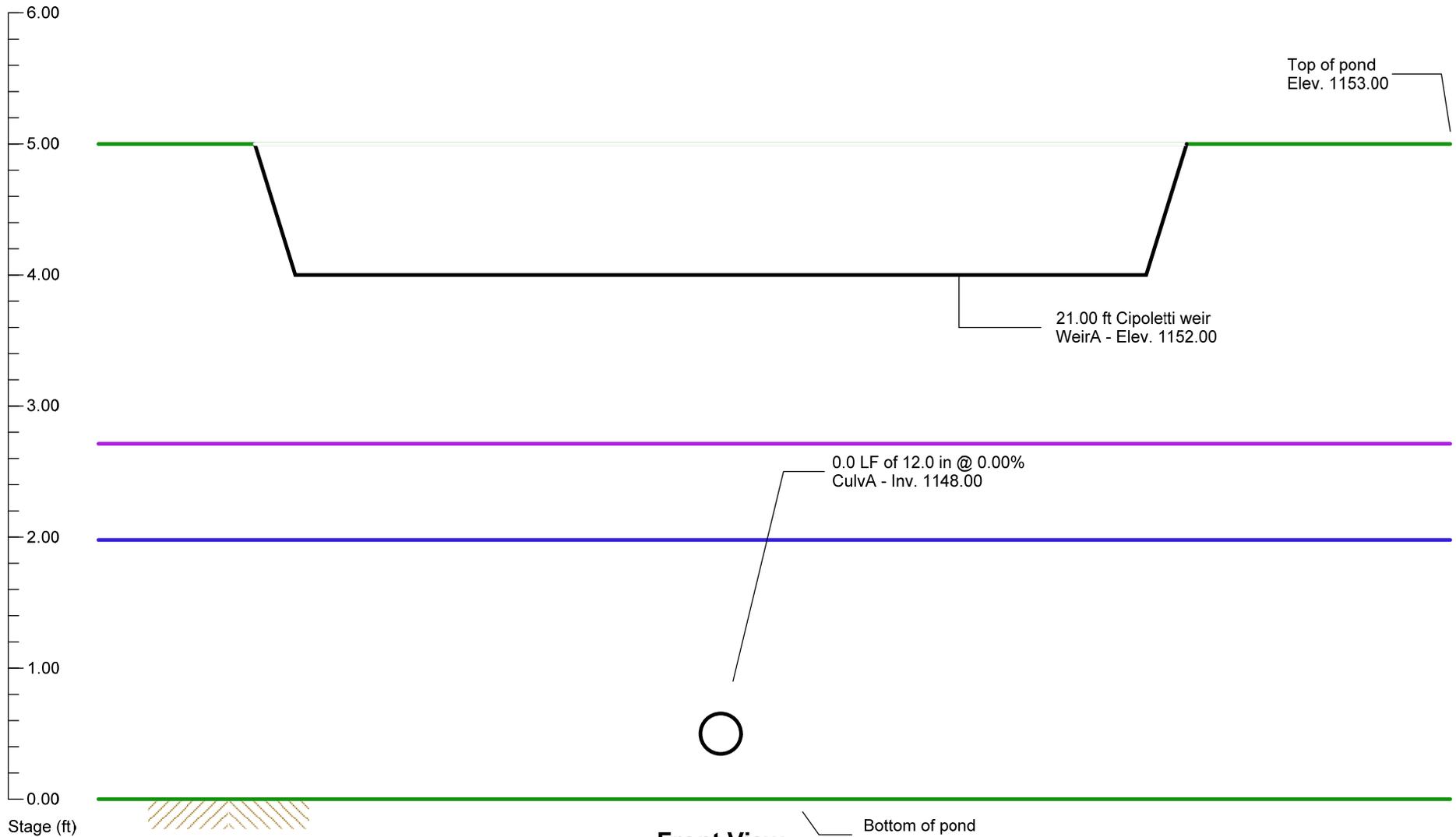
Watershed 5 Proposed

| | | | |
|-----------------|--------------------|-------------------|----------------|
| Hydrograph type | = Rational | Peak discharge | = 53.90 cfs |
| Storm frequency | = 100 yrs | Time to peak | = 47 min |
| Time interval | = 1 min | Hyd. volume | = 151,995 cuft |
| Drainage area | = 47.700 ac | Runoff coeff. | = 0.26* |
| Intensity | = 4.346 in/hr | Tc by FAA | = 47.00 min |
| IDF Curve | = Riley County.IDF | Asc/Rec limb fact | = 1/1 |

* Composite (Area/C) = [(46.700 x 0.25) + (1.000 x 0.90)] / 47.700



Pond No. 1 - RETENTION POND

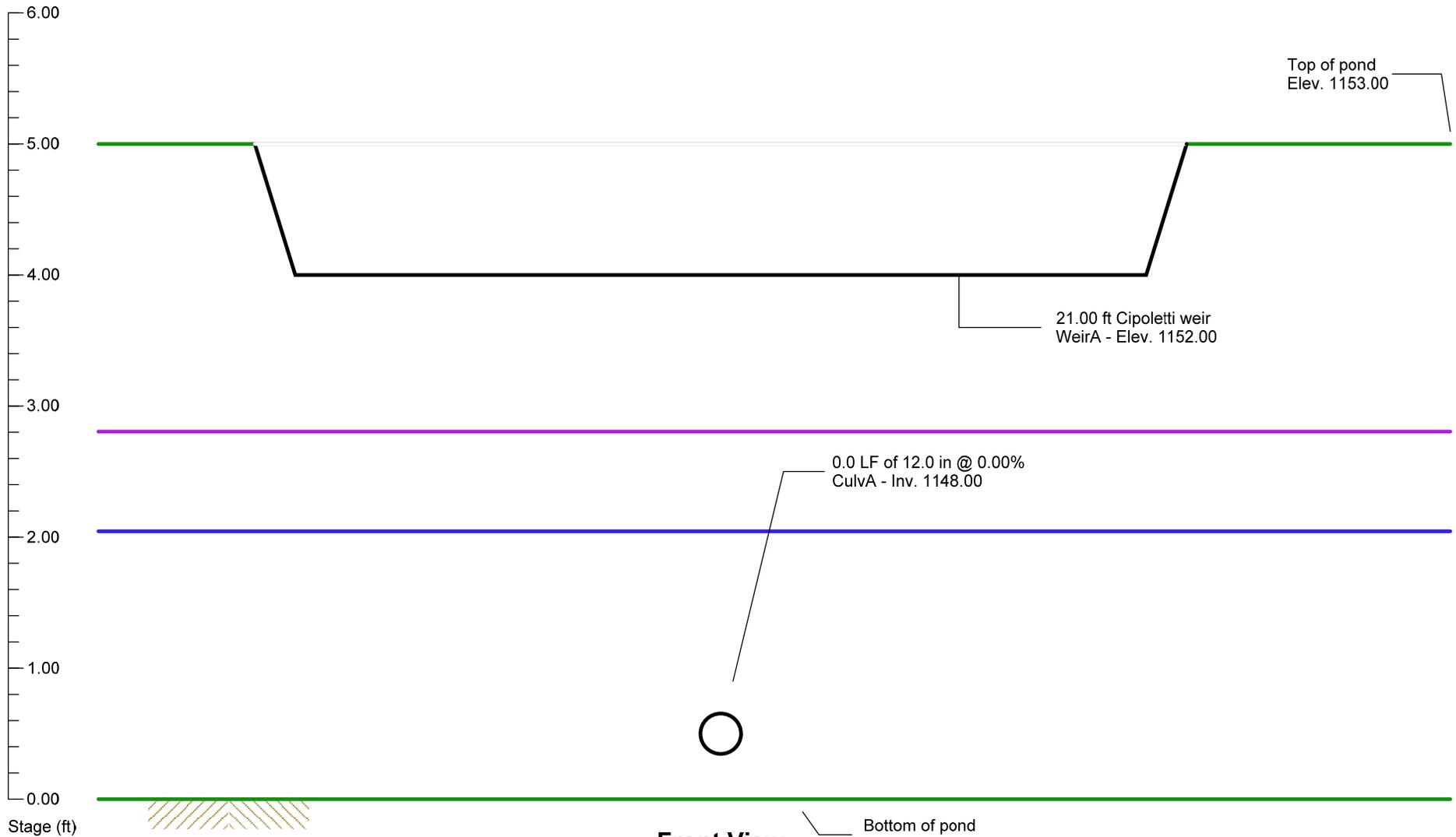


Front View
NTS - Looking Downstream

— 100-yr
— 10-yr

Inflow hydrograph = 3. Rational - Watershed 5 Existing

Pond No. 1 - RETENTION POND



Front View
NTS - Looking Downstream

— 100-yr
— 10-yr

Inflow hydrograph = 4. Rational - Watershed 5 Proposed

PLAT REVIEW

8-27-14

Applicant: Lawe, LLC (David H. Tegtmeier, Registered Agent)

Property Owner: Lawe, LLC (David & Danielle Tegtmeier)

Request Description: Wildcat Township; Section 8, Township 10 South, Range 7 East

Comments:

Upon reviewing the Traffic Impact Study and the Drainage Analysis for the Tegtmeier Winery PUD, I have the following comments.

Drainage:

Drainage area #4 remains essentially unchanged. An existing rock road will be replaced with a wider rock road. Also, a portion of the new parking area will be within this drainage area. The net increase in runoff from this drainage area is offset by the removal of the existing structure and impervious areas.

Drainage area #5 has an existing pond which serves as a detention basin for the runoff from the developed area. Based on the information provided, the pond provides adequate detention storage to control the additional runoff from this area.

Traffic:

Site distance at the propose entrance is important. To provide proper site distance, a vehicle exiting the driveway needs to be able to see a vehicle approaching a minimum of 335 feet in both directions. Trees, shrubs and part of the fence will need to be removed to provide the required site distance. These site triangles will be determined during the review of the driveway entrance application.

Wildcat Creek Road is a very low volume rural road with numerous horizontal and vertical curves. A 30 mph speed limit was established to account for these geometric conditions. The road and bridges are of sufficient width for two way traffic. The trees and brush have been cut back to provide for an improved clear zone and site distance. Riley County has been developing and is implementing a signing plan to improve the delineation of this road.

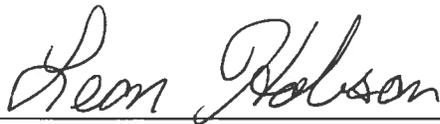
Traffic from event centers is generally concentrated into short time frames or the traffic can be spread out over several hours. Either way, the increase in traffic for a specific event generally is concentrated into a short duration and does not impact traffic throughout the week. This traffic may occur during peak times but more than likely will not. The short duration impact to the road will not adversely affect the overall capacity or level of service of the road.

Dust:

Wildcat Creek is a rock road. As traffic increases, the quantity of dust produced also increases. Riley County implemented a dust reduction policy for higher traffic rock roads several years ago. This policy provides for Riley County to treat these roads with a dust reducing agent. Wildcat Creek Road already meets the criteria set forth in the policy and the County currently applies a dust control agent to the portion of Wildcat Creek Road beginning at Scenic Drive then westerly approximately 1.8 miles.

The entrance into the proposed event center is just west of where the current application ends. To control the dust from this development the dust reducing agent application would be extended a few hundred feet to the west. The policy provides for additional applications during the spring and summer if the initial treatment becomes ineffective.

Controlling the dust to a level where good visibility is restored allows vehicles to move safely along the road. By implementing the recommendations provided in the reports coupled with the Riley County activities already in progress, it is my professional opinion Wildcat Creek Road has adequate capacity to safely accommodate the increase in traffic from this development.



Signature



Date



June 27, 2014

Jeff Hancock
SMH Consultants, P.A.
Manhattan, Kansas
785-776-0541
jhancock@smhconsultants.com

RE: Wildcat Winery Event Center
Project No. 1450001490

Dear Jeff:

We have reviewed the site plans and conceptual architectural plans for the Wildcat Winery Event Center in Manhattan, KS for site noise transmission which would occur if the Winery hosted a live band for planned functions. The following information is offered in summary.

Ordinance

The Riley County Zoning Regulations addresses site noise for Agricultural District site noise for Rural Resort, Retreat or Event Center in Section 8 Item 6-Q:

The Board of Zoning Appeals shall consider the potential of any use to generate noise that may unreasonably disturb the peace, quiet or comfort of adjacent properties. A benchmark to use in considering annoyance caused by noise shall be whether or not the use generates 65 dBA or greater at the property line, the hours of the day this level of noise is generated and how often this level of noise occurs. If it is determined that such potential for disturbance of adjacent properties exists, the Board shall consider methods to mitigate such noise.

Proposed Site Conditions

The Wildcat Winery will be constructed as follows:

The Wildcat Winery is approximately 13,000 sq. ft. structure with a 4,700 sq. ft. venue space that will be the primary location of amplified music and/or live bands. The structure is comprised of 2"x6" framed walls and a slanted roof. The wall construction of the venue space consists of gypsum board walls up to 12'4" and metal building construction above that. The roof construction consists of glass fiber insulation below metal roofing. This style of construction provides an estimated 25 dBA of noise reduction.

The site plan indicates that the exterior wall of the venue portion of the Wildcat Winery is approximately 920 feet away from the nearest property line to the southeast. This is a residential

property line, so our analysis will focus on this location in order to prevent the disturbance of the residences.

The South Property Line, which is 1,140 feet away, is the next closest property line to the structure. The increased distance will provide additional attenuation, and this property line follows Wildcat Creek Road, so there should not be a noise issue at this property line.

Site Noise Analysis

Maximum sound levels that can be expected from sound reinforcement is 100-110 dBA at limited peak times. Our analysis will be based on the worst-case-scenario, so 110 dBA will be used.

After review of the proposed site and preliminary plans for the Wildcat Winery and accounting for the conditions, which include:

- Room attenuation by the internal volume of the Venue;
- Low frequency sound absorption provided by the room finishes; and
- Attenuation due to distance between the Winery and the property lines.

The estimated noise level at the nearest property line is 26 dBA.

| Interior Noise Level (dBA) | Noise Reduction of Winery Construction | Exterior Noise Level (dBA) | Distance to Property Line (feet) | Resultant Noise Level at Property Line (dBA) |
|----------------------------|----------------------------------------|----------------------------|----------------------------------|----------------------------------------------|
| 110 | 25 | 85 | 920 | 26 |

The stated Riley County ordinance of 65 dBA will be met even if the levels reach the peak anticipated levels of 100-110 dBA. In order for the level to reach 65 dBA at the nearest property line, 920 feet away, the level would have to exceed 140 dBA. This level is likely not practical using general sound system equipment without damaging the equipment, as well as the hearing of the listener.

The above analysis is based on all amplified music occurring inside. The site plan indicates a location for weddings which is 735 feet from the residential property line. Even if peak levels of 100-110 dBA are reached at this location, the level at the property line will still be below the ordinance level of 65 dBA.

| Exterior Noise Level (dBA) | Distance to Property Line (feet) | Resultant Noise Level at Property Line (dBA) |
|----------------------------|----------------------------------|----------------------------------------------|
| 110 | 735 | 53 |

A level of 100-110 dBA is unlikely for a wedding since they are generally in the range of 70-90 dBA, but if a louder event was to occur the level would still be below the ordinance level.

Exterior noise levels can fluctuate 5-6 dBA due to wind conditions. We recommend maintaining as many trees to the South and East to help reduce the visual sight lines to the property lines. These

wooded areas will offer little measurable noise reduction; however, a subjective element of isolation is provided by breaking up the line-of-sight to the noise source.

Please contact me if you have any questions.

Sincerely,

Collective Tech
a Division of Henderson Engineers, Inc.

A handwritten signature in black ink that reads "Kevin Butler". The signature is written in a cursive, flowing style.

Kevin Butler
Acoustics Specialist



Department of Mechanical
and Nuclear Engineering
302 Rathbone Hall
Manhattan, KS 66506-5205
785-532-5610
Fax: 785-532-7057

March 13, 2014

David Tegtmeier
5216 Bowersox Parkway
Firestone, CO 80504

Dear David

As I told you on the phone, the Radiation Shielding Site, a 180 acre parcel of land just west of Manhattan, saw extensive use from the mid fifties to the early seventies. It was used for civil defense studies, a summer school for shielders from around the world, gamma-ray albedo work, skyshine studies, and duct transmission studies. In all these studies, only sealed radioactive gamma-ray sources were used and were removed when the studies were over. They are now all accounted for and stored in the bay of our nuclear reactor facility. Because only gamma rays were used on the shielding site, no induced radioactivity was created on the site. So at the time Kansas State University traded the site to private owners, the only radioactivity present on the site was that due to naturally occurring radionuclides which form part of the natural radiation fields found everywhere on earth.

We wish you every success with your plans for creating a vineyard on the site.

Sincerely

A handwritten signature in black ink, appearing to read "JK Shultis".

J. Kenneth Shultis
Professor and Nuclear Engineering Program Director
Kansas State University

A handwritten signature in black ink, appearing to read "Ron Bridges".

Ron Bridges
Radiation Safety Officer
Kansas State University

From: [Dan Knight](#)
To: [Bob Isaac](#); [Pat Collins](#)
Cc: ["David Tegtmeier"](#); ["Casey Culbertson"](#)
Subject: Winery
Date: Tuesday, July 22, 2014 8:23:38 AM

Bob,

Casey and I met with Pat Collins yesterday and determined the following:

The entire building is anticipated to be provided with an NFPA 13 automatic sprinkler system. While the rural water district will not provide a water line large enough to facilitate the operation of the sprinkler system with the required fire flow/pressure, they are providing a 2" water line from the 8" line on the west property line extending over to the driveway north of the parking lot. In order to provide an adequate volume of water and pressure to operate the building sprinkler system, a storage tank and pump will be provided by the owner.

Pat's concerns were satisfied during our meeting. He had heard there was a kitchen as part of the venue but we clarified it is a catering kitchen with no cooking apparatus whatsoever which put him at ease. I think this should suffice for the PUD application. If you need me to address any other potential issue for the application let me know.

Thanks,

Dan Knight AIA

Action Pact Design

2505 Anderson Avenue, Suite 201

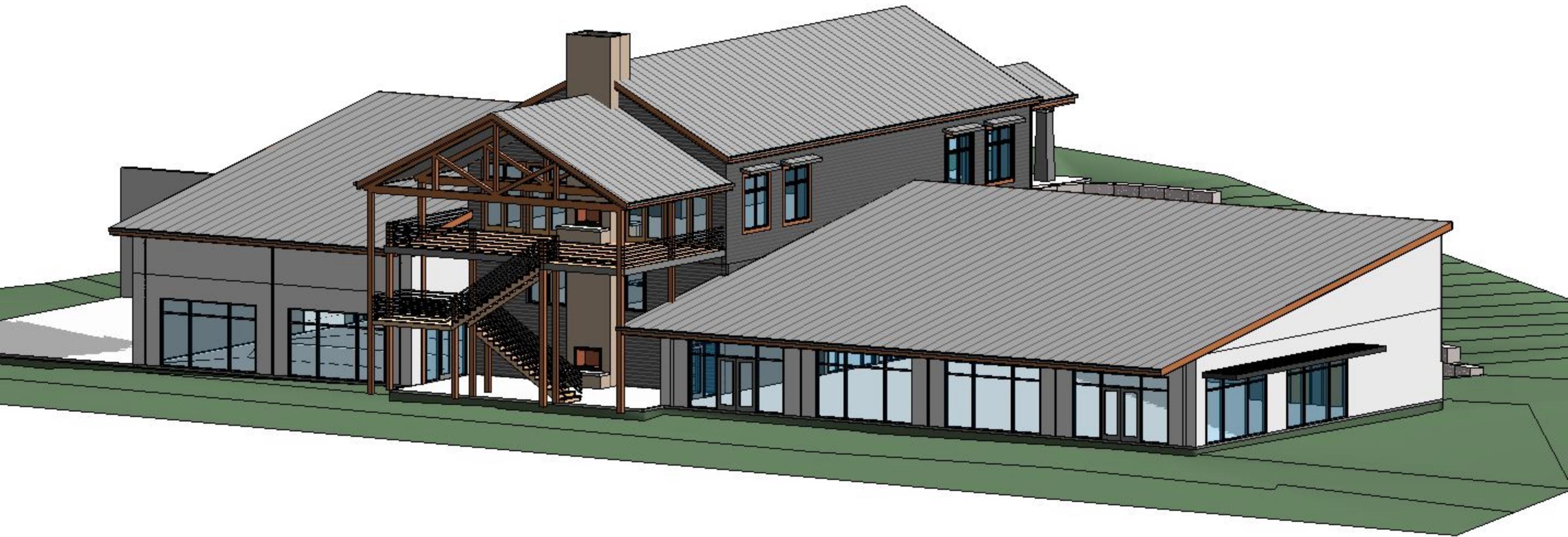
Manhattan, KS 66502

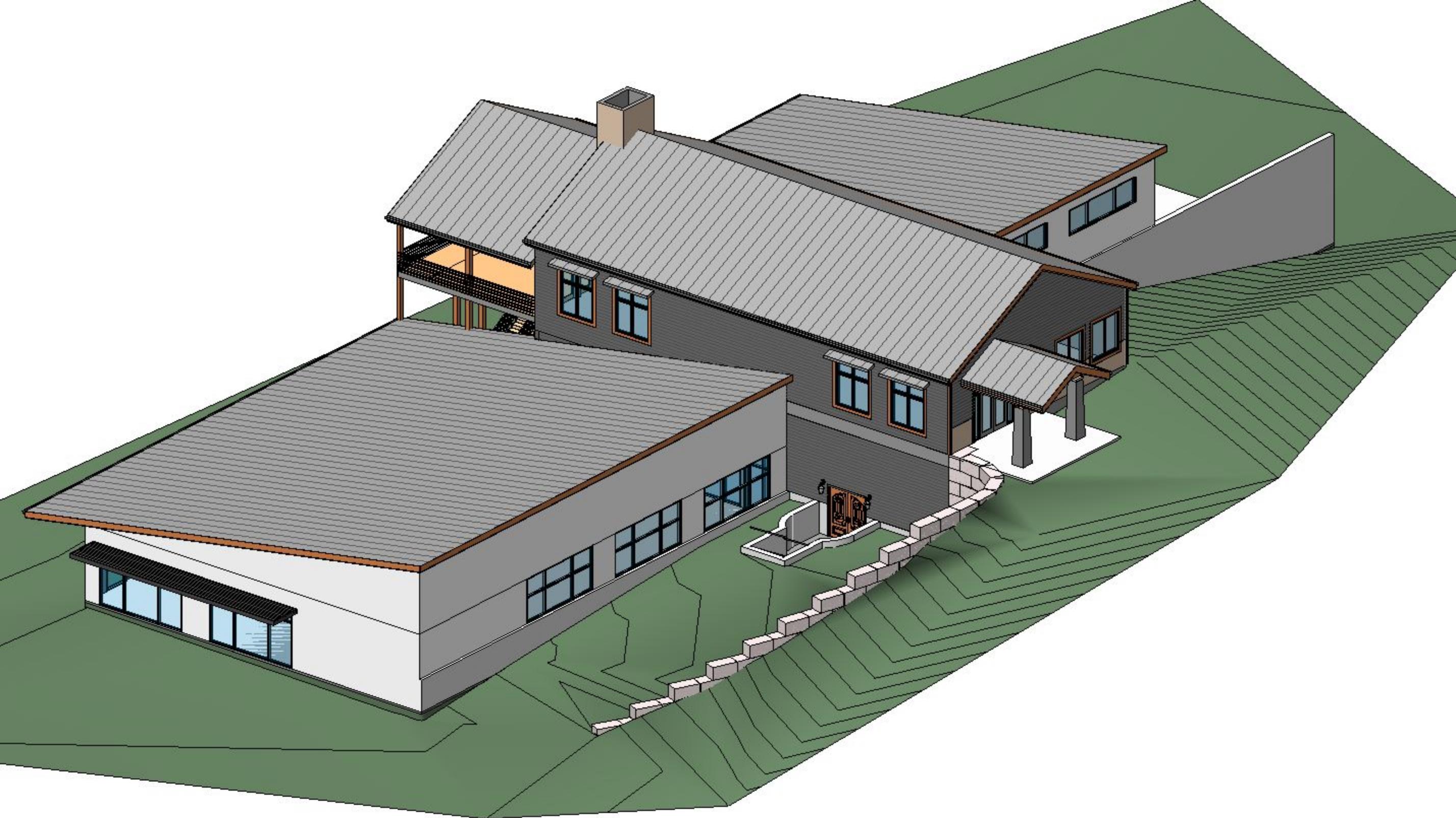
785.539.0806

dan.knight@actionpact.com

www.actionpactdesign.com

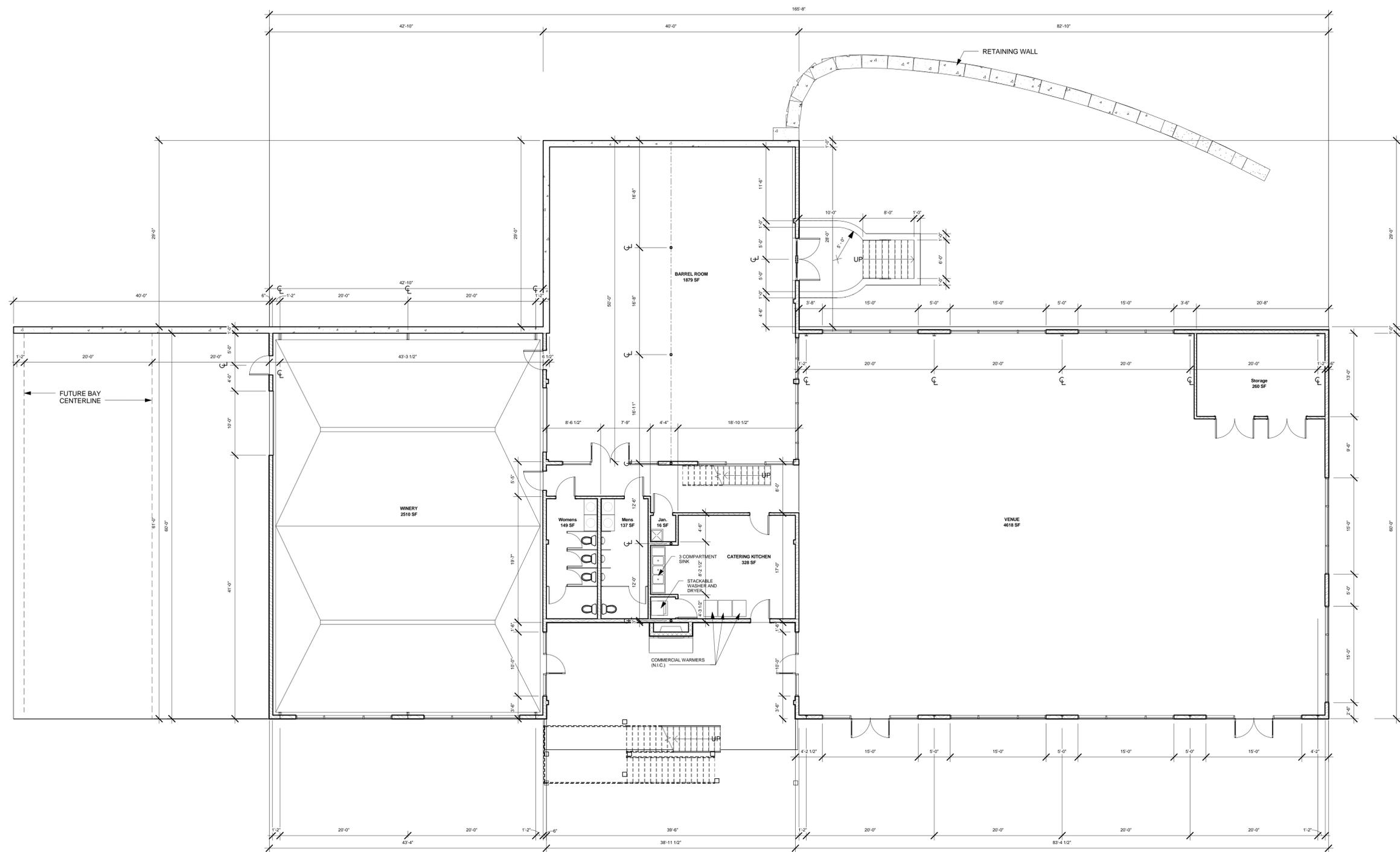
MANHATTAN, KS | MILWAUKEE, WI | ATLANTA, GA







| FLOOR PLAN NOTES | |
|------------------|-------------|
| NUMBER | DESCRIPTION |
| | |



2 Lower Level
 A1.00 1/8" = 1'-0"



2505 ANDERSON AVENUE
 SUITE 201
 MANHATTAN, KANSAS 66502
 785.539.0806

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 1745 Wildcat Creek Road
 Manhattan, KS 66503

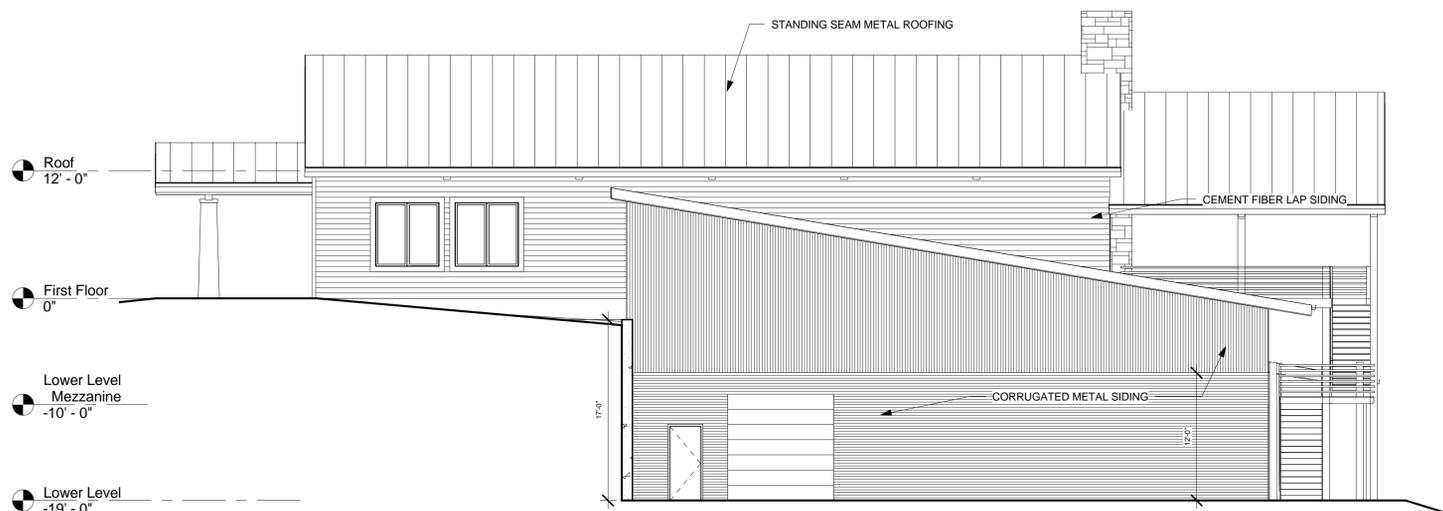
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 DATE: 08.28.2014

ISSUE RECORD:

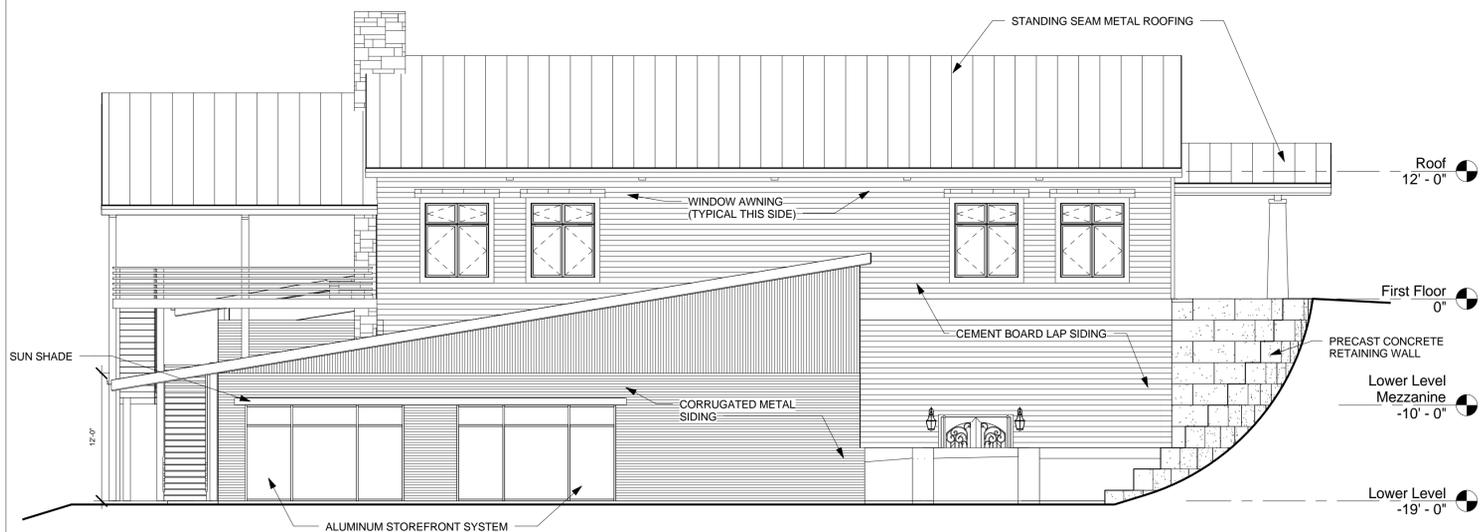
| REVISIONS: |
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Lower Level Plan

A1.00



1 Side Elevation 1
A2.00 1/8" = 1'-0"



2 Side Elevation 2
A2.00 1/8" = 1'-0"

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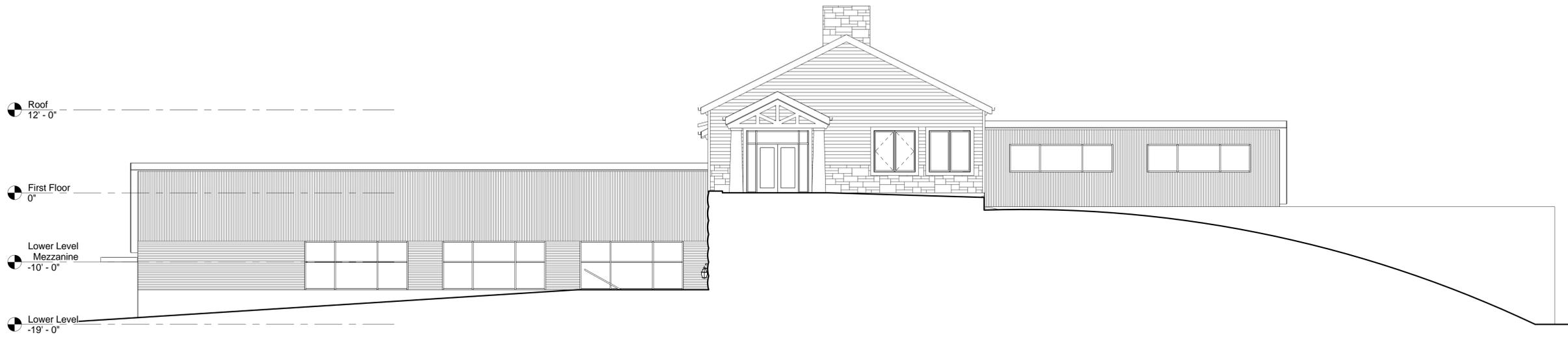
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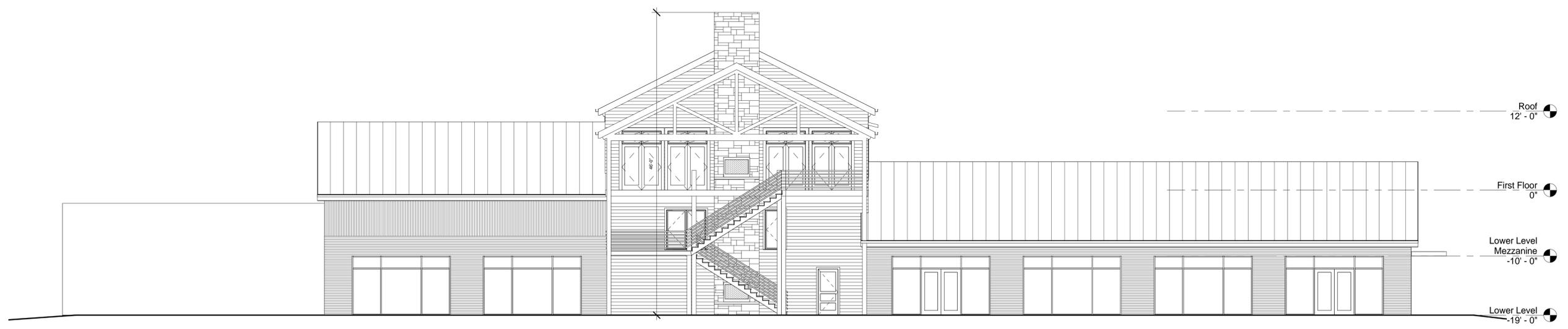
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Elevations

A2.00



1 East
A2.01 1/8" = 1'-0"



2 West
A2.01 1/8" = 1'-0"

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Winery

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DATE: 08.28.2014

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Elevations