

michelle

From: robtheobald@yahoo.com
Sent: Friday, May 29, 2020 4:52 AM
To: michelle
Cc: Mark Meiser
Subject: Meiser Sub Report - Revision
Attachments: Engineers Report - Meiser Sub - R1 - signed.pdf; Environmental Hazards.pdf

Michelle,

I woke up in the middle of the night and realized I had moved my "Environmental Hazards" section yesterday and forgot to include the actual information in it and just had some cut and paste text from a different report in it as a place holder (and the version I sent you had some spacing issues to, but that is a much smaller issue). I don't know if there is any way to get this corrected version in the packet or to the Board or to get the corrected section in the packet or to the Board at the meeting, but in any event I am emailing it to you in the hopes it is possible. I have attached a complete report, as well as a .pdf of the one section that changed, and including the changed section text in this email below in case any of that helps you.

Sorry about this and the confusion. I just missed this in my rush to get it to you yesterday.

Please let me know if you have any questions or need anything else.

Thanks,
Rob

Environmental Hazards:

No known or suspected environmental hazards exist within the proposed subdivision which is within an existing single family. Topography protects the subdivision from flooding as discussed above. No landslide risk is shown on any geologic mapping of the area and observation of site, site soils and geology and vegetation does not show any past landslide activity or landslide risk. Steep slopes do exist on the site, but avalanche danger is generally low. Vegetation and slope aspect generally mitigate avalanche risk on the site and there is no known historic avalanche activity on the site. Proposed subdivision is generally undisturbed and is free of mine waste, run-off or other human made environmental hazards. Wildfire risk is similar to other areas of the Town of Blue River and Summit County, as are access or egress routes. Wildfire risk can be mitigated with site specific fire protection measures at the time of construction of residences including providing defensible space around the structures and using Firewise or similar landscape practices and construction techniques.

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Meiser Subdivision Engineer's Report

Rob Theobald P.E.

This report presents the findings of engineering analysis of the proposed Meiser Subdivision. This analysis is related to utilities and infrastructure, natural and geologic hazards, grading, drainage, water quality and stormwater management. The purpose of this analysis and report is to assure that the requirements of Chapter 17 of the Town of Blue River Municipal Code are met as they relate to this proposed subdivision.

Project Description:

The proposed subdivision includes splitting Lot 5 Louise Placer Amended Subdivision into two conforming lots of approximately 2.05 acres each.

Since this subdivision is the dividing of one very large lot into two large lots it does not include the proposed construction or extension of any public utilities or infrastructure including roads, water, sewer or natural gas pipelines or other overhead or underground utilities. The two proposed lots will instead border the existing Tesemini Lane which will provide access and will be served by the existing utilities as the existing Lot 5 is currently.

Site Conditions:

The proposed subdivision is bordered by Tesemini Lane to west, Colorado State Highway 9 to the east and developed Lot 4 to the north and vacant Lot 6 to the south. The subdivision consists of a generally flat area bordering Tesemini Lane that rolls to an increasingly steep slope to Highway 9. The lot Site vegetation is primarily lodgepole pine vegetation with a few aspen trees on the east. The site is currently vacant with some clearing and minor grading work previously done in association with a previously approved single family residence on the site.

According to the Geologic Map of the Breckenridge Quadrangle, Summit County, Colorado (Wallace, Keller, McCalpin, Bartos, Route, Jones, Gutierrez, Williams & Morgan, 2003) near surface deposits are younger till of the Pinedale glaciation. Prior soils reports and site investigations generally confirm this. Soils in proposed development area are consistent with this, but granite outcroppings and associated scree can be found on steeper sections of the slope near Highway 9.

Proposed Development:

The proposed subdivision splits one very large existing lot into two conforming single family lots. Proposed conforming lots include front rear and side setbacks. These setbacks combine with access from Tesemini Lane and relatively steep slopes on the east portion of the lot result de facto building envelopes consisting of one house site set back from Tesemini Lane on the west portion of each proposed lot. The proposed development would consist of two single family homes to be conforming to and submitted to the Town of Blue River Planning and Zoning Commission for architectural review prior to development.

Water Courses, Wetlands and Floodplains:

No water courses or wetlands are on or particularly near the proposed subdivision. The site is separated from Goose Pasture complex wetlands by State Highway 9 and its 150' right-of-way. Additionally due to access and topographic constraints development would be on the opposite side of the subdivision approximately 300' from the edge of the highway right-of-way. Due to this physical separation from any watercourses and wetlands there is no anticipated impact from the proposed subdivision.

Subdivision does not contain or is near any floodplains. Topographic separation protects subdivision from any potential flooding.

Environmental Hazards:

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Utilities:

No extension of or additional public utilities are proposed as part of this subdivision. Subdivision is proposed to connect to existing public utilities located in Tesemini Lane and utilize onsite utilities including private wells and onsite wastewater treatment.

Electric Power, Telephone, and Cable:

Electric Power, telephone and cable service is available by means of overhead and underground lines located in the Tesemini Lane Road and associated utility easements. Xcel Energy provides electrical power, Qwest Local Network provides telephone service and Comcast Cable provides cable TV and internet. Individual services from each respective utility will service each proposed lot at the time of development as they would serve the existing single lot. This will consist of underground services to each proposed lot.

Respective utilities will provide plans and specifications for services at the time of development based on specific demand for each residence and utility company rules and regulations at the time of development. At the time of preparation of this report underground shallow utility services cost approximately \$40/linear foot to install, but cost savings are possible as all shallow utilities can be installed in a shared trench. Actual length and cost of utility installation will be dependent on house design and sighting, but is anticipated to be approximately 100' for each lot. A distance that is fairly

typical on other lots within the Town. Additionally, it is anticipated that a new power transformer may be required to serve the proposed two residences. At the time of preparation of this report the approximate cost from Xcel Energy of a new underground power transformer protected by concrete filled steel bollards including approximately 200' of new primary power is approximately \$10,000.

Water:

Each proposed lot will be served by an individual well. District Court Water Division Number 5 Case Number 88-CW-111 grants Lot 5 Louise Placer Subdivision the right to one domestic household use only well. This well is anticipated to provide 350 gallons per day to fulfill the domestic uses of one single family residence. This water decree is sufficient to serve the existing single lot and will serve one of the two proposed lots. The subject property is in the service area for the Vidler Water Company well augmentation program. Additional water rights for the second lot or for additional uses such as irrigation or hot tubs may be purchased likely using the "Vidler Rights," W-217 to provide for an additional domestic household use well and additional water rights as deemed necessary by the developer. The cost of a Vidler water right for a domestic household use only well is approximately \$3,500 at the time of preparation of this report.

Wastewater:

Sewage disposal for both proposed lots will be by means of individual Onsite Wastewater Treatment Systems (OWTS). Preliminary testing and design work has been completed to ensure that OWTS can be constructed on the proposed lots in compliance with "Onsite Wastewater Treatment System Regulations of Summit County Colorado" as well as State of Colorado "Regulation 43." Residences on each lot will have separate septic tanks and soil treatment areas. Soils on-site and groundwater conditions have been found to be ideal for construction of OWTS systems without the anticipated need for variances or advanced treatment systems. OWTS design including size will be dependent on the final design of the residences. Cost of OWTS is highly design dependent, and generally range from \$25,000-\$50,000 for a 4-bedroom house. No site specific conditions in the proposed subdivision will cause any unusual or increased OWTS costs.

Access, Roadway and Driveways:

No public roads are proposed to be built, modified or improved as part of this application. The proposed application uses the existing Tesemini Lane as access and adds one additional single family residence. This is anticipated to add approximately 2-3 average daily trips (ADT) to the 8-12 ADT this road would be anticipated to receive based on currently approved/platted lots.

This proposal does anticipate the use of a shared driveway to allow for minimized site disturbance and minimum driveway slopes. Final driveway design will be determined by final house designs, however, driveway will meet current Town Code. Conceptual designs have been completed and common driveway servicing residences can be built at code compliant grade.

Grading Plans:

No grading is proposed as part of this application. Any site grading and disturbance will be site specific and will be at the time of construction of the two individual single family residences. Site grading will consist of a shared driveway for the two residences, grading around the residences as required for construction of the residences and OWTS. Grading will be required to comply with current Town Code and Planning Guidelines at the time of development.

Drainage and Erosion Control Plans:

No drainage or erosion control is proposed at this time since no site disturbance or grading is anticipated as part of this application. This subdivision will have minimal impact to historic drainage patterns. Drainage and erosion control plans are anticipated to be included in individual building permit applications at the time of development of each lot. This is anticipated to be site specific and comply with current Town Code and Planning Guidelines at the time of development. It is anticipated that this will include industry standard BMP's including silt fencing, straw wattles, rock check dams, minimized site disturbance and aggressive revegetation.

Conclusion:

Thank you for your time and consideration of this report. I have prepared this report to verify that the requirements of Chapter 17 of the Town of Blue River Municipal Code are met as they relate to this proposed subdivision.

Robert Theobald

Robert Theobald P.E.



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