

***MCCAULEY MEADOWS
SUBDIVISION***

AGENCY REVIEW COMMENTS



Community Food & Agriculture Coalition

June 15, 2020

To: Tim Worley, CAPS

Re: McCauley Meadows Subdivision and Impacts to Agriculture

Thank you for the opportunity to comment on the McCauley Meadows subdivision proposal.

Members of the CFAC Land Use and Viability Committee have reviewed the subdivision proposal, visited the site, and present the following comments regarding the impact of this project on agriculture:

1. Assessment of Properties' Present/Potential Agricultural Values

a) Soils: Of the 28.3 total acres in the proposed subdivision, about 10 acres lies on flat land north of the ditch and is covered with *Grantsdale loam* soil, 0 to 2 percent slopes. This is prime farmland if irrigated. As indicated on the Custom Soil Resource Report, *Grantsdale* soil extends above the ditch to the south covering an estimated additional 8 acres. However, the site visit revealed that less than two acres north of the ditch is flat enough for crop farming. The soil on the remaining 10 acres further uphill to the south consists of *Bigarm gravelly loam*, 30 to 60 percent slopes, and is not considered important farmland.

b) Historic Agricultural Land Use: In the recent past, the 10 acres below the ditch is known to have been used for hay production and grazing. With abundant water for irrigation, the prime soils covering the field was probably used historically to produce sustained high yields of a wide variety of crops. The AI (Area of Interest) Soils Map encloses 50.1 acres indicating that the 28.3 acres of the proposed subdivision was once included in much greater acreage devoted to growing crops on 30.3 acres of *Grantsdale* soil. Development over the years has reduced the AI acreage by two thirds with most of the remaining 10 acres of important farmland proposed for development by the McCauley Meadows Subdivision.

c) Potential land use: The biological and geographic assets of this property are of the highest agricultural quality and are extremely rare. Given the quality and quantity of its fertile soil, access to irrigation and nearby markets, this property could support a financially viable farm, adding to the semi-rural character of the area. Determination of the agricultural value of this property rests more on the future than the past. However, even in today's market, this property could annually produce:

- Alfalfa (4 tons per acre): 44 tons at \$100/ton = \$4,400.
- Wheat (100 bushels per acre): 1100 bushels at \$6/bushel = \$6,600. Farms growing specialty grains report higher earnings.
- Produce: 100 CSA shares at over \$500/share = \$50,000. Farms serving Missoula's wholesale markets (groceries, restaurants and farmers markets) report higher gross incomes than CSA farms.

d) Availability of Water for Crop Irrigation: A lateral ditch from the main canal of the Missoula Irrigation District delivers water to the property. The original water rights for the district were first issued in 1883. By the year 1959, this system provided water to 2244 acres with 624 active users. Although the district continues to actively provide irrigation water for agricultural use, much of the important farmland has been lost to

development. The proposed McCauley Meadows project, as planned, would severely diminish the potential productivity of agricultural land on one of the largest remaining acreages in the water district.

e) Proposed mitigation for the loss of important farmland:

The Garden City is in danger of being ripped from its agricultural roots. As Missoula’s population grows, the County continues to approve subdivisions throughout the area.¹ Consequently, the city has created a Growth Policy to help guide decisions on development.² The Growth Policy is broken down into six focus groups, with five of the six containing at least one objective focusing on preserving and promoting local, sustainable agriculture.

A governing body, such as a county planning board, must substantially comply with its growth policy in making zoning and land-use planning decisions.³ When a subdivision is proposed “[a]ll facets of the proposed land use must be considered to determine whether, taken together, they comply not strictly, but substantially with the goals, objectives, and recommendations in the growth policy.”⁴ This language clarifies that while the growth policy cannot be applied in a regulatory fashion, and land use approval cannot be denied based solely on non-compliance with the growth policy, “the governing body must be guided by and give consideration to the adopted growth policy.”⁵

Here, Tai Tam LLC’s proposed “McCauley Meadows” subdivision⁶ does not adequately mitigate impacts to agricultural land and, therefore, does not substantially comply with the growth policy. The subdivision will divide a 28.3 acre property into 14 lots intended for single family residences. A 2.12 acre lot will be reserved for a common-area agriculture space. The subdivision proposal indicates that the common area lot will be leased for growing crops using the Farm Link Montana website as a resource. While setting aside 2.12 acres for crop production is a small step in the right direction, more acreage must be set aside to substantially comply with the growth policy. Two acres, while a good-sized garden, is not deemed viable for a farm’s financial success.

Portions of lot 8 and 9, at the very least, should also be set aside for agricultural purposes because they contain the existing irrigation culvert and prime agricultural soils. The subdivision proposal suggests it is mitigating agricultural loss by refraining from developing on prime soils and setting aside the common-area along the culvert. However, the common area lot is between two other lots, 8 and 9, which also have prime agricultural soils and access to the established irrigation culvert.

Recommendation:

McCauley Meadows as proposed permanently removes increasingly precious acres of prime farmland from productivity and would have an unacceptable impact on agriculture. To reduce this impact, CFAC recommends the common area be expanded significantly. Many of the proposed lots are much smaller than lots 8 and 9, and reducing the size of these 2 lots to increase the common area can be done without disproportionate effect on their lot sizes. By expanding the common area to 3.5 acres and reducing lots 8 and 9 to 1 acre each, the subdivision would minimally comply with the Growth Policy. Further reducing lot sizes and using a

¹ <https://www.missoulacounty.us/government/community-development/community-planning-services/projects/active-projects/subdivision-projects>.

² https://www.ci.missoula.mt.us/DocumentCenter/View/34746/OurMissoulaGP_full?bidId=.

³ *Heffernan v. Missoula City Council*, 2011 MT 91, ¶ 79, 360 Mont. 207, 239, 255 P.3d 80, 103.

⁴ *Id.* at ¶ 78.

⁵ *Id.* (citing Mont. Code Ann. §§ 76-1-605(1), 76-1-605(2)(a), 76-1-605(2)(b)).

⁶ <https://www.missoulacounty.us/government/community-development/community-planning-services/planning-projects/mccauley-meadows>.

Conservation Development model would better increase the agricultural lot size and provide for a viable farm within the plan.

The Growth Policy clearly intends to give local agriculture a priority over housing because of agriculture's prevalence throughout the policy. A balance must be found between development of residential housing and preservation of local agriculture. Productive use of land not only comes from maximizing the sale of homes, but also from crops the land can produce year after year. Because of the proximity to existing irrigation and prime agricultural soils, the agricultural lot common area should be expanded to its fullest potential.

In conclusion, the McCauley Meadows subdivision, as proposed, should be denied as it fails to substantially comply with the Missoula County Growth Policy, takes precious agricultural soils out of productive potential at a time when local food production is critical to health and well-being.

Respectfully submitted by Bonnie Buckingham
Executive Director

Community Food & Agriculture Coalition (CFAC)
1535 Wyoming Street
PO Box 7025
Missoula, MT 59807
406-880-0543

From: [Tim Worley](#)
To: [Dale McCormick](#)
Subject: Fw: First Sufficiency McCauley Meadows Subdivision 2020
Date: Tuesday, May 12, 2020 3:12:04 PM
Attachments: [PTOL Comments May 12 2020.pdf](#)

From: Garrick Swanson <gswanson@missoulacounty.us>
Sent: Tuesday, May 12, 2020 2:16 PM
To: Tim Worley <tworley@missoulacounty.us>
Cc: Juniper Davis <jdavis@missoulacounty.us>; Kylie Paul <kpaul@missoulacounty.us>
Subject: First Sufficiency McCauley Meadows Subdivision 2020

Tim, Sorry for the delayed response as I was out of office until May 11, 2020. Please see comments below.

May 12, 2020

RE: McCauley Meadows Subdivision

Parks, Trails, and Open Lands (PTOL) appreciates the opportunity to review and comment on 1st sufficiency for McCauley Meadows Subdivision in 2020.

Non-Motorized Facilities (exhibit attached)

The McCauley Meadows summary states that the proposed non-motorized facility is to be located on the north side of Ponderosa Lane. The preliminary plan shows the path on the south side of Ponderosa Lane. PTOL supports a non-motorized connection between Ringo Drive and Ponderosa Lane as there are no existing facilities on Humble adjacent the subdivision. A connection from Ponderosa Lane to Ringo Drive will enhance pedestrian safety and neighborhood connectivity to the existing sidewalk located on Schwenk Court. Please clarify maintenance on the non-motorized facilities.

Park Land Requirement

The Park Dedication Requirement calculation of 5% of 15.22 acres is not correct. The park dedication requirement should be .761 and not .87. PTOL has no additional comment on the proposed Common Area to be used as agricultural land.

Agricultural Land

We appreciate that the proposed 2.5-acre Common Area used for growing crops via Farm Link Montana will be a unique and valuable resource. A majority of the proposed subdivision site is identified as prime farmland if irrigated. PTOL supports strategies to mitigate the impact of development on both agricultural land and agricultural water resources that maximize support and protection of agricultural lands, balanced with development.

Open Lands

The 2019 Missoula Urban Area Open Space Plan identifies the area as an open space cornerstone. Open space cornerstones are a conceptual visual tool to geographically guide open space conservation and planning. A cornerstone contains a unique combination of land and water resources and open space values that make lands in that cornerstone a priority for protection. The subdivision falls within an open space cornerstone.

Natural Resources

As reflected in its inclusion within a 2019 open space plan cornerstone, the land in this subdivision contains high quality natural resources. Particularly, it falls within the Montana Audubon's Important Bird Area and Montana Fish Wildlife & Parks Focal Area from their 2015 State Wildlife Action Plan. The surrounding area is known as valuable stopover habitat for migratory birds. In the McCauley Meadows subdivision, the lots proposed for the slopes of the butte are the most likely to impact migratory birds. It would be preferred to have as little human activity and impact to existing natural features such as trees as possible on the slopes of the butte.

Garrick Swanson, Parks & Trails Planner II, MLA
[\(406\) 258-4719](tel:4062584719) / gswanson@missoulacounty.us

Parks, Trails & Open Lands

MISSOULA COUNTY
Community and Planning Services
Parks, Trails & Open Lands
127 East Main Street, Suite 2
Missoula, Montana 59802-4292

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From: [Nicole Whyte](#)
To: [Dale McCormick](#); [Tim Worley](#)
Cc: [Brent O'Connor](#); [Erik Dickson](#)
Subject: McCauley Meadows Comments
Date: Wednesday, April 29, 2020 4:01:37 PM
Attachments: [McCauley 1st Suff lter.pdf](#)

Hello,

Attached are our comments for this 1st sufficiency review.

Thanks, Nicole

Missoula County Public Works - Building Division
Building & Development Programs Manager
Nicole Whyte
6089 Training Drive
Missoula MT, 59808
P: 406-258-3723
nwhyte@missoulacounty.us

Until further notice, our office will be closed. Please leave us a message at 406-258-3701, email us at permits@missoulacounty.us, or apply online at <https://missoulacounty.build/> for permits. We will be doing inspections on a case by case basis.

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April 27th, 2020

Dale McCormick
PCI
PO BOX 1750
Missoula, MT 59806

Re: McCauley Meadows Subdivision
1st Sufficiency Review

Dear Mr. McCormick:

We have reviewed the above noted subdivision for engineering, and development concerns. Based on our review, we have prepared the following comments:

1. Please gain approval for any proposed new crossing or any improved crossing with the Missoula Irrigation District.
2. There appears to be a culvert discharging from the parent parcel onto Ringo Dr. Please either provide an encroachment plan or plan for its removal with the subdivision improvement.
3. Please clarify the purpose of the 24 foot PAPUE on the easterly side of proposed Lot 6.
4. Missoula County Public Works would allow the extension and of Ringo Dr as a County Public Maintained Road, with the condition that a Public Maintenance Agreement is approved by the Missoula County Commissioners.

Sincerely,
Missoula County Public Works

Nicole Whyte

Nicole Whyte
Building & Development Programs Manager

Cc :Tim Worley
Erik Dickson
Brent O'Connor
File

From: [Knudsen Gerhard](#)
To: [Worley Tim](#); [Dale McCormick](#)
Cc: [Brown Jim](#); [Sharon Rose](#); [Ritter Torrey](#)
Subject: McCauley Butte Subdivision - Five Valleys Audubon First Sufficiency Review Comments
Date: Wednesday, April 29, 2020 10:08:39 AM
Attachments: [McCauley Meadows 2020 Comment-Final.docx](#)

Attached are comments of the Five Valleys Audubon Society on the proposed McCauley Butte Subdivision . If you have any questions about our submittal, feel free to contact either Jim Brown or me.

Thank you.

MCCAULEY MEADOWS SUBDIVISION - FIRST SUFFICIENCY REVIEW

COMMENTS OF THE FIVE VALLEYS AUDUBON SOCIETY

APRIL 29, 2020

In 2018, when first commenting on the McCauley Meadows subdivision proposal, we noted that much of the land has no significant value as avian habitat. There were, however, lots being proposed for a conifer-grassland area on the lower slope of McCauley Butte. It was there we noted the presence of habitat suitable for a variety of birds. Although we've not been able to conduct bird surveys on that land, we would expect to find Black-capped Chickadees, Red-breasted and Pygmy Nuthatches, Hairy Woodpeckers, Dusky Flycatchers, Chipping Sparrows and, possibly, Cassin's Finches, a species of conservation concern. Birds frequenting the open grassland areas of the property might include Vesper Sparrows, Western Meadowlarks and American Kestrels. It is also likely that Red-tailed and Rough-legged Hawks forage across the area. In the end, and for a variety of reasons, we concluded that the proposed McCauley Meadows development would not conflict with our resource protection objectives.

Since that time, the development plan has changed with more homes being proposed for the lower slope of McCauley Butte. But also, recent research suggests that McCauley Butte likely has greater habitat value than previously thought. Since 2018, we have collaborated in an acoustic monitoring project on the Line Ranch property in southeast Missoula. The focus is birds that migrate during the night and then land in "stopover" habitat each day to rest and feed. When migrating at night, birds frequently give calls, possibly to echolocate, communicate with other birds or maintain flock spacing and cohesion. Acoustic monitoring technology records bird calls during the entire migration period and subsequent analysis determines the species involved and their numbers.

During the 2018 fall migration, about 6,000 individuals representing 30 bird species were recorded at the Line Ranch monitoring site. Calls detected just before dawn were likely given by birds descending from migration altitude to use the area as a stopover site. It was estimated that 1,300 individual birds of 21 species likely used the area's stopover habitat. The most abundant families recorded were sparrows, wood warblers and thrushes. There were also a number of uncommon species detected including Barn Owl, Northern Saw-whet Owl, Lesser or Greater Yellowlegs, Sora, Upland Sandpiper, White-throated Sparrow and Canada Warbler. A number of Veery, a species of conservation concern in Montana, were also documented. Significantly, 43 Veery were detected and an estimated 40 used stopover habitat on the Line Ranch site.

Birds recorded by the Line Ranch monitoring were those using a migration corridor along the Bitterroot River through the Missoula Valley. Significantly, McCauley Butte lies along that pathway and contains stopover habitat of value to migrating birds. At this point in time, we lack the surveys needed to document bird stopover use on McCauley Butte. On the other hand, we do have evidence indicating that the general area is on a migratory bird pathway and is used by a wide variety of birds as a stopover site. That information is related to substantial migratory bird use that's been documented on the Knife River Ponds immediately east of McCauley Butte. During the past four years, 210 bird species have been observed by birders submitting records to the Cornell University Lab of Ornithology's "eBird" database. Many birds observed are those that would likely use stopover habitat on McCauley Butte.

Migration is an extremely difficult and dangerous undertaking for birds. Thus, maintaining stopover habitat is critical for the conservation of migratory species. The grasslands, conifer edges and open space in the Missoula Valley comprise that habitat and thus play an important role in the survival of migrating birds. Much of the proposed McCauley Meadows subdivision lacks valued bird habitat. That is not the case with the five lots proposed for the slopes of McCauley Butte, particularly as it relates to stopover habitat for migrating birds.

The homes and related development on the slope of McCauley Butte would obviously eliminate existing wildlife habitat. The resulting human presence would also tend to shift avian use away from the area. Ideally, there should be no lots in this portion of the subdivision. At the same time, homes within lots 12, 13 and 14 would likely be sited somewhat lower on the slopes. Steep hillsides above those homesites, designated as no-build zones, would then help buffer human use from upslope bird activity. That would not be the case for lots 10 and 11. Steep terrain downslope of the likely homesites, with an accompanying no-build designation, would help protect habitat. However, upslope of the homes, the no-build zone is narrow and would offer limited, if any, buffering effect from adjoining open space habitat.

If the development proceeds as being proposed, the no-build areas should be acknowledged as buffer zones meant to protect wildlife from the impact of adjoining development. Overstory trees within the lots should be protected to the extent possible and human activity in the no-build areas limited. At best, this would be mitigating action for a development that will have an irreversible effect; another increment of Missoula's increasingly scarce and valued open space will be impacted or lost. It is an effect that adds to the inexorable reduction of Missoula Valley habitat that sustains a variety of dependent species.

Thank you for the opportunity to again offer comment on the proposed McCauley Butte Subdivision.

From: [Dan Stone](#)
To: tworley@missoulacounty.us; [Dale McCormick](#)
Cc: [Corey Aldridge](#)
Subject: McCauley Meadows Subdivision - MUTD Comment
Date: Friday, April 24, 2020 1:42:25 PM

Hi Dale,

I would like to provide comment on behalf of the Missoula Urban Transportation District regarding the McCauley Meadows Subdivision:

Studies have shown that people are willing to walk about a quarter mile to access public transit. The proposed McCauley Meadows subdivision would be about 1 mile from the nearest bus stop on Mountain Line's Route 9 and therefore, beyond a walkable distance to public transit.

Thank you,

Dan Stone
Transit Planner
Mountain Line
Missoula, MT
dstone@mountainline.com
(406) 215-2457

From: [Richard Maricelli](#)
To: [Dale McCormick](#)
Subject: RE: McCauley Meadows Subdivision
Date: Tuesday, April 21, 2020 11:30:06 AM

Good Morning Dale:

These Subdivision requests used to go to our Administrative Capt. Anthony Rio. Capt. Rio has since retired and so the Administrative Aide forwarded this latest one to me. I certainly wouldn't have any issue with the projected new subdivision, at least that I am aware of at this point. Please feel free to contact me if you have any additional questions or concerns.

Sincerely,



Rich Maricelli
Missoula County Undersheriff

200 W. Broadway
Missoula, MT 59802
rmaricelli@missoulacounty.us
(406)258-3330

From: Dawn Seaton <dseaton@missoulacounty.us>
Sent: Tuesday, April 21, 2020 9:33 AM
To: Richard Maricelli <rmaricelli@missoulacounty.us>
Subject: Re: McCauley Meadows Subdivision

Only thing I can guess is he emailed them back saying he did or did not have a problem with them.

Dawn Seaton

Senior Administrative Aide

406-258-4807

From: Richard Maricelli <rmaricelli@missoulacounty.us>

Sent: Tuesday, April 21, 2020 7:08 AM
To: Dawn Seaton <dseaton@missoulacounty.us>
Subject: RE: McCauley Meadows Subdivision

I looked these over. They seem fine to me. Not sure what Rio did with them after looking them over. Any idea?



Rich Maricelli
Missoula County Undersheriff

200 W. Broadway
Missoula, MT 59802
rmaricelli@missoulacounty.us
(406)258-3330

From: Dawn Seaton <dseaton@missoulacounty.us>
Sent: Thursday, April 16, 2020 8:59 AM
To: Richard Maricelli <rmaricelli@missoulacounty.us>
Subject: Fw: McCauley Meadows Subdivision

Good morning

I used to forward these to Rio.... who should I forward them to now?

Dawn Seaton

Senior Administrative Aide

406-258-4807

From: Dale McCormick <dalem@pcimontana.com>
Sent: Wednesday, April 15, 2020 3:22 PM
To: envhealth <envhealth@missoulacounty.us>; Ben Schmidt <bschmidt@missoulacounty.us>; Sarah Coefield <scoefield@missoulacounty.us>; Shannon Therriault <stherriault@missoulacounty.us>; Jeanna Miller <jmiller@missoulacounty.us>; waterquality <waterquality@missoulacounty.us>; Travis Ross <tross@missoulacounty.us>; davis@missoulacounty.us <davis@missoulacounty.us>; Garrick Swanson

April 15, 2020

Missoula County Community and Planning Services (CAPS) has requested that we provide a link to the full *1st Agency Sufficiency Review* packet pursuant to the attached list, for your review and comments regarding the McCauley Meadows Subdivision.

The link to the packet is:

<http://apps.missoulacounty.us/go/mccauleymeadows>

This information is being e-mailed to your agency on or before April 16, 2020, please provide your comments no later than **April 30, 2020**, the CAPS sufficiency review deadline is on May 4, 2020.

Please review the information on the CAPS website and comment using the Agency Comment Form on the website. If you have any questions or need additional information regarding the project, please do not hesitate to contact Tim Worley (258- 4794) or me at 728-1880.

Thank you in advance for your attention to the requested review.

Sincerely,

-Dale

Dale McCormick, Planner



3115 Russell St / PO Box 1750

Missoula, MT 59806

(406) 728.1880 / (406) 728.0276 fax

www.pcimontana.com

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From: [Ben Schmidt](#)
To: [Tim Worley](#); [Dale McCormick](#)
Subject: McCauley Meadows
Date: Monday, April 20, 2020 9:20:18 AM

The Air Program supports the covenant that radon resistant construction methods be used at time of construction (if you want to replace the work “passive” with “radon resistant” that may sound better. See example language below). The Air Program also supports the proposed construction of pedestrian facilities along Ringo Drive and Ponderosa Lane.

EPA has designated the Missoula area as having high radon gas potential (Zone1). Therefore, the Missoula City-County Health Department recommends that all new construction incorporate radon resistant construction features.

Sincerely,

Benjamin Schmidt MS, RS, QEP
Air Quality Specialist
406-258-3369
bschmidt@missoulacounty.us



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From: [Travis Ross](#)
To: [Dale McCormick](#)
Cc: [Tim Worley](#); [Jeanna Miller](#); [Shannon Therriault](#); [Jim Erven](#)
Subject: RE: Coordinating Comment: McCauley Meadows Subdivision
Date: Friday, April 17, 2020 1:11:34 PM

Dale – The Missoula Valley Water Quality District appreciates the opportunity to provide comment. We support this revision that eliminates the community drainfield on the butte. Of course, impacts to groundwater will be further addressed through non-degradation analysis completed during Sanitation in Subdivision Review.

Travis

Travis Ross
Environmental Health Supervisor
Missoula Valley Water Quality District
Missoula City-County Health Department
406.258.4964

From: Dale McCormick <dalem@pcimontana.com>
Sent: Wednesday, April 15, 2020 3:23 PM
To: envhealth <envhealth@missoulacounty.us>; Ben Schmidt <bschmidt@missoulacounty.us>; Sarah Coefield <scoefield@missoulacounty.us>; Shannon Therriault <stherriault@missoulacounty.us>; Jeanna Miller <jmiller@missoulacounty.us>; waterquality <waterquality@missoulacounty.us>; Travis Ross <tross@missoulacounty.us>; davis@missoulacounty.us; Garrick Swanson <gswanson@missoulacounty.us>; Kylie Paul <kpaul@missoulacounty.us>; ario@missoulacounty.us; Dawn Seaton <dseaton@missoulacounty.us>; Nicole Whyte <nwhyte@missoulacounty.us>; Steve Niday <sniday@missoulacounty.us>; DGray@ci.missoula.mt.us; bryce@missoulaeduplace.org; mccream@ci.missoula.mt.us; ldavidson@missoulahousing.org; membership@buildmissoula.com; recording <recording@missoulacounty.us>; Janet.Camel@cskt.org; preservation@cskt.org; Ritter, Torrey <torrey.ritter@mt.gov>; shrose@mt.gov; lenglish@mt.gov; tonyi@cskt.org; daniel.stiffarm@cskt.org; jndibari@yahoo.com; carltong@ci.missoula.mt.us; nminer@ci.missoula.mt.us; contactmpd@ci.missoula.mt.us; firebureau@ci.missoula.mt.us; FraserD@ci.missoula.mt.us; sebastiana <sebastiana@ci.missoula.mt.us>; Corey Aldridge <caldridge@mountainline.com>; dstone@mountainline.com; vcaristo@mountainline.com; Mitchell.Houk@charter.com; Benny.Murphy@charter.com; Benny.Murphy@charter.com; shawn.weingartner@northwestern.com; Bauer, Chad <cbauer2@republicservices.com>; rmollenhauer@ci.missoula.mt.us; lmcinnis <lmcinnis@ci.missoula.mt.us>; ray@tippandbuley.com; timsupola@yahoo.com; Todd Klietz <tklietz@missoulacounty.us>; cstover@mt.gov; bchristopherson@mrfdfire.org; Erin Lipkind <elipkind@missoulacounty.us>; Robert Watson <rwatson@mcps.k12.mt.us>; bmcwilliams@mcps.k12.mt.us; corey.austin@target.k12.mt.us;

From: [Jim Erven](#)
To: [Tim Worley](#); [Dale McCormick](#)
Cc: [Jeanna Miller](#); [Daniel Congdon](#)
Subject: McCauley Meadows Comments
Date: Thursday, April 16, 2020 9:32:45 AM

Hi-

Thanks for the opportunity to comment on this project. As you are aware, this project is subject to the sanitation review requirements of Title 76-4 MCA. We will review the elements of the project in full during the course of that review. We are available remotely should you wish to have a pre-application meeting by computer or phone.

One thing I would point out in the meantime is that the Health Code, Reg 1 does require the use of a community wastewater system unless the requirements of Section 20(A)(8) are shown to be met and dry laid collection is proposed. In accordance with that section, the sanitation review application must provide justification from the City of Missoula Engineer explaining why dry laid sewer is preferable to a community wastewater system to serve this development.

James Erven, R.S.
Environmental Health Specialist II
Missoula City/County Health Department
301 West Alder
Missoula, MT 59802
Office - [406-258-4755](tel:406-258-4755)
Fax - [406-258-4781](tel:406-258-4781)

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From: [Bauer, Chad](#)
To: [Dale McCormick](#)
Subject: RE: McCauley Meadows Subdivision
Date: Wednesday, April 15, 2020 3:29:07 PM

Dale, we can provide service to the proposed Subdivision

Chad Bauer

Municipal Manager BU 452 Montana

1501 Rodgers St

Missoula Mt. 59802

e cbauer2@republicservices.com

o 406-532-5120 c 406-360-8426

w RepublicServices.com



We'll handle it from here®

From: Dale McCormick <dalem@pcimontana.com>

Sent: Wednesday, April 15, 2020 3:23 PM

To: envhealth@missoulacounty.us; bschmidt@missoulacounty.us; scoefield@missoulacounty.us; stherriault@missoulacounty.us; jmiller@missoulacounty.us; waterquality@missoulacounty.us; tross@missoulacounty.us; davis@missoulacounty.us; gswanson@missoulacounty.us; kpaul@missoulacounty.us; ario@missoulacounty.us; dseaton@missoulacounty.us; nwhyte@missoulacounty.us; sniday@missoulacounty.us; DGray@ci.missoula.mt.us; bryce@missoulaeduplace.org; mccream@ci.missoula.mt.us; l davidson@missoulahousing.org; membership@buildmissoula.com; recording@missoulacounty.us; Janet.Camel@cskt.org; preservation@cskt.org; torrey.ritter@mt.gov; shrose@mt.gov; lenglish@mt.gov; tonyi@cskt.org; daniel.stiffarm@cskt.org; jndibari@yahoo.com; carltong@ci.missoula.mt.us; nminer@ci.missoula.mt.us; contactmpd@ci.missoula.mt.us; firebureau@ci.missoula.mt.us; FraserD@ci.missoula.mt.us; SebastianA@ci.missoula.mt.us; caldridge@mountainline.com; dstone@mountainline.com; vcaristo@mountainline.com; Mitchell.Houk@charter.com; Benny.Murphy@charter.com; Benny.Murphy@charter.com; shawn.weingartner@northwestern.com; Bauer, Chad <CBauer2@republicservices.com>; rmollenhauer@ci.missoula.mt.us; LMclInnis@ci.missoula.mt.us; ray@tippandbuley.com; timsupola@yahoo.com; tklietz@missoulacounty.us; cstover@mt.gov; bchristopherson@mrfdfire.org; elipkind@missoulacounty.us; rwatson@mcps.k12.mt.us; bmcwilliams@mcps.k12.mt.us; corey.austin@target.k12.mt.us; meetskari@gmail.com; bonnie@missoulacfac.org; cfacinfo@missoulacfac.org; ak_pegm@yahoo.com; gmk@bresnan.net;

From: [Todd Klietz](#)
To: [Dale McCormick](#)
Cc: [Tim Worley](#)
Subject: RE: McCauley Meadows Subdivision
Date: Wednesday, April 15, 2020 4:06:33 PM

Hi Dale – no floodplain comments on this one – cheers!

From: Dale McCormick <dalem@pcimontana.com>
Sent: Wednesday, April 15, 2020 3:23 PM
To: envhealth <envhealth@missoulacounty.us>; Ben Schmidt <bschmidt@missoulacounty.us>; Sarah Coefield <scoefield@missoulacounty.us>; Shannon Therriault <stherriault@missoulacounty.us>; Jeanna Miller <jmiller@missoulacounty.us>; waterquality <waterquality@missoulacounty.us>; Travis Ross <tross@missoulacounty.us>; davis@missoulacounty.us; Garrick Swanson <gswanson@missoulacounty.us>; Kylie Paul <kpaul@missoulacounty.us>; ario@missoulacounty.us; Dawn Seaton <dseaton@missoulacounty.us>; Nicole Whyte <nwhyte@missoulacounty.us>; Steve Niday <sniday@missoulacounty.us>; DGray@ci.missoula.mt.us; bryce@missoulaeduplace.org; mccream@ci.missoula.mt.us; l davidson@missoulahousing.org; membership@buildmissoula.com; recording <recording@missoulacounty.us>; Janet.Camel@cskt.org; preservation@cskt.org; Ritter, Torrey <torrey.ritter@mt.gov>; shrose@mt.gov; lenglish@mt.gov; tonyi@cskt.org; daniel.stiffarm@cskt.org; jndibari@yahoo.com; carltong@ci.missoula.mt.us; nminer@ci.missoula.mt.us; contactmpd@ci.missoula.mt.us; firebureau@ci.missoula.mt.us; FraserD@ci.missoula.mt.us; sebastiana <sebastiana@ci.missoula.mt.us>; Corey Aldridge <caldrige@mountainline.com>; dstone@mountainline.com; vcaristo@mountainline.com; Mitchell.Houk@charter.com; Benny.Murphy@charter.com; Benny.Murphy@charter.com; shawn.weingartner@northwestern.com; Bauer, Chad <cbauer2@republicservices.com>; rmollenhauer@ci.missoula.mt.us; lmcinnis <lmcinnis@ci.missoula.mt.us>; ray@tippandbuley.com; timsupola@yahoo.com; Todd Klietz <tklietz@missoulacounty.us>; cstover@mt.gov; bchristopherson@mrfdfire.org; Erin Lipkind <elipkind@missoulacounty.us>; Robert Watson <rwatson@mcps.k12.mt.us>; bmcwilliams@mcps.k12.mt.us; corey.austin@target.k12.mt.us; meetskari@gmail.com; bonnie@missoulacfac.org; cfacinfo@missoulacfac.org; ak_pegm@yahoo.com; gmk@bresnan.net; brownjs2@bresnan.net; contact@missoula-neighborhoods.org; fandkjones@juno.com; NagyL@earthlink.net; mbia@buildmissoula.com; rhackney@missoularealestate.com; deaston@missoularealestate.com; jlemons@oldcastlematerials.com
Cc: Tim Worley <tworley@missoulacounty.us>; Dave Keck <dave@montanakeck.com>; Alan F. McCormick <afmccormick@GARLINGTON.COM>; Andy Mefford <andym@pcimontana.com>; Karl Treadwell <karlt@pcimontana.com>
Subject: McCauley Meadows Subdivision

To: Project Review Agencies

RE: McCauley Meadows Subdivision Request for Sufficiency Review

April 15, 2020

From: [Stover, Candie](#)
To: [Dale McCormick](#)
Subject: Re: McCauley Meadows Subdivision
Date: Wednesday, April 15, 2020 3:51:00 PM

Thank you for the opportunity to respond - the MT Dept of Revenue has no comment at this time.

Candie Stover
MSLA Office of DOR
406 329-1404

From: Dale McCormick <dalem@pcimontana.com>

Sent: Wednesday, April 15, 2020 3:22 PM

To: envhealth@missoulacounty.us; bschmidt@missoulacounty.us; scoefield@missoulacounty.us; stherriault@missoulacounty.us; jmiller@missoulacounty.us; waterquality@missoulacounty.us; tross@missoulacounty.us; davis@missoulacounty.us; gswanson@missoulacounty.us; kpaul@missoulacounty.us; ario@missoulacounty.us; dseaton@missoulacounty.us; nwhyte@missoulacounty.us; sniday@missoulacounty.us; DGray@ci.missoula.mt.us; bryce@missoulaeduplace.org; mcream@ci.missoula.mt.us; l davidson@missoulahousing.org; membership@buildmissoula.com; recording@missoulacounty.us; Janet.Camel@cskt.org; preservation@cskt.org; Ritter, Torrey; Rose, Sharon; English, Leata; tonyi@cskt.org; daniel.stiffarm@cskt.org; jndibari@yahoo.com; carltong@ci.missoula.mt.us; nminer@ci.missoula.mt.us; contactmpd@ci.missoula.mt.us; firebureau@ci.missoula.mt.us; FraserD@ci.missoula.mt.us; SebastianA@ci.missoula.mt.us; caldridge@mountainline.com; dstone@mountainline.com; vcaristo@mountainline.com; Mitchell.Houk@charter.com; Benny.Murphy@charter.com; Benny.Murphy@charter.com; shawn.weingartner@northwestern.com; CBauer2@republicservices.com; rmollenhauer@ci.missoula.mt.us; LMclInnis@ci.missoula.mt.us; ray@tipandbuley.com; timsupola@yahoo.com; tklietz@missoulacounty.us; Stover, Candie; bchristopherson@mrfdfire.org; elipkind@missoulacounty.us; rwatson@mcps.k12.mt.us; bmcwilliams@mcps.k12.mt.us; corey.austin@target.k12.mt.us; meetskari@gmail.com; bonnie@missoulacfac.org; cfacinfo@missoulacfac.org; ak_pegm@yahoo.com; gmk@bresnan.net; brownjs2@bresnan.net; contact@missoula-neighborhoods.org; fandkjones@juno.com; NagyL@earthlink.net; mbia@buildmissoula.com; rhackney@missoularealestate.com; deaston@missoularealestate.com; jlemons@oldcastlematerials.com

Cc: Tim Worley; Dave Keck; Alan F. McCormick; Andy Mefford; Karl Treadwell

Subject: [EXTERNAL] McCauley Meadows Subdivision

To: Project Review Agencies

RE: McCauley Meadows Subdivision Request for Sufficiency Review

April 15, 2020

From: [Brent Christopherson](#)
To: [Dale McCormick](#)
Cc: [Brent Christopherson](#)
Subject: RE: McCauley Meadows
Date: Tuesday, March 10, 2020 5:07:06 PM
Attachments: [SKMBT_C55220031015370.pdf](#)

Hi Dale,

I have initialed the fire hazard assessment and Ponderosa Lane looks fine. Please make sure that the roads in the subdivision that are only 20 feet wide have signs posted that show no parking, (fire lane) is allowed, on the street to allow adequate emergency access. Please refer to the International Fire Code (2012) Edition for sign requirements. Please also make sure that there is a requirement so that these streets are maintained and also plowed in the winter to maintain that 20 foot unobstructed road width. If not already done, please make sure the area is annexed into the Missoula Rural Fire District for fire protection.

Thanks very much.

Brent

Brent L. Christopherson, MPA, EFO
Assistant Fire Chief
Missoula Rural Fire District
Phone: 406-549-6172
Email: bchristopherson@mrfdfire.org
2521 South Ave West
Missoula, MT 59804
www.mrfdfire.org

From: Dale McCormick <dalem@pcimontana.com>
Sent: Wednesday, March 4, 2020 2:44 PM
To: Brent Christopherson <bchristopherson@mrfdfire.org>
Cc: Adriane Beck <abeck@missoulacounty.us>
Subject: McCauley Meadows

Hello Brent,

The McCauley Meadows subdivision is in 1st Element review and CAPS has asked that you review/initial our Fire Hazard Assessment using the updated Appendix C. I have attached it for your review as well as the plan and profile of Ponderosa Lane. Please initial the second page and return if you find it acceptable, or if you have suggested changes, please let me know and I will modify it.

Thanks,

-Dale



DEVELOPMENT SERVICES – ENGINEERING DIVISION

435 RYMAN • MISSOULA, MT 59802 - 4297 • (406) 552-6630 • FAX: (406) 552-6053

CORR # 2020-0008

31 January 2020

Karl Treadwell, E.I.

karlt@pcimontana.com

Professional Consultants Inc.

3115 Russell Street / P.O. Box 1750

Missoula, MT 59806

RE: McCauley Meadows – City Engineering's Review of Preliminary Information Related to Layout and Costs of Proposed Sanitary Sewer Systems
City File #2020-011

Karl,

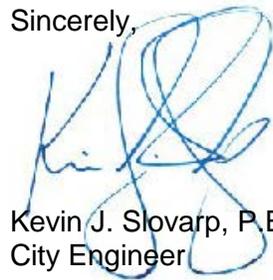
This letter pertains to information Professional Consultants, Inc. (PCI) recently submitted to City Engineering regarding the proposed 14-lot subdivision with a 2.5 acre Common Area currently named McCauley Meadows. The information specifically relates to the proposed sanitary sewer system design options with corresponding cost estimates. PCI has requested City Engineering write this letter addressing the Missoula City/County Health Department (Department) Code Regulation 1 requirements for the proposed subdivision's sanitary sewer system. City Engineering has the following written findings intended to address the Department's requirements:

1. RSID/SID waiver language (Missoula City County Health Code Regulation 1 Section 20(A)(1) be shown on the plat or contained within a deed restriction filed with the plat.
2. Section 20(A)(5) applies. The preliminary sewer layout submitted in the PCI letter written to me, dated January 28, 2020 will meet this requirement.
3. Section 20(A)(7) applies. The proposed subdivision contains 5 or more lots of less than 2 acres per lot requires a multi-user or community wastewater treatment and disposal system. The preliminary sewer layout submitted in the PCI letter written to me, dated January 28, 2020 will meet this requirement.
4. Section 20(A)(8) applies. It allows for a properly designed, installed and inspected dry laid gravity main to be used in place of a multi-user or community system.
 - a. The dry-laid gravity main as depicted in the preliminary sewer layout submitted in the PCI letter written to me, dated January 28, 2020, meets the requirements of Section 20(A)(8)(a).
 - b. Based on the cost information within the PCI letter written to me, dated January 28, 2020, City Engineering finds Section 20(A)(8)(b)(i) satisfied. Furthermore, in this instance a dry laid system is preferable to City Engineering because the dry laid system will be less expensive for future homeowners connecting to public sewer when it's available for connection.
 - c. Based on the conclusion section within the PCI letter written to me, dated January 28, 2020, City Engineering finds Section 20(A)(8)(b)(ii) generally

satisfied. The conclusion section speaks to the complications for feasibility for a multi-user system on this particular site. These statements along with the local community expressed interest of not having a multi-user drain field located on McCauley Butte lead me to support the dry laid system over the multi-user system. These 'site characteristics' make a 'feasible' multi-user system less desirable to the community.

For further questions or comments, please contact engineering@ci.missoula.mt.us or 552-6630.

Sincerely,



Kevin J. Slovarp, P.E.
City Engineer

cc: Logan McInnis, Ross Mollenhauer, Pat Brook
Troy Monroe, Ida Sajor
Mickey Morin, Brad Riley
Bob Hayes, Aaron Lebsack, Triston Firth
Jane Plummer



January 28, 2020

Kevin Slovarp
Missoula Development Services
435 Ryman Street
Missoula, MT 59802

Re: McCauley Meadows Cost Comparison

Dear Mr. Slovarp,

This letter is in response to your red lines emailed on January 23, 2020. McCauley Meadows is a proposed 14-lot subdivision of Lot A-1 of the Rangitsch Addition #4 of Lot 11A, located in S35, T13N, R20W, Geocode: 04-2199-35-1-08-02-0000. We propose two options for wastewater disposal in the Target Range with plans for future hookup. Below you will find a brief summary of each approach and attached is a cost estimate for each proposal. We request that you review these proposals in order to make a determination as to which proposal will prove more feasible and reduce the cost for future landowners to connect to city sewer when it arrives in the area. We request this review per Missoula City-Couthy Health Code Regulation 1 Section 20(A)(8)(b).

Option 1: Individual Drainfields and Dry-Lay Sewer System

One option is to install 14 individual wastewater treatment systems throughout the subdivision. A dry-lay gravity sewer main will be run underneath the roads and along property lines and will terminate at a sewer manhole to be installed in Humble Road. This will provide a single location to connect the future main when it is installed down Humble Road. The cost to connect the sewer main will be shared amongst all 14 lots. Sewer service lines will be brought to within 15 feet of individual septic tanks. When the future main is connected, homeowners will have to abandon the existing septic tanks and extend the dry-laid service lines to connect to their existing discharge. See Cost Comparison Sheet 1 for layout details. This option will give each owner full control and responsibility of their own septic systems, avoiding the need for a multi-user agreement.

Option 2: Multi-User Septic System

In order to have a single connection point near the future Humble Road sewer main, houses will gravity drain to common septic and dose tanks to be located on proposed Lot 1. In order to catch sewage at this point, the tanks will have to be buried to an excavated depth of at least 18 feet. The dose tank will then deliver effluent through a force main back up the hill to a shared distribution field on the Butte. These are steep slopes but are viable for a multi-user effluent distribution system. This multi-user drainfield will require a 500-foot mixing zone per nondegradation standards. Restoration of the hillside will be necessary to stabilize and clean up the disturbed area. Future hookup will require modifying the Humble Road Manhole that will be installed as a part of this project. The tanks and common electrical equipment will have to be abandoned as will the septic easement. See Cost Comparison Sheet 2 for layout details.



Conclusion:

Per Missoula City County Health Code Regulation 1 Section 20(A)(8)(b)(i), the dry-laid sewer system is shown to be less expensive for future homeowners. The Cost Analysis does not account for regular maintenance and operational costs. Total Cost for each project is summarized below:

| Cost Estimate Summary | | |
|------------------------------|------------------------------|---------------------------|
| Option | Total Cost of Project | Total Cost Per Lot |
| Dry-Lay Sewer | \$374,928.75 | \$26,780.63 |
| Multi-User Septic | \$390,033.95 | \$27,859.57 |

Per Missoula City County Health Code Reg 1 Section 20(A)(8)(b)(ii), burying the septic and dose tanks 18 feet deep creates significant problems and adds additional costs not only for installation and abandonment, but also for maintenance and pumping. Physical and regulatory constraints created by setback, mixing zone, and nondegradation requirements limit possibilities for an appropriately sized multi-user drainfield in this subdivision. Additionally, the average static water level taken from 25 nearby well logs (including one on site) is found to be 21.01 feet with water levels as high as 10 feet (See Local Well Data Table, below). This creates issues for introducing septic and dose tanks into groundwater zones. These complications present feasibility concerns for the scope of this project.

McCauley Meadows, EQ#20-1069, Sewer Service Construction Cost Analysis

| Option 1: Dry-Lay Sewer → Individual Septic Systems → Connect to Municipal Sewer | | | | | |
|---|---|----------|-------|---------------------|-------------------|
| ITEM | DESCRIPTION | QUANTITY | UNITS | Engineer's Estimate | |
| | | | | UNIT COST | TOTAL |
| 1000 | Mobilization/Demobilization (Individual Septics Not Included) | 1 | LS | \$ 9,853.75 | \$ 9,853.75 |
| 1100 | 8" Gravity Sewer Main (Dry-Lay) | 2226 | LF | \$ 50.00 | \$ 111,300.00 |
| 1110 | Main testing | 1 | LS | \$ 1,500.00 | \$ 1,500.00 |
| 1120 | 4' Dia. Manhole | 11 | EA | \$ 2,500.00 | \$ 27,500.00 |
| 1121 | 4' Dia. Manhole Additional Depth | 55 | VF | \$ 200.00 | \$ 11,000.00 |
| 1122 | 4' Dia. Drop Manhole | 2 | EA | \$ 2,500.00 | \$ 5,000.00 |
| 1130 | Service Taps | 14 | EA | \$ 500.00 | \$ 7,000.00 |
| 1140 | 4" Sewer Service Line (Dry-Lay) | 1351 | LF | \$ 25.00 | \$ 33,775.00 |
| 1210 | 1,500-gallon Gravity Septic Tank & Appurtenances | 14 | EA | \$ 4,000.00 | \$ 56,000.00 |
| 1230 | Individual Distribution System (Drainfield Laterals) | 14 | EA | \$ 6,000.00 | \$ 84,000.00 |
| 2100 | 4" Sewer Service Line & Connect to Existing (15 LF per Lot) | 14 | EA | \$ 1,000.00 | \$ 14,000.00 |
| 2200 | 1,500-gallon Septic Tank Abandonment | 14 | EA | \$ 1,000.00 | \$ 14,000.00 |
| TOTAL: | | | | \$ | 374,928.75 |
| TOTAL COST PER LOT: | | | | \$ | 26,780.63 |

| Option 2: Multi-User Septic System → Connect to Municipal Sewer | | | | | |
|--|---|----------|-------|---------------------|-------------------|
| ITEM | DESCRIPTION | QUANTITY | UNITS | Engineer's Estimate | |
| | | | | UNIT COST | TOTAL |
| 1000 | Mobilization/Demobilization | 1 | LS | \$ 17,299.95 | \$ 17,299.95 |
| 1100 | 8" Gravity Sewer Main | 2226 | LF | \$ 50.00 | \$ 111,300.00 |
| 1110 | Main Testing | 1 | LS | \$ 1,500.00 | \$ 1,500.00 |
| 1120 | 4' Dia. Manhole | 11 | EA | \$ 2,500.00 | \$ 27,500.00 |
| 1121 | 4' Dia. Manhole Additional Depth | 55 | VF | \$ 200.00 | \$ 11,000.00 |
| 1122 | 4' Dia. Drop Manhole | 2 | EA | \$ 2,500.00 | \$ 5,000.00 |
| 1130 | Service Taps | 14 | EA | \$ 500.00 | \$ 7,000.00 |
| 1140 | 4" Sewer Service Line | 1561 | LF | \$ 25.00 | \$ 39,025.00 |
| 1213 | 9,000-gallon Common Septic Tank (Excavation to 18 ft BGS - Not Recommended) | 1 | EA | \$ 30,000.00 | \$ 30,000.00 |
| 1214 | 3,500-gallon Common Dose Tank (Excavation to 18 ft BGS - Not Recommended) | 1 | EA | \$ 23,000.00 | \$ 23,000.00 |
| 1215 | Reinforced Tank Lids | 2 | EA | \$ 5,000.00 | \$ 10,000.00 |
| 1220 | Duplex Pumping Station (Pumps and Appurtenances) | 1 | EA | \$ 10,000.00 | \$ 10,000.00 |
| 1231 | 2.0" Sch. 40 PVC Force Main (Common) | 1246 | LF | \$ 19.00 | \$ 23,674.00 |
| 1232 | 1.5" Sch. 40 PVC Deep Absorption/Sand-Lined Lateral Lines (Common) | 1500 | LF | \$ 30.00 | \$ 45,000.00 |
| 1233 | Splitter Valve | 1 | EA | \$ 2,000.00 | \$ 2,000.00 |
| 1240 | Hillside Restoration and Stabilization | 1 | LS | \$ 5,000.00 | \$ 5,000.00 |
| 2000 | Mobilization/Demobilization | 1 | LS | \$ 1,035.00 | \$ 1,035.00 |
| 2110 | Manhole Modification | 1 | LS | \$ 1,500.00 | \$ 1,500.00 |
| 2201 | 3,500-gallon Common Dose Tank Abandonment | 1 | LS | \$ 5,000.00 | \$ 5,000.00 |
| 2202 | 9,000-gallon Common Septic Tank Abandonment | 1 | LS | \$ 12,000.00 | \$ 12,000.00 |
| 2203 | Abandon Common Electrical | 1 | LS | \$ 700.00 | \$ 700.00 |
| 2300 | Abandon Septic Easement | 1 | LS | \$ 1,500.00 | \$ 1,500.00 |
| TOTAL: | | | | \$ | 390,033.95 |
| TOTAL COST PER LOT: | | | | \$ | 27,859.57 |

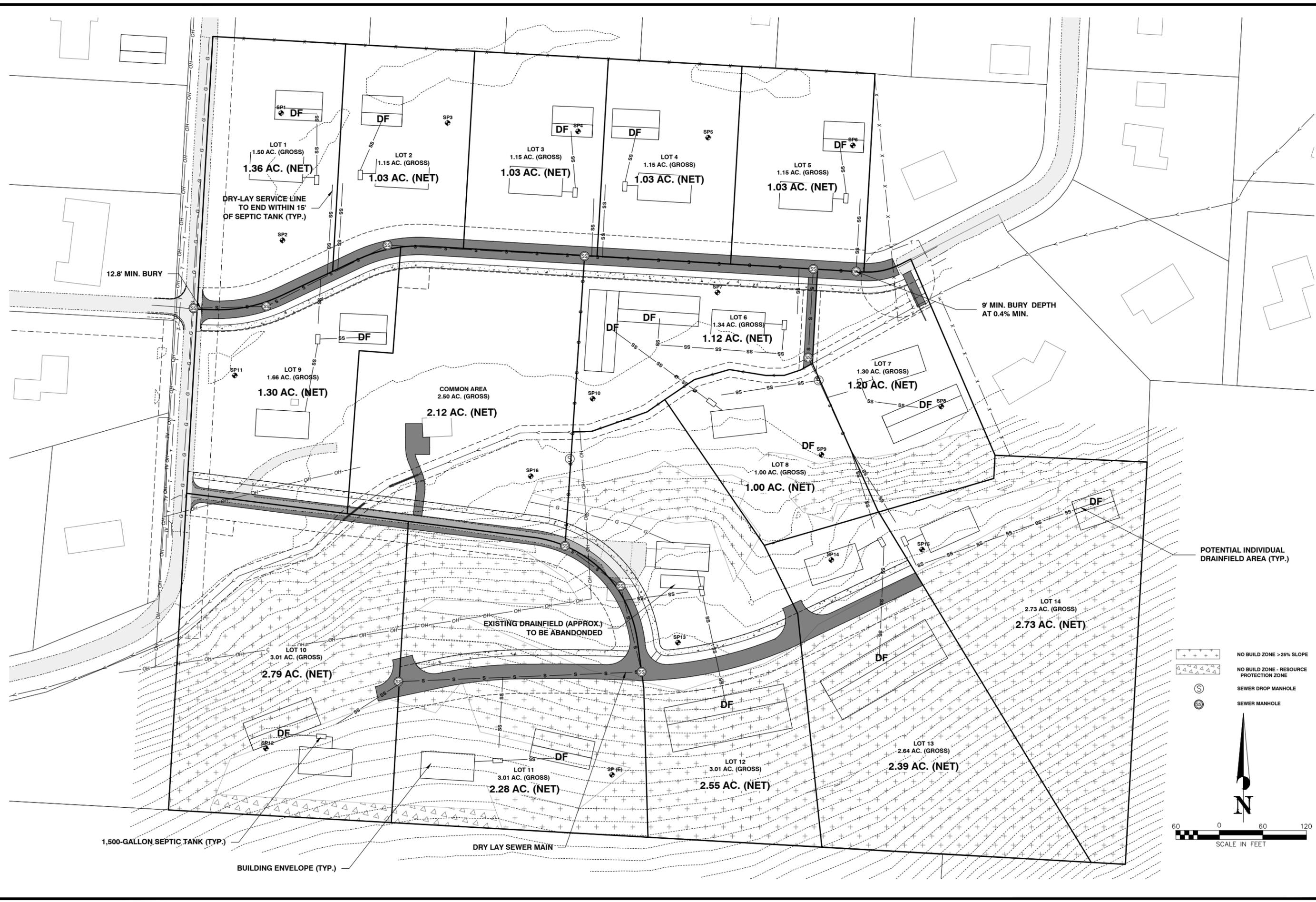


Local Well Data Table

| GWIC ID | TD [FT] | SWL [FT] | YIELD, Q [GPM] |
|---------|---------|----------|----------------|
| 70225 | 50.3 | 20 | 40 |
| 70227 | 78 | 20 | 20 |
| 70228 | 74 | 19 | 50 |
| 70234 | 85 | 65 | 20 |
| 70216 | 59.5 | 23 | 50 |
| 70219 | 78 | 21 | 60 |
| 70218 | 100 | 15 | 40 |
| 70222 | 83.3 | 21.9 | 50 |
| 70223 | 77 | 18 | 50 |
| 70237 | 116 | 18 | 75 |
| 134822 | 64 | 22 | 30 |
| 70238 | 94 | 10 | 100 |
| 70244 | 106 | 19.5 | 60 |
| 164400 | 107 | 23 | 30 |
| 70246 | 64 | 16.33 | 40 |
| 70243 | 75 | 16.33 | 40 |
| 70240 | 116 | 23 | 120 |
| 70245 | 110 | 60 | 60 |
| 70251 | 94 | 6.75 | 60 |
| 70250 | 102 | 12 | 45 |
| 70248 | 48 | 7.5 | 20 |
| 70249 | 108 | 20 | 60 |
| 70252 | 99 | 12 | 60 |
| 70254 | 60 | 20 | 40 |
| 70253 | 60 | 16 | 20 |

| | | | |
|-----------------|---------------|----------------|-------------|
| AVERAGE: | 84.324 | 21.0124 | 49.6 |
|-----------------|---------------|----------------|-------------|

F:\017\8754-17_Tai Tam, LLC (Dove Kesel)\CAD\8754-17 Design.dwg 1/28/20



NO BUILD ZONE >25% SLOPE
 NO BUILD ZONE - RESOURCE PROTECTION ZONE
 SEWER DROP MANHOLE
 SEWER MANHOLE

1,500-GALLON SEPTIC TANK (TYP.)
 BUILDING ENVELOPE (TYP.)
 DRY LAY SEWER MAIN
 EXISTING DRAINFIELD (APPROX.) TO BE ABANDONED
 POTENTIAL INDIVIDUAL DRAINFIELD AREA (TYP.)
 9' MIN. BURY DEPTH AT 0.4% MIN.
 12.8' MIN. BURY

LOT 1: 1.50 AC. (GROSS), 1.36 AC. (NET)
 LOT 2: 1.15 AC. (GROSS), 1.03 AC. (NET)
 LOT 3: 1.15 AC. (GROSS), 1.03 AC. (NET)
 LOT 4: 1.15 AC. (GROSS), 1.03 AC. (NET)
 LOT 5: 1.15 AC. (GROSS), 1.03 AC. (NET)
 LOT 6: 1.34 AC. (GROSS), 1.12 AC. (NET)
 LOT 7: 1.30 AC. (GROSS), 1.20 AC. (NET)
 LOT 8: 1.00 AC. (GROSS), 1.00 AC. (NET)
 LOT 9: 1.66 AC. (GROSS), 1.30 AC. (NET)
 COMMON AREA: 2.50 AC. (GROSS), 2.12 AC. (NET)
 LOT 10: 3.01 AC. (GROSS), 2.79 AC. (NET)
 LOT 11: 3.01 AC. (GROSS), 2.28 AC. (NET)
 LOT 12: 3.01 AC. (GROSS), 2.55 AC. (NET)
 LOT 13: 2.64 AC. (GROSS), 2.39 AC. (NET)
 LOT 14: 2.73 AC. (GROSS), 2.73 AC. (NET)

| | |
|-----------|---------|
| PROJECT # | 8754-17 |
| DRAWN | AJ |
| CHECKED | MT |
| REVISION | |

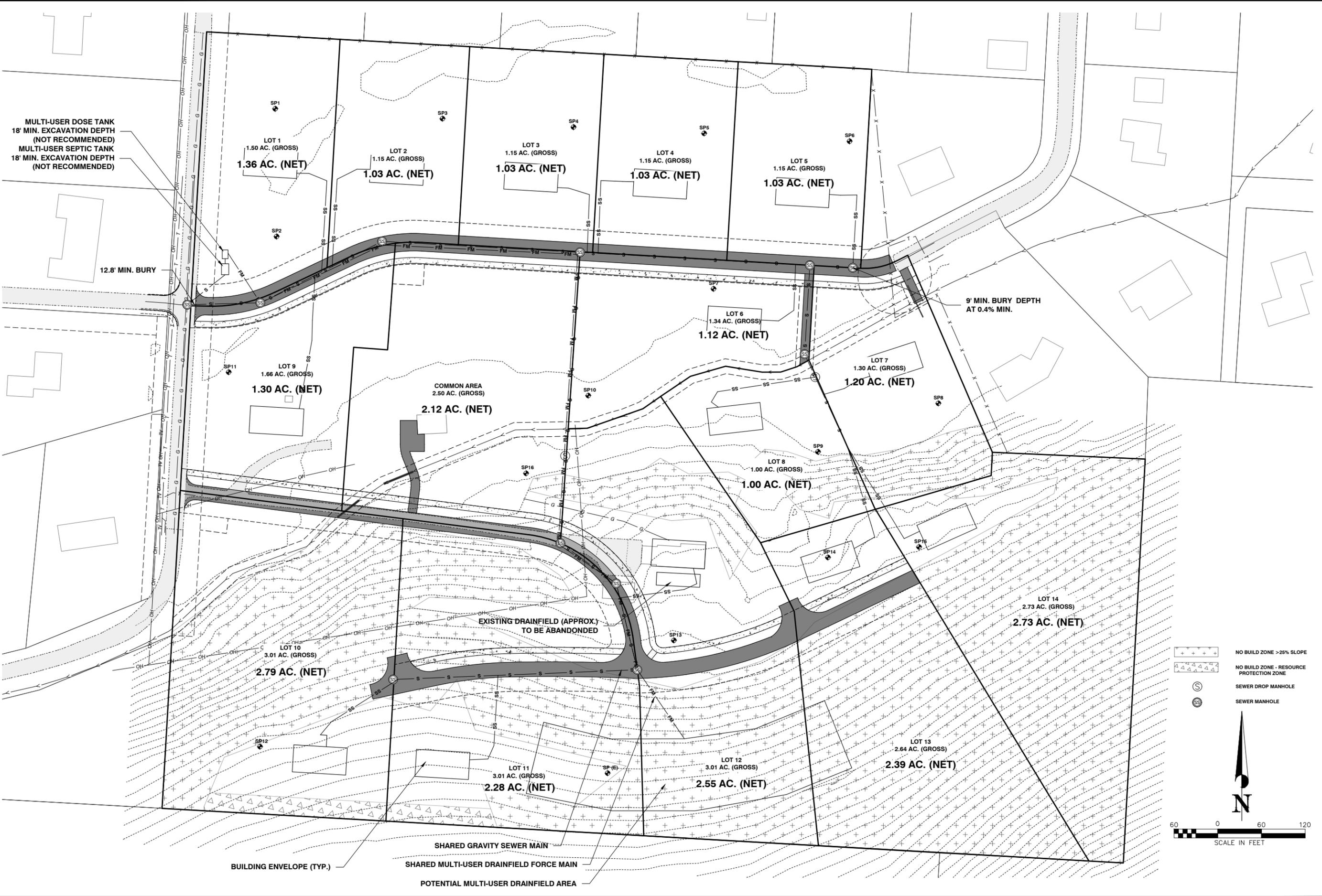
TAI TAM, LLC
MCCAULEY MEADOWS SUBDIVISION
 3100 HUMBLE RD.
 MISSOULA, MT

Professional Consultants Inc.
 Engineers, Surveyors, Planners, Mapmakers
 315 RUSSELL ST., PO BOX 1750
 HANSEL, MT 59801
 PHONE 406-728-1880
 FAX 406-728-0275

JAN. 2020
 DRY-LAY
 OPTION

1
 COST COMPARISON

F:\2017\8754-17\8754-17.dwg (Dwg) 1/28/20



| | |
|-----------|---------|
| PROJECT # | 8754-17 |
| DRAWN | AJ |
| CHECKED | MT |
| REVISION | |

TAI TAM, LLC
MCCAULEY MEADOWS SUBDIVISION
 3100 HUMBLE RD.
 MISSOULA, MT

Professional Consultants Inc.
 Engineers, Surveyors, Planners, Inspectors
 175 S. 2ND ST. SUITE C
 315 RUSSELL ST. PO BOX 1750
 HANLEY, MT 59801
 PHONE 406-728-1880
 FAX 406-728-0276

JAN. 2020
 MULTI-USER
 OPTION
2
 COST COMPARISON

From: [Brent O'Connor](#)
To: [Dale McCormick](#)
Subject: RE: McCauley Meadows
Date: Thursday, June 20, 2019 12:36:42 PM

Dale,

Seems reasonable to extend Ringo maintenance but Sadie CT would need to be removed from the road name.

Brent

From: Dale McCormick <dalem@pcimontana.com>
Sent: Wednesday, June 19, 2019 12:22 PM
To: Brent O'Connor <boconnor@missoulacounty.us>
Cc: Shane Stack <sstack@missoulacounty.us>; Andy Mefford <andym@pcimontana.com>
Subject: McCauley Meadows

Hello Brent,

We had our pre-application meeting for this subdivision this morning and the question of whether the extension of Ringo Drive would be public or private came up. It probably makes sense to have it be a county-maintained county road. We are proposing a 24' wide road with no parking in a 60' easement. What do you think? Please let me know.

Thanks,

-Dale

Dale McCormick, Planner



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