

Midway City Council
20 August 2019
Regular Meeting

Lime Canyon Meadows /
Preliminary Approval



CITY COUNCIL MEETING STAFF REPORT

DATE OF MEETING: August 20, 2019

NAME OF PROJECT: Lime Canyon Meadows

NAME OF APPLICANT: Brett Walker

AGENDA ITEM: Preliminary

LOCATION OF ITEM: 960 West Lime Canyon Road

ZONING DESIGNATIONS: R-1-22

ITEM: 5

Brett Walker is requesting Preliminary approval for the Lime Canyon Meadows Subdivision. The proposal is a large-scale subdivision located on two acres and will contain four lots. The property is located at 960 Lime Canyon Road and is in the R-1-22 zone.

BACKGROUND:

This request is for preliminary approval of a large-scale subdivision that will be known as Lime Canyon Meadows. The property is two acres in size and the proposal is to create a four-lot subdivision which will contain 0.5 acre lots. The property is the remnant parcel from the Lime Canyon Rural Preservation Subdivision that Brett Walker also developed. The property begins about one-quarter mile from the intersection of Homestead Drive and Lime Canyon Road. Lime Canyon is about three miles in length and this property is in the drainage area for the canyon. There is also a Rocky Mountain Power transmission line that crosses the property from north to south. The transmission line will affect where structures and trees can be located on two of the lots.

This item was continued from the July 16 2109 City Council agenda so that the hydraulics study that was required for the Lime Canyon drainage could be further reviewed and evaluated. Since that meeting, the study and a mitigation plan has been developed and reviewed (please attached letter from Paul Berg). Also, Matt Loughlin from Loughlin Water Associates, has reviewed the plan and has accepted the analysis and recommendations as stated in the following communication that was submitted to the City from Matt Loughlin to Paul Berg:

Your analysis and recommendations are correct and acceptable to me. With the improvements proposed to the outlet grate the 100 year storm could be routed without overtopping of the detention dam or running water down the local streets as long as the outlet grate spacings are large and is kept clean and clear with annual maintenance. An emergency overflow spillway should still be maintained, possibly down the streets, where you want any unintentional overflows to be directed (in case the outlet is clogged or a storm larger than the 100 year event occurs) so that the detention dam is never overtopped or compromised.

LAND USE SUMMARY:

- 2-acre parcel
- R-1-22 zone
- Proposal contains four lots
 - Each lot is 0.5 acres
- Access from Lime Canyon Road
- The lots connect to the Midway Sanitation District's sewer line, Midway City's culinary water line, and Midway Irrigation Company's secondary water line

ANALYSIS:

Access – Access will be from Lime Canyon Road for all four lots. Per Section 16.13.44, development along an existing City street does not require a second point of access if each lot fronts on the City street.

Geotechnical Study – A Geotechnical Study has not been required or submitted to the City since no new roads will be built with this proposal.

Drainage and Hydraulics Study – The City has required a hydraulics study because the area of the proposal is part of the drainage for Lime Canyon. During and after large runoff events, storm water flows onto this parcel from the west and then percolates into the ground. No water is known to flow off the property from the main drainage of Lime Canyon. The City required that a hydrologist study the impacts of runoff on the parcel to protect future dwellings. Staff was concerned that the four lots may be in area that could be flooded in the future.

Water Connection – The lots will to the City’s culinary water lines in the area.

60’ Power Easement – A 60’ transmission line power easement crosses a section of the property. No buildings or trees will be allowed in this area as noted on the plat. The City will not approve any building permits in the easement area. Rocky Mountain Power will be responsible for enforcing any other rights associated with their easement.

Sewer Service – The lots will to Midway Sanitation District’s sewer line in the area.

Secondary Water Connection – The lots will connect to Midway Irrigation Company’s secondary which is in the area and is already servicing the lots in the Lime Canyon Rural Preservation subdivision. Laterals will be created for all four lots. Secondary water meters are required for each lateral.

Lime Canyon Rural Preservation Subdivision Development Agreement – The development agreement for the Lime Canyon Rural Preservation subdivision restricted the remnant parcel to agricultural uses only unless the remnant parcel was further subdivided and approved by the City. At the time of the approval of the rural preservation subdivision the City had a requirement of two access points for roads longer than 500’. Since that time the City has adopted a code that allows development along existing city streets if no new roads are constructed as part of the development. The revised code allows development to proceed on the two-acre parcel.

Homestead Irrigation Easements – The owners of The Homestead have irrigation lines that cross all four of the proposed lots. The proposed plans show easements that will contain the irrigation lines and will limit development in the easements. The owners of The Homestead will be responsible for enforcing their easement rights with future lot landowners.

WATER BOARD RECOMMENDATION:

The Water Board approved the following motion:

To recommend to City Council that the Lime Canyon Meadows located at 960 Lime Canyon Road be required to turn in 7.1-acre feet of water based on the water calculations presented tonight. The easement agreement with the Homestead Resort

and pressurized irrigation source will also need to be resolved. Midway Irrigation Member Grant Kohler seconded the motion.

PLANNING COMMISSION RECOMMENDATION:

Motion: Commissioner Payne: I make a motion to recommend to City Council that we accept the preliminary approval for the Lime Canyon Meadows Subdivision. The proposal is a large-scale subdivision located on two acres and will contain four lots. The property is located at 960 Lime Canyon Road and is in the R-1-22 zone. Accept the staff report and staff findings and accept the two proposed conditions of preliminary approval is not granted until a drainage/hydrology study is approved by the City and Rocky Mountain Power approves the language on the plat regarding the transmission line easement.

Seconded: Commissioner O’Toole

Chairman Kohler: Any discussion on the motion?
Commissioner

Chairman Kohler: All in favor.

Ayes: Commissioners: Payne, Nicholas, O’Toole, Whitney, Ream, Bouwhuis

Nays: None

Motion: Passed

POSSIBLE FINDINGS:

- The proposal does meet the intent of the General Plan for the R-1-22 zone
- The proposal does comply with the land use requirements of the R-1-22 zone
- A drainage/hydraulics study has been submitted to the City

ALTERNATIVE ACTIONS:

1. Approval (conditional). This action can be taken if the City Council feels that conditions placed on the approval can resolve any outstanding issues.
 - a. Accept staff report
 - b. List accepted findings
 - c. Place condition(s)

2. Continuance. This action can be taken if the City Council feels that there are unresolved issues.
 - a. Accept staff report
 - b. List accepted findings
 - c. Reasons for continuance
 - i. Unresolved issues that must be addressed
 - d. Date when the item will be heard again

3. Denial. This action can be taken if the City Council feels that the request does not meet the intent of the ordinance.
 - a. Accept staff report
 - b. List accepted findings
 - c. Reasons for denial

PROPOSED CONDITIONS:

The hydraulics study and proposed improvements plan as described in the letter from Paul Berg dated August 8, 2019 and reviewed and accepted by Matt Loughlin is followed and is part of the required construction improvements for the subdivision.



Swiss Oaks Dr

Schnetter Cr

Upt Ln

Lime Canyon Rd

August 8, 2019

Michael Henke
Midway City
75 North 100 West
Midway, Utah 84049

Re: Lime Canyon Meadows
Hydrology Study and Proposed Improvements

Dear Michael:

Midway City has required a hydrology study of the Lime Canyon drainage prior to granting preliminary approval of the Lime Canyon Meadows subdivision. Loughlin Water has completed a HECHMS model to determine the amount of runoff from a 100 year storm event in Lime Canyon that reaches the existing detention pond immediately west of the property. Berg Engineering has evaluated the model results, the existing detention pond and the needed improvements to mitigate a 100 year storm event on the Brett Walker property.

100 Year Storm Water Runoff

A summary of the HECHMS model completed by Loughlin Water is provided below. A copy of the model results are attached with this letter.

Lime Canyon Drainage Area	1.72 square miles
100 year peak storm water runoff from Lime Canyon	38.7 cfs
100 year peak runoff volume from Lime Canyon	53.7 acre-feet

Existing Retention Pond

The existing detention pond that is part of the adjacent Lime Canyon Estates subdivision captures some of the 100 year storm water flows. Loughlin Water has estimated that the pond reduces the peak flow to 32.6 cfs and that the pond has a capacity of 21.5 acre-feet.

The outlet for the existing detention pond is a 24" diameter circular grate that is 1' below the top of the pond in the common area parcel but is only 1.5" lower than the high point in Griffiths property immediately north of the pond. The lower level outlet shown on the original plans was not built or has been removed. Due to the outlet grates elevation near the top of the pond and its low flow capacity most of the storm water that passes through the existing detention pond will not flow on to the Brett Walker property. The elevation of the Griffiths front yard acts as a spillway at almost the same level as when water reaches the outlet grate.

During a large storm event the grate is likely to be partially clogged with weeds, branches and other debris. The capacity of the 24" diameter outlet grate with 1.5" of head and a 50% reduction in grate capacity, is only 2.50 cfs. Runoff that passes through the grate is then collected in a 36" pipe that discharges on to the Brett Walker property.

During large storm events, storm water will spill over the top of the pond near the northeast corner of the pond on the Griffiths property. The spill over released from the pond will drain on to Lime Canyon Way and then to Lime Canyon Road. This may explain why Lime Canyon Road has a history of flooding and drainage issues during large storm events but the Walker property is relatively free of signs of flooding and erosion.

Without the lower level outlet, collected runoff that is below the grate must infiltrate into the ground or evaporate. This explains the vegetation types and wet soils conditions in the bottom of the detention pond.

Recommended Improvements

A meeting was held on August 1, 2019 with Mayor Johnson, Wes Johnson, City Engineer, Michael Henke, City Planner and Brett Walker. After reviewing the hydrology study results and the existing detention pond analysis the following improvements were agreed upon.

1. Raise the top of the pond elevation by the Griffiths property to match the top of the pond elevation in the common area for the existing detention pond in the Lime Canyon Estates subdivision.
2. Lower the outlet grate elevation by one foot (1') on the existing detention pond in Lime Canyon Estates.
3. Increase the outlet grate to a thirty inch (30") diameter grate for the existing detention pond in Lime Canyon Estates.
4. Allow runoff that is released on to the Walker property to drain over the entire 4.59 acre drainage easement that is being preserved as a hay field. During a 24 hour period, the drainage easement can absorb 9.2 acre-feet of runoff assuming a low infiltration rate of 1.0 inches per hour and that the water is allowed to run over the entire easement.
5. Install a stock water feature on the Walker property. This water feature is anticipated to hold about one (1) acre foot of runoff. This feature will provide additional storm water retention storage for runoff from Lime Canyon.
6. Install a berm near the east property line of the Walker property and along the south side of the Lime Canyon Meadows subdivision. This berm will help provide an additional factor of safety against flooding for the homes in the Lime Canyon Meadows subdivision. The berm will also create additional storm water retention storage for runoff from Lime Canyon. The berm will be constructed as material becomes available from other construction activities in the area. The final height of the berm and storm water storage capacity will depend on the materials that are available.

Brett Walker is responsible for the improvements listed in Items 1, 4, 5 and 6. Midway City is responsible to complete the improvements in Items 2 and 3.

If you have any questions about the hydrology study, existing detention pond analysis or the recommended improvements please call me at (435) 657-9749.

Respectfully,

A handwritten signature in cursive script that reads "Paul Berg". The signature is written in black ink and is positioned above the typed name.

Paul Berg, P.E.

Copy: Wes Johnson, Midway City Engineer
Brett Walker
Bill Loughlin, Loughlin Water