

I have had a chance to review the plat and plans dated 6-08-15, and I have the following comment(s); **written responses to each of the following comments are required:**

Format:

1. **Review 1**
 1. **Response to Review 1**
 1. **Review 3 (Review 2 was not completed due to lack of completion of plans)**

General:

1. All improvements need to be either installed or escrowed for prior to recording of the subdivision.
 1. To be provided by Owners (items 1 and 2)
 1. Noted
2. A Storm Water Construction Activity Permit is required for any construction that:
 - disturbs more than 5000 square feet of land surface area, or
 - consist of the excavation and/or fill of more than 200cubic yards of material, or
 - requires a building permit for which excavation or fill is a part of the construction, and less than five acres shall apply for a county permit.
3. A Storm Water Pollution Prevention Plan (SWPPP) is now required to be submitted for all new development where construction is required. The State now requires that a Utah Discharge Pollution Elimination Systems (UPDES) permit be acquired for all new development. A copy of the permit needs to be submitted to the county before final approval. Permits can now be obtained online thru the Utah State Department of Environmental Quality at the following web site: <https://secure.utah.gov/swp/client>.
 1. SWPPP is included with improvement plans and permits obtained by Contractor
 1. Some SWPPP exhibits are included with the plans, but a SWPPP is a document, not plan sheets.
4. An excavation permit will be required for all work done within County ROW.
 1. Excavation permit obtained by Owners
 1. Noted.
5. DDW plan approval is required.
 1. Plans have been submitted to Great Basin Engineers for Lakeview Water Company approval. The Water Company needs to submit the plans to the State for DDW plan approval
 1. Noted; DDW plan approval is required for Weber County approval.
6. Plan approval letters from Mountain Sewer and Lakeview Water are required.
 1. Plan approval letters from Mountain Sewer and Lakeview Water will be the responsibility of the Owners
 1. Noted; plan approvals are required for Weber County approval.
7. Edgewater Beach Resort Phase 1's approval letter from Lakeview Water (dated February 3, 2014) had stipulations related to future phases. How are these being addressed?
 1. Lakeview Water Company has submitted a new letter for Phase 2 for service
 1. Noted.
8. Need easement where drainage swale leaves property.
 1. Easement for drainage system outside of Phase 2 has been given to the owners to be executed
 1. Noted; signed easement required for Weber County approval.

Plat:

1. Check wording within Surveyor's Certificate related to the name of the plat. (This is not the 1st Amendment.)
 1. Wording within Surveyor's Certificate has been changed
 1. Noted.
2. Note 2 – need to end quote.
 1. Note 2 has been modified
 1. Still missing an end quote.
 2. Also, Note 1 specifies that roadways and walkways are limited common areas. Is this intentional?
3. Need to reconcile note 2 with handwritten note on Phase 1, 1st Amendment in order to define and dedicate PUEs.
 1. Note 2 has been reconciled
 1. I don't see where it was been reconciled. Note 2 refers to "public utility, storm water detention and drainage easement area," but those areas are never defined nor dedicated.

Plans:

1. Sheet 2 – Line types do not match plans.
 1. Line types have been adjusted
 1. Still do not match Legend – just delete legend if you're not going to follow it.
2. Sheets 3, 4, & 5 – ADA ramps are required where the sidewalks intersect roads.
 1. ADA ramps have been added
 1. Majority are still missing.
3. Sheets 3 & 4 – Recommend adding signage to the ends of both streets. You have an 8' drop off the end of one street with only a rolled gutter. This is a SAFETY HAZARD.
 1. On the sheets, reflector on posts have been added
 1. Noted.
4. Sheet 4 – Structural design and calcs needed for 8' high rock wall.
 1. Structural design calculations and section for 8' rock wall have been added
 1. There are no structural calculations contained in the submittal. The detail on sheet 8 is insufficient.
5. Sheet 5 – Areas where text is not legible.
 1. Adjustment of overlapping text has been modified
 1. Thank you.
6. Sheet 6 – Where do the 2 cross sections apply? Depth of water exceeds Type "G" curb height.
 1. The 2 cross street sections have been identified and show storm water flows
 1. Please identify the station in addition to the street.
 2. The parameters and resulting water depths on this latest set of plans differ from the previous. Please explain and provide drainage calculations and/or parameters.
 3. Curb height does not resemble Type F.
7. Sheet 6 – Label existing contours on grading plan.
 1. Contours have been labeled
 1. Thank you.
8. Sheet 6 – Extend contours to edge of improvements; i.e. to north swale.
 1. Contours have been extended
 1. Contours have not been changed.

9. Sheet 6 – Add proposed contours to grading plan. Per 108-2-9, the Landscaping plan requires proposed contours, so please add them to grading plan.
 1. Contours in the open space for finished grade have been added
 1. Proposed contours have been added only for the middle section of open space.
 2. Existing and proposed contours do not tie together. If they do not come together within the property, grading easements are required from affected landowner(s).
 3. FG spot elevations do not match proposed contours.
 4. What are you going to do at the east end of the pathway where it is 3' above natural ground? (example of grading issues)
 5. Include existing and proposed contours on landscape plan (sheet 12).
10. Sheet 6 – How will water coming down 1' deep swale make a hard left? Additionally, the difference between the existing and finished grade is nearly 4' at this location. How will this be construction without encroaching onto federal land next door.
 1. Plans have been modified with piping of storm drainage through future phase
 1. Are you proposing any protection on flared end section of most upstream new pipe?
 2. Recommend checking Rim elevation of SDMH near pad 39.
 3. Recommend checking Rim elevation of SDMH near bocci ball court.
 4. Do you have enough cover on SD pipe at the toe of the 8' rock wall?
 5. Are you comfortable with a SD pipe at the toe of an 8' rock wall?
11. Sheet 6 – Northeast corner of pad 15 – Please address the 3.65' drop in 6' (BFE to outer bank of swale).
 1. Not a concern with piping storm drainage swale
 1. Okay.
12. Sheet 6 – 15" RCP outletting into drainage ditch. Is there any scour protection? (2 locations)
 1. Resolved same as 11
 1. Okay.
13. Sheet 6 – At end of swale, how are you going to get water from swale into buried, plugged storm drain pipe?
 1. Resolved same as 11
 1. How are you transitioning the proposed 18" RCP to a 15" RCP stubout?
14. Sheet 6 – Recommend checking driveway grades; for example, should bldg 16's garage hug the north line its building pad, the driveway will be 12% driveway, at best.
 1. Garage floors will be modified by developer as needed
 1. Noted.
15. Sheet 7 – Label fire hydrant on Malory Way.
 1. Fire hydrant was labeled
 1. Thank you.
16. Sheet 7 – Please specify what ASTM and wall thickness of sewer pipe (gravity and force main each).
 1. Pipe specification has been added
 1. Please check with representative from Mountain Sewer for pipe specifications.
17. Sheet 7 – How are you "abandoning" existing 2-inch force main?
 1. Existing 2" will be cut off and plugged
 1. Please specify this on the plans.
18. Sheet 7 – Please confirm that existing 8" water line crosses SR 39 at that skew – UDOT doesn't typically allow skews.

1. Information from Great Basin Engineering confirmed location of 8" water line crossing SR 39
 1. Noted.
19. Sheet 7 – It appears the gravity line on the south side of SR 39 will no longer be used. Will UDOT require removal of abandoned gravity line and manholes? If not, specify method of abandoning.
 1. UDOT has not indicated the removal of the existing 8" sewer line that is abandoned to be removed
 1. Noted.
 2. Please provide confirmation from sewer district that they are comfortable with abandoning the sewer in place.
 3. Also, the proposed guardrail is shown right through an existing to-be-abandoned sewer manhole. What are you doing with the sewer there?
20. Sheet 7 – Are any drops proposed for manhole "out" pipes?
 1. There are no drops proposed for manhole "out" pipes
 1. Okay.
21. Sheet 7 – Will 6" bells fit in 8" casing? Are spacers proposed?
 1. The 6" PVC Sch 40 pipe will fit in a 10" casing
 1. Please update casing diameter on Sheet 6.
 2. Please make consistent the notes for the sewer/road crossings, for each crossing and between sheets.
22. Sheet 7 – Please specify on plans that sewer lines crossing roads shall be bored.
 1. It has been indicated that the casing will be bored
 1. Please make consistent the notes for the sewer/road crossings, for each crossing and between sheets.
 2. Old Snowbasin Road needs to be bored.
23. Sheet 7 – Proposed gravity line encroaches onto private property near intersection of Snowbasin Road and SR 39. Need easement or realignment.
 1. The proposed 6" gravity line has been slightly modified so no encroachment will be made on private property
 1. Please explain to me how you are going to install a 6" force main with 5' of cover right on the property line and not encroach. A letter of permission
24. Sheet 7 – Casing should extend at least 5' beyond edge of pavement on Snowbasin Road (I cannot speak for UDOT regarding crossing SR 39).
 1. Casing as noted not to extend 5' beyond edge of pavement
 1. Casing should to extend 5' beyond edge of pavement, minimum. Measure from nearest edge of asphalt.
25. Sheet 7 – You are boring and casing a force main under Snowbasin Road while crossing, diagonally, an 8" water line, presumably at a similar depth. How can you assure you won't hit the water line?
 1. Before boring the casing under Snow Basin Road, the existing pipe will be potholed and located
 1. Noted.
26. Sheet 7 – Detail for shoulder restoration along Snowbasin Road – please reference APWA Plan No. 381 for trench backfill.
 1. The shoulder restoration along Snow Basin Road will conform to APWA Plan No. 381 for trench backfill
 1. Noted.
27. Sheet 7 – Identify flow line elevations where gravity or force main and storm drains cross.

1. Flow line elevations are shown where there are pipe crossing each other
 1. Noted.
28. Sheets 7 & 8 – Identify location of existing force main along Snowbasin Road.
 1. There is no existing force main along Snow Basin Road as per information from Great Basin Engineering
 1. Thank you for confirming.
29. Sheets 7 & 8 – Air/vac valves needed?
 1. 2 Ari/Vac's are shown on plans, one of which is by the bend of the force main on Snow Basin Road
 1. Noted.
30. Sheet 8 – Force main crosses 48" culvert. Please detail.
 1. The force main will dip slightly by the 48" culvert on Snow Basin Road to provide cover
 1. Please provide a detail to illustrate whether or not an air/vac is needed.
 2. Will the 48" culvert be able to be tunneled under? How do propose to compact that?
31. Sheet 9 – Please specify fill type and compaction of material under granular borrow due to locations of considerable fill.
 1. Additional granular fill has been required under walkway and sidewalk details
 1. I was referring to the fills mainly under the roads.
32. Sheet 9 – Tee in FH detail should be 8x8x6, as minimum water main size is 8".
 1. Tee for Fire Hydrant detail has been modified
 1. Noted.
33. Sheet 9 – Road Section shows Type "G" curb, but you show a detail for Type "F." Please reconcile. If using both, label accordingly on sheets 3-5.
 1. Type "F" curb is being used throughout project and will provide adequate drainage
 1. Please reconcile your details on sheet 9. Specifically, the curb, depth of material under the curb.
 2. Do you really want 24" of granular borrow under all of the road?
 3. The waterway detail refers to a Geotech Report dated April 24, 2015. Please provide.
34. I would like to have a conversation regarding the lift station. Please contact me to schedule a meeting.
 1. I have questions on your choice of information used on the pump curves
 1. If you have questions, why haven't you called or emailed me?
 2. I ran some very quick calculations using information from the plans. Those were for my reference only.
 3. I'd like to see your calcs with your parameters and what equations you are using. Please include the pump and system curves.
35. Additional comments for Review 3:
 1. Utility conflict on sheet 7.
 2. Property owner at northwest corner of SR 39 and Old Snowbasin Road is not the owner of Lakeview Water Company.
 3. How are you going to direct sewer flow into new gravity line (west on SR 39)?
 4. Information from Spence King of Mountain Sewer Company:
 1. Water line on Old Snowbasin Road is not 15' from edge of pavement; more like 8'.
 2. Water line on Old Snowbasin Road crosses at road at Quail Lane.

3. Please get with Spence and Great Basin Engineering regarding alignment of force main.
5. **The next set of plans submitted will not be reviewed without a seal, signature, and date.**
36. **SWPPP:**
37. How is drainage swale water controlled prior to entering storm drain system?
 1. Drainage swale will temporarily empty directly into detention basin
 1. Noted

I have tried to address all items of concern from the Engineering Department. However, this review does not forego other items of concern that may come to this department's attention during additional reviews or during construction of improvements. If you have any comments or questions concerning this review, feel free to contact me.