



KITITITAS COUNTY

DEPARTMENT OF PUBLIC WORKS

MEMORANDUM

TO: All Staff
FROM: Public Works Planning Review Team
DATE: May 21, 2021
SUBJECT: LPF-20-00005 Forest Ridge Final Plat Resubmittal

ENGINEERING:

1. In the response to the letter dated May 12, 2021 the existing roads (Forest Ridge and Creekside) are described as having been chip seal. The drainage report claims the existing roads were dirt. If the roads were chip sealed as a part of this project, the road is not exempt. Additionally, significant changes to the road have occurred as a part of this process including: large grade changes in the road which alter existing hill sides and ditches, additional culverts and moved culverts have changed the drainage from existing conditions, and additional storm drainage ponds have been added. For these reasons, Kittitas County is of the opinion that Phase 1 of this project is not exempt from any core elements listed in the SWMMEW.
2. In the response letter, it is stated that there is an existing sedimentation pond in the same location as the proposed detention pond. This seems to infer that existing conditions are routing all stormwater on the existing road within this basin to this pond. This would mean that the existing conditions have a point discharge from this pond with a flow rate of 5.08 cfs. However, based on observations made by County Staff, it seems unlikely that the existing conditions route all of the stormwater to the existing pond. While some water likely is routed to the pond, some areas of the road were missing ditches and culverts had not been installed. These areas likely sheet flow off the side of the road and disperse throughout the surrounding landscape. This would indicate that the point discharge currently coming out of the existing sedimentation pond is less than 5.08 cfs if the development is modeled as described above.
3. The stormwater pond labeled 29P for the NE Basin in the HydroCAD calculations is shown to not drain entirely during any of the design storms. In the 2 year 36 hr rain on snow event, by the 38th hour the pond is shown to have an elevation of 4 ft, and this amount of water remains in the pond for the rest of the shown calculations. If this water is intended to remain indefinitely, the storm should be modeled with the 4 ft of storage already included.

4. The storage equation used for pond 29P appears to be referencing a different pond from what is shown in the plans. The cross sections show a fairly uniform pond, but the report is showing that the first 4 ft of the pond will hold 120 cf, while the next 3.45 ft (in the case of the 100 yr rain on snow event) holds an additional 2208 cf at the 16th hour, and this isn't even the peak.
5. The storage pond shown on C2.4 shows a 100 yr WSE of 3.5 ft depth, but the calculations in the HydroCAD report reference an elevation of at least 7.45 ft at the 16th hour, and again this isn't shown to be the peak. The cross section on C2.4 shows a total pond depth of 4 ft which would mean that the pond doesn't contain the 2 yr rain on snow event or the 25 year rain on snow event with maximum pond elevations of 5.5 ft and 6.68ft respectively.
6. Please provide analysis confirming the bioinfiltration swales can handle the 25-year storm event for both basins. Additionally, please provide analysis confirming the Bubble Up Dispersion Trench attached to the NE Basin detention pond can handle the required flows.
7. Sheet 4 and 5 of 7 references Easement detail sheet 6, for example reference on Tract FD-1. Reference should be to detail sheet 7.
8. Tract AC-1 is identified as Forest Ridge Drive, a private gravel road. KCC 12.12.010 requires a Private Road Maintenance Agreement. If this will be under a home owners association, please include the following note on the face of the plat: *Private Road Tracts, Drainage Pond tracts, Service Tracts, Access Road Tracts, and Open Space tracts are hereby granted and conveyed to the homeowners association upon recording of this plat. Except as otherwise noted, hereon, said Homeowners association is hereby responsible for all maintenance and management obligations associated with said tracts. Should the homeowners association fail to properly maintain said tracts, the owners of all lots of this plat shall be equally responsible for maintenance of said tracts.*

SURVEY:

Of Note:

Typically, a second review only addresses prior comments and checks that the required changes have been met. Due to the significant amount of change including revision and removal of lots a complete re-review was performed.

Required Elements that Need to be Discussed or Addressed

1. The outer plat boundaries and section lines deviate from the record document referred to in the legal description (SUR:31-224). While it is possible that the record document contains errors, there are some particular areas of concern in the submitted Plat:
 - a. The West line of Section 24 was evenly divided per SUR:31-224. Dimensions shown on the plat are not an even division. It is possible that the surveyor held found corners, but this is not identified as the reasoning behind the discrepancy.
 - b. The East boundary line of Section 24 is recorded as being a straight line from NE corner to SE corner. The East quarter corner was not recovered during the course of this survey. The surveyor has elected to put an angle point in the section line at the NE corner of the SE 1/4 SE 1/4. The existing found evidence was called out as being off. What is the justification for angling the section line at this point, particularly in the absence of suitable corner evidence?
 - c. The corner mentioned in change 1b. listed above is called out as being 1.2 feet off. With the section corner calls varying from record by as much as 0.44 feet, it is uncertain as to what evidence was held as control to determine the bearing and distance to the found corner at this location.
 - d. The south line of the original division as shown upon SUR:31-224 had an angle point at the N-S centerline of section. The application shows no angle point, and the resulting line falls about 1.4 feet north of calculated position. What is the justification for the change in the line? Was there found evidence that is not mentioned?
 - e. The SW corner of SUR:31-224 has also been revised from record to show an angle point in the section line, based upon found evidence. What is the justification in holding this evidence and changing the lines of record vs. calling the found corner as 0.14' off?

Required Changes

2. All the easements DW-1 through DW-5 and UT-1 through UT-2 incorrectly reference sheet 6 rather than Sheet 7.
3. The dimension of 421.23 at the south end of AC-1 should show 'crows feet' to identify what the dimension is measuring.
4. There are still multiple occurrences of crossing linework obscuring text.

5. The following Line/curve labels do not appear on a line or curve table:
C2, C7, C14, L3, L4, and L5
6. C4 appears in 2 locations, the Northernmost one being incorrect and located near the N'most corner of lot 33. It should be removed.
7. The division between DW-4 and DW-5 should be identified.
8. The N'most curve in Lot 34 does not match the closure report. This particular curve is also mismatched between the closure report values for Lot 34 and OS-2.
9. The N'most curve on the East line of AC-1 does not match the closure report.
10. As the Legal description identifies all the area as shown within the bold boundary on Sheet 3, the remainder area should be identified as a Lot or Tract, and area shown.
11. While it is Public Works opinion that Open Space Lots do not need to have corners staked, under the current configuration, it gives the appearance that Tract OS-1 is bounded by the outer plat boundary which WOULD need corners set. If comment #10 above is addressed, then Tract OS-1 clearly falls inside the plat boundaries and corners would not be required.

WATER MITIGATION/METERING:

Water Mitigation/ Metering requirements from comments on 3/24/21 have not been met, C-1 (see below) must be added to the final plat notes.

Final Plat Notes:

The following notes shall be placed on the face of the plat:

C-1 "Metering is required for all new uses of domestic water for residential well connections and usage must be recorded in a manner consistent with Kittitas County Code Chapter 13.35.027 and Ecology regulations."