



DATE: 12/20/2019
TO: Stacey Nerger – Associate Planner
FROM: Amanda Carlston – Ridgetop Engineering
PROJECT: Jackalope F1 AMD1 L1 Site Plan and Replat – Engineering 2nd Review Comments

The following is our response to the Engineering 2nd Review Comments, dated November 20, 2019, regarding the above referenced project located in the City of Parker. Our responses are given in the order listed in the comments letter. The comments have been provided in standard font and our responses have been provided in *red* font.

Road and Storm Plans

1. Please remove the fire life safety signature block from the cover sheet of the civil set.
Response: Fire Life safety signature block has been removed from the cover sheet.
2. Please correctly show the easements on the plans and ensure the storm sewer is appropriately covered by the drainage easements.
Response: Easements have been revised to ensure the storm sewer is covered by the drainage easements.
3. Add the following note to the overall utility plan in the PWSD set:
 - a. "The proposed utility connection will require a Town right-of-way permit prior to commencing work. The Town prefers connections to be bored to the extent possible, and any street cut allowed by the Town will be required to be patched according to the Town's construction standards and details. The limits of patching will be determined by the Town at the time of construction. The Town of Parker does not allow roadway closures for utility work."*Response: Note has been added to the overall utility plan sheet in the PWSD plan set.*

Public Improvements Cost Estimate

4. Per previous review, please add the soft costs outlined in Appendix B of the RDCCM.
Response: Soft costs have been updated per the Appendix B of the RDCCM.

Replat

5. Revise Note 13 to be Tract A.
Response: Note 13 has been revised.

Stormwater Review Comments

The following comments concern drainage, erosion and sediment control, and non-point source pollution control issues for the subject property. They are based upon our review of the submittal documents against the criteria presented in the Town of Parker's, *Storm Drainage and Environmental Criteria Manual (SDECM)*, as revised, February 2014. Additional regulatory and



planning documents were utilized in the review and are referenced in the comments where appropriate.

Road and Storm Construction Plans

6. Only a single HGL was provided in the storm plan and profiles. Please provide and identify the HGLs for *BOTH* minor and major storm events on the storm profiles.
Response: An HGL for both the minor and major storm events has been added on the storm profiles.
7. Reconfigure the lateral for Inlet 3 (CDOT Type C) so that the RCP does not connect through the corner of the structure. Provide an additional manhole if necessary.
Response: This has been revised and a manhole has been added.
8. Specify on the storm plan sheet that close mesh grates and not standard inlet grates are to be utilized on the Type C catch basins. (reference CDOT detail)
Response: A note has been added to the plan sheet underneath the structure table.
9. It appears that by reducing the 24" RCP slope down to 0.50%, it will be feasible to match soffit elevations.
Response: The 24" RCP has been reduced to a 0.50% slope.
10. It appears the Town's Figures 7.3 and 8.7 were utilized as the details for the perimeter trickle channel. Specify which section is to be utilized and remove reference to all other swale/trickle channel sections which are not to be used. Please note that it is not required that a Town detail be used for the perimeter trickle channel design, only for the pond trickle channel design.
Response: The details have been revised to show which are needed. The others have been crossed out.
11. All Town details appear blurred in the plans and will not be readable when plotted at half-size. Please revise to a readable quality.
Response: Details are not blurred when we printed them at half size. I have changed the resolution to try and make them clearer.
12. Identify the maintenance access path with a hatch. The Trail may not exceed a 10% running slope. Also identify the transition from the 8" access section to the 12" section at the EURV water surface level.
Response: Understood. This has been revised and the transition has been noted.
13. Label the overflow spillway and show the extents with a hatch. Provide dimensioning, elevations, and rip-rap sizing based on the pond design. Also provide a detail for the cutoff wall.
Response: Spillway has been hatched and called out. Cutoff Wall detail has been added. Rip rap sizing has been called out in the detail
14. Provide a detail for the forebay specific to this pond which includes dimensioning, elevation callouts, notch size, grout slab reinforcement.



Response: Understood. Forebay details have been added to Figure 7.2, including elevations and dimensions.

15. The outlet structure detail still does not meet the requirements set forth in the SDECM and shown in Figure 7.5 as copied into the plan set. Provide a micropool with standard and coarse bar grating and a concrete ramp. Identify the design area for the Initial Surcharge Volume (ISV) on the plan set and within the outlet structure detail. Provide reinforcement details for the pond structures.

Response: The outlet structure has been revised to match the detail in Figure 7.5. The micropool has been added to the structure. The ISV has been called out.

16. Revise the outlet structure design to utilize a 3-hole orifice plate for water quality as recommended by MHFD for maintenance.

Response: Understood. This has been revised.

17. Remove Figure 7.7 from the plan set as this is a layout example for engineers/designers.

Response: This figure has been removed from the plan set.

Drainage Report

18. Reprint the proposed SF-2 form to not clip the sheet.

Response: SF-2 has been revised.

19. The watershed area of 7.92-acres originally entered into the MHFD pond worksheet was correct.

Response: The watershed area has been revised back to 7.92-acres.

20. To account for the undetained flows, the pond discharge must be lowered so that the sum of the peak 100-year pond discharge and the undetained flows is equal to or less than 90% of the pre-developed peak flows.

Response: Understood. The pond discharge has been lowered. The pond discharge and undetained flows equal what was historically released.

21. The developed to undeveloped peak flow ratio for the 5-year storm event was reduced from 3.4 to 3.0. This should be reduced further to the range of 1.0-1.5. Utilizing a 3-hole orifice plate may help with the minor storm flows.

Response: Understood. A 3-hole orifice plate will be used. The peak flow ratio has been reduced.

Grading and Erosion Control Plans

22. Show only the initial CBMPs and existing improvements on the initial CBMP plan sheet.

Response: Understood. Only existing conditions and BMPs are shown.

23. Remove reference to the proposed storm sewer and inlet protections which should be shown on the interim/final CBMP plan sheet.

Response: Understood. This has been removed. Only inlet protections for existing inlets are shown.

24. Show the proposed grading contours on the interim/final CBMP plan sheet.



Response: Proposed contours are shown.

25. Add a callout identifying the rock hatch as rock mulch.

Response: Understood. Callouts have been added.

26. Silt fence (SF) is labeled adjacent to Cockriel Drive east of the main entrance, but no linework is shown (as shown on the west side). Please show line work for SF or SCL along the back of sidewalk along the entire length of Cockriel Drive.

Response: Linework has been provided. SF has been added to the back of sidewalk the entire length of Cockriel Drive.

27. Show the ratio of all slopes that are 4:1 or greater.

Response: All slopes that are greater than 4:1 have been noted by a grey cross hatch.

28. Provide SCL along the perimeter of all proposed landscape islands, unless the island landscaping includes a sump with a drain.

Response: SCL has been added around the island landscaped islands. There are no sumps.

29. Turn the proposed construction fence along the sides of the VTC to force access over the entire length of VTC.

Response: Understood. Construction fence has been provided along the VTC to force access.

30. Provide Masonry Work Protection (MWP) if the new building will utilize a masonry exterior.

Response: A masonry exterior is not being utilized for this project. Therefore we have not added the MWP.