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Memorandum

To: Julia Duncan, Associate Planner
Date: April 28, 2022
From: Michael Walton, P.E., Project Engineer
Cc: Alex Mestdagh, P.E., Engineering Services Manager
Tom Williams, P.E., Director of Engineering/Public Works

Subject: Compark Village South F1 AMD 2 – Stormwater 2nd Review

The Engineering Department has reviewed the documents submitted with this application. The submittal consisted of the following documents:

<u>Document</u>	<u>Dated</u>
Construction Plans	April 2022
Drainage Report	April 2022

Thank you for the opportunity to review this application. Based on our review we have the following comments:

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.

CONSTRUCTION PLANS – ENVIRONMENTAL GENERAL COMMENTS

1. Please match the Limits of Construction (LOC) linework to the line type provided in the legend. Specifically noted shading does not match between plans and legend. Please also consider providing a more distinct line type for the LOC so that it is clearer on the plans.

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2. Please verify extents of Limits of Construction (LOC). Specifically, a portion of proposed linework for Bunny Hop Lane extends past the LOC on sheet C4.3. Please adjust the LOC to incorporate this additional area or alternatively remove this linework if this portion of road is not proposed with this project.
3. Provide linework which identifies the 100-year floodplain extents.
4. Please ensure all blocks are placed per the current iteration of design. Specifically noted several inlet protection blocks appear to reflect a previous iteration of the design.
5. Please note several detail plan sheets appear out of order. Specifically, Portable Toilet Protection (PTP) and Seeding Mulching and Crimping (SMC) were noted to span multiple plan sheets, but the continuation of the details is spread across the set rather than in consecutive order. Please reorder the CBMP detail sheets so that any detail which must be split between sheets has the next respective detail sheet as the first detail on the following plan sheet.
6. Provide the Town's engineering review block on the CBMP plan sheets. These appear to have been removed in response to a previous comment requesting the block be removed from the detail sheets, but please note it is still required on the plan sheets.

INITIAL CBMP PLANS

7. Provide and identify inlet protection for curb inlet on grade (IPCOG) for the existing inlet in Belford Avenue just downstream of the northeast entrance to the site.

INTERIM/FINAL CBMP PLANS

8. Remove the Rock Socks (RS) shown in the proposed forebay and have the block provided for the extents of Detention Pond Protection (DP) extend out to include this additional infrastructure on the interim/final CBMP sheet.
9. Provide and identify Erosion Control Blanket (ECB) for the area south of building 5 with slopes exceeding 4:1.
10. A slope label of 2.2:1 was noted in the southwestern extents of the site on sheet C4.3. Please note that the maximum allowable slope within the Town is 3:1. Please also note that if slopes steeper than 4:1 are required in this area after regrading Erosion Control Blanket (ECB) should be provided for said slopes.
11. Provide and identify the appropriate inlet protection for the proposed inlet in front of building 10.
12. Provide and identify Erosion Control Blanket (ECB) for all slopes steeper than 4:1. Specifically noted an area along the southwest extents of the site with a 3.4:1 slope label identified where ECB is missing.

CONSTRUCTION PLANS – STORMWATER

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13. Please identify removal of the two existing inlets shown in Building 7 at the end of Deertrack Lane and provide the proposed configuration for the storm sewer in this location.
14. Provide the existing invert out of manhole EX-1.
15. It was previously anticipated all pond improvements would be completed as a part of an adjacent filing, but it is the Town's understanding this is no longer the case. Please provide a plan and detail sheets for all pond improvements proposed to be completed with this piece of the project. Please coordinate with Town Staff if all pond improvements are still anticipated to be completed as part of the adjacent project's scope.
16. Provide a detail for the pond forebay which complies with Figures 7.1 or 7.2 of the Town's SDECM. The detail should provide at a minimum all dimensions, elevations, material, reinforcement, and any other information necessary to construct the forebay in compliance with the drainage report. A response stated this would not be needed due to the anticipation all of these improvements would be completed by others. It is the Town's understanding that this is no longer the case and that some of these improvements will fall within this project's scope. Please coordinate with Town Staff if this is not the case.
17. Provide a detail for the pond trickle channel which complies with Figure 7.3 of the Town's SDECM. The detail should provide a minimum of all dimensions, elevations, material, reinforcement, and any other information necessary to construct the trickle channel in compliance with the drainage report. A response stated this would not be needed due to the anticipation all of these improvements would be completed by others. It is the Town's understanding that this is no longer the case and that some of these improvements will fall within this project's scope. Please coordinate with Town Staff if this is not the case.
18. Provide the Town's maintenance road detail, Figure 7.4 of the Town's SDECM. Identify in plan view the extents of each cross section to be used. A response stated this would not be needed due to the anticipation all of these improvements would be completed by others. It is the Town's understanding that this is no longer the case and that some of these improvements will fall within this project's scope. Please coordinate with Town Staff if this is not the case.
19. If any modifications are required to the outlet structure, provide all applicable details for proper construction of these improvements.
20. Remove the Douglas County Manhole detail sheets as the CDOT standard detail is provided.
21. Provide the CDOT Standard details for RCP and Flared End Sections.
22. Provide the Town's Standard Manhole Cover Detail.

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DRAINAGE REPORT

23. It is stated in the Drainage Design Criteria section that no pond improvements are proposed as part of this project. It is the Town's understanding that some of the pond improvements which were previously proposed with the adjacent Happy Canyon Creek project are now proposed to be completed with this project instead. Please confirm which project will complete these improvements and updated the report as necessary to accommodate for this potential shift.
24. Please note the compensatory storage discussion is slightly unclear. It is stated that the area and imperviousness tributary to the pond both decrease in the proposed configuration, but then also states that there is an even trade between areas tributary and not tributary to the pond in the Filing 1 report. Please provide additional details on the area now proposed to be routed to the pond which was previously proposed to be discharged directly offsite.
25. Please note that the compensatory storage criterion is in reference to the release rate not to tributary areas. Provide a flow comparison table showing that the overall release from the site will still be equal to or less than the overall allowable release rate calculated for the site.
26. Drainage Basin Boundary Linework missing from the drainage plan.
27. Provide additional details on how the two existing inlets on the end of Deertrack Lane will be replaced to accommodate the receiving flows with Building 7 proposed over their current location.
28. Show all proposed storm sewer infrastructure on the proposed drainage plan.

The submittal is not in general conformance with the Town of Parker's *Roadway Design and Construction Criteria Manual* and *Storm Drainage and Environmental Criteria Manual*. The submittal must be revised and re-submitted for review.

An attempt has been made to identify all of the items that do not meet the Town of Parker's design criteria; however, it remains the developer's responsibility to ensure that all criteria are met.

If you have any questions regarding the comments, please do not hesitate to contact the Engineering Department at (303) 840-9546.