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## Memorandum

**To:** Julia Duncan, Associate Planner

**Date:** January 26, 2022

**From:** Tyler Sandt, P.E. Senior Development Review Engineer  
Michael Walton, P.E. Project Engineer

**Cc:** Alex Mestdagh, P.E. Engineering Services Manager

**Subject: Compark Village South Tract A Sketch and Preliminary Plan – Engineering 1<sup>st</sup> Review**

The Engineering Department has reviewed the documents submitted for the Compark Village South Tract A Sketch and Preliminary Plan. The submittal consisted of the following documents:

<u>Document</u>	<u>Date Received</u>
Drainage Report	November 12, 2021
S&P Plan	November 12, 2021
Construction Plans	November 12, 2021
Traffic Impact Study	November 12, 2021
Landscape Plan	November 12, 2021

The site is located south of Belford Avenue, between Chambers Road and Peoria; immediately north of Grandview Estates. Based on our review we have the following comments:

### Traffic and Roadway Review Comments

The following comments concern traffic, access, roadway design, and construction standard issues for the subject property. They are based upon our review of the submittal documents in accordance with the criteria presented in the Town of Parker’s Roadway Design and Construction Criteria Manual (RDCCM), as revised, May 2018. Additional regulatory and planning documents may have been utilized in the review, and are referenced in the comments where appropriate.

### General Comments

1. A comprehensive review of the plans and technical reports will be conducted at final plat stage. The purpose of Engineering review at Sketch and Preliminary is to prevent

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significant changes to the site layout at final plat stage. Please expect additional, and more technically specific comments during the final plat review.

2. Please note that the developer will be required to meet all conditions outlined in the Annexation Agreement.

### Construction Plans

3. The graphic scale does not appear to be correct on Sheet C4.4. Please ensure scales on all sheets are correct on future submittals.
4. Update the Town's engineering signature block. This has been provided on eTrakit.
5. Prior to the next submittal, coordinate with the Town on the asphalt width of the public-private road transition on Bunny Hop Lane. The Town would prefer that the asphalt width be reduced at an intersection. If this is not possible, adequate signage will need to be provided and the Town may require the roadway width transition be on private property.
6. Provide "Private Road No Town Maintenance Signs" at the right-of-way transition to private on Bunny Hop Lane.
7. Some sheets callout Bunny Hop Lane as Bunny Hop Lane Road.
8. Remove asphalt sections from construction plans for public roads. The pavement design will be determined via a Geotechnical investigation. The pavement design must be reviewed and approved by the Town prior to any roadway construction.

### 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 Plans

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9. All storm sewer downstream of receiving flows from paved driving surfaces must use 18-inch minimum RCP pipe.
10. Extend the proposed drainage easement to the east to connect with the drainage easement requested for the storm with the Filing 1 AMD 2 construction plans.
11. Provide and identify the minor and major storms' hydraulic grade lines on all storm sewer profiles.
12. Provide the existing inverts in and out of MH 3.
13. Please note Town of Parker follows CDOT standard details. Please remove any duplicate Douglas County details which are covered by the CDOT standard details to avoid any potential confusion.
14. Provide CDOT standard details for all proposed storm sewer infrastructure. Specifically noted RCP and Type C inlet details as missing.
15. Provide the Town's standard manhole cover detail. Please reference RDCCM Appendix A for the most current version of the detail.
16. Provide a minimum of 7-feet from the dripline of any existing or proposed tree to the edge of any existing or proposed storm sewer infrastructure.

#### Drainage Report

17. Plans reference Compark Village South Filing 1 Amendment 1, but the drainage report title references Filing 1 Amendment 2. Revise to match as appropriate.
18. In the description of property section of the narrative the NRCS web soil survey is referenced in Appendix E, but the exhibit appears to be provided in Appendix A. Please revise as necessary to reflect the appropriate appendix.
19. Please note that all flows which can be feasibly captured and conveyed to the regional detention and water quality pond should be. If it is not feasible to convey all of the site flows to the regional facility, compensatory storage will need to be provided in the regional facility for those areas which can not be feasibly captured and conveyed there.

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20. The third paragraph of the Sub-Basin Description section of the narrative references sub-basin I1 as being conveyed to the southern forebay of the regional detention pond. Please note the description provided for I1 simply designates these flows discharging offsite as overland flows. Please provide additional information detailing how these flows are conveyed to the regional facility or revise the third paragraph to exclude this basin.
21. Provide a brief description of historic flow patterns in the sub-basin description section of the narrative.
22. Provide discussion in the Drainage Design Criteria section of the narrative on whether the proposed design is in conformance with the town's floodplain and stream preservation standards. It is anticipated that the proposed design has no impact to the floodplain or stream preservation corridor, but please directly state this in the narrative.
23. Provide details on the allowable street capacity as well in the Hydraulic Criteria section of the narrative.
24. Provide a variance section under the design criteria section. It does not appear that any variances are currently being requested, but please directly state this in the added section of the narrative.
25. Provide additional discussion in the Drainage Facility section of the narrative on the design of the proposed swales and provide all relevant design calculations in the appendix.
26. In the Drainage Facility Design section of the narrative it mentions offsite public improvements potentially impacting sub-basin A-2. It states that a resolution to this issue is provided in the following section, but no additional discussion on this was noted within the report.
27. Please directly state that the tier 3 permanent bmp water quality requirements are met by the regional facility in the water quality and maintenance section of the narrative.
28. Under the Environmental Protection Criteria General section of the narrative presence of threatened and endangered species as well as wetlands is discussed for the work provided in Happy Canyon Creek, but site-specific information is not provided. Please state whether any threatened or endangered species or wetlands are present within the area of proposed improvements specific to the proposed design of this report.

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29. Provide all pertinent pond design information from the CVS F2 report in the appendix.
30. Provide all design calculations in the appendix. Please note this includes capacity calculations for any existing infrastructure receiving flows as well.

#### Sediment and Erosion Control

#### **GENERAL COMMENTS**

31. Revise CBMP plan sheet titles to reflect “Initial CBMP Plan” and “Interim/Final CBMP Plan” to match Town standard nomenclature.
32. Omit all existing and proposed utilities from the CBMP Drawings, except those relating to stormwater.
33. Provide arrows to indicate the direction of flow.
34. Provide and identify Portable Toilet Protection (PTP) for the site.
35. Label and identify the ratio of all slopes that are 4:1 or greater.
36. Note 5 references the City of Loveland. Revise to reflect the appropriate municipality.
37. Please consider directly connecting the Stabilized Staging Area (SSA) to the Vehicle Tracking Control (VTC) as shown on the Town’s standard detail. This will help limit the amount of traffic which crosses disturbed areas and will help further limit tracking from the site.
38. Provide and identify Debris and Trash Control (DTC) for all adjacent paved driving surfaces on the initial plan. Provide and identify DTC for both the adjacent and on site paved driving surfaces on the interim/final plan.
39. Please verify the appropriate inlet protection is provided at all locations. Several locations where Inlet Protection Curb on Sump (IPCOS) is provided appear to be for curb on grade inlets (IPCOG).
40. Please verify Limits of Construction (LOC) extents. Specifically, the proposed sidewalk along the southwest extents appears to fall on the wrong side of the LOC.

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41. Please show the “existing” storm sewer which is proposed as a tie in for the line to the northeast.
42. Include within the plan set all of the town’s 31 CBMP Notes & Details. Specifically noted Inlet Protection for Area Inlets Not in Pavement (IPAN) and Inlet Protection for Area Inlets in Pavement (IPAP) as not provided. Please also note that the detail sheets are not in the appropriate order. Please revise sheet order so that the detail sheets are presented in the correct order through the overall plan set.
43. Revise the Town of Parker review block to reflect the most current version provided in the Town’s Roadway Design and Construction Criteria Manual (RDCCM), Appendix B. Specifically noted too many signature lines were provided and one typo where cannot was used instead of cannot in the second paragraph.
44. Add a callout/label on all properties adjacent to the project stating that no work shall occur in these areas.
45. Add the following note to the initial and final CBMP plan sheets:  
“LOT PROTECTION (LP) IS REQUIRED ON ALL RESIDENTIAL LOTS PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY.”

#### **INITIAL CBMP PLANS**

46. Replace the Sediment Control Log (SCL) perimeter control along the northern site boundary, western site boundary, and private drive boundary to the east with Silt Fence (SF).

#### **INTERIM/FINAL CBMP PLANS**

47. Provide and identify sediment control logs (SCL) along all paved areas adjacent landscape/pervious areas where no other perimeter control measure is in place. This includes landscape islands and all pedestrian walks.
48. Provide and identify Erosion Control Blanket (ECB) for any slope steeper than 4:1.
49. Provide and identify Seeding Mulching and Crimping (SMC) and Surface Roughening (SR) in all proposed landscaped areas. Please note this includes the areas proposed as residential lots which will need SMC and SR in the interim phase between earthwork and home building.

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50. Provide inlet protection for all proposed inlets. Specifically noted the area inlet in the southeast corner, the area inlet in the northeast corner, and the two curb inlets on the southwest corner are all missing inlet protection.

51. Provide and identify 1 instance of Rough-Cut Street Control (RCSC) in both gutter flow lines just east of the two proposed curb inlets located at the south west corner of the site.

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. All submittals should be through the Town Community Development Department, accompanied by a letter that responds to each comment herein. Direct submittals to the Engineering Department will not be accepted.

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.

**Link to Town Engineering Standards and Criteria:**

<http://www.parkeronline.org/210/Standards-and-Criteria>

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