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## **Memorandum**

**To:** Julia Duncan, Associate Planner

**Date:** November 9, 2021

**From:** Tyler Sandt, Development Review Engineer  
Michael Walton, Project Engineer

**Cc:** Alex Mestdagh, P.E. Engineering Services Manager  
Michael Grabczyk, P.E. Stormwater Project Manager

**Subject: Compark Village South Filing 1 Amendment 2 – Engineering 1<sup>st</sup> Review**

The Engineering Department has reviewed the documents submitted for the Compark Village South Filing 1 Amendment 2 replat. The submittal consisted of the following documents:

<b><u>Document</u></b>	<b><u>Date Received</u></b>
Construction Plans	October 6, 2021
Replat	September 24, 2021
Drainage Report	October 6, 2021

The site is located south of Belford Avenue and north of the Grandview Estates subdivision. 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.

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### General Comments

1. Please note that the applicant will be required to meet all conditions outlined in the Annexation Agreement.
2. On future submittals, provide a landscape plan. Sight triangles should be shown at public access points and any proposed or existing landscape above two feet in height should be removed or relocated.

### Replat

3. Prior to the next submittal, coordinate with the Town on whether a trail easement will be required.
4. Provide access easements over the private drives.
5. Provide 25-foot drainage easements over all storm sewer outside the right-of-way. Note that this does not include storm sewer that only collects flows from roofs or landscape areas.
6. Show sight triangles on the plat at the public access points (even those that do not require an easement) and add the following note to the plat:

"Within the sight triangles, as shown, limited landscaping shall be allowed but no solid structures or trees will be permitted. Solid structures shall include, but not be limited to, fences, mailboxes, and utility boxes. Landscaping within the sight triangles will be limited to shrubs and plantings that at maturity will be no taller than two feet. Landscaping within the sight triangle shall be maintained by the property owner or appropriate association."

7. Add the following notes to the plat:

“ACCESS EASMENT ARE HEREBY GRANTED OVER ALL PRIVATE ENTRANCES AND INTERNAL ROADWAYS WITHIN THE DEVLOPMENT FOR THE BENEFIT OF ALL CURRENT AND FUTURE OWNERS OF THESE PROPERTIES FOR INGRESS, EGRESS AND TRAFFIC CIRCULATION. SHOULD PROPERTIES BE FURTHER SUBDIVIDED INTO ADDITIONAL LOTS, ALL SUCH LOTS SHALL HAVE THE RIGHT TO USE ALL SUCH ENTRANCES AND ROADWAYS FOR PUBLIC ACCESS PURPOSES.”

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“NO CERTIFICATES OF OCCUPANCY, TEMPORARY OR OTHERWISE WILL BE ISSUED UNTIL ALL PUBLIC IMPROVEMENTS AND NECESSARY ONSITE IMPROVEMENTS ARE COMPLETED AND ACCEPTED IN WRITING BY THE TOWN.”

“NO CERTIFICATES OF OCCUPANCY, TEMPORARY OR OTHERWISE SHALL BE ISSUED UNTIL THE LANDSCAPING IS INSTALLED AND APPROVED BY THE TOWN OR AS OTHERWISE ALLOWED IN THE LAND DEVELOPMENT CODE.”

“PRIVATE ACCESS DRIVES/ROADWAYS MUST BE CONSTRUCTED PRIOR TO THE ISSUANCE OF TEMPORARY CERTIFICATE OF OCCUPANCY AND/OR CERTIFICATE OF OCCUPANCY FOR ANY DEVELOPMENT OCCURRING ON PROPERTY SHOWN HEREIN.”

“PROPERTIES IN THIS PLAT ARE SUBJECT TO A PERPTUAL, NON-EXCLUSIVE CROSS PARKING EASEMENT FOR THE SHARED USE OF ALL PARKING SPACES SITUATED WITH THE PROPERTIES SHOWN HEREIN. THE OWNER OF EACH LOT SHALL KEEP AND MAINTAIN THE PARKING SPACES CONTAINED WITHIN THERE RESPECTIVE LOT IN A COMMERCIALY REASONABLE CONDITION AND STATE OF REPAIR.”

#### Construction Plans

8. Add “Private Road, No Town Maintenance” signs to this site’s public access points.

#### Traffic Study

9. On future submittal, provide a Traffic Impact Study for review.

#### **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

10. All storm sewer systems collecting drainage from the proposed drive aisles and parking areas shall be considered public and must adhere to the standards and specifications

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outlined within Section 6.3.3 of the Town's SDECM, including the use of RCP and dedication of drainage easements. Landscape drains, roof drains, and leaders for these systems are considered private and may be constructed with plastic pipe and catch basins. These private systems must connect to the public storm sewer system at an inlet or manhole structure. Insert-a-tee connections are not allowed.

11. Provide the minor storm Hydraulic Grade Line on all profiles as well.
12. SHT 22: Provide depth labels for clearance of the utility crossings.
13. SHT 22: If the outfall pipe to the forebay will be existing by others, revise the style to match the style used for other existing storm sewer in the plans.
14. Provide a forebay and trickle channel for the proposed pond outfall which connects to the existing system. Provide a maintenance access path to the newly proposed pond infrastructure.
15. Please consider replacing the bends in the proposed landscape/roof drain system with cleanouts for improved maintainability. Please also consider whether the bends proposed in the northern landscape drain line could be further minimized to improve flow conditions through the pipe. Specifically, it appears having some of the landscape drains in line with rather than stubbed out from the mainline could decrease the number of required bends.
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.
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.
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.

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19. Provide CDOT Standard Details for all proposed storm sewer infrastructure. Remove all duplicated details from Douglas County.
20. Provide Town's Standard Manhole Cover Detail.

#### Drainage Report

21. Discuss compliance with the Town's Stream Preservation Standards in the Drainage Design Criteria of the narrative. If these standards do not apply, please directly state as such in the narrative.
22. Verify adequate compensatory storage is provided in accordance with SDECM section 7.2.4 for the proposed basins which cannot be feasibly captured and conveyed to the existing ponds. If adequate compensatory storage is not provided, propose outlet structure modifications to accommodate the required release rate.
23. Identify the site extents on the FIRM.
24. Sub-Basin OS-2 appears to be missing the basin delineation line work.

#### Environmental

##### **GENERAL COMMENTS**

25. A portion of the surface shown as proposed grade falls outside the extents of the Limits of Construction (LOC). Please verify LOC extents.
26. Please consider other locations for the proposed Vehicle Tracking Control (VTC). While this is an ideal point of access, it falls on the downgradient side of the site providing a point of potential sediment discharge during the interim grading phase. If no other point of access is feasible through the duration of the project, provide additional control measures to ensure site flows are not discharged through the VTC.
27. Please consider directly connecting the Stabilized Staging Area (SSA) to the end of the Vehicle Tracking Control (VTC). This helps to limit traffic across disturbed areas which further limits vehicle tracking from the site.
28. Provide unique identifiers for the Temporary Sediment Basins (TSB) (ie TSB1, TSB2).
29. Provide and identify Portable Toilet Protection (PTP) for the site.

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30. Provide and identify Debris and Trash Control (DTC) for all existing paved driving areas adjacent to the site and all proposed paved driving areas internal to the site.
31. Omit all existing and proposed utilities from the CBMP Drawings, except those relating to stormwater.
32. Provide arrows to indicate the direction of flow.
33. Label and identify the ratio of all slopes that are 4:1 or greater.
34. Include within the plan set all of the town's 31 CBMP Notes & Details. Specifically noted IPAN and IPAP details as missing. Please also note sheets 34 and 35 appear to be out of order.
35. Remove the Town Review Block from all CBMP detail sheets.
36. Revise the Town of Parker review block to only include one signature line for "Town of Parker, Director of Engineering/Public Works" per the RDCCM. Please also note one minor typo was found in the review block where cannot is replaced with cannon. Please revise to match the Town's standard.
37. Add a callout/label on all properties adjacent to the project stating that no work shall occur in these areas.
38. Label wetland habitat protection areas, jurisdictional status and other "Waters of the U.S."
39. 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."
40. Add the following note to the initial and final CBMP plan sheets:

"TO REDUCE THE POTENTIAL FOR CLOGGING OF DEBRIS GRATES, NO STRAW MULCH SHALL BE USED WITHIN THE EXCESS URBAN RUNOFF VOLUME OF A DETENTION BASIN. INSTEAD, EROSION CONTROL BLANKET

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SHALL BE INSTALLED FOR A WIDTH OF AT LEAST 6-FEET ON BOTH SIDES OF THE CONCRETE LOW FLOW CHANNELS OR UP TO A DEPTH OF 1-FOOT IN SOIL RIPRAP OR BENCHED LOW FLOW CHANNELS. ADDITIONALLY, HYDRAULICALLY-APPLIED WOOD FIBER MULCH, STABILIZED FIBER MATRIX, BONDED FIBER MATRIX, OR FLEXIBLE GROWTH MEDIUM SHALL BE USED IN ALL OTHER AREAS WITHIN THE EXCESS URBAN RUNOFF VOLUME OF THE DETENTION BASIN. THE BLANKET AND HYDRAULICALLY-APPLIED MULCH SHALL COMPLY WITH THE MATERIALS AND INSTALLATION REQUIREMENTS FOR EROSION CONTROL BLANKETS AS REQUIRED BY THE TOWN'S CBMP PROGRAM, AND WHERE APPLICABLE, THE PRODUCT MANUFACTURER."

#### **INITIAL CBMP PLANS**

41. Include perimeter controls for the entire Limits of Construction (LOC). Perimeter control should be silt fence (SF) when downstream of disturbed areas and Construction Fence (CF) when upstream of disturbed areas.

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

42. Provide and identify sediment control logs (SCL) along all paved areas adjacent landscape/pervious areas. This includes landscape islands and all pedestrian walks.
43. Provide and identify Sidewalk Transition Protection (STP) for all proposed pedestrian ramps adjacent to landscaped areas.
44. Provide and identify Erosion Control Blanket (ECB) on all slopes steeper than 4:1.
45. Provide and identify Masonry Work Protection (MWP) for the site.
46. Provide and identify Surface Roughening (SR) in all proposed landscaped areas.
47. Remove the Rock Socks (RS) shown in the pond and replace them with one callout of Detention Pond Protection (DP).
48. Provide and identify the appropriate means of inlet protection from the Town's four inlet protection types for all proposed and existing inlets. Several inlets noted missing these control measures and several of these control measures noted on the plans as missing inlets. Please note all landscape drains should receive IPAN inlet protection as well.

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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.