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Memorandum

To: Julia Duncan, Associate Planner

Date: July 29, 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: Douglas 234 Filing 6 Lot 1 Gas Station and Convenience Store– Engineering 1st Review

The Engineering Department has reviewed the documents submitted for the Douglas 234 Filing 6 Lot 1 Gas Station and Convenience Store. The submittal consisted of the following documents:

<u>Document</u>	<u>Date Received</u>
Drainage Letter	May 27, 2021
Construction Plans	May 27, 2021
Traffic Letter	May 27, 2021
Site Plan	May 27, 2021
PWSD Plans	June 9, 2021

The site is located at the northeast corner of Chambers Road and Hess Road. 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, July 2015. 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 no approvals will be granted on this project until the Douglas 234 replat is recorded.

Civil Construction Plans

2. The Town requires 25-foot drainage easements be dedicated over all proposed storm sewer; with the exception of plastic roof and landscape drains. Coordinate with the master developer to have any necessary easements added to the replat.
3. The geometry of the slip lane is acceptable. However, the Town does have a concern regarding cars potentially stacking in this lane. Please shift the lane at least 20-feet to the east to discourage drivers from stacking in the slip lane.
4. Clarify the concrete jointing of the slip lane crossspan; this should follow the Town detail as close as possible. Additionally, the proposed sawcut line does not need to extend that far into Red Sky as the contractor can use the existing asphalt as a form for the crossspan. This should limit the need for any asphalt patching.
5. Provide an additional “Do Not Enter” sign on the west side of the slip lane.
6. Provide 2’x10’ crosswalk striping at the slip lane entrance.

Utility Construction Plans

7. Add the Fire-Life Safety and Town Engineering signature blocks to the overall utility plan sheet.

Site Plan

8. Show sight triangles on the landscape plan and remove or relocate any trees or landscape above 2-feet in height shown within. It appears the tree just to the north of the proposed access on Sliceroo will need to be removed. Reference Detail 24 in Appendix A of the RDCCM.

Traffic Letter

9. On future submittals, provide a site-specific traffic conformance letter. This letter should also include a queuing analysis for the car wash.

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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.

Civil Construction Plans

10. Provide additional information/detail for how the flows are conveyed from the north west corner of the site to the proposed curb opening. There appears to be a concrete channel shown on the plans, but the channel is not labeled or detailed. If a channel is proposed, please provide a channel section with the design storms' water surface elevations identified.
11. Provide the Town's Standard Manhole Cover detail. Reference RDCCM Appendix A for most current version of the detail.

Drainage Report

12. Provide descriptions for all proposed sub basins in the narrative of the report.
13. It appears several sub basins are proposed to discharge offsite via overland flows. The ultimate discharge point should be defined for each of the offsite basins along with calculations showing capacity for conveyance at the ultimate receiving infrastructure. The additional analysis does not need to be performed for the areas delineated to be discharged to the adjacent roadway in the Master Report, but a comparison to the Master Report delineation and imperviousness should be provided for these cases within the report.
14. Basins must be delineated to either the full extent of the property or to the full extent of proposed disturbance, whichever is larger. It appears disturbance is proposed beyond the delineated basin extents along the east, north, and west sides of the site.

Grading and Erosion Control Plans

GENERAL COMMENTS

15. Provide a CBMP plan specific to the work proposed in site plan application SP21-063 (ie exclude the control measures and disturbance extents specific to work proposed for site plan application SP21-064).

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16. Omit all existing and proposed utilities from the CBMP Drawings, except those relating to stormwater.
17. Label and identify the ratio of all slopes that are 4:1 or greater. Please note Erosion Control Blanket (ECB) is required on all slopes steeper than 4:1.
18. Replace Curb Socks (CS) with Rock Socks (RS) to match Town standard nomenclature and details.
19. Include within the plan set all of the town's 31 CBMP Notes & Details.
20. Provide unique blocks for every inlet protection type used. This helps avoid confusion in the field regarding which control measure is being specified.
21. Add the following note to the initial and final CBMP plan sheets:

“LOT PROTECTION (LP) IS REQUIRED ON COMMERCIAL LOTS WHEN LANDSCAPING IS NOT POSSIBLE.”

INITIAL CBMP PLANS

22. Provide and identify Inlet Protection for Area Inlet Not in Pavement (IPAN) for the northern most existing inlet as well.
23. Please consider switching the location of the Stabilized Staging Area (SSA) and Stockpile (SP). Connecting the SSA to the Vehicle Tracking Control (VTC) greatly limits sediment tracking by allowing for work vehicles to enter and exit the site without needing to cross actively disturbed areas.
24. Provide a callout outside the perimeter controls along the public sidewalk(s) to be modified/replaced with the project that states the following:

“ALL WORK WITHIN PUBLIC RIGHT-OF-WAY (ROW) WILL REQUIRE A TOWN ROW PERMIT. INITIAL AND INTERIM CBMPS FOR WORK WITHIN THE TOWN'S ROW SHALL BE COORDINATED WITH THE TOWN'S ENVIRONMENTAL INSPECTOR PRIOR TO THE BEGINNING OF ANY ROW WORK.”

INTERIM/FINAL CBMP PLANS

25. Provide and identify sediment control logs (SCL) along all paved areas adjacent landscape/pervious areas. This includes landscape islands and all pedestrian walks.

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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.

Link to Engineering Standards and Criteria:

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

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.