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Memorandum

To: Ryan McGee, Associate Planner

Date: July 16, 2018

From: Alex Mestdagh, P.E. Engineering Services Manager
Mike Waugh, Engineering Inspection Supervisor

Cc: Tom Williams, P.E. Director of Public Works and Engineering

Subject: **Parker Auto Plaza Filing No.1, Lot 1- Preliminary Site Plan and Replat – Engineering 1st Review**

The Engineering Department has reviewed the documents submitted with these applications. The submittal consisted of the following documents:

| <u>Document</u> | <u>Date Received</u> |
|-----------------------------|-----------------------------|
| Preliminary Site Plan | May 2018 |
| Replat | May 2018 |
| Traffic Impact Study | May 2018 |
| Preliminary Drainage Report | May 2018 |

The site is located at the southwest corner of the intersection of Parker Road and Pine Lane. 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. All public improvements associated with this development will be required to be financially secured through a subdivision improvement agreement or development agreement. An engineer's estimate for these items shall be submitted with the appropriate

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applications – please include the soft costs shown in the Standard Cost Estimate Template (Appendix B, Roadway Criteria Manual) and show the required security at 110% of the grand total.

2. The master infrastructure serving the development – specifically the shared access roads, storm drainage and utility mains, detention pond infrastructure, and improvements within the public right-of-way should be constructed with the initial development of the site. At a minimum, the master improvements needed to serve the lots proposed to be created via replat must be constructed with that application.

Preliminary Site Plan

3. All internal access points must be located with adequate intersection sight distance from intersections with public roadways. The access point shown on the southwest corner of Lot 7 must shift east (or be a restricted movement), and the west access to Lot 5 must shift south to align with the Lot 7 access.
4. Internal access points should be shared between properties as much as possible to minimize the number of access points along the main access roads. Access points shall be aligned across access roads.
5. The curve in the internal access road immediately west of Parker Road should be adjusted to provide an appropriate radius for vehicles turning from that roadway.

Replat

6. Drainage easements shall be dedicated to the Town over all proposed storm sewer and the detention pond (if necessary) in accordance with minimum widths set forth in the Town's *Storm Drainage and Environmental Criteria Manual*. These easements over private infrastructure are necessary to preserve the Town's ability to maintain these items should the property owner fail to do so. Where storm sewer mains share an easement corridor with water or sewer utilities, a 50-foot Multi-Use Easement shall be dedicated to the Town via and PWSD via separate document.
7. Show sight triangles at all intersections with public roadways and dedicate sight easements over any portions of the triangles located outside right-of-way. Add the following plat note:

"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

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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."

8. Block 1 should be designated as a tract to be replatted into future lots. Please add the following plat note:

"Tract [x] is hereby established as a parcel to be re-platted in the future into buildable lots. At such time as a replat is approved for this tract. No portion of the tract shall be developed, including but not limited to, staking, overlot grading, or the erection of any structure, temporary or otherwise, until the property is re-platted and/or site plan approval is obtained, except as allowed for in the approved construction plans for Parker Auto Plaza Filing No.1, 2nd Amendment."

9. Please clarify the ownership approach for the internal access roads. If parceled out separate from the lots, they should be included in separate tracts and dedicated to an OA.

Traffic Impact Study

10. Per previous discussions with the applicant, the existing access point on Pine Lane will be limited to a three-quarters movement with the left turn out movement restricted. The access location does not meet intersection spacing criteria for a full-movement access, and the configuration of Pine Lane in this area would require the movement to cross four lanes with free-flowing movements in conflict from both the east and west. The small number of projected westbound egress movements can be adequately and more safely handled via Twenty Mile Road and the Twenty Mile/Pine Lane signal.
11. Per the study's recommendations, the developer will be required to install dual left turn lanes for westbound Pine Lane at Twenty Mile Road, including all signage, striping, and any necessary modifications to the traffic signal or median nose.
12. The dual northbound left turns from Parker Road to Pine Lane should be installed with this development. It appears that this will only require signing and striping modifications.
13. If possible, the Town would like to investigate the possibility of shifting the RIRO access point from Parker Road to provide the proper deceleration length from Pine Lane. Currently approximately 380 feet is provided between the turn bay and the access point, and CDOT criteria calls for 435 feet for 45 mph/NR-A.

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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.

Final Drainage Report

14. A full review of the drainage report will be performed with the first application accompanied by construction plans. Please note the following:

- Full Spectrum 100-year detention including WQCV is required by the Town. The pond's release rate and associated storage should be adjusted per the Town's compensatory storage requirements (Chapter 7, SDECM) for all areas leaving the site undetained. Per Town criteria, WQCV must also be provided for any offsite flows that are routed through the detention pond.
- The applicant will be required to construct improvements to the detention pond's infrastructure to bring the pond into conformance with current Town criteria. A full replacement of the outlet structure may not be required if the existing structure can be retrofit to serve the development in accordance with Town criteria.

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.

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

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