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July 12, 2023

Mr. Michael Walton, Senior Development Review Engineer
Town of Parker
20120 East Mainstreet
Parker, CO 80138

**RE: SUB22-048 & SP22-119 Trails at Crowfoot F9 AMD 1 – Engineering 2nd Review
2nd Review Comment Responses**

Mr. Walton,

Please accept the follow as itemized comment responses to the 2nd review comments from the Town of Parker engineering and referral agencies for the Site Plan of the above referenced project.

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, November 2020. Additional regulatory and planning documents may have been utilized in the review and are referenced in the comments where appropriate.

CONSTRUCTION PLANS – CIVIL

- 1. Please verify the scale on all sheets. Review staff noted discrepancy between scale posted and scale measured on several sheets across the various plan sets.**
Response: Scale has been verified on all sheets.
- 2. Please show the construction of the Bayou Gulch Road sidewalk through the Lot 1 frontage. Please note while the response and labeling on the plans was noted for the original comment on this, the information provided does not reflect Town Staff's understanding of what was discussed. While the full extents are not required to be built as part of this application, the extents along the frontage of Lot 1 are anticipated to be constructed as part of this application. Please clearly identify the extents required as part of this application's improvements on the plan. Please ghost in all other extents faded back to continue to show how the future walk is anticipated to tie-in to the extents required with this project.**



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Response: The future sidewalk to be constructed with the Bayou Gulch expansion has been shown on the plans. Through the plat process (SUB22-048) it has been confirmed that this sidewalk was included is already paid cash payment for Trails Filing No. 1. Please coordinate with Stacy Neiger and see comment below with confirmation from planning staff.

As you had stated within your response. The Trails Filing No. 1 SIA included cash for both the payment of the future widening (including sidewalk) for Bayou Gulch Road as well as the Streetscape. Because this has been paid for, please add a shading along this property line with a note that states such.

3. Please ensure that adequate taper and storage lengths per the CDOT access code are provided for the proposed right turn lane for the access point along Bayou Gulch Road. Please note, this road is anticipated to be signed as 40 mph in the ultimate condition. Based on this there appears to potentially be additional storage provided but not enough taper length. While the additional storage length will be beneficial, some of said storage length may need to be transitioned into taper length to meet the necessary requirements.
Response: Taper and storage length have been revised per comment.
4. The proposed access point along Alpine Phlox Street appears to still potentially conflict with the existing Type R inlet and necessary curb transition. While the shift in location was noted, it appears that the shift only provides 2.5-feet for the curb transition. Please note per the CDOT standard detail 3-feet of transition is required. If the existing conditions on site for said transition are a 2.5 rather than 3 feet transition, please let Town Staff know this. If this is not based on site verified values, please either verify the necessary separation on site or provide the minimum spacing required per the standard detail.
Response: Drive has been revised to provide approximately 3.5' from inlet. Dimensions added to plan..
5. Provide signing and striping labeling on the appropriate preferred sheet. Response noting this was provided with the Site Plan noted, but please note that these callouts must be provided within the construction document set. Please also note that all signage should be labeled in accordance with MUTCD standard nomenclature.
Response: Signing and striping labeling has been provided on the CD set. MUTCD regulatory sign designations have been added to the site plan and CD set.
6. Provide and identify street signage for all stop signs proposed at access points to public roadways.



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Response: All stop sign callouts have been added at access points to public roadways.

7. Provide a do not enter sign on the site side of the right in only access point from North Pinery Parkway to ensure the intent of said access is clear to all drivers.

Response: Do not enter sign added per comment.

8. The response stating note was added noted, but the note was not located on the construction documents. Please ensure that the overall utility plan is provided in the Town CD set as well as the PWSD set and ensure the note is provided on both sheets. Provide the following note on the Overall Utility plan sheet in the PWSD construction set: "The proposed utility connection within Town right-of-way will require a Town right-of-way permit prior to commencing work. The Town requires connections to be bored to the extent possible, and any street cut allowed by the Town will be required to be patched according to the Town's construction standards and details. The limits of patching will be determined by the Town at the time of construction. The Town of Parker does not allow roadway closures for utility work."

Response: Overall utility plan has been added to CD set. Note has been added to Utility Plan in PWSD construction set.

SITE PLAN – CIVIL

1. Addition of sight triangles noted, but the sheet they are provided on is not adequately scaled to show the full sight triangle extents. Please provide a landscaping sheet scaled appropriately such that the full extents of the proposed sightlines are clear. Additionally, identify removal of any trees within the sight triangle extents, whether proposed as part of this project or not.

Response: Full site triangles have been provided and landscape reviewed and approved as part of the Site Plan project.

PLAT – CIVIL

1. Revised Plat documents noted as missing from this submittal. Please ensure all previous comments have been addressed and provide updated plat documents with the next submittal.

Response: Plat document provided with resubmittal

TRAFFIC IMPACT STUDY



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1. **Please add analysis for the left turns from the Douglas County intersection to the south of the site (Bayou Gulch Road/Vista Arroyo Street) as this is anticipated to be a full movement in the ultimate condition.**

LSC Response: LSC submitted the final traffic study for the Lemay Academy to Douglas County a few weeks ago to address a few remaining comments - it shows the intersection of Bayou Gulch/Vista Arroyo Street as a three-quarter movement intersection per feedback from the County.

PUBLIC IMPROVEMENT COST ESTIMATE

1. **Provide a public improvement cost estimate for review once the site plan gets closer to being finalized. Please note this comment will continue to be provided until receipt of a cost estimate to ensure this item does not unintentionally get overlooked in later reviews.**

Response: Acknowledged to be provided once site plan gets closer to being finalized.

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 note that the CBMP Estimate will be required and reviewed with the Grading Permit after all CBMP comments have been addressed and the final site plan is near approval.**

Response: Acknowledged to be provided once site plan gets closer to being finalized.

2. Please add a note to ALL Erosion Control plan sheets stating: "ANY ONSITE BULK FUEL STORAGE REQUIRES A FIRE LIFE SAFETY PERMIT FROM THE TOWN OF PARKER PRIOR TO INSTALLATION". Contact Randy Capra at rcapra@parkeronline.org or 303-805-3163 for FLS Permit questions.

Response: Note added per comment.



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3. Please provide the Town of Parker's legend of keys and symbols to correspond to the Town's 31 CBMP Notes & Details on the initial and interim/final Erosion Control plan sheets.

Response: Town of Parker's legend of keys and symbols has been provided on sheet C3.4. Due to size of site and plan sheet there is not adequate size to have full legend on plan sheets therefore note added to reference sheet where legend has been provided.

INTERIM/FINAL CBMP PLANS

4. Sediment Control Log (SCL) is required at back of curb and back of sidewalk immediately after installation of asphalt in roadways and parking areas. This includes landscape islands and all pedestrian walks. Please provide and identify (SCL) on the plans where needed. Note: if tree lawn/landscape areas are graded to final grade, Erosion Control Blanket (ECB) may be used to cover the entire tree lawn/landscape area instead of using SCL at back of sidewalk/curb.

Response: Provided per comment

CONSTRUCTION PLANS – STORMWATER

1. Please either move the screening wall a minimum of 5-feet back from the proposed storm sewer infrastructure or consider alternative locations for the storm sewer infrastructure to accommodate the potential future need for maintenance and repair of the storm sewer system. The response stating this had been addressed was noted, but please note that the screening wall along the northern extents of the property still appears to fall too close to the proposed storm sewer system.

Response: Screening has been modified to a landscape element and pulled back to be a minimum of 5' from inlet.

2. Provide a section for the proposed swale to inlet 1 and identify the anticipated 100-year water surface elevation on the section. The response stating this has been provided within the report was noted, but please note that the detail should be provided on the plan sheets as well.

Response: Section provided in plan set.

3. Please consider replacing the proposed stub into Lot 3 with an area inlet and identify diversion ditches (DD) to said inlet on the CBMP plan sheets to capture and convey flows from the lot in the interim condition. Please also identify said diversion ditches on the respective plan and profile sheet with a callout to the CBMP sheet to ensure this is appropriately coordinated on site. Lastly, while it is noted that the Master Report did

not provide a separate means of conveyance for the flows in Lot 3, it would be the Town's preference to capture and convey the full extent of feasible flows to the requested interim inlet to help mitigate potential icing and erosion maintenance concerns along the extents of the sidewalk.

Response: As coordinated with Town staff the master drainage study did not size the existing storm infrastructure to capture and convey the 100-year storm event. The design of the existing storm infrastructure is for the 5-year event and the 100-year event is to be conveyed within the public street. EES analyzed adding additional inlet and stubs to the capture runoff from Lots 2 & 3 however when the inlets were added, too much runoff was captured in the 100-year storm event between the proposed inlets and existing inlets in Alpine Phlox. This resulted in the HGLs of the existing storm infrastructure being well out of the ground in the 100-year event. As such proposed inlets in Lot 3 were removed as part of this design. EES was able to capture the majority of the K&G site 100-yr event on site and pipe that however all other lots must sheet flow runoff to the existing storm infrastructure in Alpine Phlox in order for the storm sewer to have adequate capacity.

4. Two invert outs identified on the existing inlet profile label. Please verify all invert labeling.

Response: Updated per comment

5. Provide a separate plans and profiles for the storm sewer downstream of receiving flows from paved driving surfaces as this is the only extents of the system which will be reviewed and inspected by Town staff. Specifically, everything upstream of Inlet 1 on sheet C4.1 should be provided on either sheet C4.2 or its own independent sheet.

Response: Profile has been split up per comment

6. Provide the existing invert out of EX. STM MH-2 on the profile.

Response: Provided per comment

7. Provide CDOT standard details for all proposed concrete storm sewer infrastructure. Response stating these had been provided noted, but please note review staff was unable to locate said details within the Construction Plan set provided.

Response: Provided per comment

8. Provide the Town's standard detail for manhole covers. The response stating these had been provided noted, but please note review staff was unable to locate said details within the Construction Plan set provided.

Response: Detail added per comment.



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1. Provide a minimum of 7-feet from any existing or proposed tree to the edge of any existing or proposed storm sewer infrastructure. Specifically noted as not provided between the existing tree and proposed storm sewer tie-in to the Existing Inlet along Alpine Phlox.

Response: Proposed plan is meeting this requirement.

DRAINAGE REPORT

1. Provide the inlet management tab of the MHFD inlet calculation worksheet as well within the appendix of the letter.

Response: Provided per comment

2. Provide inlet calculations or highlighted and noted references for any existing inlets proposed to receive flows from the site. While this may have been assumed within the master study, actual values should be recorded with all drainage reports which anticipate impacting said infrastructure to provide the most accurate information possible for future designers.

Response: Provided per comment

3. Provide either additional inlets, an adequately sized sump, or a larger inlet to capture the full developed flow from the proposed access road prior to said flows being discharged offsite. Please coordinate with Town staff if this is not feasible and provide adequate calculations to show downstream capacity exists within the existing infrastructure.

Response: As coordinated with Town staff the master drainage study did not size the existing storm infrastructure to capture and convey the 100-year storm event. The design of the existing storm infrastructure is for the 5-year event and the 100-year event is to be conveyed within the public street. EES analyzed adding additional inlet and stubs to the capture runoff from Lots 2 & 3 however when the inlets were added, too much runoff was captured in the 100-year storm event between the proposed inlets and existing inlets in Alpine Phlox. This resulted in the HGLs of the existing storm infrastructure being well out of the ground in the 100-year event. As such proposed inlets in Lot 3 were removed as part of this design. EES was able to capture the majority of the K&G site 100-yr event on site and pipe that however all other lots must sheet flow runoff to the existing storm infrastructure in Alpine Phlox in order for the storm sewer to have adequate capacity.

4. Provide an additional basin for the proposed discharge offsite from the portion of the proposed access road along the southwest extents of the site. Additionally, provide inlet calculations or references showing capacity in the existing infrastructure proposed to receive these flows.

Response: The proposed access drive onsite has been included in basin P-8 and accounted for in all calculation with existing storm inlet calcs.