



DENVER • DALLAS/FORT WORTH

July 21, 2022

Attention: Michael Walton  
Town of Parker  
Engineering Department  
20120 E Main St  
Parker, CO 80138

RE: SUB21-055 Lincoln Professional Park – Stormwater 3<sup>rd</sup> Review  
HKS Project No. 200829

Dear Mr. Walton,

Please find responses (in blue italics) below for comments received April 12, 2022 regarding the proposed Lincoln Professional Park project.

**Stormwater CBMP Review Comments**

1. Omit all existing and proposed utilities from the CBMP Drawings, except those relating to stormwater. Please note this includes the linework for the existing buildings, fences, roadways, etc. as well as the easement/ROW linework. Please also remove all existing to remain or remove call outs from the CBMP sheets. These should be presented on a separate demolition or existing conditions sheet to avoid potential confusion in the field from overlap.  
***HKS RESPONSE: All existing/proposed non-storm utilities, existing buildings, fences, roadways, easements, and ROWs removed. Existing Conditions sheet added.***
2. Provide Diversion Ditches (DD) in accordance with the Town's standard detail for the temporary swales to the proposed inlets shown on the interim and final CBMP sheets.  
***HKS RESPONSE: Diversion ditches added.***
3. Label and identify the ratio of all slopes that are 4:1 or greater.  
***HKS RESPONSE: Ratio of all slopes 4:1 or greater labeled.***
4. Provide and identify Debris and Trash Control (DTC) for Dransfeldt Road and Lincoln Avenue in all phases as well.  
***HKS RESPONSE: Debris and Trash Control added along Dransfeldt Road and Lincoln Ave.***
5. Provide Rock Socks (RS) along Dransfeldt Road from the proposed entrance to the existing inlet.  
***HKS RESPONSE: Rock socks added along Dransfeldt Road from the proposed entrance to the existing inlet.***

6. Please combine the three Limits of Construction (LOC) in to one. The additional area in Dransfeldt Road may not get disturbed during construction, but the potential for significant tracking exists with the necessity to track equipment between the three. This will also simplify future permitting and close out procedures.  
***HKS RESPONSE: Limits of Construction merged into a singular area.***
7. Either identify all of the blocks and labels used in the sheet specific legend or provide a note referencing the appropriate sheet to reference for the CBMP legend. Please note if labeling or blocks do not match the Town standard legend, a plan specific legend must be generated to identify these items.  
***HKS RESPONSE: Sheet specific legend has been added to each plan sheet.***
8. Sheet 8 is labeled as "CBMP LEGEND" but the Town's standard legend is provided on Sheet 9. Please move the Town's standard legend sheets to Sheet 8 and move all the details provided on Sheet 8 other than the general notes to Sheet 9.  
***HKS RESPONSE: Town of Parker CBMP Legend moved to Sheet 8 and details on Sheet 8 moved to Sheet 9.***
9. Construction Fence (CF) detail is split between sheet 8 and 10. Please ensure details are provided in a linear order between sheets if space does not allow for them to be on a single sheet.  
***HKS RESPONSE: Details sheets have been updated.***
10. Silt Fence (SF) labels noted as missing from the plans.  
***HKS RESPONSE: Silt Fence labels have been added.***
11. Replace all Construction Fence (CF) along the southern extents of the site with Silt Fence (SF).  
***HKS RESPONSE: Construction fence replaced with silt fence along the southern extents.***
12. Provide arrows to indicate the direction of flow.  
***HKS RESPONSE: Flow arrows have been added.***
13. Provide and identify sediment control logs (SCL) along all paved areas adjacent landscape/pervious areas. This includes landscape islands and all pedestrian walks. Please note this is required anywhere a transition from pervious to impervious is proposed regardless of flow path. The SCL is being implemented as a secondary means of tracking control for this case.  
***HKS RESPONSE: Sediment control logs added to all pervious-to-impervious transitions.***
14. Provide and identify the appropriate type of inlet protection for the grated top manholes proposed to be utilized as interim inlets.  
***HKS RESPONSE: Correct inlet protection has been added to grated top manholes.***
15. Several proposed sump inlets appear to have Curb on Grade rather than Curb in Sump inlet protection. Please verify the inlet configurations and utilize the appropriate inlet protection type.  
***HKS RESPONSE: Appropriate inlet protection has been corrected.***

16. Provide and identify Culvert Protection (CP) for the proposed flared end section receiving flow on the north east corner of the site. Please note this was added to the existing pond on the northeast corner rather than the proposed flared end section just north west of the pond.

***HKS RESPONSE: Culvert Protection moved to correct location.***

17. Provide Detention Pond Protection (DP) for the existing pond in the northeast corner of the site.

***HKS RESPONSE: Detention Pond Protection added to the existing pond located in the northeast corner of the site and the proposed pond in the western portion of the site.***

### **Stormwater Construction Plans Review Comments**

18. Provide the invert out of manhole structure E1 in the profile labels.

***HKS RESPONSE: Added to plans.***

19. Provide minor and major storm hydraulic grade lines (HGL) on the storm line I profile.

***HKS RESPONSE: Added to plans***

20. The maintenance access path previously provided has been removed. Provide and identify a maintenance access path down to the infrastructure in the pond.

***HKS RESPONSE: MAINTENANCE ACCESS PATH IS NOW SHOWN ON POND PLAN***

21. 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. Specifically, provide the required bedding material and steel reinforcement in the forebay detail. Alternatively, include this structure type in note 5 and 6 regarding shop drawings. Please note it appears this may have been added into the notes as a "modified impact stilling basin" but should be referred to as a forebay.

***HKS RESPONSE: Notes have been updated to say "Forebay" instead of "modified impact stilling basin". Bedding material has been added to forebay detail. Structural details showing steel reinforcement will be included in subsequent submittals***

22. Provide a detail for the pond emergency overflow spillway which complies with Figure 7.6 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 emergency overflow spillway in compliance with the drainage report. Specifically noted toe wall depth dimension and overflow water surface elevation as missing. Please also note that the 1-foot of freeboard should be from the overflow water surface elevation rather than the 100-year ponding water surface elevation.

***HKS RESPONSE: Overflow water surface elevation has been added to the spillway detail. The toewall dimension has also been added to this detail.***

23. Provide a detail for the pond outlet control structure which complies with Figures 7.5 or 7.9 of the Town's SDECM. Specifically noted missing close mesh grates above micropool, 4-inch drop for initial surcharge volume, manhole steps, rebar layout, and bedding material. Please also consider potential options to provide either a ramp or steps within the micro pool. This assists

with maintenance and provides a means of escape for any animals which may unintentionally make their way into the structure.

***HKS RESPONSE: Mesh Grates, 4" drop, manhole steps and bedding have been added to the detail as requested. Structural reinforcement layout to be submitted in subsequent submittals***

24. Please verify that the proposed retaining wall meets the requirements of SDECM section 7.3.13. Specifically noted the bottom of wall elevation falls below the EURV, and thus the footing for said wall would fall below the EURV as well.

***HKS RESPONSE: Due to the required improvements in Dransfeldt, The pond footprint has been reduced. The Design has been revised to minimize the amount of footing that falls below the EURV.***

### **Drainage Report Review Comments**

25. Provide additional details for the means of sizing the receiving 24-inch flared end section on the north east corner of the site. Also, provide information about the tributary area to the proposed flared end at design point 8. The calculations appear to be provided in the appendix, but no additional narrative noted. Please also provide basin delineations for OS-1 and OS-2 and include descriptions of these basins in the Sub-basin description section.

***HKS RESPONSE: Addressed***

26. Provide additional details in the Sub-basin description section regarding the anticipated bypass of inlets and the ultimate receiving design point for each basin.

***HKS RESPONSE: Addressed***

27. Provide basin delineations for the areas anticipated to freely discharge offsite per the Development Criteria References and Constraints section of the narrative. Compensatory storage will need to be provided for any flows bypassing the proposed EDB in accordance with SDECM Section 7.2.4. A response stated no flows will be discharged offsite un-detained and untreated, but the Development Criteria References and Constraints section of the narrative still states this is anticipated for some landscaped areas on site.

***HKS RESPONSE: Off-site flows delineated***

28. Please provide additional discussion on the proposed Dransfeldt Road widening improvements and detail how these flows can be treated by the downstream regional facility.

***HKS RESPONSE: Addressed***

29. Please note the 5-year storm is considered the minor storm for commercial per SDECM Table 2.3. The 2-year storm event and precipitation values are still provided in the Hydrologic Criteria section of the narrative.

***HKS RESPONSE: Rational calculations revised for minor storm event***

30. Reference the MHFD Inlet Capacity worksheets in the Storm Sewer System section of the narrative.

***HKS RESPONSE: Report updated***

Town of Parker Engineering Department

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Please contact me if you have any questions or require additional information at [omccracken@hkseng.com](mailto:omccracken@hkseng.com) or 303-623-6300.

Sincerely,

HARRIS KOCHER SMITH

Olivia McCracken

Project Engineer