



DENVER • DALLAS/FORT WORTH

November 18, 2022

Attention: Stacey Nerger
Senior Planner
Town of Parker
20120 E. Mainstreet
Parker, CO 80138

RE: SUB21-055 Lincoln Professional Park Filing No. 1 MDP – Stormwater 4th Review
HKS Project No. 200829

Dear Ms. Nerger,

Please find responses (in blue italics) below for comments received August 18, 2022, regarding the proposed Lincoln Professional Park Filing No. 1 (Master Development Plans)

CONSTRUCTION PLANS – ENVIRONMENTAL

GENERAL COMMENTS

1. Label and identify the ratio of all slopes that are 4:1 or greater. A response stated this had been addressed, but please note slope labels do not appear on the CBMP plan sheets. Specifically, several slopes 4:1 or steeper noted within the extents of the proposed pond.
HKS RESPONSE: Slopes 4:1 or greater noted on plans.

INITIAL CBMP PLANS

2. Please note the Diversion Ditches (DD) to the proposed inlets will not be viable until the interim phase. Please remove said control measure from the initial CBMP plan.
HKS RESPONSE: Diversion ditches removed from initial plan, proposed on interim plan.

INTERIM CBMP PLANS

3. Provide and identify Erosion Control Blanket (ECB) on all slopes steeper than 4:1. Specifically noted slopes of 3:1 along the western bank of the proposed pond as missing ECB.
HKS RESPONSE: Erosion control blankets added to areas with slopes 4:1 or greater.

4. Provide an additional Diversion Ditch (DD) to direct the flows from Basin C (Lot 1) to design point 7 to help mitigate against erosion along the proposed access road stub out.

HKS RESPONSE: Additional diversion ditch shown.

5. Please note it was previously assumed by Town staff that Diversion Ditches (DD) would be provided to route the flows from Basin A (Lot 3) and Basin F (Lot 6) to design point 8 where they would be received by the temporary inlet and conveyed across the site through the proposed storm sewer system. With the extension to the proposed roadways, this is no longer a feasible option. Please either provide stubs with temporary inlets for these basins, or alternatively provide chase drains across the proposed sidewalks at each basin's respective design point and then size the receiving roadway inlets to accommodate these lots' flows.

HKS RESPONSE: Diversion ditches removed, stubs with temporary inlets added.

6. Please note the Sediment Control Log (SCL) extents appear to reflect a previous revision of the design extents for the road stubs to the east and south of the project. Please adjust the SCL extents to reflect the full extents of the proposed roadways.

HKS RESPONSE: Sediment control logs updated to match current site layout.

CONSTRUCTION PLANS – STORMWATER

1. Provide and identify the storm sewer on the proposed landscaping plan. Provide a minimum of 7-feet from any existing or proposed tree to the edge of any existing or proposed storm sewer.

HKS RESPONSE: Added to landscape plan

2. SHT 25: The invert out of Manhole E1 is higher than the inverts into the structure. Please revise such that a minimum of a 0.2-foot drop is provided from any invert into a structure down to the invert out of the structure.

HKS RESPONSE: Storm network revised to provide the minimum 0.2' drop through manhole.

3. SHT 25: Minor and major storm hydraulic grade lines missing from Storm Line I profile.

HKS RESPONSE: We are just replacing the existing ROW inlet in Dransfeldt Road and thus do not believe it is our responsibility to analyze it from a hydraulic standpoint.

4. Please note it is the Town's preference for the maintenance access path to come off Private Drive Road A rather than Lincoln Avenue. Lincoln Avenue is a very busy road with limited access from the east to the proposed maintenance access location. The Town's maintenance staff also prefers entering along a frontage with attached rather than detached walks to minimize impacts to landscaping while performing maintenance activities. Please consider revising the access path location to Private Drive Road A.

HKS RESPONSE: Maintenance Access now comes the attached walk along Private Drive Road A as requested.

5. SHT 28: Please update notes 5 and 6 from the general notes to match those provided on SHT 27.

HKS RESPONSE: Notes 5 & 6 updated to match those on sheet 27.

6. 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, adequate spacing is not provided to the adjacent sidewalk based on the wall height, and safety railing is not identified for the portions of wall taller than 30-inches in height. Please note the previous response regarding the adjustments to Dransfeldt was noted, but this alone is not enough to grant a variance to the criteria. Please coordinate directly with Town Staff on what additional measures must first be evaluated to provide the variance requested.

HKS RESPONSE: Proposed retaining walls now conform to SDECM section 7.3.13 as requested. Safety railing is now shown as well.

DRAINAGE REPORT

1. Provide 100-year storm event rational calculations for basins OS1 and OS2 and provide compensatory storage for these flows in accordance with SDECM section 7.2.4. Provide narrative detailing the required compensatory storage release rate calculations and update the MHFD Detention worksheet to reflect the appropriate release rate once compensatory storage is accounted for. Please note that the pond release should be decreased by the sum of these two flow rates to meet the compensatory storage requirements. Please also note if either offsite flow rate exceeds 1 cfs, updated inlet capacity calculations will be needed for the receiving existing infrastructure.

HKS RESPONSE: Rational calculations for subbasins OS1 and OS2 as well as compensatory storage for these two basins have now been provided. Release rates have been adjusted to meet compensatory storage requirements and have been detailed in the report.

2. Provide all proposed basins within the Direct Runoff Summary Table. Specifically noted OS2 as missing from the table.

HKS RESPONSE: Direct Runoff Summary Table has been updated to include all proposed basins

3. Update the Inlet Management worksheet to reflect the anticipated design flows for the inlets and identify the quantity of proposed bypass flows for any inlet. Please also ensure all proposed design flow rates provided in the Inlet Capacity Calculations match the flow rates provided with the rational calculations.

HKS RESPONSE: There is no bypass being proposed. Inlet calculations have been updated accordingly to show this

4. Please note the outlet tab of the MHFD detention worksheet identifies a top of spillway stage of 8.75-feet, but the basin tab only identifies contours up to the 6.93-foot stage. Please provide additional stage/area information in the basin tab up to the top of the proposed spillway.

HKS RESPONSE: Stage storage table has been updated to show values greater than the top of spillway stage as requested.

5. Please note that in the Storm Sewer System section of the narrative it states no carry over

flows are anticipated for any proposed inlet. This directly conflicts with the inlet calculations which states Inlet A1 is to receive bypass flows. Please verify and revise to match.

HKS RESPONSE: No carry over flows are being proposed for any inlets. Inlet calculations have been updated to clarify this.

Please contact me if you have any questions or require additional information at omccracken@hkseng.com or 303-623-6300.

Sincerely,
HARRIS KOCHER SMITH

Olivia McCracken
Project Engineer