

MONUMENT RIDGE EAST – FDR COMMENT RESPONSES

June 24, 2026

Reference numbers correspond with County “page label” comments:

9. Groundwater requirements are the responsibility of the Geotechnical Engineer for the project. Please refer to that report for pond liner treatment requirements

9. For each of the ponds with shallow groundwater as determined by the Geotech engineer.

9. The forebay was designed for the future to be installed at this time with the interim phase of development.

18. The CD's now reflect the metal notch design you have requested.

20. Discussion re: downstream facility comments – The release at this point is less than historic.

20. A table has been provided in the report under Design Point F21 narrative with the existing, interim and future flow values.

49. Note added.

50. Extra page removed.

67. The page is already labeled. “Convert Natural Catchment to Rectangular Shape”. This is a worksheet created to convert rational method basins into SWMM basins.

67. The page has been placed with the SWMM data as requested.

114. You are looking at the wrong column in the output data. You are looking at the Full flow capacity column. See “Flow (cfs)” column in same table or go to the MH output summary which has the flows as well.

145. You are looking at the wrong column in the output data. You are looking at the Full flow capacity column. See “Flow (cfs)” column in same table or go to the MH output summary which has the flows as well.

145. Pipe 125c is no longer needed. Instead, we have chosen to utilize the existing 48” as 125b.

146. All pipe velocity values are now under 18fps.

153. Pipe 125c is no longer needed. Instead, we have chosen to utilize the existing 48” as 125b.

153. All pipe velocity values are now under 18fps.

157. Highlighted pipes are now included in the report.

160. The flows changed as a result of changes made to the pipe slopes to reduce velocities.

160. You are looking at the wrong column in the output data. You are looking at the Full flow capacity column. See “Flow (cfs)” column in same table or go to the MH output summary which has the flows as well.

166. (Refer to 157 and 160 above)

206. System has been moved in the appendices with label added.

208. Pipe velocity is now under 18fps.

209. Pipe velocity is now under 18fps.

214. Pipe velocity is now under 18fps.

226. Included the inlet page in this submittal.

233. The correction has been made.

234. It has the existing tributary basins AA and MO2 routed to it via the low point.

236. The correction has been made.

252. The channel report provided with the last submittal was not needed since it does not work as a channel, but instead like a low point/pond. This has been removed for that reason.

255. 2.2cfs/ft is correct and reflects the current design.

257. The 2.2cfs/ft design has been included.

258. Pipe 141 (not 41) and pipe 106e (not 106c) are now included with this submittal.

262. Updating it to the new format is not needed (ten pond models) and would necessitate a lot of extra time/money yielding the same results. We started with this version and are still using it for consistency and time savings.

262. The correct HSG is C/D. It is now changed to C/D but had zero effect on the notch size.

262. As stated with the last submittal, a summary spreadsheet is not needed. It would just require more time/money. All of the required information is in the report as specified by the criteria.

264. See revised CD's with the outlet structure design calcs reflected.

270. Basins FF and MO3 have been included, which equals a tributary acreage of 22.36. The report narrative has been modified accordingly.

272. See revised CD's with the outlet structure design calcs reflected.

279. See revised CD's with the outlet structure design calcs reflected.

294. to 298. Financial assurance estimate is included with this submittal. The drainage fees are also included and tabulated in the text of the report.

580. The title is meant to reflect the pre-development conditions before Phase I. i.e. – existing conditions as they are now.

601. The title is meant to reflect the pre-development conditions before Phase II. i.e. – existing conditions after Phase I construction.

716. The SWMM program “crown” refers to the crown of the pipe, not the roadway crown.

828. Contour labels are now provided in key locations.

828. As stated in the last response. The hydrologic calculations adequately define the paths. We have never had a request for Tc paths on a drainage map on any other project. Furthermore, Tc paths are somewhat subjective and are the responsibility of the engineer of record. Showing them would probably generate comments which cannot be adequately addressed in a few sentences. Engineering judgement is used to define the Tc paths and as stated prior, they are the responsibility of the engineer signing and stamping the set.

828. The existing infrastructure is not changing with the exception of the outfall for the project which has been analyzed and proven that it overtops. For the dual 48" pipes under Misty acres, the one on the south is not being used any longer. The one to the north is being used but only conveys 39.2cfs during the 100yr storm event, via a 30" pipe with a restrictor plate. It is obvious that the 48" has adequate flow conveyance, however per your request, the information has been provided with HGL calculations. To the best of our knowledge all the rest of the existing system components which have an impact either to or from the site have been analyzed. This includes ponds as well. The Misty Acres pond (existing), the proposed four ponds (interim and future), as well as the low-lying depression area south of pond 1 and near the outfall of ponds 4 and 5 have all been modeled via SWMM, which included all of the storm sewer piping and culverts. We feel we have gone above and beyond analyzing the existing, interim and future scenarios.

829. The overall interim conditions map has been included in this submittal per your request.

829. Calculations for the pond 1 riprap rundown are included in this submittal. The spreadsheet is commonly used in the industry. It does not model pipes into rundowns. We determined the flared end section would basically act as a concrete channel since the depth is somewhat shallow. This is how it was modeled.

829. The wetlands shown in this plan set is what the plat of survey shows and are considered "jurisdictional".

829. Basins AA and MO2 are routed to the pond via the sump inlets at Design Point F1. A swale would concentrate flow and prevent reduce infiltration. Unconcentrated sheet flow is a better solution.

829. The contours west of and adjacent to the wall indicate a ridge behind the wall, therefore flow (from basin DD) is routed away from it via a swale created by the ridge. Similar to the prior comment, unconcentrated sheet flow is being proposed. Flows will be collected in the proposed sump inlets at Design Point F4C.

829. You have asked for outlet protection for existing dual 48" pipes. As mentioned prior, the one on the south side will not convey any flow, being capped and abandoned. The pipe to the north is conveying a minor amount (~39cfs), less than the flows in the existing conditions scenario. The existing flow conveyance of the two 48" pipes does not appear to have caused any local scour at the outfall historically. There is no channel to be analyzed. The outfall directs flow as it has historically to the Misty Acres pond via overland flow. An easement is not necessary as it is owned by Monument Ridge East, LLC (i.e. – the owner of the development responsible for maintenance in this area).

829. The contours are labeled in this submittal.

829. Basin summary tables have been provided in the report. We feel the design point routing and pipes summaries are the critical plan elements to include, even though they are not on the check list. The basin summary tables will not fit on the sheets since there are ~30 basins and furthermore do not have a purpose or use.

829. Refer to sheet 828 response (second item).

829. As stated in the last submittal response; basins AA, DD and FF where you have marked swales have extremely minor flow values coming to them but more importantly, there is no exact flow value for a swale calculation within one basin and without a typical section. Due to the flow being so minor, swale conveyance is obviously adequate.

830. Outfall protection is now provided and is supported by calculations located in the appendix.

830. The swale within basin MM has no bearing on the design for the project phase 1 of development. The flows are historic and are routed to Design Point F28 via the historic route it always has. Also, there is no typical section for the swale. The only way to analyze this reach is to perform a HEC-RAS analysis.

830. Outlet protection is being provided on the CD's in great detail. The drainage map labels added for outlet protection are general in nature, and not specific to the design data for outfall point.

830. You have requested a swale be constructed thru the wetlands as the outfall for the emergency overflow for pond 4 and for the pipe outfall at Design Point F19. We are not disturbing any wetlands in this area and are not going to for an emergency overflow which routes flows through a sensitive area such as this wetland. A swale has been provided from the outfall of pond 5 towards the wetlands but not through the wetlands themselves. Adding a swale you requested serves no purpose since the topography indicates the flow path and is not concentrating flow as it will now with a swale.

830. Discussion re: downstream facility comments – Project release is less than historic. No improvements required.

830. The existing swale conveying $Q_{100}=8.0\text{cfs}$ from Design Point F20 is out of scope for this project as it is not affected by the development, interim or final. The routing of the flow is obviously via the roadside ditch being directed to the project outfall. We do not see a valid reason for modeling this feature.

830. Analyzing offsite features such as the existing 48" pipes under Doewood Drive and the swale downstream is not necessary and would involve extra time and money. Whether it overtops the road or is contained in the pipes, the flow has nowhere to go except to the collection structure. Refer to the existing topography on map to see path. Furthermore, there is no reason to seek out and acquire an easement for a drainageway for an existing outfall swale which has historically followed the path through the offsite lots.

830. The Design Point F12 outfall swale has been designed and detailed in the CD plan set with support calculations located in the appendices.