City of Mercer Island
9611 SE 36th Street
Mercer Island, WA 98040-3732

October 17, 2019

Attn: Ms. Nichole Gaudette
Senior Planner
Regarding - CAO-19-019

1. According to MICC 19.07.010, restoration of existing, compromised critical areas is encouraged to improve the ecological health of wetlands, watercourses, and Lake Washington. The project proposes native shrub and tree plantings in the slide area that will improve stream functions; however, the proposed system to re-establish the stream consists primarily of artificial components. We find it is unclear in the Critical Areas Letter and SEPA Checklist how these artificial components will improve ecological functions of the re-established stream. Please update the Critical Area Letter and SEPA Checklist to explain how the artificial components will improve ecological functions of the re-established stream or redesign the project.
    a. We have revised the design to restore the natural streambed in its historic location. We are no longer altering the stream course, either above or below the driveway.
    b. The driveway water collecting channel has been simplified to minimize man made products.
    c. See the attached revised Critical Area Letter and SEPA Checklist

2. Section 3(a) of the SEPA checklist states there are two small seasonal streams present in the project area; however, the critical areas letter mentions only one stream, which was buried by the 2017 landslide. The SEPA checklist and/or critical areas letter are inconsistent with one another and should be revised for consistency.
    a. There are multiple streams on the properties, but only one stream in the project area per the Mercer Island GIS map. The second stream is not shown on the drawings as it runs along the properties southern edge and is not near the project extents.
    b. See the attached revised Critical Area Letter and SEPA Checklist

3. Section 3(c)(ii) of the SEPA checklist states that best management practices (BMPs) will be used during construction but does not provide specific details. The checklist should be revised to include detailed construction BMPs consistent with City requirements to avoid and minimize potential impacts of the project to critical areas.
    a. See the attached Hydraulic Project Approval and Drawings (Sheets C-1 and C-2). The SEPA Checklist has been amended to reference the attached documents.
4. Section 4c of the SEPA checklist does not provide a list of threatened or endangered plant species on or nearby the site, but instead lists several threatened or endangered animal species. This section should be revised to include only listed plant species located on or nearby the site.

a. The SEPA checklist has been updated

5. Section 5b of the SEPA checklist states eagles are known to be on or near the site; however, several more animal species are listed as being near the site under Section 4c. Section 5b of the checklist should be revised to include the list of threatened and endangered animal species listed under Section 4c, as well as their approximate distances from the site. In addition, bald eagles are no longer listed as threatened or endangered and can be removed from this list.
    a. The SEPA checklist has been updated

6. Section 5c of the SEPA checklist states that the site is not part of a migration route; however, the site is located in the Puget Sound region, which is within the Pacific Flyway. The Pacific Flyway is a flight corridor for migrating waterfowl and other avian fauna. While the proposed project is unlikely to interfere with or alter the Pacific Flyway this section should be revised.
    a. The Pacific Flyway has been added to the SEPA checklist
7. According to the Slope Re-Vegetation Memo and Planting Plan, many of the proposed plantings include species such as vine maple, serviceberry, snowberry, cascara, and red elderberry, which are characteristically found in drier, upland habitats. Based on our site visit, the areas proposed for planting appeared to be wet throughout the year. Please revise the proposed plant species in the Slope Re-Vegetation Memo and Planting Plan to include species that would successfully establish and improve ecological functions of the re-established stream. Recommended species could include salmonberry, Pacific ninebark, peafruit rose, red-osier dogwood and/or willow.

See attached for revised planting memo and plan.

8. The Slope Re-Vegetation Memo proposes a three-year monitoring period, and that a monitoring plan will be developed at the beginning of each monitoring season. According to MICC 19.07.080.C, a monitoring period of at least five years is required to ensure mitigation project success and critical areas protection. The Slope Re-Vegetation Memo should be revised to a five-year monitoring period and include a monitoring plan that is consistent for every monitoring year.

See the attached revised memo.

8. During review of the Slope Re-Vegetation Memo, we noted two typographical errors. Under the section labeled 'Mitigation goals,' the plan states, "Plant approximately 15.000 square feet..." and we believe this should be stated as "Plant approximately 15,000 square feet..." Under the section labeled "Performance Standards" we believe the last sentence should read "Invasive species shall be controlled so that they do not reach more than 10% aerial coverage..."

These errors have been corrected.

10. According to the HCE Permit Set plans, one of the proposed restoration activities includes removing the existing upper catch basin and plugging the adjoining culvert. This activity would route water flow collected from the hillside, along the uphill side of the driveway, into the lower catch basin. Currently, the upper catch basin and adjoining culvert provide water flow to an existing stream channel downslope of the driveway.

This proposed activity is not considered restoration of the stream or an allowed modification per MICC 19.07.130.B. Instead, this project element would serve to divert water away from the original location of the watercourse. In addition, the HCE Permit Set plans indicate that the section of existing stream channel located downslope of the driveway will be re-aligned, but the plans do not provide any details for how this will be completed. The details regarding re-alignment of the stream are necessary for assessing the proposal's consistency with MICC Chapter 19.07. Re-aligning an existing stream channel may not be allowed by code if other alternatives with lesser impact are feasible. The removal of the upper catch basin and plugging of the adjoining culvert in the HCE Permit Set plans should be reevaluated so current water flow is not completely re-routed from the existing downslope stream channel. The HCE Permit Set should be revised to include details regarding the re-alignment of the existing downslope stream channel.

We are no longer removing any catch basing or blocking culverts. The stream will continue to flow in its historical location with no diversions.

11. According to MICC 19.07.180.C, the standard buffer for a Type Np stream is 60 feet. Based on the HCE Permit Set plans a 50-foot stream buffer is proposed. Please increase the buffer to 60-feet.

The 60 foot buffer has been updated on the drawing set.

12. Based on review of the September 4, 2019 Landslide Restoration Recommendations Letter prepared by Pan Geo, Inc., the concrete-lined trench may be a viable alternative to the original proposed system as it would include fewer artificial components; however, there are two concerns associated with this alternative. First, we are concerned that a concrete lined trench could alter peak flows and potentially lead to downstream erosion and scour of the open channel. This issue should be addressed in any future proposals for the alternative. Second, barring further design details, we are concerned this alternative could include removing the upper catch basin and plugging the adjoining culvert, similar to the original proposed system. If this activity is included, we do not believe the alternative would be considered restoration of the stream and an allowed modification per MICC 19.07.130.B. Ensure that any future proposals for the concrete-lined trench consider the issues presented above.

The removal of the upper catch basin and plugging of the culvert are no longer included in the project.

The concrete drainage channel will be 'roughened' to slow down the flows during peak events. See detail 8 / S-1.

Please let me know if you have any questions.

Best regards,
Harbor Consulting Engineers, Inc

Megan Campbell

Megan Campbell, AIA