

May 1<sup>st</sup> 2018

– RESPONSES –

RE: CAO17- 014 (5236 W Mercer Way Critical Area Determination Letter dated February 5<sup>th</sup> 2018)

1. The driveway and other site improvements (e.g. drainage system) should be located to avoid, and if avoidance is not feasible, minimize impacts to the wetland. In the resubmittal, provide a revised design that will cause less impact to the wetland, for example by providing “bend” in the driveway to the north, instead of the south, as is currently shown. Similarly, the proposed drainage system (i.e. vault, pipes) should be relocated entirely within the driveway prism and should not result in additional wetland / wetland buffer impacts.

**Response: Driveway and utility horizontal alignment has been revised to minimize wetland buffer impacts to the maximum extent feasible (short of functional fire and access requirements). No utility and hard scape improvements, or construction disturbance, is proposed within the wetland boundary. Minimal disturbance is proposed within the 25-foot wetland buffer. 25-foot wetland buffer permanent impact total 601 SF. Proposed impacts disturb approximately 4% of the combined onsite wetland (6,806 SF) and onsite 25-foot buffer (7,911 SF) combined (14,717 SF). The proposed impacts are significantly reduced from the previously submitted plan on 10/24/2017, which disturbed roughly 24% of the wetland and 25-foot buffer area. See civil plans, sheet C0.2, and wetland mitigation plan, sheet W1.0.**

2. The proposed retaining wall is shown immediately adjacent to the wetland edge. Construction of the retaining wall appears to necessitate direct wetland impacts. Consistent with item 1 above, please relocate the retaining wall to avoid, and if avoidance is not feasible, minimize impacts to the wetland. Please revise application materials to:

a. Describe any downslope temporary impacts associated with the retaining wall installation.

**Response: No longer applicable. No downgradient temporary impacts to the wetland. See civil plans, sheet C2.0.**

b. Provide mitigation for any downslope temporary impacts within the wetland or wetland buffer.

**Response: No downslope temporary impacts proposed in the wetland or wetland buffer. See civil plans, sheet C2.0.**

3. Please enumerate the proposed impacts in the Critical Area Study and describe what provisions in MICC 19.07 are being utilized to account for no net loss of ecological functions (e.g. buffer averaging or reduction, allowed alteration using Best Available Science and construction BMPs). If the southeast corner of the parcel is being counted as buffer, it should be restored and planted with native trees, shrubs, and understory. Please also revise the Critical Area Study and Mitigation Plan to include a table or figure quantifying the area of each impact and area of mitigation proposed for each impact.

**Response: Response: Wetland mitigation plans have been revised to identify areas of impact and areas of mitigation proposed. See sheet W1.0.**

4. Revise the mitigation plan to require monitoring for five years.

**Response: Wetland mitigation plans revised to specify monitoring period for five years. See General Note #9, sheet W2.0.**

5. The proposed house is located immediately adjacent to the 25-foot minimum wetland buffer, and does not provide sufficient space for access, construction, and maintenance. Please revise the design to locate improvements at least five feet from the 25-foot minimum wetland buffer in order to allow for access, construction, and maintenance while still avoiding impacts to the wetland buffer.

**Response: Site plan has been revised to provide adequate construction access in effort to avoid impacts and disturbance to the wetland 25-foot buffer. Grade and shoring walls proposed facilitating site improvements are cut walls; no maintenance is anticipated along the top end of the wall. See civil plans, sheet C2.0.**

6. Please provide a draft construction management plan, describing anticipated construction sequencing, stock pile locations, and construction worker parking.

**Response: Stock pile location and construction staging/parking area identified. Project specific construction sequence plan provided and described. See civil plans, TESC plan - sheet C1.0.**

7. At approval of permit #1709-196, please expect a condition of approval requiring chain link construction fencing to be installed along the line labeled "Limits of Disturbance" on Sheet C0.2.

**Response: Noted. Plan note added. See civil plans, sheet C0.2.**

8. MICC 19.16 defines a Critical Area Study as a study prepared by a qualified professional. The code official has determined that for the purpose of preparing a Critical Area Study and

mitigation plan for proposed alterations to a wetland, “qualified professional” means a certified Professional Wetland Scientist. Please provide a revised Critical Area Study prepared by a Professional Wetland Scientist.

**Response: PACE critical areas concurrency review document has been prepared by a certified Professional Wetland Scientist, Robert Knable, PWS, Sr. Wetland Scientist, PACE Engineers, Inc. Mr. Knable has reviewed the critical area study prepared by Red Wing Environmental for concurrence on the following topics: wetland delineation, wetland rating, watercourse, and mitigation plan. Concurrence is granted for wetland delineation, wetland rating and watercourse rating. PACE agrees with the overall mitigation proposed based on stated recommendations. Furthermore, Mr. Knable has commented that no eagle nests were observed within 1,000 feet of the project property. See PACE critical areas concurrency letter submitted.**

9. Please see the public comment received for this project (attached). In the resubmittal please address the following issues raised in the comments listed below. If you wish to provide additional responses to public comments, you may include these in the resubmittal as well.

a. Please revise the SEPA Checklist to address the concerns raised by WDFW (Larry Fisher, WDFW 12/12/17).

**Response: The SEPA checklist has been revised to better address these concerns. The wet lands on this site are addressed, maintained, mitigated to environmental standards on the site See the project permit submittal, addressing this issue.**

b. Please address whether the condition of the watercourse as described in the 1/23/18 letter from Gail Eidinger modifies the delineation or anticipated impacts to critical areas.

**Response: Wet Land biologist revised the site in Mid March to review and update The Wet Land reports and the design on the house has been modified to address Wet land and steep slope concerns. Several trees are now preserved in the area of question to maintain slope stability.**

c. One comment letter (David and Kathy Gusdorf, 12/9/17) noted that the subject property is adjacent to four trees containing bald eagle nests, and that eagles are regularly seen and heard in the neighborhood. Note that the City Code contains requirements to follow all federal laws, rules, and regulations (MICC 19.10.130), and staff will need to document that this code section is being met. Please have a qualified professional verify whether there are eagle nests in the vicinity of the site. If eagle nests

are found within the vicinity of the site, please either provide a plan for avoiding the need for a permit, or document that appropriate permits have been obtained. A helpful resource on this topic is available online here:

**Response: PACE critical areas concurrency review document has been prepared by a certified Professional Wetland Scientist, Robert Knable, PWS, Sr. Wetland Scientist, PACE Engineers, Inc. Mr. Knable has commented that no eagle nests were observed within 1,000 feet of the project property. See PACE critical areas concurrency letter submitted.**

10. Provide a sheet in the plan set showing: 1) site development improvements, as shown on C2.0; and 2) all trees with driplines and proposed tree protection, numbered and with an indication of whether they are proposed to be retained or removed.

**Response: Tree preservation plan has been revised to include the recommended items. See sheet C0.2.**

11. Please revise the grading plan to avoid grading within the dripline of trees proposed for retention (on and off-site) and adjacent trees on steep slopes.

**Response: Grading plan revised to avoid disturbance within critical root zones for trees preserved. See civil plans, sheets C0.2 and C2.0.**

12. Please revise plans to avoid disturbance within the critical root zones, as developed by a Qualified Arborist, of trees proposed for retention and for off-site trees. Show these trees as protected.

**Response: Disturbance within the critical root zones of preserved trees is minimized to the maximum extent feasible. Additional requirements for arborist inspection has been added. See civil plans, sheet C0.2.**

13. Trees marked as Hazards should be made into wildlife snags and left in place if approved by a Qualified Arborist. Please indicate this on sheet A0.4.

**Response: This note has been added to the Arborist Report referenced on A0.4 and C2.0**

14. Tree 1345 is prioritized for retention. Please show the dripline and critical root zone of Tree 1345 per the Arborist Report on sheets A0.4 and C2.0. Revise the arborist report to include an analysis of Tree 1345 to evaluate tree stability and wind firmness after the proposed removal of adjacent trees. Include dominance of trees in the stand.

**Response: This tree is retained and included into the site work and referenced on A0.4 and C2.0**

15. Revise tree retention plan based on any changes made to engineering plans (i.e. if the side

sewer, storm drainage system, and other improvements are relocated, show correspondingly which trees are impacted or retained) Revise the mitigation plan as appropriate, to reflect the changes to the proposed impacts.

**Response: Tree preservation plan, and arborist plan, revised to reflect changes in site plan and preserve slope-stability of hillside upgradient of proposed development. See civil plans sheet C0.2 and Wetland Mitigation Plans, sheet W1.0.**

Fire:

16.No comments at this time.

Engineering:

17.Revise plans to install the side sewer connection to the city sewer main on W Mercer Way, avoiding impacts to the wetland.

**Response: Sewer alignment revised per City comment direction. See sheet civil plans, sheet C2.0.**

18.Revise plans to connect footing drains into the proposed drainage conveyance system, rather than using the dispersion pad in the wetland buffer, avoiding buffer impacts.

**Response: Dispersion pad is recommended to maintain existing hydrology patterns as necessary for wetland hydration. The dispersion pad allows upstream tributary surface drainage and interflows to be collected via wall drains and routed to the dispersion pad, mimicking the predeveloped hydrology. See sheet civil plans, sheet C2.0.**

19.Relocate the drainage system related to the driveway detention system to be further north, avoiding impacts to the wetland.

**Response: Storm detention utility relocated as directed. No temporary construction or permanent impacts proposed to the wetland. Construction temporary shoring added to eliminate need for cut slope impacts to the wetland and buffers and minimize disturbance within the wetland buffer. See sheet C2.0.**

20.Move the water meter to the north side of the proposed driveway.

**Response: Water meter relocated to north side of driveway as directed. See sheet C2.0.**

21.Please also see comments made directly to the plan set, available at:

[https://MlePlan.mercergov.org/adobe/eplan/~CurrentSharedReviews/CAO17-014-SUB1-PLANS-102617\\_review.pdf](https://MlePlan.mercergov.org/adobe/eplan/~CurrentSharedReviews/CAO17-014-SUB1-PLANS-102617_review.pdf).

To access the commented file, you will need to supply

“eguest@mercergov.org” as the User Name and “@mercer123” for the Password. You may reply to comments either in the review file, and/or in the cover letter resubmittal.

Additional Plan Comments (not captured in the COMI review letter)

21a. The discharge from the detention system should be located to the drainage system north of the driveway. If there is no defined drainage ditch as from the discharge point to City CB27-41, then you will need to provide the piping system from south of the driveway to CB27-41.

**Response: PACE professional opinion is to route all surface water to the south of the driveway to the subject property’s natural discharge location per the 2014 DOE SWMMWW Minimum Requirement #4 – Preservation of Natural Drainage System and Outfalls. Evaluation of site survey topography concludes that the subject property tributary to the downstream conveyance flow path located south of the proposed driveway (i.e tributary to CB 27-42A, not CB 27-41). Furthermore, topographic survey information concludes that there is a vertical crest curve in the W Mercer Way north of the proposed driveway. Proposed stormwater outfall is located outside of the wetland area and there are no adverse impacts to the wetland are anticipated. See civil plans, sheet C2.0.**

21b. A downstream analysis is required.

**Response: Downstream analysis has been provided. See TIR, section 3 – Offsite Analysis.**

21c. The detention system may need to be reconfigured and changed to a smaller pipe to make the gravity flow.

**Response: Not necessary. Stormwater detention conveyance vertical functionality (downstream of detention system) is sufficient as designed. See civil plans, sheet C2.0.**

21d. Move all drainage to the north of the proposed driveway.

**Response: duplicate comment. See response to 21.a.**

22. The geotechnical engineering report describes a geologic unit at the site as alluvium “likely associated with the seasonal stream south of the property.” This geologic designation was also given to soils encountered in a boring to the east of the property at elevation 261 feet, an elevation significantly above the elevation of the seasonal stream (shown as elevation 216 on the PACE drawing C0.0).

**Response: Geotechnical Engineer provided a letter addressing issue. This letter is upload to the permit intake site.**

23. Since this is a seasonal stream, isn’t it more likely that the geologic designation is colluvium not alluvium? Alluvium would suggest that the soils are insitu, undisturbed, soils while colluvium characterizes the soil as a disturbed soil unit which is typical of sloped sites.

**Response: Geotechnical Engineer provided a letter addressing issue. This letter is upload to the permit intake site.**

24. In the geotechnical report on Figure 3, the Generalized Subsurface Profile A-A' indicates near the property line to the east of the proposed structure, the absence of alluvium or colluvium within the proposed permanent cut of 2 Horizontal to 1 Vertical (2H:1V). It suggests that the cut would be within the underlying glacial till. We agree that if that is the case, the proposed cut would be stable, however there is no subsurface information to support that interpretation of the slope conditions. Additional subsurface information should be provided to support the current interpretation of conditions on the slope east of the proposed structure location.

25. If the cut will expose alluvium or colluvium (with SPT blowcounts less than 10) and not just glacial till as suggested by Figure 3 in the geotechnical report, stability analyses should be provided to verify that an adequate factor of safety against slope instability will be present with the proposed permanent cut. These analyses should consider potential perched water conditions on top of the glacial till. These analyses should also include the slope above and east of the property.

**Response: Geotechnical Engineer provided a letter addressing issue. This letter is upload to the permit intake site.**

26. The proposed grading at the site involves the entire slope directly north, east and portion of the slope southeast of the proposed residence. The disturbance of the slope outside of the actual residence will require removal of vegetation in all these areas. This vegetation removal and slope excavation increases the potential for slope movement. These excavations also permanently encroach on tree protection zones located northwest and east of the proposed residence. Can the project team provide alternate designs to eliminate the proposed permanent slope excavations and disturbance to the existing slopes?

**Response: Geotechnical Engineer provided a letter addressing issue. This letter is upload to the permit intake site.**