

**CES ♦ NW**  
INCORPORATED  
CIVIL ENGINEERING & SURVEYING

June 26, 2019

City of Puyallup  
333 S. Meridian  
Puyallup, WA 98372

RE: Response to Comments for the Sunset Pointe Preliminary Major Plat (CES #04148)  
Permit Number P-09-0083

Dear Chris,

Thank you for the opportunity to respond to the city's comments for the Sunset Pointe Preliminary Major Plat application under permit number P-09-0083.

Planning – Chris Beale 253-841-5418 cbeale@ci.puyallup.wa.us

1. Roadway classifications: *Responses to Staff analysis*

**Response:** *The roadways will be designed to meet City Standards.*

2. Drainage Facilities *Responses to Staff analysis:*

**Response:** *The Preliminary Storm drainage report is utilizing the current version of the Stormwater Management Manual for Western Washington as adopted by the City of Puyallup. Low impact principles are being integrated into the design by proposing amended soils for the landscape areas and driveway dispersion where feasible as well as roof top dispersion trenches and full dispersion.*

3. Domestic Water Facilities *Responses to Staff analysis:*

**Response:** *The water availability certificate was ordered with the City of Puyallup. We received a letter of availability but not a water certificate November 26, 2018. The fire reviewers have approved the letter as adequate for their comments. The email and letter are included in the submittal package.*

4. Sanitary Sewer Facilities *Responses to Staff analysis:*

**Response:** *The sanitary sewer invert for the proposed manhole in 23<sup>rd</sup> St PL NE has been added to the plan per your recommendation.*

5. Undergrounding of Utilities *Responses to Staff analysis:*

**Response:** *The final Civil plans will reflect the new utilities will be underground.*

6. Transportation Facilities *Responses to Staff analysis:*

**Response:** *The northern parcel is no longer part of this plat. Therefore, a connection between 19<sup>th</sup> Ave SE and Highland Drive is no longer applicable.*

7. Sidewalk and Walkways *Responses to Staff analysis:*

**Response:** *Sidewalks are being proposed for the cul-de-sac extension for 23<sup>rd</sup> St Pl SE and along 19<sup>th</sup> Ave SE.*

8. Bikeways *Responses to Staff analysis:*

**Response:** *The roadways are designed to meet the City of Puyallup standards.*

9. Street Lighting *Responses to Staff analysis:*

**Response:** *Streetlights are provided on site plan.*

10. Block Lot Layout *Responses to Staff analysis:*

**Response:** *The civil engineering drawings will meet the requirements of the City standards.*

11. Vegetation Buffers *Responses to Staff analysis:*

**Response:** *The civil engineering drawings will meet the requirements of the City standards.*

12. Street Trees *Responses to Staff analysis:*

**Response:** *Street trees will be provided as part of the final engineering plans.*

13. Fence and Walls *Responses to Staff analysis:*

**Response:** *Fence and walls standards will be addressed as part of the final plat and building permits.*

14. Common Areas and Facilities *Responses to Staff analysis:*

**Response:** *Privately held Common areas and Facilities will be owned and maintained by the Homeowner's Association.*

15. Park and recreation Facilities *Responses to Staff analysis:*

**Response:** *Park and recreation impact fees will be addressed as part of the building permit process.*

16. School Facilities *Responses to Staff analysis:*

**Response:** *School Facilities impact fees will be addressed as part of the building permit process.*

**Engineering – Alicia Floyd 253-435-3637 afloyd@ci.puyallup.wa.us**

1. It is unclear how increasing the slope of the landslide hazard area on lots 6 and 7 with 25 vertical feet of engineered fill “eliminates” the landslide hazard area. Further, the City’s critical area code clearly states that alteration of slopes greater than 40% is prohibited [PMC21.06.1230]. Based on the

information provided, the landslide hazard area near lots 6 and 7 is nearly 60%.

**Response:** *The development will no longer include grading the proposed lots.*

2. The City will require the applicant to depict the toe of the slope on the Kodiak estates. If site access cannot be gained, Lidar contours may be used to supplement survey information. The critical area report must individually address performance standards from PMC 21.06.1230. As part of this, the geotechnical engineer must specifically address impacts to adjacent properties. Further, SEPA item B.10.b will be reviewed with regards to the total slope of 28ft +/- and its impact to the adjacent properties' line of site from their backyard.

**Response:** *Lidar contours were used to supplement the survey information for the adjacent properties.*

3. It is unclear why the SEPA checklist was revised to call the existing wetlands "manmade ornamental ponds", however it has been clearly established that these "ponds" are considered wetlands and shall be regulated as such. Please remove all references to "manmade ornamental ponds" and replace with description for wetlands.

**Response:** *The SEPA has been revised back to the ponds being called out as wetlands.*

4. There doesn't appear to be any analysis in the stormwater report or critical area report that addresses the analysis required for MR #8. Further, the stormwater report is still referring to these waterbodies as "manmade ponds" and not wetlands. Applicant must provide an analysis in accordance with Appendix I-D of the 2014 DOE manual.

**Response:** *MR#8 has been addressed in the updated drainage report, and the "manmade ponds" have been changed to "wetlands" throughout the report. Please refer to the updated drainage report.*

5. Small-scale PIT tests and continuous seasonal high groundwater monitoring in accordance with the 2014 DOE manual will be required prior to approval of the preliminary plat. Please ensure that the tests are performed during the appropriate wet-weather season and that the number of tests complies with the DOE manual requirements. (The wet-weather season for PIT tests is December 1st – April 1st and the wet-weather season for groundwater monitoring is December 21st – March 21st.) This geotechnical testing is required by the State and the requirement cannot be waived by City staff.

**Response:** *We have missed the wet weather season however the Subsurface conditions at the subject site were explored by an ESNW representative on October 24, 2017 and May 15, 2019. A total of 23 test pits were excavated at accessible areas of the site using an operator and backhoe retained by ESNW. The approximate locations of the test pits are illustrated on Plate 2 of this study. The test pits logs are provided in this Appendix. The test pits were excavated to a maximum depth of approximately 18 feet bgs. The final logs represent the interpretations of the field logs and the results of laboratory analyses. The stratification lines on the logs represent the approximate boundaries between soil types. In actuality, the transitions may be more gradual.*

6. The subdivision layout does not adhere to the City's standards regarding panhandle lot access. Panhandles must be separated by at least one lot width. Lots 3, 4, and 5 are all considered panhandle lots.

**Response:** Lots 3 and 5 will gain lot access from 19<sup>th</sup> Ave SE.

**Geotechnical/Critical Areas Assessment/Stormwater Report:**

1. The geotechnical report prepared by Earth Solutions NW must be updated to reflect the current project design. Applicant will not be permitted to redirect surface water to neighboring adjacent properties at the Southern boundaries of lots 13, 14, 15, 16, 17, 7, and 8 as currently designed. The stormwater report must specifically address PMC 21.10.050 (3) with regards to surface water drainage from the proposed development posing "no significant adverse impact to the downhill property". This condition does not appear to be currently met for lots 13, 14, 15, 16, 17, 7, and 8.

**Response:** Updated Geotechnical Report by ESNW has been provided with resubmittal. Please refer to Section 3.0 of the updated drainage report for more information regarding downstream analysis of this project.

2. If retaining wall(s) are proposed for the steep slopes at the Eastern boundary of the site, the civil plan must depict wall footing drains that are directed onto the development property and not onto adjacent properties. Retaining walls, if proposed, must also comply with setback requirements set forth in PMC 20.58.005 (2)(a).

**Response:** At this time no walls are being proposed.

3. The geotechnical study does not include any infiltration testing to support its claim that infiltration is infeasible. In addition, other than the heavy perched groundwater seepage observed in TP-4, the report offers little discussion on the expected groundwater conditions. Evidence of iron oxide staining in many of the test pits along with Habitat Technologies' observation of "numerous groundwater seeps" and "fully saturated conditions" in their site reconnaissance suggests that there is more to elaborate on with regards to groundwater. Prior to preliminary plat approval, wet- weather infiltration and groundwater testing in accordance with the 2012 SWMMWW will be required to support stormwater feasibility/infeasibility.

**Response:** – Site subsurface conditions were initially explored in October 2017 and indicated variability with respect to soil types present and grain size distribution across the site. Per USDA testing methods and procedures, native soils are also classified as slightly gravelly sand, gravelly loamy coarse sand, very gravelly loamy sand, and loam. Fines contents were about 6 percent within the sands, 26 to 27 percent within the sandy loam, and 60 to 81 percent within the loam, as indicated by sieve results of representative samples. ESNW returned to the site in May 2019 to further evaluate soils within the proposed stormwater facility area (Tract A) to complete a targeted infiltration evaluation in the area. Native soils were characterized as silt in a moist to wet condition within the explored area of Tract A. Per USDA testing methods and procedure, the native silts are also classified as loam with fines contents ranging between about 92 and 96 percent. In our opinion, the site is not a feasible candidate for successful use of infiltration. Native soils are representative of glacial drift deposits, which by their nature, depositional environment, and geomorphological history, can vary greatly with respect to soil types and grain size distribution over relatively short distances. This variation can become even more pronounced within areas of changing topography. Such conditions appear to be present across the subject site, as evident through the various soil types encountered during our explorations. Although sands were encountered at some test pit locations, they did not appear to be present in a uniform and continuous manner across the site. Conversely, other native soil types (silty sand, sandy silt, and silt) encountered

during our explorations are considered as having an extremely poor infiltration potential and will not adequately support the implementation of any infiltration system, full or limited. The restraining factor of these soils potential for infiltration is the appreciable fines contents that constitutes the majority of the soil

4. The geotechnical study does not address the presence of wetlands and perennial streams on-site. Please include a brief description of these features and their impact on the site soils if applicable.

**Response:** *This ravine was identified to contain a seasonal stream that originated offsite to the south. Onsite this ravine had undergone prior development actions to include the excavation and creation of three (3) wetland ponds. These ponds appeared to have been created through the excavation of material within the ravine and through the placement of material to establish two (2) internal roadways corridors crossing the ravine generally north to south. Hydrology control structures and culverts had been installed to intentionally control surface water ponding within these ornamental features.*

5. Please elaborate on the "moderate organic debris" found in TP-15 that was found to be deleterious.

**Response:** *The organic debris was observed to consist of roots, branches, and/or logs throughout the fill zone. These inclusions are considered deleterious due to their susceptibility to degradation.*

*It should be noted; since the completion of our original study (January 2018), site layout plans have been revised and no longer include the area at which test pit TP-15 was excavated. As detailed in our updated report, test pit TP-15 is not within the proposed development area and is no longer considered applicable to the subject project.*

6. The landslide hazard discussion for lots 12 and 13 appears to be commenting on the existing slope and not the proposed 2:1 20+ foot slope at the southern sides of lots 13, 14, 15, 16, 17, 7, and 8. Further, the discussion does not address the heavy perched groundwater found in TP-4 near proposed lot 14 or the presence of loose to medium dense soils on top of dense silts and the impact of the development on these soils. Applicant will not be permitted to increase the height and slope of the landslide hazard area as currently depicted.

**Response:** *Based on the results of subsurface exploration and review of available topographic information, the majority of the development is not located within a landslide hazard area. However, the eastern most edge of Lots 9 and 10 and northern edge of Lot 15 meet the code criteria for a landslide hazard based on the presence of gradients in excess of 40 percent and a vertical elevation change of at least 10 feet. On Lots 9 and 10, this sloping feature appears to be relatively minor, decreasing in overall inclination either at, or just beyond, the property lines, having a total slope height of approximately 10 to 15 feet. On Lot 15, the slope appears to be associated with the existing pond area and is considered to be isolated in extent and height. PMC 21.06.1240.1 a.iii, allows for a buffer to be equal to the height of the slope (H) divided by 2 for slopes with a vertical elevation of more than 10 feet but less than 25 feet, regardless of slope percent provided that no other factors that are present that pose a slope stability risk. This buffer should be applied to the top of the slope. Provided that the recommendations relating to building pad preparation and structural fill are incorporated into the construction sequence, in our opinion, a buffer equal to H/2 can be applied to Lots 9, 10, and 15. Per Puyallup code requirements, as referenced in the*

*attached review letter, minimizing alterations to existing slope features is preferred over mass grading. As such, stepping of foundations should be considered to maintain existing topographic slopes, where applicable. From a geotechnical standpoint, constructing foundations in such a manner is considered feasible provided they can adequately offset from any slope face as to not impose additional surcharges. For these lots, slope fills (placed in accordance with this report) as well as the use of retaining walls to achieve design grades may also be considered feasible from a geotechnical standpoint.*

*Landslide hazards may also be designated as areas that have a combination of slopes more than 15 percent, that have permeable soils overlying impermeable soils, and wet season springs and groundwater seepage.*

7. The landslide hazard discussion for lot 8 must be updated to reflect the current proposed conditions for lots 7 and 8, which do not include an MSE wall as initially assumed by Earth Solutions NW.

**Response** *Since original report preparation and comment letter generation, site layout and grading plans have been revised. The aforementioned lots are no longer within the scope of development proposal and do not correlate to any new lot layout configuration or numbering. As such, this comment is no longer relevant to the proposal.*

8. According to SJC's 3rd party review the "ornamental ponds" must be regulated as wetlands. As such, the discharge from the proposed storm facility and lot 17 must be assessed against Minimum Requirement #8.

**Response:** *The stormwater report has been revised and a copy is attached for your review.*

9. Compliance with MR #8 is not met by providing the critical area assessment alone. Applicant must provide an analysis of MR #8 in accordance with Appendix 1-D of the 2012 SWMMWW. Class IV wetlands are not required to strictly meet MR #8, but the analysis must still be presented to the City for review. The City will require a signed letter from a wetland biologist or hydrogeologist stating that the development poses no adverse impact to the wetlands' hydroperiods or ecosystems.

**Response:** *The stormwater report has been revised and a copy is attached for your review. The point of compliance in Southern Basin has changed to the end of excavated pond C (wetland). The bypass areas are taken into consideration to size the detention vault, and existing cover is used according to MR #8 and Appendix I-D for wetlands hydroperiod analysis. The results indicate the changes of flow rate through the wetlands are insignificant due to the proposed detention vault in Tract B, therefore, the impact of this project to the wetlands is limited since these excavated ponds are flow-through type of wetlands.*

10. Please depict and describe the downstream drainage path for the water that is discharged to the "ponds". Provide a downstream summary/analysis for all outfall points.

**Response:** *The stormwater report has been revised and a more detailed downstream analysis is provided in Section 3. Since this project proposes an enlarged onsite detention vault to ensure the discharge flow of the site complying with the pre-developed condition. The impact of the site development to downstream existing detention pond located in Kodiak Estates is limited.*

11. Public ROW runoff must be treated and detained separately from private drainage facilities. This shall be accomplished by providing separate publicly maintained storm facilities within a tract or dedicated right-of-way; enlarging the private facilities to account for bypass runoff; or other methods as approved by the City Engineer.

**Response:** *In the southern basin, the onsite storm detention vault located in Tract A is provided to serve both the public and private facilities; In the northern basin, the dispersion trenches for public ROW will be separated with the private dispersion facilities.*

12. Flow rates for the North and South basin do not match the WWHM output provided. Please reconcile.

**Response:** *The stormwater report has been revised and the flow rates of the basin now match the WWHM output report. Please refer to the updated drainage report.*

13. The percent exceedance column provided is confusing/misleading because it is a positive percentage whether post development conditions exceeded or was less than pre-developed conditions. Additionally, it appears that several of the percentages are incorrect.

**Response:** *Table 6.3 has been updated to match the WWHM output report. Please refer to the revised drainage report.*

#### **SEPA:**

1. Item B.1.d must include a description of the landslide hazard areas present on-site.

**Response:** *The SEPA was revised to provide a description of the landslide area present on-site in the area of lots 6 and 7.*

2. Item B.3.1. must include a description of the perennial stream observed by Habitat Technologies. Also, please provide a brief description of the site wetlands as opposed to solely referring to the critical areas report.

**Response:** *A brief description of the perennial stream was provided in the revised SEPA.*

3. Item B.3.2 provides no description or attached plans for the proposed work within the wetland buffer area.

**Response:** *The SEPA was revised to include a description of the proposed work within 200-feet of the man-made ponds. The proposed construction will be outside of the proposed buffer for the existing ornamental ponds.*

4. The description provided for item B.7.a.(1) is incorrect. There is site history of a dam constructed from used car battery casings that was remediated. Please discuss this historic contamination in the SEPA report.

**Response:** *The SEPA was revised to discuss the historic car battery casings and the site remediation.*

5. The height provided for item B.10.b. does not include the height of the slope for proposed lots 13, 14, 15, 16, 17, 7, and 8. Please include a description of the entire height of obstruction from the toe of the existing slope on the Kodiak estates properties to the assumed roof line of the proposed

properties listed above. A simple sight diagram may be useful in illustrating this project's impact to the neighboring properties.

***Response:*** *We are not proposing grading on the proposed lots. The view of the site, of course, will be altered to with the proposed development of a single-family residential community.*

**Preliminary Plat Comments (all comments apply to Sheet P2):**

1. Depict and label the following existing easements:

- 1071540
- 1549950
- 22510
- 201710300359
- 201710300360

***Response:*** *The appropriate easements have been added to the plans. Easement 1071540 is not an easement and is not for the subject property. It is also not shown on the title report.*

2. Provide preliminary road profiles so that the proposed roads can be reviewed against vertical design criteria.

***Response:*** *The preliminary profiles are provided on sheet P3 for review.*

3. Show locations of proposed streetlights.

***Response:*** *The streetlights are shown on sheet P2 as requested.*

4. Provide contours a minimum of 20' beyond the property lines. Will be required to show the toe of the steep slope ending at Kodiak Estates.

***Response:*** *Lidar contours were used to show the toe of the slope in the Kodiak Estates property area.*

5. Label existing culverts that are crossing from Pond A to Pond B.

***Response:*** *The existing culverts are labelled on sheet P2 as requested.*

6. Minimum easement width for a utility is 40 feet.

***Response:*** *The preliminary plat illustrates all proposed easements. A 20' easement is being provided for access to the proposed vault.*

7. Please clarify what the 25' x 25' leased easement area is for and if it is still in use.

***Response:*** *The leased area is for the existing KIRO 7 translator tower. The owner has contacted KIRO to remove the tower from the property.*



8. The City will allow some lateral connections into a manhole, however the 5 laterals entering the same manhole as currently shown is not constructible. Please revise.

**Response:** *The plan has been revised to reduce the number of laterals entering the manhole and is depicted on sheet P2.*

9. Provide a dual water meter between lots 19 and 20 and between lots 21 and 22.

**Response:** *The comment was for lots that were previously included and are no longer proposed in the development of this property.*

10. Lot 1 must have frontage on a public street.

**Response:** *Lot 1 has access via an existing ingress, egress easement. The existing easement is labelled on sheet P2. However, the plans have been revised to provide access to 19<sup>th</sup> Ave SE.*

11. Please clarify where the water meters for lots 1 and 3 will be located.

**Response:** *The water meters are depicted on sheet P2 for your review.*

12. Lots 1 and 3 will not be permitted to share a sanitary lateral as currently depicted.

**Response:** *The sanitary sewer lateral has been revised to depict the separate laterals for the proposed lots.*

**Fire Prevention – David Drake (253) 841-4171 ddrake@ci.puyallup.wa.us /Ray Cockerham (253) 841-5585 rayc@ci.puyallup.wa.us**

- Verify fire flow, a Water Availability/ Fire Flow report shall be required.

**Response:** *The water availability certificate has been ordered with the City of Puyallup. The City of Puyallup has provided a letter verifying service can be achieved at the site. There is an email included from Linda Lian corresponding with you both and agreeing the letter was adequate and is included in the submittal package.*

- City of Puyallup Municipal Code requires a minimum 1,000 GPM of fire flow. If this amount is less than the requirement, a fire sprinkler system shall be required in the new structures built in the plat.

**Response:** *The water availability certificate was ordered with the City of Puyallup. We received a letter of availability but not a water certificate November 26, 2018. The fire reviewers have approved the letter as adequate for their comments. The email and letter are included in the submittal package.*

- Per City of Puyallup Municipal Code 16.08.070 (14), Installation of fire hydrants. Any portion of new single-family dwellings shall be within 600' from a public hydrant that is located on a fire apparatus access road.

**Response:** *Proposed fire hydrant locations are depicted on sheet P2.*

- Fire Hydrants will be required per city standards and fire code.

**Response:** *Fire hydrants are depicted on sheet P2 of the attached plans.*

- Driveways 150' and over will require a fire truck turn around. Lots 1,3,7, and 8 may require a turn around.

**Response:** *The updated plans depict a knuckle for turnaround.*

- Maximum grade shall not exceed 10% for fire access roads.

**Response:** *The proposed roadways do not exceed 10%.*

**BUILDING – Eric Belin (253) 770-3328 [eric@ci.puyallup.wa.us](mailto:eric@ci.puyallup.wa.us)**

- Earth moving during the grading process will require a Geo Engineers report for Building Envelope soils compaction and bearing capacity.

**Response:** *This comment will be addressed as part of construction.*

If you have any questions, please do not hesitate to contact me at [fbrown@cesnwinc.com](mailto:fbrown@cesnwinc.com) or 253-848-4282.

Regards,



Fred Brown  
Project Manager

Prepared by DM