

October 4, 2024

City of Puyallup 333 South Meridian Puyallup, WA 98371

RE: WSF International Village Permit Application #PRCCP20241189

This letter includes our responses to comments received from the county regarding the Washington State Fair International Village Permit on October 2, 2024.

Please feel free to contact us with any questions.

Sincerely,

JMJ TEAM

Justin Jones, PE Civil Engineer

ENGINEERING REVIEW COMMENTS

(Staff Contact: Mark Higginson, (253)841-5559, MHigginson@PuyallupWA.gov)

Storm Report:

- TMDL for Fecal on Clarks Creek. [CSWPPP; Pg 94 of 96] Response: Noted. TDML for Fecal on Clarks Creek has been added to Appendix. See CSWPP page 94.
- Resolve per MH email to JMJ dated 9/25/24.[Storm Report; Pg 9 of 124 Response: Noted. Lot coverage and areas resolved per email on 9/25/24
- These conventional paving areas are considered 'replaced hard surface areas'. Utility trenching for this project is part of the overall project scope (not standalone exempt utility work) and must be included in the project thresholds. [Storm Report; Pg 10 of 124] Response: Noted. Project Area Coverage Tables have been revised to include all utility trenching. See Project Area Coverage Table on Sheet Storm Report, page 9.
- 4. Identify:
 - a) permeable paving area and square footage;
 - b) roof area tributary to detention and square footage;
 - c) bypass roof area and square footage;

- d) conventional paving area and square footage;
- e) square footage of landscape area.

[Storm Report; Pg 10 of 124]

Response: Noted. Project Area Coverage Table and corresponding figures have been either added or revised, see Storm Report, page 9 for Project Area Tables and Appendix A for figures.

- 5. Show this bypass area on the Proposed Coverage (basin?) exhibit. [Storm Report; Pg 15 of 124] Response: Noted. Bypass area has been included on figures in Appendix A.
- Clarify-It is unclear what portion of roof is affected and the amount of square footage. [Storm Report; Pg 15 of 124] Response: Noted. The lower roof area in question has been added to the proposed runoff management figure on Storm Report, page 17 and Appendix A.
- Revise-"from the paved areas" or something similar since the roof runoff is being conveyed to the EcoRain system. [Storm Report; Pg 17 of 124] Response: Noted. Phrasing has been revised to say "the proposed permeable pavement has been designed to infiltrate 100% of flows from paved areas received on site into native soils below" on Storm Report, page 19.
- Add-"from the primary drive aisles on the south and east sides of the project". [Storm Report; Pg 17 of 124] Response: Noted. Phrasing revised to say "from the primary drive aisles on the south and east sides of the project" on Storm Report, page 19.
- 9. It appears that the utility trenching and concrete pavement replacement is not included as run-on to the permeable pavement or within the Bypass basin? [Storm Report; Pg 41 of 124] Response: Noted. A basin map has been provided to show asphalt pavement runoff either sheetflowing and infiltrating into the proposed permeable pavement or bypassing the proposed stormwater system.
- It appears that this quantity does not include the utility trenching and concrete pavement replacement. [Storm Report; Pg 43 of 124] Response: WWHM modeling has been revised to include utility trenching, see Storm Report, Appendix C.
- 11. FYI only...orifice located below top of outlet pipe. [Storm Report; Pg 46 of 124] Response: Noted.
- 12. It appears that the utility trenching and concrete pavement replacement is not included as run-on to the permeable pavement or within the Bypass basin? [Storm Report; Pg 62 of 124] Response: Modeling has been revised to show asphalt or concrete pavement runoff either sheetflowing and infiltrating into the proposed permeable pavement or bypassing the proposed stormwater system, see Storm Report Appendix C.
- 13. Remove engineering approval block. [Landscape Plan; Sheet L-01] Response: Noted. Engineering approval block has been removed, see Sheet L-01.

- 14. Revise-"NGVD29+3.48". [Plans; Sheet C1-301] Response: Note revised to say "NGBD29+3.48" on Sheet C1-301.
- 15. Based on the approximate disturbed areas noted:

Building and Parking = 48,105sf Grass Area = 9,825sf Asphalt Trenching = 3,387sf Concrete Replace = 2,996sf Total Area Disturbed = 64,313sf

Based on the approximate disturbed areas noted: Replaced Hard Surface = 54,488sf Replaced PGHS = 45,656sf Response: total project disturbed area has been revised to be 64,405 SF. See Sheet C1-301.

- Please revise to read: "10ft (min) 15ft (max)". [Plans; Sheet C3-101] Response: Callout has been revised to say "10ft (min) – 15ft (max)" on Sheet C3-101.
- 17. Verify-Type 1 called out on C4-103. [Plans; Sheet C4-101] Response: Noted. Type I confirmed and callout and plan have been revised. See Sheet C4-103.
- 18. As mentioned on the prior review, it appears that the permeable pavement section will overflow at the SE corner, which is the low point, before Detail C/C4-202 goes into overflow (El. 37.01 vs El. 37.09.) Also, see MHigginson email dated 9-26-24. [Plans; Sheet C4-101] Response: Noted. Permeable pavement overflow has been shifted to lowest point of permeable pavement. A perforated 6" PVC pipe, S=0.0%, will collect and convey runoff to a 6" DI pipe and subsequently a proposed catch basin. See Sheet C4-101 for plan and C4-202 for section.
- 19. "DI" . [Plans; Sheet C4-101] Response: Noted. Updated Sheet C4-101 to read "DI".
- 20. Add-"Control Structure" and callout solid lid. [Plans; Sheet C4-102] Response: Noted. "Control Structure" and "solid lid" callouts have been added on Sheet C4-102.
- 21. 10in on plan view. [Plans; Sheet C4-102] Response: Note revised to say 10", on Sheet C4-102 profile view.
- 22. City Stds requires 1ft min cover (1in is specified here). Revise pipe slope and/or depth as necessary. [Plans; Sheet C4-102]Response: Noted. Design has been revised to have at least the minimum 1ft of cover. Seet Sheet C4-102.
- 23. Per prior comment-Provide pipe info on profile also. [Plans; Sheet C4-102] Response: Response: Pipe info has been provided on the profile on Sheet C4-102.
- 24. Revise inlet as necessary to provide min. cover. [Plans; Sheet C4-102] Response: Noted. Inlet has been revised to provided necessary cover. See Sheet C4-102.

- 25. See comments on profile. [Plans; Sheet C4-102] Response: Noted. Design has been revised to have at least the minimum 1ft of cover. Seet Sheet C4-102.
- 26. Verify-In? [Plans; Sheet C4-103] Response: Pipe direction has been changed from "OUT" to "IN". See Sheet C4-103.
- 27. Match IE (per standards) w/ exist'g...IE 34.31. [Plans; Sheet C4-103] Response: Noted. Storm design has been revised to match inverts with existing. See Sheet C4-103.
- Revise. [Plans; Sheet C4-103] Response: Noted. Callout revised on sheet C4-103.
- 29. Verify-In? [Plans; Sheet C4-103] Response: Pipe direction has been changed from "OUT" to "IN". See Sheet C4-103.
- 30. Match IE (per standards) w/ exist'g...IE 34.31. [Plans; Sheet C4-103] Response: Noted. Storm design has been revised to match inverts with existing. See Sheet C4-103.
- 31. Verify-Type II called out on C4-101. If Type II, callout diameter and lid type on this plan also.
 [Plans; Sheet C4-103]
 Response: Plan has been revised to correctly show a Type 1 Catch Basin. Seet Sheet C4-103.
- Callout solid lid. [Plans; Sheet C4-103] Response: Noted. "Solid lid" callout has been added on Sheet C4-103.
- Callout solid lid. [Plans; Sheet C4-103] Response: Noted. "Solid lid" callout has been added on Sheet C4-103.
- 34. See comments on plan above. [Plans; Sheet C4-103] Response: Profile and notes have been revised on Sheet C4-103.
- 35. See comments on plan above. [Plans; Sheet C4-103] Response: Profile and notes have been revised on Sheet C4-103.
- 36. Revise per comments above. [Plans; Sheet C4-103] Response: Profile and notes have been revised on Sheet C4-103.
- 37. Please callout a min. of 5in below the underdrain for clarity...(Ecology only recognizes the depth below the perforations of the underdrain for storage within the reservoir course.) [Plans; Sheet C4-202]
 Response: Noted. The permeable pavement underdrain has been shifted to the lowest area of the

permeable pavement. The storage course varies from 5"-12", so perforated underdrain crown is shown 12" below top of storage course. See revised section and detail on Sheet C4-202.

38. Per conversation with Justin on 9/26, by the time the reservoir course is in overflow (El. 37.09 per detail), water is already spilling out at the SE corner of the project (El. 37.01). As an option, see example right and comments on Sht C4-101. [Plans; Sheet C4-202]

Response: Permeable pavement overflow has been shifted to lowest point of permeable pavement. A perforated 6" PVC pipe, S=0.0%, will collect and convey runoff to a 6" DI pipe and subsequently a proposed catch basin. See Sheet C4-101 for plan and C4-202 for section and detail.

- 39. Per conversation with Justin on 9/26, does this design allow the 6in overflow drain to keep up when the entire perm pavement area goes into overflow? See example right and comments on Sht C4-101. [Plans; Sheet C4-202] Response: Permeable pavement overflow has been shifted to lowest point of permeable pavement. A perforated 6" PVC pipe, S=0.0%, will collect and convey runoff to a 6" DI pipe and subsequently a proposed catch basin. See Sheet C4-101 for plan and C4-202 for section and detail.
- 40. FYI only...orifice located below top of outlet pipe. [Plans; Sheet C4-202] Response: Noted.
- 41. Clarify? [Plans; Sheet C5-102] Response: Note has been removed from Sheet C5-102.
- 42. Clarify? [Plans; Sheet C5-103] Response: Note has been removed from Sheet C5-103.
- Per prior comment-Callout Sampling Connection per Std Detail 04.03.04. [Plans; Sheet C5-104] Response: Noted. Sampling Connection has been added to the south restroom connection. Seet Sheet C5-104.
- 44. Adjust slope to provide 0.1ft drop across structure per standards. [Plans; Sheet C5-105] Response: Sewer reroute has been revised to provided 0.1 ft drop across all structures. MH-7 will now replace the existing sanitary sewer manhole. See Sheet C5-105 for revised sewer route.
- 45. Per prior comment-Ref Standard Detail 04.03.04 on Sheet C5-201. [Plans; Sheet C5-105] Response: Noted. Construction Note has been revised to callout Detail 04.03.04 on Sheet C5-201.
- 46. Please add dimension btwn FDC and FH to read: "10ft (min) 15ft (max)". [Plans; Sheet C6-101] Response: Noted. Dimension has been added between FDC and FH on Sheet C6-101.
- 47. Please show GV symbols on plan. [Plans; Sheet C6-102] Response: Noted. GV symbols have been added to plan. See Sheet C6-102.
- 48. Per prior comment: Add-thrust block. [Plans; Sheet C6-103] Response: Noted. Thrust block callout added to Sheet C6-103.
- 49. Please show GV symbols on plan. [Plans; Sheet C6-103] Response: Noted. GV symbols have been added to plan. See Sheet C6-103.
- 50. Per prior comment: Add-thrust block. [Plans; Sheet C6-104] Response: Noted. Thrust block callout added to Sheet C6-104.
- 51. Please show GV symbols on plan. [Plans; Sheet C6-105] Response: Noted. GV symbols have been added to plan. See Sheet C6-105.

- 52. Per prior comment-Add reference to alignment on Sheet C6-104. [Plans; Sheet C6-105] Response: A note referencing the alignment on Sheet C6-104 has been added to Sheet C6-105.
- 53. Please show GV symbols on plan. [Plans; Sheet C6-106] Response: Noted. GV symbols have been added to plan. See Sheet C6-106.
- 54. Callout 10ft min to 15ft max distance btwn FDC and FH. [Plans; Sheet C6-106] Response: Noted. Dimension has been added between FDC and FH on Sheet C6-101.
- 55. Add City Standard Details: 03.02.01-2 // 03.02.01-3 // 03.10.03 // 03.11.01. [Plans; Sheet C6-202] Response: Details listed above have been added to Sheet C6-203.

Please feel free to contact me if you have any further questions or clarifications.

Sincerely, JMJ TEAM Justin Jones, PE Civil Engineer