Exhibit G

Engineering Department Staff Report Memo March 28, 2024



ENGINEERING DEPARTMENT

200 NE Moe Street | Poulsbo, Washington 98370 (360) 394-9882 | fax (360) 697-8269

To: Edie Berghoff, Associate Planner

From: Michael Bateman, PE | Transportation Engineer

Subject: Preliminary Plat Engineering Staff Report | Plateau at Liberty Bay PRD | P-12-06-22-02

Attachments: Engineering Department Recommmended Conditions of Approval dated March 14, 2024

Public Works Department Recommended Conditions of Approval dated March 14, 2024

Date: March 28, 2024

The Engineering and Public Works departments have reviewed the project known as Plateau at Liberty Bay PRD and associated application materials in accordance with codes and regulations under the department's purview. The departments offer the following analysis of the project proposal and recommendation for project approval. Recommended conditions of approval for the Engineering and Public Works Departments are attached.

Applicant: Geoffrey Sherwin, Entitle Fund Two, LLC

Location: The Plateau at Liberty Bay PRD project is located on five properties with access improvements on additional properties identified in the table below. Project is approximately 1/3 mile Southwest of the intersection of Viking Avenue NW and NW Liberty Road in Poulsbo, WA.

Project Properties	Access Improvements Properties
Address Kitsap County Assessor Parcel Numbers	Address Kitsap County Assessor Parcel Numbers
19313 Viking Avenue 152601-3-023-2005	1161 Liberty Road 152601-3-002-2000
19521 Laurene Lane 152601-3-040-2004	19431 Viking Avenue 152601-3-027-2001
19179 Viking Avenue 152601-3-033-2003	No address 152601-3-036-2000
19321 Viking Avenue 152601-3-025-2003	No address 152601-3-055-2006
No address 152601-3-090-2102	

Project Description:

The project proposes a planned residential development to subdivide approximately 26 acres of undeveloped land into 63 single-family residential lots with associated roadways, utilities, and open space. The site includes a segment of the North fork of Johnson Creek near the Western project boundary and wetlands on and off-site. Tree retention is located in the creek buffer. Stormwater will be managed using a combination of individual roof infiltration/dispersion and a detention vault/treatment facility. Roadways will provide primary access to the development via a newly constructed intersection with Viking Avenue NW and secondary emergency only vehicle access to NW Liberty Road. Storm, sewer and water utilities will connect to existing City systems in Viking Avenue NW. Water main will loop through the project and connect to an existing main in NW Liberty Road via the secondary emergency access road connection to NW Liberty Road.

Project Record, Exhibits and relevant Codes/Standards

- A. Application
 - 1. PRD, Subdivision Application forms
 - 2. Consent to Exceed Review Period
 - 3. SEPA Checklist (not commented)
- B. Project Drawings
 - 1. KPFF1 Project Drawing, dated February 12, 2024

- 2. NDLA1 Preliminary Landscape Plan, dated January 30, 2023
- 3. KPFF2 Alternative Entry Feasibility Drawing, dated January 4, 2023
- 4. KPFF3 Open Space Drawing, dated December 29, 2023
 - Appendix E, Attachment B of Drainage Report P (pdf page 106)

C. Critical Area Information

- 1. WRI1 21199 Viking Avenue Delineation Report, May 25, 2022
- 2. Grette1Viking Ave. PRD Third Parth Review, July 19, 2022
- 3. Grette2The Plateau at Liberty Bay: Third-Party Review, August 9, 2023
- 4. WRI2 Stormwater Outfall Off-site Wetland Hydroperiod Protection, December 15, 2023
 Appendix E, Attachment A of Drainage Report (pdf page 86)
- 5. KPFF4 Minimum Requirement 8, dated January 3, 2024
 - Appendix E of Drainage Report (pdf page 79)
- 6. KPFF5 Minimum Requirement 8, dated January 15, 2024
 - Appendix E, Attachment E of Drainage Report (pdf pg 149)
- 7. Grette3MR-8 Third-Party Review, dated February 20, 2024
- 8. WRI3 Critical Area Study and Mitigation Plan, dated March 1, 2024
- 9. Grette4MR-8 Third-Party final review email, dated March 13, 2024

D. Tree Retention

- 1. WFCI1 Tree Protection Plan, dated September 8, 2022
- 2. SUF1 Tree Retention Review, dated February 28, 2023
- 3. WFCI2 Critical Area Review, dated September 17, 2023

E. Technical Reports

- 1. KPFF6 Drainage Report, dated February 2024
- 2. ESNW1 Geotechnical Engineering Study, dated June 6, 2023
- 3. ESNW2 Response to Comments, dated Juine 1, 20223
- 4. H&A1 Traffic Impact Analysis, dated June 12, 2023
- F. Home Siting "Lot Fit"
- G. Staff Review Memos
 - 1. Engineering Department Staff Report Memo, dated March 28, 2024
 - 2. Engineering Department SEPA Memo, dated March 28, 2024
 - 3. Figure TR-2, Land Use Comprehensive Plan, Transportation Element
 - 4. Figure TR-3, Land Use Comprehensive Plan, Transportation Element
- H. Public Comment
- I. Noticing
- J. Poulsbo Municipal Code (PMC)
 - 1. PMC 3.876 Transportation Impact Fees
 - 2. PMC 12.02 Construction and Development Standards
 - 3. PMC 14.04 Concurrency
 - 4. Transportation Impact Fees Technical Document dated March 2019 attached to PMC 3.86
 - 5. PMC 16.04 Environmental Policy Guidelines
 - 6. PMC 16.20 Critical Areas
 - 7. PMC 17.80 Land Division Standards
 - 8. PMC 18.180 Tree Retention
 - 9. City of Poulsbo Comprehensive Plan and associated functional plans

Engineering and Public Works Staff Report Responsibility:

Engineering and Public Works staff are responsible for upholding the requirements of Poulsbo Municipal Code Title 17 for preliminary plat applications. Within this title are specific decision criteria for findings to be made by responsible staff. Below is a discussion of how the applicant has shown adherence to Title 17 and successfully satisfies each decision criterion listed in accordance with the requirements of 17.60.040 as it relates to Engineering and Public Works items.

Also reference Engineering draft SEPA Cover memo dated March 28, 2024 for additional project analysis and compliance discussion. Engineering Department recommended Conditions of Approval dated March 28, 2024 and Public Works Department recommended Conditions of Approval dated March 28, 2024 are included here by reference and are attached.

The proposed preliminary subdivision conforms to the requirements of this title:

The Applicant has provided all required application submittal items as described in PMC 17.60.030.

Makes adequate provision for streets, roads, alleys, other public ways, and transit stops as required; and the proposed street system provides for the safe, orderly and efficient circulation of traffic:

The Applicant has submitted a plat design consistent with Poulsbo Municipal Code and the City's Street Standards as stated in the City's Construction Standards document. The plat will be extending a neighborhood collector street from the access point on Viking Avenue NW into the plat and providing a roadway network within the plat consisting of neighborhood collector, residential collector residential access streets. The roadway network will provide an offsite utility and secondary emergency access connection to the North connecting to NW Liberty Road that will ultimately serve as a future neighborhood collector connection to NW Liberty Road upon development of adjacent properties. There are also additional roadway stubs for future connection provided to the North from Road B and to the West from Roads E and F. See Sheet C1.00 of Plat Drawings for overall project roadway network layout, and section 14 of the Engineering SEPA cover memo for additional discussion of project roadway network compliance. All internal streets provide sidewalk connectivity to Viking Avenue NW. Sight distance has been demonstrated to meet AASHTO standards as proposed and will be further analyzed and confirmed during construction drawing review.

The applicant has submitted a Traffic Impact Analysis in accordance with City standards. This analysis is discussed in detail in the Engineering SEPA cover memo. In summary, the project will not result in any LOS failures that are not properly mitigated and will provide frontage, internal and external improvements consistent with requirements and standards. The applicant has provided a Transportation concurrency application and has demonstrated compliance with City of Poulsbo Concurrency standards as set forth in PMC 14.04.070.

The City's Traffic Impact Fee Ordinance (PMC 3.86) requires the project developer to mitigate most project transportation impacts through payment of an impact fee. Additional impacts not already covered by impact fee associated capital projects and project conditions of approval are imposed via SEPA condition(s). For this project improvement of an existing pedestrian crossing of Viking Avenue NW near Bovela Avenue is a SEPA required mitigation. This is analyzed in detail in the transportation section (section 14) of the Engineering SEPA cover memo.

The traffic impact fee established by this ordinance at the current rate of \$564/ADT as of the date of this memo is estimated to be \$5,324.16 per lot based on the 11^{th} Edition ITE Manual calculations for single-family residential trip generation, with total estimated payment of \$313,792.68 required after credit for the existing 4 residences on the project's properties. As identified in project conditions, the developer is responsible for paying the current rate with building permit issuance.

Will be adequately served with water, sewer, storm drainage, and other utilities appropriate to the nature of the subdivision, and meets all current and applicable standards:

Water service to the plat will be via a newly constructed 8-inch water main connecting to the existing 12"



water main in Viking Avenue NW and providing a looped connection to the existing 8" water main in NW Liberty Road. This connection will complete a water loop and promote water quality in the development area. This loop connection is a requirement of the City's construction standards and comprehensive water system plan, as well as providing redundancy and flow capacity to meet fire protection requirements. Water capacity analysis for this service area is analyzed as a part of the City's Comprehensive Water System functional plan, and system capacity has been determined to be adequate to serve this project.

Additional water stubs for potential future extension are provided within Road B to the North and Roads E and F to the West as required by City standards.

Sewer Service will be provided by connecting to the existing 8" sanitary sewer system in Viking Avenue NW. This existing sewer system flows to the City's Liberty Road lift station, Lindvig lift station and Bond Road lift station where it is conveyed via force main and subsequent gravity interceptor to Kitsap County's sewer system for conveyance and treatment at the County's Brownsville treatment plant. This existing City system and lift station capacity were analyzed as a part of the most recent update to the City's Comprehensive Sewer System functional plan, and system capacity was determined to be adequate to serve this project.

Storm drainage accommodation and mitigation will be provided by a combination of individual roof infiltration/dispersion trenches and a detention vault/treatment vault system. The project's storm drainage system has been designed and analyzed by KPFF Consulting Engineers and has been determined to satisfy City and Department of Ecology requirements. The project's vault system will discharge to an existing City stormwater conveyance system in Viking Avenue NW. Downstream capacity for the discharge has been demonstrated in the Stormwater drainage report Section 5 and Appendix D. Detailed analysis of the project's stormwater system and compliance with City and DOE requirements is contained in Section 3 of the Engineering SEPA cover memo. The project's Storm Drainage Report (exhibit E1) and Critical Area Study and Mitigation Plan (exhibit C8) document that the project is unable to achieve full compliance with the DOE Stormwater Management Manual Minimum Requirement 8 (MR8) for offsite Wetland H and proposes compensatory mitigation for the remaining impacts to Wetland H as required by MR8. Staff has consulted with the Department of Ecology and confirmed that per the requirements of the DOE Stormwater Management Manual MR8, the project must first attempt to achieve full compliance through a list of strategies. If full compliance still cannot be achieved and infeasibility of compliance is demonstrated, then mitigation of the remaining impacts is required. These application documents demonstrate to the satisfaction of City staff and the City's peer review team that full compliance with DOE Stormwater Management Manual Minimum Requirement 8 is not feasible, and that the additional 5,200sf of mitigation area proposed to mitigate the remaining impacts to Wetland H will be satisfactory to achieve the required compliance with MR8. As such, staff and the City's peer review consultant team concurs that the project has adequately demonstrated compliance with the requirements of the 2019 Department of Ecology Stormwater Management Manual for Western Washington.

Makes adequate provision for parks, recreation and playgrounds, as required:

The Plat will be responsible for paying Park Impact Fees as dictated by PMC 3.84. Recreational amenities are incorporated in the project proposal as required by City Zoning code requirements. Reference Planning Department staff report and SEPA memo for additional information on recreation amenities provided with the project.

Makes adequate provision for schools and school grounds, as required:

The Plat will be constructing sidewalks within the plat connecting to the existing City sidewalk network along Viking Avenue NW. School bus accommodation and bus stop locations will be provided within the plat in accordance with North Kitsap Schools requirements. The plat will be responsible for school impact fees to mitigate the project's impacts on the public school system.

Makes adequate provisions for sidewalks and other planning features that provide safe walking conditions for students who walk to and from school:

As part of the Plat's nonmotorized improvements, the proposed plat of Plateau at Liberty Bay will construct

new sidewalks within the plat and along the access connection to Viking Avenue NW connecting to existing nonmotorized improvements along Viking Avenue NW. The project will also improve the existing pedestrian crossing of Viking Avenue NW near Bovela Avenue to meet current standards and install a Rectangular Rapid Flashing Beacon (RRFB) to enhance pedestrian safety. The offsite water loop connection to NW Liberty Road will include provision for pedestrian access to NW Liberty Road.

Makes adequate provisions for fire and emergency access and protection:

The proposed Preliminary Plat will be constructing new interior roads built to City standards for residential access roadways. All roadways are designed to also comply with International Fire Code (IFC) requirements and properly accommodate fire apparatus and other emergency vehicles. Fire hydrants will be installed with spacing consistent with City Construction Standards. Hydrants are located on one side of the street throughout the plat with parking provided opposite. A secondary emergency access to NW Liberty Road will be provided complying with City and IFC standards and requirements for secondary access points.

Serves the public interest and makes appropriate provisions for the public health, safety, and welfare: The proposed plat of Plateau at Liberty Bay will provide adequate provision for public health, safety, and welfare by demonstrating compliance with the City's Development Construction Standards. Water will be looped between Viking Avenue NW and NW Liberty Road to promote water quality as required by the City's water comprehensive plan; hydrants will be spaced accordingly to provide adequate connection points for emergency services. Stormwater has been designed to the currently adopted 2019 Washington State Department of Ecology Stormwater Management Manual for Wester Washington. The street system has been designed to accommodate multiple roadway users and makes accommodation for pedestrians using multimodal transportation to local schools and future regional amenities.

Staff Conclusions:

Based on the above technical evaluation, the analysis contained in the SEPA cover memo, in combination with the Engineering and Public Works recommended conditions of approval the Engineering and Public Works Departments determine that the proposed Plat complies with the Engineering and Public Works decision criteria as stated in PMC 17.60.040, and recommends approval of the plat known as Plateau at Liberty Bay PRD.

Name: Michael Bateman, PE

Position/Title: Transportation Engineer

Address: 200 NE Moe Street Poulsbo, WA 98370

(360) 394 - 9744

Signature:

Reviewed and approved:

Date: 3/28/24

City Engineer
Josh Ranes, PE

Ini**(**ial <u>W</u>Date <u>3/28/24</u>

Exhibit G

Engineering Department SEPA Memo March 28, 2024



ENGINEERING DEPARTMENT

200 NE Moe Street | Poulsbo, Washington 98370 (360) 394-9882 | fax (360) 697-8269

MEMO

To: Heather Wright, SEPA Responsible Official

From: Michael Bateman, PE | Transportation Engineer

Subject: SEPA RECOMMENDATION | Plateau at Liberty Bay PRD | P-12-06-22-02

Date: March 28, 2024

The Engineering and Public Works departments have reviewed the project known as Plateau at Liberty Bay PRD, SEPA checklist and associated application materials in accordance with codes and regulations under the department's purview. The departments offer the following analysis of the project proposal, staff recommended SEPA determination and associated mitigation for the project.

Applicant: Geoffrey Sherwin, Entitle Fund Two, LLC

Location: The Plateau at Liberty Bay PRD project is located on five properties with access improvements on additional properties identified in the table below. Project is approximately 1/3 mile Southwest of the intersection of Viking Avenue NW and NW Liberty Road in Poulsbo, WA.

Project Properties	Access Improvements Properties
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No address 152601-3-090-2102	

Project Description:

The project proposes a planned residential development to subdivide approximately 26 acres of undeveloped land into 63 single-family residential lots with associated roadways, utilities, and open space. The site includes a segment of the North fork of Johnson Creek near the Western project boundary and wetlands on- and off-site. Tree retention is located in the creek buffer. Storm water will be managed using a combination of individual roof infiltration/dispersion and a detention vault/treatment facility. Roadways will provide primary access to the development via a newly constructed intersection with Viking Avenue NW and secondary emergency only vehicle access to NW Liberty Road. Storm, sewer and water utilities will connect to existing City systems in Viking Avenue NW. Water main will loop through the project and connect to an existing main in NW Liberty Road via the secondary emergency access road connection to NW Liberty Road.

Environmental Record/Exhibits:

The environmental review consisted of analysis based upon the following documents included in the environmental record:

A. Application

1. PRD, Subdivision Application forms

- 2. Consent to Exceed Review Period
- 3. SEPA Checklist (not commented)
- B. Project Drawings
 - 1. KPFF1 Project Drawing, dated February 12, 2024
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 - 5. PMC 16.04 Environmental Policy Guidelines

- 6. PMC 16.20 Critical Areas
- 7. PMC 17.80 Land Division Standards
- 8. PMC 18.180 Tree Retention
- 9. City of Poulsbo Comprehensive Plan and associated functional plans

Staff Amendments to the Environmental Checklist:

The following sections correspond with related categories of the environmental checklist submitted for the proposal, and clarify, amend or add to that document.

Environmental Checklist Elements:

Earth

Geotechnical Engineering Study prepared by Earth Solutions, LLC

Earth Solutions NW explored subsurface site conditions July 14, 2022 excavating 15 test pits throughout the site at strategic locations, followed by three additional test pits, three borings on and a large-scale Pilot Infiltration Test (PIT) July 21, 2022. Based on these explorations and the subsequent analysis, Earth Solutions has the following Conclusions and Recommendations.

The proposed single-family residences may be constructed on conventional continuous and spread footing foundations bearing upon competent native soil, recompacted native soil, or new structural fill placed directly on competent native soil. Native soil conditions considered suitable for support of the proposed structures will likely be encountered beginning at depths of about two to three feet below existing grades. Where loose or unsuitable soil conditions are exposed at foundation subgrade elevations, compaction of the soil to the specifications of structural fill or overexcavation and replacement with suitable structural fill will be necessary.

From a geotechnical standpoint, infiltration on the subject project is largely considered infeasible. This opinion is based on the widespread presence of glacially consolidated soils (with cemented interbeds at varying depths) across the development area and the results of our recently completed groundwater monitoring program, which was targeted to the proposed infiltration pond location (Tract H). Further discussion of site infiltration feasibility, a summary of the groundwater monitoring program, and recommendations to aid in stormwater management designs are presented in this report.

Geologically hazardous areas are discussed and analyzed, with the conclusion that the project is feasible as designed with the associated setbacks and buffers. No additional setbacks or buffers are recommended.

Recommendations for Site preparation and earthwork, temporary erosion control, use of on-site soils and imported soils in both dry and wet conditions, subgrade preparation, structural fill, foundations, seismic design, retaining wall design, drainage & stormwater design and utility work are discussed thoroughly in the report with recommendations stated for each section.

Letter, Response to Comments dated June 1, 2023 prepared by Earth Solutions NW, LLC Earth Solutions NW, LLC prepared this letter to respond to City staff and peer reviewer comments regarding top of slope delineation, steep slope setbacks/stability, infiltration rates, groundwater and infiltration feasibility.

The letter indicates that existing buffers and setbacks exceed any that would be needed for setbacks from top of slope. No additional setbacks are recommended.

The letter also corrects infiltration rate inconsistencies in previous documentation and indicates that further groundwater monitoring in the vicinity of proposed Tract H shows that the seasonal groundwater table elevates in winter enough to make the previously proposed large scale infiltration infeasible. As such the project has been designed to include distributed small scale infiltration/dispersion in the form of roof downspout infiltration/dispersion trenches distributing clean stormwater to wetland buffer areas. This distributed small scale approach also assists in meeting the 2019 DOE Stormwater Management Manual for Western Washington Minimum Requirement No. 8 (MR8) – Wetlands Protection.

Staff has reviewed the geotechnical report and subsequent letter and concurs with the conclusions and recommendations.

- 2. Air
- 3. Water
 - a. Surface
 - b. Ground
 - c. Water Runoff

Stormwater Drainage Report prepared by KPFF

A stormwater drainage report was prepared by KPFF Consulting Engineers to address required mitigation of site development per the required 2019 Stormwater Management Manual for Western Washington (SWMMWW). Stormwater manual minimum requirements are discussed in stormwater report Section 3.

The project area includes approximately 26 acres of site area, of which approximately 13 acres will be developed and approximately 13 acres will remain undeveloped in tracts, wetlands, buffers, etc. The site includes seven wetlands (A-F) and one stream (Johnson Creek) separated into two different drainage basins (Threshold Discharge Areas). The West TDA discharges to Wetland A associated with Johnson Creek. The East TDA ultimately discharges to Liberty Bay via an existing established City downstream flow path consisting of a combination of piped and surface drainage conveyance. A portion of the surface conveyance for the East basin flows through an offsite wetland complex on adjacent parcels 152601-4-110-2007 and 152601-4-108-2001. Existing site conditions, drainage basins and downstream flow paths are discussed in Stormwater Drainage Report Section 5.

Wetlands, streams and other critical areas and their associated ratings and buffer areas are more fully described and analyzed in the Critical Area Study and Mitigation Plan dated March 1, 2024 prepared by Wetland Resources, Inc. These ratings and buffers inform design and wetland modeling and protection requirements for the project's stormwater system design contained in the 2019 DOE Stormwater Management Manual for Western Washington. This report also contains a mitigation plan and associated mitigation monitoring program ensuring project success and compliance with the requirements of the City's critical areas code and requirements. This report also addresses required mitigation for impacts to offsite wetland H per the requirements of the 2019 DOE Stormwater Management Manual for Western Washington Minimum Requirement 8 - Wetlands Protection (MR8).

Section 3 of the drainage report summarizes the minimum requirements for compliance per the stormwater manual, and how the project will comply with the requirements. Further sections discuss each requirement in detail. For the Plateau at Liberty Ridge project, Minimum Requirement No. 8 (MR8) has a significant impact on the project's stormwater design. The project includes individual lot infiltration/dispersion trenches dispersing roof runoff to wetlands

to properly preserve wetland hydrology for lots adjacent to specific wetlands. For instance, all lots adjacent to Wetland A associated with Johnson Creek will include individual lot infiltration/dispersion trenches to preserve Wetland A hydrology and base flows to Johnson Creek. This is discussed in detail in Section 6, and hydroperiod modeling analysis documenting proper wetland hydroperiod matching pre and post project is provided in Appendix C. Hydroperiod modeling analysis and MR8 compliance for the offsite wetland on parcels 152601-4-110-2007 and 152601-4-108-2001 is described in Section 6, and further analyzed in Appendices B, D and E. These sections go through the MR8 modeling and attempts to achieve compliance with the flow modeling requirements of MR8 and the guidance for demonstrating compliance infeasibility included in MR8 for offsite Wetland H. MR8 compliance, impacts and proposed mitigation for remaining impacts to Wetland H are further discussed and described in the Critical Area Study and Mitigation Plan dated March 1, 2024 prepared by Wetland Resources, Inc. Per the requirements of MR8 - the project must first attempt to achieve full compliance with all flow modeling requirements through a list of strategies provided within MR8. If full compliance is not achievable and is demonstrated to be infeasible, compensatory mitigation for the remaining impacts to Wetland H is required.

The project includes a large detention tank and treatment vault combination system providing both flow control and water quality treatment to enhanced standards for the project areas not employing lot infiltration/dispersion trenches. Pollution generating impervious surfaces are all routed to this vault/treatment system via a piped conveyance system and will meet the required forested condition flow control standard as required by the stormwater manual. Compliance with these requirements is also discussed in Section 6, and flow control modeling/vault design calculations demonstrating compliance are provided in Appendix B. All discharges from this project to the downstream conveyance system meet or exceed the enhanced treatment standard for water quality.

The stormwater drainage report, Geotech report, associated stormwater system design presented in the drainage report, critical area study and mitigation plan and the project preliminary plat drawings has been reviewed by staff, the City's stormwater peer reviewer Parametrix and the City's critical areas consultant Grette. Staff has also consulted with the Department of Ecology to ensure the City and our peer reviewers are correctly applying the requirements of Minimum Requirement 8 of the Stormwater Management Manual for Western Washington.

Staff and the City's peer reviewers concur that as proposed with associated compensatory mitigation proposed, the project has demonstrated project feasibility and compliance with the requirements of the 2019 DOE Stormwater Management Manual for Western Washington.

- 4. Plants
- 5. Animals
- 6. Energy and Natural Resources
- 7. Environmental Health
- 8. Land and Shoreline Use
 The project includes no work or impacts within the shoreline buffer or 100 year regulatory flood plain.
- 9. Housing
- 10. Aesthetics

11. Light and Glare

12. Recreation

13. Historic and Cultural Preservation

No known potential cultural resource impacts have been identified for this project. During project construction the project's contractor will be required to have an Inadvertent Discovery Plan on-site documenting procedures to be followed in the case of an inadvertent cultural resource discovery.

14. Transportation

Markup – Plateau at Liberty Bay Preliminary Plat Plan Alternative Entry Infeasibility Exhibit
A marked up drawing dated January 4, 2023 was prepared by KPFF Consulting Engineers,
analyzing three primary access entry points (the proposed access point and two alternatives) and
the associated grading/wetland/other impacts that would occur as a result of the City's roadway
construction standards limitations including minimum curve radius associated with 25 mph
design speed and maximum allowable roadway grade of 12%. Staff has reviewed this exhibit,
City Construction Standards and the existing roadway and utility improvements in the project
vicinity and concurred that neither of the proposed alternative access points are feasible.

Additionally, analyzing the existing roadway conditions on Viking Avenue NW and the surrounding driveways, the lane merges from 4 lane to 2 lane roadway and presence of center landscaping island the proposed primary access point intersection location is preferrable. This proposed location allows sufficient center lane left turn stacking for Northbound traffic as well as the conversion of Southbound 2-1 lane merge to right turn drop lane. This roadway access includes consolidation of an existing residential driveway access with the primary roadway connection. Consolidation of existing driveway access points to minor arterials is preferable when possible.

The proposed primary roadway connection location and driveway consolidation selected as feasible and the associated new intersection with Viking Avenue NW has been designed to minimize impacts to critical areas within design requirements but does include unavoidable impacts. The mitigation of these impacts is discussed in the Critical Area Study and Mitigation Plan dated September 23, 2023 prepared by Wetland Resources, Inc.

Staff has reviewed the project materials submitted and determined that as-proposed in the project documentation with mitigation proposed the primary access roadway proposed is at the preferred location and does meet City Codes, Standards and requirements.

Poulsbo Municipal Code 17.80.050 Street Standards and 17.80.060 Street Connectivity PMC 17.80.050(C) requires that preliminary plats shall provide for at least two different standard routes for ingress and egress, noting that the future street connection requirements contained in PMC 17.80.060 shall contribute to meeting this requirement. PMC 17.80.050(C)(2) further indicates that a secondary emergency access road of a minimum of twenty feet unobstructed width may serve to meet these requirements and provides criteria where this alternative may be acceptable. A secondary emergency access roadway may also serve as an access and utility easement for any required utility connections.

7.80.060 Street connectivity.

The purpose of street connectivity is threefold: (1) to implement the city's comprehensive plan's future street plan; (2) to provide redundant and efficient routes and connections within the city; and (3) provide superior emergency vehicle response time by providing multiple access to streets. Street connectivity shall be implemented as follows:

- A. New streets shall be provided and located consistent with the city's comprehensive plan transportation map series and new roadway segments map:
 - 1. Where topography, adjacent property owner willingness, natural features or other conditions make achievement of a planned alignment impractical, the street alignment, connection and/or location shall be as approved by the city engineer consistent with the intent of planned alignment.
 - 2. The required improvement must be related in nature and extent to the impact of the development.
 - 3. When requiring a new street to be provided consistent with the city's comprehensive plan new roadway segments map, the city shall provide a finding of fact with the subdivision decision, setting forth that the requirement of the new street is supported under the city's Growth Management Act responsibility to provide for adequate streets and roads for its allocated population, and, based upon the city's adopted comprehensive plan, there is a reasonable assurance the new street shall be completed.
- B. New subdivisions shall connect to or provide a future connection to adjacent property.
 - 1. New subdivisions shall use existing street connections, if provided, unless it is technically infeasible to do so as determined by the city engineer.
 - 2. When providing for street connectivity, the public streets and utilities shall be extended to the property boundary.
 - 3. When a street connection is required to undeveloped property zoned for residential development, a sign is required to be posted at the connection point indicating the intent of a future road connection.
 - 4. When a street is required to undeveloped property, a preliminary engineering analysis of the feasibility of the future street connection shall be submitted with the development permit application.
 - 5. Pedestrian and bicycle connection to adjacent subdivisions or property shall be provided as feasible and as consistent with the intent of the city's comprehensive plan's identified sidewalk and path connections.
 - 6. The city engineer may exempt the requirement for street connectivity under the following circumstances:
- a. There are existing and available connections to collector or arterial streets.
- b. The existing development and ownership pattern, site and/or surrounding area's topography make connectivity technically and physically unfeasible.
- c. Temporary emergency vehicle access is provided, and street connectivity will occur in the future.
- d. The street connection is not identified on the comprehensive plan transportation map series. (Ord. 2017-22 § 2 (Exh. A (part)), 2017)

The City's Comprehensive Transportation Plan Update section 6.1.1 and City Comprehensive Plan Chapter 4 New Roadway Segments Map Figure TR-3 show required collector/sub collector level roadway connections. Development projects are required to meet the intent of these new roadway connection requirements within the project and provide and/or provide accommodation for these future roadway connections.

PMC 17.80.060(B) Street Connectivity referenced above also requires the provision for future roadway connections to adjacent properties.

This project's primary roadway network within the site provides for completion of required Figure TR-3 New Roadway segments numbers 5 and 7 within the project site, provides for future completion of New Roadway segment number 5 offsite to the North via the secondary emergency access road connection to NW Liberty Road, and provides for accommodation of future roadway

connection number 6 on the project's southern border.

The project proposes a secondary emergency roadway to the North from the project area through an offsite parcel connecting to NW Liberty Road. This emergency access roadway will also serve as the route for the required water main looping, meet the requirements of PMC 17.80.050 and 17.80.060 and the requirement for New Roadway #5 on the City Comprehensive Plan New Roadway Segments Map TR-3. This connection also provides for a future collector level roadway connection on this alignment.

Staff has analyzed the requirements of PMC 17,80.050, 17.80.060, City Construction Standards, City Transportation Plan, City Comprehensive Plan, International Fire Code and City water Comprehensive Plan requirements and determined that the proposed project secondary emergency access roadway is required to satisfactorily meet these requirements. The roadway has been designed to minimize impacts to critical areas but does include unavoidable impacts. The mitigation of these impacts is discussed in the Critical Area Study and Mitigation Plan dated September 23, 2023 prepared by Wetland Resources, Inc.

In addition to the required secondary emergency access/future roadway connection to Liberty Road, the project also proposes future roadway connection stubs to the North and West. A roadway stub providing for extending Road B in the future to the North connecting to Laurene Lane NW is proposed between adjacent lots 152601-3-054-2007 and 152601-3-028-2000. This roadway stub has been determined to be a requirement to meet future roadway network connections. A roadway stub providing for extending Road F to the West is provided between proposed lots 38-39 and 40-42. This proposed roadway network stub is acceptable to the City and assists in providing for future roadway connections per the intent of PMC 17.80.060 but is not a required roadway network stub. A roadway stub providing for the future extension of Road E to the West is provided between proposed lots 11-13 and the South property line of the project area. This proposed roadway network stub is acceptable to the City and assists in providing for future roadway connections per the intent of PMC 17.80.060 but is not a required roadway network stub.

Staff has analyzed the requirements of PMC 17,80.050, 17.80.060, City Construction Standards, City Transportation Plan, City Comprehensive Plan, International Fire Code and City Water Comprehensive Plan requirements and determined that as-proposed in the project documentation the proposed roadway network connections and future roadway network stubs provided will adequately satisfy these requirements.

Poulsbo Municipal Code 14.04 Transportation Concurrency

Poulsbo Municipal Code 14.04 requires that adequate transportation facilities or strategies needed to maintain the City's adopted level of service standards on any roadway or at any intersection are available when the impacts of development occur, or that a financial commitment is in place to complete the facilities or strategies within six years. This code section includes requirements for determining and demonstrating concurrency.

Staff has reviewed the project application materials including the Traffic Impact Analysis referenced below and determined that as proposed and conditioned the project has satisfactorily demonstrated compliance with the requirements of this code section.

Traffic Impact Analysis dated June 12, 2023 prepared by Heath & Associates

A TIA was prepared by Heath & Associates to assess the proposed project, associated motorized and nonmotorized transportation impacts, compliance with City codes and standards, and

determine appropriate mitigation. The TIA was prepared to meet the City's Transportation Impact Analysis minimum requirements, address the project's transportation impacts and mitigation requirements and address the requirements of PMC Chapter 14.04 Transportation Concurrency as noted above. The City requires a minimum of 5 years after build-out/occupancy for the future condition horizon year. Therefore, the year 2030 has been used as the horizon year for this analysis.

The Plateau at Liberty Bay PRD project includes a secondary emergency access roadway to NW Liberty Road. This secondary emergency access route will also serve as an access/utility easement for a required water system loop connection and will serve as a future roadway network connection. The proposed project design is shown on Figure 2 on page 6 of the TIA.

The existing roadway, nonmotorized and transit network in the vicinity of the project is described and analyzed in Section 3 of the TIA. Existing peak hour volume counts were taken September 13, 2022, March 28, 2023 and April 18, 2023 at the proposed project intersection with Viking Avenue NW and four other intersections along Viking Avenue NW to determine existing volumes and analyze existing level of service in the adjacent roadway network. See Figures 3 and 4 on pages 9 and 10 and table 2 on page 14 of the TIA. The intersections chosen for counts and analysis methods are consistent with City TIA requirements. As shown, all intersections currently meet the City's adopted level of service standard of LOS E, with all but one intersection operating at LOS C or better. Viking Avenue NW at NW Finn Hill Road operates at LOS E in the PM peak hour. It should be noted that this intersection has an accepted level of service of F per the City's comprehensive plan policy TR-2.2.

The TIA also includes a Safety Analysis (Section 3.7) and a speed study (Section 3.8) in order to further inform potential mitigation requirements.

Section 4 of the TIA analyzes the proposed project's forecast traffic demand. Per City requirements, the Institute of Transportation Engineers (ITE) Trip Generation Manual 11th Edition was used to forecast project trip generation, using Land Use Code (LUC) 210, Single-Family Detached Housing for project trip generation. The proposed development's 63 single family units will generate 594 average weekday trips (AWDT) per that land use code trip generation data. The trip generation and forecast distribution are described and summarized in Section 4.1 and 4.2.

Section 4.3 analyzes future traffic volumes for a 5-year horizon from estimated project approval in both the without-project and with-project condition, estimating trip growth per City TIA growth rate standards and approved but not yet constructed pipeline projects. Forecast future (2030) traffic volumes without the project are shown on Figures 12 and 13, and future (2030) traffic volumes with the project are shown on Figures 14 and 15. The future level of service with and without the project is summarized in Section 4.7 and Table 5, page 28. In the future with project condition all intersections meet City Level of Service standards. Viking Avenue NW & Finn Hill Road without project in the future condition PM peak is predicted to operate at level of service F with 113 seconds of delay. For this intersection, level of service F is accepted per City comprehensive plan(s) and policies. With the project the delay is predicted to increase from 113.0 seconds to 116.2 seconds (2.8%). Per City Transportation Comprehensive Plan Update Section 6.1.1 and City Comprehensive plan policy TR-2.5 and 2.6, projects that contribute traffic to LOS F designated intersections may be required to implement mitigation measures that address project impacts but do not necessarily add capacity. These mitigation measures may include improvements to other transportation modes such as non-motorized improvements.

Section 6.1.1 of the 2016 Transportation Comprehensive Plan Update:

In those situations where it is not physically possible, economically viable, or socially desirable to meet forecast growth by adding new capacity (e.g., new lanes) in the same location where the demand appears, an alternative strategy may be to employ alternative mitigation measures that address impacts associated with the adoption of these LOS F standards but do not necessarily add capacity. These measures may include Transportation Demand Management (TDM) or Transportation System Management (TSM) actions or projects. These strategies may divert the forecast traffic growth to other possibilities elsewhere, but more importantly may encourage and support other transportation modes including transit and non-motorized facilities, as well as safety improvements such as pedestrian enhancements, signal timing optimization, pavement striping, signage and lighting, geometric modifications or other measures intended to accomplish the same goals. Collectively, such strategies are described as Transportation Demand Management in this plan and the City's adopted TIP.

This is also supported by Policy TR-2.5 of the 2016 Comprehensive Plan.

For those roadway segments and intersections with an adopted LOS F designation, the City may implement mitigation measures that address impacts associated with adoption of the LOS F standard, but that do not necessarily add capacity. These mitigation measures may include transportation demand management (TDM) or transportation system management (TSM) actions or projects that encourage and support other transportation modes including transit and nonmotorized facilities, as well as safety improvements such as pedestrian enhancements, signal timing optimization, pavement striping, signage and lighting, geometric modifications or other measures.

Furthermore, Policy TR-2.6 of the 2016 Comprehensive Plan states:

Development projects that contribute traffic to LOS F designated roadway segments and intersections may be required to partially or fully participate in funding or constructing the mitigation measures identified pursuant to Policy TR-2.5 if the mitigation project is not already part of the City's adopted TIP. These mitigation measures would be identified and developed through a Traffic Impact Assessment prepared pursuant to applicable sections of Poulsbo Municipal Code (PMC).

In the case of this project nonmotorized movements and available facilities in the vicinity of the project were analyzed in TIA Section 4.8. The project's TIA proposes improvements to the existing pedestrian crosswalk across Viking Avenue NW near NW Bovela Lane, including a pedestrian refuge island, Rectangular Rapid Flashing Beacon and associated Manual of Uniform Traffic Control Devices (MUTCD) compliant signage.

Staff has reviewed the TIA, City codes and policies and has determined that full improvements to the pedestrian crossing of Viking Avenue NW near Bovela Avenue will satisfy the project's mitigation requirements for the project's LOS F impacts at the Viking Avenue NW/NW Finn Hill Road intersection per Transportation policies TR-2.5 and 2.6. The required improvements will include installation of the proposed refuge island, Rectangular Rapid Flashing Beacon, MUTCD compliant signage and bringing the crossing up to full ADA and City standard compliance. This mitigation will be included as a SEPA condition.

The project's connection to Viking Avenue is analyzed for sight distance in Section 4.4, driveway

spacing in Section 4.5, Queuing associated with the future level of service and the associated stacking requirements and the existing presence of a 2-1 merge in the vicinity of the future intersection is addressed in Section 4.7. The TIA proposes to convert the existing merging lane to a right-turn only "drop" lane at the new roadway intersection with associated MUTCD compliant signage and roadway striping changes. The TIA concludes that with the proposed drop lane conversion and construction of the proposed intersection the existing roadway facilities are adequate to serve the project's projected traffic demand.

The project is subject to Traffic Impact Fees (TIF) per PMC Section 3.86. At the time of this memo, TIF is assessed in the amount of \$564 per average weekday daily trip (AWDT). The project will generate 594 new AWDT. The project will be granted a reduction (credit) of impact fees for the existing 4 single family residences on the site per PMC 3.86.080(D) in the amount of 9.43 AWDT/home per ITE LUC 210. At the time of this memo, total traffic impact fees to be collected for this project are estimated to be (63-4) * 9.43 * \$564 = \$313,792.68. Traffic Impact Fees are collected at the time of building permit application for each home and will be assessed at the current rate in place at the time of building permit application. As noted above, no traffic impact fees will be collected with the first four homes permitted due to the existing 4 homes on the project site. Full traffic impact fees will be collected with the building permits for the remaining 59 homes.

The TIA suggests that TIF credit may be available for the construction of the proposed nonmotorized improvements to the pedestrian crossing of Viking Avenue NW near NW Bovela Lane. TIF Credit is addressed in PMC Section 3.86.110, and the associated Transportation Impact Fees Technical Document dated March 2019. Staff has reviewed these codes and documents and determined that no TIF credit is available or due for these improvements.

However, as noted above, per City Comprehensive Plan transportation policies TR-2.2, 2.5 and 2.6 the project is required to mitigate the additional LOS F impacts at the Viking Avenue NW/NW Finn Hill Road intersection, and per those policies improvements to nonmotorized facilities may be proposed as mitigation for those impacts. As discussed above, staff has reviewed the TIA, City codes and policies and has determined that with full improvements to the pedestrian crossing of Viking Avenue NW near Bovela Avenue the project's LOS F impacts will be adequately mitigated. The required improvements will be as follows:

The developer shall construct improvements to the existing pedestrian crossing of Viking Avenue NW near Bovela Lane. These improvements shall include the installation of pedestrian refuge island, Rectangular Rapid Flashing Beacon, associated MUTCD complaint signage and striping, and sidewalk/curb ramp improvements to bring the crossing to full compliance with current ADA/City Construction standards.

Staff has reviewed the TIA traffic analysis, recommendations, and conclusions. Staff has determined that the TIA prepared by KPFF Consulting Engineers adequately analyzes the project's transportation impacts and demands per City codes, standards and requirements, and with the mitigation proposed and conditioned including payment of Traffic Impact Fees per PMC Section 3.86, merge to drop lane conversion on Southbound Viking Avenue NW at the project's primary access intersection and the SEPA conditioned construction of improvements to the pedestrian crossing of Viking Avenue NW near Bovela Lane the project's transportation impacts are adequately mitigated and satisfy the City's Traffic Impact Analysis minimum requirements and PMC 14.04 Transportation Concurrency requirements.

15. Public Services

The proposed project will increase the city population by approximately 148 residents (63 new homes – 4 existing homes x 2.51 residents/SF home), resulting in an increased need for public services, including Public Schools, Police services, Fire and emergency response services, City administration/general services, Transportation and City Utilities.

School impact fees are required and anticipated to mitigate the impacts to the public school system.

Section 14 above addresses impacts to the City transportation system and associated mitigation.

Impacts to City administration/general services, Police and Fire/Emergency Response services are anticipated to be mitigated by increased tax revenue.

Section 16 below addresses impacts to City utilities.

16. Utilities

Water service to the plat will be via a newly constructed 8-inch water main connecting to the existing 12" water main in Viking Avenue NW and providing a looped connection to the existing 8" water main in NW Liberty Road via the proposed secondary emergency access road. This loop connection is a requirement of the City's construction standards and comprehensive water system plan, as well as providing redundancy and flow capacity to meet fire protection requirements. Water capacity analysis for this service area is analyzed as a part of the City's Comprehensive Water System functional plan, and system capacity has been determined to be adequate to serve this project.

Sewer service to the plat will be provided by connecting to the existing 8" sanitary sewer system in Viking Avenue NW. This existing sewer system flows to the City's Liberty Road lift station where it is conveyed by other force mains, lift stations and gravity sewer systems to Kitsap County's sewer system. It is ultimately conveyed to Kitsap County's Brownsville treatment plant. This existing system and lift station capacity were analyzed as a part of the most recent update to the City's Comprehensive Sewer System functional plan, and system capacity was determined to be adequate to serve this project.

Storm drainage accommodation and mitigation will be provided by a combination of individual roof infiltration/dispersion trenches and a detention vault/treatment vault system. The project's storm drainage system has been designed and analyzed by KPFF Consulting Engineers as noted in the Water section above and has been determined to satisfy City and Department of Ecology requirements. The project's vault system will discharge to an existing City stormwater conveyance system in Viking Avenue NW. Downstream capacity for the discharge has been demonstrated in the Stormwater drainage report Section 5 and Appendix D.

Solid Waste collection will be provided by the City of Poulsbo via individual can service.

Impacts to City Utilities are mitigated by the payment of a combination of one time General Facility Charges and ongoing utility rates per PMC Title 13.

Staff has reviewed the project's proposed utility designs and determined them to meet City codes and standards and provide adequate capacity to serve the proposed project. Impacts to

City Utilities will be adequately mitigated through payment of general facility charges and ongoing utility rates.

Public Comments Received to Date and Related to Environmental Elements:

See Planning Department Memo

Conclusions and Recommendations:

The Engineering and Public Works departments environmental review indicates that there are no significant adverse environmental impacts from the project proposal associated with codes and regulations under the department's purview that cannot be mitigated through existing adopted Poulsbo land use regulations, or through the authority of SEPA. Therefore, a determination of non-significance is appropriate.

Recommended Mitigations, if appropriate:

Traffic:

The developer shall construct improvements to the existing pedestrian crossing of Viking Avenue NW near Bovela Lane. These improvements shall include the installation of pedestrian refuge island, Rectangular Rapid Flashing Beacon, associated MUTCD complaint signage and striping, and sidewalk/curb ramp improvements to bring the crossing to full compliance with current ADA/City Construction standards.

Name: Michael Bateman, PE

Position/Title: Transportation Engineer

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Reviewed and approved:

Date: 3/28/24

City EngineerJosh Ranes, PE

Initial W Date 3/28/24



Exhibit G

Figure TR-2, Land Use Comprehensive Plan, Transportation Element

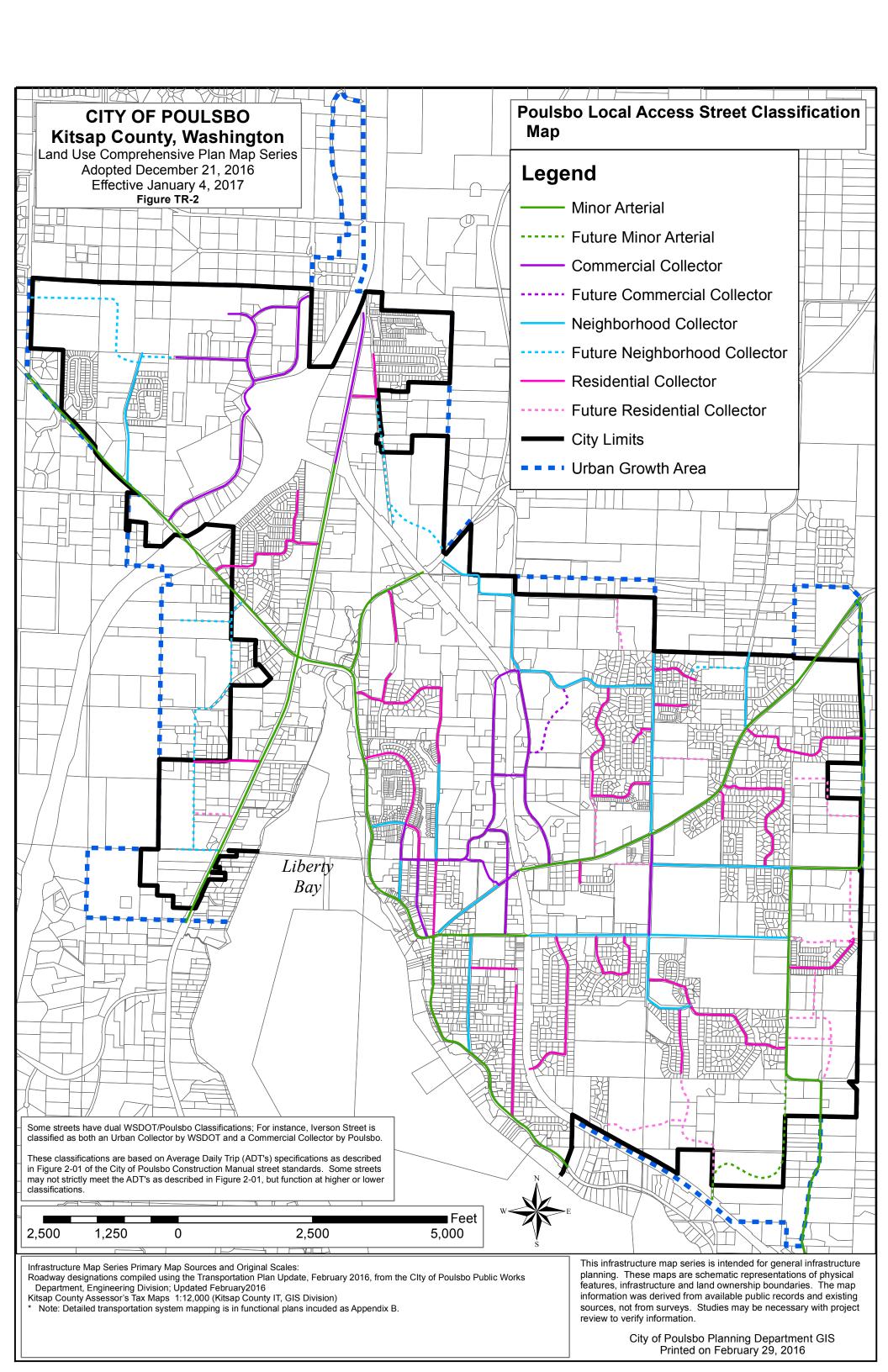


Exhibit G

Figure TR-3, Land Use Comprehensive Plan, Transportation Element

