



Pacific Surveying & Engineering, Inc

land surveying • civil engineering • consulting • environmental • gis
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April 30, 2025

City of Lynden
Public Works Department
300 4th Street
Lynden, Washington 98264

Attn: Mark Sandal, Programs Manager
Re: Proposal for Civil Engineering, Land Surveying, and Environmental Services
Birch Bay-Lynden and Berthusen Road Intersection Improvements

Dear Mr. Sandal:

Pacific Surveying and Engineering (PSE) is pleased to present our proposal to provide you with professional consulting services related to a potential project for improving the intersection of Birch Bay-Lynden Road and Berthusen Road.

BACKGROUND

The City of Lynden (CITY) has recently expanded city limits to include the intersection of Birch Bay-Lynden Road and Berthusen Road as well as the properties to the south and east of the intersection. As development occurs in west Lynden, the intersection of Birch Bay-Lynden Road and Berthusen Road may need to be upgraded to accommodate additional traffic and improve functionality and safety.

We understand the CITY wants to investigate several elements for improving the intersection. This proposal will investigate the feasibility of the following:

- Left-turn Lane for eastbound Birch Bay-Lynden Road to northbound Berthusen Road
- Right-turn Lane/Pocket for westbound Birch Bay-Lynden Road to northbound Berthusen Road
- Three-way, stop-controlled intersection
- Signalized Intersection (assumes no changes to existing channelization)
- Roundabout

This proposal recommends a scope of services necessary to provide the CITY with a technical report that will summarize our findings and recommendations related to the permit process and right of way requirements to complete this project. In addition to the technical letter, we will also provide conceptual channelization plans for each alternatives listed above, detailing the work required and rough order of magnitude construction cost estimates.

SCOPE OF SERVICES

LAND SURVEYING

PSE's land surveying department will prepare a base map to be used for early design work. The base map will include a UAS (Unmanned Aerial System or drone) based high resolution digital ortho-mosaic (aerial photo), public lidar data, and surveyed right of way and/or easement boundaries for Birch Bay Lynden and Berthusen Roads. The survey will be completed on City of Lynden datum (NAD 83 and NGVD 29). Title reports and road deeds will be reviewed as a part of this exercise. Title report fees have been included in PSE's scope of work (10 properties/reports anticipated).

CIVIL ENGINEERING

Our civil engineering department will utilize traffic data previously prepared by the Transpo Group. This data will be used to perform a warrant analysis for a left-turn lane and right-turn lane/pocket along Birch Bay-Lynden Road. If additional traffic data is required, it is assumed the CITY will be responsible for collecting the required data.

Left-Turn Lane and Right-Turn Lane/Pocket

PSE will use previously prepared traffic data to determine if an eastbound left-turn and a westbound right-turn lane or pocket on Birch Bay-Lynden Road is warranted. If warranted, horizontal channelization plans will be prepared by PSE. The plans will identify areas of roadway widening, impacts to known utilities, and impacts to adjacent properties

Three-Way, Stop-Controlled Intersection

PSE will prepare a conceptual channelization plan showing a three-way, stop-controlled intersection. This concept will maintain existing channelization and will not include the addition of turn-lanes.

Signalized Intersection

PSE will prepare a conceptual channelization plan that includes signaling each leg of the intersection. Signal timing, traffic loops, pedestrian push buttons, and other items considered to be included with a more detailed design will not be included as part of this scope of work.

Roundabout (RAB)

PSE will also prepare an alternative to show a RAB. Plans for the RAB alternative will place a preliminary RAB layout at the intersection for the purpose of identifying impacts to know utilities and impacts to adjacent properties. Pedestrian facilities will be considered for determining impacts to adjacent properties, however this scope of work does not include a detailed, ADA compliant design.

Our findings will be presented to the CITY in a technical report describing the permit process for all alternatives, including Whatcom County permits. In addition, we will prepare a rough order of magnitude construction cost estimate (4 total), as well as identify potential right-of-way needs to assist the CITY with project budgeting.

STORMWATER INVESTIGATION

PSE will review the stormwater implications for each alternative. PSE will perform preliminary stormwater modeling to determine approximate sizes of stormwater facilities. Locations for the stormwater facilities will be shown on the conceptual plans. PSE will review existing drainage mapping and determine existing flow paths and potential outfall locations. One site visit is assumed.

PSE will also coordinate with the CITY to evaluate the possibility of utilizing the existing regional stormwater facility.

A formal stormwater report will not be provided under this scope of work.

COUNTY COORDINATION

Our civil engineering department will meet with the CITY and Whatcom County (COUNTY) personnel to review the project and determine permitting requirements, lead agency, and review design standards. This scope of work assumes an initial and follow up meeting with the COUNTY.

The CITY has indicated its intent to install a 'Reduced Speed Limit Ahead' sign within the jurisdictional limits of the COUNTY. PSE shall prepare a memorandum of recommendation, including an exhibit

identifying the proposed sign location. Upon completion, PSE shall coordinate with the CITY to present the recommendation to the COUNTY. Responsibility for obtaining final approval from the COUNTY shall rest solely with the CITY.

SCHEDULE, TERMS AND BUDGET

We are prepared to begin our services upon your authorization to proceed. We propose to accomplish our services on time and materials, not-to-exceed basis according to the attached scope and budget spreadsheet. It should be noted that all UAS (Unmanned Aerial System) work to be performed as part of this project is subject to schedule delay due to adverse weather conditions (high winds, rain, snow, hail, sleet, fog, thunder and/or lightning) which may in turn be cause for potential delays in project timelines.

We appreciate the opportunity to submit this proposal and look forward to working closely with you on this project. Please call if you have questions regarding this proposal.

Thank you again for your consideration.

Sincerely,
Pacific Surveying and Engineering, Inc.

Jeff Vander Yacht, P.E.
Engineering Manager and Principal

I accept the proposed scope of work and cost estimate provided in this proposal (attached).

_____	by _____
<i>Organization</i>	<i>*Signature</i>
_____	by _____
<i>Date</i>	<i>Name (printed)</i>

*Individual with contracting authority and responsibility for payment to Pacific Surveying and Engineering Services.

Proprietary Notice: The contents of this document are proprietary to Pacific Surveying and Engineering Services and intended solely for use by our clients to evaluate Pacific Surveying and Engineering Services' capabilities and understanding of project requirements as they relate to performing the services proposed for a specific project. Copies of this document or its contents may not be disclosed to any other parties without the written consent of Pacific Surveying and Engineering Services. In the event of any inconsistency with this outline and the General Provisions of the contract, the General Provisions shall control.

		Pacific Surveying and Engineering						
TASK ITEM	Principal Surveyor \$210	3-Person Crew \$325	Senior CAD \$155	UAV Pilot \$205	Principal Engineer \$210	Senior Engineer \$190	Engineer Technician \$135	BUDGET
LAND SURVEYING								
Boundary Research, Title Review	2	0	4	0	0	0	0	\$1,040
Easement Research	2	0	4	0	0	0	0	\$1,040
Field Surveying (Targets, RW)	0	10	0	0	0	0	0	\$3,250
Drone Flight / Planning	0	0	0	8	0	0	0	\$1,640
UAS Ortho Processing	0	0	0	8	0	0	0	\$1,640
Base Map Drafting	2	0	16	0	0	0	0	\$2,900
PLS Review	2	0	0	0	0	0	0	\$420
Subtotal								\$11,930
CIVIL ENGINEERING								
Meetings and Correspondence (2 total)	0	0	0	0	8	4	0	\$2,440
Site Visit (1 total)	0	0	0	0	4	4	0	\$1,600
Left-Turn Lane and Right-Turn Lane/Pocket	0	0	0	0	4	16	0	\$3,880
Three-Way, Stop Controlled Intersection	0	0	0	0	2	6	0	\$1,560
Signalized Intersection	0	0	0	0	2	8	0	\$1,940
Roundabout	0	0	0	0	4	24	0	\$5,400
Cost Estimates	0	0	0	0	8	16	0	\$4,720
Stormwater Investigation	0	0	0	0	16	32	0	\$9,440
Technical Report	0	0	0	0	6	8	0	\$2,780
County Coordination	0	0	0	0	4	8	0	\$2,360
Subtotal								\$36,120
INCIDENTAL EXPENSES								
Title Reports (10)								\$5,000
Subtotal								\$5,000
TOTAL BUDGET								\$53,050