

<b>Development Engineering</b>	Development Engineering provides the necessary designs, layouts and plans needed to meet project specifications and jurisdictional requirements.	<b>Public Meetings</b>	Public Meetings require planning, preparation and presentation by industry experts who are advocates of both developers and the community.
<b>Site Plan Design</b>	Site Plan Design reviews every aspect of a proposed project and site in order to maximize resources while minimizing cost.	<b>Land Planning</b>	Land Planning focuses on creating unique solutions to utilizing land in ways that are beneficial to the community and developers.
<b>Flood Plain Services</b>	Flood Plain Services allow property owners to petition for amendment or change to FEMA flood maps by providing evidence that the property or buildings are above flood plain.	<b>Survey Services</b>	Survey Services provide the basis for projects by accurately locating and recording the site's unique characteristics for use in every step of the project.
<b>Development Design</b>	Development Design is the interactive process of working with a Design Team to create developments that meet the needs of end users.	<b>TESC Services</b>	TESC Services monitor the drainage, erosion and water quality of project sites in order to protect the environment and keep projects moving.
<b>Project Management</b>	Project Management gives clients one contact who manages all areas of a project in order to ensure consistent, on time and on budget results.	<b>Land Development Consulting</b>	Land Development Consulting is the expert knowledge and guidance needed for clients to stay informed in order to make key project decisions.
<b>Development and Project Analysis</b>	Development and Project Analysis allows banks, financial institutions and developers to evaluate special asset properties for value and potential.	<b>Construction Services</b>	Construction Services gives contractors the Survey, TESC, water quality and coordination services needed for success during the construction phase.
<b>Feasibility Studies</b>	Feasibility Studies provide developers with the details and background needed to make important decision throughout their project.	<b>Development Permitting</b>	Development Permitting is the process of getting all necessary jurisdictional approvals needed to fulfill the project scope.

**Y o u r   L a n d   D e v e l o p m e n t   S o l u t i o n**

The Abbey Road Group Land Development Services Company is known throughout local jurisdictions for our consulting services, our superior expertise, and our understanding and facilitation of the entire development process. We use innovative approaches to deliver turn-key projects, offer customized client solutions and deliver projects on-time and within budget. We specialize in being an advocate and steward of our client's real estate assets.

**Mission Statement**

"The Abbey Road Group Land Development Services Company serves our public and private communities by providing innovative and realistic solutions to meet their land development needs."

**Core Purpose**

"Creating the Communities of Tomorrow, Today!"

**Core Values**

We Care About People • Servant Leadership • Doing Things Right • Doing Right Things

# DEVELOPMENT ENGINEERING



Abbey Road Group Land Development Services Company, LLC  
 PO Box 1224, Puyallup, WA 98371  
 Phone: 253-435-3699 Fax: 253-446-3159  
 www.abbeyroadgroup.com

# DEVELOPMENT ENGINEERING

## Development Engineering

Development engineering is the process of combining data from multiple sources in order to prepare construction plans and exhibits used to obtain required permit approvals.

The process begins with reviewing site information, coordinating with the client or developer and the jurisdiction, in order to determine a plan of action for the project, known as the **scope of work**. This scope provides an overview of the intention or vision for the project, allowing all parties to work toward a common goal. The engineer coordinates with the client, project manager, jurisdiction and subconsultants in order to prepare a comprehensive set of construction plans. These plans are used for permit submittal throughout the development process.

The development engineer evaluates the site's grading, storm-water ponds and utilities, and prepares construction drawings to meet the intent for the development based on the jurisdiction's requirements. The engineer also reviews incoming plans and reports from subconsultants (such as geotechnical engineer and traffic) to ensure that plans are consistent and that drawings correspond as needed.

The engineer can also produce documents such as construction cost estimates, technical reports, environmental remediation plans, earthwork quantity figures, flood plain analysis, basin studies and more.



## The Abbey Road Group Advantage

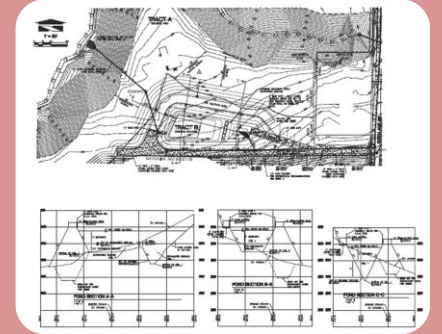
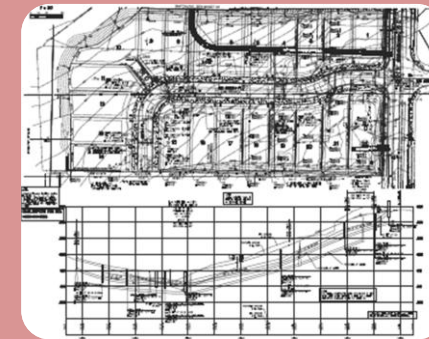
The Abbey Road Group offers complete development-engineering services to meet all of your land-development and permitting needs. By providing these services in-house, Abbey Road is able to provide clients with increased value and efficiency by designing from a mutual scope of work which decreases cost to our clients. This team approach quickly and efficiently provides necessary outcomes and deliverables. Our engineering team works with clients, project managers and jurisdictions to ensure that delivered drawings are prepared to the highest standards and meet the project's needs and the client's vision.

Our licensed professional engineer provides civil-engineering design and consulting services during all phases of your development. Services include planning and design of preliminary concepts to final grading, TESC, storm drainage (detention and water quality), road design, sanitary-sewer design, water design and franchise utility designs as required by the local jurisdiction and/or utility district. In addition to quality design work, our team provides the supporting reports, exhibits and calculations necessary for cost-effective project design.

Let the development engineering department at the Abbey Road Group provide more value for your development dollar while helping you to design your project!

## Low-Impact Development

We also specialize in utilizing **Low-Impact Development (LID)** initiatives in order to enhance the natural environment while decreasing development costs. By taking advantage of LID techniques (such as using existing natural resources), we are able to mitigate erosion, flooding and water-quality issues before they become development problems. Our ecologically friendly methods improve land while protecting water and air quality, and promote the livability of the development. We utilize the existing environment and features of the ecosystem in conjunction with general site planning and engineering techniques in order to create well-rounded designs that are beneficial to the client, the jurisdiction and the community as a whole.



### Engineering services for your land-development projects include:

- Commercial facilities
- Commercial, retail and business parks
- Complex sensitive areas
- Industrial facilities
- Large-scale transportation
- Mixed-use development
- Multi-family development
- Public works
- Residential subdivisions
- Single-family homes
- WSDOT plans

### We offer a diverse and comprehensive range of development and engineering services for both public works and private development.

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| <ul style="list-style-type: none"> <li>• As-built drawing preparation</li> <li>• As-built survey map preparation</li> <li>• Bid-selection process</li> <li>• Bond preparation and recovery</li> <li>• Clearing and grading permits</li> <li>• Community meetings</li> <li>• Construction specifications</li> <li>• Development-cost estimating</li> <li>• Drainage-basin studies</li> <li>• Earthwork quantities</li> <li>• FDC/fire underground permits</li> <li>• Feasibility studies</li> <li>• Fire-hydrant permits</li> <li>• Flood-plain analysis</li> <li>• GIS map preparation</li> <li>• 3D grading-plan design &amp; permits</li> <li>• Horizontal control plan</li> <li>• Land-development consulting</li> <li>• Land reclamation</li> <li>• Level 1 downstream-drainage analysis</li> </ul> | <ul style="list-style-type: none"> <li>• Low-Impact Development (LID) storm water design</li> <li>• NPDES permits</li> <li>• Permit expediting</li> <li>• Pothole analysis</li> <li>• Pre-application submittals</li> <li>• Preliminary engineering designs</li> <li>• Preliminary plat map</li> <li>• Preliminary site design</li> <li>• Preliminary-utility plan design</li> <li>• Project-coordination meetings</li> <li>• Public hearings</li> <li>• Pump stations</li> <li>• Right-of-way use permit &amp; dedication</li> <li>• Road-frontage plan design</li> <li>• Road-plan design</li> <li>• Sanitary development agreements</li> <li>• Sanitary sewer-pressure main design</li> <li>• Sanitary sewer-main design &amp; permits</li> <li>• Sanitary side-sewer permit</li> </ul> | <ul style="list-style-type: none"> <li>• Sight-distances studies</li> <li>• Site-development permit applications</li> <li>• Site-engineering permits</li> <li>• Site-pavement plan design</li> <li>• Site-plan design</li> <li>• Site structural-wall plan design</li> <li>• Slope analysis</li> <li>• Storm-drainage analysis</li> <li>• Storm-drainage plan design &amp; permits</li> <li>• Storm-drainage vault design &amp; permits</li> <li>• Storm-Water Pollution Control Plans (SWPPP)</li> <li>• Technical information report</li> <li>• TESC plan design</li> <li>• Traffic-control plans</li> <li>• Tree-retention plans</li> <li>• Value engineering</li> <li>• Water-development agreements</li> <li>• Water-main design &amp; permits</li> <li>• Water-service meter permit</li> </ul> |
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