



# FLOOD HAZARD APPLICATION

Community & Economic Development

City of Arlington • 18204 59<sup>th</sup> Avenue NE • Arlington, WA 98223 • Phone (360) 403-3551

APPLIANT			
Name:			
Address:			
City:	State:	Zip:	Phone:
Email:			

Project Name: \_\_\_\_\_

Project Address / Location: \_\_\_\_\_

Description of Project: \_\_\_\_\_

\_\_\_\_\_

Value of Improvements: \$ \_\_\_\_\_ Existing Structure Assessed Value: \$ \_\_\_\_\_

Community No.	Panel No.	Suffix	FIRM Zone	Base Flood Elevation	Survey Datum	Source of Flood Hazard Information
				_____	<input type="checkbox"/> NGVD 1929 <input type="checkbox"/> NAVD 1988	<input type="checkbox"/> FIRM _____ (date) <input type="checkbox"/> Other _____

Project Includes:

Buildings:

- New habitable structure.
- Substantial Improvement to a habitable structure. Original date of construction: \_\_\_\_\_
- Non-substantial improvement to a habitable structure. Original date of construction: \_\_\_\_\_

Site work/grading:

- Floodplain fill is proposed that will affect floodwaters.
- Clearing with vegetation removal or other land disturbing activity that Impacts habitat within the riparian habitat zone.

**Please complete Page 2 and provide plans, habitat assessment, and supporting documentation.**

Flood Hazard Permit is not required if activity is exempt from flood hazard permitting per AMC Chapter 20.64.250 and also from conducting a Habitat Assessment for a floodplain development per the City's Endangered Species Act (ESA) guidance. City staff will make determination on exempt status.

Building and/or site improvements described above shall be constructed in compliance with the City's Flood Hazard Code. Failure to construct buildings at the required elevation may result in code enforcement actions and inability to obtain certificate of occupancy. A flood elevation and/or flood proofing certificate may also be required and is not approved by this permit.

I certify that the information on this application/permit represents my best efforts to interpret the data available. I understand that any false statements may be punishable by fine or imprisonment under 18 US Code, Section 1002 and AMC.

Signature \_\_\_\_\_ Print Name \_\_\_\_\_ Date \_\_\_\_\_

## CERTIFICATION

The attached technical data demonstrates that the proposed project \_\_\_\_\_ meets City of Arlington flood hazard mitigation requirements in Chapter 20.64, Arlington Municipal Code. Mitigation is achieved as follows (attached additional documentation as appropriate):

Flood Hazard Area	Analysis Methodology	Description of Mitigation (include reference to documentation)
<b>1. FEMA FLOODWAY</b>		
No impact to 100-year flood elevations, floodway elevations and floodway widths (no encroachments or obstruction of floodwaters)	<input type="checkbox"/> N/A (not in floodway)	
<b>2. 100-YEAR FLOODPLAIN AND ASSOCIATED RIPARIAN BUFFER ZONE</b>		
Compensatory floodplain storage provided (no net fill)	<input type="checkbox"/> N/A (no fill proposed)	
No reduction in floodplain conveyance, both onsite and on adjacent properties, during 100-year flood event ("zero-rise" floodplain)	<input type="checkbox"/> N/A (not in conveyance area)	
Habitat Assessment shows no adverse impacts to habitat functions for species listed under the Endangered Species Act	<input type="checkbox"/> N/A (exempt from assessment)	

Certification is required if fill or other non-structure site improvements cause significant displacement or blockage of floodwaters project, thereby requiring analysis and evaluation of mitigation. This is to certify that I am a duly qualified Professional Engineer licensed to practice in the state of Washington, and the above is based hydrologic and hydraulic analyses performed in accordance with standard engineering practice.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Engineer

\_\_\_\_\_  
Printed Name

Seal:

\_\_\_\_\_  
Company

\_\_\_\_\_  
Address

**TO BE COMPLETED BY ADMINISTRATION/BUILDING DEPARTMENT**

**Administrative:**

1. The applicant understands that an on-site inspection is required at the time of completion of the lowest floor and/or lowest horizontal supporting member is in place.
2. At the time of inspection, a certified **Elevation Certificate** using a current FEMA Form 81-31 and is required to be on-site and the original on file in the Inspection Department Office.
3. If for any reason elevation does not comply with the required height above BFE (Base Flood Elevation) alterations will be required to be made before continuing construction.
4. A Final Inspection is required on the structure after the building is completed and ready for occupancy. The benchmark is to be left on site until the development is completed at that location.
5. Provide "As Built" Flood proofing certification, if required, by a registered professional engineer.
6. Applicant is responsible for acquiring (**required and approved**) Local, State, or Federal permits prior to the start of construction.

**Attachments: (Check and provide all that apply)**

- Site Plan required showing buildings and improvements, flood zones, base flood elevation (a completed FEMA Elevation Certificate is required for each structure).
- Building flood proofing (FEMA Flood proofing Certificate required) plans certified by registered architect or professional engineer. (Required for non-residential flood proofing in lieu of Elevation Certificate).
- Building elevation plans by registered architect or professional engineer (required for elevated construction).
- \* An "Approximate" zone elevation determination by professional land surveyor or registered professional engineer and submitted on a FEMA Elevation Certificate. Exhaust all resources (TVA, USACE, ALDOT, etc.) to establish BFE for areas where Base Flood Elevation has not been determined by FEMA.
- "No-Rise/No-Impact" certification by registered professional engineer. (Required for development in floodway to include hydraulic and hydrologic analyses supported and submitted on FEMA Form MT-2).
- "V" Zone Certification by registered professional engineer. (Required for coastal construction in areas identified on FIRM as Zone V, VE, or V1-30).
- \* Complete Increased Cost of Compliance Coverage Checklist, if applicable, and attach to this permit.

**Floodplain Administers Signature:** \_\_\_\_\_  
**Date:** \_\_\_\_\_

- APPROVED**                       **DENIED**                       **CONDITIONAL**

**Comments relating to condition approval: (Attach additional comment if necessary)**

# FLOOD HAZARD SUBMITTAL REQUIREMENTS

## CITY OF ARLINGTON

The following forms that will be required for a permit submittal are available on the Community & Economic Development Department webpage:

- Flood Hazard Application
- FEMA/ESA Habitat Assessment; per FEMA guidance current edition
- FEMA Elevation Certificate and Instructions (required after start of construction)

### A. General Requirements

1. No land within the areas of special flood hazard shall hereafter be subdivided or short subdivided, improved, filled, graded or cleared; nor shall any structure, including manufactured homes, be constructed, reconstructed, substantially improved, relocated, or erected on such lands unless the person(s) responsible for such improvements shall first obtain a Flood Hazard Permit for such action in accord with the provisions of Arlington Municipal Code Chapters 20.64.
2. The areas of flood hazard include those identified on the latest version of the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM), or subsequent floodplain information prepared by the City to show updated flood hazard information, or on site-specific studies if required for development application purposes. Publicly available flood hazard information is available from the Permit Center and Public Works Engineering.
3. A Habitat Assessment Report is required as part of project permitting to help project proponents and government agencies identify and address potential impacts of a proposed *development on protected areas* that have potential to adversely affect habitat functions for species listed under the Endangered Species Act (ESA). For the purposes of this assessment, "ESA listed species" include any species listed as endangered, threatened, or being considered for listing, and have been documented to be present in streams near and adjacent to the project site. Refer to FEMA Floodplain Habitat Assessment and Mitigation Regional Guidance for the Puget Sound Basin.

### B. Required Analysis Methods

1. When analysis is required. Projects that displace floodwaters require an engineer's certification that compensatory storage and no reduction in floodway conveyance will result.

Examples of projects exempt from the compensatory storage and conveyance certification analysis requirement include, but are not limited to:

- Projects in the floodplain that do not involve any activity below the base flood elevation, such as a second story addition (an elevation certificate may still be required, however).
- Activities that do not involve re-contouring of ground or new fill, such as an on-grade driveway. New or improved structures in the flood fringe (i.e., away from flowing flood water), where no fill is proposed and adequate foundation openings are provided.
- New or improved structures constructed on flow-through foundations or pilings where no fill is proposed.

The City will verify that the exemption is valid before a permit is issued.

2. **Compensatory Storage Required.** Development proposals shall not reduce the effective base flood storage volume of the floodplain. Grading or other activity which would reduce the effective storage volume must be mitigated by creating compensatory storage either on-site, or approved adjacent off-site location. The compensatory storage must be hydraulically connected to the source of floodwaters and excavated at an elevation at or below the elevation of the filled storage that is being compensated.
3. **No Reduction in Floodplain Conveyance.** Development proposals shall not reduce the hydraulic capability of the floodplain on-site to convey floodwaters through the property during the base flood event. No rise in base flood elevations is allowed on adjacent properties. Providing this compensatory conveyance capacity can be done in conjunction with the compensatory storage, either on-site or off-site.
4. **Floodplain Hydraulic Study.** Compliance with the compensatory storage, compensatory conveyance requirements, and other requirements of the Arlington Municipal Code Chapter 20.64 shall be documented in a floodplain hydraulic study prepared by a licensed civil engineer registered in the state of Washington. The following methods shall be used to assess impacts and required mitigation:
  - a. Base flood information, including flood magnitudes, shall be consistent with the latest Flood Insurance Study, or with subsequent reports and data furnished to the applicant by the City. The applicant should verify these assumptions, and whether hydraulic models that represent the current base flood mapping are available, with the City.
  - b. The floodplain hydraulic study shall include site topographic mapping, plans and specifications for proposed grading and structures, surveyed cross-section data and graphs, flood profiles, model input and output data, and any other information necessary to document modeling assumptions, conditions and conclusions. If requested, floodplain study submittals shall be accompanied by electronic copies of floodplain models and topographic maps.
  - c. Acceptable modeling methodologies for calculating floodplain conveyance impacts and mitigation are described in Table 1. Alternative methods may be approved by the City.

**Table 1. Acceptable Modeling Methodologies**

Activity	Modeling Methodology
1) No impact: All activities not causing obstruction of floodwaters or fill, such as vegetation removal or planting, building improvements that do not increase footprint, maintenance to restore an original permitted condition, etc.	No modeling required.
2) Minor grading or structures: Under 10 feet of obstruction width or less than 2 feet of fill, not to exceed 100 square feet of total obstruction under base flood.	Hand-computed conveyance (K) calculation assuming no change in water surface elevation and using appropriate Mannings "n" value.
3) Major grading or structure: Activities that do not meet the definitions of 1) or 2).	Step-backwater computer model such as HEC-2 or HEC-RAS

C. Document and Plans Submittal

The following documents and plans shall be provided by the applicant at the time the permit application is filed with the City:

1. A complete legal description of the property; parcel number, lot number(s) and name of

platted subdivision; or the tax lot number assigned by the County Assessor's Office, together with the Section, Township and Range Number.

2. A topographic survey of the property prepared by a licensed surveyor, with sufficient scale (1"=20') and contour interval (2') to adequately assess variations in the ground surface, and based on the City of Arlington datum (NAVD88).
3. Compensatory Storage and Floodplain Conveyance Design. The grading plan shall identify description, location and volume of compensatory storage provided, and features of floodplain conveyance facilities. Calculations and analysis methods shall be documented, as required in Section B (above), in the floodplain hydraulic study prepared by a licensed civil engineer registered in the state of Washington
4. A design of site stormwater drainage in compliance with Chapter 13.28 AMC (if required).
5. Habitat Assessment.
6. Two sets of plans, profiles, sections or sketches, drawn clearly and legibly, showing pertinent distances, dimensions, contours, elevations and details.
7. Permit application.

D. Elevation Certificate

1. A preliminary elevation certificate shall be completed and submitted to the City at the time of first floor construction.
2. A final elevation certificate shall be submitted at completion of construction.
3. Elevation certificates shall be completed by or under the supervision of a Washington State Registered Professional Surveyor. Per state law, a licensed Engineer cannot sign an elevation certificate.
4. The City shall approve preliminary and final elevation certificates. No acceptance or occupancy shall be granted prior to submittal of the as-built elevation certification.

E. Other Permits

The City's approval of this application and permit does not grant approval for drainage work, grading or crossings that may affect streams or wetlands. Contact the City for more information on other permits that may be required for the project.

F. Review and Approval

1. Your application when completed on the forms provided by the City, together with required materials described above, will be reviewed by the Designated Official, and, when appropriate and necessary, by other public agency officials, engineers, and persons. Their recommendations will be forwarded to the designated official who will examine, approve or reject drawings, plans, sketches or floodplain analyses for any proposed improvement.

The approved application, and approved plans will represent the permit.