DESIGN REQUIREMENTS

Community & Economic Development
City of Arlington • 18204 59th Avenue NE • Arlington, WA 98223 • Phone (360) 403-3551

This brochure is intended to provide detailed information regarding plan preparation for civil review.

STANDARDS TO BE FOLLOWED

Your project may involve coordinating with the City of Arlington, City of Marysville, and/or Snohomish County. These jurisdictions have different engineering standards. Whose Standards and Specifications should be followed? The rule of thumb is as follows:

- If the project is located in the City of Arlington and served by the City of Arlington Water Utility and Sanitary Sewer System, the applicant is required to have a Professional Engineer, licensed in the State of Washington, prepare complete civil plans including utilities in accordance with the City of Arlington Standards and Specifications.

- If the project is located in the City of Arlington and served by Marysville Water and Sewer System, the applicant is required to have a Professional Engineer, licensed in the State of Washington prepare civil plans including streets, storm drainage, landscape, etc., in accordance with the Standards and Specification of the City of Arlington. Water and sewer plans shall be in accordance with the Standards and Specifications of the City of Marysville. Civil plans shall be submitted to the City of Arlington for review, water and sewer plan shall be submitted to the City of Marysville for review. Copies of the approved Marysville water and sewer plans shall be submitted to the City of Arlington prior to the civil plans being approved.

- If the project is located in the City of Marysville or unincorporated Snohomish County and is served by City of Arlington Water Utility, (sewer is not available outside of City limits) the applicant is required to have a Professional Engineer, licensed in the State of Washington, prepare the water plans in accordance with the City of Arlington Standards and Specifications. The plans shall be submitted to the City of Arlington for review and approval.

DRAFTING REQUIREMENTS

Drafting Software - Plans shall be prepared using AutoCAD™ Release 2000 or newer. Hand drawn submittals (including corrections or alterations) and pasted pieces will not be accepted.

Drafting Standards/Symbols – Drafting standards and symbols shall conform to Washington State APWA Chapter CAD Standards.

Title Sheet/Title Block – The title sheet shall include general project information.

Standard Plan Sizes - All site/civil plans shall be on 22”×34” paper.

Type of Paper – Construction plan submitted to the City for review and approval should be on standard drafting paper. As-built plans submitted to the City for review should be on standard drafting paper as well as the final as-built plans.

Text Font/Size – Text font shall be SIMPLEX font using AutoCAD. Text identifying existing features shall be 0.08" in height, text identifying street names shall be 0.24" in height, and text for instructions and callouts for proposed facilities shall be 1/8” (0.125") in height.

Ink and Screening – Plans shall be black ink prints. Screen the base map which shows existing improvements. Final as-built plans shall be printed directly on drafting paper (no hand correction, “sticky-back”, or pasted pieces).

Plan Precision – Plans shall be prepared in such precision and in such details that as to permit the convenient layout in the field for construction and other purposes within a degree of accuracy acceptable to the City.

Engineer’s Seal – Place the Professional Engineer’s Seal, original signature and date in the title block on each plan sheet.

Surveyor’s Seal – Place the Professional Surveyor’s Seal, original signature and date in the title block on the survey control plan.

North Arrow – Draw the plan so that the north arrow points to the top of the sheet whenever possible. Otherwise, the north arrow shall point to the left.

Vicinity Map – Include a vicinity map on the title sheet to show the location of the project. Show the Arlington Municipal Airport in the vicinity map if possible.

Survey Datum – Use NGVD88 as vertical datum with benchmarks. To convert from NGVD1929 to NAVD88, add 3.72 feet. Horizontal coordinates shall be Washington State Plane North Coordinates.

Locations and Dimensions – For all existing and proposed improvements, locate and show dimensions to City of Arlington survey monuments, monument lines, or street center lines. Locations must be identified by stationing and offsetting from these control lines.

Scale – The horizontal scale for plan and profile sheets shall be 1” = 10’, 1” = 20’, or 1” = 30’. The vertical scale for profiles shall be 1” = 5’ (or 1”=10’ for steep slopes). Smaller horizontal scales (1” = 40’ and 1” = 50’) for projects with simple utilities may be used with the City’s approval.

Features to be Included in Plans - All existing utilities, improvements and topography determined necessary in the project scope shall be illustrated in the drawings.

REQUIRED SITE AND TOPOGRAPHIC INFORMATION

Existing contours shown as dashed lines at a minimum of 2-foot intervals. Also show enough topographic details offsite to resolve questions of slope, setbacks, drainage, etc.

Proposed contours, shown as solid lines, at the same interval as existing contours.

Show onsite benchmark location and provide description (example: concrete monument, railroad spike in power pole, top of fire hydrant, etc.).

Property lines shown with bearings and distances and ties to controlling corners or subdivision corners.

Location, size and type of any existing or proposed structures, impervious areas, drainage facilities, wells, drain fields, drain field reserve areas, roads, pavement striping, signs, easements, and utilities on the site. Clearly differentiate between proposed and existing.

Existing and proposed drainage pattern(s), storm drainage and LID facilities, (e. g. ditch lines, culverts, catch basins, french drains, surface drainage or sheet flow arrows). Clearly differentiate between proposed and existing.

Flow arrows on the pipes for all existing and proposed gravity systems including but not limited to storm drainage and sanitary sewer.

Location of all property boundaries, easements, lakes, streams, creeks and structures on site and within 15 feet of site boundaries.

Location of all wetlands, streams, lakes, primary association areas for threatened and endangered species, and erosion hazardous areas and landslide areas on site and those within 100 feet of the site boundaries.

Location of all setbacks and buffers from critical areas.

Location of all existing and proposed native growth protection areas (NGPAs) or critical area protection easements (CAPE) on the site.

Boundaries or limits of site disturbance, clearing, and grading.

Location of any off-site critical area within 100 feet of the project, and boundaries of areas which are farther when affected by the construction.

Map existing wells, drainfields, infiltration systems, rain gardens and drainfield reserve areas located within the distances of concern established by Health District regulations.

Location and type of soils and vegetative cover, before and after development.

Location and type of existing and proposed water quantity control facilities or measures such as detention ponds, rain gardens, roof gardens or other BMP devices. Provide high water elevations for design of infiltration systems, if any.

Detention performance chart to include amount of impervious surface and LID credits taken.

Detention Performance Chart (Sample)

	Volume Storage Requirements (Cu Ft)				Maximum Release Rate (CFS)		
Storm	Dead	Live	Designed	As-Built	Rate	Designed	As-Built
2 year							
10 year							
100 year							

REQUIRED EROSION CONTROL INFORMATION AND PLANS

Location and type of proposed measures Best Management Practice (BMPs) and/for Temporary Erosion and Sedimentation Control (TESC) and/or Stormwater Pollution Prevention Plans (SWPPP).

Details and notes for erosion control.

Identify the Certified Erosion Control Specialist who will be monitoring the site on a regular basis or who is on-call.

General notes, drainage notes and specifications or references to compliance with City of Arlington Municipal Code (AMC), City of Arlington Construction Standards and the WSDOT/APWA Standard Specifications, materials specifications for the construction of the project.

Grading quantities shall be shown on the plan, showing both cut and fill quantities in cubic yards, minimize grading for LID projects.

Grading shall comply with the requirements of the Department of Ecology (DOE), City of Arlington Construction Standards and the Arlington Municipal Code.

Hydraulic Project Approval (HPA) summary information or permit conditions shall be attached or affixed to the plans and specifications, if work is with OHWM of a stream.

All projects which impact WSDOT and Snohomish County right of ways shall secure the necessary permits from either the State or County.

Prominent “Call 811 or 1-800-424-5555 Before You Dig” note.

ROAD INFORMATION

Road Names Identified – Official street / road names in the project shall be used if known. Otherwise, name streets/roads by letters (such as Street A, Road B, Tract C, etc.) in construction plans. Official street/road names shall be included in as-built plans.

Road alignment with 100 foot stationing and stationing at PTs and PCs with bearing and distances on centerlines Establish base line or centerline adequately dimensioned from at least two known reference points or monuments approved by the City of Arlington.

Right of way lines and widths for existing and proposed road and intersecting roads.

Curve data, at least three elements (radius, delta, arc length or tangent distance) on all curves, these may be shown in a curve table.

Show details of frontage improvements on separate plan sheet.

Limits of existing and proposed paving.

Typical roadway sections of existing or proposed roads to be improved plus their functional road classifications and posted/design speeds.

Driveway schedule for a proposed development with three or more access points, including length, width, surface type, and location.

Existing and proposed monumentation.

PROFILE

Original ground lines with elevations at 100-foot stations and at significant grade breaks extended 100’ beyond the property line.

Final road and storm drain profile with stationing, same as horizontal plan extended 100’ beyond property line.

Vertical curve elevation and stations of vertical PI, PC, and PT(s), sag (low point) and crest (highpoint), and grade breaks shown.

Design of roadway extended beyond project 100’ (match existing driveway profiles at road connection).

WATER

Locations and sizes of existing and proposed water lines, meters, hydrants, valves, fittings and services.

Station, offset and a detailed callout of all hydrants, valves and fittings.

For utility crossings which involve vertical offsets in the water line, provide details showing the crossing, including vertical bends, blocking, shackle rods, other restraints and pipe invert elevations.

Fire Hydrants shall be clear of all obstructions, including landscaping or other interfaces, for a minimum of 3’ around the hydrant.

Include water notes in the water section of the plans.

Show existing and proposed water easements.

Show locations of any existing wells or wells to be/are decommissioned.

SEWER

Locations and sizes of existing and proposed sewer lines, manholes, cleanouts, and services.

Station and offset of all manholes, cleanouts and services.

Slope and invert elevations of existing and proposed pipe.

Show the sewer service locations in lineal feet from the nearest downstream manhole.

Use flow arrows on sewer lines to indicate the direction of flow.

Show all utility crossings in plan and profile.

Include sewer notes in the sewer section of the plans.

Show existing and proposed sewer easements.

Show locations of all existing septic systems to be decommissioned.

LANDSCAPING

Location of tree-covered areas and location of individual trees or groups of trees over 8 inches in diameter and specify whether they will be retained or removed.

Building setbacks from all lot lines for all buildings on drawing; include all existing structures within the proposed development and specify whether they will be retained, removed, or relocated.

Building dimensions and square footage for each building.

Parking requirement calculations (spaces required for each type of proposed use, total spaces required, and total spaces proposed).

Parking stall, loading stall, driveway, and aisle dimensions.

Dimensions for each landscape area, including frontage, lot boundary, and vehicle accommodation area landscaping.

Landscape requirement calculations (verify shading of minimum 20% of parking and vehicle accommodation area per AMC Section 20.76.130).

Location and spacing of all plants, trees, and shrubs; a “typical” may be allowed, if prior approval is obtained from the City.

Plant schedule and legend showing scientific and common names for each type of tree, shrub, and ground cover and their quantity, planting size, mature size, and symbol.

Lawn, shrub, and tree planting details.

Required street trees with allowable species and planting detail to include root barrier.

Irrigation plan and details, if required.

Additional information is located in the

City of Arlington’s Design and Construction Standards and Specifications Manual.

The Construction Standards are located on the Cities Website:

Please contact the Community & Economic Development Department at 360-403-3551, if you have any questions.