

Appendix C – PRIVATE ROAD PLANS CHECKLIST

Development: _____ **Site Address:** _____
Applicant's Name: _____ **Engineer's Name:** _____
Adjacent County Road: _____ **Township:** _____, **Range:** _____, **Section(s):** _____

General Preliminary Application Requirements

- Agreement to pay fees must be received before review of the plans will proceed. It is an agreement between interested party (owner, agent, etc.) and Cowlitz County to reimburse the County for costs accrued in reviewing the plans and inspecting the project.
- Draft Road Maintenance Agreement to be submitted with application.
- Drainage/Stormwater Report to be submitted with application.
- Soils/Geotechnical Report to be submitted with application (if necessary).
- Traffic Impact and Access Study to be submitted with application (if necessary).
- Hydraulic Project Approval (HPA) to be submitted with application (if necessary).
- Department of Ecology NPDES Permit Approval to be submitted with application (if necessary).
- Proof of access rights (easement) and their Auditor's File Number (AFN#).

General Plan Requirements

- Registrant Stamp - All plans are required by Washington State law to be stamped, signed and dated by a Washington State-registered Professional Engineer.
- Provide three (3) sets of plans.
- All plans submitted for review shall be either 11" x 17" (10" x 16" plot area) or 24" x 36" (22" x 34" plot area) in size, unless otherwise approved prior to submission.
- All plans submitted from final approval shall be 24" x 36" (22" x 34" plot area) in size, unless otherwise approved prior to submission.
- Letter size shall not be smaller than 0.10 of an inch high.
- A north arrow shall be shown on each plan view sheet of the plans and adjacent to any other drawing which is not oriented the same as other drawings on the sheet.
- Plan and profile may be shown on the same sheet with profiles shown on the bottom half of the sheet.
- All detail drawings shall be included in the drawings.

Scale

- All plans shall be shown at 1" = 20', 40', 50' or 100' horizontally and 1" = 2', 4', 5' or 10' vertically, as approved except structural plans.
- All plans shall show a graphical scale.

All plans shall have a Title Block comprised of the following:

- Project title/development name.
- Sheet Title/Description.
- Sheet Number.
- Registrant Stamp - All plans are required by Washington State law to be stamped, signed and dated by a Washington State-registered Professional Engineer.
- Engineer's name, address, telephone and fax number.
- Plan Issue Date.
- Plan Revision Date(s).

Cover Sheet shall include:

- Vicinity Map(s) clearly identifying the location of the proposed private road with respect to the nearest major street intersection.
- Legend.
- Title Block.
- Project Name/Title.
- Legal description- Section, Township, Range and parcel number(s).
- Auditor's File Number for recorded right-of-way, easement or other agreements between property owners establishing access.
- Property owner's name and address.
- Engineering firm's name, address, telephone and fax number.
- Surveying firm's name, address, telephone and fax number.
- Developer's name, address, telephone and fax number.
- Table of Contents/Plan Index with latest revision date of each plan.
- Table of design elements, including but not limited to road classification, design speed, superelevation (max.), ADT and any additional information deemed necessary by Cowlitz County.

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Standard Construction Notes

Grading and Erosion/Sediment Control Plan:

- Existing structures shall be shown on plans.
- Existing and proposed topography with contours at 2-foot intervals for slopes up to 15% and 5-foot intervals for slopes greater than 15% (1-foot intervals or additional spot grades if site is flat) shall be shown on plans.
- Pertinent information from soils/geotechnical report shown on plans.
- Drainage features identified (streams, wetlands, bogs, springs, seeps, swales, ditches, pipes and depressions).
- Show and specify all temporary and permanent erosion control measures (BMP's).
- Please include construction details for each BMP utilized in the project with all applicable construction notes.
- Information detailing the construction sequence for the installation of all erosion/sediment control measures.
- Specify the type and location of temporary and permanent cover measures (mulch, erosion control nets, blankets, plastic, seeding, sodding, etc.).
- Specify seed mixes, fertilizers and soil amendments to be used and application rates.
- Specify soil cover practices and locations of disturbed areas.
- Specify the location and type of proposed perimeter protection (silt fence, brush barriers, vegetation strips, etc.).
- Specify catch basin/curb inlet protection and show design details.
- Specify efforts to control erosion during wet season construction.
- Provide sufficient conceptual details to convey design intent.
- Show the location of all known streams, water bodies and wetlands.
- Show the location of all known critical areas.
- Provide Erosion and Sediment Control Notes and detail drawings.

Site Improvement Plan and Profile (show appropriate information from Existing Conditions Plan)

- Road names shall appear on plans.
- Provide typical roadway section detail based upon road classification and/or traffic volumes.
- Show all property boundaries, right-of-ways, easements and restrictions.
- Provide adequate stationing and offset distance from existing road centerlines to verify proposed road alignment.
- Show road centerline stationing at 100-foot intervals and 50-foot tic marks, with bearings and tangent lengths adjacent to the centerlines.
- Show stationing of all major features and points of control (i.e., points of curvature, points of tangency, etc.).
- Show all horizontal curve data, including but not limited to curve length, curve delta and curve radius.
- Show existing and proposed topography no less than 50-feet beyond right-of-way, easement or proposed project limits sufficient to identify ditches and cut/fill slope limits.
- Show existing and proposed right-of-way and easements with dimensions.
- Show centerline elevation of proposed road, using the same stationing as in the plan, providing but not limited to elevations, vertical curve data and slope for centerline of road.
- Show original ground lines along the centerline of proposed road, using the same stationing as in the plan.
- Show original ground lines along the centerline of proposed road extending at least 100-feet beyond the perimeter of the proposed road to include any change in contours which would affect the profile of the extension of the proposed road.
- Changes in vertical grade greater than 1% require a vertical curve designed to meet AASHTO Geometric design standards for design speed and ADT.
- Show superelevation diagram (if necessary).
- Cul-de-sac minimum curb radius shall be 50-feet.
- Minimum curb radius for transitions in to cul-de-sac bulbs shall be 25-feet.
- Intersections shall be provided with a landing averaging 4% or less within 20-feet of the edge of the intersecting road.
- Roadside slopes shall be 1.5H:1V for cut slopes and 2H:1V for fill slopes (slopes exceeding standards to be designed according to Geotechnical Engineer's specifications and County Engineer's approval).
- Show typical roadway section showing placement of utilities; existing and proposed drainage and water quality appurtenances; sidewalk ramp locations.
- Road cross-sections at 50-foot intervals along the roadway.

General Utility

- Show all existing and proposed overhead and underground utilities, including but not limited to water, drainage/stormwater, culverts, electric, telephone, cable, gas, septic systems, detention structures, wells, etc.
- Existing structures shall be shown on plans.

Detail Sheets

- All applicable standard detail sheets.
- Any detail sheets necessary to sufficiently convey design intent.