Assurance of Design and Field Review

City of Courtenay

Project name:

Project address or location:

Project description:

The undersigned shall submit this form to the Coordinating Professional Engineer (CPE) to compile. The CPE shall submit the compiled assurance forms to the City as follows:

To: City of Courtenay
830 Cliffe Avenue
Courtenay, BC, V9N 2J7
Attention: Approving Officer
CC: Development Engineer

Date: _____

Part 1 – Commitment for Design

I hereby give assurance that:

1.1 I am a Professional of Record (POR as defined by Engineers and Geoscientists BC) on the above-named project.

1.2 I acknowledge that the City will rely upon the expertise and competency of the Professional of Record in reviewing the application and deciding to approve the subdivision and/or to accept the related works provided by that Professional.

1.3 I have utilized the standards of care, skill, and diligence in accordance with the standards required of a Professional of Record in the Province of British Columbia.

1.4 The parts of the design prepared by me or under my direct supervision as indicated in Schedule A of this form substantially comply in all material respects with all applicable design codes, guidelines, standards, and specifications including but not exclusively those required by the EGBC, City, Province, Federal Government unless otherwise approved by the City, or with any departures thereof described and explained.

1.5 Submission to include rationale for the City's consideration for any alternative solutions and/or variances requested to be approved by the City prior to construction.

Summary of Professional Assurance Responsibilities

The scope of the Professional's responsibility for this Assurance is described in Schedule A of this form. Any checklist submitted to the City is an administrative tool and is not part of, nor incorporated into, this Assurance.

<table>
<tr><td colspan="2">Responsible role(s):</td><td rowspan="5">(Professional seal, signature, and date)</td></tr>
<tr><td colspan="2">Name of Professional:</td></tr>
<tr><td>Email:</td><td>Phone number:</td></tr>
<tr><td>Legal name of firm:</td><td>Permit to practice number:</td></tr>
<tr><td colspan="2">Address:</td></tr>
</table>

Part 2 – Commitment for Field Review

I hereby give assurance that:

2.1 I undertake to be responsible for field reviews for the design prepared by me or under my direct supervision as indicated in the Summary of Professional Assurance Responsibilities (See below)

2.2 I acknowledge that City will rely upon the expertise and competency of the Professional of Record in reviewing the completed works and deciding to finalise the subdivision and/or to accept the related works reviewed by that Professional of Record.

2.3 I will utilize the standards of care, skill, and diligence in accordance with the standards required of a Professional of Record in the Province of British Columbia.

Summary of Professional Assurance Responsibilities

The scope of the Professional's responsibility for this Assurance is described in Schedule A of this form. Any checklist submitted to the City is an administrative tool and is not part of, nor incorporated into, this Assurance.

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Schedule A - Summary of Professional Assurance Responsibilities

Indicate items of responsibility by checking all boxes that apply.

Transportation/Roads/Traffic Signage to be coordinated by the CPE

Design	Field Review	
☐	☐	Identify all proposed road designations and standard cross sections
☐	☐	Notes and/or details on plans provided stating that all cracked or damaged curb and/or sidewalk immediately adjacent to the property frontage shall be replaced prior to Occupancy at the Developer's expense.
☐	☐	An exhibit demonstrating the applicable design vehicles are able to access and turnaround as necessary is provided
☐	☐	Road horizontal and vertical alignment geometry, lines and signs, width and grade of sidewalks and boulevards, alignment and grade of curbs and gutters
☐	☐	Design intersections per TAC Guidelines and City and/or MOTT requirements
☐	☐	Design to consider and accommodate active transportation such as bicycle and pedestrian facilities
☐	☐	Traffic engineering / Transportation Impact Assessment reports as required by MOTT and/or the City
☐	☐	Design the material, grade & size selection for strength of components including concrete, asphalt, base, sub-base and subgrade gravels

(Professionals Seal and Signature)

Hydraulics/Hydrotechnical/Water Resources (Stormwater) to be coordinated by the CPE

Design	Field Review	
☐	☐	Integrated Stormwater Management Plan provided and recommended measures identified (Professional of Record Seal required) Design calculations provided identifying quality and quantity management
☐	☐	Major Flow Path and downstream impacts identified and downtream mitigation measures identified where necessary a. HGL to be shown ensuring flow is maintained within proposed facilities (gutter max. 150mm depth, ditch, etc.) b. Idenitfy minimum freeboard
☐	☐	Sealed stormwater design calculations to include how minimum/maximum grades and velocities of proposed storm sewers will be met/mitigated.
☐	☐	Verified numbering of (municipal system) storm manholes and other storm features on design drawings
☐	☐	Provided note on design drawings stating connections to City infrastructure are done under the supervision of a Professional of Record and witnessed by City staff.
☐	☐	Indicate the location, alignment, size and grade of all pipes and culverts on design drawings
☐	☐	Indicate the spacing of manholes and catch basins on the design drawings
☐	☐	Indicate materials used for pipes, culverts, manholes, catch basins, pipe and fitting joints, service connections on design drawings
☐	☐	Indicate materials used for pipe bedding and backfilling of trenches on design drawings

(Professionals Seal and Signature)

Sanitary/Hydraulics to be coordinated by the CPE

Design	Field Review	
☐	☐	Professional of Record Sealed servicing report to include sanitary calculations to verify the following: a. minimum velocity of proposed sanitary sewers is exceeded, b. maximum velocity of proposed sanitary sewers is within the standard c. design population (or equivalent) and PWWF of any trunk mains or upstream terminal pipe run(s) are provided
☐	☐	Verified numbering of (municipal system) sanitary manholes and other sanitary features on design drawings.
☐	☐	Provided note on design drawings stating connections to City infrastructure are done under the supervision of a Professional of Record and witnessed by City staff.
☐	☐	Indicate location, alignment, size and grade of all pipes in reports and design drawings
☐	☐	Indicate the spacing of manholes on the design drawings
☐	☐	Indicate materials used for pipes, manholes, pipe and fitting joints, service connections on the design drawings
☐	☐	Indicate materials used for pipe bedding and backfilling of trenches on design drawings

(Professionals Seal and Signature)

Water/Hydraulics to be coordinated by the CPE

Design	Field Review	
☐	☐	Provided notes and/or details on plans clarifying lids for proposed meter pits are without a touchreader hole.
☐	☐	Provided note stating watermain connections shall be completed by the Contractor under the supervision of a Professional of Record and witnessed by City staff
☐	☐	Indicate location, alignment, size and grade of all pipes in reports and design drawings
☐	☐	Indicate spacing of hydrants and valves on design drawings
☐	☐	Design details for construction of pumping stations and reservoirs on design drawings
☐	☐	Indicate materials used for pipes, fittings, valves, valve boxes, hydrants, service connections, corporation stops, curb stop and boxes, air valves, stops and drains on design drawings
☐	☐	Indicate materials used for pipe bedding and backfilling of trenches on design drawings
☐	☐	Professional of Record Sealed servicing report to verify hydrant(s) installed in a suitable location to provide coverage over existing properties in accordance with "Water Supply for Public Fire Protection - A Guide to Recommended Practice" by Fire Underwriters Survey (where a Fire Department Connection is provided applicable BCBC requirements must be met)
☐	☐	Conditions and approval must be provided from Ministry of Health for any watermain construction prior to start of construction a. Professional of Record to apply for Permit to Construct to Vancouver Island Health Authority (VIHA) b. Permit to Construct to be received from Vancouver Island Health Authority (VIHA)

(Professionals Seal and Signature)

Geotechnology/Soils to be coordinated by the CPE

Design	Field Review	
☐	☐	Sealed Geotechnical Assessment Report provided for the following: a. steep slope mitigation and requirements b. transportation structures c. pipe bedding, trench slopes
☐	☐	Sealed assurance statements provided by a Professional of Record supporting the implementation of the proposed retaining walls per the EGBC Professional Practice Guidelines "Retaining Wall Design"
☐	☐	Sealed statement by a Professional of Record provided supporting the implementation of any proposed stormwater retention galleries, perimeter drains, retaining wall drains and proposed swale(s) demonstrating the on-site source control facilities function as designed and will not result in downstream breakout.
☐	☐	Sealed calculations and/or details provided to verify proposed Minimum Building Elevation has been compared to and meet or exceed applicable Provincial and Municipal regulations and standards.
☐	☐	Bearing capacity of the soil, Backfill to be provided in a report and referenced on design drawings
☐	☐	The geotechnical assessment report to identify if there is a need for any additional hydrogeological investigation, if required by the City terms of reference a hydrogeology report will be provided

(Professionals Seal and Signature)

Electrical - Street lighting to be coordinated by the CPE

☐	☐	Streetlight analysis complete with a photometric plan of existing and proposed streetlighting levels as well as a table with the average illumination and illuminance demonstrating the design meets current City of Courtenay Bylaw requirements.

(Professionals Seal and Signature)