

Building Grades Design Guidelines

Building grade designs are required to be completed by Professional Engineers, Architects, or project designers per the table below:

| Project Type | Building Grade Designer | Requires Professional Certification |
|---|---|--|
| Building requires the services of an Architect. See this link for more information. Or, a Civil Engineer or Architect is involved in the project. | Professional Engineer or Architect registered in BC | Yes |
| Building will not involve an Architect or Civil Engineer | Building Designer | No, Requires Submission of Supplementary Information Form (Appendix C) |

Note: All building grade designs are required to be based on a survey completed by a qualified & experienced surveyor as outlined in our [Building Grade Survey Standards](#) document.

Design Submission Requirements:

All design files must be in Metric.

Building grade designs shall be submitted in both PDF or hardcopy and electronic CAD format per the guidelines below:

PDF or Hardcopy File:

- See example drawing in [Appendix A](#)
- Must be in metric
- Must show the property lines, lot lines and any widening lines.
- Must show building grades at critical locations with dimensions between them and no more than 20m apart.
- Must be plotted on the designers title block including:
 - Date of design, design checks, and any revisions
 - Name and address of designer
 - Scale, drawing should be plotted at a 1:250 or 1:500 scale depending on the size of the site
 - North arrow, street names, address, and any other necessary site location information
- Per the table above, include professionals seal where required

CAD File:

- See example drawing in [Appendix B](#)
- Submit in AutoCAD, or AutoCAD Civil 3D .dwg formats
- Include all information provided on the PDF or hardcopy drawing, plus:

- The drawing must show the existing survey information, Building Grade Design elevations, and existing street profiles along the top of curb, back of walk, and property line, along with the Building Grade profile.
- The Drawing must be in a DWG Format with a drawing scale of 1:250 horizontal and a vertical scale of 1:10.

Design Guidelines:

The building grade designer should follow the guidelines below as closely as practicable. Variances from the guidelines may require further City review.

General:

- All water landing on City of Vancouver property must remain on City of Vancouver property.
- All water must drain to an acceptable drainage system (ex. Street catchbasins).
- No additional drainage appurtenances such as swales, strip drains, or catchbasins are permitted between the property line and curb line unless approved by the City.

On Streets:

- Building Grades are to be set as close to parallel as possible to the sidewalk or curb grades, while still maintaining a smooth profile.
- The longitudinal grade must maintain a minimum grade of .5% with the fewest brakes in grade possible.
- The sidewalks and boulevards are to be set at 2%-3% down toward the street unless approved by the City.

On Lanes:

- On a centre valley gutter (generally commercial and higher zoned lanes) lane the Building Grades are to be set at 3% higher than the centre valley gutter.
- On a crowned lane (generally residential lanes) the Building Grades are to be set level to 5cm higher than the centre crown.
- The longitudinal Building Grade profile is to be smooth with minimal brakes and maintain a minimum grade of 1%.

Designs that closely meet the City guidelines will help us review and approve the design in a shorter period of time.

If the data submitted does not meet the guidelines above, the City may require further revisions to the design prior to accepting the design.

If you have questions, please contact our Building Grades Technician by email at building.grades@vancouver.ca or by phone at 604-873-7316