

### **Quick Reference Guide: City of Vancouver Utility Design and Drawing Standards**

This reference guide provides a brief overview of third-party utility design and drawing standards in the City of Vancouver (CoV). It is not a comprehensive list and should only be used as a guide. The complexity of street and underground infrastructure necessitates careful consideration and strict adherence to standards. Additionally, the variability of street and underground spaces often demands nonstandard solutions to address unique requirements.



For design guidelines on third-party utilities, refer to Section 7 of the [Engineering Design Manual](#) (EDM), pages 163 - 201.

For design guidelines and construction standards, including links to the EDM, Construction Specifications, Standard Detail Drawings, and more, refer to the [Design Guidelines and Construction Standards](#) page.

Prior to submitting a utility design to the City of Vancouver, please review the checklist provided below. Detailed information from the EDM can be accessed directly by clicking on the section number in the right column.

✓	Utility Design and Drawing Standards	Check for these Common Issues	EDM Section
<input type="checkbox"/>	GIS Data	<ul style="list-style-type: none"> <li>➤ All utilities and City assets (ex: Streetlighting, Traffic Signals, pending Sewer and Water connections, etc.) are accurately shown. <ul style="list-style-type: none"> <li>▪ All utility layers in the CAD file are turned on.</li> <li>▪ Utilities have been verified (especially FortisBC Gas) with a BC One design call and a field review.</li> </ul> </li> </ul>	<a href="#">2.3.4</a> <a href="#">7.7</a>
<input type="checkbox"/>	Standard Metric Scales		<a href="#">7.6.1</a>
<input type="checkbox"/>	Base Plan		<a href="#">7.6.2</a>
<input type="checkbox"/>	Title Block		<a href="#">7.6.3</a>
<input type="checkbox"/>	Related Drawings	<ul style="list-style-type: none"> <li>➤ Reference drawings (Key Plans, Site Plans, other utility design for joint trenches, etc.) used for the design is the most up to date version.</li> </ul>	<a href="#">7.6.4</a>
<input type="checkbox"/>	Dimensions	<ul style="list-style-type: none"> <li>➤ All utilities are accurately dimensioned and labelled <ul style="list-style-type: none"> <li>▪ Offsets are shown from the centerline of the utility to the nearest property line, with all offsets generally measured from the same property line.</li> <li>▪ For Maintenance Holes and Surface Structures, offsets are shown from the centreline of the utility to the closest property lines, in both directions.</li> <li>▪ Diameters are included in the labels for Gas, Sewers and Water.</li> </ul> </li> </ul>	<a href="#">7.6.5</a>
<input type="checkbox"/>	Profile	<ul style="list-style-type: none"> <li>➤ Profile is provided when utilities are crossing a street or lane.</li> </ul>	<a href="#">7.6.6</a>
<input type="checkbox"/>	Alignment/Utility Corridor	<ul style="list-style-type: none"> <li>➤ Each utility is occupying one utility corridor per street or lane.</li> </ul>	<a href="#">7.3.2</a>
<input type="checkbox"/>	Utility Clearances	<ul style="list-style-type: none"> <li>➤ Standard edge to edge horizontal and vertical clearances are met. <ul style="list-style-type: none"> <li>▪ Minimum horizontal clearance from most utilities is 0.3m, Sewer is 1.5m, Water and Neighbourhood Energy Utility is 1 m.</li> <li>▪ Minimum vertical clearance from utilities is 0.3m.</li> </ul> </li> </ul>	<a href="#">7.3.3</a>  <a href="#">7.6.10</a>

		➤ For non-standard clearances, a note is added on the drawing with rationale requesting approval.	
<input type="checkbox"/>	Maintenance Holes (Standard)	<ul style="list-style-type: none"> <li>➤ Service Box has a circular lid.</li> <li>➤ Maintenance Hole is not placed directly in front of an entrance or walkway to the adjacent property.</li> </ul>	<a href="#">7.3.5</a>
<input type="checkbox"/>	Surface Structures (Non-standard Maintenance Holes, Vaults)	<ul style="list-style-type: none"> <li>➤ Non-standard Maintenance Holes, Vaults (including Junction Boxes) are not placed directly in front of an entrance or walkway to the adjacent property.</li> <li>➤ If in a lane, where possible, the edge of the Junction Box aligns with the edge of the drainage channel to avoid pooling issues.</li> </ul>	<a href="#">7.3.6</a>
<input type="checkbox"/>	Aboveground Structures		<a href="#">7.3.7</a>
<input type="checkbox"/>	Poles, Transformers and Anchors		<a href="#">7.3.8</a>
<input type="checkbox"/>	CoV <a href="#">Construction Specifications</a> and <a href="#">Standard Detail Drawings</a>		<a href="#">7.4.1</a>
<input type="checkbox"/>	Supplementary Information (Special Pavements, Geosynthetics (Peat Areas), Street Trees, Abandoned Plant, Survey Monuments, Areaways, etc.)		<a href="#">7.5</a>
<input type="checkbox"/>	Utility Company Standards	➤ For non-standard methods, clearances, etc., a note is added on the drawing to seek for approval.	<a href="#">7.6.10</a>
<input type="checkbox"/>	Drawing Resubmissions	<ul style="list-style-type: none"> <li>➤ All CoV comments from previous drawing submission are addressed. If a comment cannot be addressed, please provide a rationale.</li> <li>➤ If joint trenching with another utility, design changes have been coordinated with the other utility design(s).</li> </ul>	



For questions related to design and other assets, please contact the Utilities Management Branch (UMB) at [encu@vancouver.ca](mailto:encu@vancouver.ca) or reach out directly to the assigned drawing reviewer. Early and ongoing communication will lead to more productive and efficient outcomes, resulting in shortened permit approval timelines.

### Disclaimer

This reference sheet provides a brief overview of common drawing issues identified during reviews and does not encompass all aspects of utility design and standards. Always refer to the full design manual for comprehensive requirements and consult with UMB for any questions regarding unique circumstances. The decision to conduct a full review of the design by UMB, including input from subject matter experts in sewer, water, electrical, etc., depends on the quality of the design, timeline, City capacity, and other factors.