

Canadian Board of Examiners for Professional Surveyors

Core Syllabus Item

C 10: LAND USE PLANNING AND THE ECONOMICS OF LAND DEVELOPMENT

Syllabus Topics:

Land use planning and its evolution in Canada and its present institutional, administrative and legal arrangements. The social, political, economic, and physical forces in planning and design. Effects of land use planning on property rights. Site analysis prior to planning and design; criteria that are applicable to the design of residential site and subdivision plans. Economic principles and concepts underlying land development decisions: spatial distribution of society, investment concepts, real property taxation. Public participation processes.

Recommended Prior Knowledge and Skills:

C 8: Cadastral Studies

C 9: Survey Law

Learning Outcomes:

In order to fulfill the requirements of this syllabus item, candidates should be able to:

1. Demonstrate a general knowledge of land use planning and utilization.
2. Explain the evolution of land settlement patterns in the various regions of Canada [the Atlantic provinces, Québec, Ontario, the Western provinces, the Territories].
3. Explain the legal and policy environments for regional, municipal and site-specific planning.
4. Explain the purpose of regional plans, official community plans and zoning legislation and the role of the public and other stakeholders in planning processes.
5. Develop the design criteria necessary to undertake a land development design project [evaluate on-site constraints on development; analyze off-site constraints on development; locate and summarize local planning controls; undertake a preliminary environmental assessment of the site; advocate for, or against, a proposed development based on environmental, social, and economic reasoning].
6. Explain how special features and values in an urban community can be protected by building restrictions such as building height/view plane protection and preservation of historic neighbourhood and building character.
7. Explain factors which have to be considered in community design in cold climates, including access to buried services, roadway grades at intersections, road right-of-way width to accommodate snow storage, on-street parking and turning geometry for snowploughs, public transit and public safety vehicles.
8. Explain contemporary planning design strategies for combining issues that have emerged from conventional suburban development.
9. Demonstrate an understanding of the economics of land development.

Essential Reference Material:

Barlowe, R. [1986]. *Land Resource Economics: the Economics of Real Estate*. 4th, Prentice-Hall, ISBN 0-13-522541-8

- BLGDG Ltd. and Associates [1996]. *The Integrated Community: A Study of Alternative Land Development Standards*. report to Central Mortgage and Housing Corporation. no. PE 0207, 106 pp www.cmhc-schl.gc.ca/publications/en/rh-pr/socio/socio030.pdf = 4 pp, January 1997, R&DH socio-economic series issue 30, contact given for full report.
- Condon, P. M., J. Proft, J. Teed, and S. Muir [2002]. *Sustainable Urban Landscapes: Site Design Manual for BC Communities*, University of British Columbia, Vancouver. .pdf, 153 pp <http://www.jtc.sala.ubc.ca/projects/DesignManual.html>
- Condon, P.M., J. Teed, S. Muir, and C. Midgley [2002]. *Sustainable Urban Landscapes: Neighbourhood Pattern Typology*, University of British Columbia, Vancouver. .pdf 40 pp <http://www.jtc.sala.ubc.ca/projects/typology.htm>
- Dewberry, S.O. and L.N. Rauenzahn [2008]. *Land Development Handbook: Planning, Engineering, and Surveying*. 3rd Edition, McGraw-Hill, New York. ISBN13: 9780071494373
- Hodge, G. and D.L.A. Gordon [2008]. *Planning Canadian Communities, An Introduction to the Principles, Practice, and Participants*. 5th, Thomson Nelson, ISBN-13: 978-0-17-625242-7
- Hunter Central Coast Regional Environmental Management Strategy (HCCREMS) [2007]. *Water Smart Practice Notes*, esp. No. 2 Site Planning. all 11 as .pdf via www.huntercouncils.com.au
- Indian and Northern Affairs Canada [2006]. *Your guide to who manages Crown land in the Northwest Territories*, 11 pp <http://www.ainc-inac.gc.ca/ai/scr/nt/pdf/clg-atp-eng.pdf>
- Lynch, K. and G. Hack [1984]. *Site Planning*. 3rd, The MIT Press, ISBN 0-262-12106-9 [ch. 7: Access; 8: Earthwork and Utilities; 9: Housing; 11: Weak Controls, Built Places, Few Resources; app. B: Field surveys, C: Reading aerial photographs, E: Sun angles, G: A site and impact checklist, H: Costing, J: Intersections, K: Earthwork computations, L: Numbers; Bibliography]
- Municipal Program Development Branch [1999]. *Stormwater Management Guidelines for the Province of Alberta*, Alberta Environmental Protection. 196 pp [ch. 1 - 3]. <http://environment.gov.ab.ca/info/library/6786.pdf>
- School of Architecture, McGill University [1993]. *Sustainable Residential Developments: Planning, Design and Construction Principles*. report to Central Mortgage and Housing Corporation. no. 6781E, 186 pp <www.cmhc-schl.gc.ca/publications/en/rh-pr/socio/socio015.pdf> = 4 pp, July 1994, R&DH socio-economic series issue 15, contact given for full report.

Supplementary Reference Material:

- Arendt, R. G. [1996]. *Conservation Design for Subdivisions: A Practical Guide to Creating Open Space Networks* Washington D. C.: Island Press.
- Bently, I., A. Alcock, P. Murrian, S. McGlynn, and G. Smith [1985]. *Responsive Environments: A Manual for Designers*. Oxford: Architectural Press.
- Duany, A., S. Sorlien, and W. Wright [2008]. *SmartCode* (9.2 ed.). Miami: Duany Plater-Zyberl & Co.
- Urban Design Associates [2003]. *The Urban Design Handbook: Techniques and Working Methods*. New York: W. W. Norton & Company.

Steuteville, R., and P. Langdon [2003]. *New Urbanism: Comprehensive Report and Best Practice Guide* 3rd. Ithaca: New Urban Publishers.

Water Sensitive Urban Design in the Sydney Area (WSUD) [2003]. *Water Sensitive Practice Notes*, esp. No. 2 Site Planning. all 13 as .pdf via www.wsud.org

Similar to the HCCREMS water smart practice notes

Low impact urban design and development web site: <http://www.urbanwater.info/>

Articles in the latest *Stormwater Journal* - topics such as stormwater retrofits, BMP selection and working at the neighbourhood level to manage stormwater. See <http://www.stormh2o.com>

A low impact design [LID] manual, well organized and explains the concepts very clearly. <http://www.cityofreno.com/Index.aspx?page=996>

An EPA report that looks at the benefits of higher density development to protect water resources - check out the link below. .pdf version, 46 pp
http://www.epa.gov/smartgrowth/water_density.htm

Sydney (Australia) examples at <http://www.wsud.org/>

Water by design – fact sheet

http://www.healthywaterways.org/wsud_technical_design_guidelines.html

South East Queensland Healthy Waterways Partnership [2009]. *Concept Design Guidelines for Water Sensitive Areas*, version 1, 2009 03, is available as a .pdf, 120 pp, via www.waterbydesign.com.au