



**Engineering
and Parks
Standards
Manual**

Part 0

2024 - September

Introduction

This page intentionally left blank.

0.0 Table of Contents

0.1	REVISIONS	5
TABLE 0.1	REVISIONS	5
0.2	ABOUT THIS MANUAL	7
0.3	HOW TO READ THIS MANUAL	9
0.3.1	PARTS OF THIS MANUAL	9
0.4	ACCESSIBILITY FOR ONTARIANS WITH DISABILITIES	11
0.5	DEFINITIONS	13
0.6	ACRONYMS	17
0.6.1	ACCREDITATIONS AND CERTIFICATIONS	17
0.6.2	AGENCIES AND ASSOCIATIONS	17
0.6.2	PUBLICATIONS AND ACTS	17
0.6.3	PERMITS AND APPROVALS	18
0.6.4	REPORTS AND STUDIES	18
0.6.5	SURVEYING	18
0.6.6	GEOTECHNICAL	18
0.6.7	PAVING	18
0.6.8	DRAFTING	19
0.6.9	STORMWATER	19
0.6.10	INFRASTRUCTURE	19
0.6.11	TRAFFIC	19
0.6.12	UTILITIES	20

This page intentionally left blank.

0.1 Revisions

This Manual will be updated from time to time. Refer to Table 0.1 below for a list of revision dates.

Table 0.1 Revisions

Date	Revised Parts	Notes
2024 - Sep	All Parts	Initial release.

This page intentionally left blank.

0.2 About This Manual

This Manual has been prepared to assist the Owner and/or Consultant in preparing and submitting for review, engineering and landscape drawings with supporting documents for the construction of municipal infrastructure, including roadways, parks and open space, lot grading, storm water facilities, traffic control devices, and street lighting.

The criteria and standards set out in this Manual are considered to be minimum requirements of the Town of Milton and do not relieve the Owner and/or Consultant of the responsibility of submitting a finished product of completed engineering and landscape design and construction to the satisfaction of the Town. Requirements of other agencies that are more stringent than those in this Manual must still be met. All designs submitted for approval must reflect any and all requirements of the engineering reports prepared for the development or project.

If the Owner and/or their representative(s) wish to diverge from the Town's design standards, they must provide the Town with a specific proposal, in writing, prior to making any submission of engineering and/or landscape drawings. Any extra costs associated with designing, installing, operating, and/or maintaining these works shall be deemed at the sole cost of the Owner, unless otherwise approved in writing by the appropriate Town Director or Commissioner. Where applicable, the Town may request an increase in securities for these works. The Owner must maintain all municipal infrastructure in accordance with O.Reg. 239/02 and the Minimum Maintenance Standards for Municipal Highways, as prescribed by the Municipal Act until Assumption.

This Manual applies to all new subdivisions, site plans, and where deemed applicable by the Town, will apply to capital (new-build and reconstruction) projects. Note that all of the Town of Milton's policies, procedures, master plans, and by-laws are applicable.

The Town of Milton has adopted the Accessibility for Ontarians with Disabilities Design of Public Spaces Standards (AODA-DOPSS), Ontario Provincial Standard Drawings (OPSD) and Specifications (OPSS), The Ontario Traffic Manual, and The Geometric Design Guide for Canadian Roads published by the Transportation Association of Canada except where amended as indicated in this Manual.

All construction and maintenance activities shall conform to the Occupational Health and Safety Act.

All new traffic signals must comply with The Uniform Traffic Signal Specifications for Operating Authorities within the Region of Halton, except where amended as indicated in this Manual.

The Town of Milton, at its sole discretion, may modify, add, and delete information in this manual as required from time to time.

This page intentionally left blank.

0.3 How to Read This Manual

This Manual is comprised of several Parts, with each Part containing information that pertains to a scoped portion of the Town's design standards, requirements, and specifications.

0.3.1 Parts of This Manual

Part 0	Introduction
Part 1	Right-of-Ways
Part 2	Subdivisions and Infrastructure
Part 3	Site Plans
Part 4	Grading and Stormwater Management
Part 5	Parks and Open Space
Part 6	Standard Drawings
Part 7	Standard Specifications

This page intentionally left blank.

0.4 Accessibility for Ontarians with Disabilities

The Accessibility for Ontarians with Disabilities Act (AODA) (passed June 13, 2005) is a provincially legislated statute. This law made Ontario the first jurisdiction in Canada to develop, implement, and enforce mandatory standards, which can be applied to private and public sectors. The Design of Public Spaces Standards (DOPSS) Part IV.1, O.Reg. 191/11 applies to new construction and planned redevelopments. The Town of Milton is required to comply with the requirements under these standards as a minimum. As such, proponents using this Manual must also ensure that the design of public spaces meets AODA DOPSS.

This page intentionally left blank.

0.5 Definitions

“**adverse effect**” shall have the same meaning as in the Environmental Protection Act, R.S.O. 1990, c. E.19.

“**appurtenance**” means an accessory item that may or may not be essential to be added to a piece of equipment to ensure its proper function.

“**authorized representative of the Town**” means any Town employee or representative designated by the Town to act on behalf of the Town for the purposes of any applicable By-Law.

“**catchbasin**” means a buried receptacle designed to prevent obstructive material from entering and blocking the sewer and diverts overland water flows into a sewer system. For clarity, a catchbasin may be located on public or private property and may require an easement, including within the rear or side yard of a residential property.

“**connection**” means that part or those parts of any pipe or system of pipes leading directly to the stormwater collection system.

“**Consolidated Linear Infrastructure Environmental Compliance Approval**” or “**CLI-ECA**” means an approval granted by the MECP for a system wide sewage works discharge.

“**Consultant**” means the Engineering Consultant, Landscape Architect, or any other consultant authorized by the Owner to have work carried out in the Owner’s name.

“**Contractor**” means the general construction company retained to complete the engineering and landscape works.

“**corporation**” includes a company, corporation, cooperative, partnership, firm, sole proprietorship, association, society, organization, or any other legal entity that is not an individual.

“**Director**” includes, but is not limited to, the Director, Development Engineering, and the Director, Infrastructure, for the Town and shall include any successor positions thereto as well as any person authorized by said Directors to carry out any of their powers or duties pursuant to any applicable By-Law.

“**discharge**” when used alone as a verb, includes add, deposit, release or emit and, when used alone as a noun, includes an addition, deposit, release or emission.

“**domestic waste**” means any debris, rubbish, refuse, sewage, effluent, discard or garbage of any type arising from a residence belonging to, or associated with a house or use of a house, or residential property, including, but not limited to, garbage, discarded material or things, broken or dismantled things, and materials or things exposed to the elements, deteriorating or decaying on a property due to exposure to the weather.

“**Engineer**” means a professional or firm of Engineers, registered under the Professional Engineers Act of Ontario, employed by the Owner with respect to the matters contained in the agreement.

“**Environmental Compliance Approval**” means an approval granted by the MECP for individual sewage works discharge.

“**groundwater**” means water beneath the earth’s surface accumulating as a result of seepage.

“**individual**” means a natural person.

“**industrial**” means of or pertaining to industry, manufacturing, commerce, trade, business, or institutions as distinguished from domestic or residential.

“**inspector**” means a person authorized by the Town to carry out observations and inspections as prescribed by a By-Law.

“**Landscape Architect**” means a professional registered as a full member with custody of seal, in good standing with the Ontario Association of Landscape Architects, or registered under the Ontario Association of Landscape Architects Act.

“**MECP**” means the Ministry of the Environment, Conservation and Parks.

“**oil and grit separator**” or “**OGS**” means an underground device that captures oils and sediments from stormwater runoff and snowmelt.

“**operating authority**” means, in respect of the Authorized System, the person, entity, or assignee that is given responsibility by the Owner for the operation, management, maintenance, or Alteration of the Authorized System, or a portion of the Authorized System.

“**Owner**” means the registered owner of the subject lands at the execution of the related agreement and all successors in title to such registered owner, including any builders, contractors, servants, employees, consulting engineers, and agents acting pursuant to the agreement.

“**person**” includes a natural person and a company, corporation, cooperative, partnership, firm, sole proprietorship, trust, association, society, organization, or other legal entity.

“**qualified**” means one who, through education and professional designation, in combination with experience in the specific field for which they have been trained, as it relates to the work being assigned, is competent.

“**Region**” means the Regional Municipality of Halton.

“sewage” means any liquid waste containing animal, vegetable, chemical, or mineral matter in solution or in suspension, but does not include stormwater or uncontaminated water.

“sewage works” means any works for the collection, transmission, treatment, and disposal of sewage or any part of such works, but does not include plumbing to which the Building Code Act, 1992 applies; for additional clarity “stormwater collection system” is considered part of “sewage works”

“spill” means a direct or indirect discharge or deposit to the stormwater collection system or the natural environment which is abnormal in quantity or quality in light of all circumstances of the discharge.

“storm sewer” means pipes used for the collection and transmission of stormwater drainage from land or from a watercourse of any combination thereof that is owned, operated or maintained by the Town or over which the Town holds easement rights.

“storm sewer lateral” means the underground storm drainage piping that has been extended from the storm water collection system to a private property.

“stormwater” means water from rainfall, other natural precipitation, drainage, or from the melting of snow or ice.

“stormwater collection system” any works for the collection, transmission, storage, treatment, or disposal of stormwater or runoff, including storm sewers, storm sewer laterals, OGS, stormwater management facilities, or ponds (including Mill Pond), stormwater conveyance channels, culverts, catchbasins, water courses, drainage piping, or other appurtenances, that are owned, operated, or maintained by the Town or over which the Town holds easement rights.

“stormwater conveyance channel” means an open channel, swale, or ditch designed and built for the conveyance of stormwater.

“stormwater management system” means a stormwater disposal system that has been professionally designed, constructed, and maintained such that the rate of run-off from specific blocks of land or lots is controlled to discharge into a municipal storm drainage facility at a reduced flow rate.

“third pipe collection system” means sewage works designed to collect and transmit foundation drainage and/or groundwater to a receiving surface water or dry well.

“Town” means the Corporation of the Town of Milton.

This page intentionally left blank.

0.6 Acronyms

0.6.1 Accreditations and Certifications

A.Sc.T	Applied Science Technologist
CET	Certified Engineering Technologist
CGIA	Certified Golf Irrigation Auditor
CIC	Certified Irrigation Contractor
CID	Certified Irrigation Designer
CLIA	Certified Landscape Irrigation Auditor
CLIM	Certified Landscape Irrigation Manager
C.Tech	Certified Technician
LET	Licensed Engineering Technologist
OLS	Ontario Land Surveyor
P.Eng	Professional Engineer

0.6.2 Agencies and Associations

CH	Conservation Halton
CSA	CSA Group (Formerly: Canadian Standards Association)
DFO	Department of Fisheries & Oceans
ESA	Electrical Safety Authority
HONI	Hydro One Networks Incorporated
IPEMA	International Play Equipment Manufacturers Association
MEA	Municipal Engineers Association
MECP	Ministry of the Environment, Conservation, and Parks
MTO	Ministry of Transportation of Ontario
NDMNR	Ministry of Northern Development, Mines, Natural Resources, and Forestry
NFPA	National Fire Protection Association
OACETT	Ontario Association of Certified Engineering Technicians & Technologists
OALA	Ontario Association of Landscape Architects
OMAFRA	Ontario Ministry of Agriculture, Food, & Rural Affairs
PEO	Professional Engineers Ontario
TAC	Transportation Association of Canada
TRCA	Toronto and Region Conservation Authority

0.6.2 Publications and Acts

AODA	Accessibility for Ontarians with Disabilities Act
DOPSS	Design of Public Spaces Standards
EPSM	Engineering and Parks Standards Manual
MTOD	Ministry of Transportation of Ontario Drawing
NCHRP	National Cooperative Highway Research Program
OBC	Ontario Building Code
OHSA	Ontario Health and Safety Act

OPSD	Ontario Provincial Standards Drawings
OPSS	Ontario Provincial Standards Specifications
OTM	Ontario Traffic Manual
TMSD	Town of Milton Standard Drawing

0.6.3 Permits and Approvals

ECA	Environmental Compliance Approval
-----	-----------------------------------

0.6.4 Reports and Studies

EIS	Environmental Impact Study
FSEMS	Functional Stormwater and Environmental Management Strategy
FSR	Functional Servicing Report
SIS	Subwatershed Impact Study
TIS	Traffic Impact Study

0.6.5 Surveying

BM	Benchmark
IB	Iron Bar
NAD83	North American Datum 1983
ROW	Right-of-Way
SIB	Standard Iron Bar
SSIB	Short Standard Iron Bar
TBM	Temporary Benchmark
UTM	Universal Transverse Mercator

0.6.6 Geotechnical

HPB	High Performance Bedding
SPD	Standard Proctor Density
SPDD	Standard Proctor Dry Density
SPMDD	Standard Proctor Medium Dry Density

0.6.7 Paving

AMTV	Asphalt Material Transfer Vehicle
MRD	Maximum Relative Density
RAP	Recycled Asphalt Product
VTAE	Vacuum Tower Asphalt Extender

0.6.8 Drafting

CAD	Computer Aided Drafting
CADD	Computer Aided Drafting & Design
GIS	Geographic Information System
NAD	North American Datum
UTM	Universal Transverse Mercator

0.6.9 Stormwater

ESC	Erosion and Sediment Control
HGL	Hydraulic Grade Line
HWL	High Water Level
IDF	Intensity, Duration, Frequency
LID	Low Impact Development
NWL	Normal Water Level
OGS	Oil/Grit Separator
SWM	Stormwater Management
SWMF	Stormwater Management Facility
SWMP	Stormwater Management Pond
TSS	Total Suspended Solids

0.6.10 Infrastructure

CB	Catchbasin
CBMH	Catchbasin Maintenance Hole or Catchbasin Manhole
CFI	Curb Face Inlet
CLI	Consolidated Linear Infrastructure
CPP	Concrete Pressure Pipe
CSP	Corrugated Steel Pipe
DCB	Double Catchbasin
DI	Ditch Inlet
DICB	Ditch Inlet Catchbasin
FDC	Foundation Drain Collector
GI	Green Infrastructure
HDPE	High-Density Polyethylene
MH	Maintenance Hole or Manhole
PVC	Polyvinyl Chloride
RYCB	Rear Yard Catchbasin
SDR	Standard Dimension Ratio

0.6.11 Traffic

PXO	Pedestrian Crossover
TCP	Traffic Control Plan

0.6.12 Utilities

CUP Composite Utility Plan
PUCC Public Utilities Coordinating Committee

