

# 2 Procedures for Development

## 2.1 GENERAL

In addition to these Municipal Development Standards, the Town of Lamont has a number of documents that Developers and/or their agents should be fully aware of in advance of undertaking the design of a specific subdivision or project. These documents include:

- Municipal Development Plan – 2007
- Land Use Bylaw – 2017

Together the Town's "Municipal Development Plan – 2007" and the "Land Use Bylaw – 2017" serve to guide future growth and development and put forward a list of permitted and discretionary uses for each land use district which may coincide with specific design parameters.

The Town encourages Developers to initiate early preliminary meetings with Town administration to discuss various land development concepts, proposals and alternative options.

## 2.2 SUBMISSION AND APPROVAL

### 2.2.1 Area Structure Plans, Outline Plans and Supporting Documents

The Developer shall prepare and submit for review and approval an Area Structure Plan (ASP) of the road network, site servicing layouts and landscape improvements for developments completed within new subdivisions. For submission to the Development Authority the ASP will include or be accompanied with Outline Plans showing detailed calculations and layout supporting the means by which the development will be serviced including all proposed right-of-way's, easements, and utility lots.

Conceptual Landscape Plans are to provide an overview of the development indicating community themes, reserve areas, open play areas, pedestrian linkage and facilities including spray parks, playgrounds, gazebos, rest areas and other park amenities.

### 2.2.2 Detailed Engineering Drawings and Specifications and Landscape Plans

Upon acceptance of the ASP and Outline Plans, the Developer shall submit for approval to the Development Authority two (2) sets of full size design drawings and specifications, sanitary sewer, storm drainage and water distribution network diagrams and geotechnical report(s) sealed by a Consulting Engineer registered in the Province of Alberta. All full size drawing and specification submissions need to be accompanied by an electronic duplicate of the same document in PDF format.

The review by the Town is for the sole purpose of ascertaining conformance to the current Municipal Development Standards, Land Use Bylaw and all other Municipal Plans, Master Plans, Standards and Guidelines. Approval to construct does not relieve the Developer of his responsibility for errors or omissions or meeting all requirements of the Municipal Development Standards and other Federal and Provincial Acts and Regulations.

Engineering drawings, diagrams and reports must be sealed by a Professional Engineer registered in the Province of Alberta. Landscape plans are to be submitted with the Engineering Drawings and be signed by the Landscape Consultant, who is a member in good standing of the Alberta Association of Landscape Architects.

Other information required prior to construction:

- Fully endorsed development agreement;
- Geotechnical Investigation;
- Design calculations shall be provided for, but not limited to, the Water Distribution System, Sanitary Collection System, and Stormwater Management;
- A copy of any required approvals from Alberta Environment;
- Tender documents and construction specifications;
- Traffic Impact Analysis if applicable;
- Construction drawings and specifications.

### **2.2.3 Approval by the Development Authority**

The Development Authority shall inform the Developer, within twenty (20) working days after receipt of the detailed design submission, whether or not the Developer's submission has been approved for construction. Should the Development Authority not approve a part of the Developer's plans or proposals, they will be returned to the Developer for revision to the satisfaction of the Town. The twenty (20) working day approval period will begin again on the receipt of any re-submission.

Subsequent design submissions requiring changes to the previous submission shall consist of the following:

- Two (2) complete sets of drawings supplemented with an electronic duplicate in PDF format;
- All submissions subsequent to the first submission shall have highlighted with yellow any changes made by the design engineer which are in addition to "Red Line" revisions to accommodate the changes required by the Town of Lamont.

### **2.2.4 Development Agreement**

Developments within the Town of Lamont that include new (greenfield) subdivision developments, and/or municipal improvements require a Development Agreement. The Town of Lamont will

prepare a detailed draft Development Agreement for review with the Developer. Once the elements of the draft agreement are finalized, a final agreement will be prepared for signature.

The Development Agreement will detail the duties and responsibilities of both the developer and the Town of Lamont in respect to the development. Generally, the Developer will be responsible to either construct, or provide funds to the Town of Lamont for the construction of municipal improvements that will be required for the development.

### **2.2.5 Design Revisions after Approval**

Whenever it is necessary to make changes to the design drawings after they have been approved, two (2) prints of each original drawing affected shall be submitted with the proposed changes shown in red with an electronic duplicate in PDF format, accompanied by a letter outlining the reasons for the required changes. The Engineer will inform the Developer within ten (10) working days after receipt if the proposed changes meet the approval of the Town. One (1) copy of the requested change will be signed and returned, accompanied by a letter authorizing the changes to be made on the original approved detailed design drawings. No changes are to be made to any original approved drawings without following this procedure.

### **2.2.6 Municipal Development Standards Deviation Process**

The Developer shall identify and provide justification for any deviations from the Municipal Development Standards along with their submission.

The Town of Lamont has the ultimate authority to reject and proposed deviations from the current Municipal Development Standards.

A deviation from the Municipal Development Standards will not be considered by the Town without the submission of detailed documentation demonstrating the justification for the deviation and the added benefit to the Town.

### **2.2.7 Approval by the Alberta Environment**

The Developer shall be responsible to obtain Alberta Environment approvals. A copy of all correspondence, and the approval, shall be included in the submissions package to the Town. For the proposed development, Alberta Environment approval is a condition of the development agreement. Obtaining any approvals in no way removes the responsibility of the Developer to comply with the Municipal Development Standards to obtain the Town's approval to construct.

### **2.2.8 Mailing Address and Canada Post - Community Mailboxes**

Mailing addresses for new developments will be determined by the Development Authority with collaboration from the Developer. The Developer is responsible to coordinate community mailbox locations with Canada Post. Proposed locations of community mailboxes are to be shown on all development plans. The Development Authority has final approving authority of all community mailbox locations.

### **2.2.9 Approval by Other Agencies**

The Developer shall submit documentary evidence to the Development Authority that permission has been received from appropriate authorities and utility companies to address pipelines, railways, highways or other facilities. All agreements and approval are to be in place prior to approval to construct.

### **2.2.10 Acts, By-Laws and Standards**

Any reference to Acts, By-Laws and Standards shall be to the most recent edition of each applicable document.

### **2.2.11 Required Drawings**

#### **2.2.11.1 Cover Page**

The cover sheet shall include the following project information:

- Project Name & Reference Number if applicable;
- Description of the location of the project and/or legal description of lands involved in the project;
- Site location (key plan) showing the extents of the development and any offsite improvements;
- Developer's Consultant's logo (if available);
- Developer's name/logo (if pertinent);
- The year of construction.

#### **2.2.11.2 Legend Page**

The Legend page shall contain all symbols with definitions used in the project and an index of all drawings contained in the set.

### 2.2.11.3 Site Plan

This drawing shall include, but not limited to, the following existing and proposed information:

- Property lines;
- Street names, lot and block numbers;
- All easements and right of ways;
- Water, sanitary, storm information (pipes, valves, hydrants, catch basins, manholes, etc.);
- Curb lines, sidewalks, trails;
- Limits of contract;
- Drawing number references to plan/profile and plan details sheets;
- Community mailboxes;
- Shallow utilities;
- Overhead utilities;
- Surface drainage.

### 2.2.11.4 Storm Water Management Plan

A Storm Water Management plan shall at minimum consist of the following:

- Include the site and surrounding area (400 m minimum outside of the development) showing roads and major features (1:2500 scale). A small location plan of the watershed is also to be included;
- Topographic contours of the existing ground (0.5 m intervals), with source and date;
- Major flood routing (1 in 100 year event);
- Stormwater management facility details, if applicable;
- Area, in hectares, of the development and the total area of the drainage basin;
- Directional arrows of the flow within the site and on surrounding and impacted areas;
- Sub-catchment boundaries, coefficients and areas;
- Pipe system including size, grade and minor and major flows (a table may be utilized).

### 2.2.11.5 Water-Sanitary-Storm Plan/Profiles

The plan/profile drawings shall show all the detailed information as to the underground utilities to be installed. Scales to be used are: 1:500 horizontal and 1:50 vertical.

The top half of a Plan/Profile sheet shall show the plan view, and shall show all the property lines (proposed, existing), legal description of all properties, the location of catch basins, underground utilities such as sanitary sewer, storm sewer, water, telephone, television, power, cable, manholes, valves, hydrants, curb cocks, inspection chambers, etc.

The following shall also be shown:

- Dimensions from all mains to property line to two (2) decimal places;
- Label all mains with the following: *###mm Material Wtr/San/Strm* (ex. 200mm PVC Wtr);

- Manhole numbers;
- Service/lateral diameter and material as well as inverts at the end of pipe;
- Existing franchise utilities with type and size (if applicable).

The bottom half of a Plan/Profile sheet shall show the profile view and show the following:

- Surface profiles of both the existing and design/proposed;
- Label all mains length, size, material, type, and grade of each main (ex. ###m-###mm PVC Wtr/San/Stm @ #.##%);
- Show the invert and top of pipe (crown) of all mains;
- Invert elevations at the inlet and outlet side of all manholes;
- Manholes are to be labelled with their respective number as well as the rim elevation;
- Franchise utilities with type, elevation, and size (if applicable);
- Bedding type, backfill, and surface restoration;
- Grades are to be to two (2) decimal places, while all invert, top of pipe, and rim elevations are to be to three (3) decimals;

#### 2.2.11.6 Surface Works and Lot Grading Drawings

The surface works and lot grading sheet shall show all detailed information as to the road design and area grading. This sheet(s) shall be drawn at a scale of 1:500 and shall include the following:

- Property line, (proposed and existing);
- Legal dimensions of all properties;
- Legal description of all properties (Lot: ## / Blk: ## / PIn: #####);
- Property design lot elevations (two (2) decimals);
- Proposed garage elevations;
- Lot grade arrow and percent of slope;
- Hydrants, valves, manholes, catch basins, service shutoff valves and inspection chamber;
- Sidewalk (separate sidewalk shall show both sides of the walk while a monolithic walk will only show the back of walk);
- Face of curb (gutter) line with design/as-built elevations at grade changes, end of curb/back of curb, catch basins (three (3) decimals);
- Edge of pavement line;
- Gutter grade percent (two (2) decimals) with flow direction arrow;
- Area of pavement to be constructed or as-built shall be hatched;
- All manholes shall show their number and rim elevation (design/as-built);
- Centerline elevations at critical locations (grade change, vertical curves, etc.).

#### 2.2.11.7 Street Sign, Pavement Markings, Traffic Control Devices

A separate plan shall be prepared in all cases for road surface works. This plan(s) shall detail all eradications, alterations, additions and new regulatory and advisory signage and line painting. The design shall conform to Manual of Uniform Traffic Control Devices guidelines. The following information shall be shown:

- Dimensions, lengths and color of proposed lane or curb markings, medians and crosswalks;
- Lane widths, median radii and taper ratios;
- Dimensioned location and type of new or relocated signs.

#### **2.2.11.8 Landscaping**

The landscaping sheet(s) shall show all detailed information as to the landscaping of the development. This shall show what is to be constructed as well as what is to be removed. This sheet(s) shall be drawn at a scale of 1:500 and shall include the following as a minimum:

- Fencing;
- Seeded/sod areas;
- Tree/shrub locations and types;
- Flower beds;
- Trails;
- Playground Equipment;
- Park/trail signage and lighting;
- Bollards.

#### **2.2.11.9 Details**

The Detail Drawing(s) shall show all specifications for construction which are not covered or specifically detailed in the Town of Lamont Design Standards. Where there is a Standard Detail, it is expected to refer to the Standard Drawing Number. It is not necessary to include or provide work(s) for which there is a Standard Drawing.

#### **2.2.12 Requirements for Geotechnical Reports**

It is the responsibility of the Developer to have a Geotechnical Report completed by a Professional Geotechnical Engineer registered in the Province of Alberta and submit the report to the Development Authority for review. The Geotechnical Report shall include information about:

- Suitability of the soil for the type of development proposed;
- Physical properties of soil;
- Mechanical properties of soil;
- Design parameters (including water tables, sulfates and frost zone);
- Foundations, road structure and pavement design and any special construction requirements.
- Location of all bore holes and bore hole logs showing original ground elevation at the test hole and recorded water levels.



### **2.2.13 Reference Standards**

All references to specifications, standards or methods of technical associations refer to the latest adopted revision, including all amendments, in effect on the date of submission of bids, except where a date or issue is specifically noted.

## **2.3 GENERAL CONSTRUCTION REQUIREMENTS**

All work for construction of municipal improvements carried out by the Developer shall be in accordance with all Federal, Provincial and Local Statutes, acts, bylaws and regulations and meet the following general requirements.

### **2.3.1 Occupational Health and Safety**

The Developer, Contractor, Consulting Engineer and Landscape Consultant shall comply with the provisions of the Occupational Health and Safety Act in Alberta. All subcontractors at the worksite shall also comply with the requirements of this Act. The Contractor shall be the general representative and agent to the Developer for the purposes of ensuring compliance with safety regulations for both itself and any subcontractors. The Contractor shall bring to the attention of subcontractors the provisions of the Occupational Health and Safety Act.

### **2.3.2 Project Supervision**

The Consulting Engineer shall be responsible for the layout, field surveys, inspection, approval of materials and the supervision of all improvement installations which are the responsibility of the Developer. The Consulting Engineer or his authorized representative shall be on-site at all times during the installation of services to certify that all improvements are in conformance with the approved plans and specifications.

In addition to supervision carried out by the Consulting Engineer, the Town may periodically inspect the work and assist in coordinating the subdivision works with any related Municipal works. The Town will bring the use of any unacceptable materials or practices to the attention of the Consultant. If remedial action is not taken to the satisfaction of the Town, a Stop Work Order (See 2.3.11) will be issued and all work will cease. The unacceptable work will be corrected and/or replaced.

### **2.3.3 Right-of-Way Documents**

Where easement or right-of-way documents are deemed necessary, they shall be prepared by a registered Land Surveyor at the Developer's expense. Easements or right-of-ways shall be of sufficient size to allow access for maintenance purposes. All easements and right-of-ways shall be registered in the Town of Lamont's name.



### **2.3.4 Construction Approval**

Upon receipt and approvals of certified drawings and specifications, the Developer on the satisfactory execution of Development Agreement and payment of security deposit may proceed to install the municipal improvements.

A copy of all approved drawings and specifications shall be maintained at the construction site during the installation of services.

### **2.3.5 Construction Commencement Notice**

The Developer shall give the Engineer at least two (2) weeks notice prior to commencing construction to allow for time to arrange for inspection staff.

### **2.3.6 Stockpile Locations**

The location and composition of all stockpiles on Town of Lamont property shall be approved by the Town.

### **2.3.7 Barricades, Guards and Safety Provisions**

The Developer is responsible to protect persons from injury and to avoid property damage. The Developer shall place and maintain adequate barricades, construction signs, warning lights and guards during the progress of the construction work and until it is safe for traffic or pedestrian use. Whenever required, flag people shall be provided to prevent accidents.

### **2.3.8 Erosion and Sedimentation Control**

The Developer shall have erosion and sedimentation control measures in place to prevent erosion and the transport of sediment from the development. The Developer shall comply with the federal and provincial acts, regulations, codes of practice, standards and guidelines that are applicable to development activities that result or could result in erosion, sedimentation and adverse effects on the environment.

### **2.3.9 Traffic and Utilities Controls**

#### **Approvals**

Prior to any work being done within the Municipal right-of-way, the Developer must obtain approvals from the Town of Lamont at least five (5) working days prior to work commencing.

#### **Traffic Disruption**

Excavations for pipe laying operations shall be conducted to cause minimal interruption to traffic. The Developer shall provide and maintain safe and suitable temporary bridges at street and driveway crossings where traffic must cross open trenches. Hydrants under pressure, valve pit

covers, valve boxes, curb stop boxes or other utility controls shall be unobstructed and accessible during the construction period.

#### **Utility Disruption**

Adequate provision must be made for the flow of sewers, drains and water courses encountered during construction. No valve, switch or other control on the existing utility system shall be operated for any purpose by the Developer. If utility disruption is unavoidable, the Town must have a written request for a temporary shutdown stating timelines for shutdown and a contingency plan for unforeseen problems. A minimum of five (5) days notice shall be required. A response will be given within 24 hours to leave enough time to give affected residents and businesses a written notice a minimum of 72 hours before shutdown. All costs incurred by the Town will be the responsibility of the Developer.

#### **Adjacent Property Owner Notification**

All property owners affected by such operations shall be notified by the Developer in consultation with the Engineer before the service interruption and advised of the probable time when service will be restored.

#### **Detours**

Prior to any road closure, the Developer must submit a detour plan to the Development Authority for approval. The Developer shall be responsible for supplying, placing and maintaining detour signage for the duration of construction. Emergency access must be maintained at all times.

#### **Signage**

The Developer must, at his expense, provide, erect, and maintain all signs, barricades, flares, flagpersons, etc.

### **2.3.10 Boundary Controls**

A boundary valve is to be placed at the tie-in to the existing water distribution system as approved by the Town. All boundary valves are to be operated by the Town of Lamont Public Works personnel.

### **2.3.11 Stop Work Order**

The Town may issue a "Stop Work Order" to the Contractor due to non-conformance. Examples of non-conformance includes:

- Unsafe practices;
- Imminent danger;
- Lack of traffic control;
- Failure to submit required testing certification;
- Construction not in accordance with approved drawings and specifications;
- Non-compliance with the development requirements;

- Damage to existing facilities.

Should a "Stop Work Order" be issued, the Developer shall immediately cease operation, rectify the non-conformance, and obtain the Town of Lamont's approval prior to proceeding.

## **2.4 RECORD DRAWINGS AND OTHER DOCUMENTS**

The Developer shall submit record drawings and other related information giving detailed measurements of the actual municipal services constructed to the Development Authority. The submission of this data for record purposes is a condition of the execution of a Construction Completion Certificate by the Town. If applicable, Record Drawings can be completed in two stages.

### **2.4.1 Underground Construction**

On completion of the sanitary sewer, storm sewer, the water distribution system, and lot servicing, the Developer shall submit to the Development Authority two (2) sets of as-built drawings, an electronic copy (pdf format) and video-inspection tests.

The Consulting Engineer shall certify that all work had been completed in accordance with the plans and specifications, the Municipal Development Standards and that all work and deficiencies have been completed. A written request must be submitted to the Town of Lamont for Chlorination of water distribution system.

Together with the above, the Developer shall submit the lot service records, compaction test results, successful pressure, leakage, and chlorination tests and an accurate as-constructed bill of materials for the Town's inventory database.

Upon satisfactory acceptance of this data, the Developer may request a construction completion inspection for underground improvements.

### **2.4.2 Surface Construction**

After satisfactory completion of surface improvements and as a condition of the execution of Construction Completion Certificate for surface improvements, the Developer shall submit the following information to the Development Authority:

- Certification by the Consulting Engineer that all work has been completed in accordance with the plans and specifications, the Municipal Development Standards, and that all work and deficiencies have been completed;
- Two (2) sets of black line prints and an electronic copy of as-constructed drawings sealed by a professional engineer registered in the Province of Alberta. At this stage, the drawing shall be stamped "Record Drawings";

- All previously unsubmitted certificates concerning materials inspection and testing, mix designs, deflection tests, concrete strength tests, and compaction tests, as required by this document and by the Town of Lamont;
- Operation and Maintenance Manuals, spare parts, and lubricants;
- Completed tender document as tendered by the successful contractor and a copy of the Final Progress Payment Certificate;
- An accurate as-built bill of materials for the Town's inventory database.

Upon satisfactory acceptance of this data, the Developer may request a construction completion inspection for surface improvements.

### **2.4.3 Seasonal Conditions**

Should seasonal conditions not permit the inspection, execution of the Construction Completion Certificate by the Town will be delayed until appropriate conditions exist and/or conditional acceptance may be granted based on the Consulting Engineer's Certification.

### **2.4.4 Additional Information**

Record drawings shall be of the same format as the original construction drawings with all changes noted and the following information added:

- Design data is erased on original and replaced with record data;
- All hydrants, valves, curb stops, manholes and catch basins are to be dimensioned in two (2) directions.

### **2.4.5 As-built Survey**

Included with the project as-built submittal drawing shall be a coordinate file (PNEZD-comma delimited) containing as-built (as-constructed) locations and elevations of all surface structures.

This coordinate file shall be referenced to the Town's coordinate system and include ties to at least two (2) survey control monuments or approved alternate. Horizontal accuracy for this survey shall be less than or equal to 0.050 m and vertically of less than or equal to 0.025 m. The following shows what information shall be included in the survey:

- Manholes;
- Valves;
- Pipe Fittings (Elbow, Cross, Tee, Plug, etc.) At a minimum all plugs shall be captured;
- Clean out;
- Catch basin;
- Inlet / Outlet Structures;
- Service shutoff valve (CC);
- Hydrant;
- Hydrant Valve;

- Face of Curb, Front and/or Back of walk, Centerline. These shall be surveyed at grade change points and at least every 20 m along the feature;
- Lot corners.
- Street Furniture

#### **2.4.6 Service/Lateral As-built Sheets**

All services/laterals shall be surveyed and recorded. The survey will consist of recording the invert of the sanitary and/or storm service at up to three (3) locations (main, property line and the end of pipe). This survey information can be included with the above noted file(s).

#### **2.4.7 Dimensions**

All dimensions, elevations and inverts shown shall reflect the as-built conditions of the construction and references to "Proposed" shall be removed. As-built drawings shall be to scale in accordance with the as-built dimensions shown.

#### **2.4.8 As-built Drawings**

All as-built drawings shall also include the following information:

- The location and elevation of all existing utilities and services encountered in the construction operation;
- The location and invert elevation at the end of all service connections.

### **2.5 CONSTRUCTION COMPLETION CERTIFICATE (CCC)**

Upon satisfactory completion of the project, a satisfactory construction completion inspection, and after all the deficiencies have been corrected and submissions received, the Town shall execute the Construction Completion Certificate submitted by the Developer and Consulting Engineer, notifying:

- Acceptance of the portion of work by the Town;
- Commencement date of warranty.

A copy of the Construction Completion Certificate is included in Appendix B.

If provided for in the Development Agreement, separate Construction Completion Inspections and commencement of warranty periods shall be required for the following:

- Underground utilities;
- Surface works;
- Landscaping.

## **2.6 WARRANTY PERIOD**

The Developer shall be responsible for any defect, fault, or deficiency in the completed work during a minimum twenty-four (24) month warranty period and shall remedy it at his own expense.

The Developer shall be responsible for any and all third party damages up until the issuance of the Final Acceptance Certificate.

Upon commencement of the warranty period, the Town will assume responsibility for regular summer and winter maintenance on paved streets within the occupied subdivision and garbage pickup. The Developer shall remain responsible for all other maintenance and repair items including third party damages, maintenance of street signs, flushing of sewer lines, thawing and flushing of watermains and landscape maintenance.

## **2.7 FINAL ACCEPTANCE CERTIFICATE (FAC)**

Prior to the expiration of the warranty period, the Developer shall submit a written request for a final inspection, and within fifteen (15) working days of receipt of such request, the Town will carry out an inspection. Final Acceptance shall include underground services and surface work and facilities, where applicable, and upon correction of all deficiencies, shall be issued under one combined Final Acceptance Certificate. Landscape improvements will be approved under a separate Final Acceptance Certificate. A copy of the certificate is included in Appendix B. The warranty period shall remain in effect until the Final Acceptance Certificate is accepted by the Town.

Should seasonal conditions not permit the inspection, execution of the Final Acceptance Certificate by the Town will be delayed until appropriate conditions for inspection exist.

## **2.8 BUILDING PERMITS**

Submissions for Building Permits are made to The Inspections Group Inc. of Edmonton, Alberta for any construction project within the Town of Lamont. Their contact information is as follows:

The Inspections Group Inc.  
12010 – 111 Avenue NW  
Edmonton, AB T5G 0E6  
Ph: 1-780-454-5048  
Ph (Toll-Free): 1-866-554-5048

## **2.9 CONSTRUCTION COMPLETION CERTIFICATES AND FINAL ACCEPTANCE CERTIFICATE INSPECTIONS**

Five (5) working days prior to any construction completion inspection or final acceptance inspection, the Developers Consultant shall prepare a Pre-Inspection Checklist that certifies the readiness for inspection.

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The Engineering/Landscape Consultant shall take the lead role in the inspections. The Town will observe the inspection and only provide comments whenever necessary. The Engineering/Landscape Consultant is responsible to confirm that the project has been constructed in general conformance to the Contract Drawings and Specifications.