



SECTION "B"

GUIDELINES FOR GENERAL COMPLIANCE

B1 DEVELOPMENT AGREEMENT & SECURITY

The **Developer** shall enter into a **Development** Agreement with the **County** prior to the construction and installation of any **Municipal improvement**.

The **County** will require cost estimates for all **municipal improvements** associated with the proposed **Development**. These estimated figures will be verified by the **Municipal Engineer** and inserted into the Security Schedule of the **Development** Agreement.

- a) The **County** may require up to 100% of the total costs outlined within the Security Schedule of the **Development** Agreement, either in the form of a certified bank draft or a self-renewing irrevocable letter of credit for security purposes.
- b) The security will be held in its entirety until:
 - A **Final acceptance certificate** (FAC) is issued by the **Developer's engineer** and accepted by the **County**;
 - The submission of the Record Drawings have been received;
 - Quality control tests and reports have been submitted to the satisfaction of the **County**; and
 - Until the **warranty period** has ended.

B2 DEVELOPER'S RESPONSIBILITY

The **Developer**, at their own cost and expense, will be responsible for the following if deemed necessary by the **Development** Authority:

- The detailed design and construction of all required **Municipal improvements** including necessary off-site upgrade and utility oversizing associated with the **development**. The **County** will, on request, supply all available information on existing **utilities** including available capacities, locations, restrictions and limitations; however, the **Developer** must confirm the information provided, in the field, as the **County** does not guarantee the accuracy or completeness of any information provided.
- Establishing the location and alignment of all existing and proposed **Municipal improvements** including coordination with the shallow **Utilities**. Unless approved otherwise by the **CAO**, the location of all underground **Utilities** shall generally conform to the Typical **Utilities** Layout as illustrated in Standard Detail Drawings (Appendix C).

- Surveys and investigations necessary to prepare the design as well as identifying the need for any easements or additional right-of-way required. The plans and related documents shall be prepared by a qualified licensed Alberta Land Surveyor at the **Developer's** expense.
- Quality control and materials testing by an independent qualified professional Engineer during utility installation and roadway construction. Certification by the **Developer's engineer** that the construction has been completed in accordance with the approved drawings and specifications will be required.
- Acquisition of additional land for road widening and municipal services as required.
- Registration with Alberta Land Titles all easements including plans and documents for the construction of **Municipal improvements** outside of the municipal right-of-way.
- Satisfying all statutory requirements governing such works and obtaining approvals for compliance with those requirements from the authorities having jurisdiction. Where conflicts or inconsistencies with the GMSS and referenced documents arise due to compliance with or amendment of statutory requirements, the **Developer** shall be responsible for satisfying the more stringent requirement.
- For complying with the requirements outlined in the GMSS and all other applicable legislation, regulations, codes, standards, agreements, **permits**, and licenses. Additional information may be requested by the **County** as deemed necessary.
- Nothing in these Standards relieves either the **County** or the **Developer** of any of the obligations contained in the **Development Agreement**.

B3 ADDITIONAL PLAN, STUDIES, REPORTS

Additional plans, studies, and/or reports that may be required by the **County** may be found in Appendix B. Where Acts, Bylaw and Standards are referred to, they will be the current amended and updated issues of such.

B4 ENGINEERING DESIGN

The **Applicant** will retain a Professional Engineer who is licensed to practice in the Province of Alberta and who is a member of The Association of Professional Engineers and Geoscientists of Alberta. This Engineer will be responsible for the design and preparation of drawings and specifications for all services as required within the **County** in accordance with the **County** GMSS, and sound engineering principles.

All drawings will identify the **Developer** and the **Developer's engineer**, and will be stamped, signed, and sealed by engineer.

The Design Drawings will display all existing and proposed services. It will be the **Developer** Engineer's responsibility to coordinate with the utility companies to establish the location of their existing and proposed services, and the specifications for their installation.

B5 SUBMISSION & REVIEW OF ENGINEERING DESIGN

Three (3) complete sets of **plans and specifications** for the proposed subject will be submitted to the **County**. Plans and drawings are to be in conformance with the requirements of this document.

The **Developer's engineer** will identify the need for any rights-of-way outside the area to be serviced. Where easement or rights-of-way documents and plans are deemed necessary, they will be prepared by a licensed Alberta Land Surveyor at the **Applicant's** expense.

All design drawings, specifications and relevant data will be reviewed by the **County**, and all necessary revisions will be incorporated by the **Developer's engineer** in the final design drawings. Such revisions will in no way lessen the responsibility of the **Developer** and their Engineer for the work.

Upon completion of all revisions, the **Developer's engineer** will submit three (3) sets of Contract Drawings to the **County** for approval. Following approval the **County** will return one (1) approved set to the Consulting **Developer's engineer**.

B6 APPROVAL TO PROCEED

No work will commence until the **County** has reviewed the Design Drawings and Plans, and written authorization has been issued. The exception to this is general stripping and **grading** work, which may be carried out based on prior written approval from the **County**, and with the understanding that such work is carried out solely at the **Developer's** own risk.

The **Developer** will give 48 hours written notice to the **County** before commencement of work, changes in work schedules, or working hours in **order** to coordinate adequate **County** inspection staff.

B7 AREA STRUCTURE PLAN

B7.1 Area Structure Plans should describe at a minimum:

- The sequence of **Development** for the area.
- Contour information with an interval of a maximum two (2) meters superimposed over the plan.
- The land uses proposed for the area, either generally or with respect to specific parts of the area.
- Location, dimension and boundaries of the existing parcel(s).
- Location of all existing buildings on or immediately **adjacent** to the lands.
- A density pattern of **Development** that reflects the characteristics of the site and surrounding lands.
- Provide geotechnical information (soil type, water table) to enable a determination of the suitability for **Development** of the type being proposed.
- Delineation of top-of-bank **adjacent** to ravines, creeks, and escarpments, to be confirmed by site survey.
- Geotechnical slope stability analysis of banks, slopes and/or escarpments.

- Consideration for the provision of open space in the form of municipal and/or environmental reserve. The design should allocate lands for open space that create a contiguous linkage of open spaces and foster use as open space.
- Environmental reserve dedication to preserve and protect environmentally significant/sensitive areas.
- Location and dimensions of all proposed municipal and environmental reserve parcels and public utility lots.
- Environmental impact statement for environmentally sensitive areas, discuss how proposal conforms to Environmental policies of the Municipal **Development** Plan (MDP) and the Environmental Significant Areas (ESA).
- Land uses (initial and future) in impact zones of active oil and gas wells.
- Location, status (reclaimed or not), and setback for abandoned oil and gas wells, flow lines, and pipelines.
- Location, level, and impact zones of sour gas pipelines, flow lines, and/or production facilities.
- Information regarding the proximity of sewage treatment plants or waste management facilities.
- Breakdown by area and percentage of all land uses, roads, municipal and school reserves, and public utility lots within Area Structure Plan area.
- Desired proposed land use district including: land use, setbacks, and other standard information.
- Area and proposed dimensions of all parcels including location of public spaces and community services, public utility lots, roads, and points of access to all the proposed parcels.
- Location and siting of all natural and man-made physical features.
- Dwelling unit density for proposed residential areas, (residences/ha).

- Density and pattern of the **Development** that is consistent with the capabilities of the site and surrounding resources.
- Delineation of setbacks to back-of-lots and setbacks to building.
- **Development** setbacks from top-of-bank.
- Visual impact assessment and mitigation measures for features which may either add or detract from the primary **Development** proposed on the site.
- School student generation projections.
- Capacity of offsite water mains and pumping stations, sanitary sewers, storm drainage facilities, and natural gas facilities to accommodate the proposed **Development**.
- Describe on-site storm drainage facilities and overland drainage routes for major storm events and proposed methods of handling surface drainage.
- Proposed methods of on-site servicing for potable water and sewage.
- Capacity of existing/proposed water treatment plant, water pumping stations, water reservoirs, wastewater treatment plant, and sewage pumping stations to accommodate the proposed **Development** and **adjacent** properties.
- Over sizing of **Utilities** within area to accommodate **adjacent** future **Developments**.
- Licensing requirements for infrastructure under the Water Act.
- Capacity of power, telephone, and/or cable television systems to serve the proposed area.
- Location and design criteria for fire ponds.
- The general location of major transportation routes and public **Utilities**.
- Classification of all roadways as arterial, collector, or local roadways.

- Location of buffer zones **adjacent** to arterial roadway or highways.
- Road tie-ins to **adjacent** undeveloped quarter-sections.
- Access to all parcels from an internal subdivision road, wherever possible and practical.
- The internal subdivision road to link or be located so it can link with internal subdivision road in an **adjacent** quarter section.
- General location of all pedestrian linkages, walkways, and trails to existing or proposed major walkways.

B8 OUTLINE PLANS

- Description of the plan area and existing conditions.
- The existing and proposed land use for the subdivision area.
- The existing land use on **adjacent** parcels.
- Information regarding the proximity of oil and gas wells, sour gas facilities, sewage treatment plants, or waste management facilities.
- The general alignment and cross section of roadways including discussion on proposed surfacing strategy.
- Area and dimensions of all proposed parcels including location of public spaces and community services, public utility lots, municipal reserve, environmental reserve, roads, and points of access to all the proposed parcels.
- Describe on-site storm drainage facilities, overland drainage routes for major storm events, and proposed methods of handling surface drainage.
- Proposed water and wastewater servicing concepts including analysis and capacity calculations.
- Proposed power, gas, and communications alignments and confirmation of available capacity.

- Provide groundwater assessment report for subdivisions with six (6) or more lots to be serviced by wells.
- Additional site-specific technical details that may be required by the **County**.
- Provide details on project phasing.

B8.1 Detailed Engineering Design:

The following may be required as a condition of **development** approval:

- A letter covering the subject and purpose of the application, an estimated construction starting date.
- Three (3) complete sets of the detailed engineering drawings, signed and sealed by the **Developer's engineer**.
- Geotechnical/Hydrogeological Report presenting the results of a field investigation completed by a qualified geotechnical engineering firm. At this stage, the level of detail of this investigation, analysis, and report must be much more extensive than at the Area Structure Plan stage and address the following:
 - a) Identify areas of high groundwater tables.
 - b) Identify conditions that will require special design considerations.
 - c) Provide detailed recommendations for design and construction of roadways, pavement structure designs, deep and shallow **utilities**, site **grading**, stormwater management facilities, and buildings.
 - d) Clearly identify the limits of any site contamination and outline the site remediation to be completed.
 - e) Soil alkalinity (sulfate levels) and resistivity test results, and recommendations regarding concrete to be used and corrosion protection.
 - f) Identify any conditions that will have special operation and/or **maintenance** implications.
 - g) Top of bank setbacks **adjacent** to creeks or ravines with stability problems.
- Engineering Design Summary for the stage of **development** clearly demonstrating that the designs of the infrastructure

systems for the stage fit into the overall **development** systems designs presented in the Engineering Design Report for the Area Structure Plan. The details of any interim stormwater management, staged servicing schemes, or temporary facilities (emergency access, construction access, etc.) must also be presented.

- An estimated construction schedule outlining the sequence of construction to be followed and applicable critical dates.
- Additional technical detail as required by the **County** to satisfy the conditions of subdivision approval.
- A cost estimate for each proposed improvement.
- Copies of all letters of application for all applicable approvals, **permits**, licenses, or agreements from Provincial, Federal, or private agencies, including, but not limited to, Alberta Environment and Alberta Transportation.
- Copies of the formal approvals, **permits**, licenses, or agreements must be received by the **County** before construction commencement.

B9 ENGINEERING AND SUPERVISION

Where the **Development** Agreement requires that the **Developer** construct local improvements, the **Developer** will appoint an accredited Engineer to carry out preliminary surveys, prepare and submit detailed design drawings for approval, supply construction survey layout and supervision during construction, certify acceptable completion of the work, and submit as-built (record) drawings of all work performed.

The **Developer** will be responsible to have the necessary construction layout carried out to ensure the finished construction conforms to the lines and grades shown on the approved design drawings.

The **Developer's engineer** will carry out the necessary construction supervision to ensure all construction is carried in conformance with the standards specified by the **County** and the requirements of the approved **plans and specifications**. Upon completion of the work, the **Developer's engineer** will provide a written and sealed **Construction Completion Certificate (CCC)** attesting to the acceptable completion of the work. The wording of the CCC will be to the satisfaction of the **County**.

The **Developer** will appoint an accredited materials testing firm to carry out any testing deemed necessary by the **County** to determine whether all workmanship and materials incorporated into the work meet the specified requirements.

B10 CONSTRUCTION APPROVAL

Upon receipt of the approved drawings, specifications, Letter of Authorization from Alberta Environment, and receipt of any other approvals or authorizations required for the **development**, the **Developer** may proceed to install Municipal services, provided that a **Development Agreement** has been entered into and a **Development Permit** has been obtained from the **County**.

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

Underground subdivision services will not be **permitted** to operate as part of the existing Municipal services until the respective subdivision services have been inspected, tested, and approved in writing by the **County**.

B11 ALBERTA ENVIRONMENT - LETTER OF AUTHORIZATION /APPROVALS

Extensions or replacements of watermains, sanitary sewers, and/or storm sewers may require written notification where necessary including a Letter of Authorization from Alberta Environmental Protection before construction can commence.

For projects that include new storm water ponds and/or outfall(s) to a water body or drainage course, the **Developer** must also obtain an approval or have the **County** wastewater approval amended as required by the Environmental Protection and Enhancement Act and its associated regulations. The **Developer** must also note that a separate application under the Water Act may also be required for projects involving storm water pond(s) and/or outfall(s).

The **Developer** is responsible to obtain all other approvals appropriate to the specific requirements of the project prior to commencing construction, and to ensure sufficient time in their **development** schedule to allow for all necessary review and approvals. The **County** will not be responsible for any costs associated with delays in the approval process, nor will the **County** circumvent any approval process to maintain a **development** schedule.

B12 LAND ACQUISITION AND AGREEMENTS FOR CONSTRUCTION

B12.1 Land Acquisition:

The **Developer** is responsible for negotiation and payment of any land acquisitions such as road widening, public utility lots, easements, or acquisition of any other lands for municipal purposes. The **Developer** is responsible for all costs of relocating or repairing fences and any other costs which are incurred in the acquisition.

B12.2 Backsloping Agreement:

In cases where the acquisition of road widening is not possible or where large cuts or fills are encountered, the **Developer** will secure a backsloping agreement with the **adjacent** landowner that is agreeable to the **County**. A back-sloping agreement entitles the **County** to extend ditch and/or fill slopes into the affected **property** to the slopes and conditions outlined in the signed agreement. All damage costs, such as crop damage and removal of trees resulting from the construction of backsloping upon **private property**, will be paid to the landowner by the **Developer** at the rates and in the amounts indicated in the signed agreements.

B12.3 Borrow Areas:

Where borrow areas are required for the construction or reconstruction of a **County** road, or other **municipal improvements**, borrow pit agreements, agreeable to the **County**, will be entered into between the **Developer** and the landowners. All damage costs, such as crop damage and removal of trees created due to the removal of the borrow material, will be paid by the **Developer** to the landowner at the rates and in the amounts indicated in the signed agreements. In some cases, the costs will include a payment to the landowner for the volume of material removed.

The **Developer** is responsible (own cost and expense) for acquiring lands where required that are outside the boundaries of the proposed **development**. All easements that are attributable to the proposed **development** will be registered in the name of the **County** and the costs incurred in negotiating, preparing, and executing the respective easements will be borne by the **Developer**.

The **Developer** is also responsible for other agreements such as crossing, road use, and haul route agreements. These agreements may be required dependent on the location and type of **development**.

B13 SAFETY

The **Developer** is responsible for all aspects of site safety, including traffic control and signage. With respect to site safety, the **Developer** will be considered to be acting as the Prime **Contractor**, and will save harmless the **County**, its employees and agents, from all actions arising from issues of safety.

All **contractors**, at a minimum, must follow our **contractor** safety manual.

B14 ACCOMMODATION OF TRAFFIC

The **Developer** is solely responsible for safety on the site. Nothing contained herein removes, lessens, or transfers this responsibility. Signage, accommodation of traffic, and other related issues will conform to industry standards.

The **Developer** or the **Contractor** will (own expense), make suitable provisions to accommodate all traffic, whether pedestrian or vehicular, over or around any part of the project upon which work is being performed, and will supply and maintain such signs, barriers, fences, lights, and flagpersons as may be required for this purpose. Where the traffic is required to use a route over or around the work which is of a lower standard than was available before the work commenced, the **Contractor** will (own cost), continuously provide assistance to traffic as required on a 24 hour per day and 7 day per week basis, particularly during periods of inclement weather. The **Contractor** will provide dust control for the safety of the traveling public.

Flagpersons will be instructed in the proper traffic control procedures for the work and will be dressed and equipped in a manner consistent with Alberta Transportation requirements.

When work is not in progress and on days such as holidays and Sundays, the **Contractor** will remove or cover all regulatory signs not essential for the protection of the public, in **order** to reduce inconvenience to a minimum.

All **County** signs and guide posts encountered that must be temporarily removed during the course of construction will be carefully salvaged by the **Developer**. Certain signs, such as those marking railroad crossings, intersection warning or stop signs, will be maintained on the work for the protection of traffic using the highway/roadway.

Where the project is closed and traffic diverted entirely off the right-of-way, the **Contractor** will (own expense), provide and maintain such signs, barriers, lights, and flagpersons as may be necessary to direct the traveling public over the detour.

Traffic must be controlled by flagmen and sufficient warning signs to ensure the safety of the public when any traveled roadway is being entered or crossed by hauling equipment to the satisfaction of the **County**.

Road closures and detours must be submitted to and approved by the **County** a minimum of 48 hours prior to scheduled work.

Haul routes must be kept clear and free from dust by **grading** and sprinkling. Trucks must be loaded in such a manner that no spillage occurs. The **Developer** may be required to enter into a haul agreement.

Where, in the opinion of the **County**, additional warning signs or other safety devices are required on the work, the **Contractor** will supply, erect, and maintain the additional facilities requested.

B15 MINIMUM CONSTRUCTION SIGNING

Where required, the minimum construction signing will be set so that the farthest sign from the work is a minimum of 300 m to a maximum of 600 m from the start of construction. There will be 90 m separating each sign and 90 m from the beginning of construction to the closest signs. The minimum signing will be in the **order** below:

- A 120 cm x 120 cm "Construction Ahead" sign
- A 60 cm x 75 cm "Reduce Speed" sign
- A 60 cm x 75 cm "Maximum Speed" sign

Where required for public safety, additional signs will be used. Signage and sign placement will be consistent with TAC "Manual of Uniform Traffic Control Devices for Canada".

B16 EXISTING UTILITY PRECAUTIONS

The **Developer** or the **Contractor** will take all precautionary measures as may be necessary when working over or **adjacent** to **utilities**, whether above or below ground, and will control their equipment and method of construction to prevent any damage to the utility and/or appurtenances.

The **Developer** will be responsible to secure an appropriate crossing agreement with the utility company, and provide proof of such an agreement to the **County** prior to construction.

Under no circumstances will any construction operations be carried out over or **adjacent** to any pipeline until the required adjustments and protection required for the proposed construction have been completed. The **Developer** is responsible to act in full compliance with the conditions of the crossing agreement with the utility company.

Upon completion of the pipeline work, the **Contractor** will continue to work in close liaison with the pipeline company and, if required, ensure that a representative of the affected utility company is present at all times during active equipment operations. The **contractor** will ensure that no equipment crosses or operates over any pipeline at locations other than where protection has specifically been provided.

The **County** will not be responsible for the installation of power, natural gas, and communication services in the subdivision. Any other **utilities** that may be required will be provided at the sole expense of the **Developer** or landowner.

The **Developer** of the proposed subdivision is responsible for all arrangements with the utility companies as to the locating and moving of all existing **utilities** such as power poles, pipelines, communication system, buried cables, or any other utility as may be required.

If lines cannot be installed in the streets or lanes of the subdivision, the **Developer** will provide registered easements or rights-of-way in the name of the **County** to accommodate the utility services. The required easements or rights-of-way will be registered on each individual lot prior to the sale of any lot in the **development area**.

B17 ENVIRONMENTAL CONCERNS

The **Developer** will conduct their operations in accordance with all current environmental legislation.

It will be the **Developer's** responsibility to familiarize themselves with applicable legislation and regulations and obtain the necessary **permits** and/or approvals for their operations.

The **Developer** will immediately advise the **County**, and applicable agencies, of an environmental incident or infraction.

B18 TESTING

It will be the responsibility of the **Developer's engineer** to ensure that all improvements are tested and found to conform to the **County** standards for such improvements prior to acceptance by the **County**. Copies of all test results must be forwarded to the **County**.

B19 AS-BUILT (RECORD) DRAWINGS

Within four (4) months of the completion of all of the services to be installed, the **Developer's engineer** will deliver "as-built" (record) drawings: two sets of bound prints and one set of digitized drawing files (in current **County** format) to the **County**. Where construction of the underground and road work has been separated into stages, record drawings for the **utilities** may be deferred until completion of the road system, provided they are provided within a year of installation of the **utilities**, or upon a schedule agreed to by the **County**. The entire **County** infrastructure will be incorporated on the reproducible copies of the **County** overall drawings for each utility.

B20 MAINTENANCE & WARRANTY PERIOD

The **Developer** will, for a period of two years after the acceptance of a **Construction Completion Certificate** for a **Development** by the **County**, be responsible for regular **maintenance** and all repairs and replacements to any local improvements that, in the opinion of the **County**, become necessary for any cause whatsoever. This period of time may be extended at the discretion of the **County** based on level of **maintenance** required.

The **Developer** will provide, for the duration of the **Maintenance** and **Warranty Period**, an Irrevocable Letter of Credit as required by the **County**.

B21 FINAL INSPECTIONS & ACCEPTANCE

Upon completion of all servicing requirements, and at the close of the **Warranty Period**, the **Developer** will give notice to the **County** and arrange for an inspection. All deficiencies will be rectified to the satisfaction of the **County** prior to the acceptance of municipal services, with a **Final acceptance certificate** issued and authorized.

Where staged construction has been approved by the **County**, the **County** may issue separate Construction Completion or **Final acceptance certificates** for distinct components of the **development**, with separate **Warranty Periods** as appropriate. Separation of the project into components will be at the sole discretion of the **County**.

B22 SUITABILITY OF LOTS FOR DEVELOPMENT – RURAL AND COUNTRY RESIDENTIAL

This section deals with suitability of rural or “Country Residential” lots: lots in a rural **development** setting and meeting the minimum size requirement for Country Residential designation.

This section applies where such lots will not be serviced for sewage disposal and/or potable water supply by a **County** system or other **County** approved licensed sources and means. In addition to criteria provided here, such **developments** must conform to other sections of these standards.

The **Developer** applying for Country Residential of 5 or more lots will provide a hydrogeological report, prepared by a consultant competent in the field, showing that an adequate aquifer exists to accommodate the individual wells required for the **development** and that the **development** will not have an adverse effect on the aquifer or **adjacent** wells.

The **County** will require that each Country Residential lot will have adequate developable area for a building site. The **Developer** will therefore, prior to the registration of the Subdivision Plan, identify on a separate plan a suitable Building Site and Sewage Disposal Ground on each proposed lot.

Each lot will have tests performed for water table levels and soil classification. When the tests are completed, the **Developer** will show on a separate plan the following:

- The area of land within a proposed lot which is classified as developable;
- In percentages, the relationship of developable land to the rest of the lot area;
- The relationship in elevation difference between the proposed Building Site and Sewage Disposal Site; and
- The soil classification at the proposed Sewage Disposal Site.