

SECTION A GENERAL

A.1 INTENT

A.1.1 The General Municipal Servicing Standards (GMSS) is intended to provide specific guidelines to assist the County and Developer in the design, preparation and submission of plans and specifications for construction of municipal improvements and systems (roads, water distribution systems, low-pressure/gravity sewer systems, storm water management facilities) that will meet the servicing requirements for commercial, industrial and residential subdivision development within the County of Vermilion River.

A.1.2 The General Municipal Servicing Standards (GMSS) have been developed with two goals in mind:

A.1.2.1 The GMSS ensure that the County is provided with a quality product that will meet an acceptable long-term life expectancy while maintaining cost efficiency and practicality so as not to prohibit land development.

A.1.2.2 To minimize the maintenance requirements associated with land development.

A.1.3 The General Municipal Servicing Standards presented in this document should only be considered as minimum requirements. The Developer remains fully responsible for the design and construction of municipal improvements according to accepted engineering practice and standards that address and meet the specific needs and site conditions of the development. Certain site-specific conditions may warrant the use of standards that are more stringent.

A.1.4 The General Municipal Servicing Standards, as well as the latest editions of any referenced legislation or document, form part of the requirements for the design and construction of any project within the County of Vermilion River.

A.2 DEFINITIONS

Adjacent refers to those lands next to the development or subdivision area and includes those lands severed by a road, utility right-of-way, railroad, river, stream, reserve lands or other means of natural barrier.

Consulting Engineers shall mean the consulting professional engineer(s) retained by the Developer.

Construction Completion Certificate shall mean a certificate issued pursuant to Article V(2) of the Development Agreement and shall be in the format as shown Schedule B of the Development Agreement.

County shall mean the County of Vermilion River.

County Property shall mean:

- i) any property owned or leased by the County developed for use as public park, sports field, playground or other recreational area;
- ii) un-developed reserve land as either; reserve, municipal reserve, school reserve, environment reserve or combination of reserves;
- iii) municipal right-of-way including all forms of public roadways (roads, lanes streets, highways) sidewalks, boulevards, road allowances, utility right-of-ways, public utility lots, public spaces undeveloped right-of-ways and storm water management facilities, bridges, culverts and water bodies;
- iv) any property developed as a pathway or park trail system;
- v) any property owned or titled to the County of Vermilion River including buildings, structures and parking facilities.

CAO shall mean the Chief Administrative Officer, or designate, of the County of Vermilion River

Council shall mean persons duly elected to the Council of the County of Vermilion River.

Completion Certificate shall mean a certificate issued pursuant to Article V (2) of the Development Agreement and shall be in the form attached as Schedule B.

The **Developer** shall mean the proponent of a land development proposal, or the Owner as defined in the Development Agreement.

The **Developer's Engineer** shall mean the professional engineer(s) and/or firm retained by the Developer for the preparation of design, reports, studies, engineering drawings, specifications and all other documents associated with the design and construction of the municipal improvements.

Development means the carrying out of any construction or excavation or other operations, in, on, over or under land, or the making of any change in the use or the intensity of use of any land, buildings or premises.

The **Development Agreement** shall mean documents specifying the terms and conditions for the construction of municipal improvements necessary to service the approved subdivision.

Development Area shall mean the lands as described in schedule A and as shown in Schedule A-1 of the Development Agreement.

Development Approving Authority(s) means that person(s) designated and known to be the Development Authority to exercise the duties and powers and perform the functions prescribed in the Land Use Bylaw pursuant to the municipality's Development Authority Bylaw.

Development Agreement is a legal document the municipality requires the developer to enter into. The municipality reserves the right to amend from time to time.

External Road means any public road which is not an internal road or provincial highway.

External Local Improvements shall mean all of the Local Improvements or the portions thereof to be constructed by the Developer outside of the Subdivision as described on Schedule D of the Development Agreement.

Final Acceptance Certificate shall mean a certificate issued pursuant to Article V (8) of the Development Agreement and as shown as Schedule C of the Development Agreement.

General Design Standards shall mean the General Municipal Servicing Standards as amended by the County and approved by the Municipal Engineer for construction and installation of the local improvements.

Geotechnical Report means a document prepared by an Engineer, Geological or Geophysical Professional licensed to practice in the Province of Alberta and that bears the seals or stamps signed and dated by the professional in accordance with the enactments that govern their profession.

Grading means to level or grade the development area to a desired vertical and horizontal gradient.

Internal Road means a public road, the primary function of which is to provide access to individual sites within a multi-lot subdivision, with the exception of mobile home communities or bare land condominium developments in which case the internal roads are privately owned.

Internal Local Improvements shall mean all of the Local Improvements or the portions thereof to be constructed by the Development within the Subdivision which is described

and specified on Schedule D of the Development Agreement (Specifically includes lighting).

Local Improvements, External shall mean all of the local improvements or the portions thereof to be constructed by the Developer outside of the subdivision as described on Schedule D of the Development Agreement.

Local Improvements, Internal shall mean all of the local improvements or the portions thereof to be constructed by the Developer within the subdivision as described on Schedule D of the Development Agreement.

Maintenance shall mean the Developer shall only be responsible for defects and deficiencies in materials or workmanship and any failure of the Local Improvements to comply with the General Municipal Servicing Standards and the Plans and Specifications. The County of Vermilion River shall provide the subdivision with such municipal services during the Warranty Period for the Internal Local Improvements and the External Local Improvements as are normally available to the other residence of the County of Vermilion River.

The **Municipal or Local Improvements** shall mean the installation of municipal services including, but not limited to, roads, water and sewer systems, storm sewer, and stormwater management systems, landscaping, street lighting, power, gas and telecommunication as required and specified in the Development Agreement.

The **Municipal Engineer** shall mean the professional engineer(s) and/or firm employed by the County to review, inspect and recommend approval or rejection of the work proposed or performed by the Developer under the terms of the Development Agreement.

Off Site Levies means the monies collected by the municipality from the developer or industry to assist with the payment of the portion of the off-site services that the development will utilize.

Order means an order issued under the Land Use Bylaw in accordance with the Municipal Government Act. Or an order issued under provisions of other municipal bylaws and the governing Provincial Act.

The **Permit, Building** means a certificate or document permitting the construction or alteration of a building or structure, which constitutes part, or all of the specified development. The permit issuance is in accordance with the minimum requirements of the Alberta Building Code.

The **Permit, Development** means a certificate or document permitting a specified development and includes, where applicable a plan or drawing, or a set of plans or drawings, specifications or other documents as authorized by the Development Approving Authority to proceed with the specific development.

Person means one or more individuals, partnerships, corporate bodies, unincorporated organizations, government body, trustees, executors, administrators or legal representative other than the County of Vermilion River or its legal counsel.

Plans and Specifications shall mean plans, specifications, material lists and performance criteria for the Local Improvements approved by the Municipal Engineer covering design, construction and installation of the local improvements.

****Private Sewage Disposal System** means a system for the on-site treatment and/or disposal of sewage and includes all components downstream of a point starting 1800 mm (6 ft) or less, upstream of any septic tank, packaged sewage treatment plant, sewage holding tank or the berm of a sewage lagoon but does not include a building drain.

Private Property means land owned by a person, group, corporation or entity that is not a government body.

Property means any land, building, structures or premises including any personal property located on, over or in the property that is located within the municipal boundaries of the County of Vermilion River.

Road Base Sieve Size

TABLE 3.2.3.1.

SPECIFICATIONS FOR AGGREGATE

DESIGNATION	1			2			3				4			5		6		7	8	9			
	Class (mm)	10	12.5	16	+16(N2)	20	25	40	12.5AW	12.5BW	12.5C	16	20	25	40	10A	10B	80	125	40	25	8	
Percent Passing Metric Sieve (CGSB 8-GP-2M) • m	125 000																	100	100				
	80 000																	100					
	50 000																	55-100	55-100				
	40 000							100							100					100			
	25 000							100	70-94					100				38-100	38-100		100		
	20 000					100	82-97						100		55-90								
	16 000			100	100	84-94	70-94	55-85				100						32-85	32-85			90-	
	12 500		100	80-92	89-100				100	100	100	72-95											
	10 000	100	83-92	70-84	78-94	63-86	52-79	44-74	35-65	55-75	70-93	53-82	35-77	30-77	25-72	100	100					85-100	45-75
	8 000																						100
5 000	60-75	55-70	50-65	55-70	40-67	35-64	32-62	0-15	0-15	30-60	27-54	15-55	15-55	8-55	70-90	45-70	20-65	20-65		0-15	85-100		
1250	26-45	26-45	26-45	26-45	20-43	18-43	17-43	0-3	0-3	9-28	9-28	0-30	0-30	0-30	20-45	20-45				40-100	0-5	45-75	
630	18-38	18-38	18-38	18-38	14-34	12-34	12-34															30-50	
315	12-30	12-30	12-30	12-30	9-26	8-26	8-26			0-15	0-15						9-22	9-22	6-30	6-30	17-100	18-30	
160	8-20	8-20	8-20	8-20	5-18	5-18	5-18			0-11	0-11						5-15	5-15				10-21	
80	4-10	4-10	4-10	4-10	2-10	2-10	2-10	0-0.3	0-0.3	0-8	0-8	0-12	0-12	0-12	0-10	0-10	2-10	2-15	6-30			5-15	
% FRACTURE BY WEIGHT (2 FACES)	All +3000	60+	60+	* See NOTE (N1)	60+	60+	60+	50+	75+ (100% 1 Face)	75+ (100% 1 Face)	60+	60+	40+	40+	25+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
PLASTICITY INDEX (PI)	NP	NP	NP	NP	NP-6	NP-6	NP-6	N/A	N/A	NP-4	NP-4	NP-8	NP-8	NP-8	NP-6	NP-6	NP-8	NP-8	NP-8	NP-8	NP-5	NP-5	NP
L.A. ABRASION LOSS PERCENT MAX	40	40	40	50	50	50	50	35	35	35	35	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	35
FLAKINESS INDEX	N/A							MAX 15				N/A											
COEFFICIENT OF UNIFORMITY (CU)	N/A																		3+	N/A			

Designations:

- Designation 1 - Asphalt Concrete Pavement
- Designation 2 - Base Course Aggregate
- Designation 3 - Seal Coat Aggregate
- Designation 4 - Gravel Surfacing Aggregate
- Designation 5 - Sanding Material
- Designation 6 - Pit-Run Gravel Fill
- Designation 7 - Cement Stabilized Base Course Aggregate
- Designation 8 - Granular Filter Aggregate
- Designation 9 - Slurry Seal Aggregate

*** Notes:**

- N1. Asphalt Concrete Mix Type 1 - 90+ (98% 1 face)
Asphalt Concrete Mix Type 2 - 70+
Other Asphalt Concrete Mix Types - 60+
- N2. Designation 2 Class 16 Material is for ASBC
- N3. For crushed aggregates other than all Designation 5 and Designation 9 materials, a tolerance of three percent in the amount passing the maximum size sieve will be permitted provided all oversize material passes the next larger standard sieve size.

Suitable Development Area means that each residential lot created by subdivision either a single lot or multi-lot development is suitable for the construction and use of a residence, ancillary building, an access road, a privately owned domestic water well and a private sewage treatment system.

Unauthorized Use means the use of County property either by constructing, storing, landscaping, erecting, placement or removal of any structure, item or thing on, over or in County property without written authorization from the County;

- i) the placement of surface structures such as a driveway, parking area, walkway, patio, deck, stairs or retaining wall;
- ii) permanent buildings, relocatable structures or accessory structures such as a detached garage, barn, shed, greenhouse, lean-to compost;
- iii) Landscaping including fencing, fire pits or fire wood storage, the addition or removal of vegetation or a use that interferes with the growth of vegetation;
- iv) Installation of utilities, antenna, satellite receiving dish or other telecommunication facilities;

- v) Storage of vehicle(s) or trailer(s) or off-road equipment, building material, rubble, stockpiles, debris or chattel;
- vi) Site drainage including the use of pipes, culverts, catch basins, ditches, swales, sump drainage, dry wells, sewage disposal systems, detention ponds or related ancillary structures,
- vii) Digging, cutting excavating or filling.

Units of Measurement the standard unit of measurement is metric and any reference to imperial measurement units is for convenience purposes only.

Utilities shall mean those utilities together with all necessary appurtenances, which are described in Schedule E of the Development Agreement.

Utilities, franchise shall mean those utilities provided by a service company such as; electrical service, natural gas, telephone or cable television.

Warranty Period be in accordance with Policy # AD 021 as amended from time to time:

- i) Shall mean the following: The warranty period will be defined in the Development Agreement and will be for a term of 3 years from the date of issuance of the CCC. The development agreement will allow the County to extend this warranty period to a term of 5 years if issues arise during the period where the County believes an extended warranty would be of benefit to protect the County interest.

A.3 DEVELOPER'S RESPONSIBILITY

A.3.1 The Developer shall at his own cost and expense, provide the following:

A.3.1.1 Design and construction of the required municipal improvements including necessary off-site upgrades and utility over sizing associated with the Development.

A.3.1.2 Quality control and materials testing by an independent qualified professional engineer, during utility installation and roadway construction. Certification by the Professional Engineer that the construction has been completed in accordance with the approved drawings and specifications will be required.

A.3.1.3 Legal and all other costs incurred by the County for the preparation and execution of the Development Agreement.

- A.3.1.4** The engineering and inspection costs incurred by the Municipal Engineer, for the review and approval of the design and construction of the required municipal improvements.
 - A.3.1.5** Acquisition of additional land for road widening and municipal services as required.
 - A.3.1.6** Registration with Alberta Land Titles all easements including plans and documents for the construction of municipal improvements outside of the municipal right-of-way.
 - A.3.1.7** A Plan of the Subdivision in accordance with the Plan approved by the County's Subdivision Approving Authority shall be registered at the Land Titles Office.
 - A.3.1.8** The Developer will supply both digital and hard copy of the Plan of Subdivision drawings and As-built drawings for the development or subdivision infrastructure to the County.
- A.3.2** The Developer shall be responsible for 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.
- A.3.3** It is the Developer's responsibility to satisfy the requirements established in the GMSS unless stated otherwise, all design criteria, materials, installation and testing shall be in accordance with the most recent editions of the referenced documents:

Public Lands Act,
Municipal Government Act,
Water Act,
Environmental Protection & Enhancement Act,
Canadian Environmental Assessment Act,
Fisheries Act,
Species at Risk Act,
Navigable Water Protection Act,
Safety Codes Act,
Rural Utilities Act,
Provincial Offences Procedures Act,
Plumbing Code,
Alberta Private Sewage Standards of Practice
Alberta Building Code,
Provincial Wetlands Policy,

*Alberta Environment, Standards and Guidelines for Municipal Waterworks,
Wastewater and Storm Drainage Systems*
County of Vermilion River General Municipal Servicing Standards
Alberta Highway Design Guide
Transportation Association of Canada (TAC) Geometric Design Guidelines
TAC Uniform Traffic Control Devices for Canadian Roads
TAC Highway Lighting Design Guide
Municipal Bylaws, other
Provincial/Federal Government Authorities

A.3.4 It is the Developer's or their consultant's responsibility to obtain, at their own cost copies of the referenced documents from the applicable authority.

A.3.5 The compiled list of referenced documents is not meant to be all inclusive, addition standards and documents may be listed in specific Sections of the GMSS for reference. The Developer and Developer's Engineer remain responsible for the design and construction of their development according to accepted engineering practices.

A.4 DEVELOPMENT AGREEMENT

A.4.1 Developer shall enter into a Development Agreement with the County prior to the construction and installation of municipal improvements. There shall be no Building Permit issued for any construction on a particular lot within the subdivision until all municipal improvements are in place and accepted by the County and endorsement of the subdivision plans and registration at Alberta Land Titles is completed.

A.5 CHANGES IN DESIGN STANDARDS

A.5.1 It is the Developer's responsibility to ensure that the design and construction is in compliance with the latest edition of the General Municipal Servicing Standards including any revisions thereto up to the date of acceptance of the detailed design.

A.6 INSPECTIONS AND FINAL ACCEPTANCE

A.6.1 Upon completion of all municipal improvements, the Developer shall give notice to the County and arrange for inspections. Upon the receipt of a Construction Completion Certificate from the Developer, the Municipal Engineer, on behalf of the County, shall inspect the municipal improvements, prepare a deficiency list, and forward it to the Developer through the County.

- A.6.2** All deficiencies shall be rectified to the satisfaction of the Municipal Engineer prior to the acceptance and approval of the Construction Completion Certificate by the County and the Municipal Engineer.
- A.6.3** The warranty period shall commence upon acceptance and approval of the Construction Completion Certificate. During this period, the Developer shall repair any defect in material or workmanship.
- A.6.4** Prior to the expiry of the warranty period, the developer shall notify the County and arrange for an inspection. Upon the correction of all deficiencies satisfactory to the Municipal Engineer, the Developer's Engineer shall issue a request for the Final Acceptance Certificate for municipal improvements.

Examples of CCC & FAC



County of Vermilion River
 4912 - 50 Avenue
 Kitscoty, AB
 T0B 2P0

**CONSTRUCTION
 COMPLETION
 CERTIFICATE**

Form A1-1

Page 1 of 2

Development Application No.: _____

Developer: _____

Contractor: _____

Municipal Improvement: _____

Location of Municipal Improvement: _____

Date of Application for Construction Completion: _____

PURSUANT TO THE DEVELOPMENT AGREEMENT, I _____ OF THE FIRM _____ ("CONSULTING ENGINEERS"), HEREBY CERTIFY COMPLIANCE WITH THE SERVICING STANDARDS AS SET OUT IN THE DEVELOPMENT AGREEMENT, AND RECOMMEND APPROVAL FOR CONSTRUCTION COMPLETION OF THE MUNICIPAL IMPROVEMENT.

 Project Engineer (Consulting Engineering Firm) Date

 Signing Officer (Consulting Engineering Firm) Date

 Authorized by County of Vermilion River's Representative Date

 Director of Public Works & Engineering Date

- Approved
- Conditionally Approved
 (See Attached Deficiency List)
- Rejected
 (See Attached Deficiency List)

For Internal Use Only

Total Amount of Letter of Credit: _____

Amount Retained for Deficiencies: _____

Amount Retained for Maintenance: _____

Amount Released with CCC: _____

I HEREBY CERTIFY THAT THE ITEMS LISTED AS REASONS FOR CONDITIONAL APPROVAL / REJECTION HAVE BEEN CORRECTED AS INDICATED ON THE ATTACHED DEFICIENCY LIST.

 Project Engineer (Consulting Engineering Firm) Date

Approved: _____

 Director of Public Works & Engineering Date

Date Maintenance / Warranty Period to Start: _____

Scheduled Maintenance / Warranty Expiry Date: _____

(OVER →)



Development Application No.: _____

Developer: _____

Contractor: _____

Municipal Improvement: _____

Location of Municipal Improvement: _____

Date of Application for Final Acceptance: _____

Scheduled Maintenance / Warranty Expiry Date: _____

PURSUANT TO THE DEVELOPMENT AGREEMENT, I _____ OF THE FIRM _____ ("CONSULTING ENGINEERS"), HEREBY CERTIFY THAT AS OF THE ABOVE DATE, THE SAID MUNICIPAL IMPROVEMENT MEETS ALL OF THE REQUIREMENTS FOR FINAL ACCEPTANCE AS SPECIFIED BY THE DEVELOPMENT AGREEMENT, AND RECOMMEND THE MUNICIPAL IMPROVEMENT FOR FINAL ACCEPTANCE.

Project Engineer (Consulting Engineering Firm)

Date

Signing Officer (Consulting Engineering Firm)

Date

Authorized by County of Vermilion River's Representative

Date

Director of Public Works & Engineering

Date

Approved

Rejected

(See Attached Outstanding Deficiency List)

For Internal Use Only

LOC Amount Remaining from CCC: _____

Amount Retained for Deficiencies: _____

Amount Retained for Maintenance: _____

Amount Released with FAC: _____

I HEREBY CERTIFY THAT THE ITEMS LISTED AS REASONS FOR REJECTION HAVE BEEN CORRECTED.

Project Engineer (Consulting Engineering Firm)

Date

Approved:

Director of Public Works & Engineering

Date

Date Maintenance / Warranty to Expire: _____

A.7 WARRANTY PERIOD

A.7.1 In an effort to be both fair and consistent when dealing with large development projects, the County has created a policy to outline the requirements associated transparency to both the County rate-payers and those in the development field.

A.7.2 The County of Vermilion River will adhere to the guidelines outlined within this policy when dealing with development agreements for multi-lot subdivision developments within the County. This policy will clearly outline the following items:

- how the County will determine Security for the development,
- the form of the security accepted by the County,
- the amount of security to be taken,
- the warranty timelines and
- the triggering events that will allow the County to release portions of security.

A.7.3 The County of Vermilion River will require Stamped Engineer Drawings and Cost Estimates for all Municipal Infrastructure associated with the proposed development. These estimated figures will be verified by County Engineers and inserted into the ‘Security’ Schedule of the Development Agreement.

A.7.3.1 The County of Vermilion River will require 60% 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 **PRIOR TO ENDORSEMENT** of the subdivision outlined within the agreement, for Security purposes.

A.7.3.2 The security will be held in its entirety until a Construction Completion Certificate (CCC) is issued by the County. Verification that the built infrastructure meets County standards will require the submission of engineering tests and reports to the satisfaction of the County. Additionally, if the Developer is able to provide the County with the servicing agreements and payment receipts for ‘Shallow Buried Utilities’ (Gas, Power, Telephone Etc.), as shown within the Development Agreement, these costs will not be included in the Security.

A.7.3.3 Upon issuance of a CCC the County will release 35% of the TOTAL costs for the infrastructure. For clarification, the County will retain 25% of the cost for TOTAL infrastructure outlined within the ‘Security’ Schedule of the Development Agreement.

A.7.3.4 The 25% security will be retained by the County of Vermilion River for warranty purposes. The warranty period will be defined in the Development Agreement and will be for a term of 3 years from the date of issuance of the CCC. The development agreement will allow the County to extend this warranty period to a term of 5 years if issues arise during the period where the County believes an extended warranty would be of benefit to protect the County interest.

A.7.3.5 Following the warranty period, the County of Vermilion River will be in a position to issue a Final Acceptance Certificate (FAC) for the development. Subject to the satisfaction of the County, the FAC will be issued for the specific infrastructure and the County will release the remaining 25% of the security.

A.7.4 Where there is a delay in the application of the final layer of asphalt on the internal roads and approaches, the warranty period for the internal roads and approaches shall be extended for a period of twelve (12) months from the date of acceptance of the Construction Completion Certificate by the County for the final layer of asphalt.

A.7.5 The Developer shall provide, for the duration of the warranty period, an irrevocable Letter of Credit as required by the County.

A.8 UTILITY, PIPELINE AND RAILWAY CROSSINGS

A.8.1 The Developer shall be responsible for obtaining the Crossing Agreement where a crossing of utility, roadway, pipeline or railway is required for the installation of the municipal improvements.

A.8.2 The Developer shall comply with all terms and conditions of the Crossing Agreement and make application to transfer the Agreement to the County's name prior to the application for a Construction Completion Certificate.

A.9 FRANCHISE UTILITIES

The developer shall be responsible for all coordination with franchise utilities including design and installation. The Developer shall be responsible for any deficiencies noted as a result of installation such as curb damage, trench settlement or final boulevard grading.

A.10 EASEMENT AND RIGHT OF WAY

The Developer shall be responsible for obtaining all easements and right of ways for the installation of municipal improvements located outside of the normal right-of-way or utility lot. All permanent easements, including plans and documents, shall be registered at the Land Titles Office naming the County as the Grantor prior to application for a Construction Completion Certificate.

A.11 PERMITS AND LICENSES

The Developer shall be responsible for obtaining all permits and licenses in compliance with the Provincial and Federal statutory requirements.

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