OFFICE CONSOLIDATION

BYLAW C-1366

A Bylaw to Regulate Lot Grading

(As Amended by Bylaw C-1366A)

WHEREAS the *Municipal Government Act* (Alberta) authorizes a municipality to pass bylaws respecting the public utilities, the protection of property and the enforcement of bylaws;

AND WHEREAS the *Municipal Government Act* (Alberta) authorizes a municipality to deal with development, and provide for a system of permits;

AND WHEREAS it is desirable to ensure that properties are graded at the completion of construction and inspected at subsequent intervals in compliance with approved grades;

NOW THEREFORE THE MUNICIPAL COUNCIL OF THE CITY OF GRANDE PRAIRIE, IN THE PROVINCE OF ALBERTA, DULY ASSEMBLED, ENACTS AS FOLLOWS:

1. **<u>TITLE</u>**

1.1 This Bylaw shall be called the "Lot Grading Bylaw".

2. **DEFINITIONS**

In this Bylaw:

- 2.1 "As-Built Drawings" means a set of drawings following the requirements as set out in Schedule "E" Part B.
- 2.2 "As Constructed Grade Certificate" means a post-construction plan of the subsoil in the form as set out in Schedule "D" Part C.
- 2.3 **"Building Permit"** means a building permit issued pursuant to the Building Bylaw C-1328.
- 2.4 "City" means the municipal corporation of the City of Grande Prairie.
- 2.5 "City Land" means any land owned or controlled by the City.
- 2.6 "Commercial Development" means the development of a building or structure used for or intended to be used for, in whole or in part, commercial, industrial or institutional purpose, or a multi-family residential building containing five (5) or more dwelling units.
- 2.7 "Commercial Lot Grading Permit Application" means the form provided by the City utilized to apply for a Lot Grading Permit for a Commercial Development.

2.8 "*Director*" means the City's Infrastructure and Economic Development Director or a person or persons designated to carry out and exercise all or some of the functions of the Director pursuant to this Bylaw.

(Bylaw C-1366A - July 1, 2019)

- 2.9 "Easement" means a drainage easement or other easement, also known as a Utility Right of Way (URW), which grants an individual, company, or municipality the right to use a portion of the landowner's property and is registered with the Alberta Land Titles Office.
- 2.10 "Foundation Drainage" means Stormwater collected beneath the surface of the ground by a foundation drain or weeping tile.
- 2.11 "Graded Lot" means any Parcel which has undergone alterations or improvements to, existing clay or landscape elevations, including the addition or removal of clay, topsoil, or material of any kind.
- 2.12 "*Infill Type Development*" means a redevelopment of an existing Parcel including substantial or complete reconstruction of the existing structure.
- 2.13 "Lot Grading Letter of Review" means a letter issued by the Director as a result of a review of documented evidence and provides a decision as to the relaxation of any part of this Bylaw.
- 2.14 "Lot Grading Permit" means a permit issued by the City pursuant to this Bylaw.
- 2.15 "Lot Grading Plan" means a plan submitted with a Residential or Commercial Lot Grading Permit Application adhering to the requirements set out in Schedule "D" for residential submissions or Schedule "E" for commercial submissions, and meeting all additional requirements imposed by the Director.
- 2.16 "Negative Drainage" means on a Parcel with a building, that a continuous downward slope exists on any side of the Parcel from the property line to the elevation of finished ground surface at any point immediately adjacent to the building(s) on the Parcel.
- 2.17 "Negative Impact" means impairment of or damage to, or the ability to cause impairment of or damage to:
 - a) the Storm Drainage System;
 - b) human health or safety;
 - c) public or private property; or
 - d) the environment.
- 2.18 "Occupancy Certificate" means a certificate authorizing the occupancy of a building for which a building permit was issued, and is issued once all inspections have been passed with a permit service report.
- 2.19 "Officer" means a Peace Officer or Bylaw Enforcement Officer of the City.

- 2.20 "Parcel" means:
 - a) a quarter section;
 - b) a settlement shown on an official plan, as defined in the *Surveys Act* (Alberta) that is filed in a Land Titles Office;
 - c) a part of a piece of land described in a certificate of title if the boundaries of the part are described in the certificate of title other than by reference to a legal subdivision; or
 - d) a part of a piece of land described in a certificate of title if the boundaries of the part are described in a certificate of title by reference to a subdivision plan.
- 2.21 "Parcel Owner" means a Person or persons whose name appears on the title of a Parcel.
- 2.22 "*Person*" means without limiting the generality of the term, any individual, or any business entity including, but not limited to, a firm, partnership, association, corporation, society, or legal entity.
- 2.23 "*Person Responsible*" means a builder, general contractor, homeowner or agent of the homeowner, responsible for obtaining a Lot Grading Permit.
- 2.24 "Residential Development" means a building not more than three (3) storeys in height, not more than 600 m² in area.
- 2.25 "Residential Footing Elevation Certificate" means a letter certified by the home builder that the top of the concrete footing of a building under construction is in accordance with the Lot Grading Plan to within accepted tolerances as set out in Schedule "C".
- 2.26 "Residential Lot Grading Permit Application" means the form provided by the City utilized to apply for a Lot Grading Permit for a Residential Development.
- 2.27 "Safety Codes Act" means the Safety Codes Act (Alberta) and regulations.
- 2.28 "Side Yard" means the portion of a Parcel extending from the front yard to the rear yard and between the side property line of the Parcel and the closest side of the principal building.
- 2.29 *"Stakeout Plan"* means a plan submitted to the City which, at a minimum, contains the information as set out in Schedule "D" Part B.
- 2.30 "Storm Drainage System" means the City's system for collecting, storing and disposing of Stormwater, and includes:
 - a) catch basins, sewers and pumping stations that make up the storm drainage collection system;
 - b) storm drainage facilities, structures and land masses used for storage, management and treatment;
 - c) storm drainage outfall structures; and
 - d) Surface Drainage Facilities; but
 - e) does not include plumbing within buildings or service connections to buildings.

2.31 "Stormwater" means runoff that is the result of rainfall and other natural precipitation or runoff from the melting of snow and ice.

- 2.32 "Surface Drainage Facility" means any facility or facilities associated with drainage or control of Stormwater that is ultimately directed to a street or other City Land or Storm Drainage System, and includes, but is not limited to:
 - a) a grass swale;
 - b) a concrete or asphalt walkway, gutter or swale;
 - c) a drainage control fence or structure; or
 - d) the sloping and contouring of the land to facilitate or control Stormwater.

All definitions in the City's Land Use Bylaw C-1260, the Building Bylaw C-1328, and the Drainage Bylaw C-1241, shall apply to this Bylaw except to the extent that they are inconsistent with the definitions of words and expressions as set out in this Bylaw, and in the case of such a discrepancy, the definitions set out in this Bylaw shall apply.

3. **LOT GRADING PERMIT**

- 3.1 Every Person Responsible for:
 - the construction of a duplex dwelling, semi-detached dwelling or singledetached dwelling;
 - b) the construction of a new hard surface on a lot with an existing duplex dwelling, semi-detached dwelling or single-detached dwelling;
 - c) the construction of a multi-family housing development;
 - d) the construction of any building on a commercial, industrial, or institutional Parcel;
 - e) an addition or alteration to an existing duplex dwelling, semi-detached dwelling, single-detached dwelling, commercial development, industrial development, or institutional development;
 - f) the grading of an undeveloped Parcel;
 - g) the construction of a shed in which a Building Permit is required; or
 - h) the construction of a retaining wall.

Shall obtain a Lot Grading Permit from the City with respect to the Parcel on which construction is to take place, prior to commencement of construction. Every Person Responsible shall ensure that the Parcel is graded to meet the requirements of such Lot Grading Permit.

- 3.2 Applications for residential Lot Grading Permits are to be made by submitting a completed Residential Lot Grading Permit Application form along with a Lot Grading Plan which complies with the requirements as outlined on the Residential Lot Grading Permit Application and must also contain, at a minimum, the information as set out in Schedule "D".
- 3.3 Applications for commercial Lot Grading Permits are to be made by submitting a completed Commercial Lot Grading Permit Application form along with the necessary drawings which comply with the requirements as outlined on the Commercial Lot Grading Permit Application and must also contain, at a minimum, the information as set out in Schedule "E".

3.4 At the sole discretion of the Director, for minor developments, or developments which do not to alter the established grading pattern or conditions of the As-Built Drawings or As Constructed Grade Certificate, an application can be made for a Lot Grading Letter of Review in place of filing a Lot Grading Permit Application.

3.5 The City shall charge a fee, in accordance with <u>Bylaw C-1395</u>, <u>Schedule "A"</u>, for the issuance of a Lot Grading Permit.

(Bylaw C-1366A - July 1, 2019)

4. <u>CANCELLATION AND SUSPENSION OF PERMITS</u>

Unless otherwise specified in this Bylaw.

- 4.1 A Permit or application may be cancelled upon written request to an officer from the owner or their authorized agent.
- 4.2 The Director may, by notice in writing, suspend or cancel a Permit, if in the opinion of the Director:
 - a) there has been a contravention of any condition of the Permit;
 - b) the permit was issued in error, or
 - c) the permit was issued on the basis of incorrect information supplied to the City.
- 4.3 An issued Lot Grading Permit or Lot Grading Letter of Review expires if the building permit issued for the same Parcel has expired where building permit expiration is governed by the Building Bylaw C-1328.
- 4.4 Any fees, in accordance with <u>Bylaw C-1395</u>, <u>Schedule "A"</u> collected for a Permit, which has been cancelled by the Director or allowed to expire as defined in the Building Bylaw C-1328, shall not be refunded.

(Bylaw C-1366A - July 1, 2019)

5. **GRADED LOTS**

- 5.1 Grading of a Parcel can only be modified from the elevations as shown on the As Constructed Grade Certificate or As-Built Drawings when the drainage pattern of the Parcel can be maintained as designed.
- 5.2 The owner of a Graded Lot has the responsibility to ensure that:
 - a) no building or other structure is constructed, erected, placed or allowed to remain on or over a Surface Drainage Facility;
 - b) the Surface Drainage Facility remains clear of soil, silt, yard waste, debris, ice, snow or other matter which may obstruct, restrict or otherwise prevent the flow of Stormwater within a Surface Drainage Facility;
 - proper grading is maintained within the Parcel, ensuring positive drainage, from building foundations and exterior elements, to an acceptable Surface Drainage Facility; and
 - d) any nuisance, hazards, or damaging Stormwater conditions originating from the Parcel are eliminated as directed by the City.

5.3 Parcels graded prior to this Bylaw coming into force shall not be modified to restrict or prevent drainage from an existing Surface Drainage Facility unless authorized by the Director or as otherwise described in Sections 5.4, 5.5 or 5.6.

- 5.4 Driveways or walkways constructed in side yards after April 19, 2010 shall not be constructed or modified so that the drainage is affected unless a provision has been made for proper drainage and the City has been consulted on the drainage implications of the construction.
- 5.5 Roof leaders and sump pump outlets shall not direct water onto adjacent Parcels or otherwise cause water expelled from sump pump outlets or roof leaders to flow onto adjacent Parcels or be allowed to cause a Negative Impact.
- 5.6 Surface drainage, except through the use of a Surface Drainage Facility, shall not be directed onto adjacent Parcels in a manner which causes a Negative Impact.
- 5.7 Engineering Services will not support variance applications for buildings or other structures, which may include but are not limited to; driveways, sidewalks, hard surfaced pads, or other permanent or semi-permanent objects which may obstruct the flow of Stormwater, which have encroached upon a Surface Drainage Facility, unless otherwise approved by the Director.
- 5.8 Retaining walls shall not be constructed or installed in a manner that affects the Parcel drainage without the written approval of the Director.
- 5.9 Drainage right-of-ways within the City shall be maintained as required by an easement registered in the Land Titles Office with the City reserving the right to enforce this Bylaw whether the City is part of the agreement or whether it is an agreement between property owners.
- 5.10 If an easement contains a provision permitting the City to identify maintenance or repairs to a servient tenement which the City deems necessary for the effective operation of the easement, the registered owner of the servient tenement shall carry out such maintenance or repairs as directed by the City through written notice. Failure to comply with any such notice shall be deemed an offence under this Bylaw.

6. **REQUIREMENT TO SUBMIT LOT GRADING PLANS**

- 6.1 All Residential Lot Grading Permit Applications must be submitted with an accurate and complete Lot Grading Plan.
- 6.2 All Commercial Lot Grading Permit Applications must be submitted with an accurate and complete Lot Grading Plan.
- 6.3 At the sole discretion of the Director, for residential Parcels larger than 4,000 m², certain requirements as set out in Schedule "D" may be given further consideration on a case by case basis.

7. STAKEOUT PLAN

7.1 A Stakeout Plan must be accepted by the Director prior to the construction of a foundation on any Parcel undergoing a Residential Development.

8. TOP OF FOOTING ELEVATION CHECK

8.1 A Top of Footing Elevation Certificate, meeting the tolerances as set out in Schedule "C", must be submitted to the City prior to backfilling of the foundation for all residential lot grading permits.

9. REQUIREMENT TO SUBMIT AS CONSTRUCTED GRADE CERTIFICATES

- 9.1 In the case of the construction of a duplex dwelling, a semi-detached dwelling, or a single detached dwelling, the person responsible must deliver an As Constructed Grade Certificate to the City within twelve (12) calendar months of the date of issuance of the Occupancy Certificate.
- 9.2 All As-Constructed Grade Certificates must, unless otherwise approved or altered by the Director, provide at a minimum, the information outlined on the Residential Lot Grading Application form and the information as set out in Schedule "D" Part C.
- 9.3 All As-Constructed Grade Certificates must be submitted with a minimum of eight (8) photos demonstrating the completed rough-grading with one taken from each Parcel corner looking towards the house and one (1) taken from adjacent to each corner of the house looking along the house.
- 9.4 In the case of construction in which a building permit is not required but a lot grading permit is issued, the person responsible must deliver an As Constructed Grade Certificate to the City within twenty four (24) calendar months of the date of issuance of the Lot Grading Permit.
- 9.5 Any time limit in Section 9 may be extended by the Director as provided in Section 11.

10. **REQUIREMENT TO SUBMIT AS-BUILT DRAWINGS**

- 10.1 In the case of the construction of a multi-family housing development or a commercial, industrial, or institutional building, where the Building Permit is for one building, the person responsible must deliver As-Built Drawings to the City within twelve (12) calendar months of the date of issuance of the Occupancy Certificate.
- 10.2 In the case of construction on a Parcel of a multi-family housing development or a commercial, industrial, or institutional building where the building permit is for more than one building ("Staged Development"), the Person responsible must deliver As-Built Drawings to the City within twelve (12) calendar months of the date of issuance of the Occupancy Certificate for the final building on the Parcel.

10.3 Notwithstanding the time to file As-Built Drawings set out in Section 10.2, As-Built Drawings must be submitted to the City within twelve (12) calendar months of the last Occupancy Certificate in relation to a staged development on a Parcel, where the determination of the beginning of subsequent construction, which would thus extend the submission deadline, shall be conclusively determined by the Director.

- 10.4 If at any time after the issuance of an Occupancy Certificate for a building which is part of a staged development, there appears to be a drainage issue with respect to the Parcel on which the staged development is located in the course of subsequent construction:
 - a) the Director may require the Person Responsible to deliver As-Built Drawings, with respect to the Parcel, to the City, within such a time as the Director specifies;
 - b) at the discretion of the Director, As-Built Drawings may only be required for specific portions of the Parcel; and
 - c) the obligations of Sections 10.2 and 10.3, must be met in addition to Sections 10.4a) and 10.4b).
- 10.5 All commercial and institutional As-Built Drawings must, unless otherwise approved or altered by the Director, provide at a minimum, the information outlined in the Commercial Lot Grading Application and the information outlined by the As-Built Drawing Requirements as set out in Schedule "E" Part B.
- 10.6 In the case of construction in which a Building Permit is not required but a Lot Grading Permit is issued, the Person responsible must deliver As-Built Drawings to the City within twenty four (24) calendar months of the date of issuance of the Lot Grading Permit.
- 10.7 Any time limit in Section 10 may be extended by the Director as provided in Section 11.

11. <u>TIME EXTENSIONS</u>

- 11.1 The Parcel Owner or Parcel Owner's agent of a Parcel to which a Lot Grading Permit relates, may apply to the City in writing on the form prescribed by the Director for an extension of the time to file the As Constructed Grade Certificate or As-Built Drawings.
- 11.2 A non-refundable fee, in accordance with <u>Bylaw C-1395</u>, <u>Schedule "A"</u>, must accompany any request for an extension of time pursuant to Section 11.1.

(Bylaw C-1366A - July 1, 2019)

11.3 An application for an extension of time must be submitted to the Director at least five (5) business days prior to the filing deadline the applicant is seeking to have extended.

- 11.4 Upon receiving an application for an extension of time, the Director:
 - a) reserves the right to refuse the application;
 - b) may attach any conditions to an extension of time which they consider appropriate; and
 - c) will provide a written decision on the time extension application.
- 11.5 An extension of time granted pursuant to this Section shall not exceed six (6) calendar months from the original filing deadline.
- 11.6 Only one (1) extension of time may be granted under this Section.
- 11.7 Any decision by the Director under this Section may be appealed to the Director with a written notice, which must be submitted to the City within seven (7) business days from the date that the Parcel Owner or Parcel Owner's agent is notified of the original decision.

12. **POWERS OF THE DIRECTOR**

12. In the event that a person responsible for construction determines during construction that grades or elevations will not achieve adequate drainage or are otherwise inappropriate, that person must notify the Director, in writing, and request that the grade requirements be altered and the Director may authorize, in writing, such a change.

13. ENFORCEMENT - GENERAL PENALTY PROVISION

- 13.1 A Person who contravenes any of the provisions of this Bylaw by:
 - a) doing any act or thing which the Person is prohibited from doing; or
 - b) failing to do any act or thing the Person is required to do; is guilty of an offence.
- 13.2 A Person who is convicted of an offence pursuant to this Bylaw is liable on summary conviction to a fine not exceeding \$10,000 and in default of any fine imposed, to imprisonment for not more than six (6) months.
- 13.3 In the case of an offense that is of a continuing nature, a contravention of a provision of this Bylaw constitutes a separate offense with respect to each day, or part of a day, during which the contravention continues, and a Person guilty of such an offence is liable to a fine in an amount not less than that established by this Bylaw for each separate offense.

14. VIOLATION TICKETS AND PENALTIES

14.1 Where an Officer believes that a Person or party has contravened any provision of this Bylaw, the Officer may commence proceedings against the person alleged to be responsible by issuing a violation ticket pursuant to the Provincial *Offences Procedures Act* (Alberta).

14.2 Where there is a specified penalty for an offence as set out in Schedule "B", that amount is the specified penalty for each occurrence of the offence.

- 14.3 This Section shall not prevent any Officer from issuing a violation ticket requiring a court appearance of the alleged offender pursuant to the provisions of the Provincial *Offences Procedures Act* (Alberta) or from laying any information in lieu of issuing a violation ticket.
- 14.4 The levying and payment of any fine provided in this Bylaw shall not relieve a Person or party from the necessity of:
 - a) performing any required work or taking any required action for which the Person or party is responsible; and
 - b) paying any fees, charges, or costs, in accordance with <u>Bylaw C-1395</u>, <u>Schedule "A"</u> for which that Person or party is responsible or liable.

(Bylaw C-1366A - July 1, 2019)

15. **GENERAL**

- 15.1 Nothing in this Bylaw relieves a person from complying with any Federal, Provincial or Municipal legislation and any requirement of any lawful permit, order or license issued pursuant to such legislation.
- 15.2 Where this Bylaw refers to any Act, Bylaw or Regulation, it includes reference to the entire Act, Bylaw, Regulation and any lawful permit, order or license issued pursuant to the Act, regulation or agency.
- 15.3 If a portion of this Bylaw is found by a court of competent jurisdiction to be invalid, the invalid portion will be voided by amending this Bylaw, and the rest of the Bylaw remains valid and effective.

16. **REPEALING OF EXISTING BYLAW**

16.1 Bylaw C-1240 is hereby repealed.

17. **EFFECTIVE DATE**

17.1 This Bylaw shall take effect on the date it is passed.				
READ a first time this <u>18</u> day of <u>December</u> , 2017.				
READ a second time this <u>18</u> day of <u>December</u> , 2017.				
READ a third time and finally passed this <u>18</u> day of <u>December</u> , 2017.				
"B. Given" (signed)				
Mayor				
"T. Williams" (signed)				
Legislative Services Manager				

BYLAW C-1366

SCHEDULE "A"

Delete by (Bylaw C-1366A - July 1, 2019)

BYLAW C-1366

SCHEDULE "B"

SPECIFIED MINIMUM PENALTIES

OFFENCE	PENALTY
Failure to file an file an accepted As Constructed Grade Certificate pursuant to Section 9 of this Bylaw.	\$1,000.00
Failure to file accepted As Built Drawings pursuant to Section 10 of this Bylaw.	\$1,000.00
Failure to construct as per the approved Lot Grading Plan.	\$1,000.00
Failure to comply with Section 5.2 and/or Section 5.5.	\$1,000.00
Failure to submit Residential Footing Elevation Certificate prior to the backfilling of the foundation.	\$ 200.00

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SCHEDULE "C"

TOLERANCES AND MINIMUM GRADES

ITEM	ACCEPTABLE LOT GRADING TOLERANCES	OVER-RIDING MINIMUM GRADES	OTHER
Top of footing elevation	± 50 mm		Alternative design required from the designer and must be approved by the City or original consultant
Concrete driveways, sidewalks and patios elevations	± 50 mm	2% grade away from garage entrance or house or building foundation wall	
Rough grade elevations	70 - 200 mm below design		
Final grade elevations	0 - 80 mm below design		
Excavation Zone grade (1.2 m around foundation)	2.0 % ≤ Slope ≤ 33.3 %	2 % grade	
Property Line grade (Break Point to front or back of Parcel)	≥ 2.0 %		

BYLAW C-1366

SCHEDULE "D"

RESIDENTIAL LOT GRADING PERMIT PLAN REQUIREMENTS

PART A - RESIDENTIAL LOT GRADING PLAN REQUIREMENTS

1. **BASIC INFORMATION**

- 1.1 Company name of home builder.
- 1.2 Contact information for surveying company.
- 1.3 Sanitary invert elevation.
- 1.4 Storm invert elevation (if applicable).
- 1.5 Municipal address.
- 1.6 Legal address.
- 1.7 Development name and phase.
- 1.8 North arrow.
- 1.9 Legend.
- 1.10 Drawing scale (Either 1:200 or 1:250).

2. **LOT GRADING & DRAINAGE**

- 2.1 Drainage pattern shown with arrows.
- 2.2 Proposed elevations:
 - a) at all corners of the Parcel;
 - b) at break points along the property lines; and
 - c) of grade at the foundation.
- 2.3 Proposed slope percentages:
 - a) along property lines; and
 - b) from proposed grade at foundation to the property line.
- 2.4 Identify status of adjacent Parcel (existing house, vacant Parcel, under construction).
- 2.5 Precise location of proposed building relative to property lines.

3. **DRAINAGE EASEMENTS (IF APPLICABLE)**

- 3.1 Drainage pattern shown with arrows.
- 3.2 Slope percentage.
- 3.3 Proposed elevations of the swale.
- 3.4 Detail of the swale.
- 3.5 Registered Plan Number.

4. **FOUNDATION**

- 4.1 Proposed Elevations:
 - a) top of foundation wall;
 - b) bottom of footing;
 - c) top of footing; and
 - d) final grade at foundation.

5. ADDITIONAL REQUIREMENTS

- 5.1 Additional requirements may be put forth by the Director for specific developments based on unique or challenging on-site conditions and must be observed in addition to all other requirements in Sections 1 through 4, in Part A of this Schedule.
- 5.2 This Schedule is to act only as a guideline of minimum requirements for Lot Grading Plan submissions and does not replace or override any Bylaw, development condition, or other legally binding document or agreement.

PART B - STAKEOUT PLAN REQUIREMENTS

1. **BASIC INFORMATION**

- 1.1 Company name of home builder.
- 1.2 Contact information for surveying company.
- 1.3 Sanitary invert elevation.
- 1.4 Storm invert elevation (if applicable).
- 1.5 Municipal address.
- 1.6 Legal address.
- 1.7 Development name and phase.
- 1.8 Datum information.
- 1.9 North arrow.
- 1.10 Legend.
- 1.11 Date of survey.
- 1.12 Drawing scale (Either 1:200 or 1:250).

2. **LOT GRADING & DRAINAGE**

- 2.1 Drainage pattern shown with arrows.
- 2.2 Proposed elevations:
 - a) at all corners of the Parcel;
 - b) at break points along the property lines; and
 - c) of grade at the foundation.
- 2.3 Proposed slope percentages:
 - a) along property lines; and
 - b) from proposed grade at foundation to the property line.
- 2.4 Existing elevations:
 - a) existing infrastructure including but not limited to sidewalk, top of curb, and concrete drainage swale (if applicable).

- 2.5 Identify status of adjacent Parcel (existing house, vacant Parcel, under construction).
- 2.6 Precise location of proposed building relative to property lines.

3. <u>DRAINAGE EASEMENTS (IF APPLICABLE)</u>

- 3.1 Drainage pattern shown with arrows.
- 3.2 Slope percentage.
- 3.3 Proposed elevations of the swale.
- 3.4 Detail of the swale.
- 3.5 Registered plan number.
- 3.6 Existing elevations of concrete drainage swales (if applicable).

4. **FOUNDATION**

- 4.1 Proposed Elevations:
 - a) top of foundation wall;
 - b) bottom of footing;
 - c) top of footing; and
 - d) final grade at foundation.

5. <u>ADDITIONAL REQUIREMENTS</u>

- 5.1 Additional requirements may be put forth by the Director for specific developments based on unique or challenging on-site conditions and must be observed in addition to all other requirements in Sections 1 through 4 in Part B of this Schedule.
- 5.2 This Schedule is to act only as a guideline of minimum requirements for Lot Grading Plan submissions and does not replace or override any Bylaw, development condition, or other legally binding document or agreement.

PART C - GRADE CERTIFICATE REQUIREMENTS

1. **BASIC INFORMATION**

- 1.1 Company name of home builder.
- 1.2 Contact information for surveying company.
- 1.3 Lot Grading Permit number.
- 1.4 Municipal address.
- 1.5 Legal address.
- 1.6 Development name and phase.
- 1.7 Datum information.
- 1.8 North arrow.
- 1.9 Legend.
- 1.10 Date of survey.

2. **AS-BUILT LOT GRADING & DRAINAGE**

- 2.1 As-Built drainage pattern shown with arrows.
- 2.2 As-Built and proposed elevations:
 - a) at all corners of the Parcel;
 - b) at break points along the property lines;
 - c) of grade at the foundation; and
 - d) at centerline of the drainage easement at property lines, if applicable.
- 2.3 As-Built slope percentages:
 - a) along property lines;
 - b) from grade at foundation to the property line; and
 - within the drainage easement, if applicable.
- 2.4 Existing elevations:
 - a) existing infrastructure including but not limited to sidewalk, top of curb, and concrete drainage swales (if applicable).
- 2.5 Identify status of adjacent Parcel (existing house, vacant Parcel, under construction).

3. **STRUCTURES**

- 3.1 As-Built house elevations:
 - a) top of footing; and
 - b) garage floor.
- 3.2 As-Built elevations of features (concrete walkways, concrete driveways, etc.).

4. <u>DRAINAGE EASEMENTS (IF APPLICABLE)</u>

- 4.1 As-Built drainage pattern shown with arrows.
- 4.2 As-Built slope percentage.
- 4.3 As-Built and proposed elevations of the swale.
- 4.4 Detail of the swale.
- 4.5 Registered plan number.
- 4.6 Existing elevations of concrete drainage swale (if applicable).

5. **CERTIFICATION**

- 5.1 Certification by an Alberta Land Surveyor, Registered Architect or Professional Engineer which must include both a signature and stamp.
- 5.2 Notes to be included:
 - a) subject to the acceptance of the local approving authority; and
 - b) grading will provide positive drainage for the Parcel and is directed as per the approved design.

BYLAW C-1366

SCHEDULE "E"

COMMERCIAL LOT GRADING PERMIT REQUIREMENTS

PART A - COMMERCIAL LOT GRADING PLAN REQUIREMENTS

1. **BASIC INFORMATION**

- 1.1 Contact information for permit applicant (name, phone number, email).
- 1.2 Contact information for Consultant (Engineer, Architect, etc.).
- 1.3 Municipal address.
- 1.4 Legal address.
- 1.5 Development name and phase.
- 1.6 Datum information.
- 1.7 North arrow.
- 1.8 Legend.
- 1.9 Date of survey.
- 1.10 Storm invert elevation.

2. **LOT GRADING & DRAINAGE**

- 2.1 Drainage pattern shown with arrows.
- 2.2 Slope percentages and proposed elevations:
 - a) at all corners of the Parcel;
 - b) throughout the entire body of the Parcel; and
 - c) along property lines (break points).
- 2.3 Existing elevations:
 - a) existing infrastructure including but not limited to sidewalks, public utility parcels, tops of curbs, services, and drainage swales.
- 2.4 Identify status of adjacent Parcel:
 - a) existing businesses or residential properties and their status (vacant, under construction, etc.).
- 2.5 Precise location of proposed building relative to property lines.

3. **GRADES AT BUILDING(S)**

- 3.1 Proposed elections:
 - a) along all edges of the foundation for the primary building; and
 - b) along all edges of any accessory buildings or other structures proposed on the Parcel.

4. **DRAINAGE EASEMENTS (IF APPLICABLE)**

- 4.1 Drainage pattern shown with arrows.
- 4.2 Slope percentage.
- 4.3 Proposed elevations of the swale.
- 4.4 Detail of the swale.
- 4.5 Registered plan number.
- 4.6 Existing elevations including but not limited to fences, concrete, swales, structures, etc.

5. **FOUNDATION**

- 5.1 Proposed Elections:
 - a) top of foundation(s);
 - b) bottom of foundation(s); and
 - c) final grade at foundation(s).

6. **STORMWATER MANAGEMENT**

- 6.1 To be in accordance with Section 12 of the Engineering Design Manual.
- 6.2 Discuss with the Director to determine if on-site stormwater detention is required.
- 6.3 Stormwater calculations using the rational method:
 - a) total area of Parcel including breakdown of each surface type and relevant coefficient (grass, concrete, roof, pavement, etc.);
 - b) total volume of stormwater required to be detained;
 - c) actual volume of stormwater detained on-site including a breakdown of each catchment area;
 - d) orifice details;
 - e) allowable release rate; and
 - f) actual release rate.
- 6.4 Overland drainage:
 - a) ponding extents in a 1:100 year storm event;
 - b) overflow elevations identified;
 - c) maximum ponding depth;
 - d) overland flow route marked by arrows; and
 - e) critical swales identified.

7. <u>CERTIFICATION</u>

- 7.1 Certification by an Alberta Land Surveyor, Registered Architect or Professional Engineer which is supported by both a signature and official stamp.
- 7.2 Notes to be included:
 - a) subject to the acceptance of the local approving authority; and
 - b) complies with all instruments of this Bylaw and the Drainage Bylaw C-1241.

8. **ADDITIONAL REQUIREMENTS**

- 8.1 Additional requirements may be put forth by the Director for specific developments based on unique or challenging on-site conditions and must be observed in addition to all other requirements in Sections 1 through 7 in Part A of this Schedule.
- 8.2 This Schedule is to act only as a guideline of minimum requirements for plan submissions and does not replace or override any Bylaw, development condition, or other legally binding document or agreement.

PART B - AS-BUILT DRAWING REQUIREMENTS

1. **BASIC INFORMATION**

- 1.1 In addition to all of the information required from "Part A Commercial Lot Grading Plan Requirements", all information listed in the following Sections 2 through 6 of Part B As-Built Plan Requirements must be added to the originally accepted plan.
- 1.2 Lot Grading Permit number.

2. **AS-BUILT LOT GRADING & DRAINAGE**

- 2.1 As-Built drainage pattern shown with arrows.
- 2.2 As-Built and proposed elevations:
 - a) at all corners of the Parcel;
 - b) throughout the entire body of the Parcel; and
 - c) along property lines and at break points.
- 2.3 As-Built slope percentages:
 - a) along property lines (break points).
- 2.4 Precise location of constructed structures and location of constructed buildings relative to property lines.

3. **GRADES AT BUILDING(S)**

- 3.1 As-Built and proposed elevations:
 - a) along all edges of the foundation for the primary building; and
 - b) along all edges of any accessory buildings or other structures on the Parcel.

4. AS-BUILT OF DRAINAGE EASEMENTS (IF APPLICABLE)

- 4.1 As-Built and proposed drainage pattern shown with arrows.
- 4.2 As-Built and proposed slope percentage.
- 4.3 As-Built and proposed elevations of the swale.
- 4.4 Registered plan number.

5. **FOUNDATIONS**

- 5.1 As-Built elevations:
 - a) top of footing;
 - b) bottom of footing; and
 - c) final grade at foundation(s).

6. **STORMWATER MANAGEMENT**

- 6.1 As-Built total volume of Stormwater detained.
- 6.2 As-Built orifice details.
- 6.3 As-Built release rate.
- 6.4 As-Built ponding extents in a 1:100 year storm event and maximum ponding depths.
- 6.5 As-built overland flow route(s) marked by arrows.

7. **DESIGN CHANGES**

7.1 Any design changes or deviations from the originally accepted plan must be accurately and adequately detailed on the submitted As-Built drawings to the satisfaction of the Director.