

## **1.0 GENERAL**

The following provides the Municipal District of Bighorn's (the "Municipality") Standards for developing Driveway Approaches (the "Approach") between the carriageway of a developed roadway (the "Roadway"), and an existing private property or a new parcel which is being created through Subdivision.

These Standards from part of and are in addition to the requirements of the Municipality's Driveway Approach Policy T-25.

## **2.0 APPROVALS AND PERMITTING**

### **2.1 General**

All Approaches shall meet the requirements of the Municipality's Land Use Bylaw, and conditions of the associated approvals.

All Approaches shall be in accordance with the "Driveway Approach Permit" issued by the Municipality. The Municipality will require a minimum of fifteen (15) working days to process an application.

The Approval shall be at the complete discretion of the Municipality, with the operations, safety and maintenance of the roadway taking priority over the landowner's desired location.

### **2.2 Approvals as a Condition of Subdivision**

The Municipality will require an Approach to be constructed as a condition of Subdivision, to ensure that each parcel has proper access meeting these Standards.

In those instances where access cannot be achieved meeting these Standards, the Developer may have to consider such options as developing a shared access between parcels, increasing the width of the proposed parcel(s), or relocating an existing Approach.

## **3.0 LOCATION AND WIDTH**

### **3.1 Hamlet and Country Residential Subdivision Approaches**

Any Approach proposed within a hamlet or Country Residential Subdivision, as defined in the Land Use Bylaw, shall meet the following criteria:

- a) No Approach shall be located within 7.5m from the property line of an intersecting roadway for private residential uses, and 10.0m for non-residential uses.
- b) No Approach shall be located within 1.0m from the property line of a lane or back alley for private residential uses, and 3.0m for non-residential uses.
- c) For operations and maintenance, culvert Approaches shall have a maximum width of 10.6m.
- d) For operations and maintenance, culvert Approaches shall have a minimum clear spacing of 2.0m on either side.

All applications shall include a Site Plan, which identifies the location and width of the proposed Approach.

### **3.2 Rural Approaches**

The location of rural Approaches proposed outside of a hamlet or Country Residential Subdivision shall meet the following criteria:

- a) Any Approach proposed within 300m of the provincial highway right-of-way or within 800m of the center point an intersection of the provincial highway with another public road shall be referred to Alberta Transportation for comments and/or approval.
- b) No Approach shall be located within 45m from the property line of a road intersection.
- c) No Approach shall be located on the same side of the Roadway within 150m of another Approach.
- d) No Approach shall be located within 30m of an at-grade railway crossing.
- e) The intersecting angle of an Approach and roadway shall be as close to 90 degrees as possible. Intersecting angles less than 75 degrees will not be accepted.
- f) Only one Approach will normally be allowed per parcel.
- g) An Approach providing access to a single parcel shall have a maximum driving surface width of 6.0m, plus flares having a maximum 5.0m radius. Shared Approaches between two parcels shall have a maximum width of 8.0m, plus flares having a maximum 5.0m radius.
- h) The maximum grade of the approach shall be about 4% without altering the municipal road right-of-way.
- i) Intersection sight distance must meet or exceed the following minimum requirements:

<b>Posted Speed (km/hr)</b>	<b>Intersection Sight Distance (m)</b>
30	80
40	90
50	115
60	135
70	155
80	185
90	195

The required intersection site distance shall be measured with an eye height of 1.05m on the Approach and an object height of 1.3m on the roadway in both directions of travel.

- j) It is ultimately the responsibility of the Applicant to ensure that the development of the Approach meets all provincial and federal regulation.

Notwithstanding the forgoing, no Approach shall be located within 30m from the ecological boundary of a water body, as defined by the Municipality's Municipal Development Plan and Land Use Bylaw.

Any approach suspected to be located within 30m from the ecological boundary shall undergo a detailed wetland assessment by a qualified wetland specialist as recognized by the Province.

The assessment shall identify all required regulatory approvals and notifications should the proposed location of the approach be approved by Municipality.

The acceptance of the assessment is subject to the discretion of the Municipality, and any government agency and authority having jurisdiction.

All applications shall include a Site Plan, which identifies the location and width of the Approach. The proposed location shall also be staked.

### **3.3 Different Standards**

The Municipality may, at its sole and absolute discretion, consider different standards provided the operations of the Roadway, and the safety of travelling public are not placed at risk.

All such requests shall be certified by a qualified professional engineer registered to practice with the Association of Professional Engineers and Geoscientists of Alberta (APEGA) having Errors and Omissions Insurance with limits of not less than \$2 million.

### **3.4 Field Approaches and Temporary Approaches**

Notwithstanding the generality of the foregoing, the Municipality may consider lower standards for:

- a) "Field Approaches", where vehicular activity is limited and is not part of any regular operation; and
- b) "Temporary Approaches", which will have a limited term, and which will be removed immediately after the completion of the project.

## **4.0 CONSTRUCTION SPECIFICATIONS**

### **4.1 Approaches without Culverts**

Cuts/ramps in Municipal curb and sidewalk are not allowed.

### **4.2 Culvert Approaches**

All Culvert Approaches shall be constructed in accordance with the following criteria. The Municipality may consider lower standards where existing conditions are limiting:

- a) The location and width of the approach shall be in accordance with the Site Plan approved with the Permit.
- b) The intersecting angle of an Approach and roadway shall be as close to 90 degrees as possible. Intersecting angles less than 75 degrees will not be accepted.
- c) The maximum grade of the approach shall be about 4% without altering the municipal road right-of-way.
- d) All organic or soft yielding material or stones larger than 75mm diameter shall be removed to a uniform depth throughout the entire length and diameter of the culvert, and replaced with suitable and unfrozen material compacted in lifts not exceeding 150mm in depth to provide a firm and uniform base which will not heave or settle.
- e) The base of the culvert shall be graded to match the existing ditch, or have a minimum slope of 0.5%; whichever is greater.

The culvert shall be installed on the base, centered in the ditch bottom without any vertical or horizontal deflections.

- f) All culverts shall be corrugated steel pipe with a minimum wall thickness of 1.6mm, or approved equivalent, with manufactured sloped ends.

Sloped ends are not required on roads having a posted speed limit of 50 km/hr or less where the culvert will be located more than 5.0m from the edge of the travel lane.

Both culvert ends shall be protected with riprap having a minimum dimension of about 150mm and not exceeding 300mm.

- g) The minimum culvert diameter shall be 450mm (18 inches).

Additionally, the culvert shall not be sized smaller than the next downstream culvert to maintain the passage of existing flows.

- h) Suitable backfill material, which does not contain any frozen, organic or soft yielding material, or stones larger than 75mm diameter, shall be placed in layers not exceeding 150mm in depth, and brought up simultaneously and evenly on both sides of the culvert ensuring that all corrugations are filled and that the culvert is not displaced laterally or vertically; and sufficiently compacted to prevent future settlement. A minimum cover of 200mm is desirable.

#### **4.3 General Specifications**

The following general specifications apply to the construction of all Approaches:

- a) All rural Approaches located outside of a hamlet or Country Residential Subdivision, which connect to a hard surface road (e.g. chip seal, cold mix or hot mix pavement etc.) shall be paved with a minimum 50mm depth of hot mix pavement from the shoulder of the roadway to property line.

All other Approaches may be surfaced with crushed gravel, recycled asphalt, concrete, hot mix pavement; or any other material acceptable to the Municipality.

- b) The surface of the Approach shall meet flush with the adjoining Municipal infrastructure and shall not create any tripping hazards.
- c) The Approach shall not create drainage problems, or change pre-existing drainage patterns along the roadway.
- d) If applicable, the municipal water service curbstop cap shall be set flush, or slightly embedded into the Approach; and preferably sleeved if placed within a concrete or asphalt driveway pad.
- e) All disturbed areas shall be graded and reclaimed to the complete satisfaction of the Municipality.
- f) All excess waste material shall be removed and disposed of accordingly.
- g) The Applicant shall not close or partially impede any travel lane without the written permission of the Municipality. All temporary traffic accommodation shall meet the minimum requirements detailed in the "Traffic Accommodation for Approach Work" Drawing.