

**LAC STE. ANNE COUNTY  
PROVINCE OF ALBERTA  
BYLAW 05-2002**

**A BY-LAW TO CONTROL LAND USE.**

**WHEREAS**, under the provisions of the Municipal Government Act, being Chapter M-26.1, Sections 633 and 692(1) of the Statutes of Alberta 1994, a municipality may adopt an Area Structure Plan.

**AND WHEREAS** the Council of Lac Ste. Anne County determined it necessary to adopt the "*SANDY BEACH ESTATES*" Area Structure Plan to allow for country residential development on the land legally known as SE 9-56-1-5.


**NOW THEREFORE** the Council duly assembled hereby enacts as follows:

1. The "*SANDY BEACH ESTATES AREA STRUCTURE PLAN*", Bylaw No. 05-2002 is hereby adopted in accordance with attached Schedule "A", subject to any required amendments as approved by Council.
2. That this By-law comes into full force and effect upon third and final reading.

First Reading carried the 14th day of March, A.D. 2002.

  
\_\_\_\_\_  
Reeve


(SEAL)

  
\_\_\_\_\_  
Municipal Administrator

Read a second time this 3<sup>rd</sup> day of April, A.D. 2002.

  
\_\_\_\_\_  
Reeve


(SEAL)

  
\_\_\_\_\_  
Municipal Administrator

Read a third and final time this 3<sup>rd</sup> day of April, A.D. 2002.

  
\_\_\_\_\_  
Reeve

(SEAL)

  
\_\_\_\_\_  
Municipal Administrator

**SCHEDULE "A"**  
**BYLAW NO. 05-2002**

**SANDY BEACH ESTATES AREA STRUCTURE PLAN**

**SANDY BEACH ESTATES  
AREA STRUCTURE PLAN  
COUNTY OF LAC STE. ANNE**

prepared for

**DEVELOPMENTS LTD.**

in association with

**E/A LEE CONSULTING LTD.**

and



**JANUARY 2002**

# SANDY BEACH ESTATES AREA STRUCTURE PLAN

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**APPENDICES**

1. Input received from referral agencies
2. Letter of December 14, 2001, from Alberta Community Development
3. Historical Resources Impact Assessment by Altamira Consulting Ltd.
4. Geotechnical Study by AMEC Earth & Environmental Limited

# SANDY BEACH ESTATES AREA STRUCTURE PLAN COUNTY OF LAC STE. ANNE

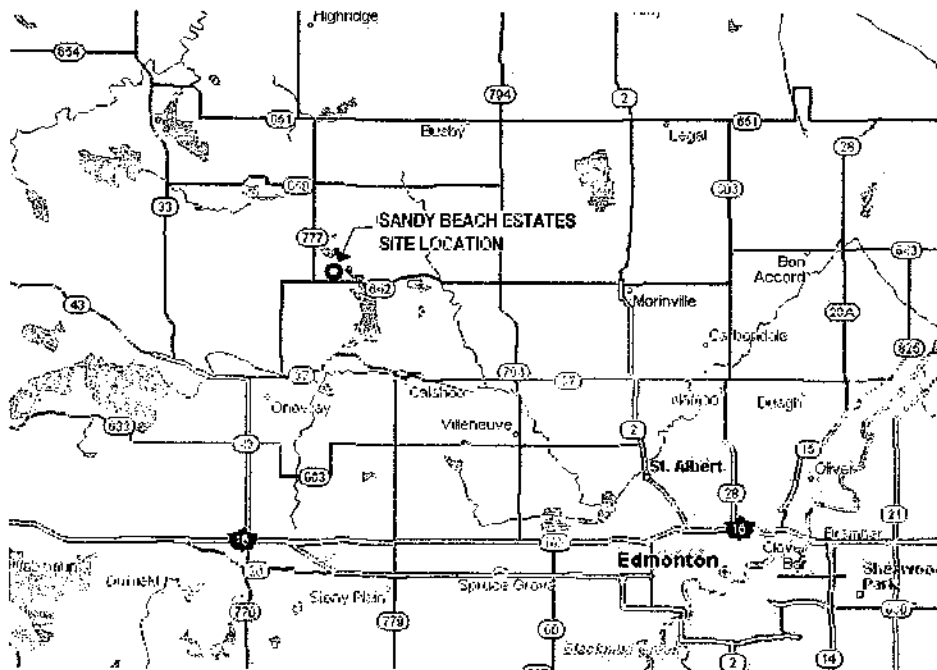
## 1. Application, Property Location and Ownership

The area structure plan (ASP) applies to the remainder of SE 9-56-1-W5. The property is located west of Range Road 13 near the northwest shore of Sandy Lake in the County.

The ASP covers a total of 63.06 ha (155.82 acres) of land area. The registered landowner is Alberta Surplus Sales Ltd. of Edmonton, Alberta.

The ASP does not include a 1.64 ha (4.05 acres) lot subdivided as the first parcel out of this quarter section.

**Figure 1. Location**



## 2. Purpose of Plan

The ASP will guide future development of the property in an orderly and efficient manner. The ASP contains provisions on environment, land uses, roadways, utilities and development staging. Future land use redistricting, subdivision and development decisions should be based on this plan.

### **3. Compliance with Relevant Legislation**

The ASP is prepared in compliance with Section 633 of the Municipal Government Act and the County's Municipal Development Plan. However, the 1981 Sandy Lake Area Structure Plan should be amended or replaced to accommodate this new Plan.

The present zoning on the property is Statutory Plan District. The preparation of an ASP is required prior to redistricting to CR4-Direct Control District or another suitable district under the County's Land Use Bylaw. The new district regulations will provide more specific and detailed land use and site controls. Land subdivisions and development will comply with the provisions of this ASP, the Land Use Bylaw and other applicable government legislation, policies and standards.

The property is also located in the intermunicipal planning area with Sturgeon County. However, in September 2001, Sturgeon County advised that they had no concerns with country residential development on this property.

### **4. Physical and Environmental Features**

#### **4.1 Topography and View of Sandy Lake**

The property has a rolling and undulating topography in most places. Level to gently sloping land is found in the southeastern corner of the property. The land slopes from higher elevations in the northeast and southwest toward lower elevations in the northern, south-central and the southeastern areas of the property. The above sea level elevations of the property range from 718.7 m (2,358 ft) at the highest point to 697.8 m (2,289 ft) at the lowest point.

The east and southeast facing higher grounds of the property enjoy excellent and picturesque views of Sandy Lake. The ASP is designed to capture this asset as much as possible for the enjoyment of future residents.

#### **4.2 Soils**

Under the Canada Land Inventory rating system, the property has Class 5 soils, which is marginal to poor quality for agricultural production.

According to Alberta Soil Survey Report No. 24 for the Buck Lake and Wabamun Lake Areas, the soils on the majority of the property include Dnister Soils, Nakamun Soils and Kawood Soils. The Dnister soils are imperfectly to moderately well drained soils with close to surface bedrocks. The topography is complex and varies from undulating to rolling. The Nakamun soils are moderately well drained and are found on undulating to gently rolling topography. Some stones are found in these soils. The Kawood Soils are imperfectly to moderately well drained and have a topography from level to gently

rolling. In addition, the organic soils of Eaglesham Series are present on low and level areas in the southeastern corner of the property. These soils have characteristics of the accumulation of sedge peat which vary widely in terms of decomposition and depth. The topography is usually depression.

#### 4.3 Flood Plain and Water Bodies

The 1:100 year flood elevation of Sandy Lake has not been officially defined by Alberta Environment. However, the maximum flood level recorded at Sandy Lake by Alberta Environment was the 1974 flood, which reached 698.195 m in elevation. Therefore, Alberta Environment has recommended that the 1974 flood elevation be used for the purposes of this ASP. Based on the 1974 elevation, approximately 4 ha (10 acres) of land in the southeast corner of the property was flooded and should be designated as Environmental Reserve to prevent unsuitable land development in this area. It should be noted that flooding of this area has not occurred in recent years and this land is usually dry or only slightly wet most of the time.

One unnamed creek connects Lake Anderson with Sandy Lake through the quarter section to the north of this property. A small section of this creek touches the property just east of the midpoint of the northern boundary of the property. A small tributary of this creek also touches the northwest corner of the property.

In addition, there is a seasonal surface drainage course in the south-central area of the property, from the western boundary to the southeastern low land area.

Several dug outs and one fish pond are present on the lower areas of the property. The fish pond contains clear water, which is possibly spring fed.

A review by the Public Lands Branch of Alberta Sustainable Resource Development Department has found no Crown owned bed and shore concerns on this property.

#### 4.4 Ground Water Table

The October 2001 geotechnical study by AMEC found high ground water tables in the southeast corner of the property, where water is within 2.4 m of the ground surface. AMEC recommended that future development should avoid this area with high ground water tables.

#### 4.5 Tree Cover

The property is partially cleared. Dense tree covers are found in about two-thirds of the property. The predominant tree species are spruce and some white poplar.

About one-third of the property has been cleared for pasture.



#### 4.6 Fish and Wildlife

Generally, the Provincial Government has no jurisdiction on private lands in terms of protecting and managing wildlife habitats. However, some wildlife has been observed on the property. The proposed larger acreage parcels and open space corridors should not significantly affect the wildlife in this area.

#### 4.7 Historical Resources

Due to the property's location near the head waters of Sandy Lake and near Alexander First Nation Reserve, Alberta Community Development has requested that a historical resource impact study be carried out on the property. The study was completed by Altamira Consulting Ltd. in November 2001, and found no historical, archaeological or palaeontological sites on the property. In December 2001, Alberta Community Development issued the permit #2001-318 to give permission to the proposed country residential development on this property.

### 5. Existing Land Uses, Roadways and Utilities

#### 5.1 Land Uses

The subject property is shown on Figure 2, The Plan Area.

At present, the cleared portions of the property have been used for pasture on a seasonal basis. Approximately 40 heads of cattle were kept in the summer months. A corral, located in the northeast corner of the property, has been removed. The property is fenced on all sides. There is no other development on this property.

According to Aspen Health Authority, the 1.64 ha (4.05 acres) first parcel subdivided out in the southeast corner of the quarter section was once used as a transfer station/landfill site by the Summer Village of Sandy Lake for a number of years. However, this use was discontinued and the site has since been reclaimed. It now accommodates a home site.

Non-intensive agricultural operations are found in the surrounding areas. A corral and pasture are located to the east, across Range Road 13 toward Sandy Lake. A small cemetery is located to the northeast of the property, also across Range Road 13. To the north, horse raising and a home are located on an acreage lot. The remainder of the quarter section to the north is used for pasture. To the south, there is also a home site, with the remainder of the quarter section in pasture. The quarter section to the west of the property is actively farmed with crops and also accommodates a home site.

According to AEUB, there is no oil or gas development in the immediate vicinity of the property.

## 5.2 Roadways

The property is accessible from Range Road 13. Future widening of this County road from a right-of-way of 20 m to 30 m is desirable. As the area develops over time, a 5 m road widening dedication should be provided from each side of this road.

## 5.3 Utilities

Residents in the general area depend on ground water wells for domestic water supply. For the purposes of the ASP, the geotechnical study by AMEC has found that there are adequate ground water resources to support at least 60 homes on the property.

Sewage disposal generally depends on individual on-site systems, such as septic tanks and fields, treatment mounds and holding tanks. AMEC has recommended the use of mounds as the most preferred method.

Franchise utilities such as power and gas are available to the property from Utilicorp and Ste. Ann Gas, respectively.

## 6. The Development Plan

A large number of the referral agencies of the County and New Era Municipal Services were contacted for input during the planning process. Not all of these referral agencies have provided input. However, the ASP is prepared in view of the inputs received.

### 6.1 The Planning Objective

The ASP is to develop a well designed country residential subdivision, which will provide a variety of parcel sizes (many with beautiful views of Sandy Lake) and a rural life style, with large open spaces, parks, trails and walkway corridors, to accommodate many of the County's present and future residents. The ASP is shown on Figure 3, The Development Plan.

### 6.2 Municipal Reserve and Environmental Protection

As shown on Figure 4 both Municipal and Environmental Reserves will be provided. The low land in the southeast corner of the property, which was flooded in 1974, will be dedicated as an ER. The Municipal Reserves to be provided include the following:

- 6.2.1 Additional land areas surrounding the ER to form a larger useable open space and park.
- 6.2.2 A 0.4 ha (1 acre) neighbourhood tot lot in the northwest part of the property to provide the nearby residents with an amenity and play area.

6.2.3 Open spaces and trails and walkway corridors along the perimeters of the property and a central east-west linear open space corridor and connecting lanes from roadways.

The combined MR dedications will be less than the 10% of the developable land normally required under the Municipal Government Act. Therefore, it is proposed that cash-in-lieu for the balance will be provided to the County. This money can then be used to provide some play equipment in the MR/ER areas.

A homeowner's association could also be formed to assist the County in the development and maintenance of the MR and ER lands.

### 6.3 Land Uses and Amenities

Approximately 46 country residential lots are included in the ASP. These acreage lots vary in size, ranging between 0.6 ha (1.5 acres) and 1.7 ha (4.2 acres). None of these lots will be located in the 1974 flood area. Also, the lots near the southeast corner of the property will have adequate building sites at least 2.4 m above the ground water tables. All future residences will be stick built or modular homes.

Assuming an average household size at 3.2 persons per lot, the development may generate a future population of 147 people.

The Municipal and Environmental Reserves will provide recreational and open space amenities for the local and nearby residents. The large combined ER and MR area in the southeast and the MR tot lot in the northwest of the property could be provided with recreational facilities in the future. The small dug outs could be filled. However, it would be desirable to retain the fish pond as a neighbourhood recreational amenity.

The Northern Gateway Regional Division No. 10 has advised that they would be interested in cash-in-lieu contributions for school purposes. School busing is available to the property. For the ease of school bus movements, detailed roadway designs during the future subdivision approval process should incorporate adequate turn around areas in suitable locations for school buses.

### 6.4 Roadways

The internal roadway design is intended to discourage through traffic, yet still allows future accesses to neighbouring lands if required in the future through the registration of roadway caveats. The use of cul-de-sacs will minimize traffic volumes and promote safety and privacy, thus a higher quality of life for the residents.

The east entrance road from Range Road 13 is located almost at the centre point of the east boundary of the property. This location has good visibility from both directions on

the Range Road, thus a safe design. The existing property access to the Range Road at the north end of the property will be closed.

A 5 m road widening dedication will be provided along the entire length of the east boundary of the property along Range Road 13.

The internal roadways will be based on a rural cross section design, as shown on Figure 5, constructed to meet the standards and requirements of the County. In general, the roadways will have a minimum right-of-way of 20 m, a gravel road surface of 7.3 m in width, 3:1 side slopes, 3 m wide ditch bottom and 4:1 back slopes. However, if the economics is favourable, the internal roads could be paved to provide an even higher level of service.

Detailed internal roadway designs during the future subdivision approval process should include turn around provisions in suitable locations for school bus turning movements.

Each lot will be provided with an approach, as shown on Figure 6. The approaches will meet the standards of the County for private approaches. In general, the approaches will have a gravelled 7 m top width, 6 m radius and at right angles to the roadway.

#### 6.5 Utilities

Ground water supply will be used for domestic purposes. All wells will be developed in compliance with Alberta Environment standards. For this purpose, the geotechnical study by AMEC has verified that there are sufficient local ground water sources for at least 60 homes, without affecting any other ground water uses in the general area.

For sewage disposal, the geotechnical study by AMEC recommended that treatment mounds be used. These private systems must comply with applicable Provincial Private Sewage System Guidelines and the Alberta Plumbing Code Regulation. However, if holding tanks are also used, an off-site levy could be contributed to the County to assist with the necessary works on nearby County sewage lagoons.

Storm water management will be facilitated by roadside ditches and the property's natural drainage systems. Due to the low density large acreage development design, no additional storm water management facility is necessary. However, in some places drainage easements may be registered on lots to protect natural drainage patterns.

Franchise utilities, i.e. power, gas, telephone, will be provided by the respective utility companies at the time of subdivision.

## 6.6 Development Staging

The development as shown on Figure 7, will commence in the east from Range Road 13, as follows:

- 6.6.1 Stage One will include the entrance and internal roads, 1 MR lot, 1 ER lot and 22 residential lots.
- 6.6.2 Stage Two will include internal road extensions, 13 residential lots and 1 tot lot and other MR lots.
- 6.6.3 Stage Three will include internal road extensions, 11 residential lots and MR lots.

Upon completion, the property will accommodate a total of 46 country residential lots, plus MR and ER lots.

## 6.7 Plan Statistics

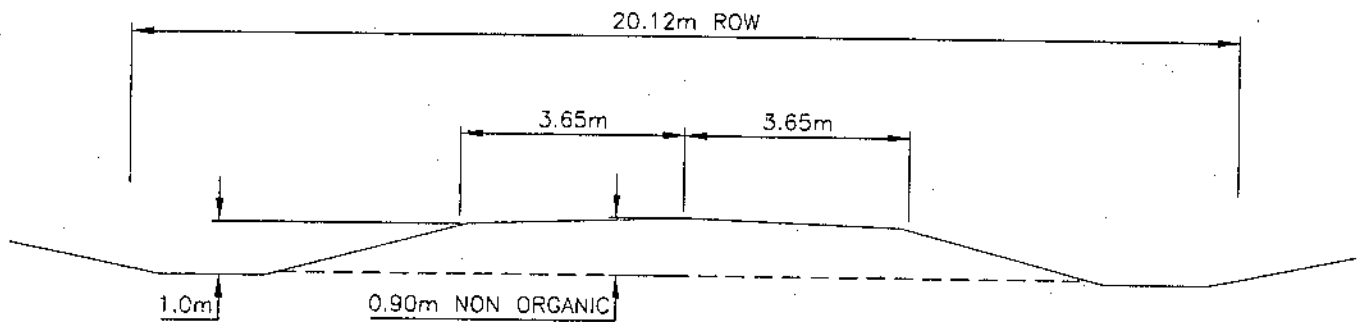
The following table shows a summary of the land use categories of the ASP:

Land Use Category	Area	% of Developable Area*
Residential	48.82 ha (120.63 ac)	82.9%
Municipal Reserve	4.88 ha (12.06 ac)	8.3%
Environmental Reserve	4.16 ha (10.28 ac)	n.a.
Roads	5.20 ha (12.85 ac)	8.8%
Total	63.06 ha (155.82 ac)	100.0% of 58.9 ha (145.54 ac)

\*Developable area is the total land area minus ER land area.

## 7. Plan Amendment

Future amendments to this ASP may be considered if deemed appropriate by the County.



## RURAL ROAD TYPICAL SECTION

### FUNCTION

ROADS CONSTRUCTED TO MEET STANDARD FOR COUNTY TRAFFIC.

### RIGHT OF WAY REQUIREMENTS

RIGHT OF WAY 20.12 METRES WITH BACKSLOPING EASEMENT FOR CONSTRUCTION

### CROSS SECTION ELEMENTS

FINISHED ROAD TOP 7.3 METRES  
 GRADE SLOPE 1 METRE VERTICAL @, 3:1  
 DITCH FLAT BOTTOM @ 3.0m WIDTH  
 BACKSLOPING MIN. 4:1

### GEOMATIC REQUIREMENTS

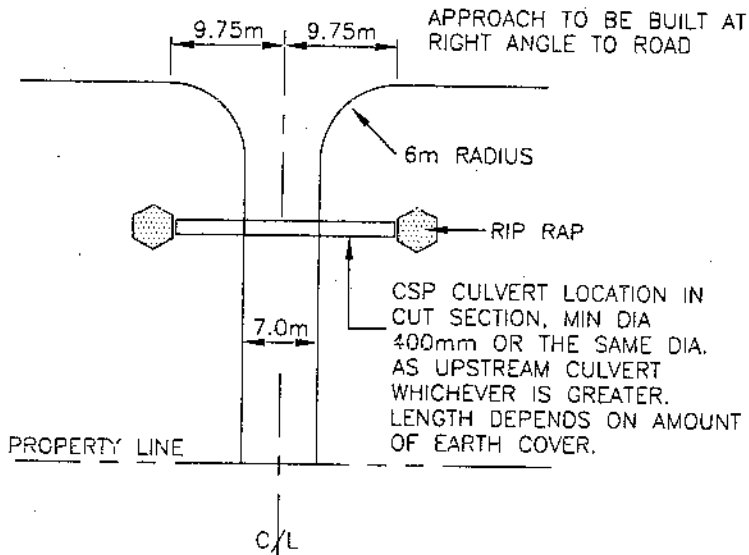
MAX. GRADIENT 6%  
 MIN. CREST VERTICAL CURVATURE - K45  
 MIN. SAG VERTICAL CURVATURE - K30  
 MIN. HORZ. CURVATURE - 300 METRE RADIUS  
 MAX. SUPER ELEVATION 6%  
 CROWN RATE 3%

### STRUCTURAL REQUIREMENTS FOR ROADWAYS AND APPROACHES

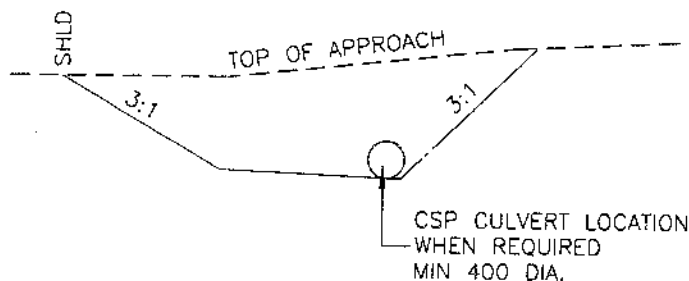
SURFACE AGGREGATE	DESIGNATION 4 CLASS 20 MATERIAL, 3/4 INCH CRUSH, AB. INFRASTRUCTURE SPEC., MIN. 100mm DEPTH
GRADE	0.90 METRE MIN. NON ORGANIC MATERIAL WITH 0.20 METRES OF CLAY CAP.
COMPACTION	UPPER 0.30 METRE 100% S.P.D. BELOW 0.30 METRE 98% S.P.D.
MOISTURE CONTENT	OPTIMUM MOISTURE CONTENT

**Tapper Developments**  
**SANDY BEACH ESTATES**  
**AREA STRUCTURE PLAN**  
 S.E. 1/4 SEC. 9-TWP-56-RGE. 1 - W5M, ALBERTA  
**LOCAL ROADS - RURAL STANDARD**  
 AVERAGE TO LIGHT TRAFFIC VOLUMES  
**FIGURE 5**

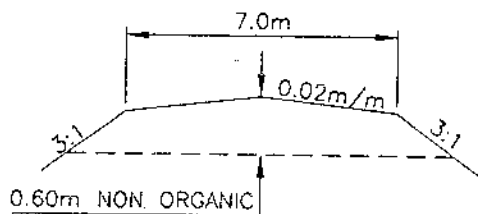




PLAN - PRIVATE APPROACH

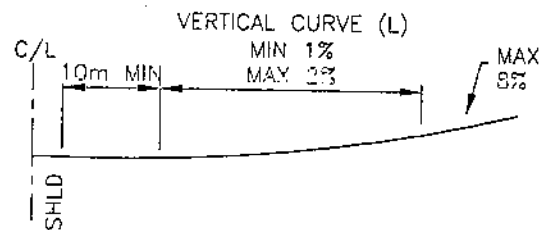


DETAIL OF DITCH AND CULVERT LOCATION

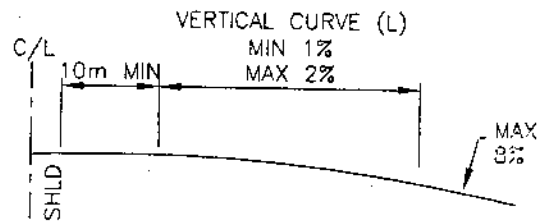


MII.1. PRIVATE APPROACH CROSS SECTION

ALGEBRAIC DIFFERENCE IN GRADIENT (%)	MIN. CURVE LENGTH OF VERTICAL CURVE	
	LENGTH L (METRES)	
	CREST	SAG
1	6	7.5
2	12	15
3	18	23
4	25	30
5	30	36
6	37	46
7		46
8		46
9		46



PROFILE - PRIVATE APPROACH IN CUT



PROFILE - PRIVATE APPROACH IN FILL

**NOTES:**

ALL ENTRANCES ARE TO BE FROM THE INTERNAL ROAD SYSTEM AND ARE TO PROVIDE REASONABLE ACCESS TO THE LOTS, EACH LOT IS TO HAVE A PRIVATE APPROACH.

GRAVEL MUST BE 3/4 INCH CRUSH, DESIGNATION 4, CLASS 20, AB. INFRASTRUCTURE SPEC. AND HAVE A MIN. DEPTH OF 4 INCHES (100mm) COMPACTION

UPPER 0.30m 100% S.P.D.  
BELOW 0.30m 98% S.P.D.

# Tapper Developments SANDY BEACH ESTATES AREA STRUCTURE PLAN

S.E. 1/4 SEC. 9-TWP-56-RGE. 1 - W5M, ALBERTA

## PRIVATE APPROACH RURAL STANDARD



FIGURE 6