

**BY-LAW NO. 2734 OF THE
COUNTY OF GRANDE PRAIRIE NO. 1**

A by-law of the County of Grande Prairie No. 1 in the Province of Alberta, to adopt the attached Area Structure Plan for the East half of Section Eight (8), Township Seventy Two (72), Range Five (5), West of the Sixth Meridian.

WHEREAS the Municipal Government Act, Statutes of Alberta, 2000, Chapter M-26. and amendments thereto, authorizes a Council to provide a framework for the subdivision and development of an area of land within the Municipality; and

WHEREAS the Council of the County of Grande Prairie No. 1 has properly notified the owners of land within the development area, pursuant to provisions of the Municipal Government Act, Statutes of Alberta, 2000, Chapter M-26, and amendments thereto.

NOW THEREFORE the Council of the County of Grande Prairie No. 1 duly assembled, hereby enacts as follows:

1. That this By-law shall be known as the **"MAKENA DEVELOPMENTS AREA STRUCTURE PLAN BY-LAW"**.
2. That the Makena Developments Area Structure Plan By-law shall provide the framework and policies for future development of the land described therein.
3. That the Makena Developments Area Structure Plan document is attached to this by-law as an appendix and forms part of this by-law.
4. That this by-law shall take effect on the date of its final passage by Council.

READ A FIRST AND SECOND TIME THIS 14th DAY OF FEBRUARY, A.D. 2005.



REEVE



COUNTY ADMINISTRATOR

**READ A THIRD AND FINAL TIME AND FINALLY PASSED THIS 22ND DAY OF
FEBRUARY , A.D. 2005.**





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SURVEYORS ENGINEERS

URBANSYSTEMS

Area Structure Plan

**for NE 1/4 Sec 8-71-5-W6M and
SE 1/4 Sec 8-71-5-W6M**

**Prepared for submission to:
County of Grande Prairie No. 1**



County of Grande Prairie No. 1
Alberta, Canada

Bylaw No.: 2734

Adopted: February 22, 2005

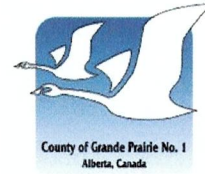


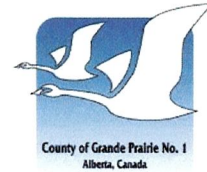
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1.0 INTRODUCTION

1.1 Plan Purpose

This Area Structure Plan (ASP) provides a framework for the development of two quarter sections of land in the County of Grande Prairie. The ASP will guide the land use and infrastructure development of the subject site, *facilitate the protection of the portion of the plan area adjacent to Bear Creek*, and demonstrate the way in which new developments will connect to servicing. The plan also contains a preliminary subdivision design for the NE ¼ Sec 8-71-5-W6M in accordance with County of Grande Prairie standards.

1.2 Plan Area

This ASP applies to NE ¼ Sec 8 71-5-W6M and SE ¼ Sec 8 71-5-W6M (henceforth referred to as NE8 and SE8) which are located in the County of Grande Prairie's south-eastern region immediately southeast of the City of Grande Prairie's municipal boundary. Figure 1.1 shows the plan area's regional context.

The site is bounded by Willowood to the west, Sandy Ridge to the north, and agricultural land to the east and south. Bear Creek crosses SE8 near its southern edge. Road access to the site is available from 68th Avenue (Township Road 712) which borders the site to the north and Range Road 54 to the east. Figure 1.2 illustrates the plan area's local context.

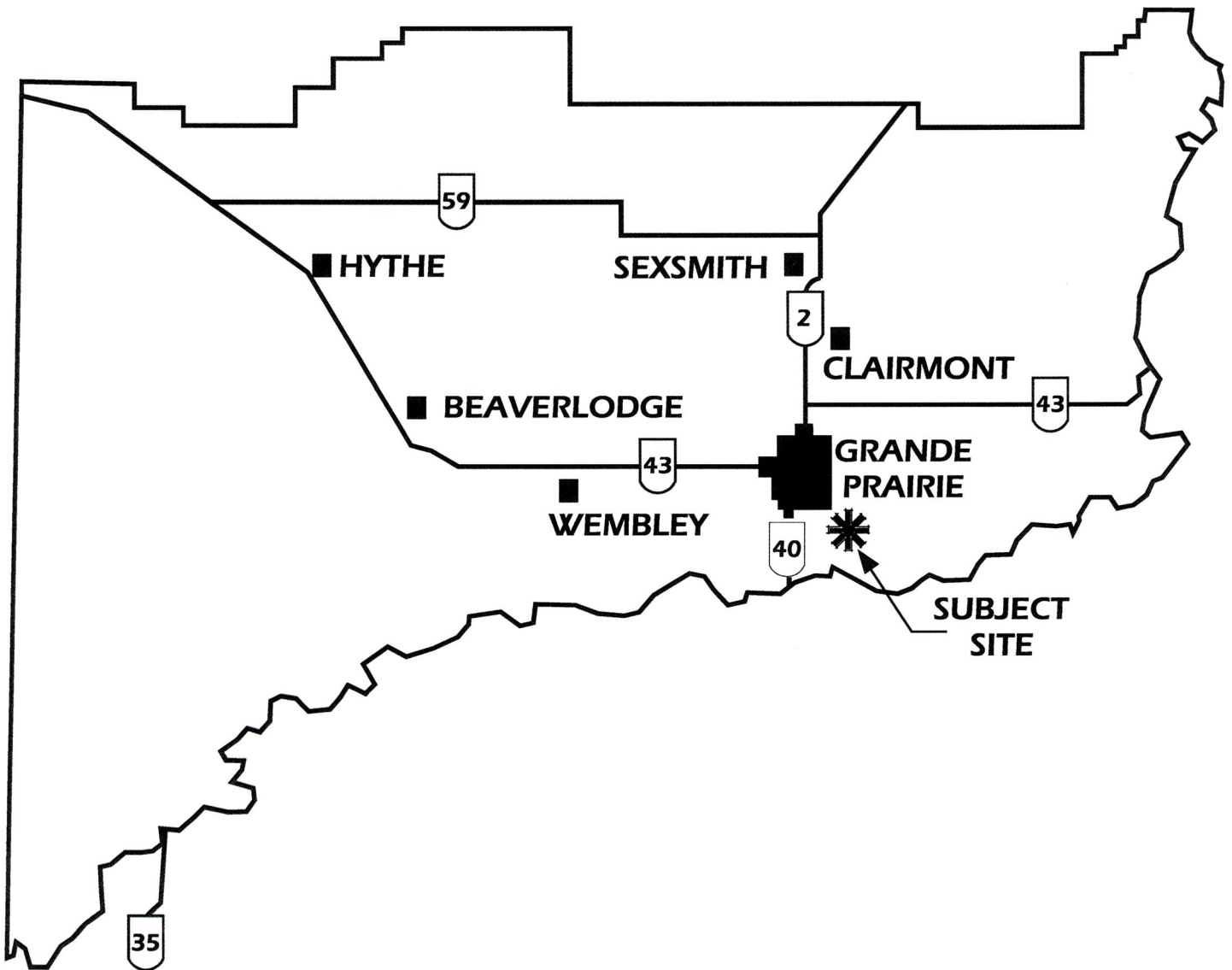
2.0 EXISTING CONDITIONS

2.1 Surface Geology and Topography

The plan area consists of a top layer of silty sand ranging in depth from 0.75 m to in excess of 6.1 m below native ground surface. The landform is gently rolling pasture characterized by minor depressions and hollows as well as undisturbed treed areas containing moisture tolerant vegetation such as willow.

While the NE8 is basically flat with a slope of 0.25%, the slope increases at the boundary of NE8 and SE8. At approximately the midpoint of SE8, the slope increases significantly due to Bear Creek which runs through the southern part of the plan area. A valley adjoins the creek with side slopes

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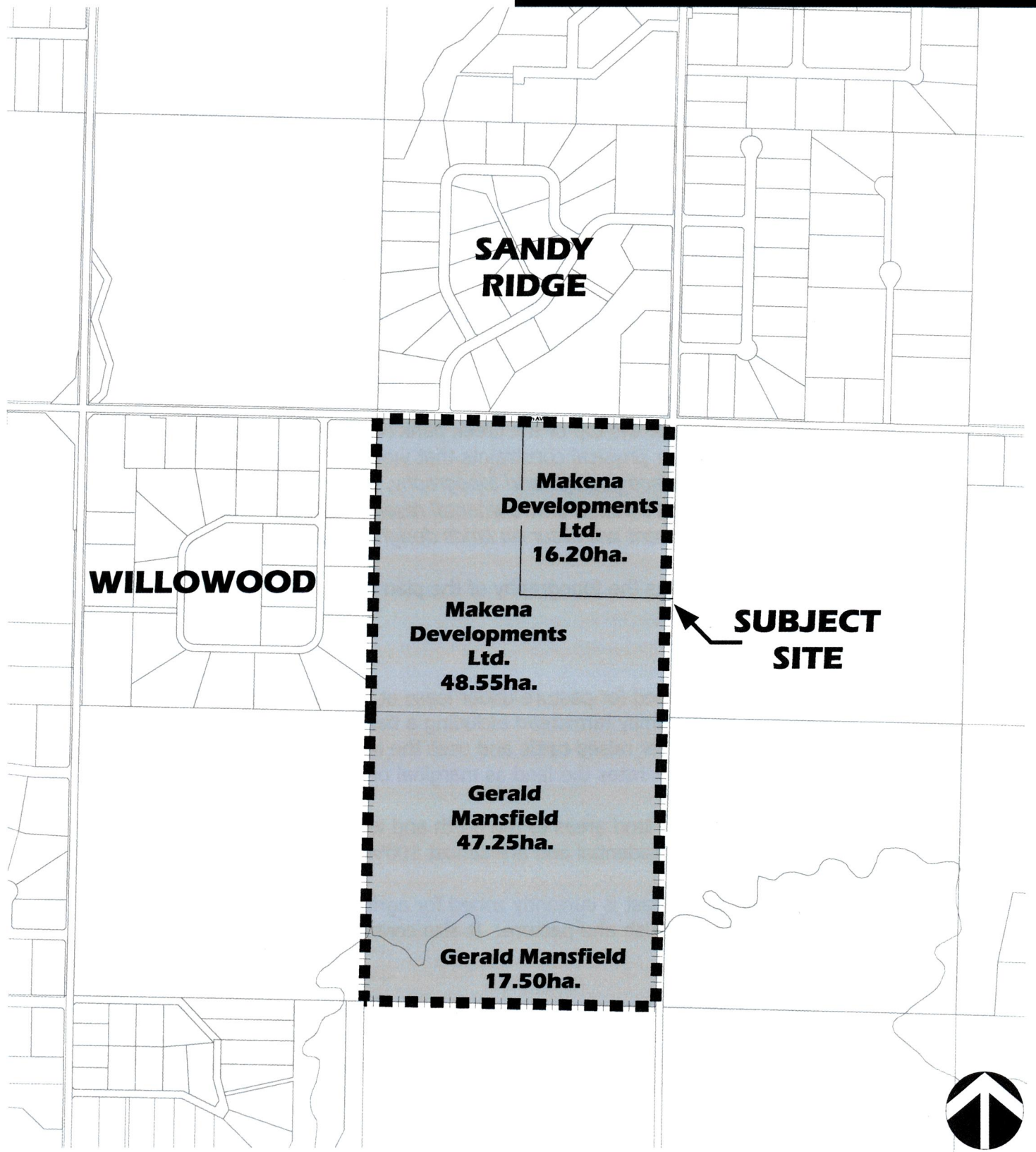
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AREA STRUCTURE PLAN
NE & SE 1/4 SEC 8 TWP 71 RGE 5 W6M

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Regional Context



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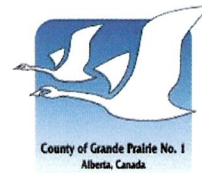
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AREA STRUCTURE PLAN
 NE & SE 1/4 SEC 8 TWP 71 RGE 5 W6M

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N.T.S.	03/17/2004	1.2
File No. - 2464-0002-08		Title

Local Context



at a ratio of about 5:1. A relatively steeply sloped treed area leads up from the creek to the south limit of the plan area.

The plan area drains to the south into Bear Creek. Minor depressions and hollows pond small amounts of water, but ultimately drain into the sandy soil. The sand is reported to have moderate to rapid permeability rates. The geotechnical report did not indicate a high water table in the area. However, the presence of moisture tolerant vegetation in isolated areas indicated the potential for limited areas to experience seasonal high water tables.

The area north of the top of the creek bank has no environmental, topographical, or physical constraints that would inhibit the development. *Despite the surface geology and topography, the creek and adjacent lands will be protected through environmental reserve (ER) dedication. No future development will occur on lands designated as ER in the plan area.*

Figure 2.1 depicts the topography of the plan area.

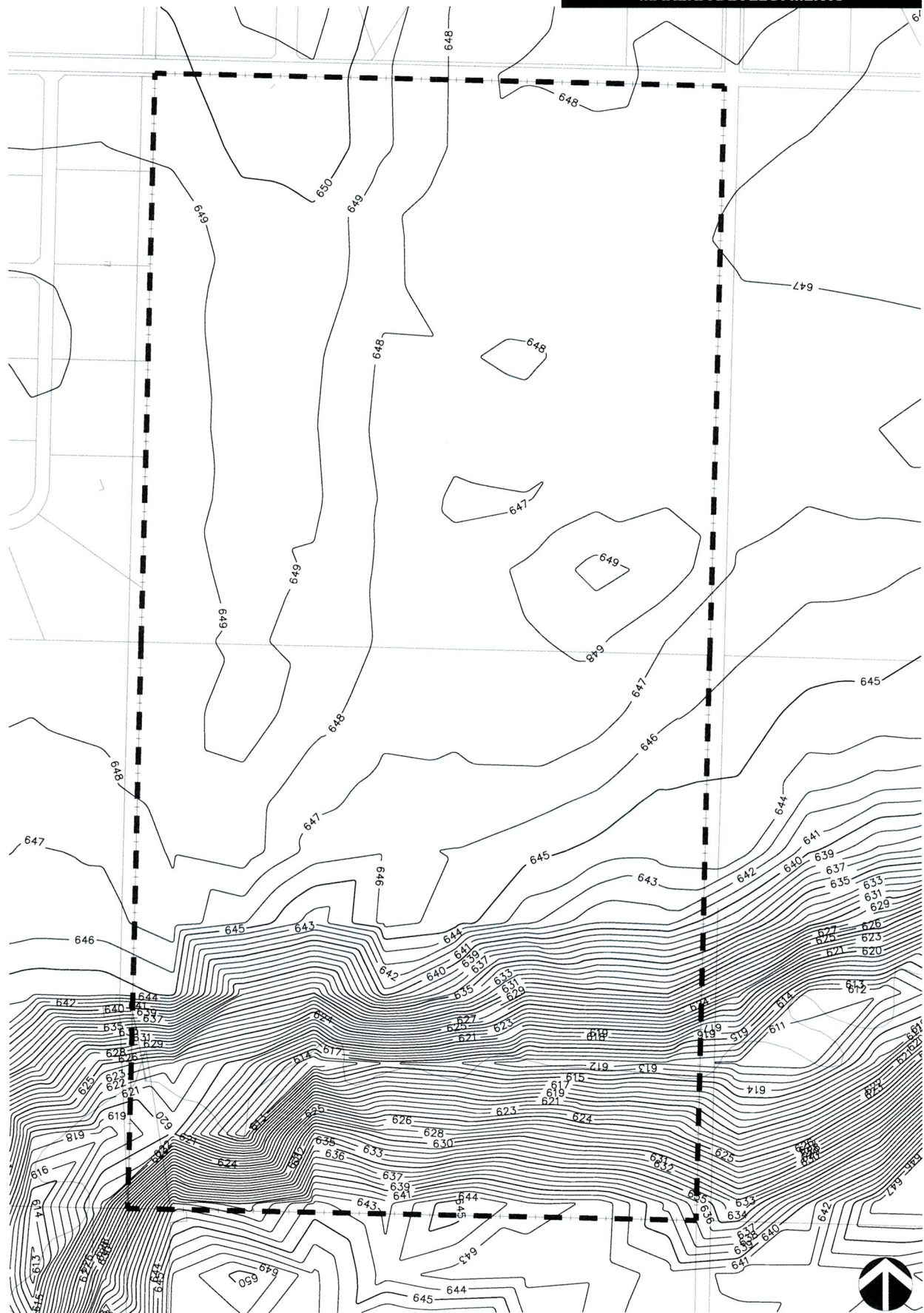
2.2 Land Use

NE8 has been used for pasture under lease at various times. SE8 has an existing single family farmstead including a barn and other structures. The current owner raises cattle and uses the land for pasture. The Farm Land Assessment rates the land as marginal or poor.

The surrounding land areas to the north and west are currently multi-parcel country residential and are almost 100% developed.

The land to the east is currently zoned for agriculture, but contains a combination of bush and pasture. It also contains some minor residential development.

South of the planning area is the Dunes, a unique geological formation that is largely under Crown ownership. The proposed use of the area is natural with a variety of recreation uses encouraged. The Dunes provide the plan area with a nearby amenity.



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Legend

■ ■ Boundary

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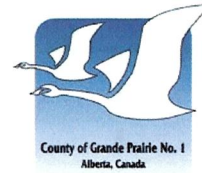
AREA STRUCTURE PLAN
 NE & SE 1/4 SEC 8 TWP 71 RGE 5 W6M

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File No. - 2464-0002-07 Title

Topography



2.3 Utilities

At present, there is no municipal water service in the plan area. Water is obtained either from wells or brought in by truck. Wastewater is disposed of in septic fields or removed by truck.

Two roads currently service the plan area: 68th Avenue (Township Road 712) along the north edge of the plan area and Range Road 54 along the east edge of the plan area. 68th Avenue connects to the City of Grande Prairie and has recently been widened and paved to just beyond the northwest corner of NE8. Range Road 54, which connects to 68th Avenue and 100th Avenues, is gravel and ends at the boundary of NE8 and SE8.

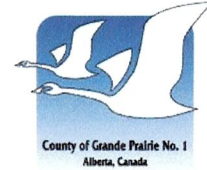
2.4 County of Grande Prairie Policy Framework

2.4.1 Municipal Development Plan

The County of Grande Prairie's Municipal Development Plan's (MDP) Future Land Use Areas map shows the plan area as Country Residential. Section 7.0 of the MDP states that an adequate water supply and sewage disposal method must be provided for country residential development to occur. Furthermore, the site cannot be on steep slopes, in a flood plain, on an area with a high water table, or an environmentally sensitive area. The MDP also indicates that development should not disrupt natural patterns or cause flooding, particularly on adjacent land. Finally, it states that larger lots are required with a maximum gross density of 10 units per hectare (4 units per acre).

2.4.2 Land Use Bylaw

The County of Grande Prairie's Land Use Bylaw shows the subject site districted mainly as AG (Agricultural). The northeast corner of NE8 has been subdivided and is titled as LSD 16. This parcel is districted as CR-5 (County Residential).



3.0 DEVELOPMENT CONCEPT

3.1 Plan Goals

The goals of this Area Structure Plan are as follows:

1. To provide a detailed framework for future development within the plan boundaries that is consistent with the objectives outlined in the County of Grande Prairie's Municipal Development Plan.
2. To ensure that development is compatible with existing land uses.
3. *To protect the environmentally sensitive portion of the plan area adjacent to Bear Creek.*
4. To provide efficient and economically feasible servicing options for the plan area.
5. To provide for the development of a unique rural estate community in the plan area.
6. To retain native trees on-site to serve as a valuable green amenity while buffering the new development visually.

3.2 Land Use Concept

The concept for the plan area is residential rural estate development with a *net* density of 2.1 units per hectare. Trail connections, *which may be provided at a future date determined by County of Grande Prairie planning for the area, will be designated as municipal reserve and dedicated to the County.* A municipal reserve site will be located in each of the quarters with a storm water management pond in NE8 along with two pocket parks. The plan area will be serviced by municipal water and sewer. Roads will be asphalt with street lighting. Figures 3.1 and 3.2 show the concept plans for each quarter.



4.0 POLICY

4.1 Environment

Due to Bear Creek's environmental sensitivity, it will be carefully protected throughout and following the development of the plan area. As outlined below, qualified professionals will determine the appropriate development limit. The lands south of this limit will become environmental reserve and ownership will be transferred to the County. This process facilitates the permanent protection of the portion of Bear Creek located in the plan area from development.

- 4.1.1 A geotechnical investigation to determine slope stability shall be conducted prior to establishing a development limit at the south end of the plan area.
- 4.1.2 A qualified hydrologist shall determine the potential flood areas within the plan area.
- 4.1.3 The more restrictive of the two limits determined by policies 4.1.1 and 4.1.2 shall become the safe limit of development for SE8.
- 4.1.4 All land within the plan area from the development limit established in policy 4.1.3 south to the plan area boundary shall be designated as Environmental Reserve, districted as L-IR (Limited Institutional and Recreation), and ownership transferred to the County.

4.2 Residential

- 4.2.1 Residential lands shall be districted as RE (Rural Estate) as defined by the County of Grande Prairie's Land Use Bylaw.
- 4.2.2 The two parcels in NE8 shall be consolidated into one title prior to redistricting.
- 4.2.3 Redistricting shall occur prior to subdivision approval.
- 4.2.4 *The net density of the development shall be 2.1 units per hectare.*
- 4.2.5 *The average residential lot area shall be 3,600 m².*



- 4.2.6 All residential development shall be serviced with municipal water and sewer services.
- 4.2.7 Properties along the north and west sides of the plan area shall be required, through a restrictive covenant on title, to maintain a 4.6 m wide strip of existing trees at the rear of the property to maintain natural vegetation and to improve aesthetic buffering of the development.
- 4.2.8 Properties in the plan area shall be required to adhere to architectural guidelines registered by restrictive covenant on title.

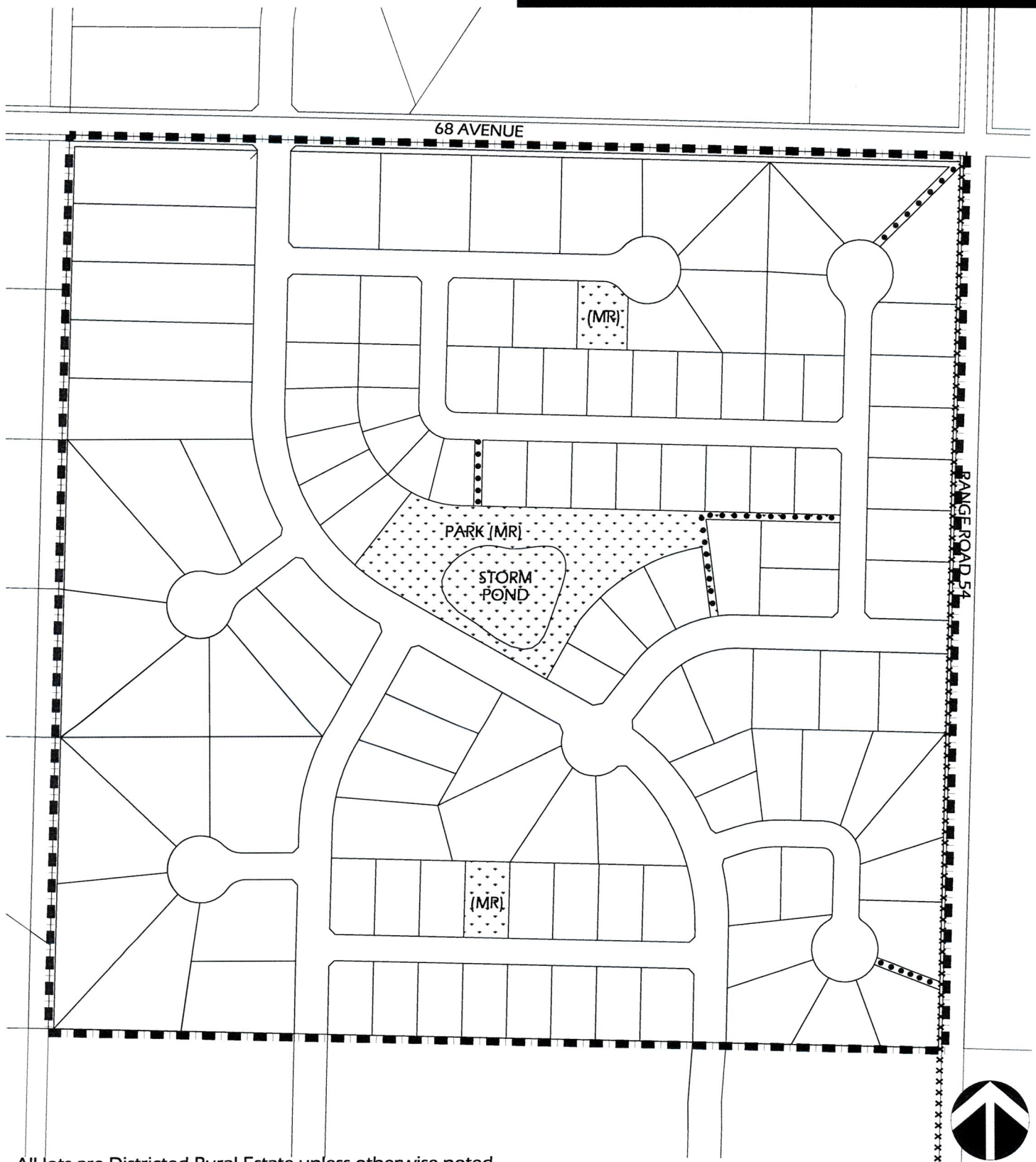
4.3 Municipal Reserve

- 4.3.1 Municipal reserve shall be taken and developed according to the phases shown in Figures 5.1 and 5.2 (see Section 5.1 Phasing).
- 4.3.2 The majority of municipal reserve shall be provided by the developer as land at the subdivision stage.
- 4.3.3 The balance of any municipal reserve owing shall be provided to the County as cash-in-lieu as a condition of subdivision approval, or deferred to other land owned by the Owner.
- 4.3.4 Municipal reserve shall be developed to County standards at the developer's expense.
- 4.3.5 *Municipal reserve dedicated for trails shall be developed in accordance with the Concept Plans included in Figures 3.1 and 3.2.*
- 4.3.6 *The major municipal reserve dedications on the south and east sides of the plan area may be developed in the future in accordance with a County of Grande Prairie Trail Network Master Plan for the area.*
- 4.3.7 The trail system shall be constructed at the developer's expense in accordance with County standards.
- 4.3.8 *A 3 m wide strip dedicated to the County of Grande Prairie as municipal reserve (MR) lands shall be provided along the east boundary of the plan area. The County may incorporate the 3 m*



wide MR strip into a regional corridor plan at some point in the future.

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All lots are Districted Rural Estate unless otherwise noted.

Legend

- ■ ■ Boundary
- ▤ Municipal Reserve
- ● ● Trail
- x x x 3.0m MR Strip



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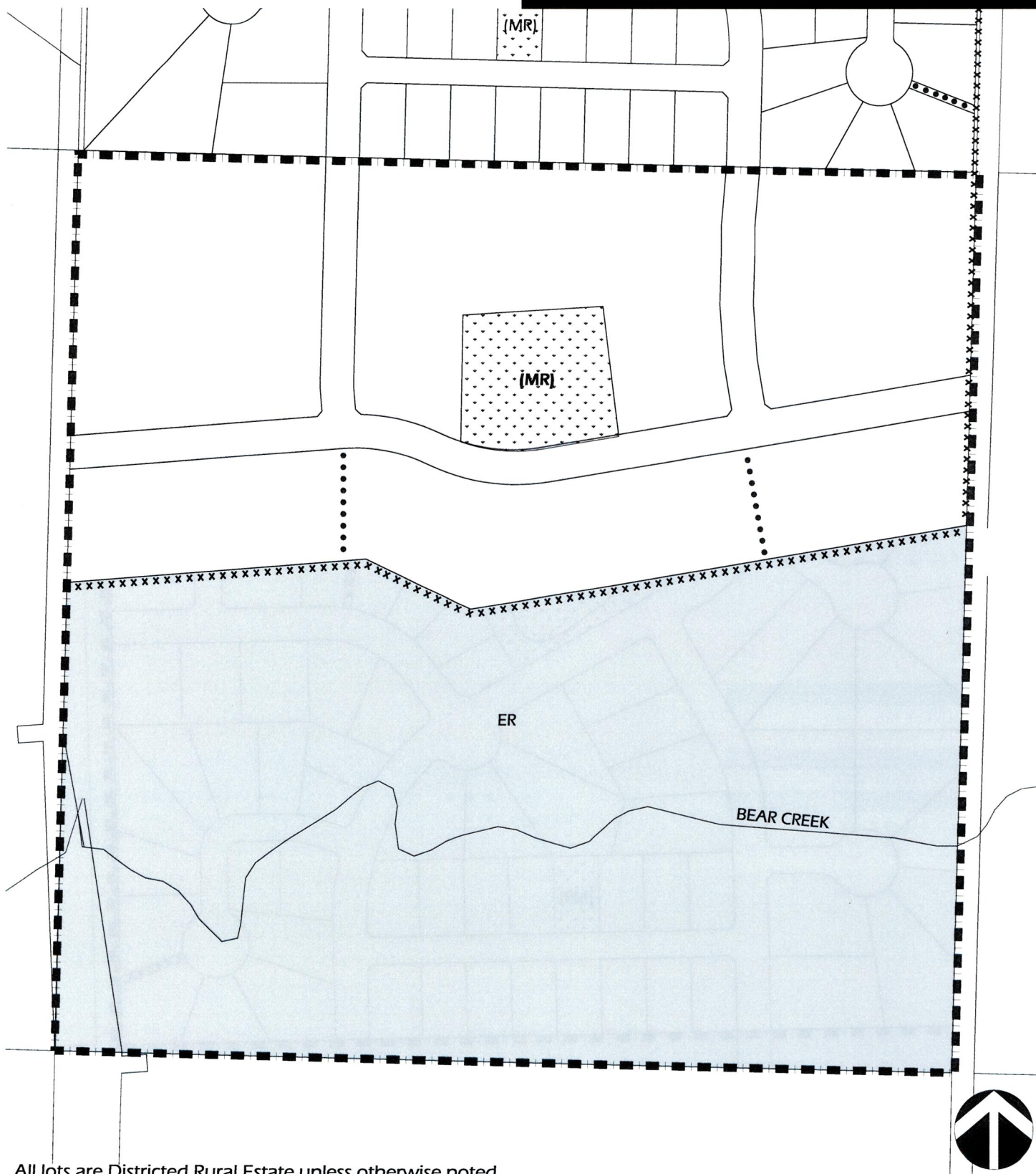
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AREA STRUCTURE PLAN
NE & SE 1/4 SEC 8 TWP 71 RGE 5 W6M

Scale	Date	Figure No.
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N.E. 1/4 Concept Plan

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Legend

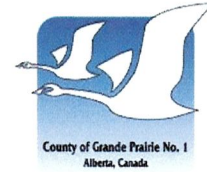
- ■ ■ Boundary
- ▤ Municipal Reserve
- ▦ Environmental Reserve
- ● ● Trail
- x x x 3.0m MR Strip

Client/Project

AREA STRUCTURE PLAN
 NE & SE 1/4 SEC 8 TWP 71 RGE 5 W6M

Scale	Date	Figure No.
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S.E. 1/4 Concept Plan



4.4 Roadways

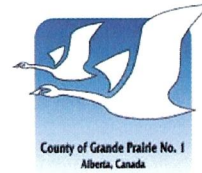
68th and 100th Avenues are the two main Arterial roadways for the numerous country subdivisions to the east of the City of Grande Prairie. Each of these roadways extend eastward approximately 8 kilometres from the City of Grande Prairie to Bear Creek, which provides a natural barrier to development further east. The area serviced directly by 68th Avenue consists of 32-quarter sections of land. A significant number of these have already been developed into country residential subdivisions.

The primary access to the subdivision will be 68th Avenue (Township Road 712) which has recently been widened and paved. This has been improved from the City of Grande Prairie to just beyond the entrance to the subdivision. The second access point is Range Road 54, a gravel road, which ends approximately 800 metres south of the proposed subdivision access point and connects northward to 100 Avenue. Further access to the south is blocked by Bear Creek. Range Road 54 to the South of 68th Avenue would be classified as a Collector. There is sufficient right-of-way width at Range Road 54 to accommodate a future left hand turn lane if required.

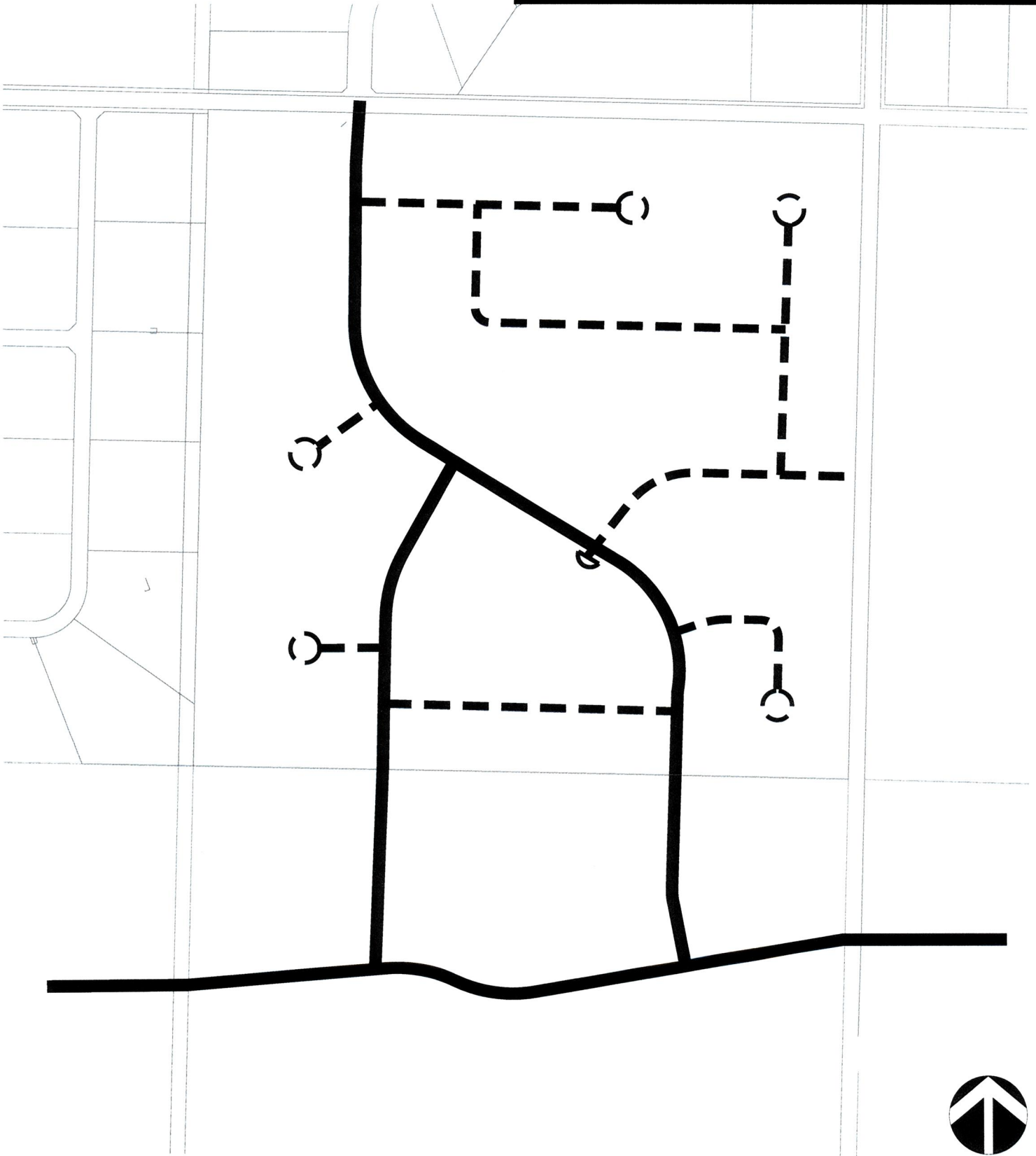
Local Collector road access to the plan area will be provided at three points. There will be one access off 68th Avenue and two accesses off Range Road 54. Range Road 54 will serve as a secondary access for both of these quarters, as well as the land to the east.

When development occurs in neighbouring NW ¼ Sec 9 71-5-W6M and SW ¼ Sec 9 71-5-W6M, the developers will provide additional right of way width to accommodate improvements and utilities on Range Road 54. Other road improvements including paving may be required.

- 4.4.1 Roads shall be developed according to Figure 4.1 Proposed Road Network.
- 4.4.2 The primary access into the development shall be 68th Avenue (Township Road 712).
- 4.4.3 The developer shall construct a right hand turn lane on 68th Avenue to facilitate access into the development.



- 4.4.4 The developer shall provide a 10 m road widening along the south side of 68th Avenue at the time of subdivision. This includes the 5 m provided in 2003. ATCO Electric's need for a power line easement to the north of the plan area shall be accommodated within the road widening at the time of subdivision.
- 4.4.5 The secondary access into the development shall be Range Road 54 with an access point in each quarter section.
- 4.4.6 The access to Range Road 54 in NE8 shall be constructed so that it can be extended into NW ¼ Sec 9 71-5-W6M.
- 4.4.7 The access to Range Road 54 in SE8 shall be constructed to become a connection between SW ¼ Sec 8 71-5-W6M and SW ¼ Sec 9 71-5-W6M. This corridor shall be integrated into the County of Grande Prairie's Municipal Development Plan so that future Area Structure Plans include this corridor.
- 4.4.8 The developer shall provide a 5 m road widening on the west side of Range Road 54 at the time of subdivision.
- 4.4.9 All internal roads will be developed to County Standards at the developer's expense.
- 4.4.10 The right of way width for local collectors shall be 30 m.
- 4.4.11 The right of way width for local roads shall be 24 m with an additional 3 m utility easement for shallow utilities on either side.
- 4.4.12 The roads shall be asphalt with open ditches for drainage.
- 4.4.13 Streetlights shall be constructed according to County standards at the developer's expense.
- 4.4.14 The developer shall work with the County of Grande Prairie and ATCO Electric at the subdivision stage to ensure that roadway cross-sections will be designed to accommodate ATCO Electric's need to include shallow utilities and facilities within the road allowance.



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Legend

- Local Collector
- Local Road

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 NE & SE 1/4 SEC 8 TWP 71 RGE 5 W6M

Scale	Date	Figure No.
N.T.S.	01/10/2005	4.1
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Proposed Road Network



4.5 Potable Water

Currently, there is no municipal water service in the plan area. The County of Grande Prairie wishes to increase the servicing level by providing water services to the area east of the City of Grande Prairie. As a result, Aquatera Utilities Inc. commissioned "Servicing Study Report for Areas Southeast of City of Grande Prairie". This report compared municipal water service to the trickle system for the study area. It found that municipal service would only be 10% to 15% more expensive than the trickle system and would not require the installation of considerable infrastructure at each dwelling. Therefore, the report recommends municipal water service for the area east of the City.

In order to achieve this, the water service network will have to be extended from the trunk water main at 90th Street and 68th Avenue along 68th Avenue to the plan area.

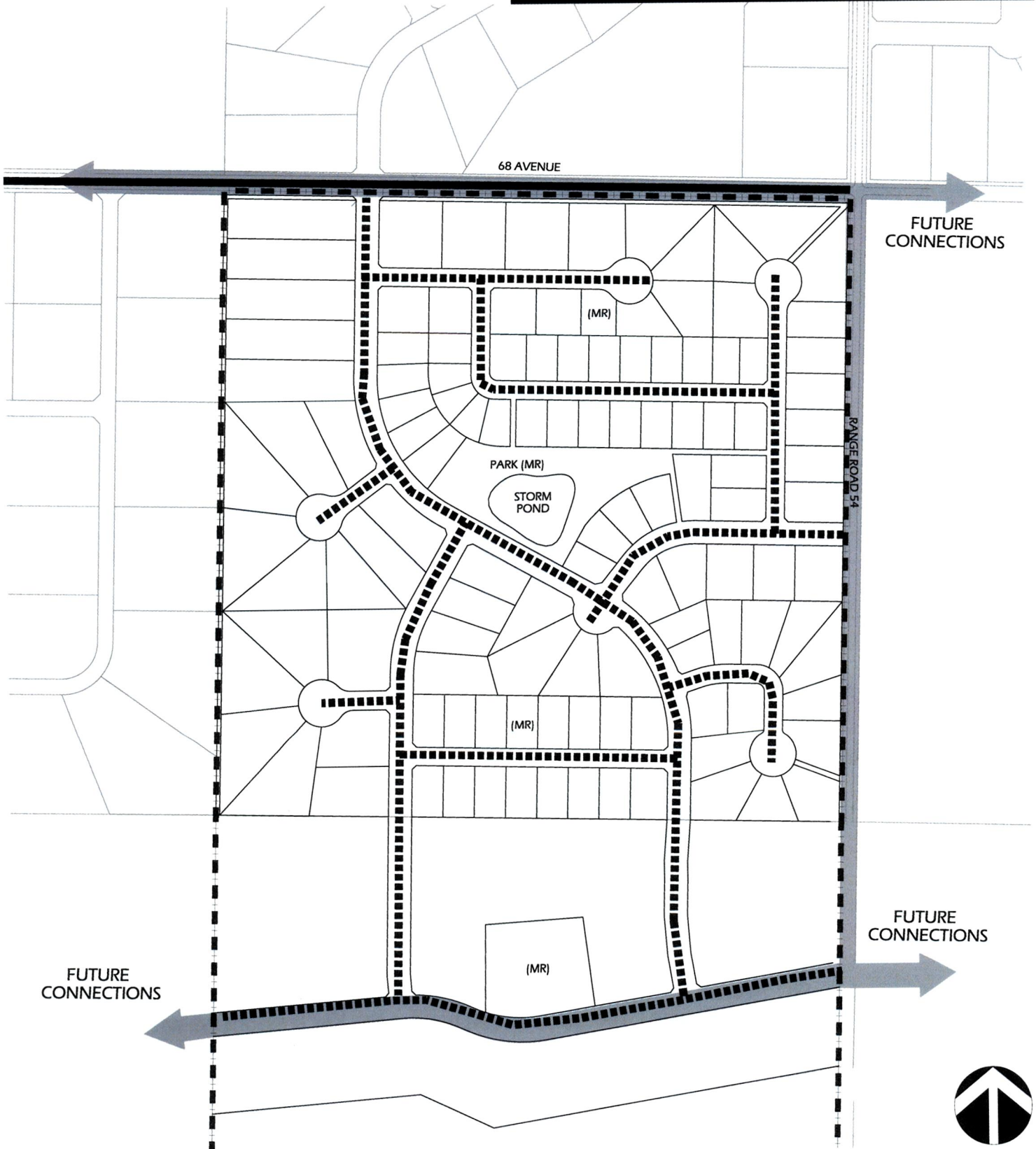
Due to the size of the water line required for downstream development, water supply for fire protection within the plan area would initially be provided by the piped system recommended in the "Servicing Study Report for Areas Southeast of City of Grande Prairie".

In the long term, it is important to preserve contiguous utility corridors at a reasonable spacing. Water systems are significantly more efficient and reliable when connected into a network of loops. The FUS recommends that arterial feeder mains be spaced preferably not more than 1000 metres apart¹. The initial primary east-west feeder main will be installed in 68th Avenue. It is important as part of development planning to ensure that additional corridors are created, as the spacing of the existing road allowances is 3,200 metres (north and south) and 1,600 metres (east and west).

A preliminary estimate indicates that the cost of water supply infrastructure is approximately \$550,000 (2004 dollars). The benefiting area is approximately 980 ha. The water infrastructure benefiting area is identified on Figure 6.1 (See Section 5.3 Benefiting Areas). A potential levy to recover the costs of the installation might be approximately \$565/ha (2004 dollars). A clear policy to recover costs will need to be developed once detailed engineering for the water supply line is complete and implemented through a development agreement.

¹ Water Supply for Public Fire Protection, Fire Underwriters Survey, 1999.

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Legend

- ■ ■ Boundary
- Proposed 300mm Water Line
- - - Proposed 200mm Water Line
- Proposed Utility Corridor



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Scale	Date	Figure No.
N.T.S.	01/10/2005	4.2
File No. - 2464-0002-03	Title	

Proposed Water Servicing



- 4.5.1 The water service network shall follow road alignments and develop in accordance with Figure 4.2 Proposed Water Servicing.
- 4.5.2 A 300 mm water supply line shall be constructed along 68th Avenue from the 300 mm water line in the City of Grande Prairie to the plan area. This water supply line shall be provided at the developer's expense.
- 4.5.3 The water line constructed along 68th Avenue shall form part of the southeast area servicing system.
- 4.5.4 A 200 mm water trunk shall run north to south through the subdivision and shall be provided at the developer's expense
- 4.5.5 The utility network shall be developed in coordination with the County of Grande Prairie, Aquatera Utilities Inc., ATCO Electric and other service providers in order to coordinate utility alignments
- 4.5.6 *The water network shall be designed to include a 300 mm water supply line from the County of Grande Prairie with a 200 mm water trunk running through the plan area with the objective of providing water flows of 95 L/s at build out of the plan area.*

4.6 Wastewater

Currently, there is no municipal wastewater service in the plan area. The County of Grande Prairie wishes to increase the servicing level by providing wastewater service to the area east of the City of Grande Prairie. As a result, Aquatera Utilities Inc. commissioned "Servicing Study Report for Areas Southeast of City of Grande Prairie".

This report compares low pressure and gravity sewer systems for the study area. Both options require the construction of a force main along 68th Avenue to connect with the existing sanitary sewer system in the City of Grande Prairie. The report recommended the low pressure system as it can operate in undulating terrain and with larger lots, requires a smaller pipe that can be located 3 m below ground and as a result is less expensive.



A preliminary estimate indicates that the cost of trunk sewer infrastructure is approximately \$280,000 (2004 dollars). The benefiting area is approximately 346 ha. The sewer infrastructure benefiting area is identified on Figure 6.2 (see Section 5.3 Benefiting Areas). A potential levy to recover the costs of the installation might be approximately \$810/ha (2004 dollars). A clear policy to recover costs will need to be developed once detailed engineering for the sewer trunk main is complete and implemented through a development agreement.

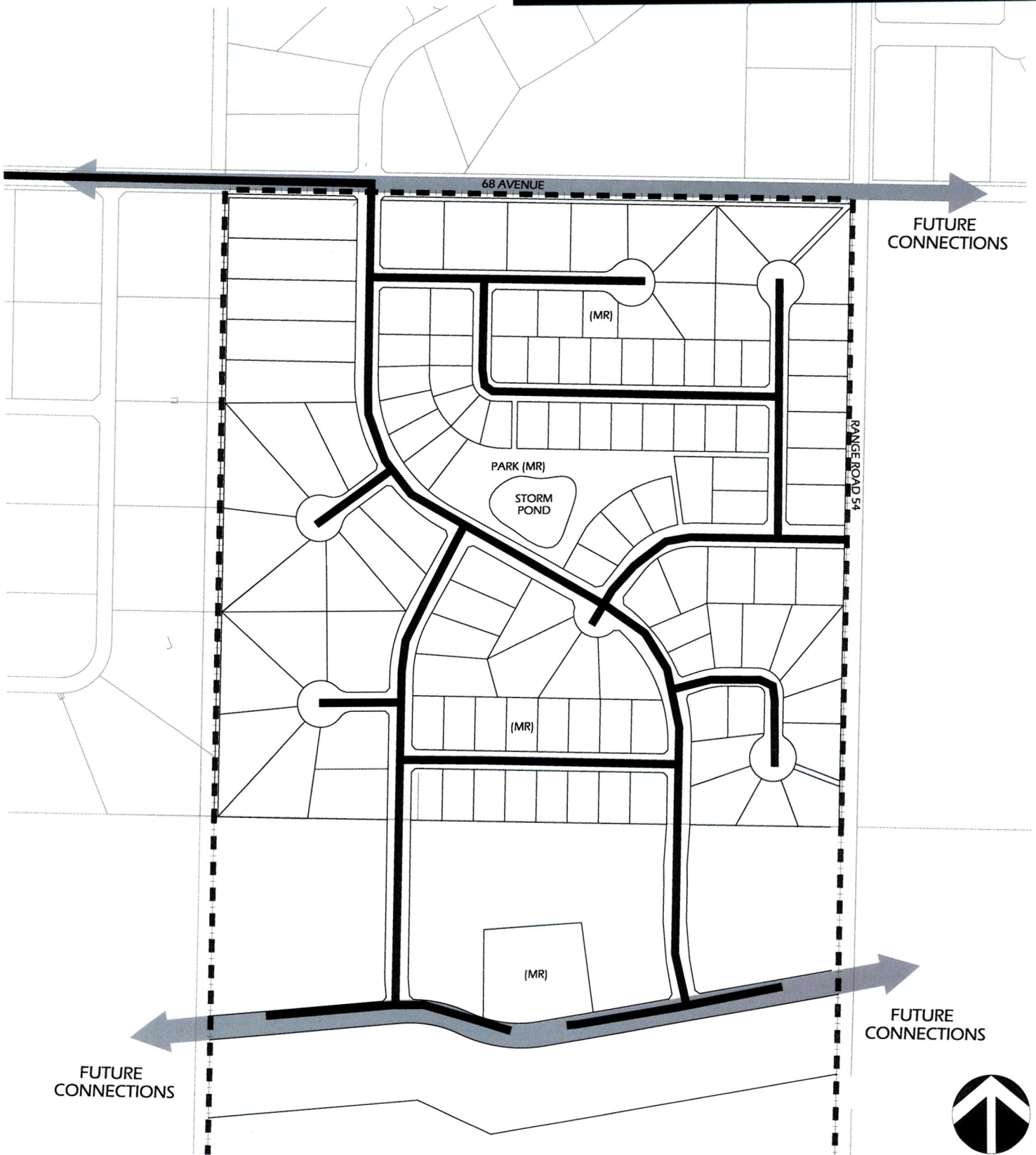
4.6.1 The sanitary sewer system shall develop in accordance with Figure 4.3 Proposed Sanitary Sewer Servicing.

4.6.2 The following infrastructure elements shall be constructed to service the plan area at the developer's expense:

- a) a force main along 68th Avenue connecting the City of Grande Prairie's existing sewer system to the entrance of the subdivision;
- b) internal force mains; and
- c) an internal network of low-pressure sewer pumps, each individually owned and operated by the lot owner.

4.6.3 The utility network shall be developed in coordination with the County of Grande Prairie, Aquatera Utilities Inc., ATCO Electric and other service providers in order to coordinate utility alignments.

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Legend

- ■ ■ Boundary
- Proposed 150mm Sanitary Sewer Line
- ▬ Proposed Utility Corridor



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AREA STRUCTURE PLAN
NE & SE 1/4 SEC 8 TWP 71 RGE 5 W6M

Scale	Date	Figure No.
N.T.S.	01/10/2005	4.3
File No. - 2464-0002-04		Title

Proposed Sanitary Servicing





4.7 Storm Water Management

The proposed drainage system will be handled by overland flow by way of ditches. Water will generally drain to Bear Creek. In some areas, the drainage will outlet into existing ditches along 68th Avenue and Range Road 54 and follow a drainage pattern en route to the creek. The ditches will generally follow the road alignments.

The area generally consists of a top layer of silty sand ranging in depths from 0.75 m to in excess of 6.1 m below native ground surface². The sand is reported to have moderate to rapid permeability rates. With the relatively flat slopes in the upper areas of the subdivision, much of the water will be lost to infiltration, evaporation, and transpiration. Water will also be diverted into storm ponds to store water for supplementary fire protection purposes, as well as to provide aesthetically pleasing features to the development. These ponds will require lining to permit long-term storage.

The excess storm runoff, after infiltration and storage losses, will be conveyed to Bear Creek. All ditches and channels will be adequately protected with vegetation for flatter slopes and appropriate measures for the steeper areas to prevent erosion and suspended sediments from entering Bear Creek.

- 4.7.1 Storm water management systems shall be designed and constructed according to Alberta Environment standards at the developer's expense.
- 4.7.2 Storm water management shall occur in accordance with Figure 4.4 Proposed Drainage.
- 4.7.3 All detailed information pertaining to the storm water requirements for the area shall be provided in the detailed design report at the subdivision stage. A drainage master plan showing drainage patterns and issues in the area shall be prepared at the time of the first subdivision application.
- 4.7.4 A grading plan shall be prepared by the developer with each phase of subdivision in accordance with County standards with the intention of directing excess runoff into Bear Creek.

² Geotechnical Report on NE 8-71-5-6, February 2003, J.R. Paine & Associates Ltd.



- 4.7.5 An individual grading plan shall be completed for each lot. This plan shall demonstrate a delay in peak run-off, encourage soil infiltration, direct runoff to roadside ditches and, where appropriate, storm water management ponds.
- 4.7.6 Each individual grading plan shall conform to the master grading plan, and shall be submitted to the County prior to the approval of a development permit for that lot.
- 4.7.7 Internal roadways, ditches, and culverts shall be designed and constructed to handle wastewater, enhance infiltration and inhibit erosion by slowing flow velocities.
- 4.7.8 Ditches shall follow road alignments wherever possible, and include protection measures to minimize the entrance of suspended sediments into Bear Creek.
- 4.7.9 Storm runoff shall be directed into a lined storm water/supplementary fire protection pond for reuse and to improve water quality prior to any discharge into the receiving environment.
- 4.7.10 The storm water pond shall be designated as a Public Utility Lot.
- 4.7.11 The land surrounding the pond shall be dedicated as municipal reserve.

4.8 Shallow Utilities

- 4.8.1 All shallow utilities (telephone, power, natural gas, and cable) shall be extended into the plan area by the individual franchise holders.
- 4.8.2 ATCO gas shall be responsible for the installation of a gas feeder main from NW ¼ Sec 18-71-5-W6M, south along the east side of 92nd Street and east along 68th Ave.
- 4.8.3 Shallow utilities located outside road rights-of-way shall be registered in easements in the name of the County of Grande Prairie No. 1 unless the County deems it advisable to register the easement in the name of a utility or other service provider.

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Legend

← Proposed Drainage

Client/Project

AREA STRUCTURE PLAN
 NE & SE 1/4 SEC 8 TWP 71 RGE 5 W6M

Scale	Date	Figure No.
N.T.S.	01/10/2005	4.4
File No. - 2464-0002-06		Title

Proposed Drainage



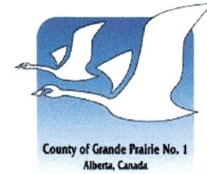
4.8.4 All new power lines located adjacent to residential areas shall be installed underground at the developer's expense.

4.9 Summary

The following table provides a statistical overview of the area and percentage of gross developable area by land use in the plan area.

Table 4.1 Land Use Area Estimates

<i>Land Use Category</i>	<i>NE 8 (ha)</i>	<i>SE 8 (ha)</i>	<i>Total (ha)</i>	<i>%</i>
<i>Gross Developable Area (GDA)</i>	<i>64.75</i>	<i>64.75</i>	<i>129.50</i>	<i>100.0</i>
<i>Environmental Reserve</i>	<i>0</i>	<i>35.01</i>	<i>35.01</i>	<i>27.0</i>
<i>Road Widening</i>	<i>1.2</i>	<i>0.40</i>	<i>1.60</i>	<i>1.3</i>
<i>Net Developable Area</i>	<i>63.55</i>	<i>29.34</i>	<i>92.89</i>	<i>71.7</i>
<i>Residential Lots</i>	<i>48.48</i>	<i>23.48</i>	<i>71.96</i>	<i>55.6</i>
<i>Internal Roadways</i>	<i>11.56</i>	<i>3.86</i>	<i>15.42</i>	<i>11.9</i>
<i>Municipal Reserve (including storm pond)</i>	<i>3.51</i>	<i>2.00</i>	<i>5.51</i>	<i>4.2</i>



5.0 IMPLEMENTATION

5.1 Phasing

Subdivision phasing and development will be governed predominantly by market conditions and the logical extension of municipal services. Phase One is the largest of the five phases that will occur as the significant cost of the sewer and water trunks must be accommodated. This phase is expected to meet two or three years of market demand.

- 5.1.1 Phasing shall proceed from north to south as services are extended from 68th Avenue in accordance with Figures 5.1 and 5.2 Phasing.
- 5.1.2 The rough grading of the storm water pond and corresponding roadway to Bear Creek shall occur as part of Phase One to ensure that current drainage coming onto the property from the Sandy Ridge Subdivision has an unobstructed path to Bear Creek.
- 5.1.3 The development of the storm water pond and surrounding park in NE8 shall be initiated in Phase One and completed in Phase Two.
- 5.1.4 Phase Three shall complete the development of NE8 and result in the development of two roadway accesses and water and sewer services available to SE8.
- 5.1.5 Phase Four shall be the first phase of development in SE8.
- 5.1.6 Phase Five shall be the final stage of development in the plan area and complete the development of SE8.

The following table summarizes the lots, net density, and population projected in the plan area.

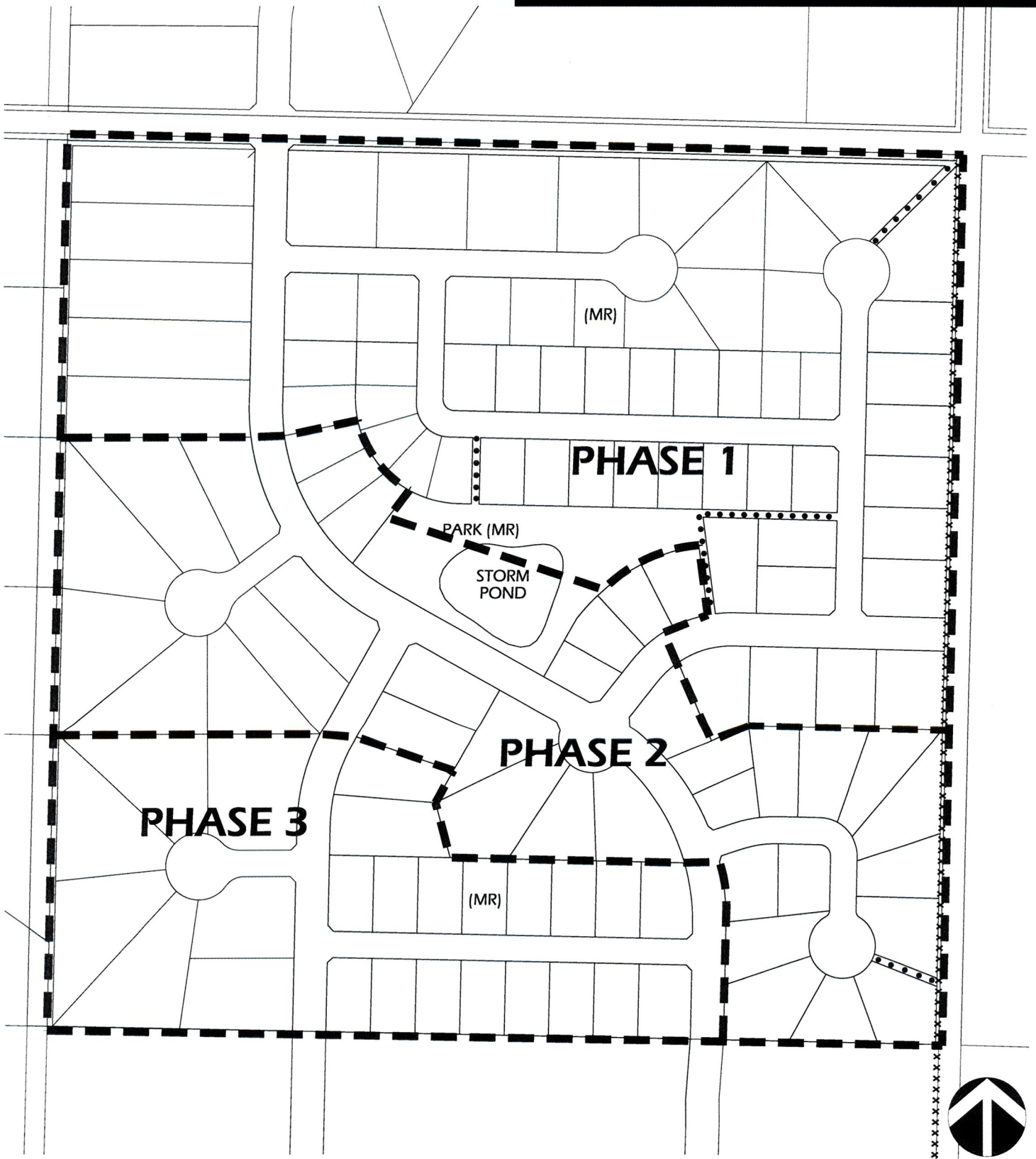


Table 5.1 Projected Lots, Net Density and Population

Phase	Lots	Net Density (units/hectare)	Population (2.5 persons per unit)
<i>One</i>	<i>58</i>	<i>1.9</i>	<i>145</i>
<i>Two</i>	<i>36</i>	<i>1.8</i>	<i>90</i>
<i>Three</i>	<i>24</i>	<i>1.8</i>	<i>60</i>
<i>Four</i>	<i>38</i>	<i>2.7</i>	<i>95</i>
<i>Five</i>	<i>42</i>	<i>2.7</i>	<i>105</i>
TOTAL	198	2.1	495

5.2 Subdivision and Development

- 5.2.1 All developers shall be required to enter into development agreements with the County as a condition of subdivision approval.
- 5.2.2 The development agreements identified in Policy 5.2.1 shall include but not be limited to the provision of roads and municipal services, the payment of any required off-site levies, and issues relating to benefiting areas.
- 5.2.3 Detailed engineering drawings and specifications for roads, water, sanitary sewer, storm sewer, and shallow utilities shall be prepared by the developer and approved by the County of Grande Prairie and Aquatera Utilities Inc. prior to executing the development agreement on the subject lands.
- 5.2.4 *As the lot sizes and yields identified in this plan are conceptual, a maximum of 198 residential lots shall be permitted in the plan area without amendment to this ASP.*
- 5.2.5 *The re-subdivision of lots within the plan area shall be permitted without amendment to the ASP provided that:*
- a) the resulting lot sizes meet the minimum requirements of the Land Use Bylaw;*
 - b) the total number of lots in the plan area does not exceed 198;
and*
 - c) the capacity of the servicing systems is not negatively affected.*



Legend

- ■ ■ ■ Phase Boundary
- ● ● Trail
- XXX 3.0m MR Strip



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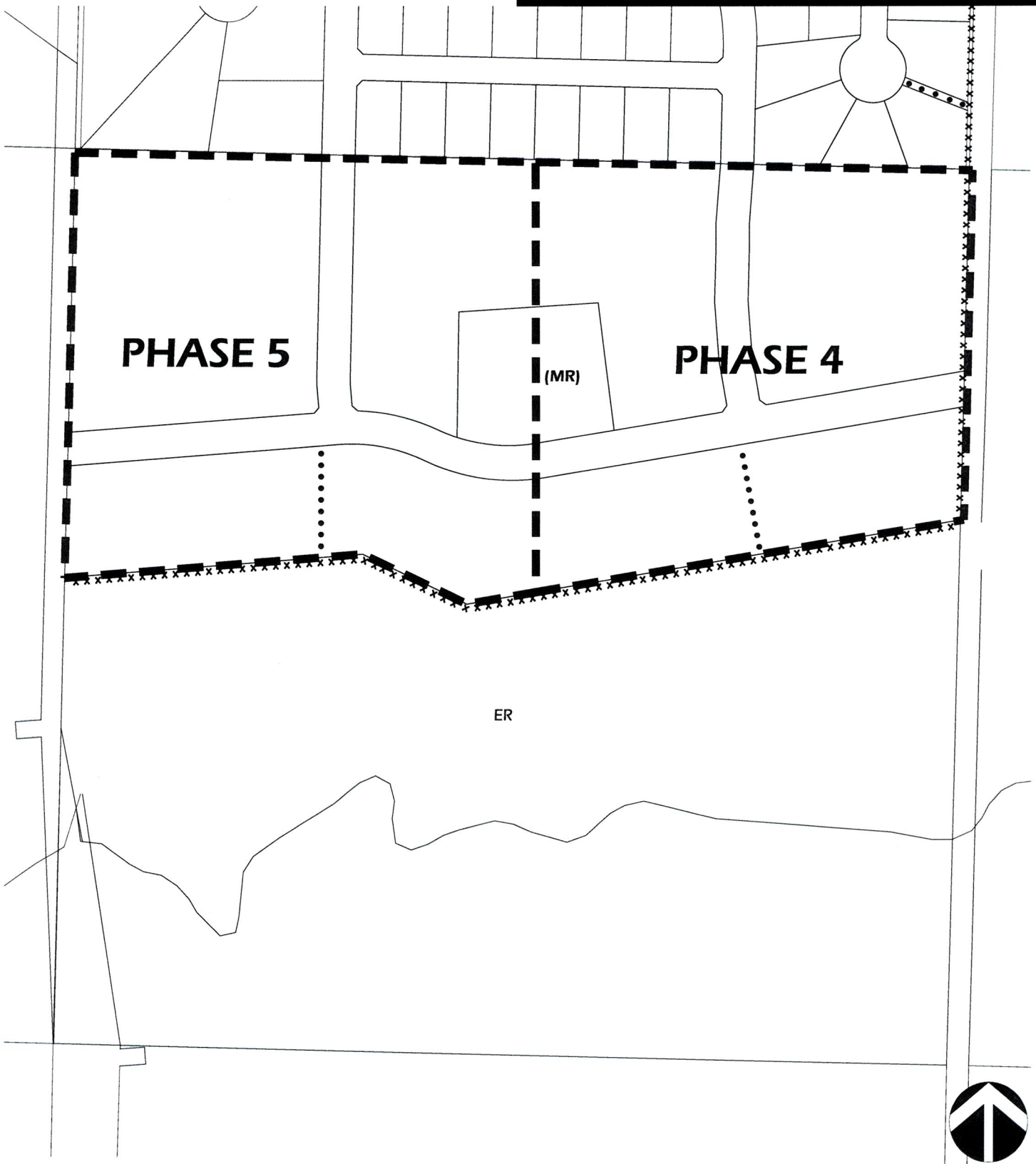
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AREA STRUCTURE PLAN
NE & SE 1/4 SEC 8 TWP 71 RGE 5 W6M

Scale	Date	Figure No.
N.T.S.	01/10/2005	5.1
File No. - 2464-0002-02		Title

N.E. 1/4 Phasing Plan

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Legend

- ■ ■ Phase Boundary
- ● ● Trail
- x x x 3.0m MR Strip

Client/Project

AREA STRUCTURE PLAN
NE & SE 1/4 SEC 8 TWP 71 RGE 5 W6M

Scale	Date	Figure No.
N.T.S.	01/10/2005	5.2
File No. - 2464-0002-02	Title	

S.E. 1/4 Phasing Plan



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5.3 Benefiting Areas

The future water and sewer force main along 68th Avenue will be planned and coordinated with Aquatera Utilities Inc and the County of Grande Prairie to accommodate other servicing along the 68th Avenue Corridor.

Figures 6.1 and 6.2 illustrate the possible areas benefiting from the water and sewer services provided to the ASP area.

5.3.1 Wherever the developer constructs municipal infrastructure that provides a benefit to lands outside of the plan area, the County shall assist in collecting a portion of the costs of the infrastructure from said lands, through an endeavour to assist, at the time of subdivision or the commencement of development activities.

5.3.2 The County shall collect an endeavour to assist from each landowner who connects to the water and sewer trunk extensions provided by the developer. The endeavour to assist is payable once upon connection. The County will, however, continue to collect the endeavour to assist until such time as the developer receives the full pro-rated amount owing for the service capacity provided to the benefiting area or for a period of twenty years, whichever is less.

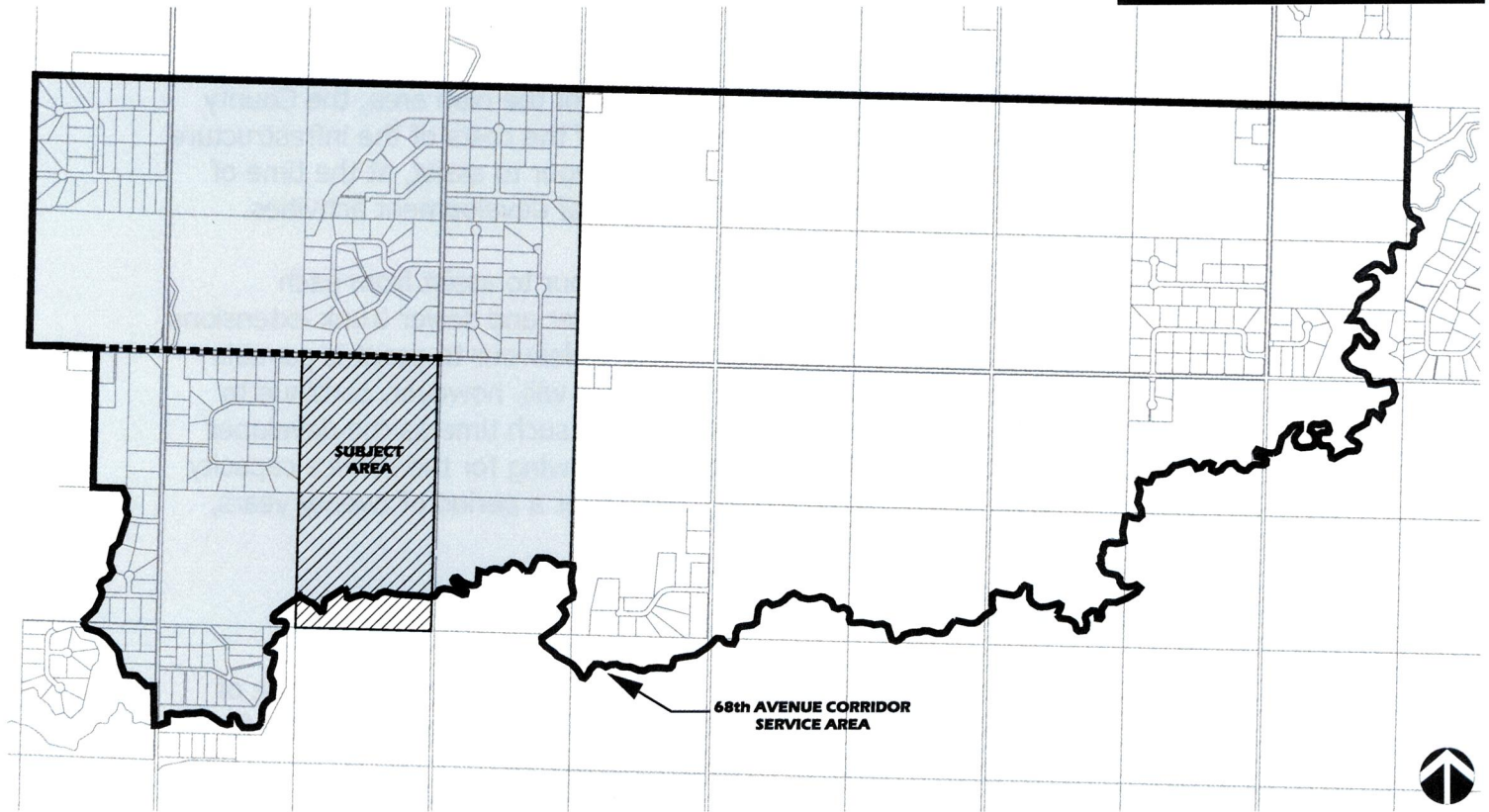
5.4 Levies

5.4.1 All levies identified in this plan shall be collected at the time of subdivision. In addition, the developer may be responsible for connection levies to Aquatera Utilities Inc.

5.5 Plan Amendment

5.5.1 An amendment to this plan will be required if there are any significant policy changes or land use modifications.

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