

# **MICHENER HILL EAST**

## **Neighbourhood Area Structure Plan**

**- Red Deer -**

*InterPLAN strategies inc.*

**Adopted by City Council,  
Bylaw 3217/E-2007,  
June 18, 2007**

# **Michener Hill East**

## **Neighbourhood Area Structure Plan**

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**Adopted by City Council**  
**Bylaw 3217/E-2007**  
**June 18, 2007**

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## 1.0 LOCATION AND PURPOSE

### 1.1 Location

Michener Hill East Neighbourhood Area Structure Plan (The Plan) (**Figure 1, see Appendix**) is centrally located in the city of Red Deer at the intersection of Michener Avenue and Ross Street.

The Michener Hill East Neighbourhood Area Structure Plan boundary was delineated by Parkland Community Planning Services. The area so identified is bounded to the east by Michener Avenue, to the south by Ross Street, to the north by 55<sup>th</sup> Street and to the west by residential and institutional development.

### 1.2 Purpose

The Neighbourhood Area Structure Plan (NASP) for Michener Hill East is intended to provide a foundation for the subdivision and development of the subject site in the city of Red Deer. In preparation of this Neighbourhood Area Structure Plan, careful attention was paid to the edge conditions on all sides and the policies and objectives set forth in The City of Red Deer Municipal Development Plan adopted by City Council on August 24, 1998, the East Hill Major Area Structure Plan adopted by City Council as Bylaw 3207/A-2005 on December 19, 2005, Michener Centre Development and Subdivision Guidelines approved by City Council on October 21, 1996 and The City of Red Deer Land Use Bylaw No.3357/2006.

It should be noted that the Michener Hill East NASP is not a conventional neighbourhood plan.

The NASP describes how 44.44 acres± (17.98 hectares±) of vacant land will be developed in an efficient and orderly manner. The NASP focuses on a parcel being proposed by the David Thompson Health Region (DTHR) for the development of seniors' housing and care community called Michener Hill Village.

The David Thompson Health Region (DTHR), the developer, is partnering with Extendicare *"to build and operate a home-like care centre in a housing development that provides a continuum of options for seniors' housing and care on approximately 14.5 acres± (5.87 hectares±) of land that supports new models of care."* The proposed Michener Hill Village is intended to be an "aging in community" opportunity catering largely to a 55+ demographic that will feature:

- A 220 bed Continuing Care Centre plus 60 assisted living units.
- Seniors Independent Housing (condominiums/apartments)
- Potential Seniors Individual Housing.

The north and south residual parcels within the NASP boundary will remain the property of Alberta Infrastructure and Transportation. The NASP outlines the current situation and proposes scenarios for these sites. If future development does not comply with the uses outlined a NASP amendment will be required.

INTERPLAN is herewith submitting, on behalf of the David Thompson Health Region, a Neighbourhood Area Structure Plan for Michener Hill East.

The following sections of this report are intended to discuss the NASP objectives, policy framework, site characteristics, proposed development concept and land uses, municipal reserve and open space requirements, transportation and access, proposed site servicing and implementation strategy.

## 2.0 NEIGHBOURHOOD AREA STRUCTURE PLAN OBJECTIVES

The following is a list of objectives for the Neighbourhood Area Structure Plan for Michener Hill East:

- To establish a comprehensive Neighbourhood Area Structure Plan that describes uses and strategies for appropriate development of the Plan area;
- To provide a policy framework consistent with the provisions of the relevant City of Red Deer policies for guiding development and subdivision of the plan area;
- To create the opportunity for potential development that meets the needs of the seniors' housing development and is accepted by local residents;
- To illustrate the physical characteristics of the plan area and describe any physical impact on the natural environment by the proposed development;
- To identify any constraints on the plan area and how these will be addressed in the proposed development, and
- To address the servicing, transportation and open space requirements associated with the proposed development.



## 3.0 POLICY FRAMEWORK

### 3.1 Intermunicipal Development Plan

The NASP area is situated outside the boundaries of the Intermunicipal Development Plan.

### 3.2 Municipal Development Plan

The City of Red Deer Municipal Development Plan was adopted by City Council as Bylaw 3214/98 on August 24, 1998. Map 3 in the Municipal Development Plan shows the land use for the Michener Hill site as future residential.

The expressed goal for residential development is

*"To encourage the development of balanced residential neighbourhoods which include a full range of housing options, basic recreation services, and appropriately located school sites and other services".*

A stated objective for residential development is to

*"Provide for special housing and lifestyle needs."*

*"Encourage residential infill in older neighbourhoods."*

Residential policies in the Municipal Development Plan address special needs housing and residential infill housing. Policies 11.6 and 11.7 respectively state that

*"The City will partner with special needs groups to identify, and to assist in implementing housing solutions for special needs groups, such as single parent families, persons with disabilities, low income seniors and the hard to house," and*

*"Residential infill projects, which contribute positively to neighbourhood quality and image, will be encouraged in older neighbourhoods where adequate capacity in infrastructure systems and community services exists. Neighbourhood input will be solicited at the preliminary planning and design stage of any proposed infill projects."*

Land development policy 12.7 states that

*"Residential development shall be required to attempt to preserve as many natural features and as much existing vegetation as possible in development proposals."*

Development and the Natural Environment policy 7.4 states that

*"The City shall continue to require that all escarpments, ravines, creeks, riverbank lands, wetlands along with setbacks appropriate for preserving these features, and other undevelopable natural areas be dedicated as environmental reserve."*

The NASP has been prepared in accordance with the Municipal Development Plan.

### 3.3 East Hill Major Area Structure Plan

The East Hill Major Area Structure Plan was adopted by City Council as Bylaw 3207/A-2005 on December 19, 2005. The Development Concept Plan of the Major Area Structure Plan illustrated on **Figure 2 (see Appendix)** indicates the majority of the Michener Hill East NASP site as residential with a proposed natural area in the north east corner at the intersection of 55<sup>th</sup> Street and Michener Avenue. The Development Concept also shows Ross Street along the south edge of the site as an arterial street and Michener Avenue along the east boundary of the site as a collector road.

The NASP has been prepared in accordance with the policies contained in the East Hill Major Area Structure Plan.

### 3.4 City of Red Deer Land Use Bylaw

The Plan Area is designated PS Public Service (Institutional or Governmental) District by The City of Red Deer Land Use Bylaw No. 3357/2006.

The general purpose of the PS Public Service (Institutional or Governmental) District is *"to provide land for those uses that are public or quasi-public in nature."* Discretionary Uses in this District include the following that specifically relate to the proposed NASP scenario:

- Parking ancillary to any permitted or discretionary use.
- Retail sales of goods required in connection with a use approved in this district.
- Retirement Home. Retirement Home is defined as *"a residential building or a portion of a residential building which provides permanent or long term accommodation for retired persons, which has common facilities for the preparation and consumption of food exclusively for and by the residents, in which common lounges, recreation facilities may be provided for the exclusive use of the residents, and in which each resident occupies a private unit."*
- Assisted Living Facility. Assisted Living Facility is defined as *"a building, or portion of a building operated for the purpose of providing live in accommodation for six or more persons with chronic or declining conditions requiring professional care or supervision or ongoing medical care, nursing or homemaking services or for persons generally requiring specialized care but does not include a Temporary Care Facility"*.

### 3.5 Michener Centre Development and Subdivision Guidelines

The Michener Centre Development and Subdivision Guidelines approved by Council on October 21, 1996, stipulate that prior to any development or subdivision, the following factors in Area 2 shall be addressed in an Outline Plan:

- a) *Protection of the Drainage Course*** – *The developer shall be required to maintain and protect both the drainage course and the tree stand on the north side of the site.*
- b) *Protection of Gaetz Lakes*** – *The developer shall be required to design the subdivision to ensure that the Gaetz Lakes is protected from any negative impacts.*
- c) *Constructed Wetlands*** – *It is required that surface storm water from this subdivision be channelled into the existing creek channel and that the existing creek channel be*

*enhanced so that it will function as a constructed wetland. The constructed wetland will be designed to treat the storm water to remove any substances which are harmful to the Gaetz Lakes Sanctuary. Subject to the Gaetz Lakes Sanctuary Master Plan, the naturally treated storm water will flow through to Gaetz Lakes. The possibility of an overflow connection to the storm sewer should be investigated; construction of this connection will be required if technical studies indicate that it is needed to protect the water quality entering Gaetz Lakes.*

**d) Geotechnical Evaluation** – *The developer shall conduct a geotechnical evaluation on the Gaetz Creek bank.*

**e) Land Use** – *The only land use permitted on this site are institutional uses related to the delivery of Michener Centre services or residential uses."*

The NASP meets the intent of the Michener Centre Development and Subdivision Guidelines.

### 3.6 City of Red Deer Neighbourhood Planning Guidelines and Standards

The City of Red Deer Neighbourhood Planning Guidelines and Standards adopted by City Council on December 16, 2002 with subsequent amendments provide "*guidelines and standards for the planning and design of neighbourhoods including parks and public facilities/amenities in The City of Red Deer.*" The Neighbourhood Planning Guidelines and Standards define a neighbourhood as "*a predominately residential area, which is usually a quarter section (65 hectares or 160 acres) in size.*"

The Michener Hill East NASP is somewhat unique in that it contains only 44.44 acres (17.98 ha) and is non-conventional when compared to the standard quarter section (160 acres) as many of the criteria (standards) contained in the Neighbourhood Planning Guidelines and Standards do not apply. However, the NASP does meet the overall principles (guidelines) of the Neighbourhood Planning Guidelines and Standards.

### 3.7 Red Deer Trails Master Plan

Map 2 of the Red Deer Trails Master approved by City Council on October 11, 2005 identifies the future trail network for the NASP and surrounding areas. Specifically, the Master Plan identifies an existing aggregate neighbourhood trail in the northerly portion of the NASP, an existing nature trail along the westerly edge of Michener Avenue and a proposed future nature trail along the southerly edge of 55<sup>th</sup> Street.

The NASP complies with the intent of the future trail network outlined in the Red Deer Trails Master Plan.

## 4.0 SITE CHARACTERISTICS

An air photo and a topographic map of the NASP area are illustrated in **Figures 3 and 4** respectively (see **Appendix**).

### 4.1 Legal Description and Ownership

The legal description and land ownership for the subject site are indicated below.

#### **Legal Description:**

Portions of Lot 1 Block 10 Plan 8920192, and  
Lots 4 and 5 Block 10 Plan 0624325.

#### **Land Ownership:**

All of the subject site is presently owned by Her Majesty the Queen in Right of Alberta as represented by Minister of Infrastructure and Transportation.

The David Thompson Health Region (DTHR) has been granted permission to purchase the land from Alberta Infrastructure and Transportation, and the sale/transfer process is underway. The David Thompson Health Region (DTHR) has been authorized to act on behalf of the land owner.

### 4.2 Site Area

The subject site contains approximately 44.44 acres (17.98 ha) more or less.

### 4.3 Current Land Use Context

The lands to the north of Michener Hill East NASP are designated as Environmental Preservation District (A2) and Public Service District (Institutional or Governmental) (PS) (**Figure 3, see Appendix**). The lands immediately to the east are designated as Residential (Low Density) District (R1). The lands immediately to the south west are designated as Residential (Low Density) District (R1) and Residential (Medium Density) District (R2). South of Ross Street directly south of the intersection with Michener Avenue, the lands are designated as Residential (High Density) District (R3).

### 4.4 Land Form

The majority of the site is relatively level to gently undulating with a slight downward grade to the south and a ravine along the north east side of the site. The ravine, originating from Gaetz Lakes to the north, runs through the north easterly portion of the site and grades up to the south into a shallow drainage channel in the centre of the site. Storm drainage collects in the ravine area during periods of prolonged precipitation.

The upland area around the ravine has an elevation of about 883m. The ravine is between 3 and 12 m deep with a base elevation of 872 m at the north end near 55<sup>th</sup> Street. According to a technical investigation prepared by Parkland Geotechnical Consulting Ltd. the base of the

ravine located within Lot 4, Block 10 Plan 0624325 is subject to seasonal water flows which appear to cause minor erosion and down-cutting, although the base of the ravine appears to be relatively stable.

#### 4.5 Ecological Profile

The Ecological Profile of the Michener Centre Natural Area was prepared in January 1998 by The City of Red Deer. Recommendations in the Ecological Profile relating to the NW 1/4 Section 15 within which the Subject site is located include the following:

- R2 *"The natural vegetated drainage course and all the trees north of there, should be preserved as a crucial part of the storm water drainage system and as a natural wildlife corridor into Gaetz Lakes. In addition, the existing trail system in the area could be incorporated into The City of Red Deer trail system."*
- R3 *"The availability and locations of the Michener land natural habitats provide for the opportunity of designing a unique natural/built neighbourhood in this area. With close proximity to Gaetz Lakes, and the public desire to assure a clean and constant water supply to the lakes, a unique design will be required."*
- R4 *"The preservation and utilization of the natural wetlands in Michener Natural (Ecospace) Area should be a major component in helping to assure a clean water supply to Gaetz Lakes and to help facilitate the development of an environmental design plan."*
- "The use of constructed wetlands should be considered for the cleansing of water entering Gaetz Lakes."*
- R5 *"Architectural guidelines that acknowledge the unique natural habitats throughout the region should be considered for the entire study area."*
- R9 *"Residential development should take advantage of the nearby natural amenities."*
- "The clumps of poplar located on the sides of the road running into Michener Centre from Ross Street should be preserved in the present open space park setting."*

#### 4.6 Current Access

The Michener Hill East NASP area currently derives access from Michener Avenue, a 7.5 m wide private road with a rural cross-section along the east boundary tying into Ross Street, a four lane undivided urban roadway, and from 55<sup>th</sup> Street along the north boundary.

#### 4.7 Vegetation

In addition to the treed area discussed in Section 4.5 the remainder of the subject site is largely grassed with three clumps of trees located along Michener Avenue.

## 4.8 Environmental Site Assessment Considerations

A Phase I Environmental Site Assessment (ESA) for the subject site, a copy of which is submitted under separate cover, was performed by Parkland Geotechnical Consulting Ltd. in February 2006. The primary objectives of the Phase 1 ESA were to identify environmental issues associated with the subject property and to determine whether any identified issues required a detailed site investigation or other action. The Assessment identified environmental issues related to former salt and ongoing fuel (hydrocarbon) storage at the maintenance yard (located on the north portion of Lot 1, Block 10, Plan 8920192) were noted, including a small gasoline spill in the early 1990's. In this regard the Assessment indicated that *"it is understood that the extensive clean-up prevented surficial run-off from extending to the subject property."* The Assessment concluded that "with the exception of the hydrocarbon impacts in the ravine, the property is considered to have a 'low' rating in terms of environmental risk". However, while indicating that the issue is expected to have a minimal impact on the proposed development, the Assessment did recommend that *"a review of the ravine at the north boundary of the subject property for potential hydrocarbon impacts be carried out in the spring once the snow cover has gone."*

## 4.9 Existing Structures

With the exception of the Michener Centre maintenance operations facilities and root cellars in the northwest portion of the site, there are no existing buildings in the Plan area (**Figure 3**, see **Appendix**).

## 4.10 Geotechnical Considerations

Parkland Geotechnical Consulting Ltd. completed a Technical Investigation, submitted under separate cover, for the subject site in August 2006. The investigation concludes that *"the subsurface conditions of this site are considered to be suitable for the proposed residential development."* The investigation does identify some geotechnical issues such as monitoring the placement of fill and includes recommendations for dealing with these issues which will be addressed during the development of the site.

The investigation also included a slope stability analysis to assess potential sensitivity of the local ravine slopes to potential development in the upland area. The slope stability assessment identifies potential slope stability issues associated with the ravine, the north east portion of the subject site and provides recommendations regarding setbacks, removal of vegetation, erosion control measures and setbacks.

## 4.11 Site Servicing

The subject site is readily serviced for sanitary sewer and water distribution mains by the extension of existing services within the municipal reserve lots located immediately east of the site. Storm drainage will require the creation of a storm water management facility that will utilize the existing drainage system within the ravine located at the northeast corner of the Plan area.

Shallow utility infrastructure is available on site, or immediately adjacent to the site.

A Development Agreement will be required for payment of off-site levies and other development charges as well as for construction of roadway and utility improvements.

#### 4.12 Historic Resources

The City of Red Deer Recreation, Parks and Culture Department staff has no specific knowledge of any "unique historical, heritage, cultural, archeological or palaeontological features within the NASP boundaries.

## 5.0 DEVELOPMENT CONCEPT

### 5.1 Development Concept

Based upon the DTHR's Continuing Care Plan, City of Red Deer Policies, market considerations and site characteristics, a Development Concept (focusing on the Michener Hill Village seniors' housing and care development) has been prepared for the entire 44.44 acre± (17.98 ha±) site as illustrated in **Figure 5** and on the air photo in **Figure 6** (see **Appendix**). The Michener Hill Village development is based on DTHR plans for a portion of the site. The remainder is a "shadow plan" based on anticipated future use of the north and south residual parcels by Alberta Infrastructure and Transportation.

### 5.2 Land Use

The Michener Hill Neighbourhood comprises the area shown in **Figure 7**. The entire neighbourhood is used in the land use allocation as it provides the closest comparison to a standard ¼ section upon which *The Neighbourhood Planning Guidelines and Standards* is based. The existing Land Use Allocation for the neighbourhood is summarized in **Table 1** below.

**Table 1 Land Use Allocation for Michener Hill Neighbourhood\***

	Area (ha)	Dwelling Units	% of Gross Plan Area
<b>Gross Plan Area</b>			
Existing Neighbourhood	67.70	421	79
Michener Hill East			
NASP Boundary	17.98	486	21
<b>Total Gross Plan Area</b>	<b>85.68</b>	<b>907</b>	<b>100</b>
<b>Net Developable Area</b>			
Gross Plan Area minus	85.68		
Environmental Reserve (ER/A2)	4.48		
Major Roads			
(Ross St., 40 <sup>th</sup> Ave)	5.10		
Undevelopable Slopes	3.24		
<b>Net Developable Area</b>	<b>72.86</b>		
<b>Density (du/net dev. Ha)</b>	<b>12.44</b>		
<b>Institutional Use (PS)</b>	<b>24.22</b>		<b>33.2</b> of net
<b>Municipal Reserve (MR/P1)</b>	<b>9.67</b>		<b>13.3</b> of net
<b>Environmental Reserve (ER/A2)</b>	<b>4.48</b>		<b>5.2</b> of gross

\*Note: Gross plan area is the entire Michener Hill Neighbourhood  
 Source for dwelling units for the existing neighbourhood from the 2006 Census Results  
*Neighbourhood Planning Guidelines and Standards* require a density in the range of 12.35 and 17.3  
 A deferred reserve caveat (#002203491) is 9.38 acres/3.76 ha. This requirement has been met.



The proposed land uses for the Neighbourhood Area Structure Plan boundary are summarized in **Table 2** below.

**Table 2 Land Use Statistics for Michener Hill East**

<b>Land Use</b>	<b>Acres±</b>	<b>Hectares±</b>	<b>Percent</b>
Michener Hill Village (PS)	9.75	3.95	22.03
Michener Hill Village (R1A)	4.64	1.88	10.44
North Residual (PS)	7.21	2.92	16.22
South Residual (R1A)	4.70	1.90	10.58
Roads <sup>1</sup>	4.23	1.70	9.52
Environmental Reserve (ER)	5.90	2.39	13.19
Municipal Reserve (MR)	<u>8.01</u>	<u>3.24</u>	<u>18.02</u>
<b>Total</b>	<b>44.44</b>	<b>17.98</b>	<b>100.00</b>
1. <i>Roads include:</i>			
	<i>a. South Michener widening</i>		<i>2.00 acres± (0.80 ha±)</i>
	<i>b. North Michener widening</i>		<i>1.84 acres± (0.74 ha±)</i>
	<i>c. Ross Street widening</i>		<i>0.39 acres± (0.16 ha±)</i>

### 5.2.1 Michener Hill Village

The centrally located Michener Hill Village, as illustrated in **Figure 8 (see Appendix)**, is intended to be an “Aging in Community” opportunity catering to a senior’s population. The location and configuration of the proposed Michener Hill Village was largely determined by David Thompson Health Region, who is purchasing the land from Alberta Infrastructure and Transportation. Michener Hill Village will create a modern, home-like community that supports new models of care. The NASP will include:

- 220-bed continuing care centre surrounded by a variety of related services and programs and an additional 60 beds for assisted living (PS).
- 50-150 independent housing spaces for Seniors (condominiums/ apartments) (PS), and
- 40 potential Seniors Individual Housing (villas) (R1A).

The buildings within Michener Hill Village will be a maximum of 3 to 4 stories in height. The Seniors Individual Housing component, proposed to be located adjacent to the existing residences to the west, is intended to be single storey “villa” style units, thereby resulting in a complementary interface.

The proposed land use designations for Michener Hill Village are:

- The existing PS – Public Service (Institutional or Governmental) District for the Continuing Care Centre and Supportive Living component, and the independent housing for seniors (condominiums/apartments); and
- R1A – Residential (Semi-Detached Dwelling) District for the Potential Seniors Individual Housing portion.

### 5.2.2 Residual Alberta Infrastructure and Transportation Lands

Two residual portions of the Plan area, one in the southeast corner and the other in the northwest corner are intended to remain in the ownership of Alberta Infrastructure and Transportation. At this point in time Alberta Infrastructure and Transportation has not determined a specific land use for the two areas, however, it is anticipated that the future use for the parcel in the northwest will be in accordance with the current PS – Public Service District land use designation. Considering the context of the parcel in the southeast portion of the Plan area in relation to the proposed land uses immediately to the north and the existing land uses to the west and to the east, an R1A - Residential (Semi-Detached Dwelling) District is proposed for this area. A “possible scenario” for this area is included in **Figure 5 (see Appendix)**.

### 5.2.3 Anticipated Population

The anticipated population for Michener Hill Village and the South Residual portion of the NASP is outlined in **Table 3** below. The housing mix for the entire Michener Hill Neighbourhood is shown in **Table 4**.

**Table 3 Anticipated Population of Michener Hill Village**

Component	Proposed Land Use	Max. Number of Units	Persons per Unit	Maximum Anticipated Population
<b>Continuing Care</b>	PS	280	1.0	280
<b>Apartment/Condo</b>	PS	150	1.5	225
<b>Seniors Villas</b>	R1A	40	2.0	80
<b>Residual South</b>	R1A	25	2.5	63
<b>Total</b>		<b>495</b>		<b>648</b>

**Table 4 Housing Mix in Michener Hill Neighbourhood\***

<b>Housing Type</b>	<b>Existing Nhd (du)</b>	<b>Mich. Hill East (du)</b>	<b>Total (du)</b>	<b>% Housing Mix</b>
Single Family				
Detached (R1 and R1N)	269	0	269	
Detached with Suite (SS)	21	0	21	
Semi-Detached (R1A)	29	65	90	
<b>Total</b>	<b>319</b>	<b>65</b>	<b>384</b>	<b>79</b>
Multi-Attached				
Medium Density (R2)	16	0	16	
High Density (R3)	86	0	86	
<b>Total</b>	<b>102</b>	<b>0</b>	<b>102</b>	<b>21</b>
<b>Total Dwelling Units</b>	<b>421</b>	<b>65</b>	<b>486</b>	<b>100</b>
Institutional(PS)				
Public Service (Continuing Care)		220	220	
Supported and Assisted Living		210	210	
<b>Total PS Units</b>			<b>430</b>	

\*Note: This is for the entire Michener Hill Neighbourhood.  
Source for dwelling units for the existing neighbourhood is from the 2006 Census Results.  
Multi-attached housing (three or more attached) shall be no less than 20% of total housing mix.  
Single detached and semi-detached shall be no less than 60% of the total housing stock.  
There is no minimum or maximum percentage for institutional type housing in the *Neighbourhood Planning Standards and Guidelines*.

#### 5.2.4 Reserve Area

The Plan proposes a 13.88 acres± (5.62 hectares±) “Reserve” area in the northeast corner of the Plan area which is in accordance with The City of Red Deer policies contained in the East Hill Major Area Structure Plan, the Ecological Profile of the Michener Centre Natural Area and the Michener Centre Development and Subdivision Guidelines. In complying with these policy documents the NASP proposes to preserve the natural drainage course, the existing trees and the existing trail system in this Reserve area.

This area will be designated Parks and Recreation (P1) District and Environmental Preservation (A2) District. The Reserve Area is discussed in more detail in **Section 5.3** below.

### 5.3 Open Space and Municipal Reserve

Pursuant to Section 666 of the Municipal Government Act, The City of Red Deer, as the Approving Authority, may require the owner of a parcel of land that is the subject of a proposed subdivision to provide up to ten (10) percent of the parcel as:

- a. land for municipal reserve, school reserve or municipal and school reserve,
- b. money in place of municipal reserve, school reserve or municipal and school reserve, or
- c. a combination of land or money.

There is a Deferred Reserve Caveat (Registration Number 002 203 491) registered on Title against the Michener Centre lands excluding the existing residential. The Caveat indicates that a 9.38 acre (3.796 hectare) deferred reserve caveat is registered against the Subject Site.

As referenced in Section 5.2.3 above and as illustrated in **Figure 5 (see Appendix)**, a 13.88 acres± (5.62 hectares±) "Reserve" parcel in the northeast area of the subject site is proposed as a combination of Environmental Reserve (ER) and Municipal Reserve (MR). The dedication of this treed area as Municipal Reserve and Environmental Reserve will ensure that the lands are preserved in their natural state and can only be modified with the approval of The City of Red Deer.

The boundary of this "Reserve" has been determined through consultations with The City of Red Deer and input from the slope stability studies conducted by Parkland Geotechnical Consulting Ltd. Also as a result of discussions with The City of Red Deer Recreation, Parks, and Culture Department and Parkland Community Planning Services, it has been concluded that the 13.88 acre± dedication will satisfy all of the Municipal Reserve requirements for the 44 acre± subject site and the Municipal Reserve requirements for the entire 93 acres± (37.6 hectares±) of land in the NW ¼ Section 15, Township 38 Range 27 W4 that is addressed in the Deferred Reserve Caveat.

The reserve area is proposed as a natural park and will be designated as P1 – Parks and Recreation District and A2 – Environmental Preservation District.

It should be noted that not all existing vegetation can be preserved but effort will be made to retain existing trees where possible and have them incorporated as a development feature. (See **Figures 10 and 11**).

The NASP provides for a 1m Municipal Reserve strip along the north boundary of Ross Street which will restrict legal vehicular access from any future development to Ross Street.

A commemorative plaque to honour the historical use of the land will be placed on the trail within the open area of the Reserve. The content and design of the plaque, as well as the precise location, will be determined in consultation with stakeholder groups. Future maintenance of the plaque will be handled by City Parks.

## 5.4 Pedestrian Trails and Linkages

The trail system and linkages in the NASP area illustrated in **Figure 9 (see Appendix)** meets the intent of the Red Deer Trail Master Plan:

- By dedicating 13.88 acres± (5.62 hectares±) of land in the northeast corner of the NASP as "Reserve" in the form of natural open space.
- By retaining and expanding upon the existing neighbourhood trail located in the proposed reserve area referenced above.
- By providing a trail link from the existing residential area to the "Reserve" area, and
- By incorporating a regional path along the westerly edge of Michener Avenue to provide a link between Ross Street and the trail system within the "Reserve" area.
- By providing trails that will be accessible for those with mobility disabilities.

## 6.0 TRANSPORTATION

### 6.1 Transportation Network

Primary access to the Plan area will be via Michener Avenue which is required to function as a collector road. The East Hill Major Area Structure Plan indicates a 20 m undivided collector street right of way, dedicated to The City of Red Deer along the entire east boundary of the Plan area from Ross Street to 55<sup>th</sup> Street (**Figure 10, see Appendix**). The Michener Hill Village development will construct the south portion of Michener Avenue to a collector street standard with a 2.5 m separate sidewalk standard roadway from Ross Street to the north boundary of the Michener Hill Village site as illustrated in **Figure 11 (see Appendix)**. The collector street will be treed on both sides by maintaining the existing trees or introducing new trees where necessary and possible. New street lights will be installed, at the Developers cost, along the part of Michener Avenue that will be upgraded to a collector road. The 2.5 m separate sidewalk is intended to serve as a pedestrian link to the proposed reserve area to the north and ultimately to Gaetz Lakes. Though every effort will be made to do so, not all existing trees can be preserved along Michener Avenue once it is upgraded to a collector standard.

The Plan also proposes the dedication of 14.33m to The City of Red Deer for the widening of Ross Street. The anticipated improvements to Ross Street are illustrated in **Figure 12 (see Appendix)**.

Secondary access to the Michener Hill Village site will be available from 55<sup>th</sup> Street via a public access easement through the North Residual parcel as illustrated in **Figure 5 (see Appendix)**. The roads "shadowed" in the possible scenario for the South Residual parcel can be either public or private.

All internal roads within the NASP Area, with the exception of Michener Avenue, will be private.

### 6.2 Traffic Impact Analysis

A Traffic Impact Analysis for the Plan area was completed by Al-Terra Engineering in May 2006. The Analysis concluded that the proposed land uses for the Plan area are expected to generate relatively low traffic and that the majority of traffic will be off peak, due to the older demographic of the anticipated population.

However, the Analysis recognizes that traffic signals, although not warranted based on TAC (Transportation Association of Canada) Warrant Analysis, are expected to be required at the intersection of Michener Avenue and Ross Street, due to the high volume of traffic on Ross Street.

The Analysis also notes that although the traffic generated from the subject site will be relatively low, Michener Avenue, due to its substandard width and structure, will have to be improved to a City of Red Deer collector road standard between Ross Street and the entry point to Michener Hill Village.

### 6.3 Public Transit

The existing transit service for the NASP area is illustrated in **Figure 13 (see Appendix)**. As shown, all entrances to Michener Hill Village are within 400m of a transit stop. An additional transit stop is proposed for along the west side of Michener Avenue as shown in **Figure 13**. This transit stop would be constructed in a future stage of the development. For future two way transit service, a pedestrian crossing and transit stop will be installed adjacent to the access into Michener Hill Village to allow safe crossing from the west side of Michener Avenue to the east side.

Michener Avenue will be upgraded to a collector standard suitable to accommodate a transit route up to 55<sup>th</sup> Street. It should be noted that it would be unlikely that transit service along the upgraded Michener Avenue would be provided by The City in stage one. The developer may consider providing a bus service for its residents as in other assisted living developments.

## 7.0 SERVICING SCENARIO

### 7.1 Storm Water Management

#### 7.1.1 Existing Storm Water Characteristics

An 1800mm storm sewer trunk main exists east of the access road to the Plan area located along the east side of the subject site. Michener Avenue drainage is proposed to be intercepted by catch basins and drained via this existing main. A 2100 mm storm trunk main exists within the 55<sup>th</sup> Street right of way located along the north limit of the subject site. It is assumed that some storm sewer capacity is allowed for in the trunk mains.

Furthermore, there is a natural drainage channel, down to the Gaetz Lakes, in the north east corner of the Plan area. Accordingly, if there is no piped storm sewer capacity available, there will be natural capacity available via this ravine.

All storm water management shall be in accordance with the Best Management Practice outlined within the Alberta Environment Standards and Guidelines for Storm Water Management for the Province of Alberta. **Figure 14 (see Appendix)** illustrates the existing and proposed piped storm sewer system.

#### 7.1.2 Michener Storm Water Management Strategies

The approach to storm water management for the Michener lands is to recognize that Best Management Practices (BMPs) are most suitable for the re-development areas. That is, source control opportunities for both storm water quantity and quality are to be explored to the practical extent possible. We note that several examples under the LEED program are already underway in The City of Red Deer and that the Michener lands through the re-development can incorporate sustainable storm water management system components that are integrated in the landscape (hard and soft) of the development area.

It is recognized that the runoff from the area is currently conveyed by the existing ravine en-route to the Gaetz Lake located north of the plan area. From the outset, this drainage system will be assessed to establish its carrying capacity. To determine the latter, a hydrologic analysis will be conducted as well as a biophysical evaluation to document the flora and fauna found within the riparian areas of the drainage course, noting that rare species have been found in the past. The assessments will confirm where potential improvements can be made and determine sustainable release rates. Consequently, management criteria can be developed for the storm water measures that are to be incorporated within the re-development areas. They will range from Low Impact Development (LID) measures complementing BMPs, including structural and non-structural components (e.g. rain harvesting).

With regards to the existing drainage course, the following is noted:

- The existing drainage course measures about 600 m in length upstream of 55<sup>th</sup> Street. An existing 1200 mm diameter culvert allows for passage to the north portion of the drainage course, also about 600 m in length and that leads to Gaetz Lakes. From these lakes, runoff is discharged into the Red Deer River.
- The riparian areas along the existing drainage course are thickly treed and judging from a preliminary site visit, exhibit a valuable ecosystem with significant habitat. While the development will yield more runoff, this is to be taken as an opportunity to

create a positive impact within a holistic approach of the changes of catchment area. This includes addressing the concerns relating to the apparent dropping of the water levels in the Gaetz Lakes.

Given the above, we will investigate the characteristics of the entire drainage system including the Gaetz Lake and its outlet to the Red Deer River. This will require surveys to be extended to cover the lakes and downstream system. It can not be overemphasized that this is required to safeguard the existing drainage route to the river from water conveyance, retention and ecological integrity. Equally important to emphasize is that well planned and executed storm water management strategies can result in enhanced natural systems that can be enjoyed by people and sustain natural habitats. The Storm Water Plan prepared by Westhoff Engineering Resources Inc. will address the removal and reuse of any wetland vegetation and substrate material that may be removed for development.

The storm water management system within the Plan area shall be in accordance with the Storm Water Management Plan and to the satisfaction of The City of Red Deer and Alberta Environment. The Westhoff Storm Water Management Report will also address erosion and sediment control measures.

## 7.2 Sanitary Sewer

A 750mm sanitary trunk main exists east of the access road to the Plan area located along the east side of the subject site. This sanitary trunk main becomes a 675mm main, at a higher percent grade within 55<sup>th</sup> Street, along the north boundary of the Plan area. The mains are concrete pipes and are deep enough to service the Plan area. The existing and proposed sanitary sewer system is illustrated in **Figure 15 (see Appendix)**.

## 7.3 Water Supply

The Plan area can be readily serviced with an adequate water supply. A 750mm High Pressure Concrete (HPC) water main exists within the 55<sup>th</sup> Street right of way along the northern boundary of the Plan area. A 250mm diameter water main exists east of the access road located along the east side of the Plan area. There is also a 250mm water line that crosses the Plan area which will remain operational until such time that a new alignment is constructed and deemed safe for public use. This line would then be abandoned or removed. The existing and proposed water main servicing is illustrated in **Figure 16 (see Appendix)**.

## 7.4 Shallow Utilities

Electrical, telephone, cable TV and natural gas utilities will be extended into the plan area by The City of Red Deer Electric Light and Power, Telus, Shaw and Atco. This entire area will be serviced by installing an underground power cable from the existing overhead power lines on 55<sup>th</sup> Street and south of Ross Street at Michener Drive. Some combination of switchgear and feed through transformers will be used to feed the developments in the area off of this underground cable. The developer will pay for all costs associated with this. A 3m easement will be required for all cables and equipment. If power is required in the centre of the development before the ends are serviced, a graded route will need to be provided to bring power to the centre.



## 7.5 Site Grading

Proposed road grades and drainage courses will take into consideration the existing topography to minimize grading requirements over the Plan area.

Site grading will be completed using conventional excavation equipment and techniques for the Red Deer area. All erosion and sedimentation measures required will be in place prior to the commencement of grading and topsoil stripping. Detailed information regarding erosion and sedimentation measures while working within the ravine area will be included in the Westhoff Engineering Resources Inc. Storm Water Management Report.

For the proposed locations of the topsoil stockpiles, refer to **Figure 17**. Note that a majority of the stripped topsoil will be disposed of off-site.

## 7.6 Waste Disposal

Access to bins or individual home pick-up will be required to be provided for waste disposal to the satisfaction of The City of Red Deer.

## 8.0 DEVELOPMENT STAGES

The NASP area is proposed to develop in several stages as illustrated in **Figure 17 (see Appendix)** and described below. The staging boundaries are shown conceptually and may vary from those shown when redistricting and subdivision applications are made. As well, portions of separate phases may be developed concurrently if there is sufficient demand and/or if the municipal servicing is made more efficient.

- Stage 1: Continuing Care Centre and Supportive Living;  
Seniors Independent Housing;  
Reserve area;  
Dedication of the Michener Avenue right of way from Ross Street to 55<sup>th</sup> Street;  
The construction of Michener Avenue to a collector street standard from Ross Street to the entry to the Michener Hill Village site;  
Traffic signals will be installed at the intersection of Ross Street and Michener Avenue; and  
New street lights will be installed along the part of Michener Avenue that will be upgraded to a collector street standard; and  
The construction or agreement to construct Michener Avenue to a collector Street standard from the entry to the Michener Hill Village site to 55<sup>th</sup> Street.
- Stage 2: Seniors Individual Housing.
- Stage 3: Residual Parcel – southeast corner.
- Stage 4: Residual Parcel – northwest corner;  
A transit stop will be added to the east side of Michener Avenue north of the entrance to the Continuing Care Centre and Supportive Living;  
Pedestrian crossing constructed; and  
The construction of Michener Avenue to a collector standard from the entry to the Michener Hill Village site to 55<sup>th</sup> Street shall be completed prior to the development of stage 4.

## 9.0 PUBLIC CONSULTATION

The David Thompson Health Region held two “informal” Public Meetings during the plan formulation stages of the process that included adjacent residents, City Administration and other interested parties. The adjacent residents were informed of meetings by individual door to door notice drops. The extent of the notice drop area was determined in consultation with Parkland Community Planning Services.

The first meeting was held at Eastview Estates Community Hall on June 20, 2006 with an estimated 40 to 50 persons attending. The primary purpose of the initial meeting was to inform the attendees of the intent by DTHR to commence with the preparation of a Neighbourhood Area Structure Plan and to identify any issues that need to be considered at the outset of the process. DTHR introduced the proposed site, the elements of a Neighbourhood Area Structure Plan and the Neighbourhood Area Structure Plan process emphasizing that the public meetings conducted at, and during, the plan formulation stage were beyond the standard requirements of the City. Emanating from the discussions at the meeting and the comments received some definite common themes became evident. These included:

- Protection of the Ravine
- Water quality and quantity
- Site access, and
- Building height.

The second meeting was held at Festival Hall on August 08, 2006 with an estimated 25 to 30 persons attending. The primary purpose for this meeting was to address some of the common themes identified during the first meeting and to present a preliminary concept for Michener Hill Village. Many of the same common themes and issues were once again identified and addressed. Other issues included the loss of trees anticipated due to the construction of Michener Avenue and the “loss” of open space.

At both of the meetings the attendees were informed that should they so desire they would have an opportunity to further express any concerns, issues and/or support at a public Open House mandated by The City and ultimately at the Public Hearing of Council.

## 10.0 PLAN SUMMARY

### THE MICHENER HILL EAST NEIGHBOURHOOD AREA STRUCTURE PLAN COMPLIES WITH THE INTENT AND POLICIES OF:

❖ **City of Red Deer Municipal Development Plan by:**

- *Providing for housing options,*
- *Providing for special housing and lifestyle needs,*
- *Providing residential infill in older residential neighbourhoods,*
- *Preserving as many natural features and existing vegetation as possible in the form of Municipal and Environmental Reserve dedication.*

❖ **East Hill Major Area Structure Plan by:**

- *Providing for largely residential development with a natural area in the north east corner of the NASP,*
- *Providing for a collector road along the east boundary of the NASP.*

❖ **City of Red Deer Land Use Bylaw by:**

- *Providing for suitable land use districts to accommodate the intended land uses,*
- *Adhering to the provisions of the Land Use Bylaw.*

❖ **Michener Centre Development and Subdivision Guidelines by:**

- *Dedicating the area in the north east portion of the NASP as a combination of Municipal and Environmental Reserve thereby protecting the drainage course and the existing tree stand;*
- *Protecting Gaetz Lakes by constructing a continuous wet land in the natural area in the north east corner of the NASP;*
- *Directing the storm water from the proposed development to the continuous constructed wet land;*
- *Conducting a geotechnical evaluation along the escarpment in the north east portion of the NASP;*
- *Limiting the land uses permitted in the NASP to residential uses or institutional uses related to the delivery of Michener Centre services.*

❖ **Red Deer Trails Master Plan by:**

- *Acknowledging the existing trails in the NASP area to the extent possible,*
- *Providing for a regional path along the westerly edge of Michener Avenue.*

❖ **Ecological Profile of The Michener Centre Natural Area by:**

- *Dedicating the area in the north east portion of the NASP as a combination of Municipal and Environmental Reserve thereby protecting the drainage course and the existing tree stand;*
- *Protecting Gaetz Lakes by constructing a continuous wet land in the natural area in the north east corner of the NASP;*

- *Directing the storm water from the proposed development to the continuous constructed wet land;*
- *Where possible, and within reason, preserve the existing tree stand along the eastern edge of Michener Avenue;*
- *Considering a conceptual site plan for Michener Hill Village that acknowledges the edge condition with the Reserve area;*
- *Providing for residential development that takes advantage of the nearby natural amenities.*

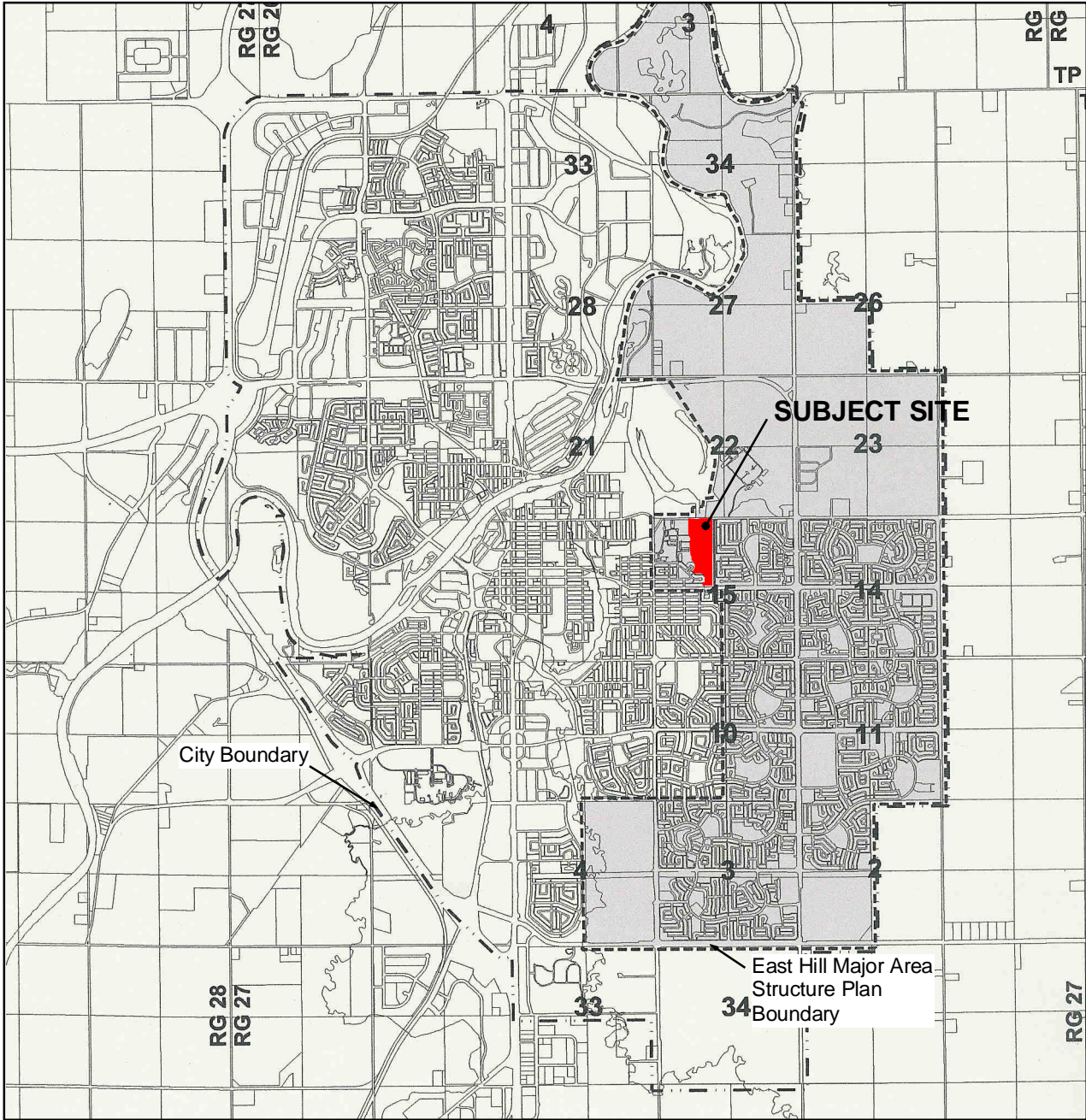
**THE MICHENER HILL EAST NEIGHBOURHOOD AREA STRUCTURE PLAN:**

- ❖ *Fits within an overall context,*
- ❖ *Does not unduly compromise the development of adjacent lands, and*
- ❖ *Addresses the intent and aspirations of the David Thompson Health Region.*

## 11.0 PLAN IMPLEMENTATION

This Michener Hill East Neighbourhood Area Structure Plan outlines the development concept for the entire Plan area and provides specific objectives for the development of a dynamic and functional Michener Hill Village development. Michener Hill East NASP will provide a high quality development that is consistent with The City of Red Deer policies and meets the existing and future needs of the local community and regional market.

Rezoning, subdivision and development of the Neighbourhood Area Structure Plan area shall be guided by the policies and objectives herein, and will be required to adhere to The City of Red Deer Land Use Bylaw and the informational requirements necessary for each subdivision and development application.



*InterPLAN* strategies, inc.  
 Land Planning Services



Source: East Hill Major Area Structure Plan  
 Parkland Community Planning Services  
 November 2005

MICHENER HILL EAST NASP

**FIGURE 1: LOCATION**



**MICHENER HILL EAST NASP**

Source: East Hill Major Area Structure Plan  
 Parkland Community Planning Services  
 November 2005

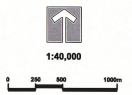
**City of Red Deer  
 East Hill Major Area Structure Plan**

**Development Concept Plan**

- - - Plan Area
- - - City Boundary
- - - College Park ARP Boundary
- ⬇ Expressway and Grade Separation  
(the need for a grade separated intersection will be determined through additional studies)
- Arterial Road
- Molly Bannister Dr. - Alignment Protection
- Divided Collector Road
- Collector Road
- ⬆ Proposed Neighbourhood Park & Trail Linkage\* (See Text & Map 2)
- ⬆ Proposed Multi-Neighbourhood Park (24 ha)
- \* Locations shown are conceptual and arbitrary

- Residential
- Existing Parks & Natural Areas
- Industrial / Limited Commercial
- Town Centre (Mixed Use - Commercial & Residential)
- Restricted Commercial
- Proposed Natural Areas
- Major Easement / R.O.W.
- Area in Red Deer County is included for conceptual purposes (potential uses shown)

- Public Utility Site
  - Public Service
  - Potential Emergency Services Site
  - Neighbourhood Commercial Centre
  - District Commercial Centre
  - Multi-Neighbourhood Leisure Facility
- Schools (see Note 4)
- Public K-8 School
  - Public Elementary School
  - Public High School
  - Catholic K-9 School
  - Catholic High School
  - Catholic Elementary School

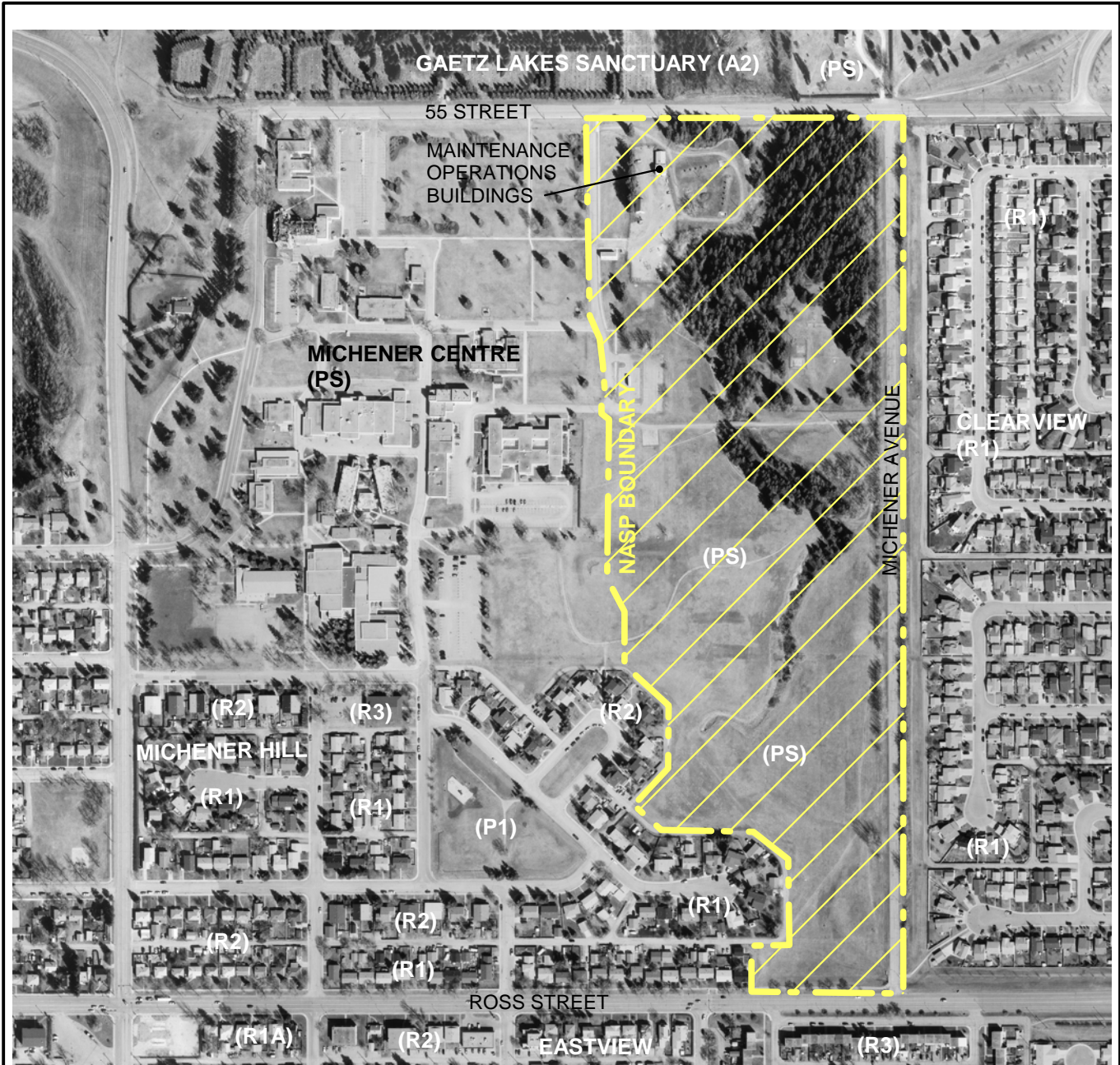


PARKLAND COMMUNITY PLANNING SERVICES  
 NOVEMBER 2005

MICHENER HILL EAST NASP

**FIGURE 2: EAST HILL MAJOR ASP: SITE CONTEXT**



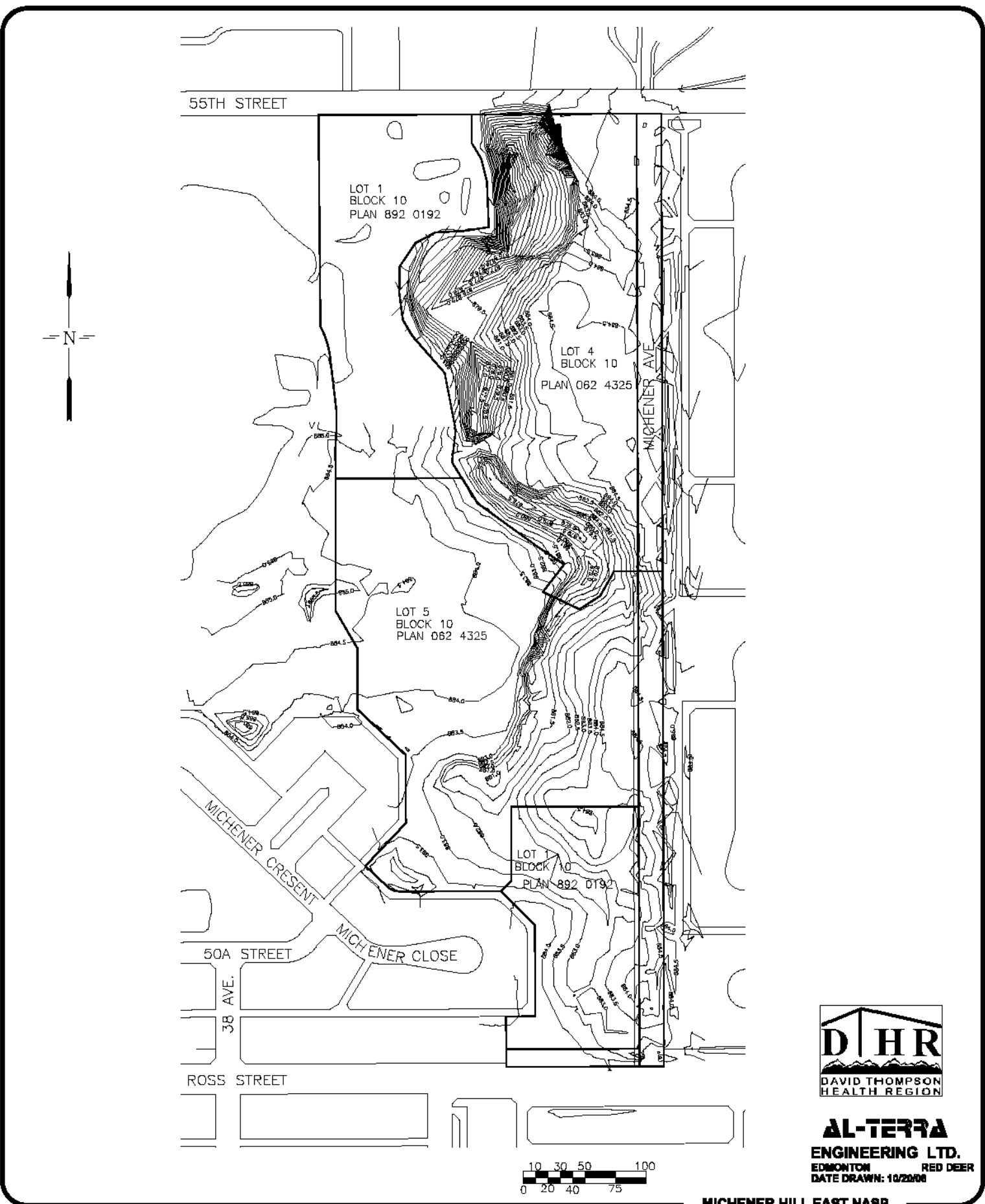


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Land Planning Services



MICHENER HILL EAST NASP

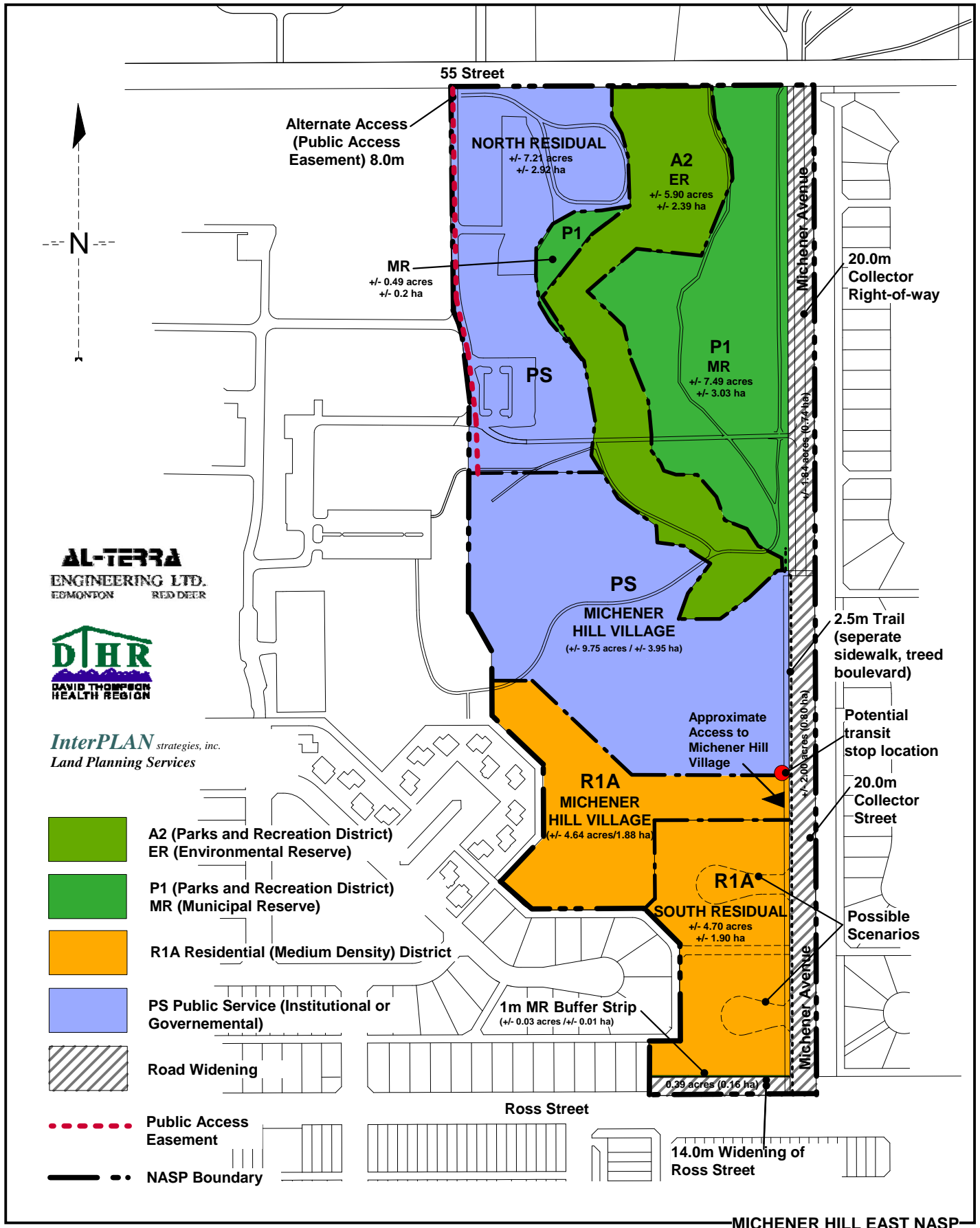
**FIGURE 3: EXISTING CONDITIONS**



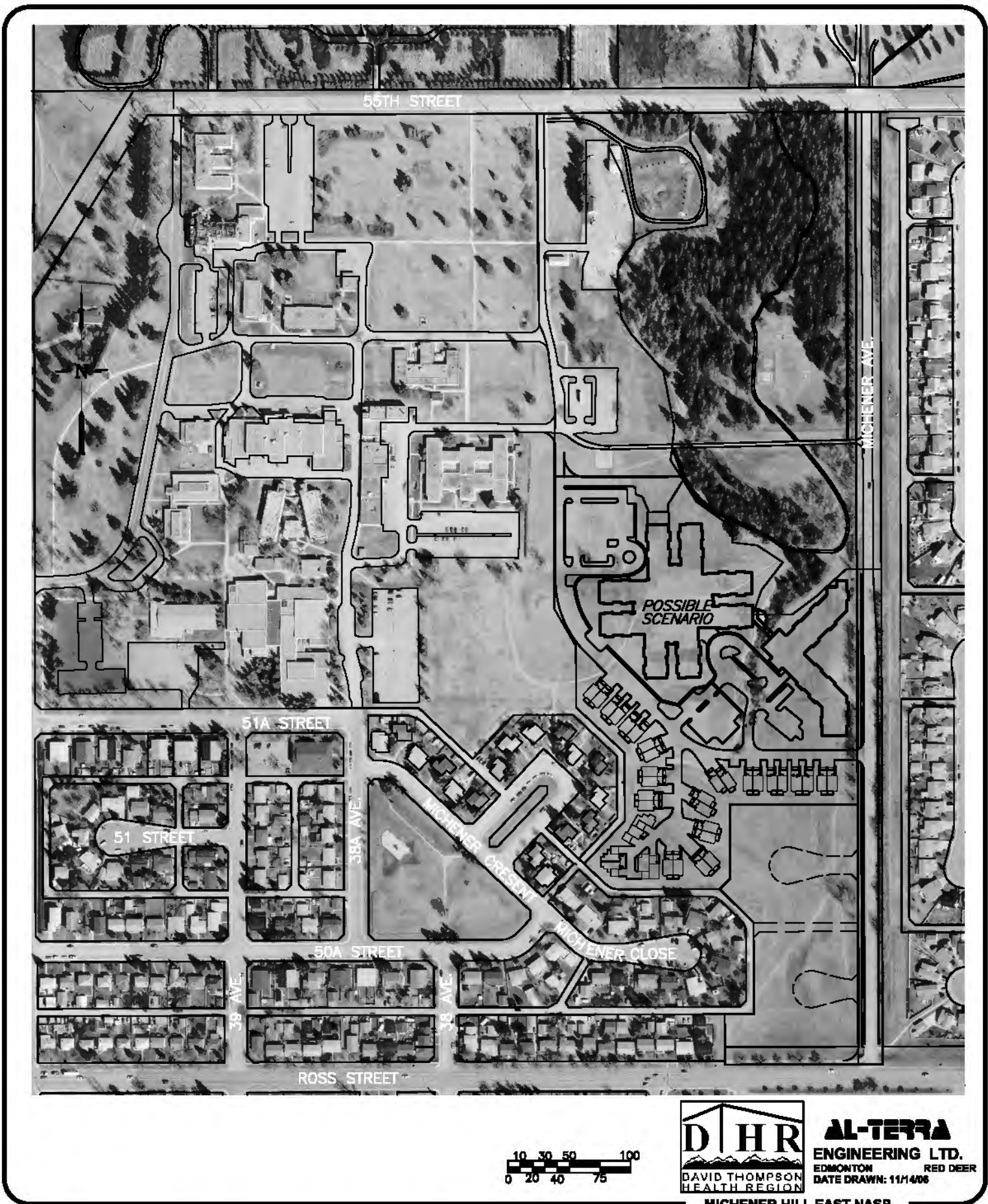
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MICHENER HILL EAST NASP

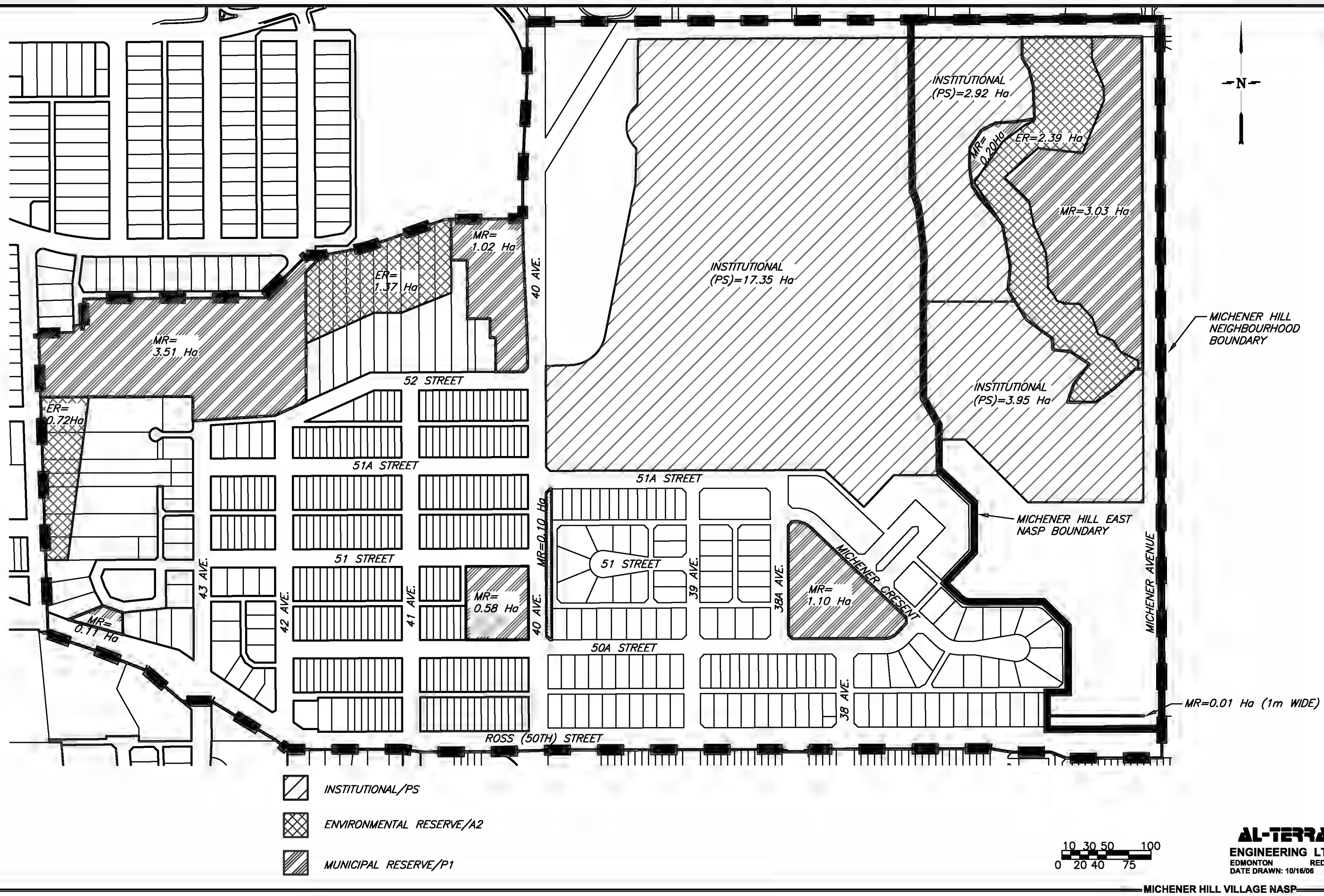
**FIGURE 4: EXISTING CONTOURS**



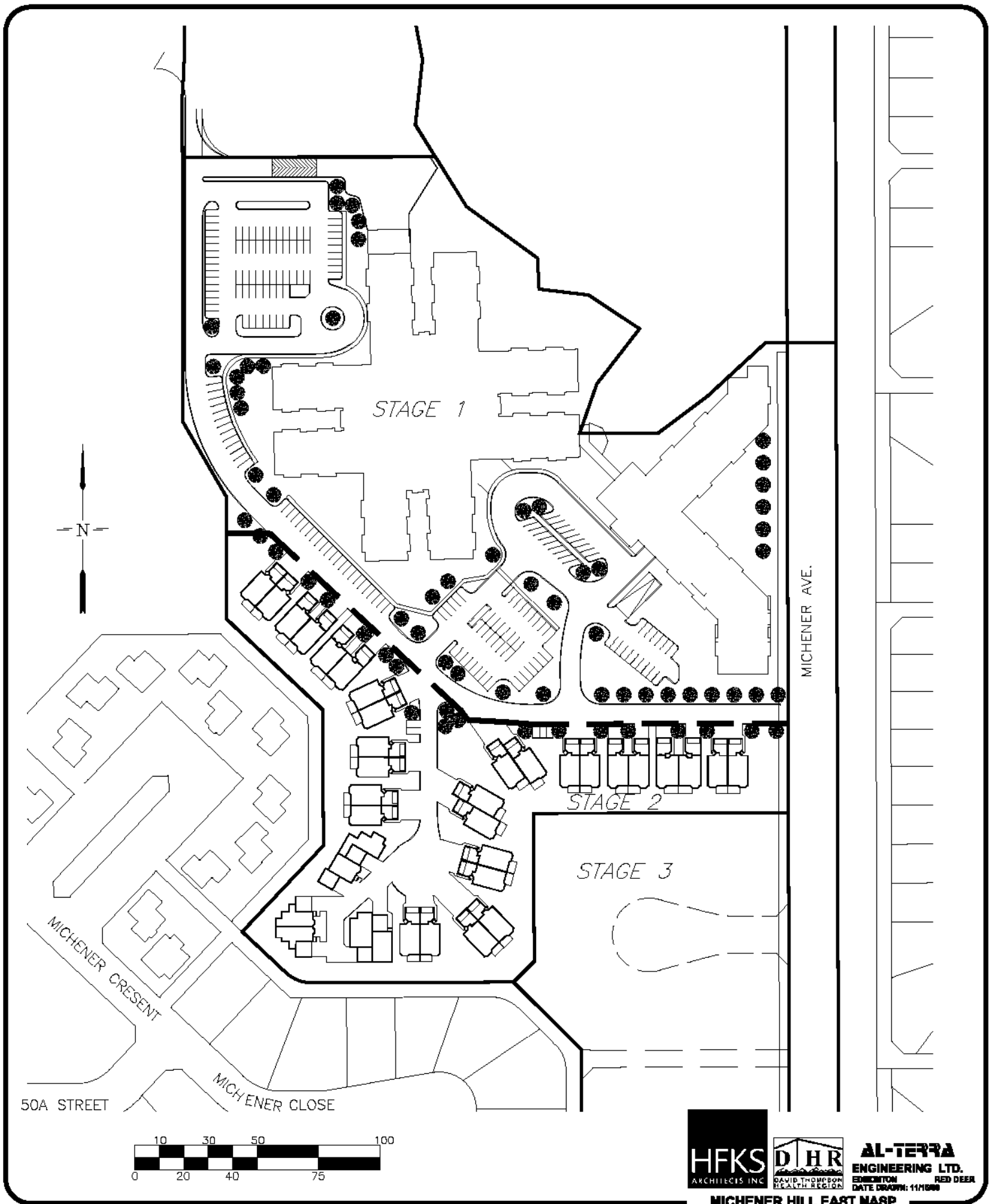
**FIGURE 5: DEVELOPMENT CONCEPT**



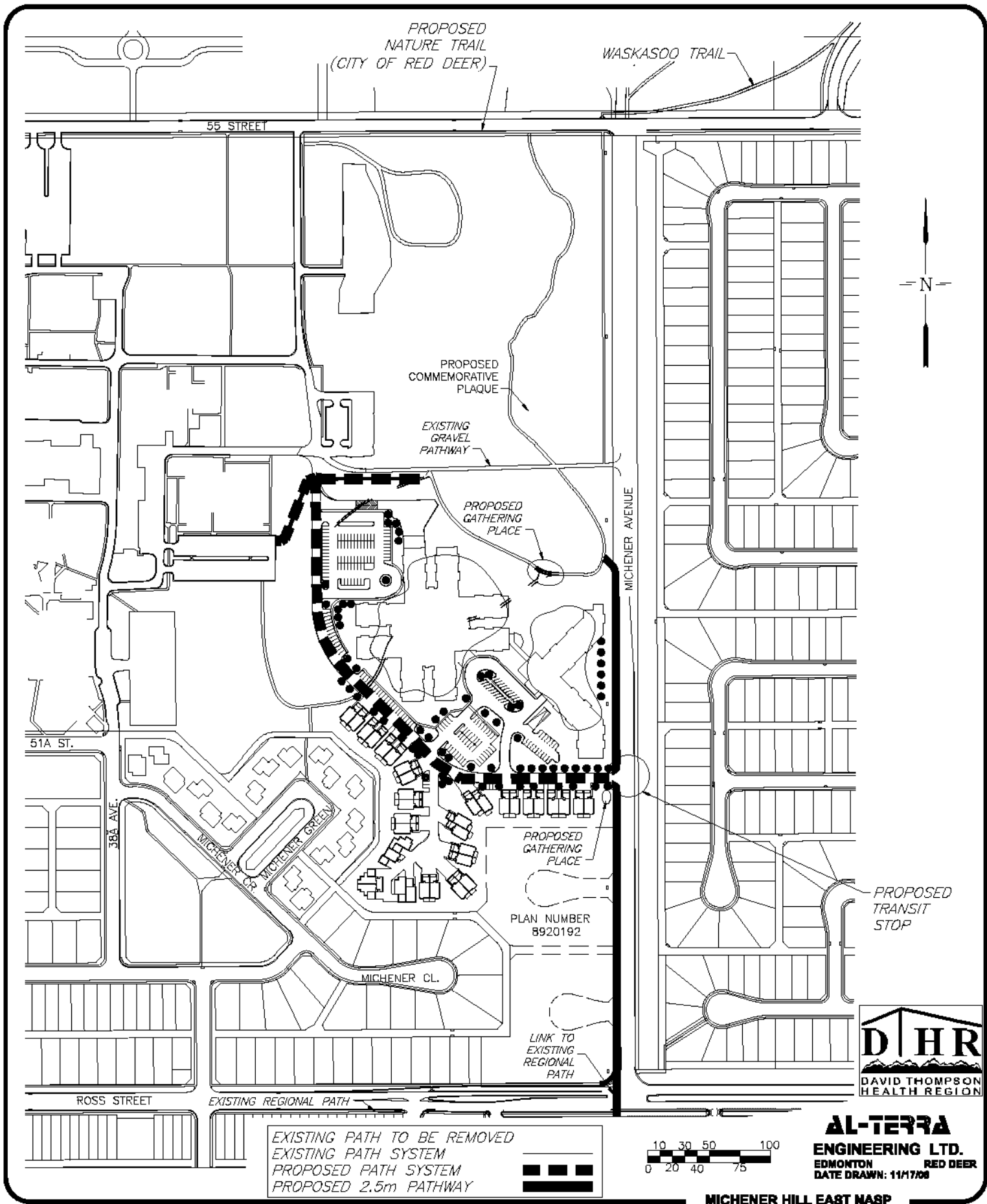
**FIGURE 6: DEVELOPMENT CONCEPT ON AERIAL**



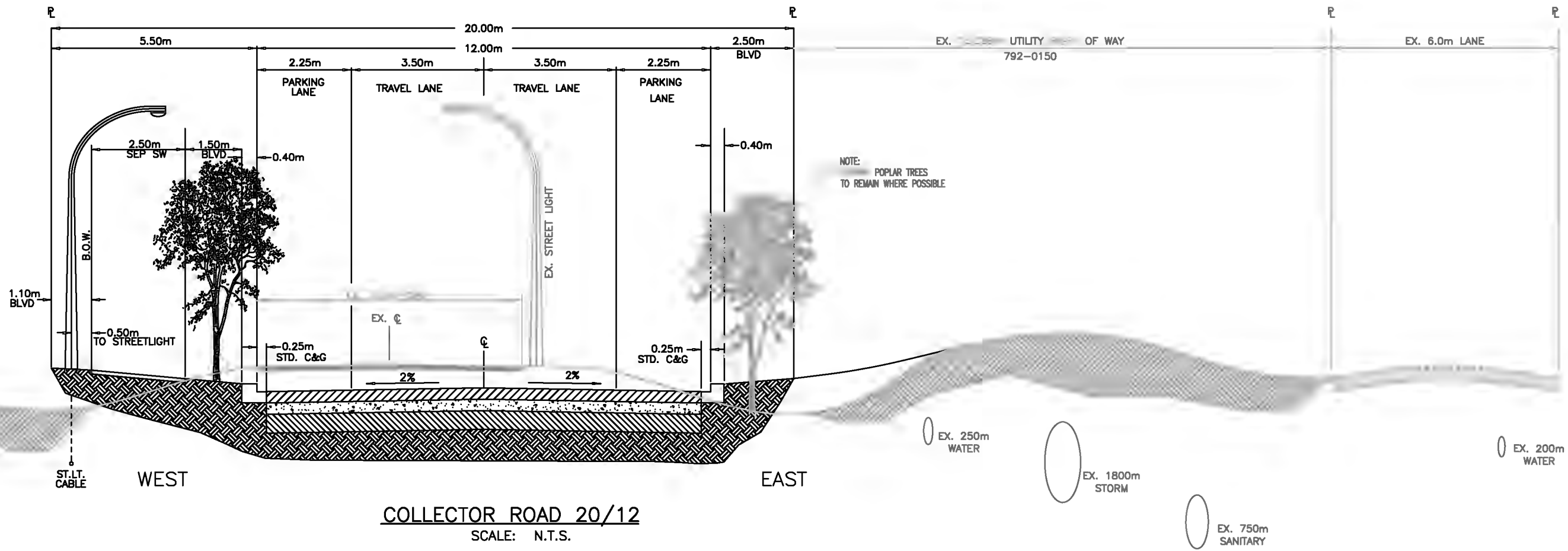
**FIGURE 7: MICHENER HILL NEIGHBOURHOOD**



**FIGURE 8: POSSIBLE SCENARIO FOR MICHENER HILL VILLAGE**



**FIGURE 9: TRAIL SYSTEM**

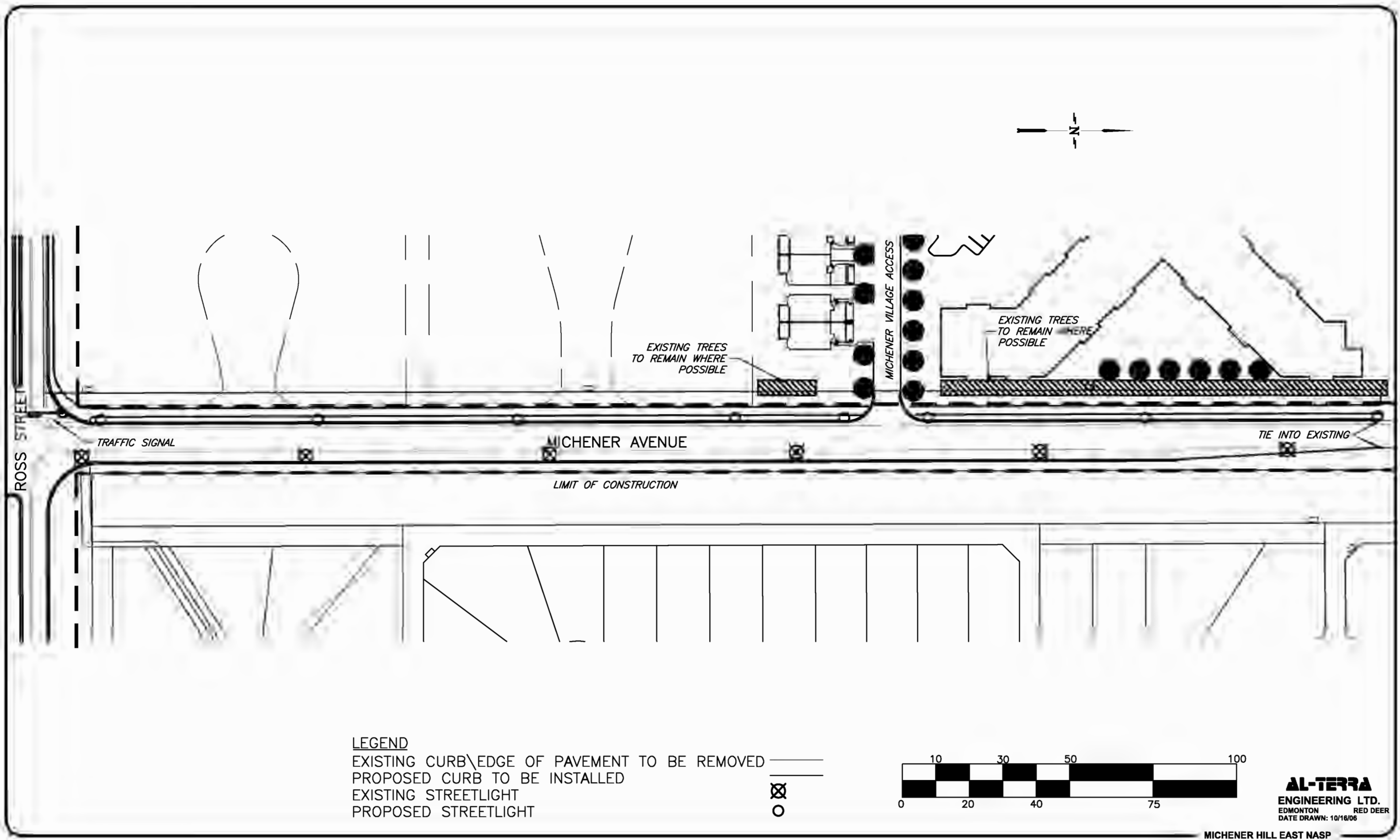


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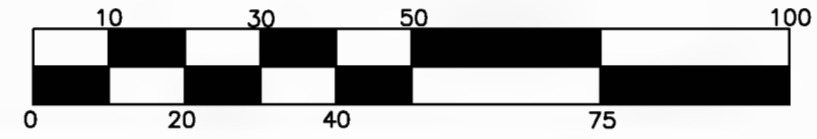
MICHENER HILL VILLAGE NAST

**FIGURE 10: MICHENER AVENUE CROSS-SECTION**





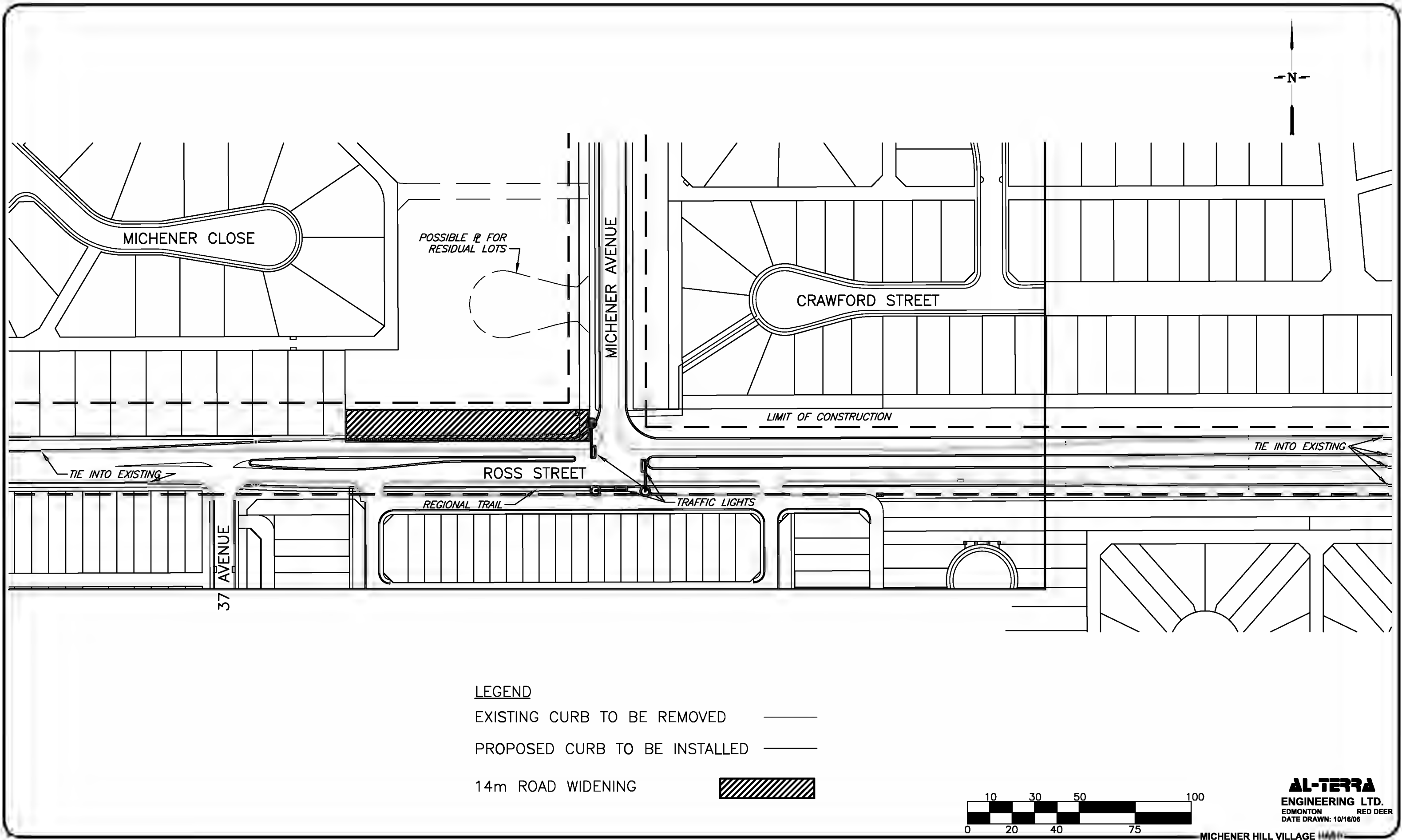
**LEGEND**  
 EXISTING CURB\EDGE OF PAVEMENT TO BE REMOVED ———  
 PROPOSED CURB TO BE INSTALLED ———  
 EXISTING STREETLIGHT ⊗  
 PROPOSED STREETLIGHT ○



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MICHENER HILL EAST NASP

**FIGURE 11: MICHENER AVENUE IMPROVEMENTS**



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MICHENER HILL VILLAGE

**FIGURE 12: ROSS STREET IMPROVEMENTS**



- EXISTING TRANSIT STOPS
- PROPOSED TRANSIT STOP TO BE CONSTRUCTED WITH PHASED 4 DEVELOPMENT
- PROPOSED TRANSIT STOP COVERAGE AREA

EXISTING TRANSIT STOP

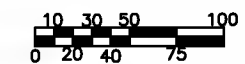
PROPOSED TRANSIT STOP

EXISTING TRANSIT STOP

EXISTING TRANSIT STOP

EXISTING TRANSIT STOP

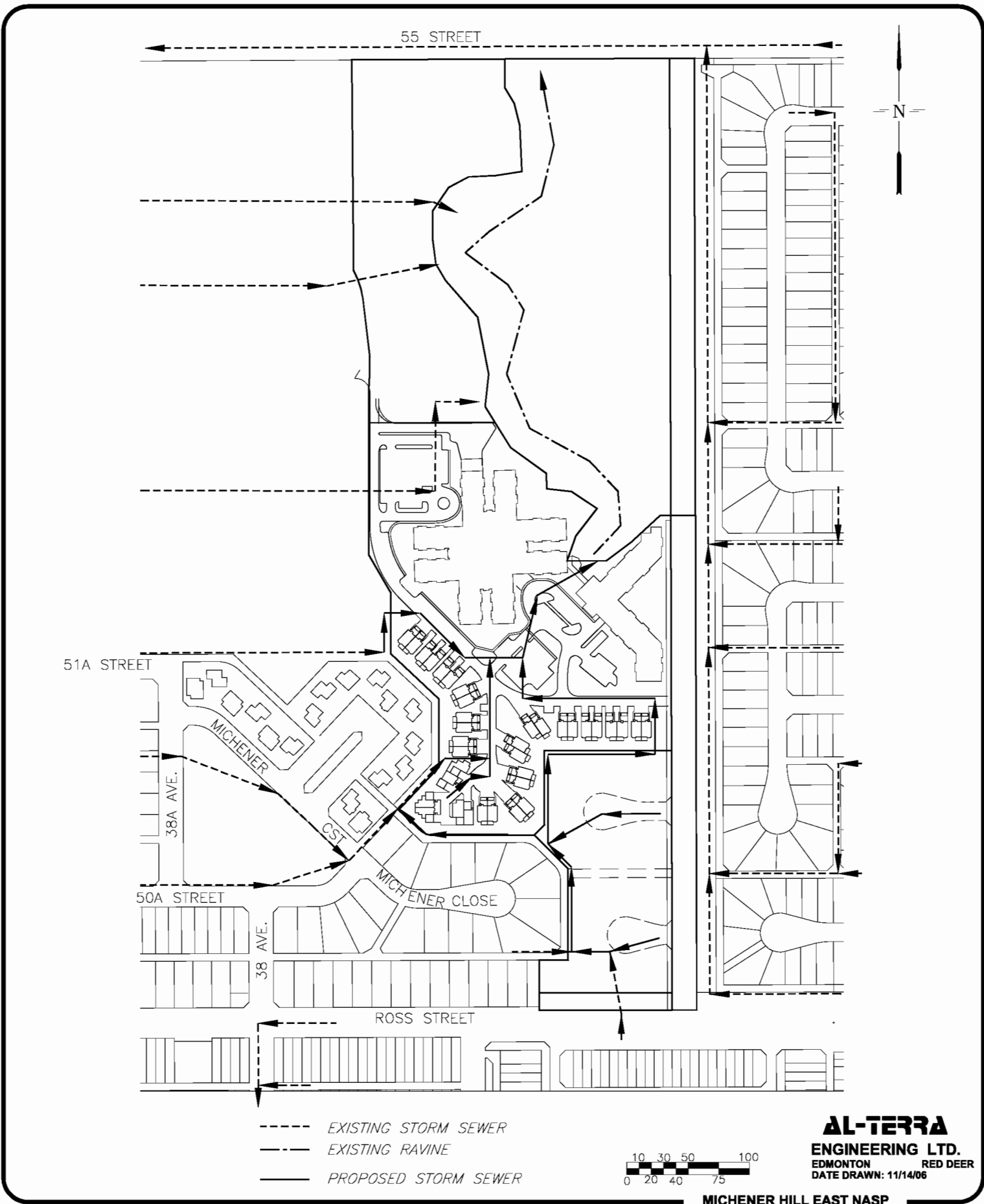
CIRCLES SHOW 400m RADIUS FROM NEAREST TRANSIT STOPS



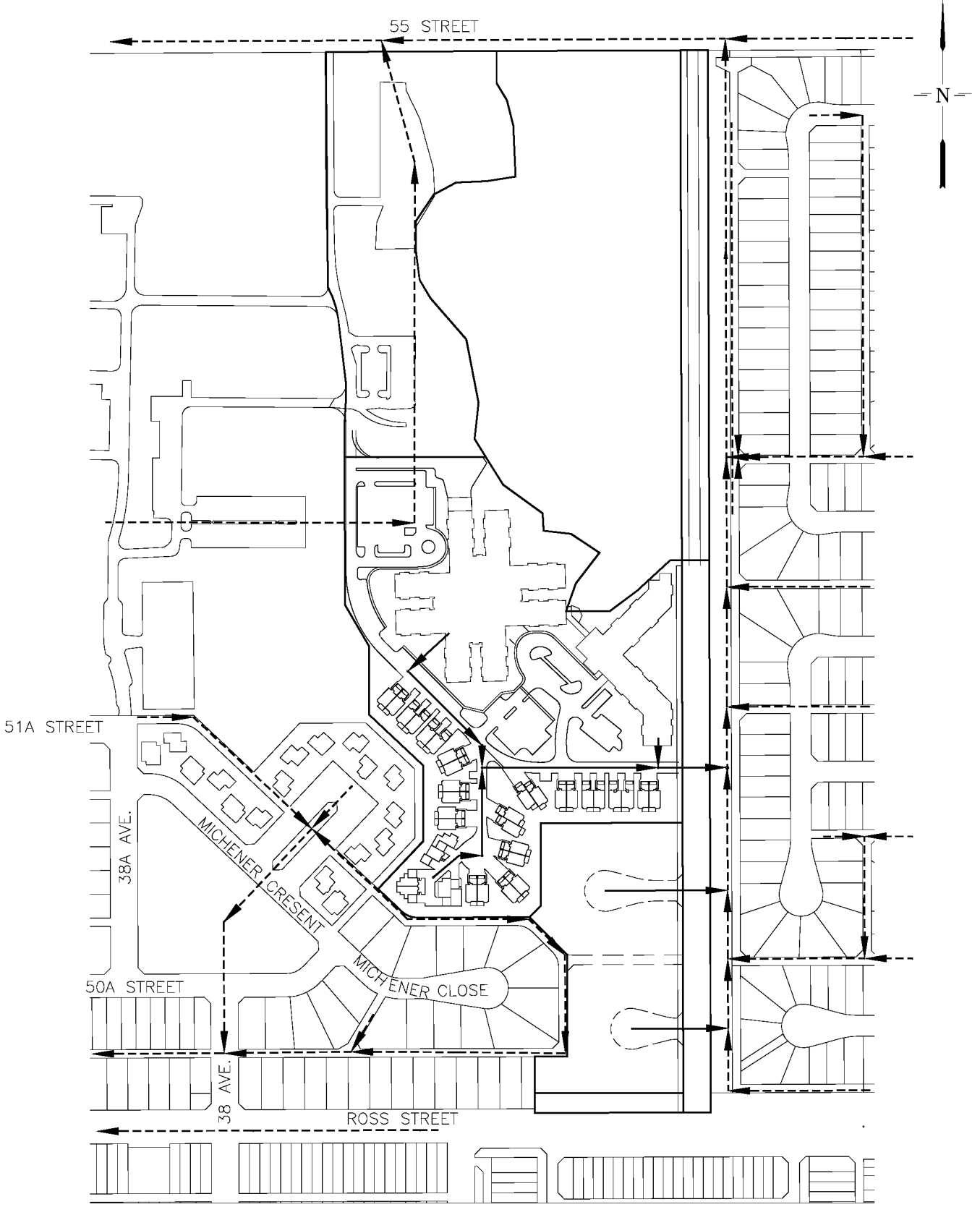
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**ENGINEERING LTD.**  
 EDMONTON      RED DEER  
 DATE DRAWN: 10/16/06

MICHENER HILL VILLAGE MAP

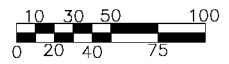
**FIGURE 13: TRANSIT PLAN**



**FIGURE 14: STORM SEWER SERVICING**



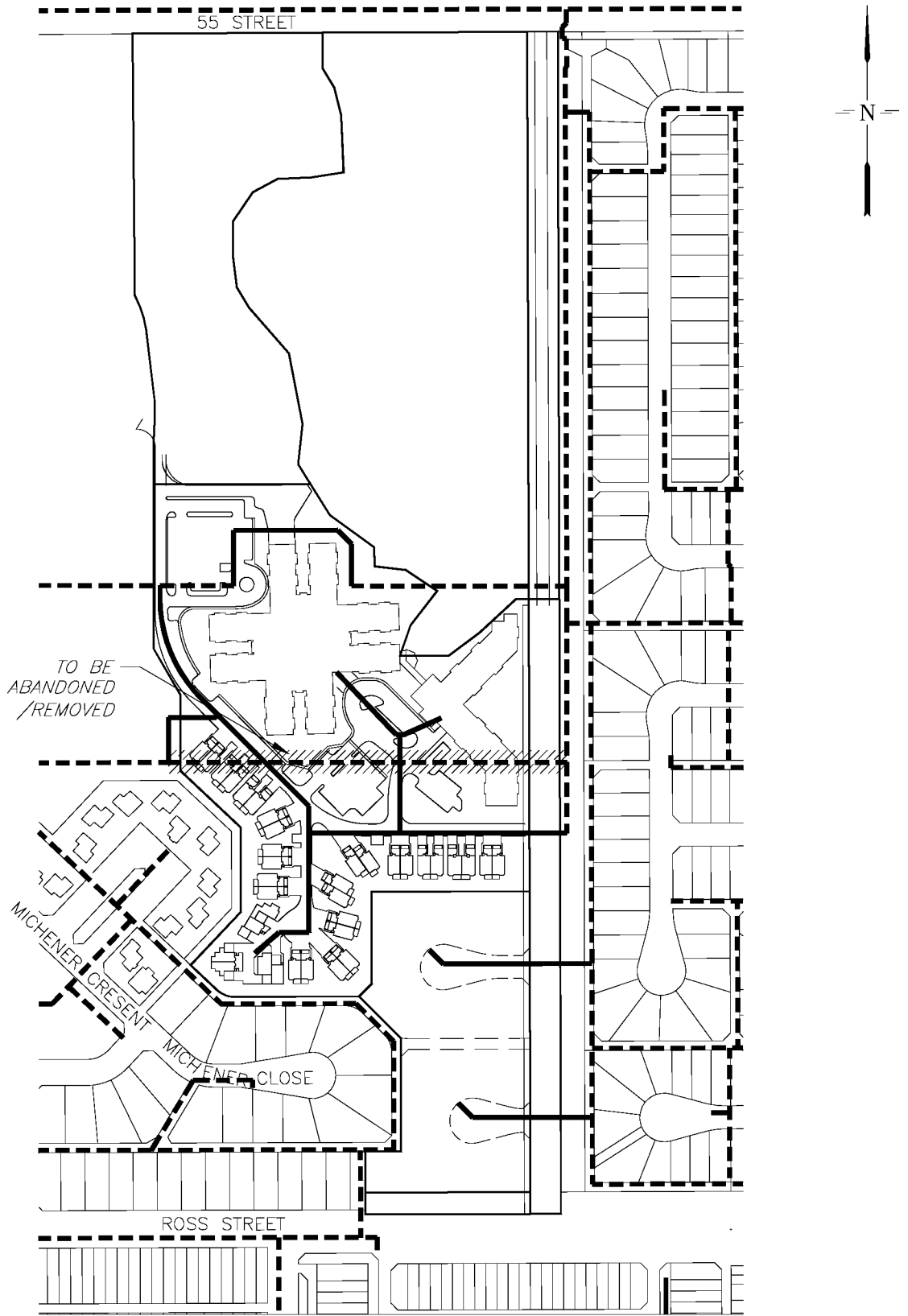
- - - - - EXISTING SANITARY SEWER  
 ——— PROPOSED SANITARY SEWER



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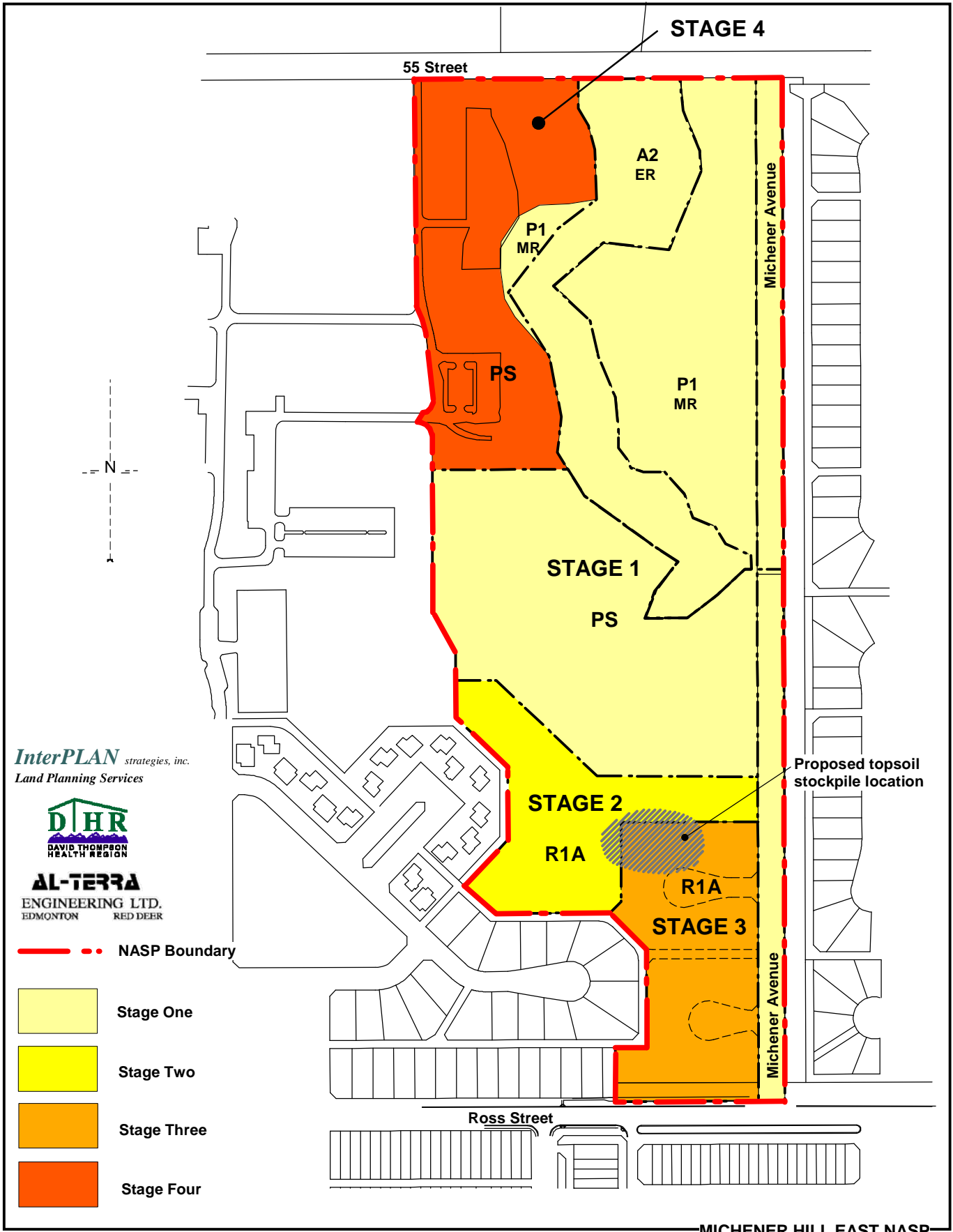
MICHENER HILL EAST NASP

**FIGURE 15: SANITARY SEWER SERVICING**



MICHENER HILL EAST NASP

**FIGURE 16: WATER MAIN SERVICING**



**FIGURE 17: DEVELOPMENT STAGING**