Parkside Acres

Area Structure Plan

Update

- *Consulting*
- *Engineering*
- *Construction*
- *Management Services*

uma

TABLE OF CONTENTS

List of Figures

Follows Page

Appendices

Appendix I – Conceptual Servicing Plan

1.0 INTRODUCTION

1.1 Purpose

The Parkside Acres Area Structure Plan (ASP) update has been prepared to describe the proposed land uses, roadway network, infrastructure and staging for an area on the east side of Coaldale. It is intended to provide a conceptual framework for development. The conceptual framework may be modified in response to changing market conditions.

1.2 Background

The Parkside Acres Area Structure Plan was approved by Town Council in June 2000. The ASP designated lands for a commercial area, a park site, and residential development comprising low density and multi family housing forms.

A re-examination of the storm water detention facility north of the ASP area led to the conclusion that this facility could be incorporated into the ASP area as functional recreational space. This factor led to the revised land use and roadway configuration which are presented in this update.

1.3 Location and Area

The Parkside Acres ASP consists of a portion of the S.W. ¼ of Section 13-9-20-4. The ASP area lies south of Highway 3 on the eastern side of the Town of Coaldale, and is approximately 52 acres (21 hectares) in size. It is bound to the north by 19th A Avenue, to the south by 20th Avenue, to the west by 8th Street and to the east by the Shigehiro property.

2.0 EXISTING CONDITIONS

2.1 Land Ownership

Excluding the detention pond and associated area (Plan 951 03 09), the subject lands are owned by Shigehiro Farms Ltd. of Coaldale, Alberta (Parkside Acres Joint Venture).

2.2 Physical Environment

The ASP area is well suited for urban development in terms of soils, topography and overall drainage conditions. The topography of the ASP area is of level plain.

Generally, the ground surface ranges from a high of 861 meters at the north to a low of 859 meters near the east boundary. The area drains naturally towards the east and southeast. A detention pond is situated in the north central area.

Since the ASP area is essentially undeveloped, the predominant surficial soil is topsoil. Subsurface soils consist primary of clay till.

2.3 Current Land Use – Site and Surrounding

The lands subject to the ASP have primarily been used for agricultural production. Highway 3 is located to the north. Residential development is located to the west. Lands to the east and south consist of agricultural holdings.

3.0 DEVELOPMENT CONCEPT

3.1 Development Objects

The overall goal of the Parkside Acres Area Structure Plan Update is to establish a framework for an attractive and livable neighbourhood that complements adjacent neighbourhoods.

Key objectives of this ASP are:

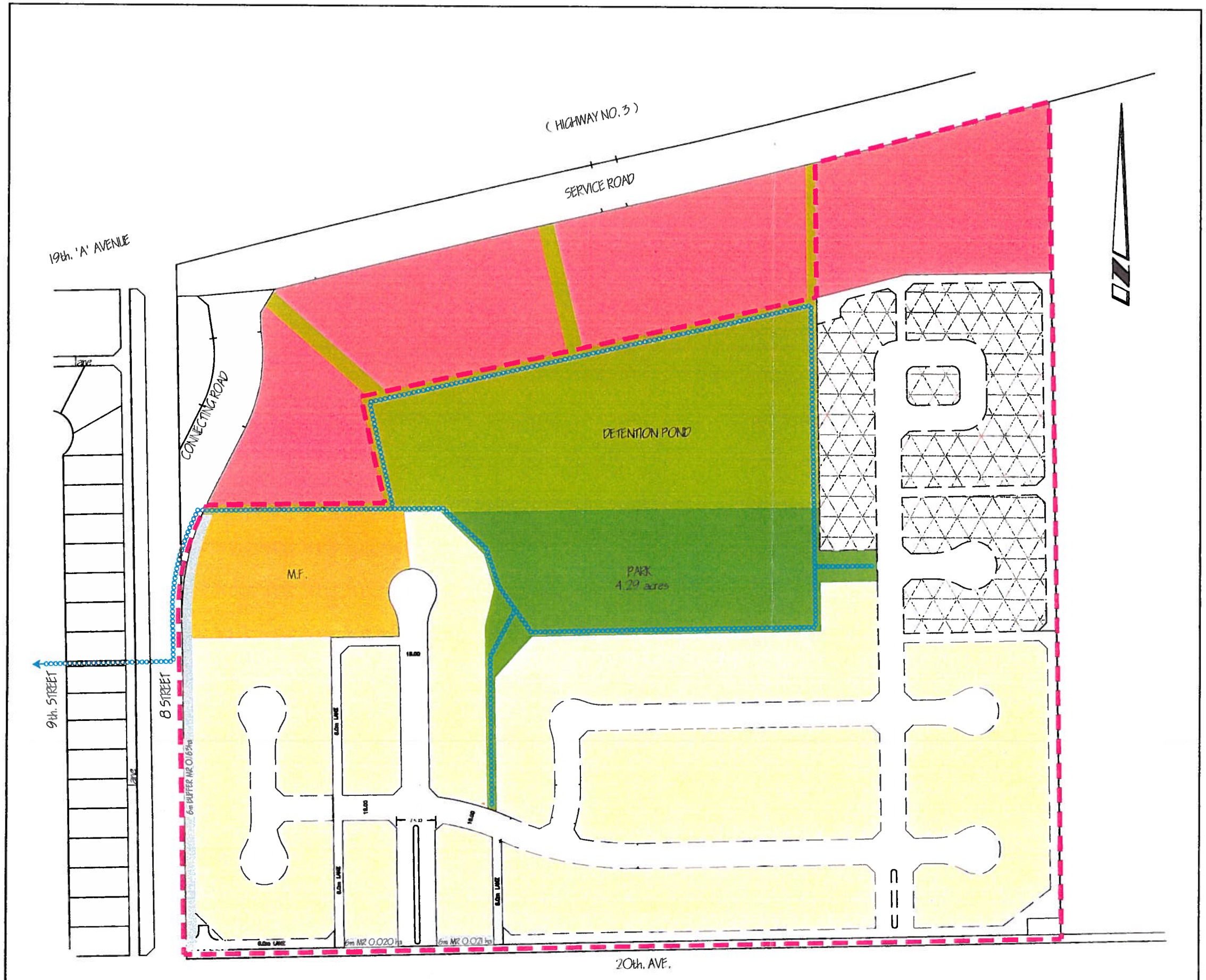
- to ensure that future development is compatible with existing neighbourhood development,
- to provide a range and variety of housing opportunities to meet current and future market conditions,
- to provide recreational open space by incorporating the detention pond and surrounding area with the park site, and
- to provide opportunities for a pedestrian pathway network that links future residential areas to existing neighbourhoods.

3.2 Development Concept

Parkside Acres will be a residentially oriented community comprising predominantly low density residential development, with a few strategically located multi family residential sites. Commercial activity will be oriented towards Highway 3, ensuring convenience and accessibility.

This ASP establishes an overall community identity that comprises compact residential nodes or modules defined by the roadway circulation system. The modular format proposed facilitates logical development sequencing and provides opportunities for a range of housing forms.

The proposed development concept for Parkside Acres is shown on Figure 1.



LEGEND

- AREA STRUCTURE PLAN BOUNDARY
- PATHWAY
- OPEN SPACE
- PARK
- BUFFER
- LOW DENSITY RESIDENTIAL
- MULTI-FAMILY RESIDENTIAL (M.F.)
- POSSIBLE LOW DENSITY OR MULTI-FAMILY RESIDENTIAL
- HIGHWAY COMMERCIAL

THE SIZE & LOCATION OF LAND USES ARE GENERAL.

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Project

TOWN OF COALDALE

AREA STRUCTURE PLAN
FOR PORTION OF S.W. 1/4 SECTION 13-9-20-4

Title

PARKSIDE ACRES
AREA STRUCTURE PLAN - UPDATE
DEVELOPMENT CONCEPT PLAN

Design	Scale	File No.	Drawn
boa	N.T.S.	L	DAV
Date	Project No.		Figure No.
11 JUNE 01	4180-006-00		1

3.3 Residential Land Use

Residential development will be the predominant land use in Parkside Acres and will comprise a range of housing forms. A variety of housing options offers choice of type, tenure, size and cost so that current and future housing requirements in the Town of Coaldale can be met. The proposed residential development is designed in such a manner as to complement adjacent neighborhoods.

An area of approximately 2.39 acres (0.967 hectares) in size situated in the northwest corner of the ASP area, adjacent to 8th Street, is designated for multi-family residential development. Multi-family housing types may take the form of town houses, a low-rise apartment, or villas.

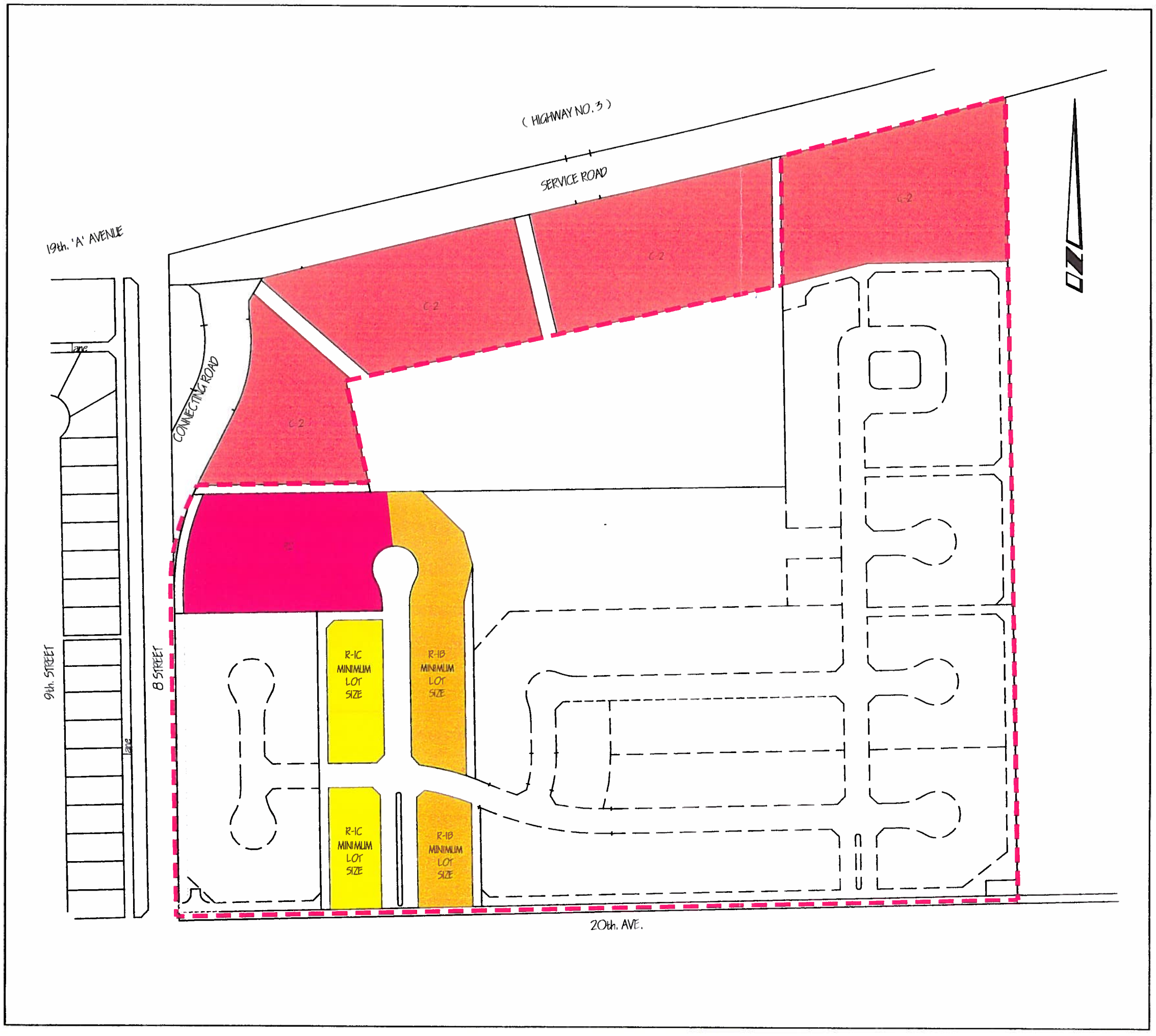
Depending on market conditions, an area of about 7.26 acres (2.93 hectares) in size, situated in the northeast corner of the ASP area may also be developed for multi-family residential uses. If no market exists, this area may be developed as low density residential development.

The balance of the ASP area will be low density residential development at conventional densities. Residential land uses will be developed according to the requirements of the residential land use districts of the Town of Coaldale Land Use Bylaw.

Figure 2 illustrates, on a block-by-block basis, the minimum proposed land use district for the initial phase of development. The proposed residential land use districts are intended to accommodate a variety of residential housing options, and to meet the full range of market conditions that exist within the Southern Alberta region.

3.4 Commercial Land Use

The major opportunity for commercial development is located immediately south of Highway 3. The advantage of this location stems from its accessibility to Highway 3. The location also minimizes land use conflicts between commercial and residential land uses.



LEGEND

- AREA STRUCTURE PLAN BOUNDARY
- RESIDENTIAL - MEDIUM LOTS (R-IB)
- RESIDENTIAL - SMALL LOTS (R-IC)
- RESIDENTIAL MULTI-FAMILY (R2)
- HIGHWAY COMMERCIAL

NOTE: THE R-IB AND R-IC LAND USE DESIGNATIONS ARE THE PROPOSED MINIMUM LOT SIZES PER GIVEN BLOCK.

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AREA STRUCTURE PLAN
FOR PORTION OF S.W. 1/4 SECTION 13-9-20-4

Title

PARKSIDE ACRES
AREA STRUCTURE PLAN - UPDATE

GENERAL LOCATION OF LAND USE PROPOSED FOR PHASE 1 OF THE ASP AREA

Design	Scale	File No.	Drawn
bca	N.T.S.	L	DAV
Date	Project No.		Figure No.
11 JUNE 01	4180-006-00		2

3.5 Park

A park site of approximately 4.29 acres (1.736 hectares) will be situated in the ASP area. The park site will serve both as a recreational space and as a storm water management facility. The park will be appropriately landscaped to enhance the image of the neighbourhood.

The park will provide both passive and active recreational opportunities for the residents of the ASP area as well as for the residents of the entire Town. Active recreational opportunities may be achieved through the provision of a soccer pitch, baseball diamond, or a play structure.

There are no school site allocations provided. It is anticipated that all students residing within the development will be accommodated within the Town's existing school system.

3.6 Open Space

The existing storm water management facility, situated in the north central area will abut the park site and will therefore form an integral part of the overall open space system. The facility will operate as a storm water detention pond, will be landscaped and will have associated open space. As a result, the facility will provide visual amenity, recreational opportunities and functional open space to the ASP area.

3.7 Pathway Network

A pathway network will provide connections between existing and new neighbourhoods and link residents to the park and other community features. The pathway network will connect to external pathways, ensuring pedestrian movement between the ASP area and adjacent neighbourhoods.

The pathway network is conceptually shown on Figure 1. Pathways should be designed to allow for the safe and easy movement of pedestrian traffic.

3.8 Buffer

A buffer approximately 6 meters in width will be provided along 8th Street. The buffer area will be appropriately landscaped thus providing visual amenity to the area. The first access point to the residential portion of the ASP area along 20th Avenue will also be appropriately signed and landscaped.

The buffers will be designated municipal reserve, totaling approximately 0.5 acres (0.20hectares)

3.9 Road Network

The proposed road network servicing the ASP area will consist of local residential streets, a local commercial street and residential lanes.

Access to the residential portion of the ASP area will be achieved through two access points off of 20th Avenue. By providing two access points, good traffic circulation and easy access will be ensured. Access to the commercial sites will be from the existing gravel service road, north of the ASP area. The service road will be upgraded to conform to the "Town of Coaldale Guidelines to Land Development"[1] guidelines.

The roadway network will be designed in accordance with the Transportation Association of Canada guidelines as well as the Town of Coaldale's guidelines.

[1] Town of Coaldale, February 1992

4.0 MUNICIPAL SERVICING

4.1 Water Supply and Distribution

Two water mains exist adjacent to the site as denoted in Figure 3 (Appendix I) , as follows:

- 200 mm water main terminated at the intersection of 8th Street and 19th A Avenue.
- 300 mm water main adjacent to the south property line of the site, located within the 20th Avenue Road Right of Way. This water main continues east and services the McCain's Plant.

The "Town of Coaldale Water Distribution Analysis" [2], dated October 1992 was reviewed and the report recommended the site be serviced by looping the 200 mm water main (noted above) with a 300 mm water main connecting onto the recently installed 300 mm water main in 20th Avenue.

The 300 mm water main will be constructed through the ASP site enabling the lot services to connect onto this pipe and provide the Town of Coaldale with the necessary improvement to the water distribution system required to support development in Southeast Coaldale. The proposed location of the 300 mm loop is schematically described on Figure 3. The water mains required to service the site are schematically described on 4.

The design and construction of the water mains and service connections will:

- Provide adequate water pressure to meet peak hour demands and fire flows for the single family residential, multi-family and institutional uses proposed within the site. The demands and fire flows requirements will be determined from the Guidelines.

[2] MPE Engineering Ltd., October 1992

- Satisfy the Town's requirements for strengthening the water distribution system in Southeast Coaldale.
- Be constructed with approved materials and methods conforming to Section D of the Guidelines.

Upon construction completion of the 300 mm water main connecting 8th Street to 20th Avenue, the Town's servicing requirements are satisfied.

The Water Distribution Analysis confirms the Town has sufficient water infrastructure in place to support the development proposed on the site.

4.2 Sanitary Sewer Collection

The sanitary sewer servicing the site will be provided in accordance with "The Town of Coaldale Sanitary Infrastructure Study" [3], dated January 1994. The report recommended the site be serviced by constructing a new sanitary trunk sewer from the main sewage lift station located at 14th Avenue and 13th Street, easterly to 8th Street, then south along 8th Street, connecting onto the south end of the existing "dry" sanitary sewer main installed beneath Highway No. 3. The report recommends this sanitary trunk sewer be sized and installed at a depth sufficient to service the East and Southeast areas of Coaldale.

Completion of the above referenced offsite sanitary trunk sewer has now provided the site with available sanitary sewer servicing. The site sewage will be conveyed to the northwest corner of the site towards the intersection of 19th A Avenue and 8th Street. The sewage will then be conveyed via a siphon connection with the trunk sewer under Highway No. 3 and flow to the main sewage lift station located at 14 Avenue and 13 Street.

[3] MPE Engineering Ltd., January 1994

The sanitary sewer servicing concept is depicted on Figure 3.

The above report sized the portion of sanitary sewer trunk located within the site as a 450 mm diameter.

The 450 mm trunk sewer will be installed through the ASP site enabling the lot services fronting the trunk sewer to connect. The trunk will be temporarily terminated at the south boundary of the site. Future development of the adjacent areas will necessitate the extension of the sanitary trunk sewer.

The sewer mains required to service the site by gravity, are schematically described on Figure 3.

The design and construction of the sanitary sewer mains and service connections will:

- Provide adequate sanitary sewer servicing capacity to safely convey the peak flows generated in the site to the sewage treatment plant. The flow requirements will be calculated as per the Guidelines.

- Satisfy the Town's requirements for providing future sanitary sewer trunk servicing capacity to East and Southeast Coaldale.

- Be constructed with approved materials and methods conforming to Section D of the Guidelines.

Upon construction completion of the 450 mm sanitary trunk sewer through the site, and the offsite sanitary trunk main north of Highway No. 3 to the main sewage lift station, the Town's sanitary sewer servicing requirements are satisfied.

The "Sanitary Sewer Infrastructure Study" confirms the Town has sufficient sewerage servicing infrastructure in place to support the development proposed on the site.

4.3 Storm Drainage and Storm Water Management

The site drainage and storm water management systems can generally conform to Option E contained in the "Eastview Storm Water Management Study" dated November 28, 1997. The report identifies 19, 300 cubic meters of storm water storage required. The ASP provides a consolidated central MR area with the regional detention pond facility. Proposed consolidation of the park and detention pond facilities will result in an improved overall storm water system to the Town when:

- the operating high water level (HWL) in the detention pond facility is effectively lowered,
- the detention pond bottom is sloped to accommodate better drainage characteristics, and
- the detention pond side slopes can be flattened to integrate open space utilization, improved aesthetics, and facilitate regular maintenance.

Construction of storm water management facilities will comply with the Town Guidelines and the Alberta Environmental protection "Standards and Guidelines for Municipal Waterworks, Wastewater and Storm Drainage Systems."

The site drainage will consist of both the major and minor storm drainage systems.

The design and construction of both the major and minor storm drainage systems, complete with a foundation drainage collector will:

- Provide adequate storm drainage to safely convey the 1:5 year design storm into the minor system and safely convey the 1:100 year design storm to the storm detention pond located on site.

- Regulate the flows into the catch basins through the installation of inlet control devices.

- Convey the drainage from the site into the Town's existing storm detention pond. This pond discharges into the existing highway drainage ditch.

- Provide additional storm sewers, for the future servicing of the adjacent lands to the south and east. The additional storm sewer requirements are identified in the "Eastview Stormwater Management Study". The locations of the required storm drainage pipes are depicted in Figure 3 .

- Satisfy the storm drainage requirements as noted in the guidelines.

- Satisfy the Town's requirements for providing future storm sewer trunk servicing capacity the areas to the east and south of the site.

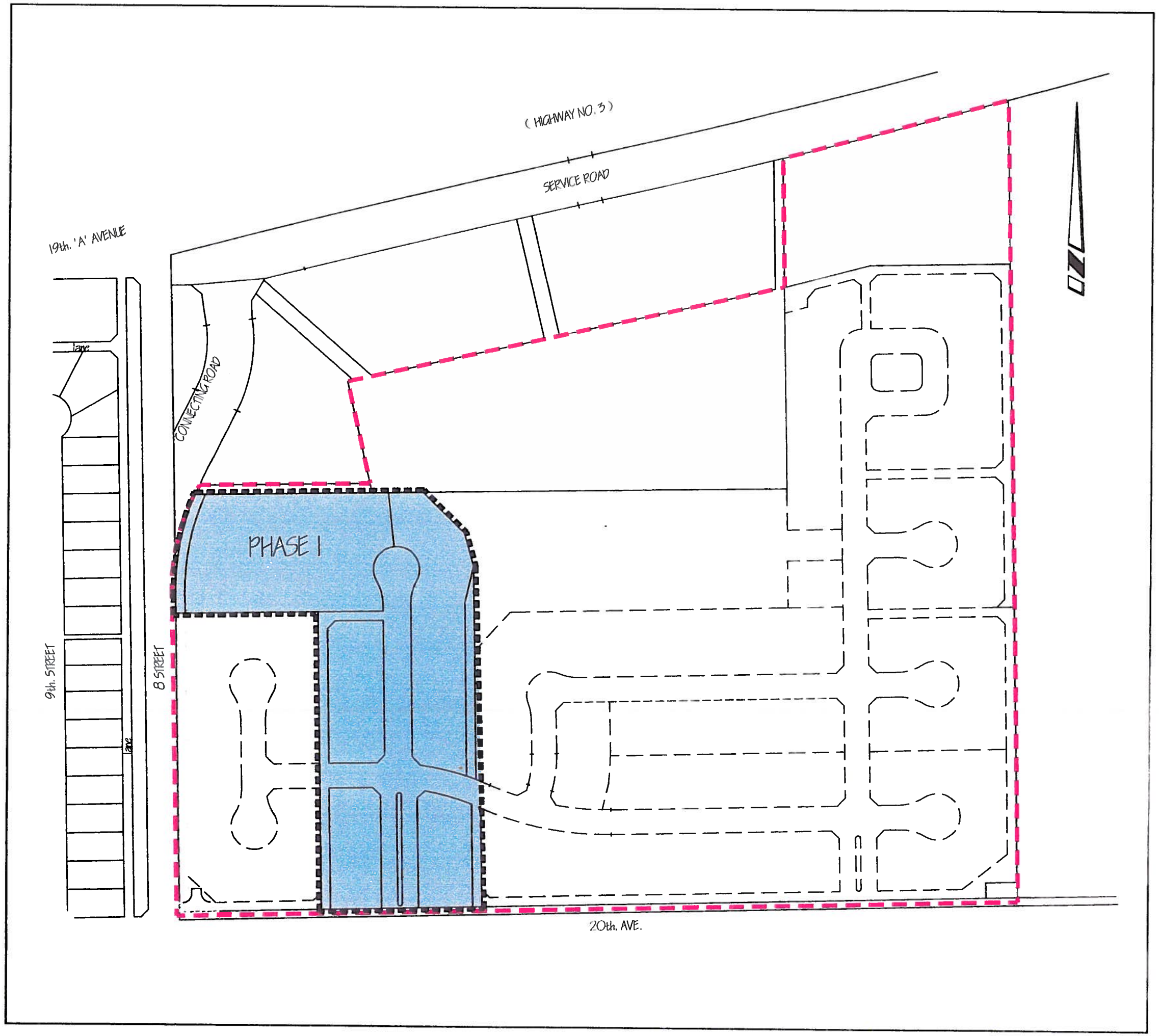
- Be constructed with approved materials and methods conforming to Section D of the guidelines.

4.4 Solid Waste Disposal

The Town will collect solid wastes. Single family lots may be serviced by solid waste pick up from the lane. Where lanes do not abut the lot, the solid waste can be collected from the fronting street. For the commercial and multi family sites, the solid wastes will be collected from onsite bins.

5.0 STAGING OF DEVELOPMENT

The development of the ASP area should proceed in an orderly pattern based upon servicing availability. The initial phase of development is shown on Figure 4. Future phases will be determined by market conditions.



LEGEND

AREA STRUCTURE PLAN BOUNDARY

INITIAL PHASE

NORTH

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Project

TOWN OF COALDALE

AREA STRUCTURE PLAN

FOR PORTION OF S.W. 1/4 SECTION 13-9-20-4

Title

PARKSIDE ACRES
AREA STRUCTURE PLAN - UPDATE
INITIAL PHASE OF DEVELOPMENT

Design	Scale	File No.	Drawn
boa	N.T.S.	L	DAV
Date	Project No.		Figure No.
NOVEMBER	4180-006-00		4

6.0 SUMMARY

This Area Structure Plan defines the land use, roadway network and servicing system for the Parkside Acres area.

This ASP is intended to expand the commercial opportunities in Coaldale as well as provide a range of housing forms at conventional densities to an emerging residential area. A comprehensive redesign of the former land use and road network provides for a range of housing forms, a convenient roadway circulation network and increased recreational open space. The relocation of the park adjacent to the detention pond ensures that the ASP area will have a spacious character.

This ASP is a response to changing market conditions, community preferences and housing requirements within the Town of Coaldale.

This ASP complies with relevant municipal statutory plans. Parkside Acres will provide a quality living environment for the residents of the Town of Coaldale.

APPENDIX I

Conceptual Servicing Plan

LEGEND

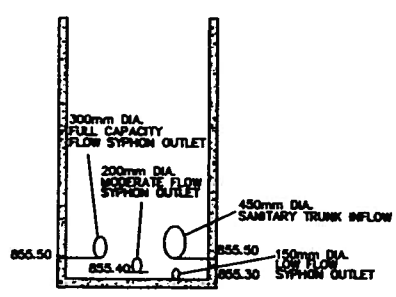
- SANITARY SEWER MAIN
- STORM SEWER MAIN
- WATER MAIN
- PROPOSED MANHOLE
- EXISTING MANHOLE
- 862.50 — ORIGINAL GROUND CONTOUR
- PHASE 1 BOUNDARY

NOTES

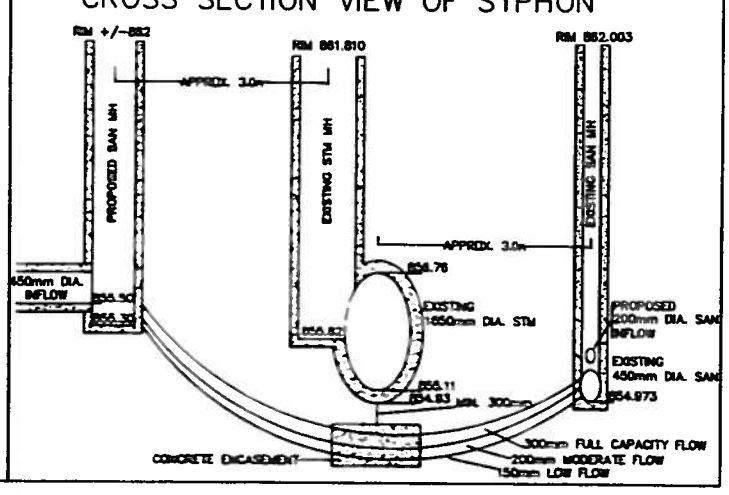
THE CONTOURS ARE BASED ON MAY 2001 SITE SURVEY.
ELEVATIONS ARE IN GEODETIC METRIC SYSTEM.

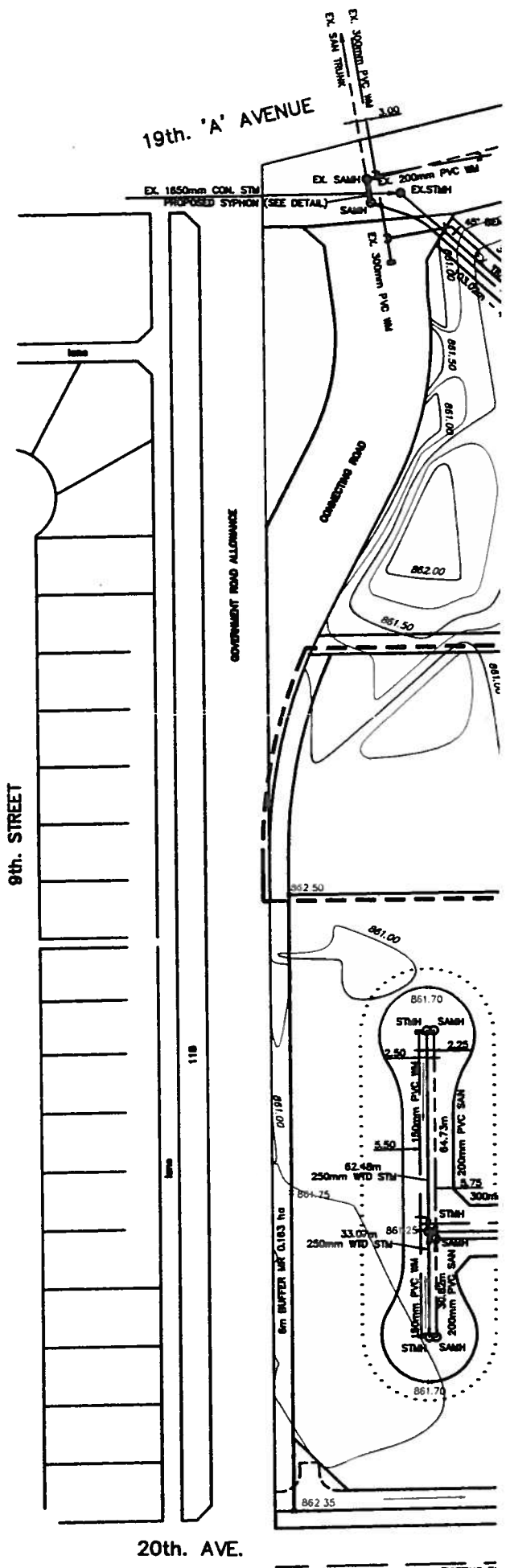
CONCEPTUAL SANITARY SEWER SYPHON PARKSIDE ACRES JUNE 2001

CROSS SECTION OF PROPOSED UPSTREAM SYPHON MANHOLE



CROSS SECTION VIEW OF SYPHON





PREPARED BY:

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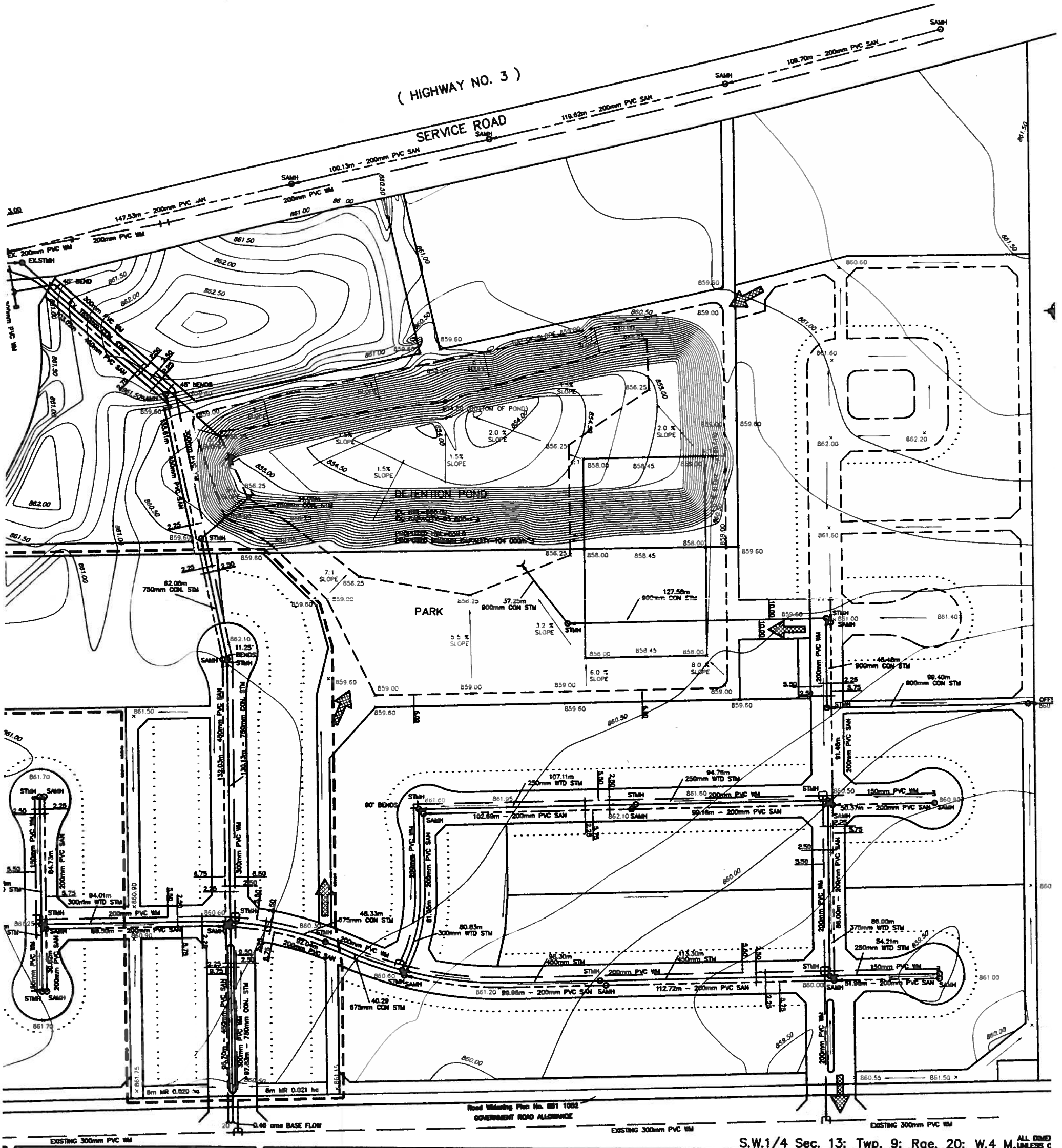

S.W.1/4 Sec. 13; Twp. 9; Rge. 20; W.4 M. ALL DIMEN UNLESS O

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No.	DD MM YY	Revision	By
2	13. 08. 01	REVISED AREA STRUCTURE – PLAN LAYOUT	B.B.
1	28. 04. 01	FOR SERVICE CONCEPT	B.B.

Drawn B.B.	Date 13.08.01
Designed	B.B.
Checked	P.B.
Scale	1:2000

TOWN OF COALDALE

PARKSIDE ACRES

CONCEPTUAL SERVICING PLAN

(HIGHWAY NO. 3)

SERVICE ROAD

DETENTION POND

PARK

100.13m – 200mm PVC SAN

118.62m – 200mm PVC SAN

109.70m – 200mm PVC SAN

102.69m – 200mm PVC SAN

99.18m – 200mm PVC SAN

99.86m – 200mm PVC SAN

112.72m – 200mm PVC SAN

51.88m – 200mm PVC SAN

50.37m – 200mm PVC SAN

61.48m – 200mm PVC SAN

86.00m – 200mm PVC SAN

127.58m 900mm CON STM

37.22m 900mm CON STM

46.48m 900mm CON STM

98.40m 900mm CON STM

107.11m 250mm WTD STM

94.76m 250mm WTD STM

86.00m 375mm WTD STM

54.21m 250mm WTD STM

48.33m 675mm CON STM

40.29 675mm CON STM

80.83m 300mm WTD STM

200mm PVC WM

150mm PVC WM

OFFSITE INPUT STORM

Road Widening Plan No. 851 1032

GOVERNMENT ROAD ALLOWANCE

EXISTING 300mm PVC WM

FLOW

S.W.1/4 SEC. 13 – 9 – 20 – 4

S.W.1/4 Sec. 13; Twp. 9; Rge. 20; W.4 M.

ALL DIMENSIONS ARE METRES UNLESS OTHERWISE NOTED

08. 01	REVISED AREA STRUCTURE – PLAN LAYOUT	B.B.
04. 01	FOR SERVICE CONCEPT	B.B.
D MM YY	Revision	By

Drawn B.B.	Date 13.06.01
Designed	B.B.
Checked	P.B.
Scale	1:2000

TOWN OF COALDALE

PARKSIDE ACRES

CONCEPTUAL SERVICING PLAN

DWG. No:	ISSUE
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FILE No:
\COALDALE\CONCEPT 2

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