

BY-LAW 15-91

A BY-LAW OF THE COUNTY OF STRATHCONA NO. 20 IN THE PROVINCE OF ALBERTA, FOR THE PURPOSE OF ADOPTING THE STRATHMOOR INDUSTRIAL AREA STRUCTURE PLAN NO. 1 - NE 9-53-23-W4.


NOW THEREFORE, the Council of the County of Strathcona No. 20, pursuant to the authority conferred upon it by the Planning Act, 1980, R.S.A., enacts as follows:

1. This By-law shall be cited as the "Strathmoor Industrial Area Structure Plan No. 1 - NE 9-53-23-W4".
2. Schedule "A" attached hereto is hereby adopted as part of this By-law.

Read a first time this 5th day of February, 1991.

Read a second time this 5<sup>th</sup> day of March, 1991.

Read a third time and finally passed this 5<sup>th</sup> day of March, 1991.

  
Keefe

  
Corporate Secretary

By-LAW 15-91  
Schedule "A"

STRATHMOOR INDUSTRIAL  
AREA STRUCTURE PLAN #1

NE 9-53-23-W4

COUNTY OF STRATHCONA



MARCH 1991



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**1.0 INTRODUCTION**

The purpose of this Area Structure Plan is to guide future land use and development in NE of Section 9-53-23-W4. The subject site is shown in Figure 1. This plan is required because of significant interest by developers and proposals for industrial development on this site. In particular, a site is to be serviced in the near future for a new facility for Canadian Liquid Air.

**2.0 PLANNING CONTEXT**

This Area Structure Plan is consistent with the plans and policies described in The Edmonton Metropolitan Regional Plan and the Strathcona County's General Municipal Plan. The Regional Plan identifies the site as part of a "Metropolitan Industrial Area" and includes policies for municipalities to guide industrial development. The General Municipal Plan designates the site for "Light/Medium Industrial" uses. It is located within an area identified by the General Municipal Plan as a transitional zone between the heavy industrial uses in "Refinery Row" to the west and the residential areas to the southeast.

Strathcona County's Land Use By-law designates the site as "IM - Medium Industrial District". This district provides

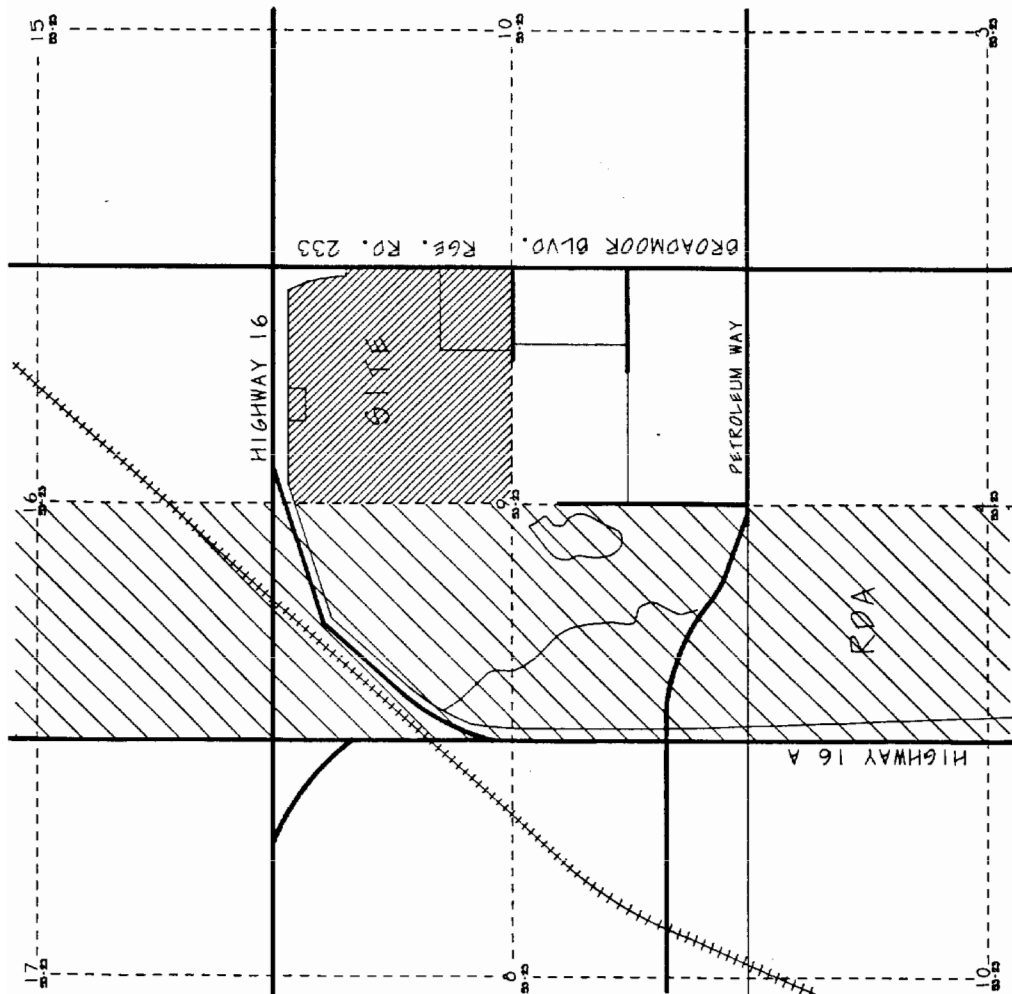
STRATHMOOR  
INDUSTRIAL  
ASP #1

NE SEC 9-53-23-W4

1. LOCATION



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for uses related to manufacturing processing, assembly, distribution, service, and repair and allows that a portion or all of the operations occur outdoors. It generally prohibits any significant nuisance created by the operation which would extend beyond the boundaries of the particular site. Outdoor storage is permitted. Typical permitted uses include automotive and equipment repair, essential utilities, general contracting, warehousing, and storage. A wide range of general industrial uses are allowed.

The adjacent land to the west is designated by the General Municipal Plan as part of the Restricted Development Area. This land has been designated by the Province for a transportation and utility corridor, including the Ring Road, pipeline and powerline right of ways, and municipal services. Only uses which will not impede the area's future role as a service corridor will be permitted on lands within the Restricted Development Area. This includes low intensity agriculture, recreation, and storage uses. These would be consistent with the proposed use of this site.

### 3.0 SITE ANALYSIS

The site, 59.0 ha of gently sloping terrain northwest of Sherwood Park, is just to the east of the City of Edmonton municipal boundary. The land occupies the majority of NE 9-53-23-W4, including two small previously subdivided lots.

#### 3.1 Location

NE 9-53-23-W4 is located at the southwest corner of the intersection of Highway 16 East with Broadmoor Boulevard. It is immediately east of the Edmonton Restricted Development Area, as shown on Figure 1. Figure 2 presents an airphoto of the plan area showing the site relative to the adjacent roadways.

#### 3.2 Land Ownership

Figure 3 illustrates the site ownership. The site occupies the entire northeast quarter section with the exception of land taken for road allowances. Located within the plan area are Lot A on the northern boundary of the site, and Lot B in the southeast corner. Lot A is a 0.98 ha remnant and is owned, according to the certificate of title, by the Minister of Highways and Transport. It is currently undeveloped. Lot B occupies 4.58 ha under title to the Minister of Housing and

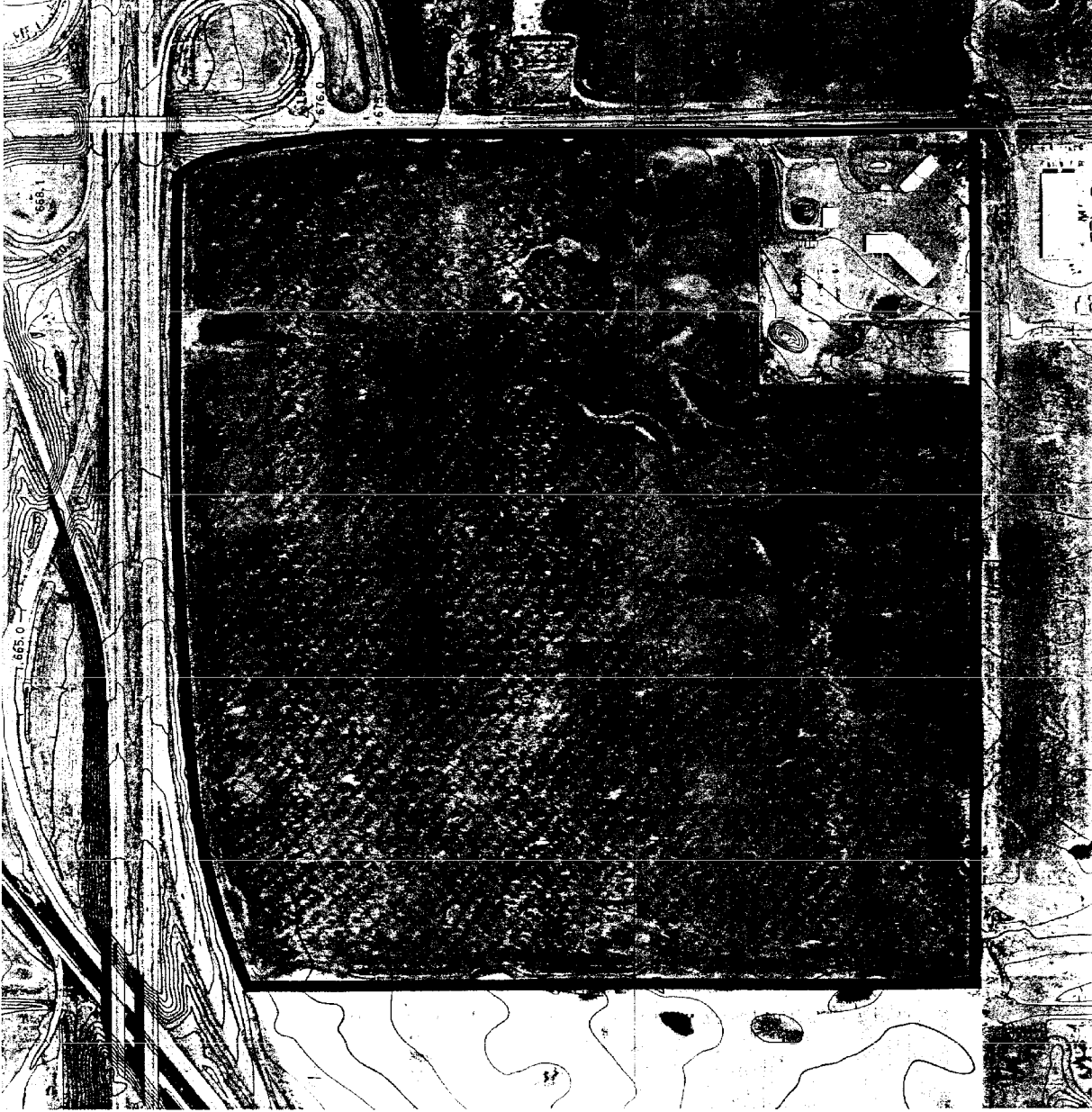
STRATHMOOR  
INDUSTRIAL  
ASP #1

NE SEC 9-53-23-W1

2. AIR PHOTO



INDIE





Public Works. It is currently in use as a provincial highway maintenance yard.

The balance of the land is currently under title to Canadian Liquid Air Ltd. However, arrangements have since been made to transfer ownership of this land to Strathcona County. It is intended that a significant portion of the site remain with Canadian Liquid Air Ltd. for its own development site.

There are several pipelines and utility right-of-ways in and adjacent to the plan area. As shown on Figure 3, the Peace River Oil Pipeline borders the eastern edge of the plan area. An Alberta Gas Ethylene Co. Ltd. pipeline and a Dome Petroleum Ltd. oil pipeline cross the northwest corner of the site. The Strathcona County Land Use By-law states that the minimum building setbacks from pipelines that are 30.5 cm or greater in diameter or 3448 kPa or greater in pressure must be 15 m for all residential, commercial, and industrial development, and 5 m for accessory development. All other transmission mains must have a minimum building setback of 5 m from the edge of the right-of-way.

A Strathcona County waterline follows, for the most part, the western edge of Broadmoor Boulevard. Two Strathcona County sanitary sewer lines are located along the west side of the plan area.

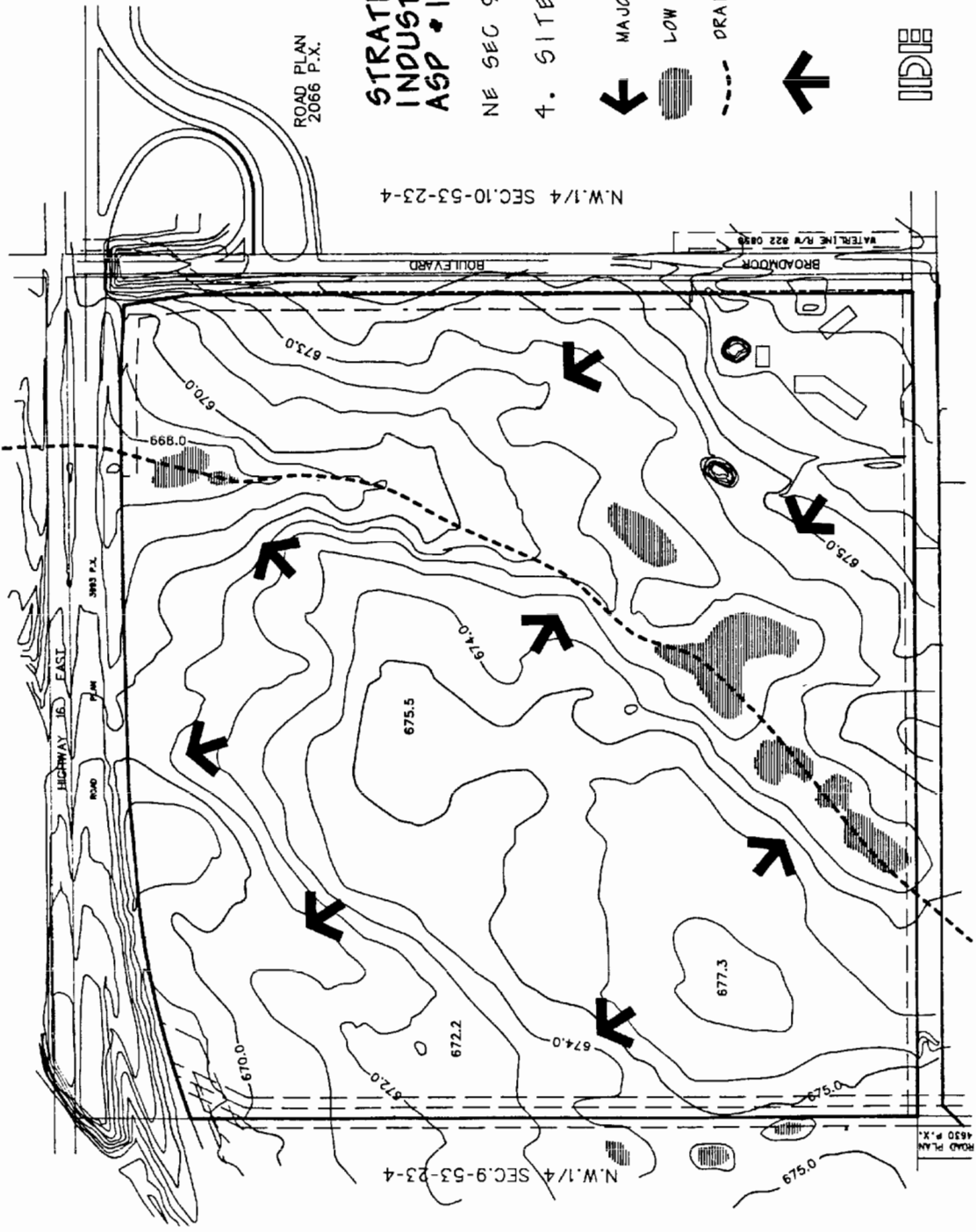
### 3.3 Natural Features

Figure 4 identifies the site's natural features. There is no significant vegetation on the quarter section. A number of small depressions form a natural drainage course from midway along its southern edge towards the northeast corner. A slight ridge runs parallel to the west. The Canada Land Inventory classifies the soil as Class 1 and 2, indicating that it is of prime agricultural capability. In other words, it should be actively farmed until required for development.

The subsurface stratigraphy consists of 250 to 300 mm of topsoil overlying clay and clay till. Both materials are stiff to very stiff and of medium plasticity. In some areas rafted bedrock was encountered below 5.0 m ± from existing ground. The soil conditions are generally favourable for utility servicing and foundations. However, groundwater may be encountered during construction. It is recommended that site specific investigations be undertaken for building foundation construction.

### 3.4 Existing Land Use

The plan area is bounded by several transportation rights-of-way. To the north and west of the site, running in a northeast - southwest direction, is the Canadian Pacific



ROAD PLAN  
2066 P.X.

**STRATHMOOR  
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**4. SITE FEATURES**

- ➔ MAJOR DRAINAGE
- ▨ LOW LYING AREA
- - - DRAINAGE COURSE
- ➔

**IIDIE**

N.W. 1/4 SEC. 10-53-23-4

N.W. 1/4 SEC. 9-53-23-4

S.E. 1/4 SEC. 9-53-23-4

Railway. The Highway 16A intersection with Highway 16 East is just northwest of the site. A major grade separated intersection at Highway 16 and Broadmoor Boulevard is immediately northeast of the plan area.

All of the land within the plan area, with the exception of Lot B, is currently undeveloped and is used for agriculture. Lot B is managed by Alberta Public Works, Supply and Services on behalf of Alberta Transportation. It contains buildings and storage facilities for a highway maintenance yard. Lot A has not been developed and is indistinguishable from the remainder of the site.

Existing land uses surrounding the site are either agricultural or industrial. On the north side of Highway 16 East, the land is currently industrial. To the east is agricultural land. The majority of land adjacent to the south is in agricultural use with the exception of a lot in Southeast 9-53-23-W4, directly south of Lot B in the plan area. It is used by Veteran Transfer as a trucking facility. The area to the west of the plan area is under agricultural use, and includes several pipeline rights-of-way. However, this land is in the RDA and only uses which do not interfere with the future development of the transportation and utility corridor would be permitted.

#### 4.0 DEVELOPMENT CONCEPT

Figure 5 illustrates the proposed development concept for the area structure plan area. It has been designed to accommodate light and medium industrial development. It features a number of rectangular parcels served by an internal road network. The parcels shown are subject to considerable adjustment to meet the specific needs of future users. The site is proposed for light and medium industrial uses, some of which require outside processing or storage. These types of uses are viewed as compatible with the rural cross section proposed for the internal roadways. Development along the Highway should be attractive given the proximity to a major corridor.

Table 1 indicates the land use allocations within the plan area. Lot B is developed and in operation as a highway maintenance yard. Its existing use has therefore been integrated into the development concept. It will, however, require its access to be ultimately relocated from Broadmoor Boulevard to the roadway along its southern boundary. This was a condition of the development permit of the site and will create no difficulty.



A 14.9 ha parcel in the southwest portion of the plan will be utilized by Canadian Liquid Air for a new industrial plant. The remainder of the site could be easily sub-divided for future industrial development.

A stormwater management facility will be constructed in the future to control drainage in the plan area. No reserve lands are provided and money in place of reserve land will be provided.

TABLE 1 PROPOSED LAND USE

	<u>ha</u>	<u>%</u>
Canadian Liquid Air	14.9	25.3
Highway Maintenance Yard (Lot B)	4.6	7.8
Other Industrial Uses	22.2	37.7
Proposed Highway 16 Widening	11.2	19.0
Roadways	3.5	5.9
Utilities (Dry Pond)*	<u>2.5</u>	<u>4.3</u>
TOTAL	<u>58.9</u>	<u>100.0</u>

\* To be adjusted according to the results of the stormwater study.

## 5.0 SERVICING CONCEPT

### 5.1 Water Supply

The quarter section can be readily serviced by the existing 400 mm diameter watermain located within a 15.0 m right-of-way on the east side of the property. Two connections to this watermain will be necessary to provide looping for the development. An existing stub, complete with valve, is located approximately 20 m north of the north boundary of the highway maintenance yard. This will be used to extend watermains to the interior of the quarter section. A 6.0 m rear lot easement will be required to accommodate the watermain. The internal looping will be completed by providing a new connection to the 400 mm trunk at the intersection of Broadmoor Boulevard and the proposed access road.

The internal distribution system will be comprised of 300 mm diameter watermains. Figure 6 shows the existing and proposed watermains.

HIGHWAY 16 EAST

ROAD PLAN 2066 P.X.

PROPOSED HIGHWAY WIDENING  
11.22 ha

DRY POND

DRY POND

DRY POND  
2.47 ha

1.49 ha

4.05 ha

1.94 ha

1.75 ha

14.85 ha

2.63 ha

1.93 ha

1.10 ha

0.93 ha

3.03 ha

1.75 ha

LOT 0  
PLAN 4931 T.R.

LOT 1  
PLAN 862 2117

LOT 2

SEC. 9-53-23-4

SEC. 10-53-23-4

EXISTING LOCAL GRAVEL ROAD

FUTURE ACCESS TO TRANSPORT FACILITY

ROAD PLAN 2066 P.X.

# STRATHMOOR INDUSTRIAL ASP #1

NE SEC 9-53-23-W4

6. WATER DISTRIBUTION

EXISTING 400 Ø TRUNK

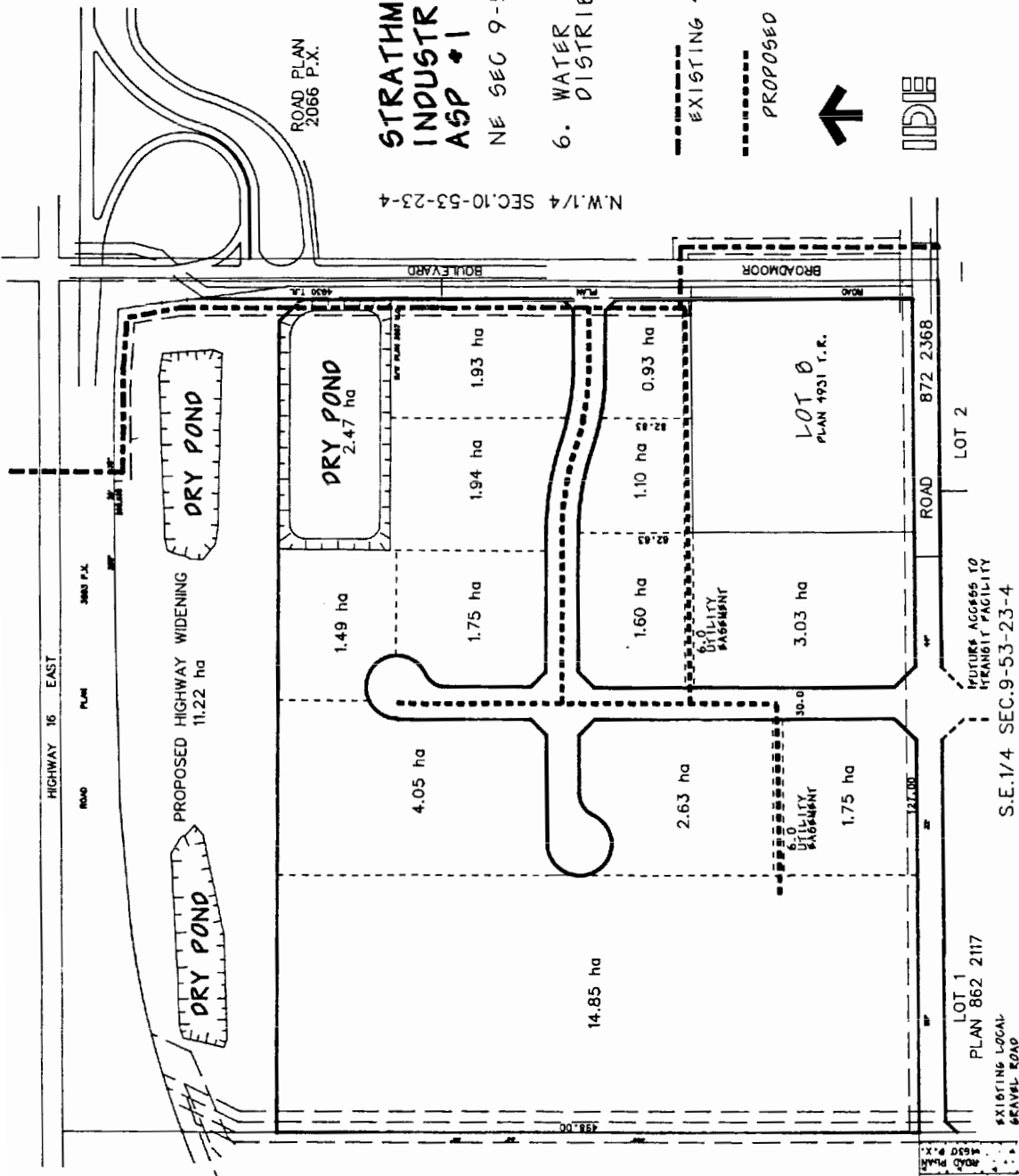
PROPOSED 300 Ø W/M



IDE

N.W. 1/4 SEC. 9-53-23-4

N.W. 1/4 SEC. 10-53-23-4



### 5.2 Sanitary Sewers

The regional sanitary sewer outfall line and Sherwood Park relief sewer are located on separate easements on the west side of the quarter section. These trunk lines provide the necessary capacity to service the plan area. As shown on Figure 7, a gravity system of 250 mm minimum diameter sewers will provide the internal services for the quarter.

Note that the Canadian Liquid Air parcel (14.9 ha) on the west side of the quarter will connect directly into the relief sewer.

### 5.3 Stormwater Management

The overall drainage area, downstream drainage course and culverts are shown on Figure 8. The post development drainage area is approximately 74.15 ha, which includes 26.6 ha of offsite drainage east and south of this area structure plan.

The site is dotted with natural depressions which form the major drainage feature in the quarter. The majority of the site drains to an existing 900 mm culvert approximately 200 m west of Broadmoor Boulevard. The remainder of the site, approximately the western third, drains to an existing 600 mm



**STRATHMOOR  
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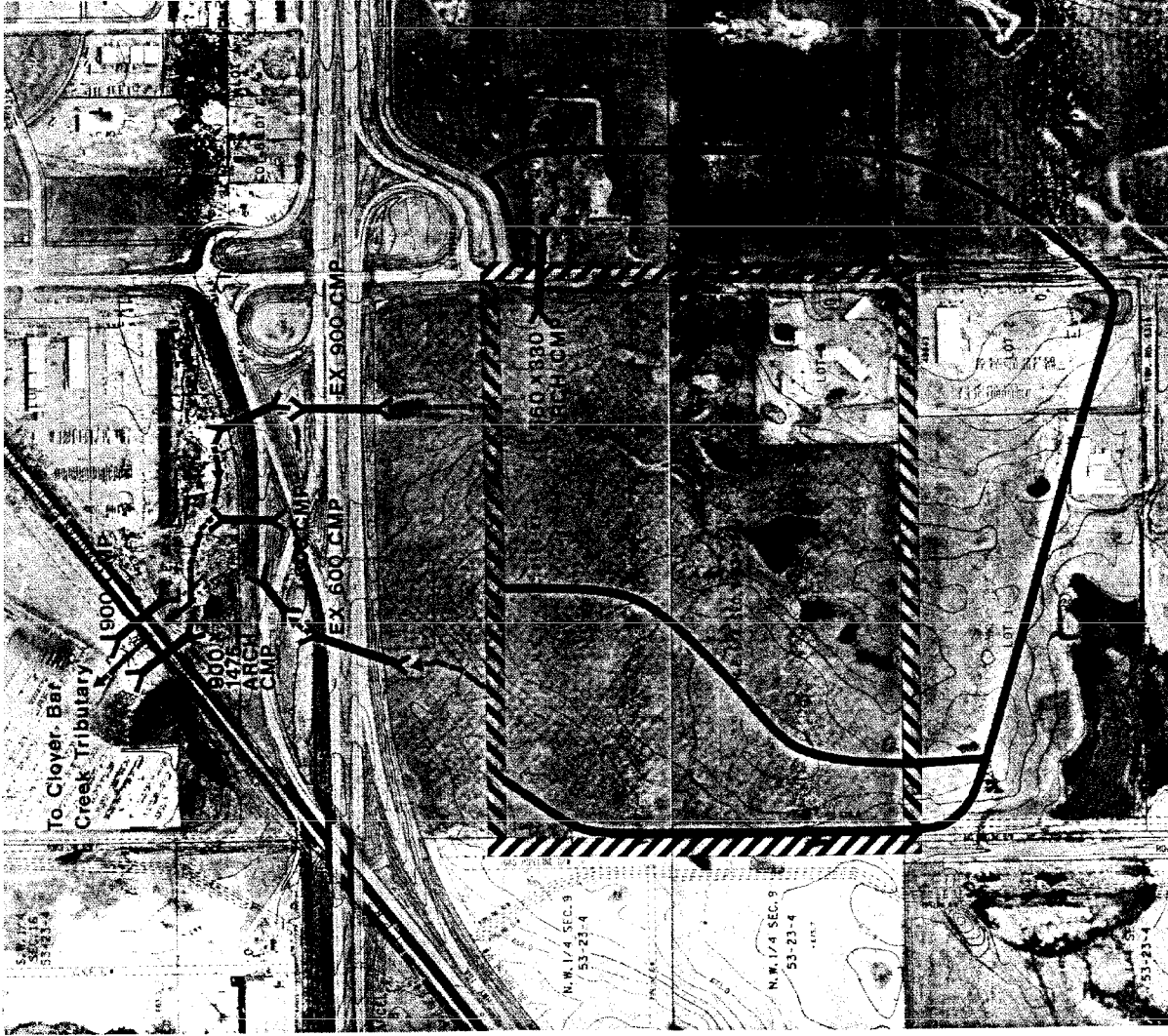
Ø. AREA  
DRAINAGE

//////, DEVELOPMENT AREA

— DRAINAGE BASIN  
BOUNDARIES



INDIE



culvert. These culverts conduct storm runoff under Highway 16 and north to Clover Bar Creek.

The drainage concept for the quarter will include a three dry pond system utilizing both the existing culverts for discharge. The dry pond system will provide 63,000 m<sup>3</sup> of storage at a proposed discharge rate of 0.319 m<sup>3</sup>/s. This will attenuate the 1:100 year, 24 hour storm which was found to be the critical event. Although the area will require considerable regrading, drainage through the quarter will be maintained by the system of road ditches and rear lot swales.

Figure 9 depicts the proposed drainage concept within the structure plan area.

The stormwater management concept described herein is subject to revision based on the results of the detailed analysis currently being conducted by I.D. Engineering.

TO EXISTING DRAINAGE SYSTEM

EXISTING 600 CMP

HIGHWAY 16 EAST ROAD PLAN

2003 P.X.

PROPOSED HIGHWAY WIDENING 11.22 ha

DRY POND

DRY POND

DRY POND 2.47 ha

ROAD PLAN 2066 P.X.

EX. 560 X 330 ARCH CMP

N.W. 1/4 SEC. 9-53-23-4

N.W. 1/4 SEC. 10-53-23-4

STRATHMOOR INDUSTRIAL ASP #1

NE SEC 9-53-23-W1

9. DRAINAGE

ROAD AND LOT SWALES

CULVERT

OPPOSITE DRAINAGE



IDLE

ROAD PLAN 4630 P.X.

LOT 1 PLAN 862 2117

S.E. 1/4 SEC. 9-53-23-4

LOT 2

ROAD 872 2368

LOT B PLAN 4931 T.R.

BROADMOOR WATERLINE R/W 822 0858

BOULEVARD

14.85 ha

4.05 ha

1.49 ha

1.94 ha

1.93 ha

4630 TR.

2.63 ha

1.75 ha

1.94 ha

1.93 ha

PLAN

30.0

1.60 ha

1.10 ha

0.93 ha

PLAN

187.56

3.03 ha

1.10 ha

0.93 ha

ROAD

202.00

1.75 ha

1.10 ha

0.93 ha

ROAD

131.00

1.75 ha

1.10 ha

0.93 ha

ROAD

197.56

1.75 ha

1.10 ha

0.93 ha

ROAD

498.00

1.75 ha

1.10 ha

0.93 ha

ROAD

197.56

1.75 ha

1.10 ha

0.93 ha

ROAD

498.00

1.75 ha

1.10 ha

0.93 ha

ROAD

197.56

1.75 ha

1.10 ha

0.93 ha

ROAD

#### 5.4 Transportation System

The area is bounded on the east by Broadmoor Boulevard, which provides access to Highway 16 to the north and Sherwood Park to the south. Highway 16, which forms the north boundary of the site, provides an excellent east-west transportation corridor for the development. In addition to these two major arteries, an east-west arterial roadway is proposed along the south boundary of the development. The roadway will extend a road right-of-way previously established by the development to the south. This south boundary road will extend from Broadmoor Boulevard west to the RDA where it will connect to a local gravel road which then runs south to Petroleum Way.

It should be noted that road widening requirements for both Highway 16 and Broadmoor Boulevard are currently being reviewed by Alberta Transportation and Strathcona County, respectively. At the time of writing, Alberta Transportation had requested that an area of 11.22 ha immediately south of Highway 16 be reserved for highway widening. This requirement is reflected in the plan although actual highway improvements are a long term prospect, probably not for 20 years.

Access to the site will be provided via Broadmoor Boulevard. Two all-directional accesses are proposed, as shown on Figure 10.

HIGHWAY 16 EAST

PROPOSED HIGHWAY WIDENING  
11.22 ha

DRY POND

DRY POND

DRY POND  
2.47 ha

1.49 ha

4.05 ha

1.75 ha

1.94 ha

1.93 ha

14.85 ha

2.63 ha

1.60 ha

1.10 ha

0.93 ha

6.0 M  
BASEMENT

3.08 ha

LOT 0  
PLAN 1931 T.R.

1.75 ha

ROAD 872 2368

LOT 2

LOT 1  
PLAN 862 2117

EXISTING LOCAL  
GRAVEL ROAD

FUTURE ACCESS TO  
FRANKIT FACILITY

S.E.1/4 SEC.9-53-23-4

N.W.1/4 SEC.9-53-23-4

N.W.1/4 SEC.10-53-23-4

ROAD PLAN  
2066 P.X.

STRATHMOOR  
INDUSTRIAL  
ASP #1

NE SEC 9-53-23-W4

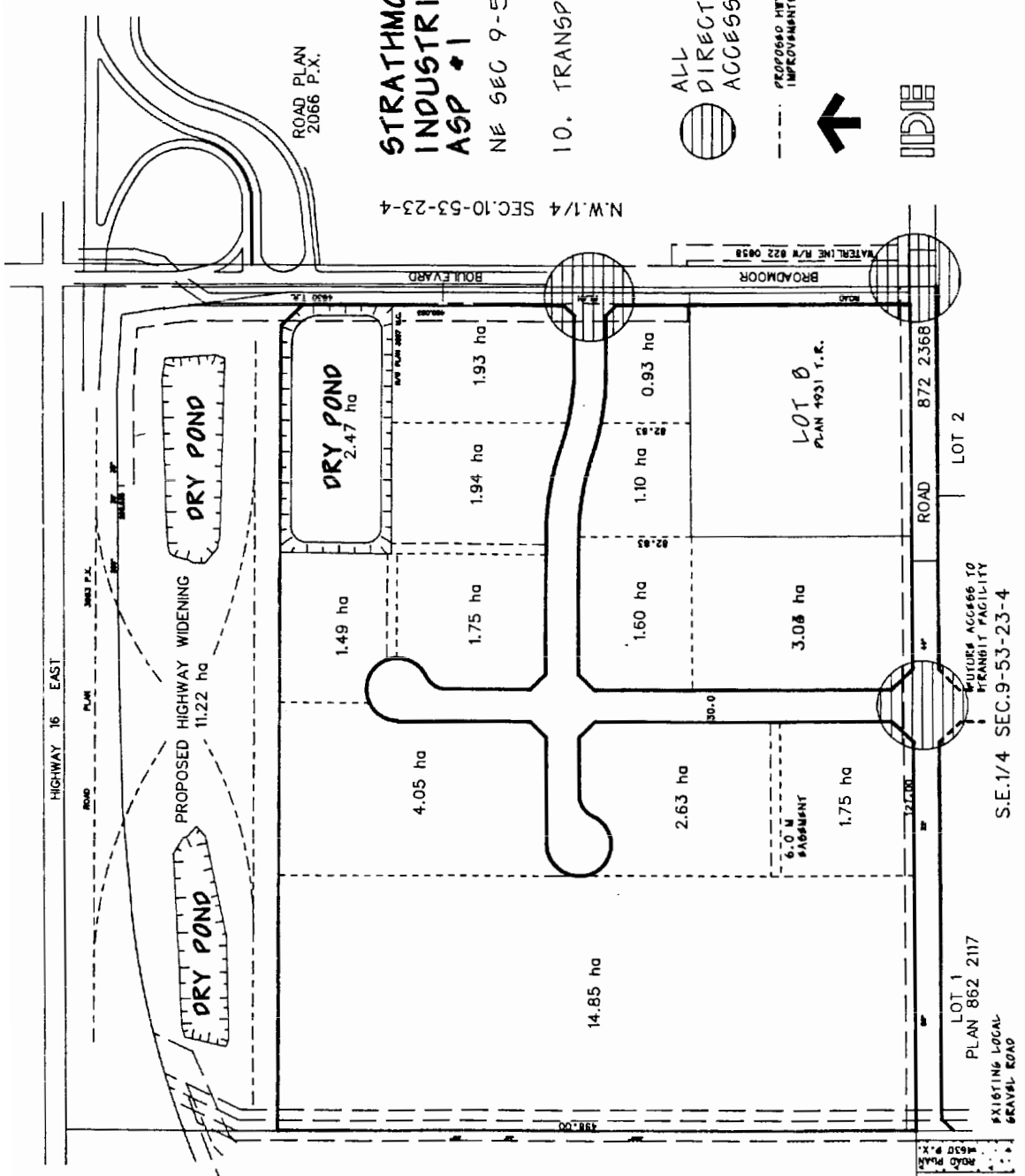
10. TRANSPORTATION

ALL  
DIRECTIONAL  
ACCESS

PROPOSED HRY.  
IMPROVEMENTS



IDIE



The most southerly intersection, at the proposed south boundary road, will provide access to the site, the Provincial Highways maintenance yard, the County Transit facility, and the Veteran Transfer site to the south. In addition, this intersection will be a main access point for the development of lands to the east of Broadmoor Boulevard. It is anticipated that this intersection will eventually be signalized.

Because of the proximity of Highway 16, the associated off-ramp, and the highway service road, the location of the second access to the plan area was carefully chosen. The south edge of the right-of-way alignment is 82.5 m north of the north boundary of the highways yard. Its location is a balance between providing adequate access to the site, access to future development east of Broadmoor Boulevard, and the necessity to maintain the greatest possible distance to the Highway off-ramp. The proposed location provides the maximum flexibility for development and the required transportation network to occur both east and west of Broadmoor Boulevard. This location is acceptable to Alberta Transportation.

Also, this access is situated such that signals at this location may operate in conjunction with the anticipated signals at the Highway ramp. This should provide for the orderly upgrading of Broadmoor Boulevard to a four lane

divided urban arterial, allow flexibility for signalization, and provide for the servicing of adjacent development.

The internal roadways for the development will consist of 30m rural cross-sections incorporating drainage ditches. Pavement standards will be as provided for in the County Engineering standards for industrial collector roadways.

#### 6.0 STAGING

Figure 11 shows the location of the first stage of development. After this initial stage, development can proceed on the remainder of the site as both access and servicing are logically extended based on demand. As no amendments to the Land Use BY-law would be required, staging will be determined through the subdivision approval process and the negotiation of specific development agreements. Access improvements along Broadmoor Boulevard will be dictated by overall transportation needs in the area.

HIGHWAY 16 EAST

ROAD PLAN 2066 P.X.

PROPOSED HIGHWAY WIDENING  
11.22 ha

DRY POND

DRY POND

14.85 ha

4.05 ha

1.49 ha

DRY POND  
2.47 ha

FUTURE  
STAGING

1.75 ha

1.94 ha

1.93 ha

14.85 ha

2.63 ha

1.60 ha

1.10 ha

0.93 ha

STAGE 1

3.03 ha

1.75 ha

LOT B  
PLAN 4931 T.R.

ROAD PLAN 4630 P.X.  
LOT 1  
PLAN 862 2117

ROAD 872 2368  
LOT 2

N.W. 1/4 SEC. 9-53-23-4

N.W. 1/4 SEC. 10-53-23-4

ROAD PLAN  
2066 P.X.

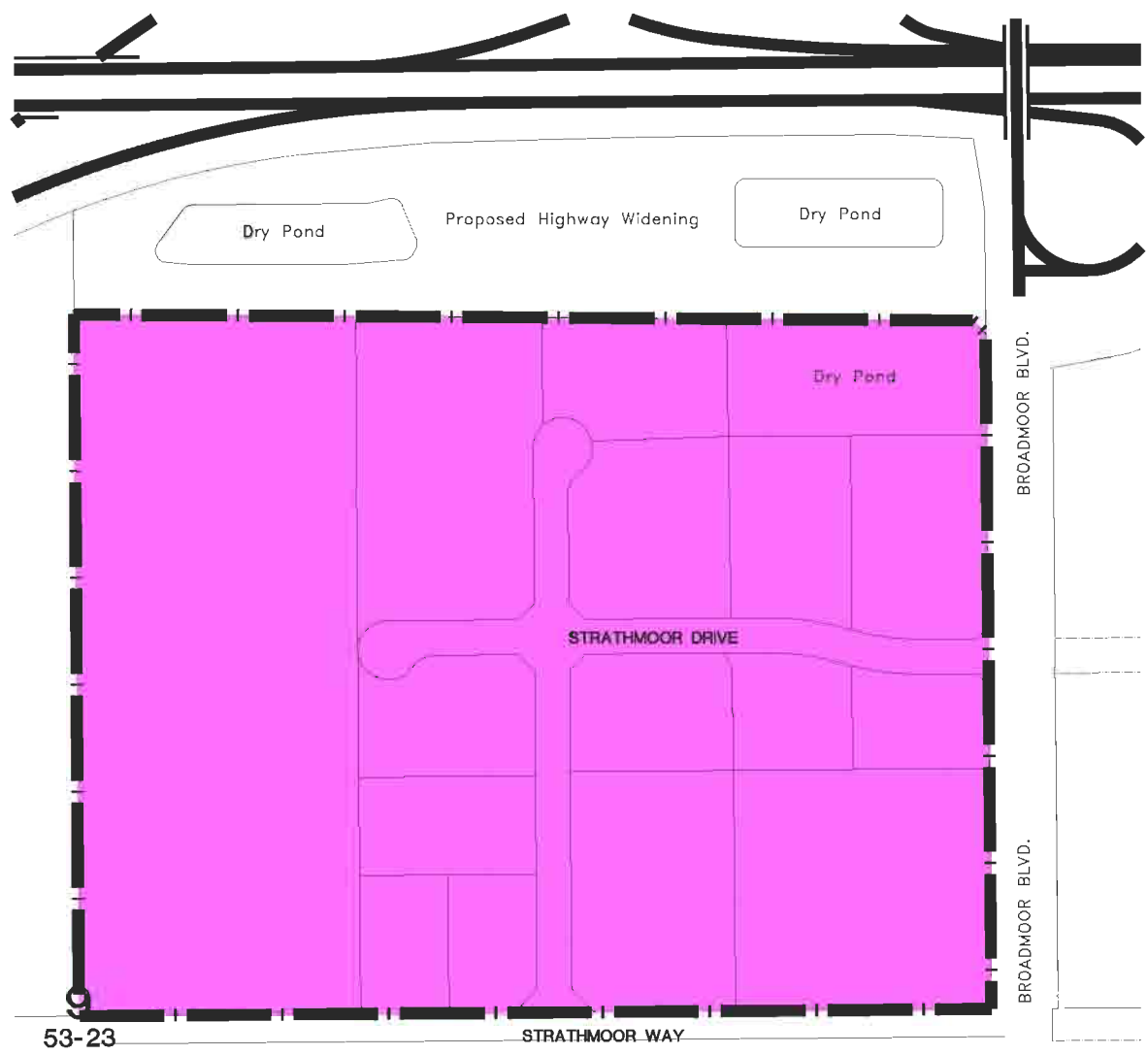
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INDUSTRIAL  
ASP #1

NE SEC 9-53-23-W-1

11. STAGING



S.E. 1/4 SEC. 9-53-23-4



# Strathmoor Industrial Area Structure Plan Bylaw 15-91

Date of Adoption 05-March-1991

- Light/Med Industrial Development
- Road Plan
- ASP Boundary