

BYLAW NO. 40-82

A BYLAW OF THE COUNTY OF STRATHCONA NO. 20 IN THE PROVINCE OF ALBERTA, FOR THE PURPOSE OF ADOPTING THE TURBO INDUSTRIAL ESTATES - PHASE II AREA STRUCTURE PLAN.

The area, comprising of approximately 75 hectares (185 acres), is located north of the CN Railway, bounded to the west by North Sherwood Drive, to the east by the Quarter Section line and in the north by the southerly boundary of the existing Du-al Blocks (1967) Ltd. parcel. The legal description of the area is Part of the NW 14-53-23-W4 and Part of the SW 23-53-23-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 Bylaw may be cited as the "Turbo Industrial Estates - Phase II Area Structure Plan Bylaw".
2. Appendix "A" attached hereto and forming part of this Bylaw, entitled Turbo Industrial Estates - Phase II Area Structure Plan, is hereby adopted as the Turbo Industrial Estates - Phase II Area Structure Plan and that the parcel(s) designated Municipal Reserve (MR) as shown on the conceptual plan of subdivision be deleted.

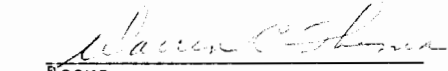
The conceptual plan of subdivision being part of the Area Structure Plan is to serve as a guideline which will provide a framework for subsequent development and subdivision in the area. It should be noted therein that the internal road and rail alignments are fixed in their present location.

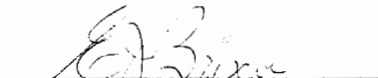
The text document is to serve as backup information only in support of the conceptual plan of subdivision as the County is not to be bound by the terms of the text.

Read a first time this 12th day of October, 1982.

Read a second time this 12th day of October, 1982.

Read a third time and finally passed this 12th day of October, 1982.


Reeve


County Secretary

BYLAW 40-82

APPENDIX "A"

Schedule 1. - Municipal Planning Commission Minutes of July 9, 1982.

*Schedule 2. - Area Structure Plan Document

SCHEDULE 1.

MUNICIPAL PLANNING COMMISSION

ADDENDUM

July 9, 1982 at 8:30 a.m. in the Council Chambers, County Administration Building

D. Amendments to Land Use Bylaw 44-80

3. Proposed Country Residential - Mobile Home District (CR-MH)

E. New Business

1. Turbo Area Structure Plan Stage II
Mr. Joseph Skavaril

10:30 a.m.

-2-

DEVELOPMENT OFFICER'S REPORT TO THE
MUNICIPAL PLANNING COMMISSION

E. New Business

1. Turbo Area Structure Plan

The Turbo Area Structure Plan was a result of a number of meetings with the Development Office and the Technical Advisory Committee.

Following discussions with the Recreation Director it was felt that the dedicated Municipal Reserve comprising of approximately 3 acres is not required and money in lieu of reserve should be taken for the total area.

It should also be noted that there are two right-of-ways dissecting the proposed Municipal Reserve parcel and as such any further development or sale thereof by the County would be adversely affected.

-18-

Municipal Planning Commission
July 9, 1982

E. New Business

Turbo Area Structure Plan Stage II

Mr. Joseph Skavaril, Joseph Skavaril Architects, in attendance
Mr. Len Liebel, Turbo, in attendance

Mr. Skavaril advised the Commission that he was looking for an approval of the concept of the Turbo Area Structure Plan Stage II from the Municipal Planning Commission.

Mr. Skavaril stated that the original subdivision was approved in 1980 and being developed north of where Shell is located.
The roads were built to a high standard for industrial purposes.

What is being requested is for Council to accept the Turbo Area Structure Plan Stage II by way of bylaw to protect the area structure plan and to allow the subdivision to proceed.

In regards to payment in lieu of reserve, there is no problem with this request.

R. Vogelesang advised that the Commission has no mandate to deal with the Area Structure Plan as this is not amendment to the Land Use Bylaw and is not an application for subdivision.
Therefore, the Commission cannot take a position on the matter.

R. Horley stated if this was the case then why was this brought before the Commission.

Mr. Skavaril advised the Commission that E. Haas, had informed him that the Commission would have to approve the concept of the Area Structure Plan.

Motion

J. Chowne

461-A2

Moved that the Municipal Planning Commission receive as information the presentation of the Turbo Area Structure Plan.

CARRIED UNANIMOUSLY

D. Applications to Amend Land Use Bylaw 44-80

(Continued)

Proposed Country Residential -
Mobile Home District (CR-MH)

Tussy Berg in attendance
Rick Badger in attendance

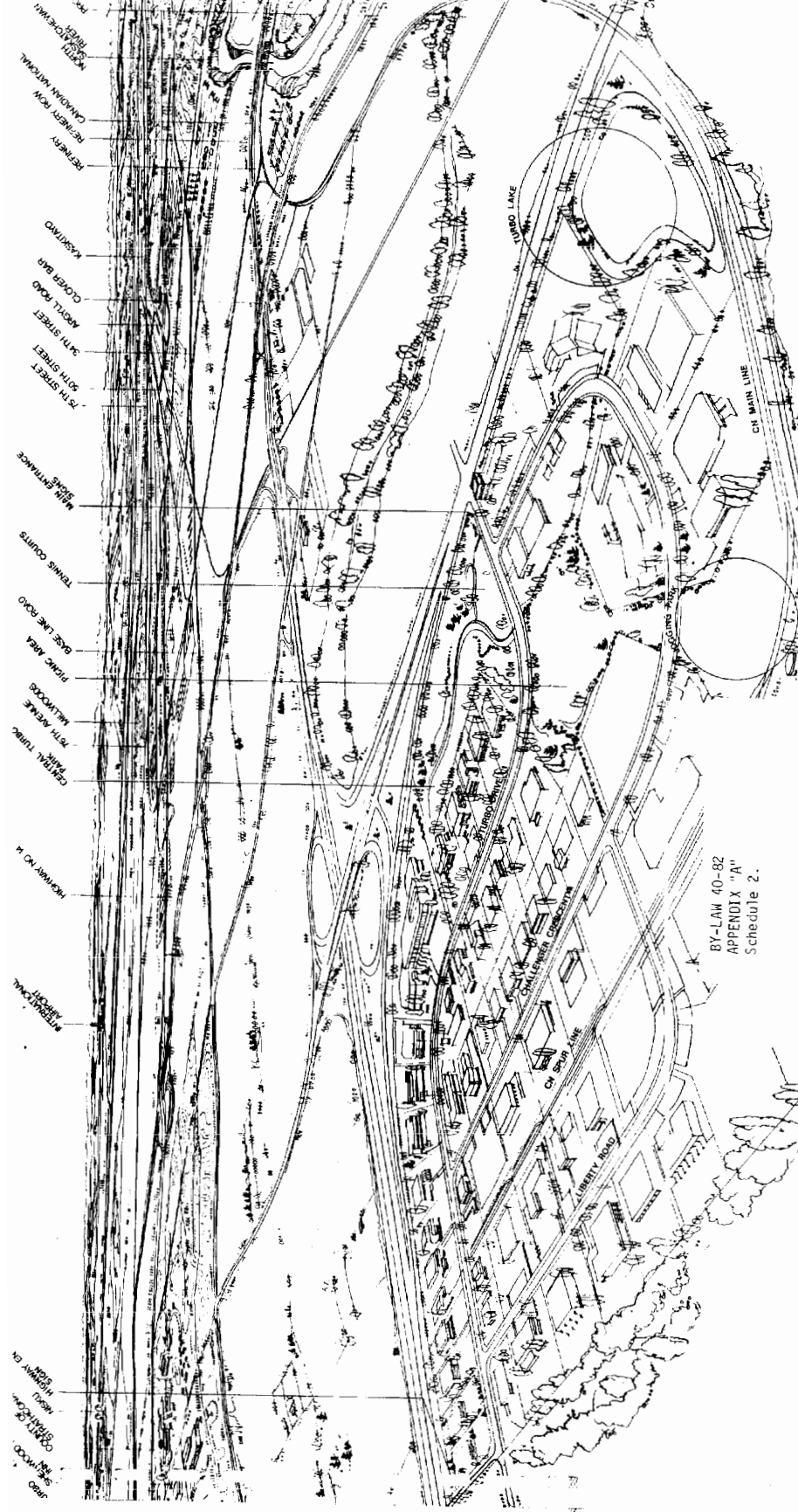
C. Munroe requested that the Municipal Planning Commission support the concept of the Country Residential - Mobile Home District to Council who would initiate an amendment to the Land Use Bylaw which would allow the placing of single wide mobile homes in a Country Residential subdivision.

The same regulations as now apply to Country Residential would apply to this new district with the exception that under the CR-MH designation, single wide mobile homes would be a permitted use.

Mr. Berg advised the Commission that this zoning will show clearly that not only are One Family Dwellings permitted in this area, but also, double and single wide mobile homes.

Mr. Berg advised the Commission that this designation would be applied to an already approved Country Residential Subdivision.

...Continued



BY-LAW 40-82
APPENDIX "A"
Schedule 2.

TURBO INDUSTRIAL ESTATES - STAGE II AREA STRUCTURE PLAN

PROJECT TEAM IS REPRESENTED BY:

TURBO RESOURCES LIMITED - REAL ESTATE & DEVELOPMENT
JOSEPH SKVARIL ARCHITECTS & PLANNERS
RV ANDERSON ASSOCIATES LTD.
APRIL 15, 1982

LENNARD L. LEIBEL, PROJECT MANAGEMENT
JOSEPH SKVARIL, DIP. ARCH (HONS.), C.Sc. (UP) MRAIC, MCIP, ACP, SAM - PLANNING
KENNETH A. MORISSON, P.ENG. - ENGINEERING

PREAMBLE

Turbo Resources Ltd. has, in close cooperation with the County of Strathcona and the Edmonton Regional Planning Commission, achieved substantial progress in developing one of the most commercially and esthetically appealing complexes - Turbo Industrial Estates, Stage I, which is now being built. This gives the County of Strathcona the best guarantee that Turbo Resources Limited is serious not only about conducting business, but also in respect to consolidation of the revenue base for the County of Strathcona.

In these economic conditions, which do not favor long-term investment, it is rather difficult to ensure that all long-term goals will be achieved in the most ideal way. Many problems can however, be overcome by proper means of undertaking. Turbo Resources Limited Development Group has been open to all of them, which is obvious from the overall development concept for the Turbo Industrial Estates Stage II Area Structure Plan.

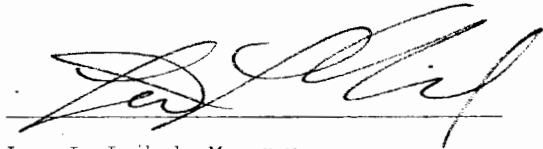
In short, in 1981 Turbo Resources Limited Development Group worked out an Agreement with Shell Canada regarding temporary use of the Turbo Resources Limited property located north of the CN and east of North Sherwood Drive in the County of Strathcona. The \$5,000,000.00 development has been located in that area on the basis of preliminary physical planning study. Its purpose was to prevent spontaneity in this development, to ensure an effective operation of Shell Canada and also to secure the values of the property for Turbo Resources Limited in the future.

The above continuity has of course, to be maintained. For this reason, Turbo Resources Limited Development Group has completed the Area Structure Plan which has already been thoroughly discussed, not only with the County of Strathcona but also with the owner of the neighboring development to the north.

At this stage of consolidation of the Turbo Resources Limited Development Group plans we offer to the County of Strathcona a document which incorporates in a viable concept, not only Planning and Municipal engineering components but also a Memorandum of the understanding of the

future inter-relationship between Du-Al Blocks (1967) Ltd. and Turbo Resources Limited by the representatives of the Companies and their Consultants.

In order to ensure that all of these efforts have been made for the maximum benefit of the County of Strathcona, we now need the prompt adoption of this concept by its Council and the Edmonton Metropolitan Planning Commission. In this way we believe the cooperation between the Municipality and private industry will result in further success of this development, which will substantially increase not only revenue, but also employment opportunities in light industries.

A handwritten signature in dark ink, appearing to read 'Len. L. Leibel', is written over a horizontal line.

Len. L. Leibel, Manager
Real Estate and Development Group,
Turbo Resources Limited.

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TURBO INDUSTRIAL ESTATES

STAGE II

PLANNING REPORT.

PREPARED BY:

JOSEPH SKVARIL ARCHITECTS & PLANNERS
#201, 10585 - 111 Street,
Edmonton, Alberta. T5H 3E8.

JOSEPH SKVARIL ARCHITECTS & PLANNERS

1. INTRODUCTION AND BRIEF HISTORY:

Turbo Industrial Estates Stage II development proposal as presented in this document is a continuation of the development of the Company-owned land in Stage I, which is already under construction.

Turbo Industrial Estates - Stage I development covers an approximately 75 ha. (185 acre) area including a 5.3 ha. (13 acre) area to be used for the expansion of Highway # 16 West (Yellowhead and North Sherwood Drive intersection). The area is located northeast of the intersection, and is bounded on the north by the Canadian National Railway. The land in this prime location will be used for a high standard Industrial Business Park. After the Yellowhead Highway West and North Sherwood Drive intersection is up-graded as a full scale interchange development, the Stage I development will in fact, be located in one of the most attractive portions of the County of Strathcona, in the Edmonton Region.

Turbo Industrial Estates - Stage II development proposal covers approximately 79 ha. (195 acres) of land located north of the CN Railway, bounded to the west by North Sherwood Drive, to the east by the section line and in the north by the southerly boundary of the existing Du-Al Blocks (1967) Ltd. plant. Legal description of the property is:

A Pt. of the NW $\frac{1}{4}$ Section 14-53-23-W 4 and

A Pt. of the SW $\frac{1}{4}$ Section 23-53-23-W 4.

In the past few years, the land zoned in the County of Strathcona Plan for "Industrial" was always intended to be developed for a Turbo Resources Limited refinery. This may still be the case, but alternatively the land could also be used for individual industrial lot subdivision.

In early 1981 Shell Canada Ltd. leased at least 40 ha. (100 acres) of that area from Turbo Resources Limited for a relatively short period of 3 to 4 years. Prior to leasing of this land, Turbo Resources Limited retained this consulting firm for review of Shell Canada's proposal, in

terms of more long-term planning and specification of requirements by the County of Strathcona. The initial planning work for development of the Turbo Industrial Estates area was therefore, initiated and dealt with by the County of Strathcona prior to this submission. At that time, Joseph Skvaril Architects & Planners, as the Planning Consultant, completed a temporary site layout for Turbo Industrial Estates on the basis of which Shell Canada received a Building Permit for the development of temporary structures.

The request for the completion of the Area Structure Plan for the development of Turbo Industrial Estates - Stage II was made by the County of Strathcona and its purpose is to provide both Turbo Resources Limited and the County with a planning consolidation document for making all strategy decisions on this particular development.

The key issues of the Area Structure Plan are included in further parts of this report.

2. NATURAL TOPOGRAPHY AND RELATION OF THE PROPOSAL TO THE PRESENT LAND FORMS.

It is very fortunate for future servicing of the site that it is sloped diagonally, with the highest point at altitude 680 m. in the southeasterly portion of the site and the lowest point at 658½ m. in the most northwesterly corner of the site.

The storm water discharge through the present site, including a limited temporary Shell Canada development, can be economically treated by the surface drainage.

The nature of the terrain calls for small lots in the west and large lots in the east; this cannot be otherwise. Such subdivision layout can be harmoniously incorporated in the development of the future street exterior of North Sherwood Drive, and would also fit into the configured site.

The logical place for the development of a retention pond is in the most northwesterly corner of the site. At the level of the Area Structure Plan, the size of the pond is determined on the basis of the Engineering Background Report completed by R. V. Anderson Associates Limited (attached to this document). From the planning viewpoint, approximately 5 acres of the public utility lot is reasonably sufficient for its construction. The pond, in the overall planning concept for the Turbo Industrial Estate, will create one more open space which will be connected with the others mainly through green spaces.

Despite the fact that in this document we deal with industrial business development, Turbo Resources Limited and this consulting firm are anxious about the integrity of the proposals in relation to the present fine land forms. We believe that in taking this attitude toward the natural environment of the County we contribute in the most effective manner to its identity.

3. PLANNING URBAN DESIGN CONTEXT:

During the decade from 1970 to 1980 most of the industrial development proposals for the County of Strathcona have been located south of Yellowhead Highway. The area north of the highway has been only partly developed. A relatively small number of industrial lots were created spontaneously without any inter-related urban design form.

As mentioned previously, the subject area was, in the past, designated for the refinery, which is no longer the case. The prospective market very clearly indicates that it would be more beneficial for both Turbo Resources Limited and the County of Strathcona if the 79 ha. (195 acre) area is used for larger light industrial lots.

The scale of light industrial development is feasible for the future of Turbo Resources Limited in the Central Alberta Region. The County of Strathcona will, through this development, better consolidate its revenue base (in particular since the City of Edmonton limit has been located at North Sherwood Drive).

In all proposals which Turbo Resources Limited has presented to the County of Strathcona, the Company has always stressed relating its property to the vicinity. The broader analysis of the area, which has been undertaken by this firm on behalf of Turbo Resources Limited has, in the absence of any other long-term planning document, become a basis for locating accesses to the area from the east and west. The structure of land located east of the Turbo Resources Limited property pre-determines one access easement from the east which shall be located just at the Section line.

The above analytical work is graphically demonstrated on Drawing #1 which is attached to this report.

Turbo Industrial Estates Stage I and Stage II are bounded by two major north/south arterial routes which will play a significant role in urban development of the land up to the North Saskatchewan River.

The local route which would serve the entire easterly half of Section 23-53-23 W 4 from the south, will divide the two-mile grid into two ideal

halves. Its implementation, and in particular the acquisition of land for the development of the right-of-way prior to any development of the land would, from the economic viewpoint, be more advantageous for the County of Strathcona and the present property owners, than any other possible location of the right-of-way for the local east/west route.

The northerly accesses to the eastern half of Section 23-53-23 W 4 should then be developed south of the Canadian Pacific Railway. In this regard, the County of Strathcona should review each proposal presented by any Developer for the northerly half of Section 23-53-23 W 4, and ensure that provisions for construction of the access route are included in the development agreements related to that area.

The traffic route development is also feasible from the viewpoint of development of services within the right-of-way. The topographical configuration of the Northeast quarter of Section 14-53-23 W 4 and the entire eastern half of Section 23-53-23 W 4 indicates that the suggested eastern local route at the northerly boundary of Section 23-53-23 W 4 may well service the area south of the route, and a portion of the area north of it, while the balance of the eastern half of Section 23-53-23 W 4 may be serviced from the north.

In the Turbo Industrial Estates Stage I, distribution of Municipal Reserves and the public utility lot (with retention pond) has been designed in a manner which demonstrates the integrity of the industrial development with the County of Strathcona open space. Municipal Reserves and the future lake facing North Sherwood Drive right-of-way is perhaps the best articulation of the open space along the County road, and an effective component of green area development between Sherwood Park community core and the North Saskatchewan River.

The open space idea will be reflected in Turbo Industrial Estates Stage II despite the fact that it is the intent of the County of Strathcona to develop only 3.0 acres of the dedication for Municipal Reserve Park. The park is located in the southwesterly corner of the subject area. Another well-landscaped retention pond will be located in the northwestern corner of the Turbo Industrial Estates. In addition to this, Turbo Industrial

Estates Stage I and StageII are being developed under a strict Architectural and Landscape Design Control. Details such as entrance signs are not motivated purely by the commercial requirements; they clearly indicate the intent of Turbo Resources Limited to build, by industrial developments, a part of the Sherwood Park Community.

4. PRESENT DEVELOPMENT IN THE TURBO INDUSTRIAL ESTATES STAGE II AREA:

In the introductory portion of this report, it was mentioned that a substantial portion of the area has already been leased, and is now being developed by Shell Canada. The road network built by that company is however, in principle, in conformity with the long-term intent of Turbo Industrial Estates regarding the future uses of the land. The earthwork preparation of the site for development, location of the industrial spur, parameters of the lots and accessibility of the area from North Sherwood Drive has already been dealt with in a preliminary study which became the basis for the Turbo Resources Limited long-term planning.

At the time when Shell Canada's Lease expires, Turbo Resources Limited will reconstruct the two most viable building structures for another purpose, and the developed sites and the rest of the area will further be developed in conformity with the Architectural Guidelines prepared by Joseph Skvaril Architects & Planners.

5. PROPOSED LAND USES AND SITE DEVELOPMENT:

It has already been said that the Turbo Industrial Estates Stage II area will be used mainly for the development of light industrial lots.

The attached Drawing #2a shows tentatively, the intent of Turbo Resources Limited to subdivide the land into lots. The size of the public utility lot designated for the development of a retention pond has been based on preliminary Municipal Engineering computation by R. V. Anderson Associates Limited. The size of the pond is 1.7 ha. (4.3 acres). The beaches will be well landscaped and properly maintained.

The 1.21 ha. (3.0 acres) lot dedicated for the Municipal Reserve Park will be fully developed by the County of Strathcona; however, Turbo Resources Limited would be prepared to provide seeded grass throughout the entire area and trees and shrubs in conformity with the approved landscaping plan.

The size of the dedicated area is, according to Planning Legislation, 10% of the developable area, 71.8 ha. (177.40 acres). It is the desire of the County of Strathcona to receive money in lieu, because the Municipality intends to develop a large regional park which will be located between the Baseline Road and Highway #16 East (Yellowhead). The proposed park will serve not only the community, but it is supposed to be used widely by employees of the Industrial Estates and also by people from the vicinity area.

Turbo Resources Limited Development Group does not object in principle to providing money in lieu. This shall however, be based on the following conditions:

- a) First of all, the definite size of the dedication area shall be determined on the basis of land survey and exact measure of the square footage of the Turbo Resources Limited property.

- b) The above survey shall cover establishing pins and re-computation of the square footages of the easements and other undevelopable portions of the area within the boundary of the Turbo Resources Limited property.
- c) Statistical breakdown for the land uses, including the size of the Municipal Reserve, will be defined very exactly at the level of the Tentative Plan of Subdivision, and this will govern the agreement on money in lieu, between the County of Strathcona and Turbo Resources Limited.
- d) The pipeline right-of-way offers some limited uses, e.g. parking, provided that there is no concrete or asphalt surface above the pipeline, and that no trees are planted within the easement. Turbo Resources Limited will be willing to negotiate the shape of the 1.21 ha. (3.0 acre) lot for Municipal Reserve Park, and to negotiate a credit for a possible incorporation of the open space of the pipeline into the Municipal Reserve area.
- e) The County of Strathcona is fully aware of the fact that the area located east of Turbo Industrial Estates Stages I and II has never been zoned for any purpose other than Agricultural. As a consequence there is no need on the part of Turbo Resources Limited to develop a road easement between Turbo Industrial Estates Stage II and the Clover Bar road. Furthermore, there is no Government Road Allowance adjacent to the Turbo Resources Limited property, so that again there is no need for any permanent or temporary road connection. In the Turbo Industrial Estates Stage II Area Structure Plan we have however, incorporated a Public Utility Lot #10, the width of which would be 24 m. (78.7 ft.) and the depth would be 172 m. (564.3 ft.). The Title for the above Lot #10 shall, (for \$1.00), be transferred into possession of the County of Strathcona which, if necessary, can use such a lot for completion of an east/west road connection.

- f) The money in lieu for the rest of the dedication area should be stipulated on the basis of the present Agricultural value of the land, in which case Turbo Resources Limited Development Group shall receive from the County of Strathcona assessment for money in lieu as a binding condition in relation to the approval of the Area Structure Plan.

From the above viewpoint, the Turbo Industrial Estates Stage II Area Structure Plan shall become a guideline for clarification of rights, duties and responsibilities between a Municipality and the owner of the land, provided however, that the exact adjustment shall be done on the basis of further Survey and Tentative Plan of Subdivision documents.

STATISTICAL BREAKDOWN:

<u>Function of the Area</u>	<u>Hectares</u>	<u>Acres</u>
<u>Total Area</u>	<u>78.9</u>	<u>194.9</u>
Highway Widening	1.20	2.96
P.U.L. #1 (Pond)	2.03	5.00
P.U.L. #6 (Road easement to north)	0.28	0.71
P.U.L. #10 (Road easement to south)	0.40	1.00
Pipelines	3.20	7.90
Developable Area	71.80	177.40

Municipal Reserve

Lot 1, Block 3	1.21	3.00
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Railway Area	2.2	5.4
Road Area	6.19	15.38

Industrial Area	62.2	153.6
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Drawing #2a indicates the Subdivision system.

6. SITE DEVELOPMENT CONCEPT:

The overall objective of the entire process of preparation for the development of the site, beginning with the Planning service by this firm and ending with the Engineering service by R. V. Anderson Associates Ltd. is to ensure that servicing cost per lot would be minimized by effective designs and that the cost for maintenance of the entire area shall be kept at a very reasonable level. In other words, the development should, from the two above viewpoints, be beneficial to both Turbo Resources Limited and the County of Strathcona.

The above general statement bears practical implications which are:

- a) Location of the pond is feasible because the lowest point of the natural topography is constituted at the northeasterly corner of the site. The future pond in this area will, to a great extent, contribute to the increase of the esthetic appeal of public spaces primarily, but it will also play a tremendous esthetic role in the entrance area.
- b) As a consequence, the proposed 1.2 ha (3 acre) Municipal Reserve Park located northeast of the intersecting point of the Canadian National and North Sherwood Drive rights-of-way is also feasible because such a setting would only compliment the overall concept for the open spaces as shown in Stage I of the Turbo Industrial Estates development.
- c) Location of the Public Utility Lot #10 at a possible future road to the present rural portion of the County of Strathcona land east of Stage II, and the suggested road network, is the only possibility at this time for any road development. The SE $\frac{1}{4}$ of Section 23-53-23 W4 has already been substantially subdivided, and it is now impossible to change the subdivision system to any great extent. Similarly, the northeasterly $\frac{1}{4}$ of Section 14-53-23 W 4 has also been partly subdivided. Further construction of road right-of-way to the Public Lot #10 at the Government Road Allowance 1/2 mile

east is logical because it could be constructed even before that portion of land is developed for industrial purposes in the future. This is evident from the Title search, and also from field survey which has been undertaken by the Development Group of Turbo Resources Limited, with the assistance of Joseph Skvaril Architects & Planners Ltd.

Regardless of whether or not the easterly route is extended in the future through the Municipal Reserve Lot to North Sherwood Drive through Turbo Industrial Estates Stage II area, the above route in the Public Utility Lot #10 may well accommodate main sanitary sewer and water lines at the southern boundary of the SE $\frac{1}{4}$ 23-53-23 W 4, because this is the most economical location for the future servicing alignment, as it will generate services from substantial portions of the area north and south of this lot.

The present concept for the future use of the subject area indicates that the public interest such as convenient servicing in the future for those developers which will deal with the lands east of Turbo Resources Limited property have been incorporated in this preliminary planning document.

Regarding Public Utility Lot #6, Turbo Resources Limited will not make claim for reimbursement for the land, however construction of the road in the future shall be carried out at the sole responsibility of the Owner of Du-Al Blocks (1967) Ltd. because it will only serve for easier accessibility of that area from North Sherwood Drive and Yellowhead Highway East. As shown on Plan #2a, and also as explained in this document,

Turbo Resources Limited needs large industrial lots in the northeast and east, and of course Lot #7 is conveniently accessible from the industrial drive loop. This particular condition shall be incorporated in the Development Agreement between the County of Strathcona and Du-Al Blocks (1967) Ltd. because a possible omission in this regard may cause a serious conflict situation in the future.

7. THE FUTURE OF THE CANADIAN NATIONAL RAILWAY MAINLINE AND SPUR SYSTEM:

In Stage I of the Turbo Industrial Estates development the railway spur has been located in the area in which it will be effectively used. The Stage II development north of the Canadian National Railway is now being serviced by a railway spur which was built for the purpose of the lease of 40 ha. (100 acres) of land to Shell Canada.

The location of the railway spur has a potential for future extension to the north and possibly for an easy connection with the Canadian Pacific Railway main line. The only serious problem in a possible implementation of this plan is the present layout and subdivision of the Du-Al Blocks (1967) Ltd. plant which was just recently approved by the Alberta Planning Board.

This item has, in this document, only been a reminder for future reference, because sooner or later the development pressure will be so great that the railway connection between the Canadian National and Canadian Pacific would be needed, at any price. This statement again relates to the necessity for planning ahead, which was, in this document, the key guideline for this area structure planning.

8. CONCLUSIONS:

The present Area Structure Plan for the development of Turbo Industrial Estates Stage II designates the use of the land for average standard industrial park, which will develop a logical balance in relation to a high standard industrial park which is now built by Turbo Resources Limited Development Group in Stage I.

With respect to the large size of the amenities area in Stage I, which includes not only the 10% Municipal Reserve, but also a large lake lot; and also with regard to the proposed construction of another lake in Stage II development, a substantial reduction of the size of the Municipal Reserve Park for Stage II is reasonable.

Limited usability of the pipeline right-of-way for gravel parking and/or planting of some shrubs should be taken into consideration as a certain credit in computation of the ultimate size of the Municipal Reserve Park area.

In general however, the Area Structure Plan shows:

- a) A thorough preparation based on a broad area examination from the physical planning, servicing and property ownership viewpoints, and
- b) Integrity between public and private interests,

Respectfully submitted,

JOSEPH SKVARIL ARCHITECTS & PLANNERS
REGISTERED

ARCHITECT
Joseph Skvaril MRAIC, ACIP, AICP, SAR

NOTE: In this Report, the word "Stage" replaces the word "Phase" as indicated in the attached Drawings #1 and #2a.

APPENDIX I.

MEMORANDUM of meeting between Joseph Skvaril Architects & Planners
acting on behalf of Turbo Resources Limited and Du-Al Blocks (1967)
Ltd. as per attached.

JOSEPH SKVARIL
ARCHITECTS & PLANNERS

201 - 10585 - 111 STREET, EDMONTON, ALBERTA
T5H 3E8 TEL: (403) 428-0065 or 428-8299

JOSEPH SKVARIL ARCHITECT LTD.
JOSEPH SKVARIL PLANNERS LTD.

April 15, 1982.

MEMORANDUM OF MEETING BETWEEN
JOSEPH SKVARIL ARCHITECTS & PLANNERS
ACTING ON BEHALF OF TURBO RESOURCES LIMITED and
DU-AL BLOCKS (1967) LTD. REPRESENTED BY
MR. AUGUST OSIS, PRESIDENT and
MR. KURT GESSELL,
AKLEY DESIGN LTD., PLANNING CONSULTANT.

The meeting was held in the office of Joseph Skvaril Architects & Planners
on April 15, 1982, from 3:00 p.m. to 4:00 p.m.

The purposes of the meeting were:

- a) To up-date both parties in relation to proposals for the development of Turbo Industrial Estates Phase II and Du-Al Block Subdivision.
- b) To inter-relate both proposals as closely as possible to the common interest, and also for the benefit of the future long-term prospects of the County of Strathcona.

These were the key points:

1. Turbo Resources Ltd. is proposing a certain lay-out for Turbo Industrial Estates Phase II which has already been discussed thoroughly with both representatives of Du-Al Block (1967) Ltd. plant proposals.

The layout of the proposed roads has been developed with respect to a possible road connection between Du-Al Blocks (1967) Ltd. and Turbo Resources Ltd. Sub-divisions if required in the future plans by Du-Al Blocks (1967) Ltd.

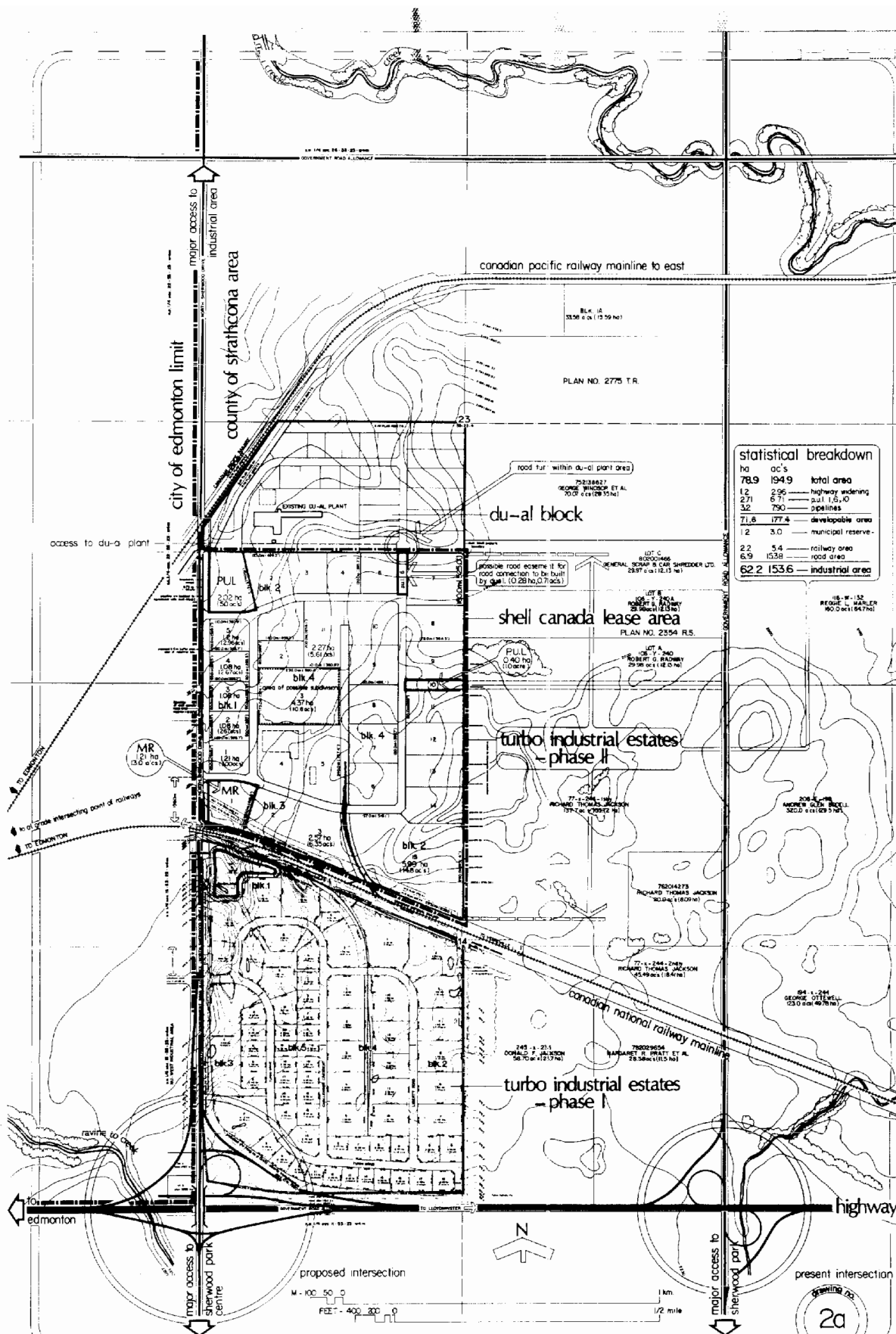
2. For the above purpose, Turbo Resources Ltd. has designated Public Utility Lot #10 for which no financial compensation is required from Du-Al Blocks (1967) Ltd. The Public Utility Lot will, by means of subdivision, be created, registered and transferred into the possession of the County of Strathcona.
3. The Du-Al Blocks (1967) Ltd. proposal is not firmly determined by the owners. On the one hand, Du-Al Blocks (1967) Ltd. plant may go ahead with the approved plan, provided that access would be granted by the approving authority to that area from North Sherwood Drive just in parallel direction north of the northerly boundary of Turbo Industrial Estates, Phase II area.

The Du-Al Blocks (1967) Ltd. plant may also decide not to develop that access if the Public Utility Lot #6 is created by Turbo Resources Ltd.

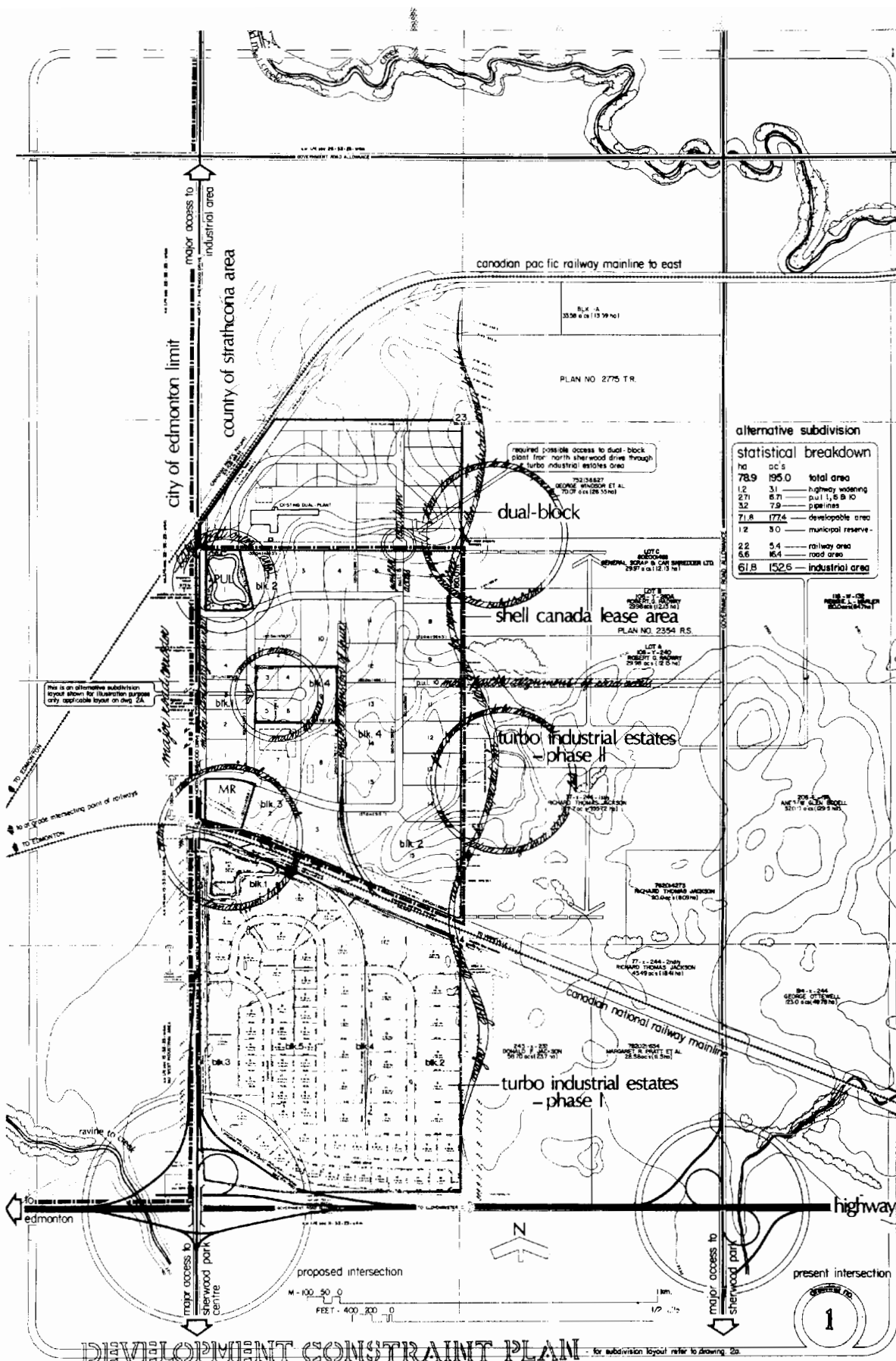
JOSEPH SKVARIL

DIPL. ARCH. (HONS), C.Sc. (UP), MRAIC, MCIP, AICP, SAR, ARCHITECT & PROFESSIONAL URBAN PLANNER

JOSEPH SKVARIL ARCHITECTS & PLANNERS



statistical breakdown		
ha	ac's	total area
12	2.96	highway widening
271	6.71	pull 1.6, 10
32	790	pipelines
71.8	177.4	developable area
12	3.0	municipal reserve
2.2	5.4	railway area
6.9	153.8	road area
62.2	153.6	industrial area



alternative subdivision
statistical breakdown

ha	ac	total area
78.9	195.0	
1.2	3.1	highway widening
2.7	6.7	public use & 10
3.2	7.9	pipelines
71.8	177.4	developable area
1.2	3.0	municipal reserve
2.2	5.4	railway area
6.6	16.4	road area
61.8	152.6	industrial area

TURBO INDUSTRIAL ESTATES

STAGE II

ENGINEERING REPORT

PREPARED BY:

R.V. ANDERSON ASSOCIATES LTD.,
10507 - 81st Avenue,
Edmonton, Alberta. T6E 1X7

TURBO INDUSTRIAL ESTATES
PHASE II
Municipal Utilities Study
(December 15, 1981)

1.0 Introduction

R. V. Anderson Associates Limited has been retained by Turbo Resources Limited, Real Estate and Development Group, to perform an assessment of the feasibility for servicing an industrial subdivision in the County of Strathcona.

The lands under consideration for development include the northerly portion of NW $\frac{1}{4}$, Sec. 14-53-23-W4M and southerly part of the SW $\frac{1}{4}$, Sec. 23-53-23-W4M.

This report has been prepared to complement an area structure plan being prepared for Turbo by Joseph Skvaril Architects and Planners Limited.

The study includes a review of the basic municipal services including:

- sanitary sewerage
- water supply and distribution
- storm water management
- electrical power, natural gas and telephone

2.0 Sanitary Sewerage

2.1 Off Site Service

The subject property will be serviced by a regional trunk sewer system which is being constructed by the County of Strathcona and Alberta Environment.

As shown on Figure 1 following, this trunk will be installed along the government road allowance adjacent to the west boundary of the Turbo land (shown as North Sherwood Drive) for ultimate discharge into the regional waste treatment facilities.

To date, all of the trunk sewer has been constructed south of Highway 16 and, on the north side, to the CPR tracks, by the County of Strathcona. The remaining section, north of the CPR tracks will be completed in the immediate future by Alberta Environment.

When the trunk sewer was originally designed, the Turbo lands were used to calculate the required capacity of the pipes. Accordingly, there should be no difficulties in making the connection in respect of hydraulic capacity. Also, the trunk sewer is sufficiently low to facilitate sanitary drainage of areas within the Turbo boundaries.

2.2 On Site Service

Inside the development site, all lots fronting on streets would be drained by gravity sanitary sewers. The pipes, manholes and all other appurtenances, would be designed in accordance with the standards and requirements of the Engineering Department of the County of Strathcona.

3.0 Water Supply and Distribution

3.1 Off Site Service

During the development of Turbo Industrial Estates, Phase I by Turbo Resources, and Strathcona 16 by Nu West, the County of Strathcona developed an overall water supply scheme for the area north of Highway 16.

As shown in Figure No. 2 following, the County had planned to service these industrial lands with water from the Clover Bar reservoir. Toward that end, mains have already been constructed from the reservoir, through the Nu West development, west of North Sherwood Drive, and into Turbo Industrial Estates, Phase I.

To provide water supply to additional developments within the area, an increase in storage and pumping capacity will be required at the Clover Bar reservoir. It is anticipated that this work will be undertaken by the City of Edmonton in the near future to accommodate the development of adjacent lands, which are within the City's Corporate boundaries as of January 1, 1982.

Two alternative sources of water supply may also be considered. The first would include making a connection to the County's water supply system, along North Clover Bar Road, south of Highway 16. The second would be a connection with a limited withdrawal scheme from the Northeast Water Board line supplying Fort Saskatchewan.

3.0 Water Supply and Distribution Cont'd

3.2 On Site Service

Within the boundaries of the development site, all lots fronting on streets would be provided with a connection for domestic water supply.

The distribution system would be designed and installed in accordance with accepted municipal standards, common to the requirements of the County Engineer's department. This would include 300 mm (minimum) supply mains, fire hydrants and shut-off valves.

4.0 Storm Water Management

4.1 Natural Drainage Patterns

The drainage of this land at the basin level is relatively simple in that it all drains into one basin, which has an outlet at the North Saskatchewan River, as shown in Figure No. 3.

At the sub-basin level, it becomes more complex as the drainage of the area is divided into three sub-basins. Two of these drain directly to the west, across the County Road Allowance, and into the drainage swales on the lands described as NE $\frac{1}{4}$, Sec. 15-53-23-W4M and SE $\frac{1}{4}$, Sec. 22-53-23-W4M. The third drains further to the north through the W $\frac{1}{4}$, Sec. 23-53-23-W4M and thence westerly, across the County Road Allowance onto NE $\frac{1}{4}$, Sec. 22-53-23-W4M.

4.2 Modified Drainage Patterns

The drainage patterns are affected by two man made features. The first is an easement granted on August 25, 1908 in favour of the W $\frac{1}{4}$, Sec. 14-53-23-W4M to drain onto the land of the NE $\frac{1}{4}$, Sec. 15-53-23-W4M, (See Appendix 1).

The second was the construction of an industrial plant building by Du-Al Blocks Limited, about 1978, with related earthwork filling. This has partially blocked drainage for the third sub-basin in the northern section of the development boundaries. Since then, it appears that the lands affected have been largely draining back into the second sub-basin across the County Road Allowance and onto the lands of NE $\frac{1}{4}$, Sec. 22.

4.3 Proposed Off Site Storm Drainage

The object for disposal of storm water drained from this land will be to discharge in such a manner as to avoid significantly altering existing drainage patterns; to minimize the impact of the drainage due to the increased flow duration times and to utilize a drainage course in which the flow can be effectively managed.

Basically, it will be proposed that a storm water detention pond be established within the development site boundaries, to collect and detain run-off, for discharge at pre-development rates. The outlet point will be the existing culvert which crosses the County Road Allowance for discharge into the drainage course on the SE $\frac{1}{4}$, Sec. 22, as shown in Figure No. 4.

This route is favoured for its adherence to the basic criteria presented above.

That is, approximately 75% of the land is currently draining along this route due to both natural ground contours (40%) plus the blocked outlet at the Du-Al Block plant site (35%). The remaining 25% is currently draining into a drainage course in the NE $\frac{1}{4}$, Sec. 15 which co-incidentally is the same water course as that on the SE $\frac{1}{4}$, Sec. 22. Therefore, the only portion of this drainage that will be affected, is a length of approximately 400 m, and the change will be a reduction in flow, which is a benefit rather than an impairment.

4.0 Storm Water Management Cont'd

4.3 Proposed Off Site Storm Drainage Cont'd

Further, although the land on the west side of the County Road Allowance is presently under cultivation, the property is owned by foreign development interests. An Area Structure Plan has been prepared for the development of the land and the drainage schemes under consideration would see the natural drainage courses affected by Turbo's development, filled in and replaced with man-made channels. Consequently, these channels could be designed to handle the Turbo development flows, without significant additional effort.

This approach would be greatly superior to the alternatives of discharging across land which has not previously been subjected to such flows and may not be developed for several years.

It is concluded that the proposed scheme will be accepted by all parties involved as the most effective approach to handling storm water and minimizing the impact of development, while adhering to existing natural drainage boundaries.

4.4 On Site Storm Drainage

An underground piped sewer system and final lot grading will be designed to collect storm water run-off flow for detention in a "wet-type storm water holding pond". Discharge from the pond will be at pre-development rates into existing, natural drainage courses, consistent with the foregoing discussion.

The underground piped system will be designed for five year-storm level flows. The pond and overland drainage system flowing toward the pond, will be designed for a 25 year storm level flow. Consideration will also be given to the 100 year storm flow and its containment at the pond.

5.0 Electrical Power, Natural Gas and Telephone Services

Telephone service will be provided by Alberta Government Telephones, natural gas by Northwestern Utilities and electrical power by TransAlta Utilities Limited.

Preliminary discussions have been carried out with firms and no abnormal problems are envisaged for design and installation of the services.

APPENDIX 1

Caveat, No. 3816 V, dated August 25, 1908 as per
attached.

Dated August 25th 1908

RE 14-53-23-4

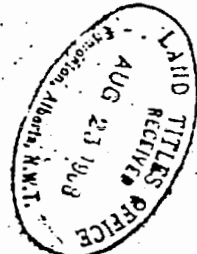
William Wakeford & G.T.P.

236E4

CAVEAT

I certify that the within instrument is
Entered and Registered in the Land
Office for the Province of Alberta Land
Division (is not at present in the
Office of the Registrar at 300
Edmonton, on the 25th day
of August 1908
3006 Book 2 Vol. 119
J. H. A. L. R. D.

SHORT, CROSS & BIGGAR,
Advocates, Edmonton



(Under "The Land Titles Act")

CAVEAT

CANADA:

Province of Alberta

To the Registrar for the North Alberta Land Registration District:

Take Notice That ~~xxx~~ we claim an interest ~~xxx~~

under a certain writing bearing date the Second day of August 1908, in the following lands: Section Fourteen (14) Township Fifty-three (53), Range Twenty-three (23) West of the Fourth Meridian
Copy of said agreement is hereto attached.

standing in the register in the name of Willine Wakeford.

And I or we forbid the registration of any person as transferee or owner of, or any instrument affecting the said estate or interest, unless such instrument be expressed to be subject to my or our claim.

For we appoint the office of Messrs. Short, Cross & Biggar, 14 Howard Street, in the City of Edmonton, in the Province of Alberta, as the place at which notices and proceedings relating thereto may be served.

Dated this 25th day of August 1908.

Witness:

Jas. J. Collisson

Grand Trunk Pacific Railway
By their agents

J. Oliver Mowat Biggar

of Edmonton in the

Province of Alberta, Barrister make oath and say:

1. I am the agent for above named Caveator.

2. I believe that the said Caveator has a good and valid claim upon the land above described, and I say that this caveat is not being filed for the purpose of delaying or embarrassing any person interested in or proposing to deal therewith.

Sworn before me at Edmonton

in the Province of Alberta, this 25th

day of August 1908

Jas. J. Collisson
A Commissioner or Notary Public in and for the Province of Alberta.

Rec'd. Jan 30/00
Kan

1907,

BETWEEN:

Grand Trunk Pacific Railway Company,
of the First Part,

-and-

William Wakeford, of Clover Bar, in the
Province of Alberta, Farmer,
of the Second Part.

WHEREAS the said Railway Company proposes to drain a like

7 RBO
PROPERTY { situated on the West Half of Section Fourteen (14), Township
Fifty-three (53), Range Twenty-three (23) West of the Fourth
Meridian, and the process of draining the said land necessitates
the carrying of the flow of water through certain properties
and over a certain highway adjoining the property of the said
William Wakeford, being the Northeast Quarter of Section Fifteen
(15), Township Fifty-three (53), Range Twenty-three (23) West
of the Fourth Meridian, said land which is liable for
any and WHEREAS it has been agreed between the said Railway

ANY AND WHEREAS it has been agreed between the said Railway
Company and the said William Wakeford, that for the consider-
ation hereinafter mentioned, he, the said William Wakeford, will
by a proper and sufficient drain upon his said land carry the
water which may flow upon his said land from the drain to be
constructed in connection with the proposed work by the said
Railway Company, across his said land, so that the same will
not back up, overflow, destroy or harm the said road,

NOW THIS AGREEMENT WITNESSETH that in consideration of the
sum of Four Hundred Dollars (\$400.00) by the said Railway Com-
pany paid to the said William Wakeford (the receipt whereof is
hereby acknowledged) he, the said William Wakeford, hereby agrees
with the said Railway Company by a proper and sufficient drain

upon his said land to carry the water which may flow upon his said land from the drain to be constructed in connection with the proposed work by the said Railway Company across his said land, so that the same will not back up, overflow, destroy or harm the said road.

The said William Wakeford hereby further agrees in connection with the said work, that he will construct all necessary appliances, drains, etc. for the said process, and will maintain and keep the same in repair where and when necessary, and that if the said William Wakeford makes default in the construction of the said appliances, drain, etc., or in keeping the same in a good and sufficient state of repair, then the said Railway Company may by its servants and agents enter upon the lands of the said William Wakeford and, doing no unnecessary damage thereto, may, at the expense of the said William Wakeford, construct the said drain or put the same into a good and sufficient state of repair. Provided, and it is expressly understood, that the said Railway Company is to be liable for all damages caused by the water in the said drain after it has been discharged through the said drain from the lands of the said William Wakeford, but the said Company shall not be liable for any damage caused by the overflow of the waters in the said drain on the land of the said Wakeford by reason of the same being insufficient to carry off the waters which should discharge through it or the said William Wakeford failing to keep the same in a good and sufficient state of repair.

For the proper performance of this agreement the said William Wakeford hereby charges his said land, being the North-east Quarter of Section Fifteen (15), Township Fifty-three (53) Range Twenty-three (23) West of the Fourth Meridian.

This agreement shall enure to the benefit of and be binding upon the heirs, executors, administrators, successors and assigns of the parties hereto.

WITNESS the corporate seal of the Grand Trunk Pacific Railway Company, attested by the signatures of its officers thereunto duly authorized and the hand and seal of the said William Wakeford the day and year first above written.

Signed, Sealed and Delivered
in presence of

(Sgd) E. C. Emery.

(Sgd) May E. Campbell.

(Sgd) W. Wakeford
his
Mark

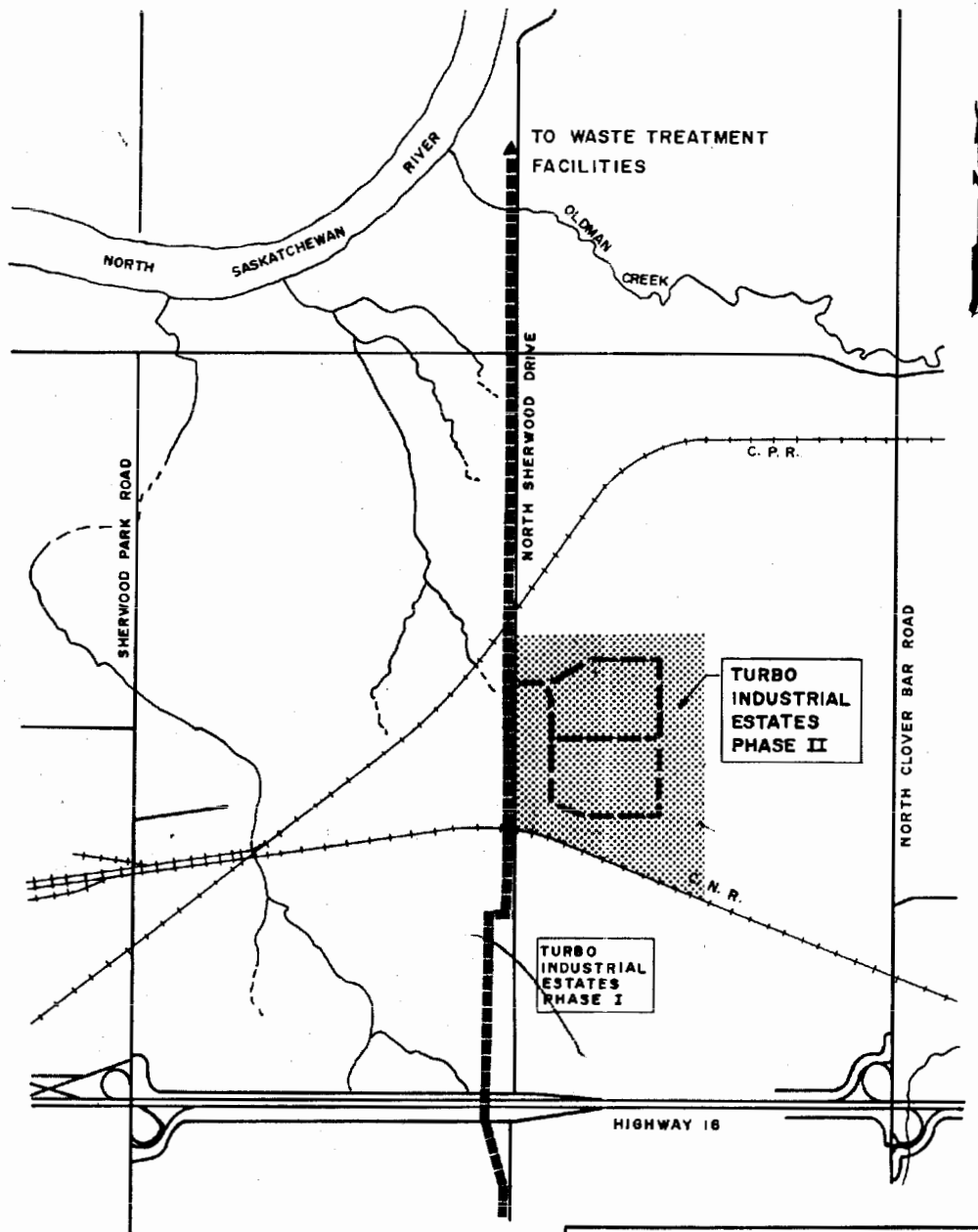
C A N A D A :)
PROVINCE OF ALBERTA (I, Edward C. Emery of the City of Ed-
TO WIT:) monton, in the Province of Alberta,
Barrister, make oath and say,-

1. That I was personally present and did see William Wakeford, named in the within instrument, who is personally known to me to be the person named therein, duly sign and execute the same for the purpose named therein.
2. That the said instrument was executed at Edmonton, in the Province of Alberta, and that I am the subscribing witness thereto.
3. That I know the said William Wakeford and he is in my belief of the full age of twenty-one years.

Sworn before me at Edmonton ()
in the Province of Alberta,) (Sgd) E. C. Emery.
this 29th day of April, 1908. (

(Sgd) C. F. Newell.

A Comm'r etc. in and for the Province
of Alberta.



LEGEND :

- TRUNK SEWER (EXISTING)
- - - - - INTERNAL COLLECTOR SEWER (PROPOSED)



R. V. ANDERSON ASSOCIATES LTD.
CONSULTING ENGINEERS EDMONTON

TURBO INDUSTRIAL ESTATES
PHASE II

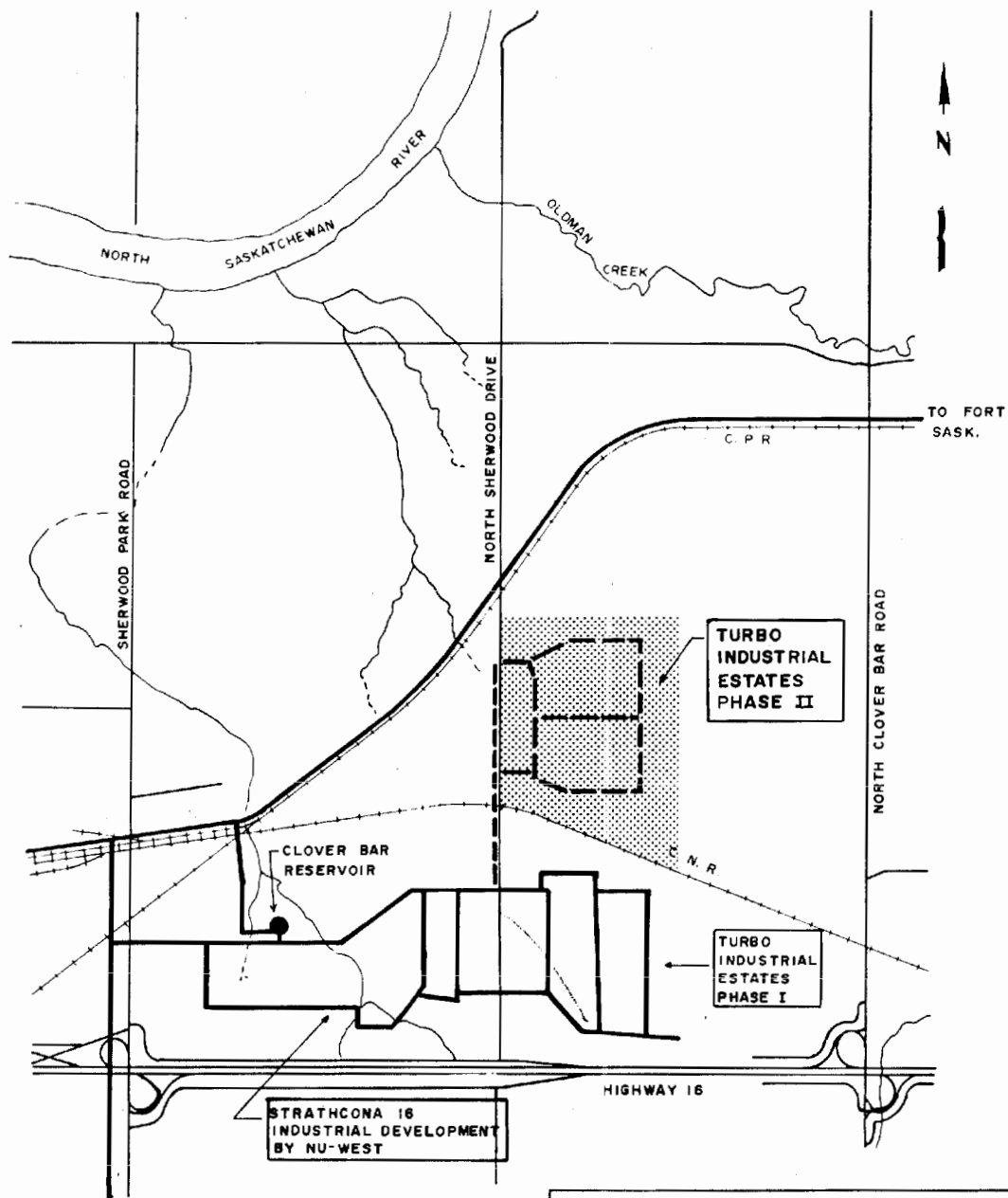
COUNTY OF STRATHCONA No. 20

PROPOSED SANITARY SYSTEM

SCALE 1: 25000

DATE: DEC '81

FIG. No. 1



LEGEND:

- EXISTING WATERMAIN
- - - PROPOSED WATERMAIN



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CONSULTING ENGINEERS
EDMONTON

TURBO INDUSTRIAL ESTATES
PHASE II

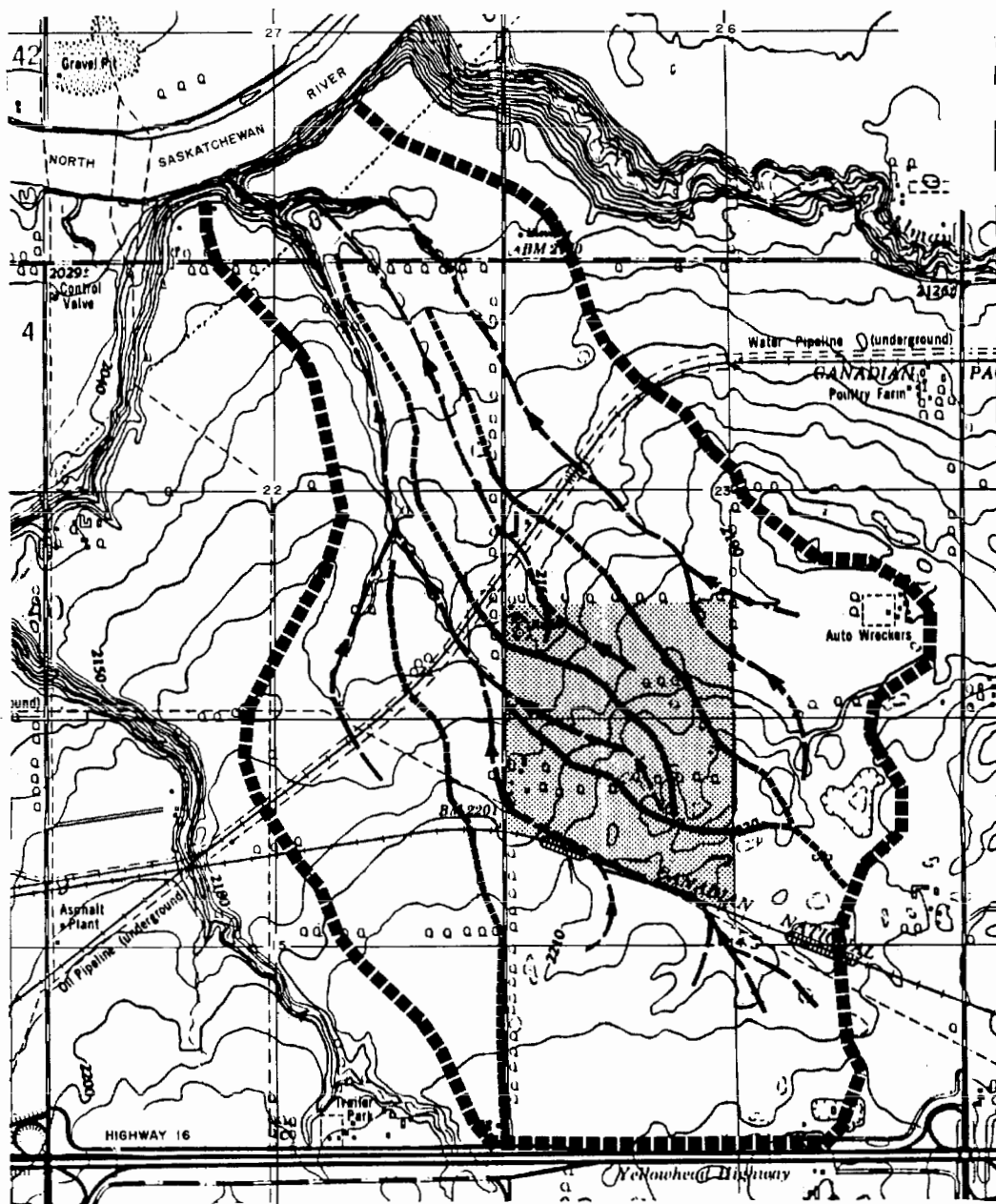
COUNTY OF STRATHCONA No. 20

PROPOSED WATER SYSTEM

SCALE: 1" = 25000

DATE: DEC '81

FIG. No. 2



LEGEND:

- DRAINAGE BASIN BOUNDARY
- SUB-BASIN BOUNDARY
- WATERCOURSE

LEGAL DESCRIPTION: PT. SW1/4 23-53-23-W4M
PT. NW1/4 14-53-23-W4M

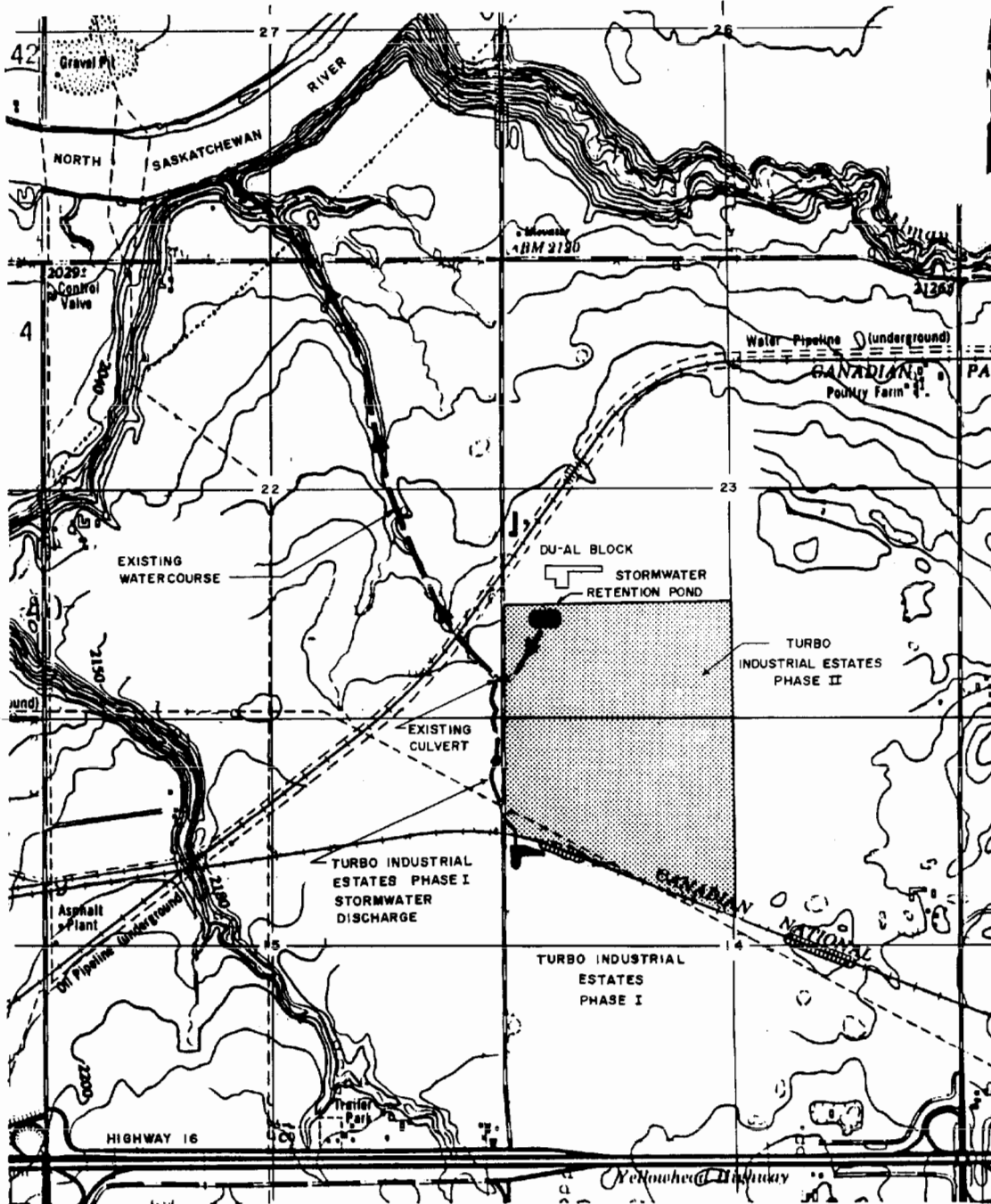
R. V. ANDERSON ASSOCIATES LTD.
CONSULTING ENGINEERS EDMONTON

TURBO INDUSTRIAL ESTATES
PHASE II

COUNTY OF STRATHCONA No. 20

NATURAL DRAINAGE PATTERNS

SCALE 1" = 15000 DATE: DEC '81 FIG. No. 3



LEGEND:
 DRAINAGE CHANNEL

LEGAL DESCRIPTION: PT. SW 1/4 23-53-23-W4M
 PT. NW 1/4 14-53-23-W4M

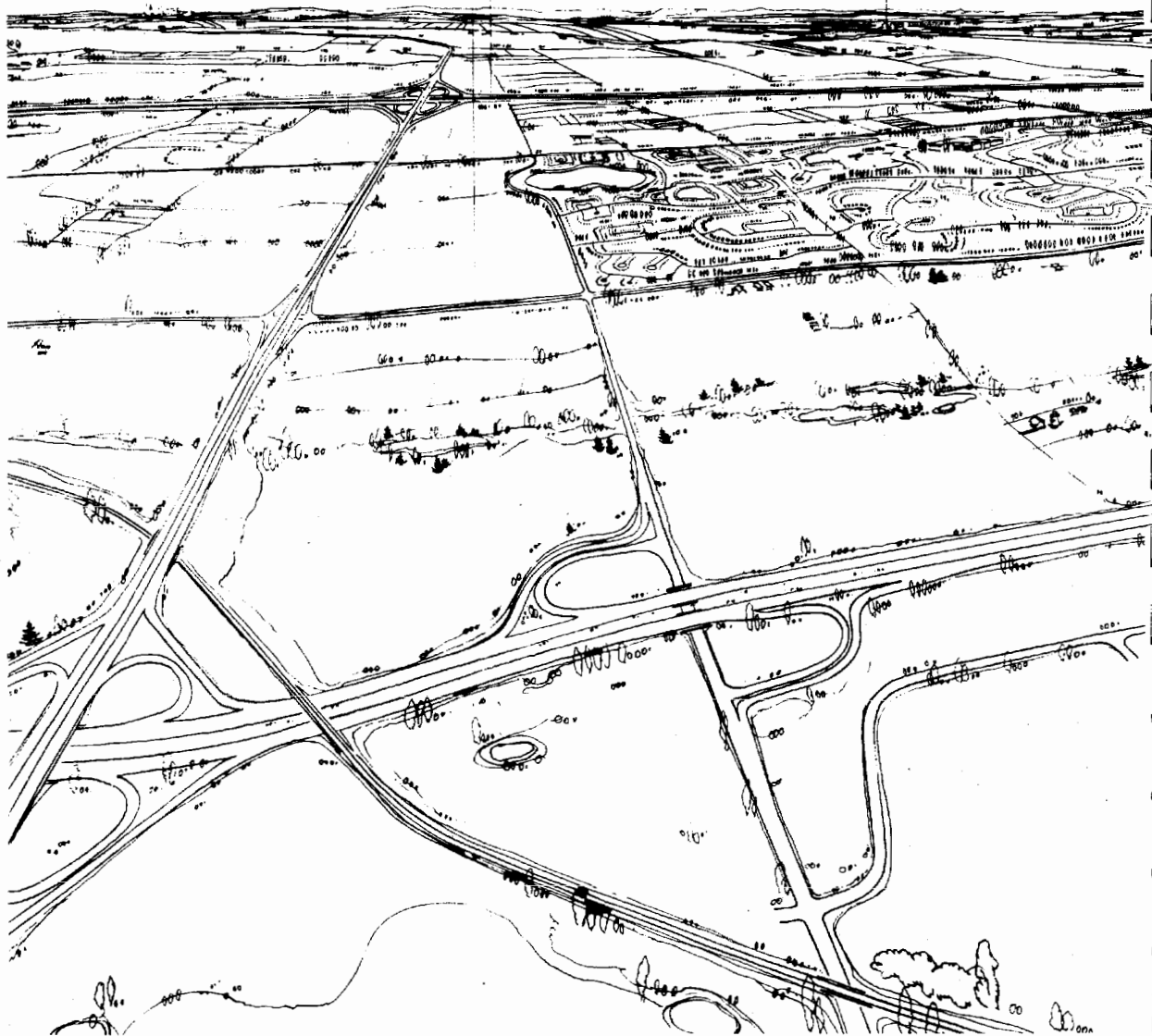
R. V. ANDERSON ASSOCIATES LTD. CONSULTING ENGINEERS EDMONTON		
TURBO INDUSTRIAL ESTATES PHASE II		
COUNTY OF STRATHCONA No.20		
STORMWATER DISCHARGE SYSTEM		
SCALE 1:15000	DATE: DEC '81	FIG. No. 4

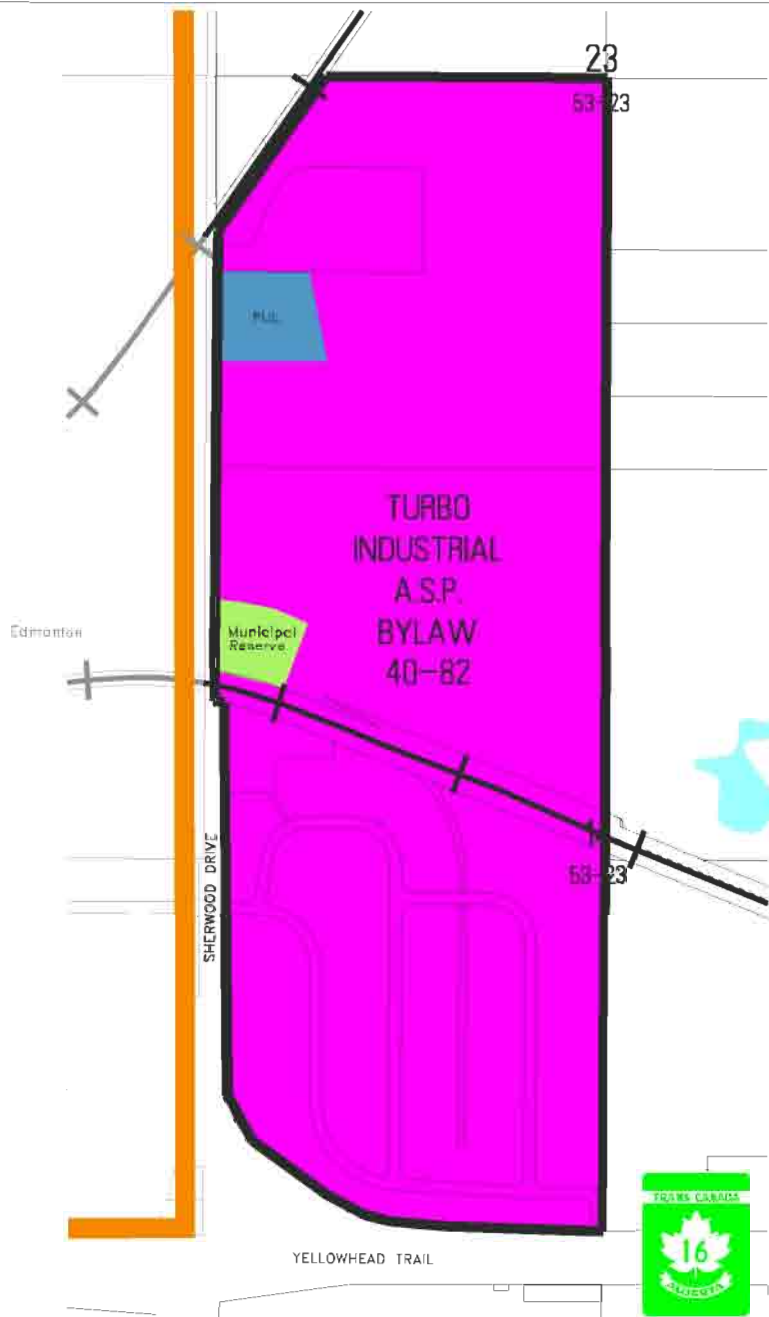
CALGARY (300 KM)

HIGHWAY NO. 55

BAS LIE ROAD
HIGHWAY NO. 14

LEOUC





Turbo Resources Area Structure Plan Bylaw 40-82

Date of Adoption 01-October-1982

Light Industrial



Municipal Reserve



PUL



Road Plan



ASP Boundary



Urban Service Area Boundary

