LAKE ELMO AIRPORT

ASSESSMENT OF ENVIRONMENTAL EFFECTS OF THE METROPOLITAN AIRPORTS COMMISSION'S SEVEN YEAR CAPITAL IMPROVEMENT PLAN

FOR THE
METROPOLITAN AIRPORTS COMMISSION

BY
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ASSESSMENT OF ENVIRONMENTAL EFFECTS

Lake Elmo Airport
Metropolitan Airports Commission Seven Year Capital
Improvement Plan

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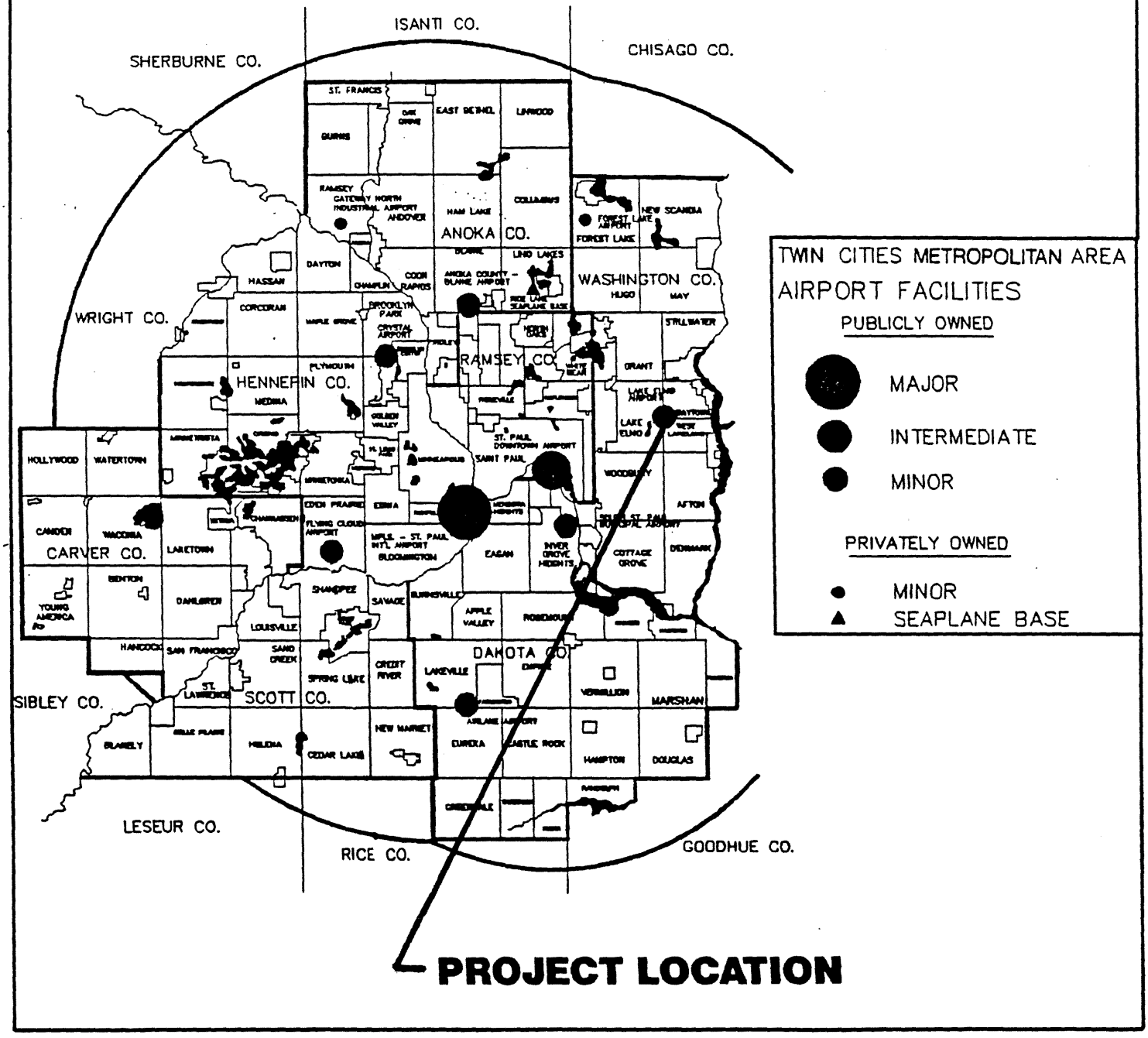

ASSESSMENT OF ENVIRONMENTAL EFFECTS **LAKE ELMO AIRPORT**	FIGURE 1

ASSESSMENT OF ENVIRONMENTAL EFFECTS

Lake Elmo Airport
Metropolitan Airports Commission Seven Year Capital
Improvement Plan

A. INTRODUCTION

This report, prepared in response to the requirements of Minnesota Statutes 1986, Chapter 473, amended by Minnesota Statutes 1988, Chapter 664, presents an assessment of the environmental effects of projects in the Commission's seven-year capital improvement plan (1992-1998) for Lake Elmo Airport.

This assessment examines the cumulative environmental effects of all the listed capital improvement projects at the airport from 1992 to 1998. Many of the projects listed entail only repair or rehabilitation of existing facilities. Such work would not affect the before/after usage of the facilities, and as such would not add to or subtract from the cumulative environmental effects. The projects included in the evaluation are those that have the potential of altering, creating, or in some manner affecting the environmental impact categories listed below.

B. IMPACT CATEGORIES USED TO ASSESS ENVIRONMENTAL EFFECTS

Aircraft Noise

The types of projects which might impact the effects of noise on the environment are new or lengthened runways, new or lengthened taxiways, new maintenance hangars, facilities that may increase operations, and noise insulation and other noise mitigation measures.

Vehicular Traffic

The types of projects which might impact the effects of traffic at the airport or to the surrounding community are new buildings or building additions, new parking spaces or structures, and new or modified roadways or roadway systems.

Air Quality

Air quality impacts at the airport will be primarily caused by changes in vehicular or aircraft activity. Projects which might have an impact will generally be the same projects which affect aircraft noise or vehicular traffic.

Water Quality

Projects which might affect water quality are those which create additional runoff (new pavements or buildings), fire suppression systems, new retention basins, or projects which might affect the groundwater.

Light Emissions

Projects evaluated under this category are airport beacons, lights associated with new runways or taxiways and lights associated with new roadways, parking lots, or ramps.

Sewage

Those projects which have the potential to increase sewage discharged into the sewage disposal system are new or expanded buildings or other changes that significantly alter the number of people using a facility.

Wetland Impact

All projects are evaluated to see if they would entail the full or partial filling of wetlands.

Residential Relocation Impacts

Residential relocation impacts are associated with land acquisition projects that will displace occupied residential units.

C. PROJECTS WITH POTENTIAL ENVIRONMENTAL EFFECTS

Table 1 is a listing of all the projects included in the MAC's Capital Improvement Plan for the years 1992 through 1998. Those projects determined to not contribute to the cumulative environmental effects at the airport are so noted on Table 1. The notations are keyed by number in order to better explain the type of work the project entails and why this type of project will not contribute to the cumulative environmental effects.

TABLE 1
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METROPOLITAN AIRPORTS COMMISSION

See Note	Project Description	1992	1993	1994	1995	1996	1997	1998
*	Compass Rose		$20,000					
^*	North Building Area Development	$250,000						
(1)	Pavement Rehabilitation	$75,000		$100,000		$200,000		
*	Runway 3/21 Lighting					$90,000		
	Yearly Totals	**$325,000**	**$20,000**	**$100,000**	**$0**	**$290,000**	**$0**	**$0**

NOTES:

^ Items discussed in previous Assessment of Environmental Effects.

* The items marked with an asterisk have potential effects that are discussed in the text.

(1) A rehabilitation project which does not physically alter the original size.

(2) A structural, mechanical or electrical modification that does not increase size or passenger capacity.

D. CUMULATIVE ENVIRONMENTAL EFFECTS

The following is a summary of the cumulative environmental effects by impact category.

D.1 Aircraft Noise Impacts

The projects expected to impact aircraft noise at the airport are the building area development and Runway 3/21 lighting. Increasing the size of the building area will increase the number of based aircraft at the airport. This will result in a small increase in number of operations at the airport. Adding runway edge lights will shift some aircraft operations from Runway 13/31 to Runway 3/21. As part of the Long Term Comprehensive Development Plan being prepared for the airport, a brief noise analysis was done. The results of that analysis showed the increase in noise over the next 20 years to be minor and acceptable. This takes into account much greater increases in operations than those from the building area development and Runway 3/21 lighting. Therefore, the cumulative effects of the projects are not expected to create significant noise impacts.

D.2 Traffic Impacts

The cumulative effects of the projects are not expected to create significant impacts to vehicular traffic.

D.3 Air Quality Impacts

The cumulative effects of the projects are not expected to create significant impacts to air quality.

D.4 Water Quality Impacts

The cumulative effects of the projects are expected to increase runoff only slightly by 0.45 cfs for a 5-year storm event. This will be discharged into the existing airport drainage system and eventually seep into the ground.

D.5 Light Emissions Impact

The cumulative effects of the projects are not expected to create significant light emissions impacts.

D.6 Sewage Impacts

As each individual hangar is constructed, permits for wastewater will be obtained from the MAC and the local governmental units. Inflammable waste traps are required to be installed in each individual hangar wastewater system which will contain oil and cleaning fluids associated with aircraft and vehicle maintenance.

D.7 Wetland Impacts

No known wetlands are in the project areas.

D.8 Residential Relocation Impacts

The cumulative effects of the projects are not expected to create residential relocation impacts.

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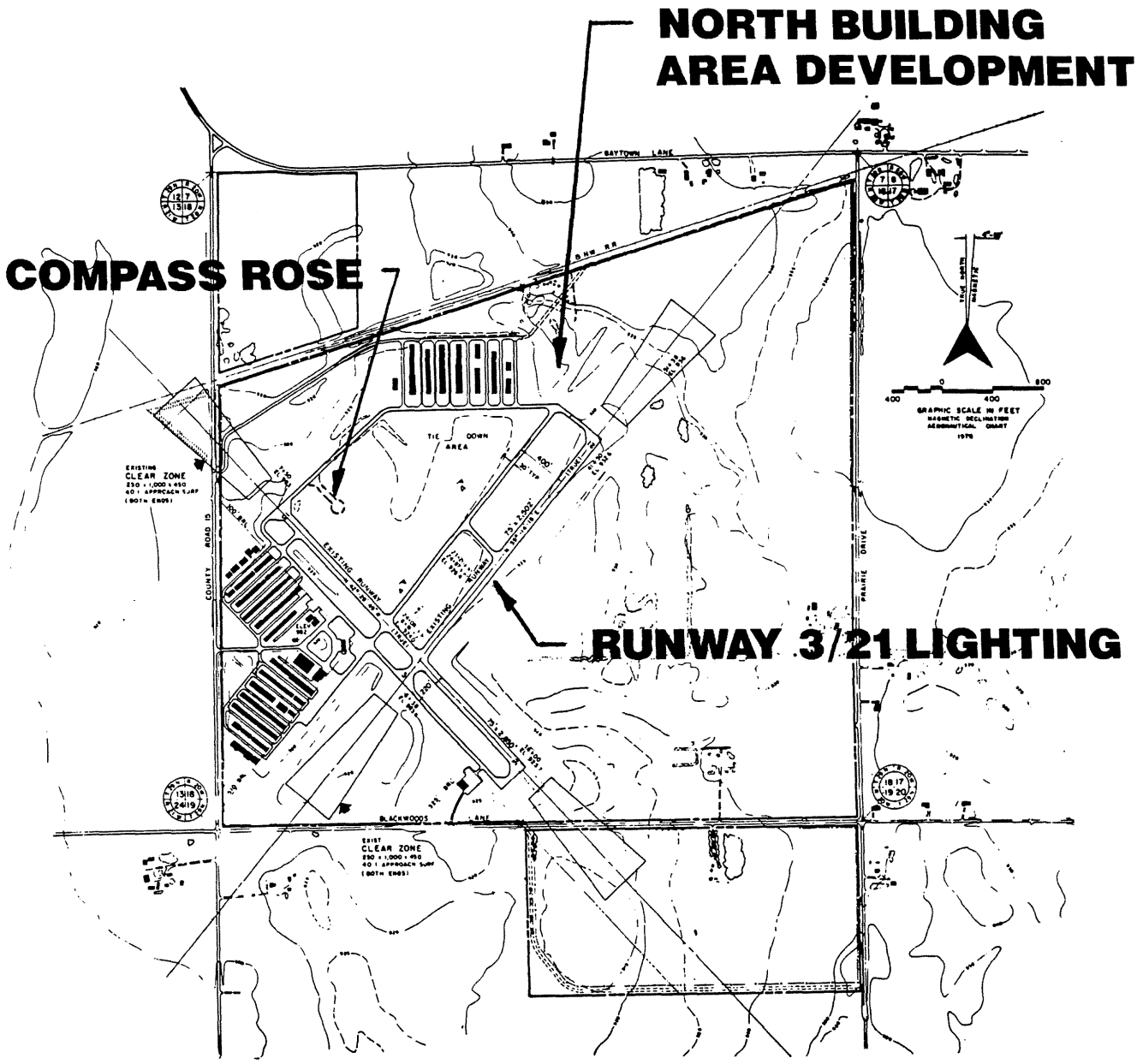

ASSESSMENT OF ENVIRONMENTAL EFFECTS LAKE ELMO AIRPORT **CIP IMPACT PROJECTS**	FIGURE **2**

APPENDIX A

ENVIRONMENTAL ANALYSIS OF INDIVIDUAL PROJECTS

I. PROJECTS BEGINNING IN 1992

The following project is included in the MAC's Capital Improvement Projects for 1992 and has the potential to effect the environment:

- North Building Area Development

I.A. NORTH BUILDING AREA DEVELOPMENT

The existing hangar areas at the airport are reaching capacity. An expansion of the north building area is proposed to meet the demand.

- Aircraft Noise Impacts

  Increasing the size of the building area will increase the number of based aircraft at the airport. This will result in a small increase in number of operations at the airport. As part of the Long Term Comprehensive Development plan being prepared for the airport, a brief noise analysis was done. The results of that analysis showed the increase in noise over the next 20 years to be minor and acceptable. This takes into account much greater increases in operations than those from the building area development alone. Therefore, the cumulative effects of the project are not expected to create significant noise impacts.

- Vehicular Traffic Impacts

  The building area development will not alter any established transportation patterns or disrupt access to any community facility. County Road 15 has adequate reserve capacity to handle the additional traffic from the building area development.

- Water Quality Impacts

  The estimated runoff from the new building area development of approximately 92.2 acre inches for a 50-year storm event will be similar to the quality of the existing building area runoff. During final design, the watershed district will be consulted to assure that the drainage system is correctly sized to handle the flow and that effects (if any) to adjacent land are minimized. The estimated necessary pond size is 80 feet by 350 feet long and 5 feet deep.

- Light Emission Impacts

  Lighting required for the purposes of security will be the most visible but is not expected to affect adjacent land owners. Aircraft lighting is of such low intensity that there should be no impacts.

- Sewage Impacts

  As each individual hangar is constructed, permits for wastewater will be obtained from the MAC and the local governmental units. Inflammable waste traps are required to be installed in each individual hangar wastewater system which will contain oil and cleaning fluids associated with aircraft and vehicle maintenance.

II. PROJECTS BEGINNING IN 1993

The following project is included in the MAC's Capital Improvement Program for 1993 and has the potential to effect the environment:

- Compass Rose

II.A. COMPASS ROSE

This project includes the construction of a bituminous compass rose and access taxiway located northeast of the approach end of Runway 13. Small aircraft use a compass located in the aircraft. The compass in each aircraft should be checked on a frequent and routine schedule. At the present time there is not a compass rose at the airport.

The only impact from this project would be runoff generated from an additional 17,854 square feet of pavement.

- Water Quality Impacts

  The proposed pavement would add approximately 0.45 cubic feet per second (CFS) of discharge into the airport drainage system for a five-year storm event. Most of that runoff will slowly percolate into the surrounding soil. The impact to the groundwater quality resulting from this project is assumed to be minimal.

III. PROJECTS BEGINNING IN 1994

There are no projects beginning in 1994 that have the potential to effect the environment.

IV. PROJECTS BEGINNING IN 1995

There are no projects beginning in 1995 that have the potential to effect the environment.

V. PROJECTS BEGINNING IN 1996

The following project is included in the MAC's Capital Improvement Program for 1996 and has the potential to effect the environment:

- Runway 3/21 Lighting

V.A. RUNWAY 3/21 LIGHTING

Runway edge lighting enhances safety of operations and usability of a runway. MIRLs (one type of runway edge lighting) are recommended for Runway 3/21. Impact categories effected would be aircraft noise and light emissions.

- Aircraft Noise Impacts

  Adding runway edge lights will shift some night-time aircraft operations from Runway 13/31 to Runway 3/21. As part of the Long Term Comprehensive Development Plan being prepared for the airport, a brief noise analysis was done. The results of that analysis showed the increase in noise over the next 20 years to be insignificant. This take into account much greater increases in operations than those resulting from Runway 3/21 edge lighting. Therefore, this project is not expected to create significant noise impacts.

- Light Emission Impacts

  The impact resulting from the installation of runway edge lights is expected to be minimal to the surrounding community. These lights are very low to the ground and would not dispense light beyond airport property.

APPENDIX B

1992 CAPITAL IMPROVEMENT PROJECTS
1993 CAPITAL IMPROVEMENT PROGRAM

1992 CAPITAL IMPROVEMENT PROJECTS

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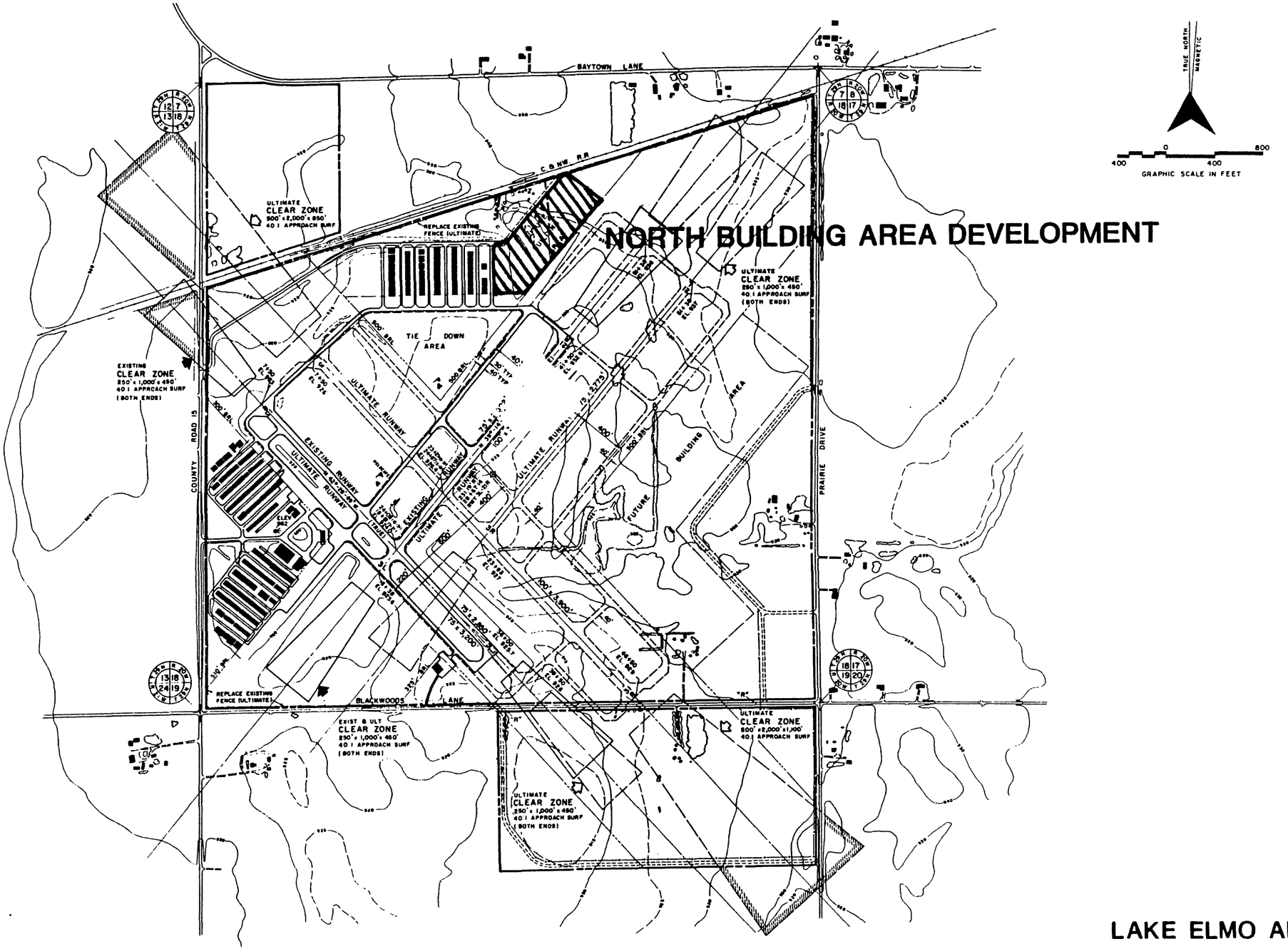
NORTH BUILDING AREA DEVELOPMENT - $250,000

The existing hangar construction areas at the airport are reaching capacity. It is proposed an expansion of the north building area be undertaken in the 1992 construction season. Previously approved by the Commission.

PAVEMENT REHABILITATION - $75,000

Periodically, it is necessary to rehabilitate aircraft operational areas (runways, taxiways, aprons) through bituminous overlays, sealcoats, or in some instances, reconstruction, to restore the surfaces to a smooth, even condition and improve overall operating conditions. A pavement condition survey indicated that crack repair should be completed on Runways 13/31 and 3/21.

1992 CAPITAL IMPROVEMENT PROJECTS



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1993 CAPITAL IMPROVEMENT PROGRAM

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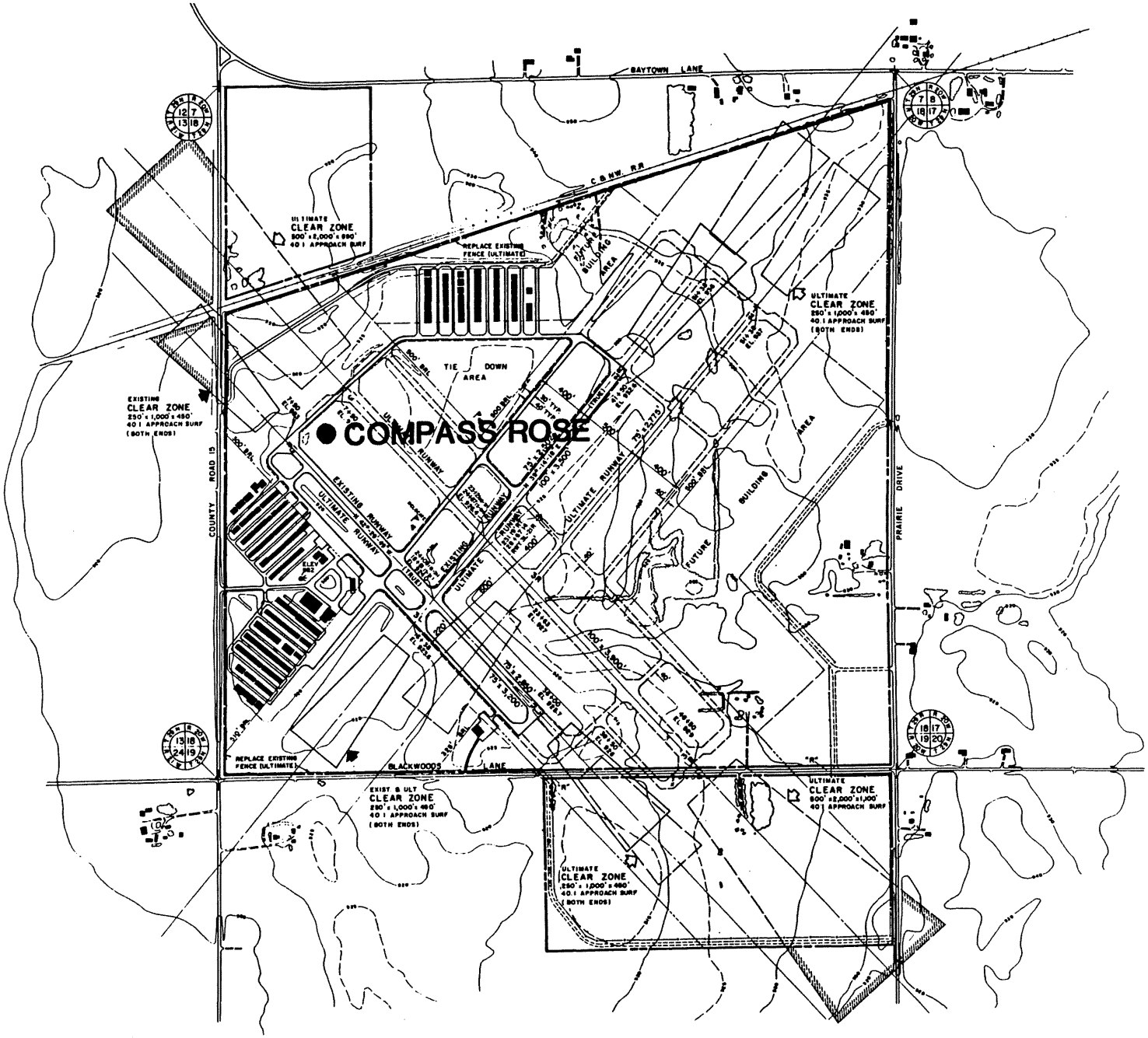
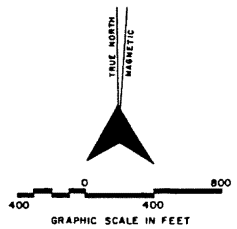
COMPASS ROSE - $20,000

This project includes the construction of a bituminous compass rose and access road located northeast of the approach end of Runway 13. Currently, the only compass rose in the area is located at St. Paul Downtown Airport and pilots have requested the construction of a new compass rose to avoid the congestion and restrictions at Holman Field.

1993 CAPITAL IMPROVEMENT PROGRAM





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