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Final
Environmental
Impact
Statement

T.H. 77 / I-494
Improvement
Project

July 1987



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TRUNK HIGHWAY 77/INTERSTATE 494 IMPROVEMENTS
TH 77 (Cedar Avenue) from 70th Street to 86th Street
and
I-494 from West of 12th Avenue to East of 34th Avenue
Bloomington and Richfield, Minnesota

S.P. 2758 and 2785

M-5405() and IR-494-4()

FINAL ENVIRONMENTAL IMPACT STATEMENT

Submitted in Accordance with:

42 U.S.C. 4332(2)(c)

and

Minnesota Statute 116D.01 et. seq.

Submitted by:

U.S. Department of Transportation,
Federal Highway Administration
Minnesota Department of Transportation

Cooperating Agencies:

Federal Aviation Administration
Minnesota Pollution Control Agency
Metropolitan Council of the Twin
Cities
City of Bloomington

Date of Approval

Mn/Dot

E.E. Ofstead, Assistant Commissioner
Technical Services Division

Date of Approval

FHWA

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ABSTRACT: This Final Environmental Impact Statement documents the selection of the preferred alternative for improving the TH 77 (Cedar Avenue) and I-494 interchange area. The preferred alternative is Alternative 1: Year 2005 development with roadway improvements and travel demand management activities. Alternative 1 includes one additional lane in each direction on both TH 77 and I-494, three new interchanges on TH 77, improvements to four interchanges along I-494, elimination of the at-grade intersection at Killebrew Drive and TH 77, a new collector-distributor road system, and other improvements to local project area roadways. This FEIS provides technical information supplementing or revising the DEIS and responds to comments received on the DEIS and at the public hearing on the project.

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Bloomington Commitment to Implement Water
Quality Study

Mn/DOT Commitment to Implement TH 77 Study

FAA Acknowledgement of Notice of Proposed
Construction

Cooperating Agency Comments:
Federal Aviation Administration
Minnesota Pollution Control Agency
Metropolitan Council

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1.0

Summary

1.0 SUMMARY

1.1 PURPOSE OF THE FINAL ENVIRONMENTAL IMPACT STATEMENT

This Final Environmental Impact Statement (FEIS) has been prepared according to paragraph 1503.4 of the Council on Environmental Quality regulations and the 1982 Rules of the Minnesota Environmental Quality Board for Alternative Environmental Review of projects (Minn. Rules, P.E. 4410.3600).

The alternative format for the FEIS has been selected on the basis that:

- o All reasonable alternatives were studied and discussed in the Draft Environmental Impact Statement (DEIS).
- o The DEIS identified the environmental impacts of all reasonable alternatives.

The purposes of the FEIS are to:

- o Document the selection of the preferred alternative.
- o Provide corrections and supplemental information to the DEIS.
- o List commitments to mitigation measures for impacts related to the preferred alternative.
- o Respond to written and public hearing comments on DEIS.

Information previously provided in the DEIS has not been repeated in this FEIS, and the reader should consult the DEIS for a complete discussion of the affected environment, the alternatives and the environmental consequences of the alternatives. The FEIS consists of this document plus the DEIS.

1.2 PROJECT DESCRIPTION

This project proposes to improve approximately 1.9 miles of Trunk Highway 77 (Cedar Avenue) and approximately 2.7 miles of Interstate 494 surrounding the interchange of the two

highways within the cities of Bloomington and Richfield, Minnesota. The project also includes drainage facilities including storm sewers, lighting, and other improvements necessary as part of the design.

The project includes the addition of one lane in each direction to the defined sections of TH 77 and I-494; three new interchanges on TH 77 at Killebrew Drive, 81st Street and 75th Street; upgraded interchanges along I-494 at TH 77, 12th Avenue, 24th Avenue and 34th Avenue; and a connection of 79th Street east and west of TH 77 under TH 77. A separate roadway system would provide access from TH 77 and I-494 to the arterial streets serving the former Metropolitan Stadium site in the southeast quadrant of the TH 77/I-494 interchange.

1.3 OTHER ALTERNATIVES CONSIDERED

Three other alternatives, including no-build alternatives, were examined in the DEIS. All alternatives assumed the phased development of the Mall of America and Fantasyworld or its traffic equivalent.

Alternative 1A proposed roadway improvements based on 1995 traffic needs, an eight-year planning period. This alternative would be consistent with the year 2005 design concept detailed in Alternative 1, and would not preclude alternatives for the future upgrading of I-494 and/or TH 77. Alternative 1A, which is the proposed first stage of Alternative 1, was not selected as the preferred alternative because it would not meet the traffic needs projected as a result of Airport South District development or continuing development along I-494 beyond 1995.

Alternative 2, a no-build alternative, proposed no roadway improvements and no travel demand management to serve the year 2005 development. Alternative 2 was not selected because it would not meet current or future traffic needs, and would not accommodate development in the vacant portions of the Airport South District.

Alternative 3, also a no-build alternative, proposed travel demand management measures to serve the year 2005 development. Alternative 3 was not selected because it would not meet future traffic needs and would not accommodate development in the vacant portions of the Airport South District.

1.4 PREFERRED ALTERNATIVE

The DEIS was circulated to all affected communities, interested citizens and groups, and state and federal agencies with review authority over the project. After review

of the comments received on the DEIS and at the public hearing, Alternative 1 was selected as the preferred alternative.

The preferred alternative proposes roadway improvements based on year 2005 development with a moderate level of travel demand management. The preferred alternative assumes the level of development projected by the City of Bloomington and the associated traffic in the project area over a twenty-year planning period, including the phased development of the Mall of America and Fantasyworld or its traffic equivalent.

The analysis of the alternatives has indicated that Travel Demand Management (TDM) will not be sufficient to mitigate the significant congestion and delays which are expected with the no-build alternative and that the proposed project along with significant TDM measures will be required to serve future travel demand in this area. In addition to the proposed project, future improvements to I-494 west of the project area will be required to serve the forecast 2005 travel demand.

The proposed project is consistent with the Metropolitan Council Transportation Policy Plan, the State of Minnesota Air Quality Implementation Plan, and local and regional land-use plans. The proposed project, in addition to providing greater roadway capacity, would improve traffic safety and lower traffic-related noise levels in the project area.

Because the timing of future improvements to I-494 west of 12th Avenue is unclear and because the travel demand forecasts used to design Alternative 1 would require these other I-494 improvements, it was decided that the project would be staged. The first stage project (Alternative 1A) would include the elements of the ultimate project which were consistent with the existing section on I-494 and did not preclude alternatives for future upgrading of I-494. It is expected that the first stage improvements would accommodate forecast travel demand until approximately 1995.

1.5 CORRECTIONS/REVISIONS TO THE DEIS

Section 3.0 provides technical information correcting or revising material presented in the DEIS. The revisions are generally to tables or figures from the DEIS and involve updated transit route information, population figures, permits/approvals required, roadway classifications, noise levels, an additional wetland near, but not impacted by, the project, and marsh vegetation.

1.6 SUPPLEMENTAL INFORMATION

This FEIS supplements the DEIS analysis with technical information in the following areas:

- o Transportation
- o Air quality
- o Noise
- o Water quality
- o Vegetation

1.7 IMPACTS AND MITIGATION MEASURES

The project results in beneficial impacts in the areas of land use and economic development, transportation capacity and safety, increased storm sewer capacity and potential capacity to contain hazardous spills, and reduced noise levels at residential receivers.

Several unavoidable adverse impacts are associated with the preferred alternative. Means of mitigating these impacts are detailed in Section 5.0 of this document and summarized below:

- o Level of Service Impacts: The DEIS indicated some congestion is expected on I-494 in the project area even with the implementation of Alternative 1, the preferred alternative, and that the proposed first stage, Alternative 1A, will serve the forecast traffic demand through 1995. In order to minimize the potential congestion problems, the project will incorporate ramp metering at the on-ramps to I-494 in the project area as part of the first stage improvements. The Minnesota Department of Transportation is actively evaluating ramp metering at all of the on-ramps to I-494 west of the project area to TH 100 for implementation in 1988 and to TH 169 in 1989.
- o Traffic Impacts on 77th Street: A preliminary design plan for 77th Street between TH 77 and 12th Avenue in Richfield will be prepared to mitigate the impacts of increased traffic on the residential neighborhood north of 77th Street. The plan will accommodate the change in access to 77th Street for businesses now using the 78th Street frontage road, which will be removed under the preferred alternative.
- o Noise Impacts: Construction of the preferred alternative will result in a reduction in noise levels at residential receiver sites south of I-494 on the west side of TH 77. However, north of the project area, noise levels will increase as a result of forecast growth in traffic on TH 77. In addition, construction

of the first stage of Alternative 1 will result in a slight increase in noise levels along the west side of TH 77 north of I-494. These noise impacts will be addressed in a proposed TH 77 study which is described in Sections 5.3 and 5.5.

- o Impacts on Established Businesses: Several I-494 frontage road businesses will be impacted by the preferred alternative, which removes the frontage road in several locations. Mitigation measures will include providing access from other local streets, and reconfiguring existing parking areas to minimize the loss of parking spaces.

Three businesses may have to be acquired to construct the preferred alternative. Mitigation will include relocation services and benefits following Mn/DOT's relocation policies and practices.

- o Water Quality Impacts: The project will result in increased stormwater runoff. The increased runoff will contribute a very small percentage increase of highway pollutants to detention Pond C, and potentially to Long Meadow Lake in the Minnesota Valley National Wildlife Refuge adjacent to existing TH 77. Mitigation measures include the construction of new stormwater detention ponds and the establishment of a multi-agency study team to resolve the problems in the Long Meadow Lake area caused primarily by all of the surrounding development in the watershed.
- o Construction Impacts: The project will result in adverse impacts during the construction period in the areas of access to local businesses, traffic, air quality, noise, soil erosion, water quality, and high energy consumption. These impacts will be mitigated as much as possible through the establishment of alternative traffic routes and the use of responsible construction techniques stipulated in Mn/DOT construction contracts.

The DEIS identified adverse impacts to air transportation under Alternative 1. These impacts were caused by a three-foot penetration of the approach surface for the proposed runway 4/22 extension by the uppermost ramp of the TH 77/I-494 interchange. Refinements to the conceptual geometrics of Alternative 1 since circulation of the DEIS have eliminated the penetration of the approach surface, and therefore the preferred alternative will have no adverse impacts on air transportation.

1.8 PUBLIC HEARING AND DEIS COMMENTS

Comments on the DEIS were received during a location and design public hearing held on March 12, 1987, and during an official comment period following distribution of the DEIS. Section 6.0 of this FEIS includes all comments received and responses to them.

2.0

Preferred Alternative

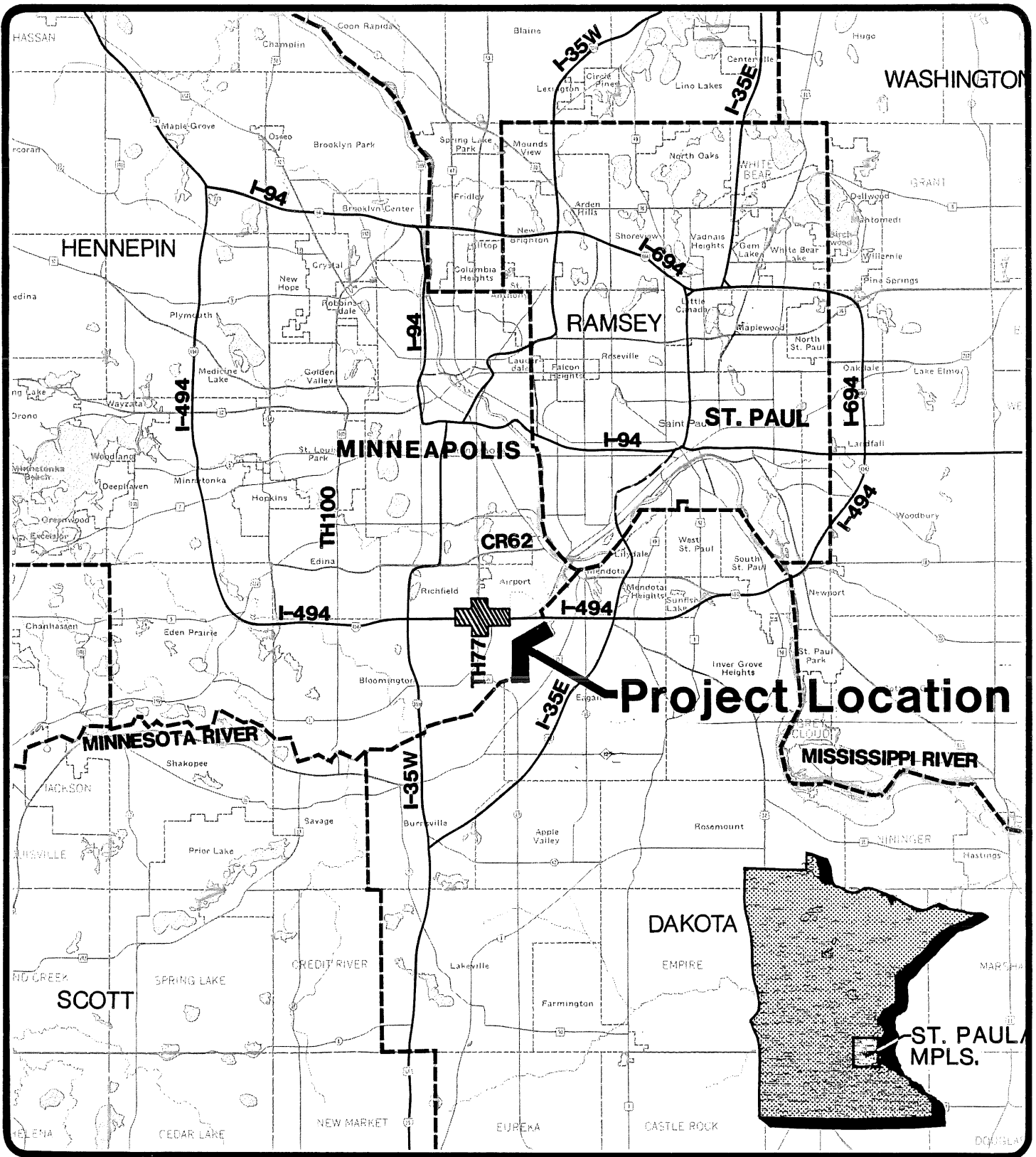
2.0 SELECTION OF PREFERRED ALTERNATIVE

2.1 PROJECT LOCATION AND DESCRIPTION

The proposed project is located in the Cities of Bloomington and Richfield in Hennepin County, Minnesota. The location of the project within the state and region is illustrated in Figure 1 (DEIS Figure 2.1.A). The proposed project involves the improvement of (1) approximately 1.9 miles of TH 77 (Cedar Avenue) from 70th Street in the City of Richfield to south of 86th Street in the City of Bloomington and (2) approximately 2.7 miles of I-494 from west of 12th Avenue South to east of 34th Avenue South. Interstate 494 forms the border between the cities of Bloomington and Richfield west of TH 77, and between Bloomington and the Minneapolis-St. Paul International Airport east of TH 77. The project limits are illustrated in Figure 2 (DEIS Figure 2.1.B).

The roadway improvements proposed by the project are illustrated in Figure 3 (DEIS Figure 3.2.A) and described below:

- o TH 77 would be upgraded to a six-lane freeway facility from 86th Street to north of 70th Street, eliminating the remaining at-grade accesses on TH 77 between I-35E and CSAH 62.
- o Two new interchanges would be constructed on TH 77 south of I-494 at Killebrew Drive and at 81st Street, which would provide access between TH 77 and the area east of TH 77. No access would be provided from these interchanges to the area west of TH 77.
- o A new interchange would be constructed on TH 77 north of I-494 at approximately 75th Street, which would provide access to and from the north on TH 77.
- o Collector-distributor roads would be constructed along TH 77 from 86th Street to approximately 72nd Street, which would collect and distribute traffic to the three new interchanges along TH 77.
- o A tunnel under TH 77 would be constructed at 79th Street, connecting 79th Street east and west of TH 77.

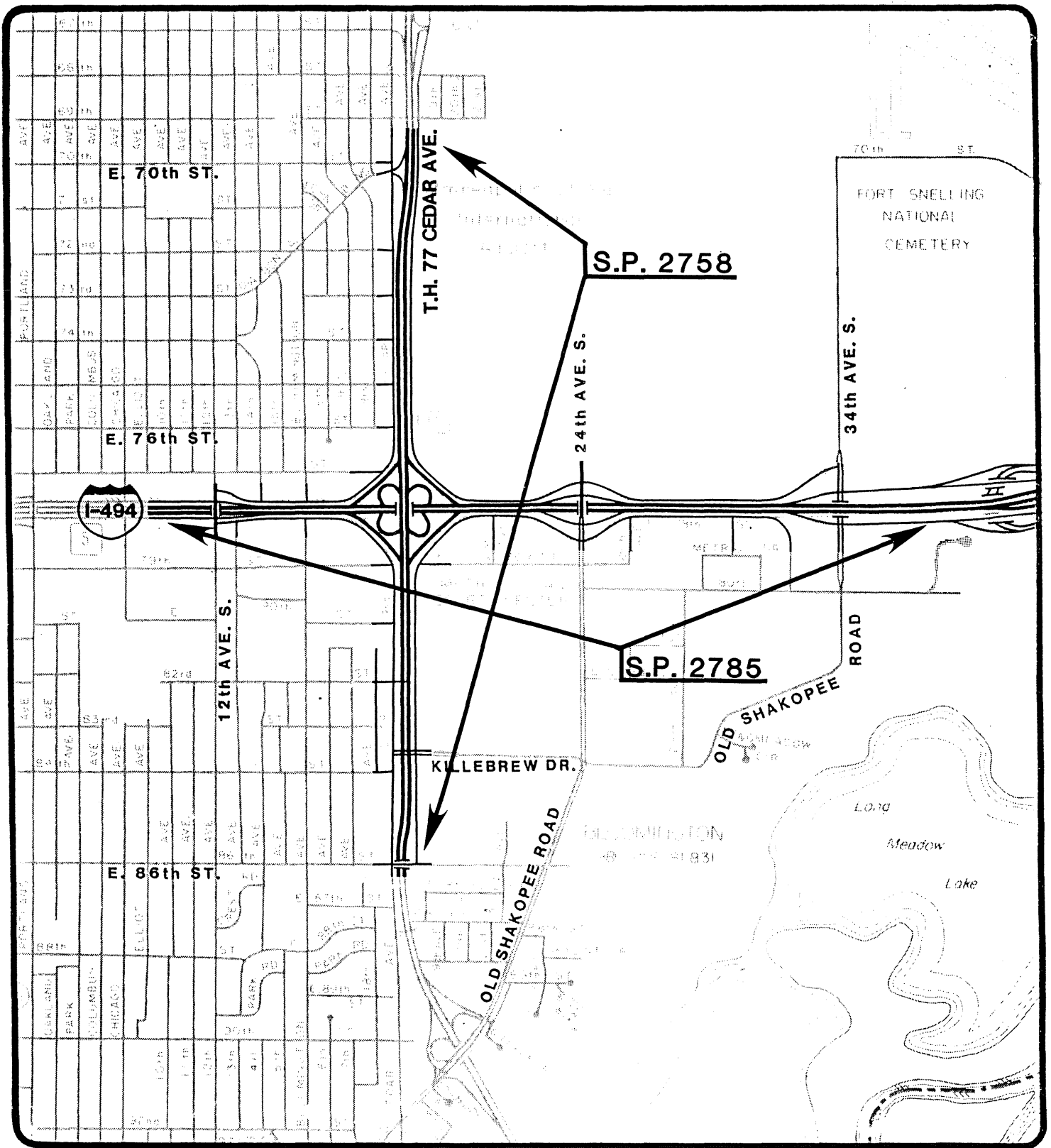


T.H. 77/I-494 IMPROVEMENT PROJECT

FIGURE 1 (DEIS 2.1.A)

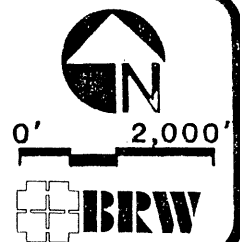
State and Regional
Location Map





T.H. 77/I-494 IMPROVEMENT PROJECT

FIGURE 2 (DEIS 2.1.B)
Project Area

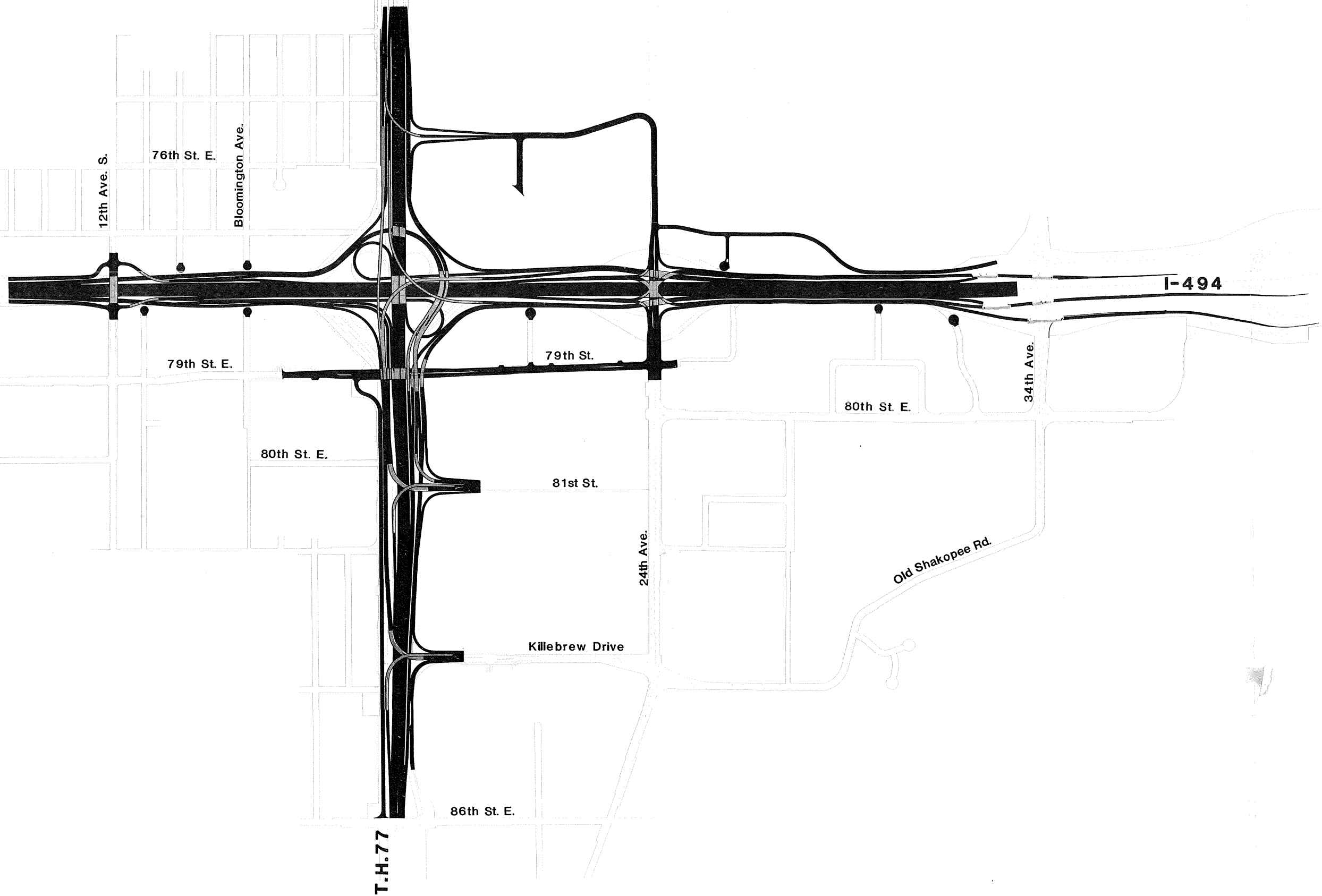


- o A compressed diamond interchange would be constructed at 24th Avenue, providing four through lanes and double left-turn lanes over I-494.
- o I-494 from 34th Avenue to west of 12th Avenue would be upgraded to an eight-lane facility plus auxiliary lanes between on and off ramps.
- o Collector-distributor (C-D) roads would be constructed along I-494 between 24th Avenue and 12th Avenue to collect and distribute traffic to TH 77 and the three new interchanges along TH 77. The C-D road ramp connections to I-494 would be braided with the 24th Avenue and 12th Avenue ramp connections to I-494.
- o A new four-level interchange would be constructed at the TH 77/I-494 interchange providing direct ramps for the northbound TH 77 to westbound I-494 movement (2nd level), the movement from westbound I-494 to the 81st Street and Killebrew interchange (3rd level), and the southbound TH 77 to eastbound I-494 movement (4th level). The eastbound I-494 to northbound TH 77 movement and westbound I-494 to southbound TH 77 movement would be provided by loops off of the C-D roads.
- o A new road would be constructed connecting 24th Avenue with the 75th Street interchange through Metropolitan Airports Commission (MAC) property. The north I-494 frontage road between 24th Avenue and 34th Avenue would be relocated through MAC property.

The project also includes lighting, storm sewer, drainage, and other improvements necessary as part of the design.

The project is proposed to be completed in at least two stages. First stage improvements concentrate on TH 77 south of I-494 and the 24th Avenue interchange, and are proposed to be completed by 1989. Subsequent stages would include the majority of the improvements on I-494, the TH 77/I-494 interchange improvements and the remaining improvements to TH 77 north of I-494. Alternative 1 includes all of the improvements described; Alternative 1A includes first stage improvements only. The reasons for staging the project include the following.

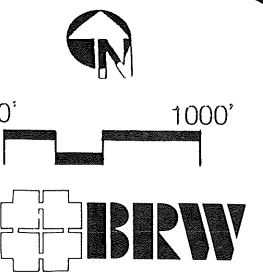
- o Immediate improvements are necessary to resolve current capacity deficiencies in the area and provide adequate regional access to the Mall of America/Fantasyworld or similar project on the old Metropolitan Stadium site. The ultimate roadway improvements require upgrading I-494 west of 12th Avenue, which is currently being



**T.H. 77/I-494
IMPROVEMENT
PROJECT**

FIGURE 3 (DEIS 3.2.A)
**2005 Design Concept
Alternative 1**

NOTE: Map is for illustration of design concept plan only.
Concept plan is subject to revision without notice.



addressed in the I-494 Corridor Study. To relate all improvements within the project area to the upgrading of I-494 west of 12th Avenue could delay any construction for a significant number of years, while traffic problems in the area would continue to worsen.

- o The scope and complexity of the project requires that the project be divided into logical segments and staged over a number of years in order to maintain traffic flow through the area as well as maintain access to the Airport South District. The longer improvements in this area are delayed, the more traffic congestion and delay can be expected during construction.

The proposed first stage construction is illustrated in Figure 4 (DEIS Figure 2.1.D) and includes the following elements of the ultimate project.

- o Upgrading of TH 77 to a six-lane freeway facility from 86th Street to I-494, eliminating the remaining at-grade accesses on TH 77 between I-35E and CSAH 62.
- o New interchanges on TH 77 south of I-494 at Killebrew Drive and 81st Street, which would provide access between TH 77 and the area east of TH 77.
- o Partial access to north TH 77 north of I-494 at approximately 75th Street from locations east of TH 77.
- o Collector-distributor roads along TH 77 from 86th Street to approximately 75th Street.
- o Connection of 79th Street east and west of TH 77 by construction of a tunnel under TH 77.
- o A compressed diamond interchange at 24th Avenue.
- o The direct ramp from northbound TH 77 to westbound I-494.
- o A new road connecting 24th Avenue with the east TH 77 frontage road at approximately 75th Street through MAC property.
- o Relocation of the north I-494 frontage road between 24th Avenue and 34th Avenue.

The first stage project would also include storm sewer, lighting and other improvements necessary as part of the design.

2.2 ALTERNATIVES CONSIDERED

Six alternatives were considered at the beginning of the alternative selection process. These alternatives were based on different assumptions about the level of development and Travel Demand Management (TDM) efforts. All alternatives involving new highway locations were dismissed from further consideration because of the major social, economic, and environmental impacts that would result from constructing a new highway corridor in a heavily developed area.

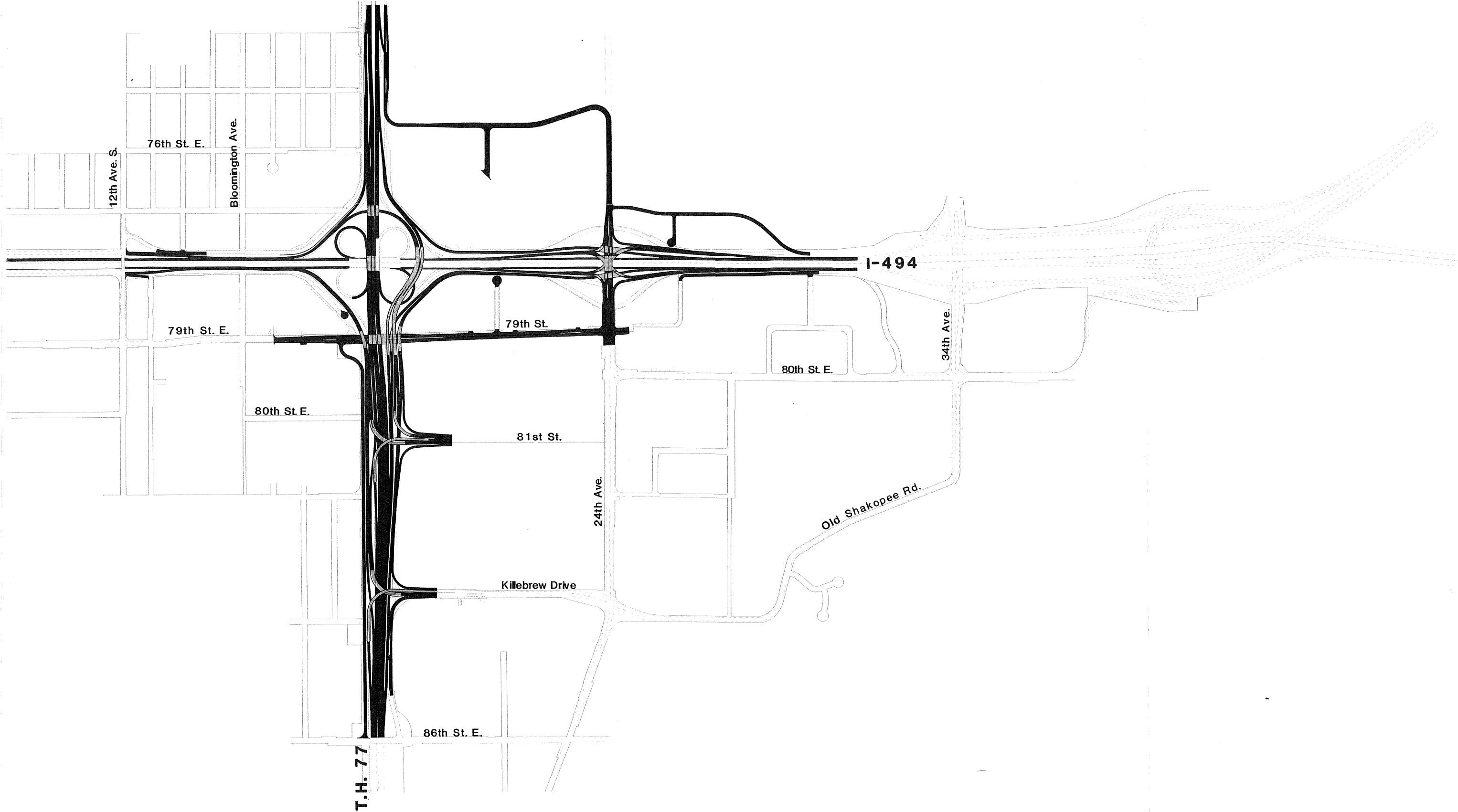
During the scoping process three alternatives from the original list were dismissed because they either did not assume the construction of the Mall of America (or traffic equivalent) or they did not assume the use of TDM. The determination was made in the scoping process that since the proposed project was a highway improvement project, it was not appropriate to consider alternative levels of development or traffic forecasts as alternatives and that all alternatives should assume the construction of the Mall of America or its traffic equivalent. It was also determined that all build alternatives should incorporate TDM measures since it is an effective method of making the most efficient use of transportation investments.

The three alternatives retained for consideration and addressed in the Draft Environmental Impact Statement included the following:

- o Alternative 1 and 1A: Build with TDM. The proposed ultimate roadway improvements for the project area were designated as Alternative 1, and the proposed first stage improvements were designated as Alternative 1A, a subalternative of Alternative 1.
- o Alternative 2: No-build. This alternative is the no-action alternative. It represents the situation where no roadway improvements and no travel demand management efforts are made to serve the year 2005 development.
- o Alternative 3: No-build with TDM. This is a TDM only alternative and includes actions such as ramp metering, but does not include any other roadway improvements to serve the year 2005 development.

2.3 PREFERRED ALTERNATIVE DECISION

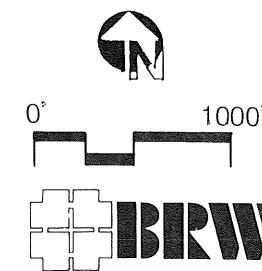
The Draft Environmental Impact Statement studied the beneficial and adverse impacts of the above alternatives relative



T.H. 77/I-494 IMPROVEMENT PROJECT

FIGURE 4 (DEIS 3.2.B)
**Stage 1 Improvements
 Alternative 1A**

NOTE: Map is for illustration of design concept plan only.
 Concept plan is subject to revision without notice.



to the issues identified in the scoping document. Table 1 presents a summary of the environmental consequences for comparison of the alternatives. The DEIS should be consulted for a complete discussion of the environmental consequences of the alternatives.

Based on the studies conducted for the Draft Environmental Impact Statement, the alternative preferred by the Minnesota Department of Transportation is Alternative 1, build with TDM, which would be constructed in at least two stages, with the first stage as shown in Alternative 1A.

2.3.1 Build vs. No-build

The build alternative was selected over the no-build alternatives for the following reasons:

- o The build alternative is the only alternative which would serve the 20-year projected traffic demand.
- o The build alternative is consistent with the Transportation Policy Plan of the Twin Cities Metropolitan Council.
- o The build alternative will eliminate existing traffic conflicts and improve traffic safety.
- o The build alternative is consistent with the State of Minnesota Air Quality Implementation Plan and is necessary to prevent violations of the state ambient air quality standards.
- o The build alternative is consistent with local and regional land-use plans.
- o The build alternative will lower traffic-related noise levels within the project area.

The objections to the build alternative include the effects on businesses and residential areas caused by the alteration of access to TH 77, I-494, and the I-494 frontage roads; the effects of right-of-way acquisition including the displacement of businesses; the effects of increased traffic on traffic noise levels along TH 77 north of the project area and the effects of increased runoff on water quality and wetlands in the Minnesota Valley National Wildlife Refuge. The traffic noise and water quality concerns are more related to the poor existing conditions and the lack of mitigation to resolve those conditions under the build alternative than to a concern that the build alternative will result in significantly greater adverse impacts than a no-build alternative.

TABLE 1
SUMMARY OF ENVIRONMENTAL CONSEQUENCES

	ALTERNATIVES			
	1	1A	2	3
<u>TRANSPORTATION</u>				
Regional Transportation Plan	Consistent	Consistent	Not consistent	Not consistent
Roadway Capacity	Will serve Year 2005 traffic demand	Will serve 1995 traffic demand	Has existing capacity deficiencies	Does not resolve existing capacity deficiencies
Traffic Safety	Eliminates traffic conflicts and improves geometrics	Eliminates traffic conflicts and improves geometrics	Existing section of TH 77 has high accident rate	Does not address high accident rate on TH 77
Airport/Aircraft	No penetration of Runway 4-22 approach surface	No significant effect	No effect	No effect
Transit	Improves access and eliminates delays	Improves access and eliminates delays	No effect	No effect
Ped/Bike Traffic	No significant effect	No significant effect	No effect	No effect
Land Access	Eliminates I-494 frontage roads Eliminates access to west at Killebrew Drive. Improves access to Airport South District	Eliminates access to west at Killebrew Drive. Improves access to Airport South District	No effect	No effect
<u>AIR QUALITY</u>				
Conformance with ISP	In conformance	In conformance	Not in conformance	Not in conformance
Conformance with Ambient Standards	No violations	No violations	Violations of 8-hour standard	Violations of 8-hour standard
<u>NOISE</u>	Reduces noise levels in the project area south of 72nd Street in Richfield	Reduces noise levels in the project area south of I-494	Noise levels increase as traffic levels increase	Noise levels increase as traffic levels increase
<u>LAND USE & COMMUNITY DEVELOPMENT</u>				
Land Use Planning	Consistent	Consistent	Not consistent	Not consistent
Neighborhood & Community Impacts	Increased traffic on 77th Street due to removal of frontage road.	No significant effect	No effect	No effect
Effects on Established Businesses	Alteration of access due to removal of I-494 frontage road and new interchanges on TH 77	Alteration of access due to new interchanges on TH 77	No effect	No effect
Displacement & Relocation	Three businesses	One business	No effect	No effect
<u>ENERGY</u>	No significant differences between alternatives	No significant differences between alternatives	No significant differences between alternatives	No significant differences between alternatives

TABLE 1 (Cont.)
SUMMARY OF ENVIRONMENTAL CONSEQUENCES

	ALTERNATIVES			
	1	1A	2	3
<u>VISUAL IMPACTS</u>	Depression of freeway and elevation of ramps may screen some businesses from freeway	Depression of freeway and elevation of ramps may screen some businesses from freeway	No effect	No effect
<u>WATER QUALITY</u>	Slight increases in runoff to Pond C and Long Meadow Lake	Slight increases in runoff to Pond C and Long Meadow Lake	Increase in traffic will cause increase in pollutant concentrations in runoff	Increase in traffic will cause increase in pollutant concentrations in runoff
<u>WETLANDS</u>	No significant difference between alternatives.	No significant difference between alternatives.	No significant difference between alternatives.	No significant difference between alternatives.
<u>WILD/SCENIC RIVERS</u>	No effect	No effect	No effect	No effect
<u>COASTAL ZONE</u>	No effect	No effect	No effect	No effect
<u>HISTORICAL/ ARCHEOLOGICAL RESOURCES</u>	No effect	No effect	No effect	No effect
<u>THREATENED/ ENDANGERED SPECIES</u>	No effect	No effect	No effect	No effect
<u>PRIME/UNIQUE AGRICULTURAL LAND</u>	No effect	No effect	No effect	No effect
<u>STREAM MODIFICATION</u>	No effect	No effect	No effect	No effect
<u>FLOODPLAINS</u>	No effect	No effect	No effect	No effect
<u>WILDLIFE</u>	No effect	No effect	No effect	No effect
<u>CONSTRUCTION</u>	No effect	No effect	No effect	No effect

2.3.2 Alternative 1 vs. Alternative 1A

Although Alternative 1A represents only the first stage improvements to Alternative 1, it was also evaluated as a separate alternative. Some of the objections to Alternative 1 are not concerns with Alternative 1A since it does not involve nearly as much right-of-way, does not remove as much of the I-494 frontage road system, and will potentially require the relocation of only one business. Alternative 1A also does not require additional lanes on I-494 or TH 77 outside of the project area.

Alternative 1 was selected over Alternative 1A as the preferred alternative because:

- o It is the only alternative which serves the twenty-year projected traffic demand.
- o It can be implemented in stages, which will allow for informed planning prior to the implementation of stages which will significantly alter access to existing businesses. The first stage would be Alternative 1A.
- o Design options are available with Alternative 1 so that it does not preclude alternatives which might be recommended in the I-494 Corridor Study, and nothing that would be constructed in Stage 1 would preclude alternatives that might be recommended in the I-494 Corridor Study.

If the recommendations from the I-494 Corridor Study or other studies such as the TH 77 study proposed in this FEIS result in design changes to the subsequent stages of Alternative 1, a written evaluation of the proposed changes will be prepared. The written evaluation must demonstrate that there have not been significant changes in the proposed action, the affected environment, the anticipated impacts, or the proposed mitigation measures. If there have been changes in these factors which would be significant in the consideration of the proposed action, a supplement to the EIS will be prepared or a new EIS prepared.

3.0

Revisions to DEIS

3.0 CORRECTIONS/REVISIONS TO DEIS

3.1 PERMITS AND APPROVALS REQUIRED

The list of permits and approvals required for the build alternatives has been corrected to reflect the need for an Indirect Source Permit for Alternative 1A, Stage I improvements. Metropolitan Airports Commission plan approval will be handled through interagency coordination. It is also noted that the terminology used in the DEIS relative to a waiver of the 50:1 glideslope from the FAA was incorrect. The FAA makes a hazard determination of objects penetrating the 50:1 approach surface. The 2005 concept plan (Alternative 1) has been adjusted to eliminate a potential three-foot penetration of the future approach surface for the proposed runway 4-22 extension. A Work in Protected Waters Permit will not be required from the Minnesota Department of Natural Resources.

Permits and approvals will be required from the agencies listed below:

<u>AGENCY</u>	<u>PERMIT/APPROVAL</u>	<u>Alt. 1</u>	<u>Alt. 1A</u>
Federal Highway Administration	Change in Access Approval	2	2
Minnesota Pollution Control Agency	Indirect Source Permit	1	2
City of Bloomington	Roadway Design Plan Approval	1	2
City of Richfield	Roadway Design Plan Approval	1	2
Federal Aviation Administration	Notice of Proposed Construction (Form 7460-1)	1	3
	Land Release	1	2
Twin Cities Metropolitan Council	Interchange Additions/ Revisions Approval	3	3

- 1) To Be Applied For
- 2) Application in Process
- 3) Received

3.2 TRANSIT ROUTES IN TRANSPORTATION ANALYSIS AREA

Figure 5 (DEIS Figure 2.3.E) has been updated to include Routes 77, 78, 88, 89, and the new realignment of Route 39.

3.3 METROPOLITAN COUNCIL POPULATION FORECASTS

Tables 2 and 3 (DEIS Tables 4.1.A and 4.1.B) have been revised to reflect the forecasts in the 1986 Metropolitan Development and Investment Framework.

3.4 FUNCTIONAL CLASSIFICATION OF ROADWAYS IN PROJECT AREA

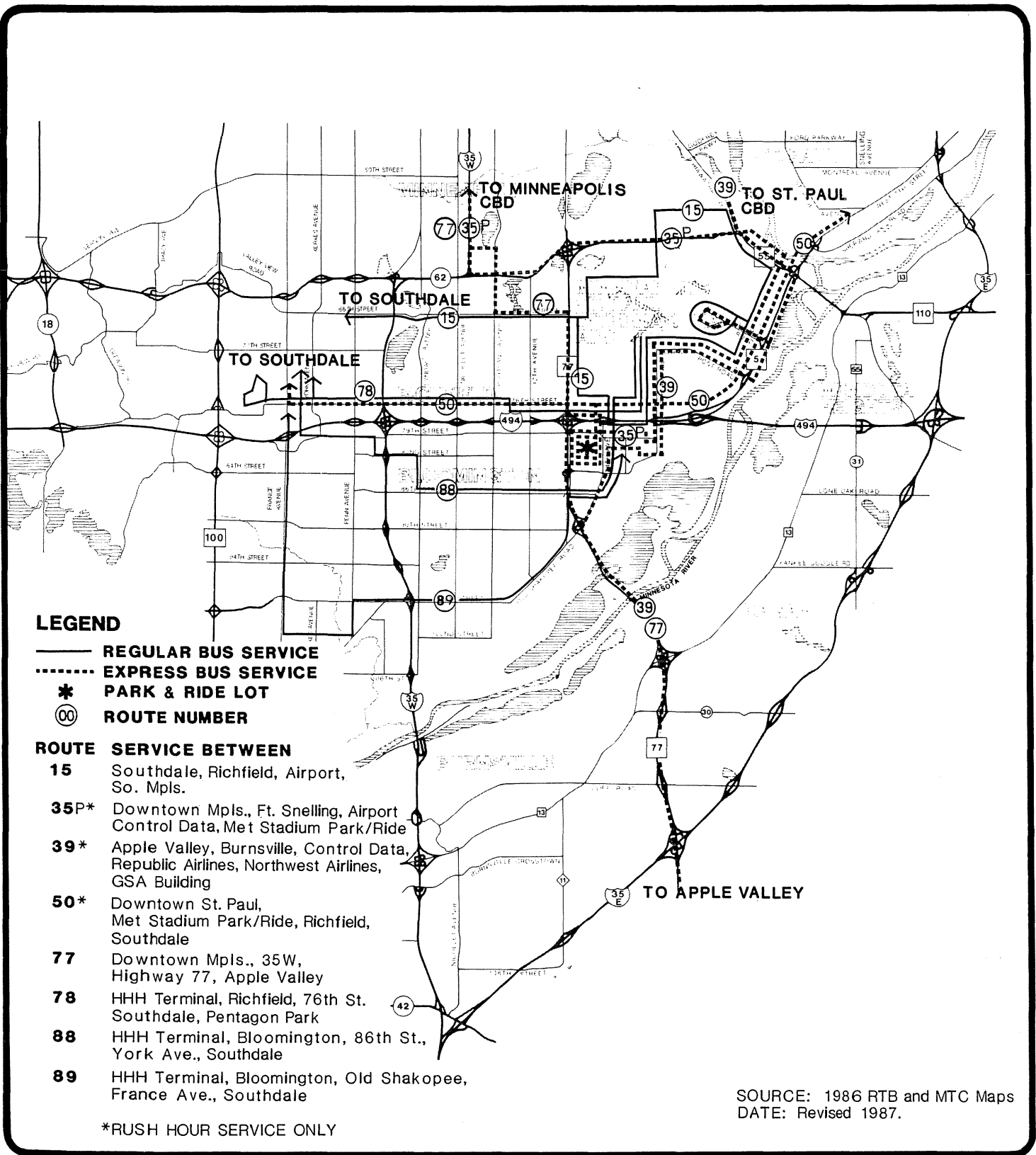
Figure 2.3.B in the DEIS illustrated the Metropolitan Council's functional classification of streets in the project area. The figure has been revised (Figure 6) to illustrate March 1987 Council revisions and the City of Richfield's classification of 12th Avenue, Cedar Avenue, and Diagonal Boulevard as collector streets as well.

3.5 PREDICTED NOISE LEVELS

The noise analysis results for Alternative 1 contained in the Draft EIS have been corrected (Tables 4 and 5) to reflect the following:

- o A reduced percentage of trucks on portions of TH 77 north of I-494 in the existing situation. This change results in lower estimates of existing noise levels at receivers N3 through N12. The truck percentage was revised to be consistent with that assumed for Alternative 1.
- o The incorrect location of receiver N12 for the Alternative 1 noise predictions. The receiver was located farther west in the Alternative 1 analysis than in the existing analysis.

These revised results show substantially the same trends that were documented in the Draft EIS. At the majority of the noise sensitive residential receiver sites along the west side of TH 77, implementation of the Alternative 1 roadway improvements will result in a net decrease in noise levels. The roadway improvements will reduce noise levels by either depressing the mainline roadway or by placing ramps between the mainline and the residential area which shield the mainline noise. The revised analysis indicates that this net reduction in noise will extend as far north as approximately East 72nd Street. North of East 72nd Street, changes to existing roadway geometrics are minor, and noise levels are projected to increase because of forecast increases in traffic volumes.



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FIGURE 5 (DEIS 2.3.E)

Existing Transit Service

0' 12,000'

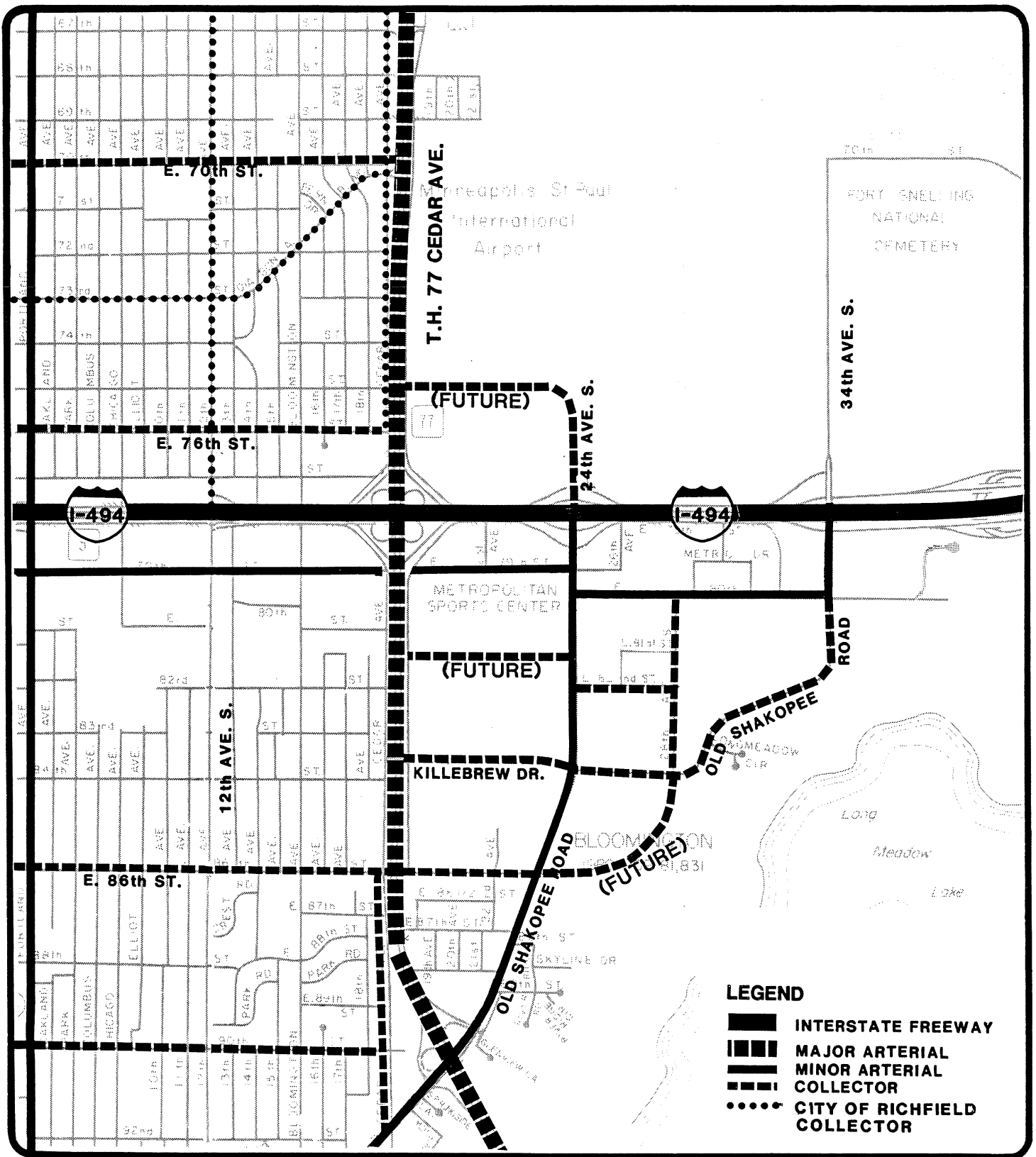
TABLE 2 (DEIS TABLE 4.1.A)
 FORECAST OF METROPOLITAN AREA POPULATION
 AND HOUSEHOLD GROWTH, 1980-2000

YEAR	POPULATION	HOUSEHOLDS
1980	1,985,873	721,357
1990	2,204,000	863,000
% Change 1980-1990	11.0%	19.6%
2000	2,310,000	931,000
% Change 1990-2000	4.8%	7.9%

TABLE 3 (DEIS TABLE 4.1.B)
 FORECAST OF POPULATION
 GROWTH BY COUNTY, 1980-2000

	1980	1990	2000	CHANGE 1980-2000	% CHANGE 1980-2000
Anoka	195,998	235,650	254,050	58,052	29.6
Carver	37,046	44,600	48,290	11,244	30.4
Dakota	194,279	250,310	279,900	85,621	44.1
Hennepin	941,000	1,005,410	1,036,830	95,419	10.1
Ramsey	459,784	472,550	476,570	16,786	3.7
Scott	43,784	58,080	65,900	22,116	50.5
Washington	113,571	137,700	148,860	35,289	31.1
Metro Area	1,985,873	2,204,000	2,310,000	324,127	16.3

Source: Metropolitan Development and Investment Framework, 1986.



T.H. 77/I-494 IMPROVEMENT PROJECT

FIGURE 6 (DEIS 2.3.B)
Metropolitan Council
Functional Classification
of Roadways in
Project Area
March 1987

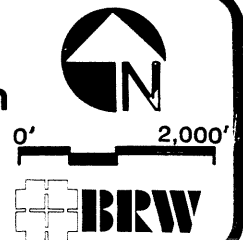


TABLE 4 (DEIS TABLE 5.3.B)
 PREDICTED NOISE LEVELS (dBA)
 ALTERNATIVE 1

Receiver	Land Use	Federal L10 Criteria	State Noise Standards				Existing Noise Levels				Future Noise Levels				Receiver
			Day		Night		Day		Night		Day		Night		
			L10	L50	L10	L50	L10	L50	L10	L50	L10	L50	L10	L50	
N1	Res.	70.0	65.0	60.0	55.0	50.0	69.5	65.1	67.8	62.7	66.0	61.9	63.6	58.2	N1
N2	Res.	70.0	65.0	60.0	55.0	50.0	70.3	65.7	68.6	63.4	66.0	59.9	63.3	55.8	N2
N3	Res.	70.0	65.0	60.0	55.0	50.0	70.3	65.7	68.4	62.9	63.1	59.2	60.7	56.1	N3
N4	Res.	70.0	65.0	60.0	55.0	50.0	64.9	62.0	63.2	59.8	62.9	58.8	60.4	55.2	N4
N5	Res.	70.0	65.0	60.0	55.0	50.0	69.6	65.3	67.7	62.6	67.0	63.4	64.8	59.9	N5
N6	Res.	70.0	65.0	60.0	55.0	50.0	65.0	62.0	63.3	59.7	64.0	61.1	61.7	57.8	N6
N7	Res.	70.0	65.0	60.0	55.0	50.0	69.8	65.4	67.8	62.6	64.9	62.5	62.4	59.0	N7
N8	Res.	70.0	65.0	60.0	55.0	50.0	68.7	64.6	66.8	61.9	65.5	63.1	62.8	59.4	N8
N9	Res.	70.0	65.0	60.0	55.0	50.0	67.1	63.3	65.3	60.6	69.3	66.4	66.5	61.8	N9
N10	Res.	70.0	65.0	60.0	55.0	50.0	65.8	61.3	64.1	58.2	67.7	64.5	65.2	60.3	N10
N11	Res.	70.0	65.0	60.0	55.0	50.0	65.9	61.0	64.1	57.8	67.0	64.5	65.2	60.2	N11
N12	Golf	70.0	65.0	60.0	65.0	60.0	65.0	61.8	63.5	59.8	68.2	63.7	65.4	60.6	N12
N13	Comm.	75.0	70.0	65.0	70.0	65.0	68.7	65.1	68.4	64.7	66.9	62.1	65.1	59.4	N13
N14	Comm.	75.0	70.0	65.0	70.0	65.0	72.7	67.8	70.3	64.5	69.0	64.3	65.4	59.1	N14
N15	Comm.	75.0	70.0	65.0	70.0	65.0	72.6	67.8	70.1	64.4	67.0	62.4	63.6	57.8	N15
N16	Res.	70.0	65.0	60.0	55.0	50.0	74.1	69.9	71.4	66.1	67.3	63.1	64.6	59.4	N16
N17	Res.	70.0	65.0	60.0	55.0	50.0	69.3	65.7	67.2	62.9	65.4	61.8	62.6	58.4	N17
N18	Res.	70.0	65.0	60.0	55.0	50.0	73.9	68.5	71.2	64.8	67.5	62.9	64.5	59.2	N18
N19	Res.	70.0	65.0	60.0	55.0	50.0	74.3	69.9	71.7	66.4	67.4	62.9	64.2	59.1	N19
N20	Res.	70.0	65.0	60.0	55.0	50.0	73.5	68.4	70.9	64.8	67.0	62.7	64.2	59.2	N20
N21	Res.	70.0	65.0	60.0	55.0	50.0	72.8	69.0	70.4	65.9	66.2	62.0	63.5	58.8	N21
N22	Res.	70.0	65.0	60.0	55.0	50.0	73.3	68.9	70.8	66.0	67.5	62.6	65.5	60.5	N22
N23	Hotel	70.0 **	70.0	65.0	70.0	65.0	71.3	67.2	70.6	65.9	70.1	66.9	69.2	65.3	N23
N24	Hotel	70.0 **	70.0	65.0	70.0	65.0	66.7	64.0	67.2	64.1	69.6	61.7	65.5	56.8	N24
N25	MTC	75.0	70.0	65.0	70.0	65.0	68.2	65.0	68.3	64.9	70.7	64.1	66.7	59.5	N25
N26	Hotel	70.0 **	70.0	65.0	70.0	65.0	64.2	61.7	65.9	62.4	68.2	65.8	67.4	64.1	N26
N27	Hotel	70.0 **	70.0	65.0	70.0	65.0	67.5	63.9	67.8	64.1	69.1	67.9	67.9	64.6	N27
N28	Clinic	70.0	65.0	60.0	65.0	60.0	69.5	65.0	69.9	65.7	72.5	69.9	70.8	66.8	N28

Note: ** - L10 70 dBA is the exterior criterion at these uses
 Due to a lack of exterior activities, the L10 55 dBA Interior Criterion Applies

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TABLE 5 (DEIS TABLE 5.3.C)
 NOISE IMPACT ANALYSIS
 ALTERNATIVE 1

Receiver	Standard Exceeded:				Change in Noise Levels (dBA)			
	Existing		Future		Day		Night	
	Federal	State	Federal	State	L10	L50	L10	L50
N1	N	Y	N	Y	-3.5	-3.2	-4.2	-4.5
N2	Y	Y	N	Y	-4.3	-5.8	-5.3	-7.6
N3	Y	Y	N	N	-7.2	-6.5	-7.7	-6.8
N4	N	N	N	N	-2.0	-3.2	-2.8	-4.6
N5	N	Y	N	Y	-2.6	-1.9	-2.9	-2.7
N6	N	N	N	N	-1.0	-0.9	-1.6	-1.9
N7	N	Y	N	N	-4.9	-2.9	-5.4	-3.6
N8	N	Y	N	Y	-3.2	-1.5	-4.0	-2.5
N9	N	Y	N	Y	2.2	3.1	1.2	1.2
N10	N	Y	N	Y	1.9	3.2	1.1	2.1
N11	N	Y	N	Y	1.1	3.5	1.1	2.4
N12	N	N	N	Y	3.2	1.9	1.9	0.8
N13	N	N	N	N	-1.8	-3.0	-3.3	-5.3
N14	N	Y	N	N	-3.7	-3.5	-4.9	-5.4
N15	N	Y	N	N	-5.6	-5.4	-6.5	-6.6
N16	Y	Y	N	Y	-6.8	-6.8	-6.8	-6.7
N17	N	Y	N	Y	-3.9	-3.9	-4.6	-4.5
N18	Y	Y	N	Y	-6.4	-5.6	-6.7	-5.6
N19	Y	Y	N	Y	-6.9	-7.0	-7.5	-7.3
N20	Y	Y	N	Y	-6.5	-5.7	-6.7	-5.6
N21	Y	Y	N	Y	-6.6	-7.0	-6.9	-7.1
N22	Y	Y	N	Y	-5.8	-6.3	-5.3	-5.5
N23	Y **	Y	Y **	Y	-1.2	-0.3	-1.4	-0.6
N24	N	N	N	N	2.9	-2.3	-1.7	-7.3
N25	N	N	N	Y	2.5	-0.9	-1.6	-5.4
N26	N	N	N	N	4.0	4.1	1.5	1.7
N27	N	N	N	N	1.6	4.0	0.1	0.5
N28	N	Y	Y	Y	3.0	4.9	0.9	1.1

Note: ** - L10 70 dBA exterior criterion exceeded.
 Due to a lack of exterior activities, the L10 55 dBA interior criteria apply.

Y = Yes, standard exceeded
 N = No, standard not exceeded

3.6 WETLANDS IN PROJECT AREA

Figures 7 and 8 (DEIS Figures 4.2.E and 4.2.G) have been revised to include the location of Wetland No. 1081w, north of I-494 and east of 34th Avenue. This wetland is not impacted by the project.

3.7 KIDDER MARSH VEGETATION

The discussion of Kidder Marsh in Section 4.2.7.2 of the DEIS has been expanded to include reference to purple loosestrife. The new material follows the third paragraph of the Kidder Marsh discussion on DEIS page 4-45, and reads as follows:

Kidder Marsh has become heavily infested with purple loosestrife (*Lythrum salicaria*), a herbaceous flowering perennial plant with little or no known wildlife value. Purple loosestrife invades and replaces desirable wetland vegetation, and is considered a noxious weed by the Department of Natural Resources. The Minnesota Valley National Wildlife Refuge, DNR and Minnesota Department of Transportation are expending considerable effort to eradicate purple loosestrife in the Refuge.

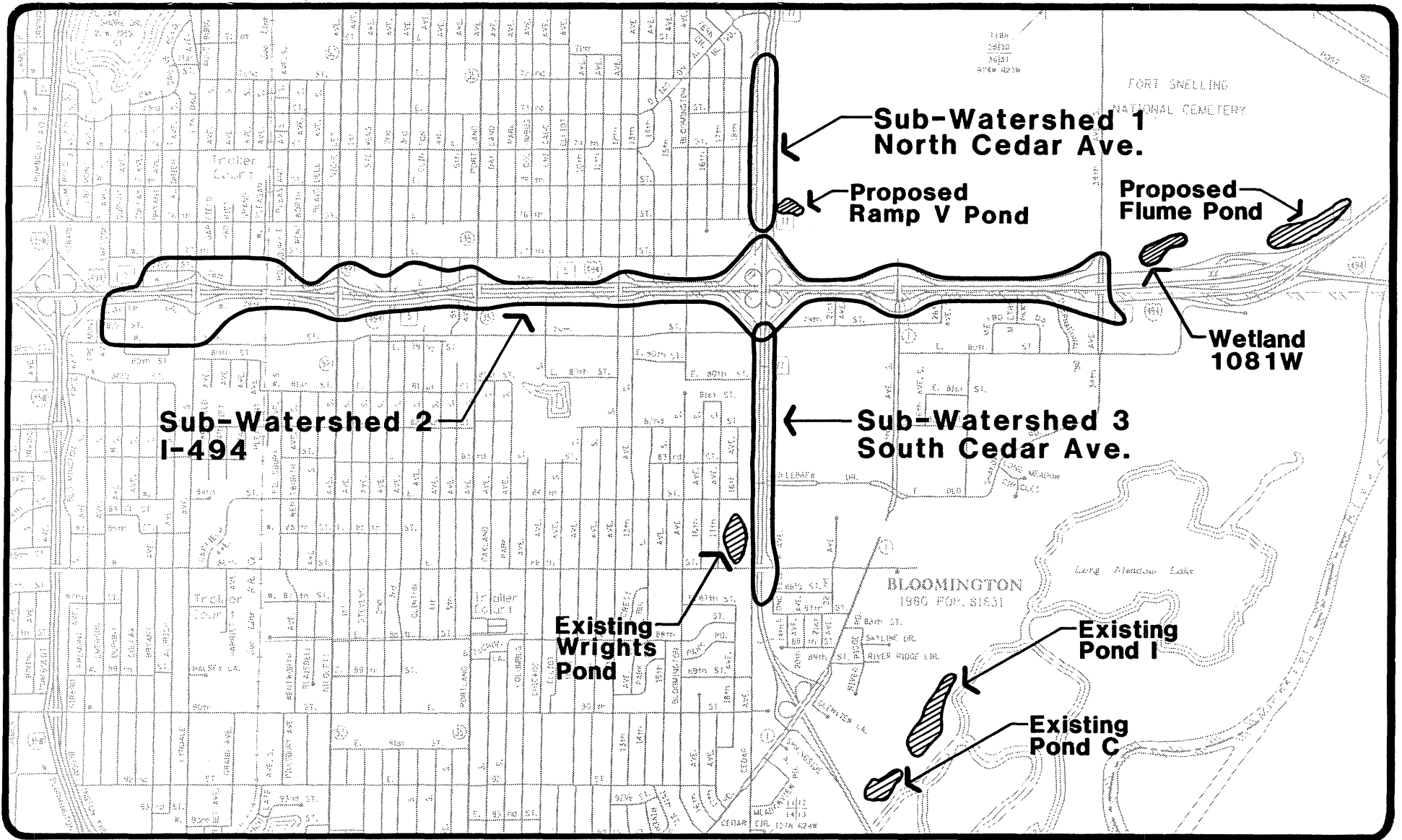
3.8 WATER QUALITY CLASSIFICATION OF AFFECTED WATERS

Section 4.2.6.4 of the DEIS incorrectly states that existing Ponds C and 1 and the proposed Ramp V and Flume ponds could be limited in classification to 4A, 4B, 5 and 6 waters of the state. Minnesota Rules, Section 7050.0430 states that "All other waters of the state that are not listed in part 7050.0470 are hereby classified as 2B, 3B, 4A, 4B, 5 and 6 class waters. This latter classification is correct.

The reference to Table 3A in Appendix B of the DEIS should be deleted from the third paragraph on DEIS page 4-37.

The fourth paragraph on DEIS page 4-37 should be deleted and replaced with the following paragraph: "Table 4.2.J identifies the classification of receiving waters in the study area."

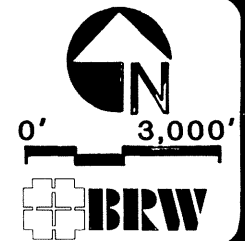
Table 4.2.J has been revised (Table 6) to reflect the correct water quality classification of existing receiving waters. Revised Table 6 (DEIS Table 4.2.J) is as follows:



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FIGURE 7 (DEIS 4.2.E)

**Sub-Watersheds and Stormwater
Detention Ponds**





Minnesota Valley National Wildlife Refuge.

**T.H. 77/I-494
IMPROVEMENT
PROJECT**

FIGURE 8 (DEIS 4.2.G)
Ponds and Wetlands



TABLE 6 (DEIS TABLE 4.2.J)
 WATER QUALITY CLASSIFICATION OF RECEIVING WATERS

Minnesota River ^{1/}	2C, 3B, 3C, 4A, 4B, 5 and 6
Long Meadow Lake ^{2/}	2B, 3B, 4A, 4B, 5 and 6
Wright's Pond ^{2/}	2B, 3B, 4A, 4B, 5 and 6
Pond C ^{2/}	2B, 3B, 4A, 4B, 5 and 6
Pond I ^{2/}	2B, 3B, 4A, 4B, 5 and 6
Proposed Ramp V Pond	<u>3/</u>
Proposed Flume Pond	<u>3/</u>

^{1/} Interstate Waters - Minnesota Rules 7055.0250

^{2/} Interstate Waters - Minnesota Rules 7050.0300

^{3/} This pond will be designed and operated as a dry pond that is an integral part of a stormwater treatment system.

In the paragraph titled Pond C on DEIS page 4-38, the reference to Table 3A should be changed to Table 2A.

3.9 PROPOSED STORM DETENTION PONDS

The following sentence should be added to the end of the first and sixth paragraphs of section 5.10.1.1 on DEIS pages 5-90 and 5-93 respectively.

The pond will be designed and operated as a dry pond that is an integral part of a stormwater treatment system.

3.10 ELIMINATION OF STORM SEWER TO WRIGHT'S POND

Preliminary design of the storm drainage systems in sub-watershed 3, which was completed after the preparation of the DEIS, resulted in the elimination of the proposed storm sewer to Wright's Pond from the forty acres north of 81st Street and east of Cedar Avenue. The forty-acre tributary area can be drained through the existing city storm drain system in 24th Avenue. This proposed change from the DEIS will not have a significant impact on the existing drainage patterns in sub-watershed 3.

The last paragraph on DEIS page 5-93 and the first two paragraphs on page 5-109 should be deleted from the text.

The second paragraph on DEIS page 5-94 should be corrected to indicate the west, not southwest, portion of the Met Stadium site, and size as being approximately seventy, not thirty, acres.

3.11 COMPARISON OF PROJECTED CHLORIDE CONCENTRATIONS

Because of the incorrect water quality classification of the Ramp V pond, Flume Pond, and Ponds C and 1, as detailed in Section 3.8 of this FEIS, the comparison of projected chloride concentrations to the appropriate water quality standard for Pond C was not made. Deicing salts impacts are discussed in Section 5.10.4.1 of the DEIS.

The first sentence of the first paragraph on DEIS page 5-104 should be revised to read as follows:

The water-quality standards for chloride concentrations are 100 mg/l for the Minnesota River, Long Meadow Lake and Pond C.

The following paragraph should be inserted after the first paragraph on DEIS page 5-104.

Table 5.10.G indicates that the projected chloride concentration in Pond C from the entire watershed is 306 mg/l based on the assumptions used in the analysis are correct. This projected chloride concentration is three times the MPCA standard of 100 mg/l for Pond C. The background chloride concentration in Pond C has a 90th percentile value of 247 mg/l and a maximum value of 412 mg/l. Although there is some variability to the assumptions used in the analysis and unknowns in the observed water quality data, the conclusion can be drawn that the projected chloride concentration resulting from this project will result in a water quality that is of no lesser quality than the existing water quality of Pond C. That is, the projected chloride concentration is 25 percent less than the maximum observed chloride concentration of 412 mg/l. Therefore, in accordance with Minnesota Rules section 750.0170, which allows the higher background concentration to be used as the standard for controlling the addition of pollutants of human activity, the projected chloride concentrations presumptively do not violate the state standards.

The following two paragraphs should be inserted after the second paragraph on DEIS page 5-104.

Pond C was constructed as a stormwater treatment basin for deicing salts and traffic-related pollutants as a mitigative measure for the Cedar Avenue improvements

described in the Final Environmental Statement for Trunk Highway 36 (Cedar Avenue), dated January 13, 1976. It is impractical to expect a stormwater treatment pond, Pond C, to be in strict conformance with water quality standards associated with the generic water quality classification imposed by Minnesota Rules.

The purpose of this EIS is to analyze the impacts of all of the proposed alternatives described in the DEIS. As stated in Section 5.10 on DEIS page 5-89, all of the proposed alternatives including the no-build alternatives, will have the same impact on water resources. Therefore, the no-build alternatives have no advantage in terms of reduced deicing salts impacts over the remaining alternatives.

3.12 COMPARISON OF TRAFFIC-RELATED POLLUTANT CONCENTRATIONS

Because of the incorrect water quality classification of the Ramp V pond, the Flume pond and Ponds C and 1, as detailed in Section 3.8 in this FEIS, the comparison of projected traffic-related pollutant concentrations to the appropriate water-quality standard for these ponds was not made. The comparison of traffic-related pollutant concentrations to standards is contained in DEIS section 5.10.4.2.

The first paragraph of Section 5.10.4.2 on DEIS page 5-106 should be revised to read as follows:

Ramp V and Flume Ponds as indicated in Section 4.2.6, are not considered waters of the state because they are dry ponds; therefore, there is no applicable water quality standard or requirement.

The first two sentences of the last paragraph on DEIS page 5-109 should be revised to read as follows:

Pond C and Long Meadow Lake are classified as intrastate 2B, 3B, 4A, 4B, 5 and 6 bodies of water. Therefore, the water quality requirements of Table 2A of Appendix B apply. Of the traffic-related pollutants listed, only chromium, copper and oil (grease and petroleum) have an associated water quality requirement listed.

The following three paragraphs should be inserted before the last paragraph of Section 5.10.4.2 on DEIS page 5-110.

Minnesota Rules Section 7050.0170 allows a higher background concentration to be used as the standard for

controlling the addition of pollutants of human activity. Because the incremental copper concentration is only fifteen percent of the existing copper concentration before the buffering effect of the remaining 2,600 acres is accounted for, the conclusion can be drawn that the projected copper and other traffic-related pollutant concentrations resulting from this project may result in a water quality that is of no lesser quality than the existing water quality of Pond C and Long Meadow Lake. Therefore, the projected traffic-related pollutant concentrations presumptively do not violate the state standards.

Pond C was constructed as a stormwater detention pond and treatment basin for deicing salts and traffic related pollutants as a mitigative measure for the Cedar Avenue improvements described in the Final Environmental Statement for Trunk Highway 36 (Cedar Avenue), dated January 13, 1976. It is impractical to expect a stormwater treatment pond, Pond C, to be in strict conformance with water-quality standards associated with the generic water-quality classification imposed by Minnesota Rules.

The purpose of this EIS is to analyze the impacts of all of the proposed alternative actions described in the DEIS, Alternatives 1, 1A, 2 and 3. Alternative 2 is the no-build action and Alternative 3 is the no-build with travel demand management. As stated in Section 5.10 on DEIS page 5-89, all of the proposed alternatives will have the same impact on water resources. Therefore, the no-build alternatives have no advantage in terms of reduced traffic-related pollutant impacts over the remaining alternatives.

3.13 REVISED MINNESOTA INTRASTATE WATER QUALITY REQUIREMENTS

Table 7 (DEIS Table 2A), Minnesota Intrastate Water Quality Requirements, in Appendix B of the DEIS is revised as follows:

TABLE 7 (DEIS TABLE 2A)
 MINNESOTA INTRASTATE WATER QUALITY REQUIREMENTS
 FOR 2B, 3B, 4A, 4B, 5 AND 6 WATERS

Dissolved Oxygen	Not less than 5 mg/l ¹ / at all times (instantaneous minimum concentration)
Temperature	5°F. above natural in streams and 3°F above natural in lakes, based on monthly average of the maximum daily temperature except in no case should it exceed the daily average temperature of 86°F.
Bicarbonates (HCO ₃)	5 milliequivalents per liter
Ammonia (N)	0.04 mg/l (un-ionized as N)
Chlorides	100 mg/l
Chromium (Cr)	0.05 mg/l
Copper (Cu)	0.01 mg/l or not greater than 1/10 the 96 hour TLM value.
Hydrogen Sulfide	0.02 mg/l
Cyanides (CN)	0.02 mg/l
Boron	0.5 mg/l
Oil	0.5 mg/l
Hardness	250 mg/l
pH Value	6.5 - 8.5
Specific Conductance	1,000 microhms per centimeter
Sulfates (SO ₄)	10 mg/l applicable to water used for pro- duction of wild rice during periods when the rice may be susceptible to damage by high sulfate levels.
Phenols	0.01 mg/l and none that could impart odor or taste to fish flesh or other fresh- water edible products such as crayfish, clams, prawns and like creatures. Where

TABLE 7 (DEIS TABLE 2A) (Cont.)
 MINNESOTA INTRASTATE WATER QUALITY REQUIREMENTS
 FOR 2B, 3B, 4A, 5 AND 6 WATERS

Phenols (Cont.)	it seems probable that a discharge may result in tainting of edible aquatic products, bioassays and taste panels will be required to determine if tainting is likely or present.
Total Residual Chlorine	0.005 mg/l
Total Dissolved Salts	700 mg/l
Total Salinity	1,000 mg/l
Sodium (Na)	60% of total cations as millequivalents per liter
Turbidity Value	25
Fecal Coliform Organisms	200 organisms per 100 ml ^{2/} as logarithmic mean measured in not less than five samples in any calendar month, nor shall more than 10% of all samples taken during any calendar month individually exceed 2,000 organisms per 100 ml (applied only between March 1 and October 31)
Radioactive Material	Not to exceed the lowest concentration permitted to be discharged to an uncontrolled environment as prescribed by the appropriate authority having control over their use.
Unspecific Toxic Substances	None at levels harmful either directly or indirectly.

^{1/} mg/l (milligrams per liter)
^{2/} ml (milliliter)

4.0

Supplemental Information

4.0 SUPPLEMENTAL INFORMATION

4.1 TRANSPORTATION

4.1.1 Year 2000 Traffic Forecasts

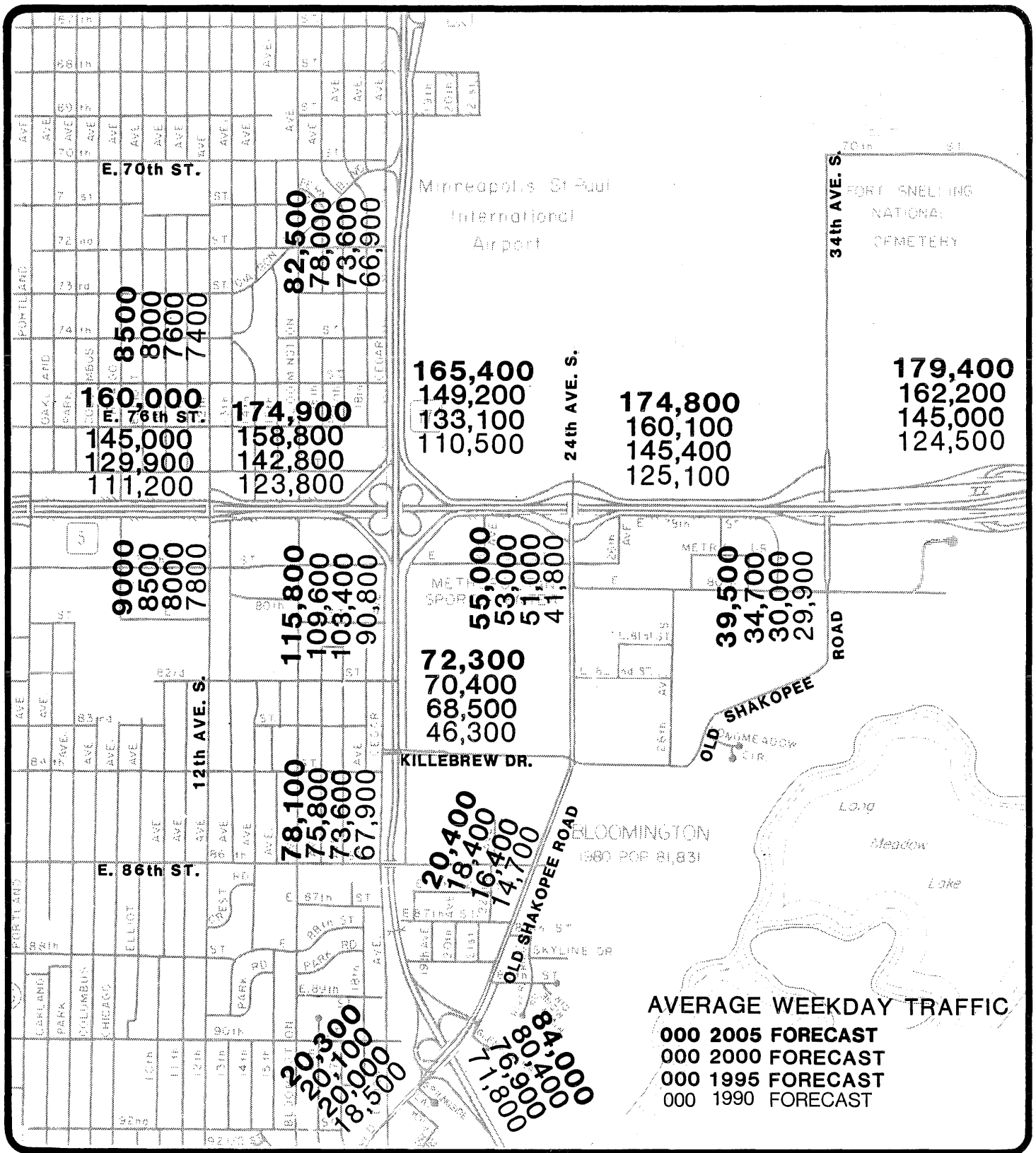
Figure 9 (Figure 2.4.B from the DEIS) has been revised to include forecast year 2000 average weekday traffic volumes. The 2000 forecasts were developed by extrapolating between the 1995 and 2005 average weekday forecasts. The DEIS contains a detailed discussion of the methodology and assumptions used to develop the 1995 and 2005 forecasts. The traffic forecasts were based on detailed forecasts of development in the Airport South District including the Mall of America and Fantasyworld for the years 1995 and 2005. No forecast of development was prepared for the year 2000 in the Airport South District. The assumption built into the year 2000 forecasts is that development in the Airport South District is at an intermediate stage between the 1995 and 2005 development levels and that the Mall of America and Fantasyworld is at an intermediate stage between the 2A and 3A alternatives analyzed in the EIS for that development.

4.1.2 Levels of Service for Roadway Alternatives

A capacity analysis of each of the roadway alternatives was conducted for the DEIS using the procedures of the 1985 Highway Capacity Manual. Mainline flows, ramp merges, ramp diverges, and weaving areas were analyzed and the bottleneck locations or congestion points were identified for each alternative. Since Alternative 1 is the only alternative with the capacity to serve the year 2005 forecast peak-hour volumes, an analysis was conducted to determine the number of hours that the congested conditions were expected to exist on an average weekday under each alternative.

The congestion points or bottlenecks in the project area associated with the proposed first stage roadway improvements are as follows:

- o TH 77 at the northerly limit of the project where the proposed improvements tie back into the existing facility.
- o I-494 between 12th Avenue and TH 77.



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FIGURE 9 (DEIS 2.4.B)
 Forecast Average Weekday Traffic

- o I-494 between the loops of the TH 77/I-494 cloverleaf interchange.

The congestion points or bottlenecks identified above are the points where level of service "F" is forecast. Level of Service "E" represents operating conditions at or near the capacity level. Level of Service "F" is used to define forced or breakdown flow. This condition exists wherever the amount of traffic approaching a point exceeds the amount of traffic which can traverse the point.^{1/} Level of Service "F" is used to describe the point of congestion as well as the operations within the queue forming behind the congestion point. Although flows substantially less than capacity may occur within the queues, the flows at the point of congestion are usually capacity flows or about 2000 vehicles per hour per lane.^{2/}

At the point of congestion or bottleneck all speeds are reduced to a low but relatively uniform value. Freedom to maneuver within the traffic stream is extremely limited; comfort and convenience levels are extremely poor. Average speeds of 20 to 25 mph are typical at the point of congestion and in the queues which form behind the congestion point. Operations within the queues are characterized by stop and go waves. Vehicles may progress at reasonable speeds for several hundred feet or more, then be required to stop in a cyclic fashion. In many cases the operating conditions of vehicles discharged from the queue may be quite good.

As previously indicated, the congestion points or bottlenecks were identified for this EIS based on an analysis of the mainline flows as well as the ramp merges, ramp diverges, and weaving areas using the procedures in the 1985 Highway Capacity Manual. These procedures provide reasonable results if flow rates are within the range of flow rates used to develop the equations, at least level of service "D" or better. It is also reasonable to use the procedures to identify potential bottleneck locations, that is, where less than level of service "D" is forecast. However the procedures do not always provide reasonable answers when used to analyze capacity flows where the speeds are relatively low and vehicles not involved in ramp movements attempt to avoid congestion by moving to the median lanes. The results of the analysis therefore indicate the likely

^{1/} Transportation Research Board, Highway Capacity Manual. Special Report 209, Washington D.C., Transportation Research Board, 1985.

^{2/} Urbanik, Thomas, II Understanding Forced Flow, ITE Journal, October 1986, pg. 23.

congestion points but do not necessarily indicate the traffic operations at the congestion point or in the queues behind these congestion points.

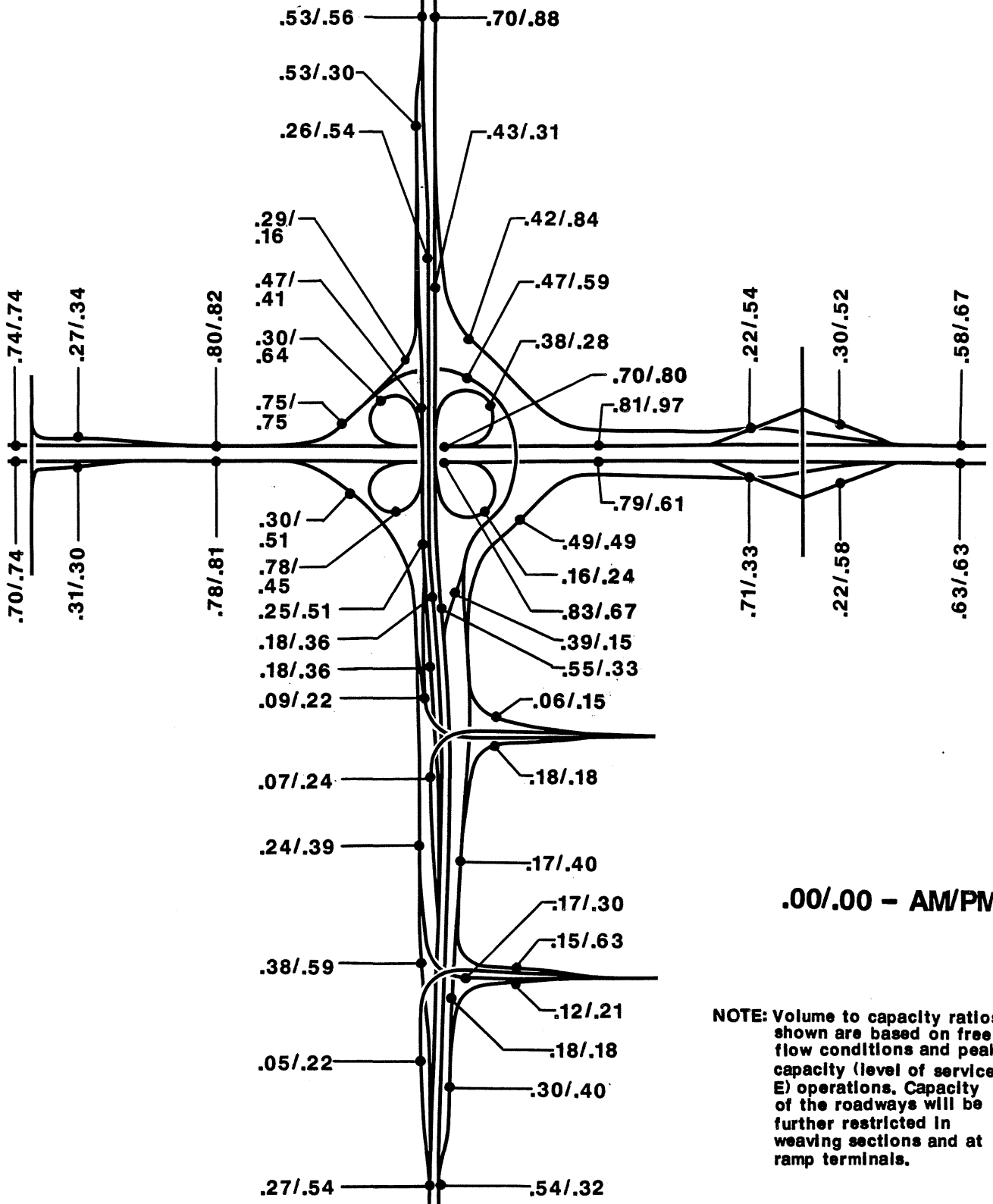
The analysis conducted for the EIS assumed three percent trucks and a .95 peak hour factor which resulted in the following vehicle per hour flow rates.

TABLE 8
LEVEL OF SERVICE FLOW RATES

Level of Service	Merge Flow Rates (vph/lane)	Diverge Flow Rates (vph/lane)	Freeway Flow Rates (vph/lane)
A	< 561	< 601	---
B	< 931	< 981	< 931
C	<1351	<1401	<1301
D	<1631	<1671	<1581
E	<1861	<1861	<1861

The resulting capacity flow rate of 1,860 vehicles per hour per lane is somewhat less than the 2,000 vph/lane flow rate considered possible under ideal conditions. The 1985 highway capacity manual contains data indicating that flow rates as high as 2,700 vph/lane are possible and the Minnesota Department of Transportation traffic management center frequently monitors traffic flow rates on I-35W in excess of 2,000 vph/lane.

Figure 10 shows the forecast volume to capacity ratios for the stage I improvements using the 1995 forecast A.M. and P.M. peak-hour volumes and a capacity flow rate of 2,000 vph/lane. Figure 11 shows the forecast volume to capacity ratios for the ultimate improvements using the 2005 forecast A.M. and P.M. peak hour volumes and a capacity flow rate of 2,000 vph/lane. A capacity flow rate of 2,000 vph/lane was used instead of the 1,860 vph/lane because the data cited above indicates that the proposed design with metered ramps would be able to accommodate a flow rate of 2,000 vph/lane or more. Although the analysis based on the 1985 highway capacity manual indicates level of service "F" at a number of locations on the proposed Stage I and ultimate improvements, there are no locations where the volume to capacity ratio exceeds 1.00. This does not mean that breakdown conditions won't occur, but that the section of roadway should be able to pass the forecast demand during that hour.



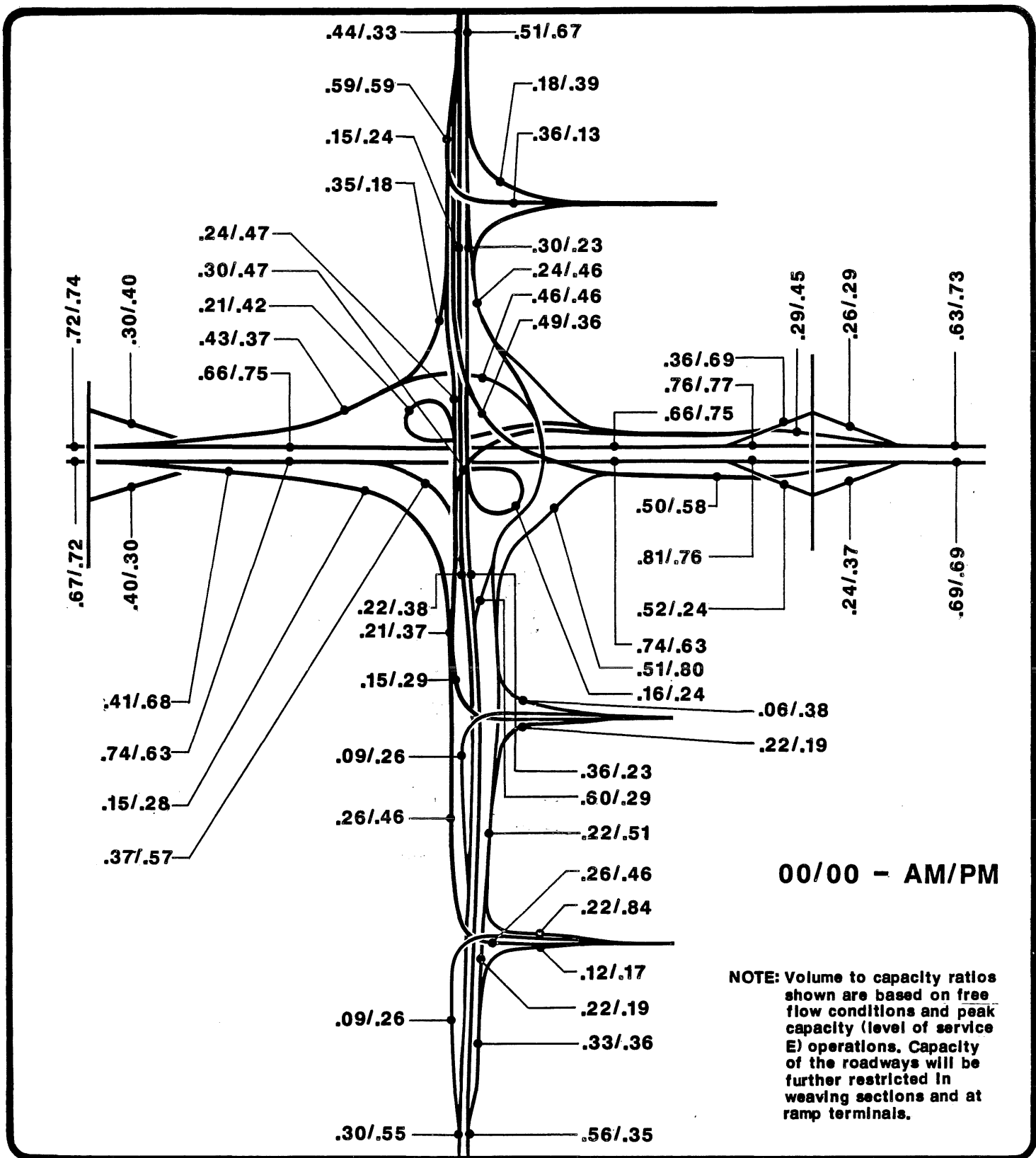
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FIGURE 10
1995 Forecast Peak Hour
Volume/Capacity Ratios



NOTE: Roadways shown are a schematic representation of proposed roadway improvements for the purpose of displaying volume/capacity ratios.





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FIGURE 11
2005 Forecast Peak Hour
Volume/Capacity Ratios



NOTE: Roadways shown are a schematic representation of proposed roadway improvements for the purpose of displaying volume/capacity ratios.



4.1.3 Other Transportation Impacts

The DEIS contained discussions of the impacts of the alternatives relative to other modes of transportation including the impacts on transit, bicycle and pedestrian traffic, and changes in travel patterns and accessibility. Comments on the DEIS pointed out several areas where specific impacts were missed or where conditions have changed since the preparation of the DEIS. A brief discussion of each of these areas is included below.

4.1.3.1 Continuous East TH 77 Frontage Road

The 2005 design concept proposes to eliminate the continuous frontage road on the east side of TH 77 between the 75th Street access and the access at 66th Street. The Metropolitan Airports Commission commented that the frontage road should be retained for safety reasons. Similar access is available using TH 77.

4.1.3.2 Future Interchange at 75th Street

The 2005 design concept does not provide access to the west side of TH 77 at 75th Street. Comments made by the City of Richfield on the DEIS indicated that access to and from TH 77 from the frontage road on the west side of TH 77 should be provided as a part of the 2005 design concept.

4.1.3.3 Transit Routes

The build alternatives, Alternatives 1 and 1A, would require some minor changes to existing transit routes within the project area, but by increasing roadway capacity would allow transit service on existing routes through the area to improve. The connection of 79th Street under TH 77 would provide a potential new route to the Airport South District and the Mall of America and Fantasyworld using the local street system, should transit agencies determine a need for such an additional route.

The two no-build alternatives, Alternatives 2 and 3, propose no roadway improvements. Transit routes would not change, but as traffic congestion in the project area increased, transit service would be caught in the same traffic bottlenecks as automobile and truck traffic.

4.1.3.4 Bicycle and Pedestrian Traffic

The first stage improvements of the proposed project will include removal of the east sidewalk of the 12th Avenue bridge in order to provide an additional southbound traffic lane for left-turns to the on-ramp to eastbound I-494. The

sidewalk on the west side of the bridge will remain. Pedestrians wanting to cross I-494 from the east side of 12th Avenue will have to cross 12th Avenue to use the sidewalk on the west side of the bridge.

4.1.3.5 Business Access South of I-494 Between 24th Avenue and 34th Avenue

The DEIS indicated that 79th Street could be extended from 24th Avenue to Metro Drive in the 2005 project design (Alternative 1) to replace the lost frontage access to the Excel Inn, the Sheraton Motel, the VFW Hall, an unnamed office building and T.O. Plastics. Although not shown in Figure 3, this extension of 79th Street has been included as part of the 2005 project design.

4.1.4 Air Transportation

4.1.4.1 Impact on 50:1 Approach Surface

The DEIS identified a three-foot penetration of the 50:1 approach surface for the proposed Runway 4/22 extension as one of the impacts of Alternative 1, the ultimate roadway improvement. This assessment was based on preliminary conceptual layouts of the four-level TH 77/I-494 interchange, which positioned the deck surface of the top interchange ramp approximately fourteen feet below the bottom of the 50:1 approach surface for the runway extension. The FAA requires a seventeen-foot clearance area between the road surface on interstate highways and the 50:1 approach surface.

Since completion of the DEIS, the roadway and structural geometrics of the TH 77/I-494 interchange have been refined to eliminate the three-foot penetration into the 50:1 approach surface. The FAA-required seventeen-foot clearance area will be provided. The preferred alternative (Alternative 1) will therefore not penetrate the approach surface for the proposed runway 4/22 extension and will not impact air traffic at MSP.

4.1.4.2 Required FAA Documents

The Federal Aviation Administration, a cooperating agency on this project, requires the preparation of two documents relating to airport property: a Notice of Proposed Construction (Form 7460-1) and a Land Release.

Notice of Proposed Construction

On January 20, 1987, The Great Lakes Region FAA office completed the Acknowledgement of Notice of Proposed

Construction or Alteration, included in the Appendix of this FEIS. The Acknowledgement contained the following determination:

"The proposed construction is not identified as an obstruction under any standard of FAR, Part 77, Subpart C and would not be a hazard to air navigation.*"

The determination was referenced to the following qualifier:

" * Stage I does not include the third and fourth or highest level of bridges in the Interchange. Preliminary study of future Stage II plans revealed a three-foot penetration into FAA obstruction standards. Study did not include temporary construction equipment or light standards."

A copy of the Acknowledgment is included in the Appendix.

Land Release

The Metropolitan Airports Commission, as operator of Minneapolis-St. Paul International Airport, is required to request that the land owned by MAC to be acquired by this project be released by the Federal Aviation Administration. The Commission incurred specific obligations with respect to the uses of its property when the property was acquired with a federal airport development grant or conveyance of federal surplus property for airport purposes. The MAC is therefore preparing a request, known as a land release, to be released by the FAA from obligations incurred when the affected land came into MAC control.

The FAA will consider the effects of covenants, if any, which encumber the title, and the extent of federal ability to enforce these covenants subsequent to the release action in making the final determination. The standard conditions of release relate to the right of flight, including the right to make noise from flight activity, and the prohibition against the erection of obstructions or other actions which would interfere with the flight of aircraft over the land released. As a cooperating agency, the FAA may adopt this FEIS as the required federal environmental assessment document describing the environmental consequences of the release action.

The land release is being requested for the area shown in Figure 12. The figure presents an enlarged view of the study area including delineation of MAC property and nearby land uses. All of the land to be released would be used for ground transportation purposes. The MAC has indicated that the land to be released is not needed for aeronautical purposes.

Among the land uses illustrated on Figure 12 are two soft-ball fields on MAC property north of the proposed new frontage road. The fields are located on land not intended for public or recreational use. They are used by MAC employees only, and are not public recreation facilities. The soft-ball fields are not affected by the proposed frontage road alignment.

4.1.4.3 Future MAC Master Plan Revisions

The Metropolitan Airports Commission is currently working on an update to the MSP Airport Master Plan. As part of the Master Plan update, a new west passenger terminal may be proposed, which could require revisions to the highway access to the airport. Should a new terminal be planned, one of the highways from which access may be desirable would be TH 77 between I-494 and CSAH 62 to the north.

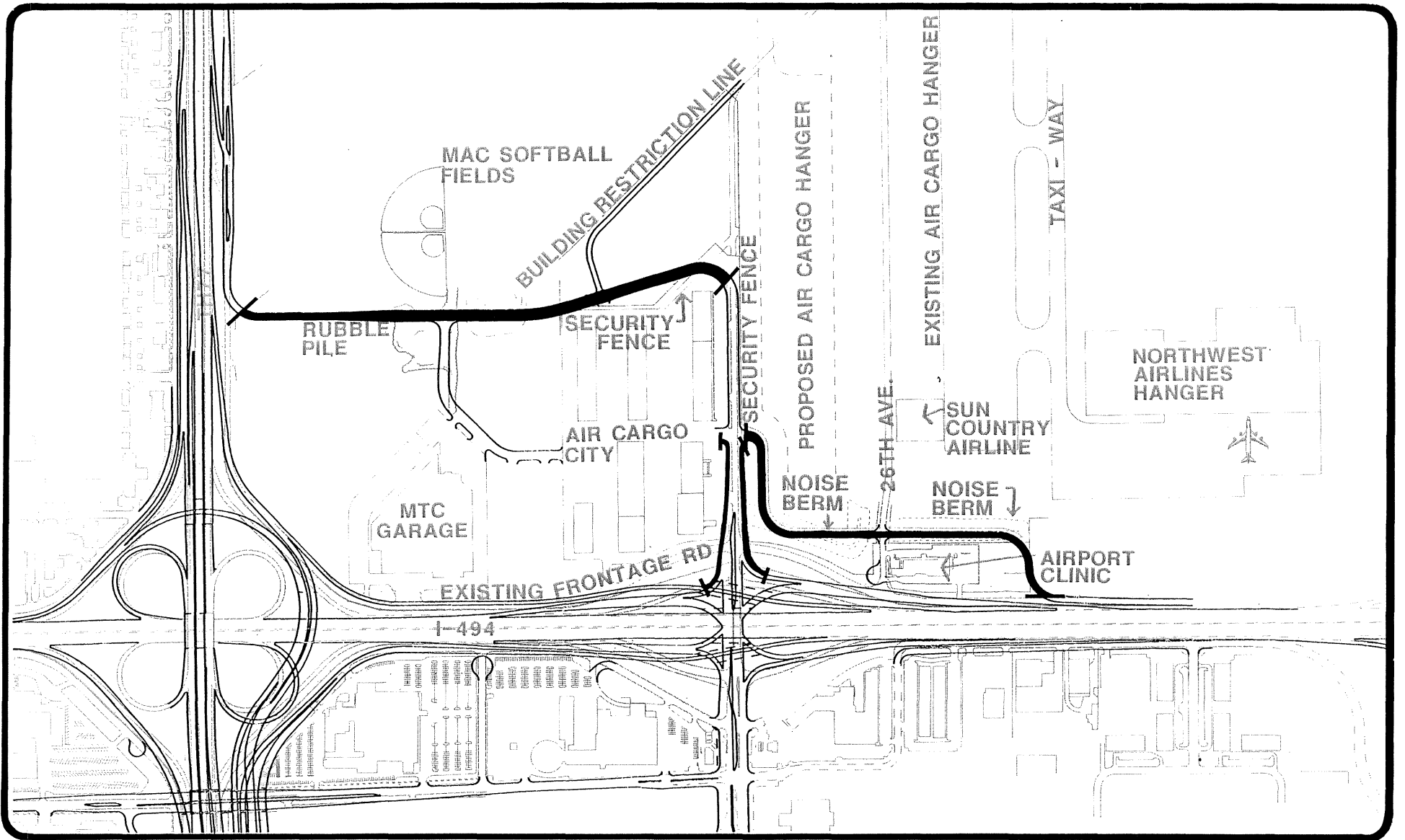
The improvements proposed in the first stage of the preferred alternative would not preclude future access changes along TH 77. The ultimate improvements described for the preferred alternative and illustrated in Figure 3.2.A do not include access to airport property along TH 77. However, the preferred alternative has been developed in conceptual terms only and can be modified during preliminary design to accommodate a future west terminal access, a directional interchange in the vicinity of 75th Street as requested by Richfield, and/or other changes recommended by the proposed TH 77 study described in Section 5.3.

4.2 AIR QUALITY

4.2.1 Background CO Monitoring - Analysis and Results

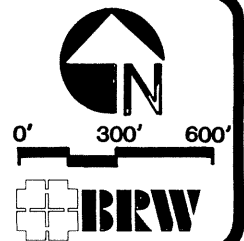
Background CO concentrations have been estimated through analysis of CO monitoring data collected at two sites in the project area. The monitoring was conducted by Interpoll, Inc. and is fully documented in Interpoll Report Number 7-2363 dated May 4, 1987. The two sites are shown on Figure 12A and described below:

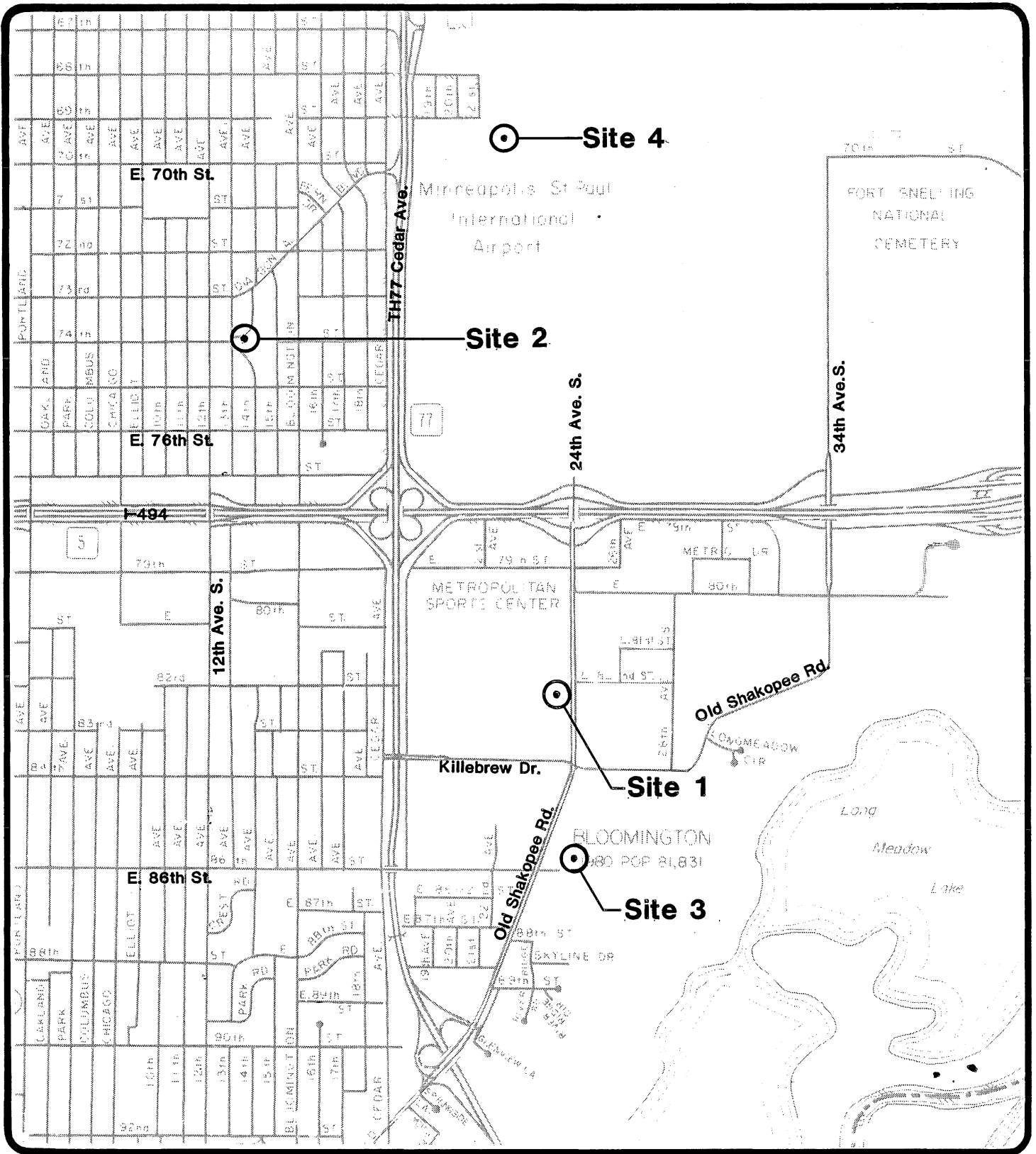
- o Site 1 - Stadium Site - This monitoring site was located on the west side of 24th Avenue just south of 82nd Street on the former Metropolitan Stadium site. CO concentrations were monitored continuously between March 22, 1987 and April 10, 1987 using a Monitor Labs Model 8310 Carbon Monoxide Analyzer. The monitor air intake was located approximately 80 feet west of 24th Avenue which carries approximately 9,000 vehicles per day. The first few days of monitoring at this site were interrupted by power losses. The power outages were caused by manual power shut-offs by staff of the



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FIGURE 12
MSP Land Release Area -
5.9 Acres

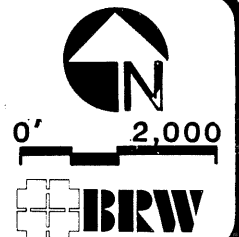




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FIGURE 12A

Carbon Monoxide
Monitoring Sites



Met Center which used the drive adjacent to the monitoring site for exiting vehicles following Met Center events.

Site 2 - Wilson Park - This monitor was located near the corner of 74th Street and 14th Avenue in Wilson Park in Richfield. Monitoring was conducted continuously between April 11, 1987, and April 25, 1987, using a Dasibi Model 3003 NDIR Carbon Monoxide Analyzer. Neither 74th Street nor 14th Avenue carry significant traffic volumes.

At both of these sites, the monitor was manually zeroed and spanned on a daily basis to assure proper calibration. Linearity checks of the instruments were conducted at the beginning and end of each monitoring period. The MPCA audited the Site 1 monitor on April 2, 1987 and the Site 2 monitor on April 22, 1987.

The monitoring was conducted in response to a request by staff of the MPCA who determined that previous CO monitoring conducted in November, 1982 was out of date. The locations monitored in 1982 are identified as monitoring sites 3 and 4 on Figure 12A. These values were added to predicted CO concentrations from local sources determined through modeling to predict total CO concentrations in the Draft EIS. The background CO concentrations determined from the 1982 study are as follows:

TABLE 9
BACKGROUND CO CONCENTRATIONS BASED ON 1982 MONITORING

YEAR	BACKGROUND CO (PPM)	
	ONE-HOUR	EIGHT-HOUR
1982	8.9	5.8
1990	5.9	3.9
1995	5.4	3.5
2000	5.5	3.6

Tables 10 and 11 show the 1-hour average concentrations and 8-hour average concentrations monitored at Site 1. Tables 12 and 13 show the concentrations monitored at Site 2. The results of the 1987 monitoring program are summarized in Table 14.

TABLE 10

MONITOR DATA REPORT

Prepared by: BRW, Inc.
File Name: BLOOM1.DAT

For Month of: March, April, 1987

Report of One-Hour Averages

Site: 1 - Former Met Stadium
Hennepin County, Minnesota

Location: 24th Avenue at 82nd Street
Height: 12 feet

Pollutant: Carbon Monoxide
Units: Parts per Million
Minnesota State Standard: 30 parts per million

Collection Method: Instrumental
Analysis Method: Nondispersive Infrared

Date	Day of Week	Day of Year	Average For One-Hour Period (Central Standard Time)																								Daily				
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Max.	Ave.			
22	S	81													0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
23	M	82	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	2.0	2.0	2.2	2.3	2.3	2.6	3.5	4.0	3.2	3.3	3.0	3.3	5.0				5.0	1.8	
24	T	83										0.5	0.5	1.0	1.5	2.0	1.8	1.7	1.7	1.9	1.9	1.2	0.7	0.5	0.6	1.5	1.0		2.0	1.3	
25	W	84	1.0	1.0	0.9	0.8	0.5	0.5	0.5	1.5	2.2	2.0	2.2	2.3	2.3	2.1	2.0	2.2	2.5	2.5	2.3	2.3	2.0	2.1	1.8	1.5		2.5	1.7		
26	T	85	1.5	1.5	1.5	1.5	1.5	1.5	1.8	2.0	0.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5	0.5		2.0	1.1		
27	F	86	0.0	0.0	0.0	0.0	0.0	0.5	1.0	0.5	0.4	0.3	0.3	0.5	0.9	1.0	1.3	1.5	1.5	1.5	1.3	1.0	0.0	0.0	0.0	0.0		1.5	0.6		
28	S	87	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0		0.8	0.1		
29	S	88	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.4	0.0	0.0		1.0	0.1		
30	M	89	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	4.0	1.0		4.0	0.2	
31	T	90	1.0	0.5	0.5	0.0	0.0	0.3	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.3	0.2	0.0		1.0	0.2		
1	W	91	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.3	0.2	0.0	0.0	0.0	0.0		0.3	0.0		
2	T	92	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.0	0.3	0.0	0.3	2.0	2.5	1.2		2.5	0.3	
3	F	93	1.8	1.0	0.3	0.4						1.5	1.0	0.8	0.8	1.0	1.0	1.0	0.8	0.9	0.7	1.0	0.9	1.0	0.8	1.0		1.8	0.9		
4	S	94	0.8	2.5											1.0	1.1	1.3	1.3	1.4	1.4	2.0	1.8	2.0	1.8	3.0	5.0	4.0		5.0	2.0	
5	S	95	3.0	3.5		4.0	2.0	2.0	2.0	2.0	0.5	0.0	0.0	0.2	0.4	0.4	0.0	0.0	0.3	0.0	0.0	0.0	0.2	0.0	0.0	0.0		4.0	0.9		
6	M	96	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	1.8	1.5	1.4	1.5	1.5	1.5	1.7	2.0	2.0	2.0	1.8	1.9	2.0	1.5	2.0		2.0	1.2		
7	T	97	2.5	2.2	3.0	2.6	2.5	2.0	4.5	8.0	5.0	3.0	2.8	2.2	2.0	2.0	2.0	2.2	2.4	0.3	0.0	0.0	0.3	0.5	3.0	2.5		8.0	2.4		
8	W	98	2.0	1.5	2.5	1.0	0.5	1.0	2.5	1.5	1.0	0.5	0.6	1.0	1.3	1.0	1.0	1.0	1.3	1.2	1.0	1.3	1.0	0.9	0.6	0.5		2.5	1.2		
9	T	99	0.0	0.0	0.3	0.4	0.2	0.4	0.5	1.0	0.8	0.5	0.0	0.5	0.8	0.8	0.8	0.8	0.8	1.0	0.8	0.5	0.2	0.0	0.0	0.3		1.0	0.5		
10	F	100	0.5	0.8	0.5	0.5	0.5	0.5	0.7																				0.8	0.6	
11	S	101																													
12	S	102																													
13	M	103																													
14	T	104																													
15	W	105																													
16	T	106																													
17	F	107																													
18	S	108																													
19	S	109																													
20	M	110																													
21	T	111																													
Average			0.8	0.8	0.6	0.7	0.5	0.5	0.9	1.2	1.0	0.8	0.7	0.8	0.9	0.9	0.8	0.9	1.1	1.0	0.8	0.8	0.7	0.9	1.4	0.9		2.4	0.9		
Maximum			3.0	3.5	3.0	4.0	2.5	2.0	4.5	8.0	5.0	3.0	2.8	2.3	2.3	2.3	2.3	2.6	3.5	4.0	3.2	3.3	3.0	3.3	5.0	4.0		8.0	2.4		

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TABLE 11

MONITOR DATA REPORT

Prepared by: BRW, Inc.

File Name: BLOOM1.DAT

For Month of: March, April, 1987

Report of Eight-Hour Averages

Site: 1 - Former Met Stadium
Hennepin County, Minnesota

Location: 24th Avenue at 82nd Street
Height: 12 feet

Pollutant: Carbon Monoxide
Units: Parts per Million
Minnesota State Standard: 9 parts per million

Collection Method: Instrumental
Analysis Method: Nondispersive Infrared
* Insufficient data available to calculate 8-hour average.

Date	Day of Week	Day of Year	Average For Eight-Hour Period (Locally Observed Time) Ending:																							Daily			
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Max.	Ave.	
22	S	81	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
23	M	82	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.5	0.7	1.0	1.3	1.5	1.8	2.2	2.4	2.6	2.8	2.9	3.0	3.2	3.5	3.6	3.6	1.4	
24	T	83	3.6	*	*	*	*	*	*	*	*	*	*	*	*	1.2	1.3	1.3	1.5	1.7	1.7	1.6	1.4	1.3	1.3	1.2	3.6	1.6	
25	W	84	1.1	0.9	0.9	0.9	0.9	0.9	0.8	0.8	1.0	1.1	1.3	1.5	1.7	1.9	2.1	2.2	2.2	2.3	2.3	2.3	2.2	2.2	2.2	2.1	2.3	1.6	
26	T	85	2.0	1.9	1.8	1.7	1.6	1.5	1.5	1.6	1.5	1.4	1.4	1.3	1.2	1.2	1.1	0.9	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9	2.0	1.3	
27	F	86	0.8	0.6	0.5	0.4	0.3	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.6	0.6	0.7	0.8	0.9	1.1	1.2	1.3	1.1	1.0	0.9	0.7	1.3	0.6	
28	S	87	0.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.5	0.1
29	S	88	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1
30	M	89	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6	0.7	0.7	0.1
31	T	90	0.8	0.9	0.9	0.9	0.9	0.9	0.5	0.5	0.4	0.3	0.2	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.9	0.4
1	W	91	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
2	T	92	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*	*	*	*	*	*	0.1	0.1	0.1	0.1	0.1	0.4	0.7	0.8	0.8	0.1
3	F	93	1.0	1.1	1.1	1.2	1.3	1.2	*	*	*	*	*	*	*	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.3	1.0
4	S	94	0.9	1.1	1.1	1.2	*	*	*	*	*	*	*	*	*	*	*	1.3	1.4	1.4	1.5	1.6	1.8	2.3	2.6	2.6	2.6	1.5	1.5
5	S	95	2.8	3.0	3.2	3.5	3.5	3.4	2.9	2.6	2.3	1.8	1.6	1.1	0.9	0.7	0.4	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	3.5	1.4	
6	M	96	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.5	0.7	0.8	1.0	1.2	1.4	1.6	1.6	1.6	1.7	1.8	1.8	1.9	1.9	1.9	1.9	1.9	0.9
7	T	97	2.0	2.0	2.1	2.2	2.3	2.3	2.7	3.4	3.7	3.8	3.8	3.8	3.7	3.7	3.4	2.7	2.3	2.0	1.6	1.4	1.2	1.0	1.1	1.1	3.8	2.5	
8	W	98	1.1	1.2	1.5	1.7	1.7	1.8	1.7	1.6	1.4	1.3	1.1	1.1	1.2	1.2	1.0	0.9	1.0	1.1	1.1	1.1	1.1	1.1	1.0	1.0	1.8	1.2	
9	T	99	0.8	0.7	0.6	0.5	0.4	0.3	0.3	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.7	0.6	0.6	0.7	0.8	0.8	0.7	0.6	0.5	0.5	0.8	0.6	
10	F	100	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0.6	0.4	
11	S	101	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12	S	102	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13	M	103	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14	T	104	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15	W	105	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16	T	106	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17	F	107	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18	S	108	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19	S	109	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	M	110	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21	T	111	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Average			0.9	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.6	0.9	
Maximum			3.6	3.0	3.2	3.5	3.5	3.4	2.9	3.4	3.7	3.8	3.8	3.8	3.7	3.7	3.4	2.7	2.4	2.6	2.8	2.9	3.0	3.2	3.5	3.6	3.8	2.5	

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TABLE 13

MONITOR DATA REPORT

Prepared by: BRW, Inc.

File Name: BLODM2.DAT

For Month of: April, 1987

Report of Eight-Hour Averages

Site: 2 - Wilson Park - Richfield
Hennepin County, Minnesota

Location: 14th Avenue at 74th Street
Height: 12 feet

Pollutant: Carbon Monoxide
Units: Parts per Million
Minnesota State Standard: 9 parts per million

Collection Method: Instrumental
Analysis Method: Nondispersive Infrared
* Insufficient data available to calculate 8-hour average.

Date	Day of Week	Day of Year	Average For Eight-Hour Period (Locally Observed Time) Ending:																								Daily			
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Max.	Ave.		
11	S	101	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
12	S	102	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1		
13	M	103	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
14	T	104	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
15	W	105	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.1		
16	T	106	0.4	0.5	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.1	0.2	0.4	0.6	0.3	
17	F	107	0.6	0.9	1.2	1.4	1.5	1.6	1.6	1.6	1.8	1.6	1.4	1.1	0.9	0.8	0.7	0.5	0.2	0.0	0.0	0.0	0.0	0.1	0.3	0.4	0.4	1.8	0.8	
18	S	108	0.4	0.4	0.5	0.6	0.5	0.4	0.3	0.3	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	
19	S	109	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
20	M	110	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
21	T	111	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
22	W	112	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	0.3	0.1	
23	T	113	0.3	0.4	0.5	0.6	0.7	0.8	0.8	0.9	1.0	0.9	0.8	0.7	0.6	0.5	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.4
24	F	114	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	S	115	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	S	116	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
27	M	117	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
28	T	118	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
29	W	119	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
30	T	120	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
1	F	121	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
2	S	122	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
3	S	123	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
4	M	124	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	T	125	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
6	W	126	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
7	T	127	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
8	F	128	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
9	S	129	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10	S	130	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11	M	131	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Average			0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	0.1	
Maximum			0.6	0.9	1.2	1.4	1.5	1.6	1.6	1.6	1.8	1.6	1.4	1.1	0.9	0.8	0.7	0.5	0.2	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.4	1.8	0.8	

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TABLE 14
1987 CO MONITORING SUMMARY

	1-HOUR AVERAGE CO					8-HOUR AVERAGE CO	
	PERCENTILE			MAXIMUMS		MAXIMUMS	
	50%	90%	99%	OVERALL	3-7:00 PM	OVERALL	3-7:00 PM
SITE 1	0.4	2.2	4.5	8.0	4.0	3.8	2.8
SITE 2	0.0	0.5	2.0	2.5	0.2	1.8	0.2

NOTE: Percentile refers to the percentage of monitored concentrations below the specified concentration.

The maximum monitored CO concentrations at Site 1 were 8.0 PPM 1-hour average and 3.8 PPM 8-hour average. These maximum concentrations occurred on April 7 during the time between 5:00 AM and noon. At Site 2, the maximum concentrations were 2.5 PPM 1-hour average and 1.8 PPM 8-hour average which occurred between midnight and 8:00 AM on April 17. Two observations regarding these maximum monitored concentrations are:

- o The maximums did not coincide with PM peak hour traffic volumes on surrounding roadways. While the peak concentrations at Site 1 coincided with the AM peak hour traffic period, the peak concentrations at Site 2 occurred during the night.
- o While both of the sites were located to monitor background traffic volumes and minimize the influence of local sources, concentrations at Site 1 were significantly higher than those at Site 2. This difference may be due to local influence on Site 1 from 24th Avenue and the Met Center parking lot, differences in meteorology between the two weeks monitored at Site 1 and the subsequent two weeks monitored at Site 2, and/or actual differences in background CO concentrations. It is unlikely that the differences reflect actual differences in background CO concentrations since the two sites were only 1.25 miles apart.

The following procedures have been used to estimate worst case background CO concentrations from the monitoring data. These calculations are shown in Table 15.

- o Select the maximum CO concentrations occurring during the peak traffic hours of the project. The peak traffic hour is approximately 4:30 to 5:30 PM. Between the

TABLE 15
DERIVATION OF BACKGROUND CO CONCENTRATIONS

	1-Hour	8-Hour
Maximum Monitored Concentrations (PPM) (PM Peak Period 3 to 7:00 PM)	4.0	2.8
Less Local Contribution (PPM)	<u>0.3</u>	<u>0.3</u>
Net Background CO (PPM)	3.7	2.5
Holzworth Adjustment (Spring to Winter)	1.1806	1.1806
Temperature Adjustment (50 to 20 degrees F)	<u>1.5457</u>	<u>1.5457</u>
<u>1987 Worst Case Background CO (PPM)</u>	<u>6.8</u>	<u>4.6</u>
1990 VMT Adjustment	1.0612	1.0612
1990 Emission Rate Adjustment	<u>0.8733</u>	<u>0.8733</u>
<u>1990 Worst Case Background CO (PPM)</u>	<u>6.3</u>	<u>4.2</u>
1995 VMT Adjustment	1.1717	1.1717
1995 Emission Rate Adjustment	<u>0.7448</u>	<u>0.7448</u>
<u>1995 Worst Case Background CO (PPM)</u>	<u>5.9</u>	<u>4.0</u>
2000 VMT Adjustment	1.2936	1.2936
<u>2000 Emission Rate Adjustment</u>	<u>0.6871</u>	<u>0.6871</u>
<u>2000 Worst Case Background CO (PPM)</u>	<u>6.0</u>	<u>4.1</u>
2005 VMT Adjustment	1.4282	1.4282
<u>2005 Emission Rate Adjustment</u>	<u>0.6735</u>	<u>0.6735</u>
<u>2005 Worst Case Background CO (PPM)</u>	<u>6.5</u>	<u>4.4</u>

hours of 3:00 and 7:00 PM the maximum CO concentrations of 4.0 PPM 1-hour average and 2.8 PPM 8-hour average occurred at site 1. During the same time period at site 2, the maximum monitored concentrations were 0.2 PPM 1-hour and 8-hour average.

- o Estimate the CO contribution of local roadways to the selected monitored concentrations. During the PM peak hour period with the maximum CO concentrations, winds were blowing at 20 degrees from north at approximately 6 knots. Using these meteorological parameters and existing traffic counts on 24th Avenue, the local CO contribution from 24th Avenue traffic was estimated to be 0.3 PPM. This analysis was completed using the methodology given in the Draft EIS. This local contribution is subtracted from the maximum monitored concentrations to arrive at a background concentration exclusive of local sources.
- o Adjust the background concentrations monitored during the spring to a worst case winter season. This adjustment is based on the Holzworth methodology given in Guidelines for Air Quality Maintenance, Planning and Analysis, Volume 9 (Revised): Evaluating Indirect Sources (EPA-405/4-78-001). The Holzworth adjustment corrects for seasonal variations in wind speed and atmospheric mixing height.
- o Adjust the background CO concentrations to a temperature of 20 degrees fahrenheit. The worst case concentrations were monitored with temperatures of 50 degrees. Using the ratio of average emission rates at 20 degrees to average emission rates at 50 degrees as given by the MOBILE3 emissions model, the background CO concentrations are adjusted upwards to reflect a lower worst case temperature.

These procedures yield estimates of worst case 1987 background CO concentrations. To estimate background CO concentrations in future project years, two influencing factors are considered. First, vehicle miles of travel in the Twin Cities area will increase which will tend to increase background CO concentrations. Second, emission control devices on new vehicles will reduce average vehicular emissions rates which will tend to decrease background CO concentrations. The correction for vehicle miles of travel (VMT) is based on a compound annual growth rate of 2% per year. The correction for average emission rates is the ratio of target year emission rates to 1987 emission rates from the MOBILE3 model with 20 MPH average speeds. These corrections are also shown in Table 15.

The analysis of the 1987 CO monitoring indicates background CO concentrations somewhat higher than those derived from the 1982 CO monitoring data and used in the analysis contained in the Draft EIS. Based on the revised estimates of background CO concentrations, following is a discussion of the revised CO concentration estimates in each analysis area.

Area A - TH 77 at Killebrew Drive and 81st Street. In this study area, the revised background CO concentrations result in maximum predicted CO concentrations of 7.3 PPM 1-hour average and 5.0 PM 8-hour average associated with Alternative 1A in the year 1990. Year 2005 maximum concentrations associated with Alternative 1 are 7.8 PPM 1-hour average and 5.3 PPM 8-hour average.

Area B - 24th Avenue at I-494 and 79th Street. In this study area, maximum CO concentrations are predicted to be 12.1 PPM 1-hour average and 8.6 PPM 8-hour average in 1990 with Alternative 1A. In the year 2005 with Alternative 1, maximum predicted CO concentrations are 11.9 PPM 1-hour average and 8.4 PPM 8-hour average. The Draft EIS stated that receptor B3, representing a service station in the northwest corner of the intersection of 24th Avenue and 79th Street, would be taken as part of the widening of 24th Avenue. Since preparation of the Draft EIS it has been determined that although the service station will be displaced from its present location, it is likely to be reconstructed further to the west. Analysis of a receptor site located 20 feet west of the existing service station yielded maximum predicted CO concentrations of 11.8 PPM 1-hour average and 8.4 PPM 8-hour average.

Area D - I-494 at Nicollet Avenue. This area was analyzed to represent typical conditions along I-494 in the transportation analysis area west of the project site. The analysis contained in the Draft EIS assumed I-494 peak hour average operating speeds of 10 MPH and 30 MPH average operating speeds on I-494 during the peak 8-hour period. The analyses assumed 1.0 meter per second wind speeds and a constant wind direction of 110 degrees from north. This conservative set of assumptions was used to identify potential problem areas among the receivers analyzed. With these worst-case assumptions and the revised background CO concentrations, maximum CO concentrations of 18.3 PPM 1-hour average and 9.2 PPM 8-hour average are predicted. The predicted worst case 8-hour concentration exceeds the 8-hour standard of 9 PPM.

The predicted worst case concentration at the I-494/Nicollet Avenue interchange prompted additional air quality analyses. These additional analyses consider the effect of increased

average operating speeds on I-494, variable wind directions, increased wind speeds, and meteorological persistence. The results of these analyses are shown in Table 16.

The analyses indicate that all of the meteorological and traffic worst-case assumptions must occur simultaneously in order to predict a violation of the 8-hour CO standard. Any modification of one of these variables--changing wind direction by ten degrees or more, increasing 8-hour average vehicle speed on I-494 by five miles per hour, increasing wind speed by five miles per hour, or changing the persistence factor to simulate varying wind speeds and directions--reduces the predicted concentration below the state 8-hour standard. These modified scenarios are more representative of actual worst-case conditions than the worst case scenario presented in the Draft EIS. Therefore, it is reasonable to conclude that the project will not result in violation of air quality standards along I-494. The cases analyzed are discussed below:

- o Case 1 - This is the worst case condition presented in the Draft EIS.
- o Case 2 - With an average 8-hour wind speed of 1.5 meters per second, the predicted peak 8-hour concentration would be reduced to 7.5 PPM. It is extremely rare for wind speeds of 1.0 meters per second or less to persist for eight consecutive hours, particularly during the day.
- o Case 3 - If a meteorological persistence factor of 0.7 is assumed, the predicted peak 8-hour CO concentration would be reduced to 6.4 PPM. A persistence factor would correct for varying wind speeds, wind directions, and atmospheric stability.
- o Cases 4,5,6,7 - If variations in wind direction of 10 degrees or more are assumed, predicted CO concentrations are reduced to below the standard. A variation of five degrees to the south (Case 5) reduces CO concentrations to below the standard. A variation of five degrees to the north (Case 6) yields predicted CO concentrations the same as Case 1. It is unlikely that winds would blow from 105 to 110 degrees at 1 meter per second for eight consecutive hours.
- o Cases 8,9,10 - If the average operating speed on I-494 for an 8-hour period is assumed to be 35 MPH rather than 30 MPH, the peak predicted 8-hour CO concentration is reduced to 8.5 PPM. While increased traffic volumes

TABLE 16
 PREDICTED WORST CASE 8-HOUR CO CONCENTRATIONS
 I-494 AT NICOLLET AVENUE

CASE	RECEPTOR	WIND SPEED (M/S)	WIND DIRECTION	PERSISTENCE FACTOR	I-494 SPEED (MPH)	PREDICTED 8-HOUR CO (PPM)
1.	D1	1.0	110	1.0	30	9.2
2.	D1	1.5	110	1.0	30	7.5
3.*	D1	1.0	110	0.7	30	7.6
4.	D1	1.0	120	1.0	30	7.8
5.	D1	1.0	115	1.0	30	8.4
6.	D1	1.0	105	1.0	30	9.2
7.	D1	1.0	100	1.0	30	8.9
8.	D1	1.0	105	1.0	35	8.4
9.	D1	1.0	100	1.0	35	8.2
10.	D1	1.0	110	1.0	35	8.5
11.	D1	1.0	165	1.0	30	6.4
12.	D1	1.0	90	1.0	30	6.8
13.	D1	1.0	270	1.0	30	4.4
14.	D1	1.0	260	1.0	30	5.2
15.	D1	1.0	250	1.0	30	6.2

* After consultation with staff of the Minnesota Pollution Control Agency Division of Air Quality, it has been determined that Case 3, which assumes a persistence factor of 0.7, is the most realistic and representative analysis of this area. Persistence factors of 0.6 to 0.7 are typically used in carbon monoxide analyses prepared for Indirect Source Permits. The publication Guidelines for Air Quality Maintenance, Planning and Analyses Volume 9 (Revised): Evaluating Indirect Sources (EPA-450/4-78-001) recommends the use of a persistence factor of 0.6 to 0.7. The use of a 1.0 persistence factor is overly conservative. As discussed in the Draft EIS (pages 5-18 through 5-21), a persistence factor of 0.7 is conservative, based on local conditions and monitoring data. A 0.7 persistence factor used in conjunction with the other conservative modeling assumptions yields a worst-case, yet realistic analysis of future CO concentrations. Thus, it is concluded that the project will not result in violation of air quality standards.

are likely to extend the AM and PM peak hours of congestion, average traffic speeds of 55 MPH during the middle of the day and in the evening will raise the 8-hour average operating speeds.

- o Cases 11,12,13,14,15 - Tests of five different wind directions do not indicate violations of the 8-hour standard.

Area F - I-494 Interchange with TH 77. In this study area, maximum CO concentrations of 12.2 PPM 1-hour average and 8.4 PPM 8-hour average associated with Alternative 1A in the year 1990 are predicted. Year 2005 maximum concentrations associated with Alternative 1 are 8.6 PPM 1-hour average and 5.9 PPM 8-hour average.

Area G - TH 77/CSAH 62 Interchange. Maximum predicted CO concentrations in the vicinity of this interchange are 9.9 PPM 1-hour average and 6.9 PPM 8-hour average. These concentrations are expected in the year 2005 with either the build or no-build alternatives.

The revised CO analyses indicate that the project will not result in potential violations of air quality standards.

4.2.2 Consistency with the State Implementation Plan

The project is in an area where the State Implementation Plan (SIP) is required to contain transportation control measures. The SIP was approved by the Environmental Protection Agency (EPA) on June 16, 1980. The Metropolitan Planning Organization passed a resolution on December 19, 1985, certifying that their transportation planning process fulfills all applicable federal requirements; Mn/DOT concurred on December 20, 1985. The FHWA accepted the Transportation Improvement Plan on January 30, 1987, and made the finding that the projects were developed in accordance with the provisions of 23 CFR Part 450, Subparts A and B.

The Twin Cities Metropolitan Area (Air Quality Control Region 131) is considered to be in attainment of the ambient air-quality standards for NO₂ (nitrogen dioxide) and O₃ (ozone) which is a secondary pollutant formed through a photochemical reaction involving nitrogen oxides and volatile organic compounds. A portion of the metropolitan area (not including the project area) is classified as nonattainment of the ambient air-quality standards for CO. For this reason, the air-quality analysis contained in the Draft EIS focused on expected concentrations of CO in the vicinity of the proposed project. This was entirely consistent with the

scope of the air-quality analysis documented in the draft and final Study Outline and Scoping Decision prepared for this project and reviewed by the EPA and the MPCA.

The project is not anticipated to result in a significant change in emissions of either nitrogen oxides or volatile organic compounds. The build and no-build alternatives are both anticipated to serve the same level of travel demand, so no significant change in overall vehicle miles of travel is expected. The build alternative is likely to result in less delay and higher average operating speeds in the project area. The effect of these differences will be an insignificant difference in emissions between alternatives.

With respect to CO, the Metropolitan Council prepared an Air Quality Control Plan for Transportation in January, 1980. This Control Plan focused on strategies intended to reduce CO concentrations in the Minneapolis CBD. In 1981, the Metropolitan Council prepared an amendment to the Air Quality Control Plan for Transportation addressing the intersection of Snelling and University Avenues in the Midway area of St. Paul. The proposed project is considered to be consistent with Air Quality Control Plan for Transportation and the SIP for the following reasons:

- o The air-quality analysis contained in the Draft EIS demonstrates that the proposed project will not result in violations of ambient air-quality standards for CO in the project area or in a number of representative locations outside the project area.
- o The project will have no impact on the intersection of Snelling and University Avenues or the remainder of the area in St. Paul which has been designated nonattainment of the ambient air-quality standards for CO. The project will not interfere with strategies which have been or may be implemented to bring this area into compliance with air-quality standards for CO.
- o The project will have no effect on the ability of regional and state agencies to implement and/or continue other strategies to control air quality in the metropolitan area. These other strategies mainly relate to controlling emissions of CO in the Minneapolis central business district and to increasing transit ridership. The proposed project will reduce traffic congestion and delay on TH 77 and I-494 which will have a beneficial impact on transit service using these routes.

- o The project is not anticipated to cause violations of CO standards outside the project area or interfere with the ability of other projects which have already been granted Indirect Source Permits (ISP) to attain air-quality standards. Both the build and the no-build alternatives in the Draft EIS are associated with the same level of travel demand. The highway improvement project will not generate traffic. The proposed project will not significantly change the mainline capacity of I-494. Thus, regardless of the project alternative selected, travel demand and resultant air quality outside the project area will be substantially the same.

Relative to previously-issued ISP's, a meeting was held with staff of the MPCA on April 7, 1987. At this meeting, the following areas and permits were discussed as being potentially impacted by the proposed project:

- o The ISP for the International Airport Park Plaza development in the Airport South District in Bloomington southeast of the 34th Avenue/I-494 interchange.
- o The ISP for the Mall of America and Fantasyworld project to be constructed in the Airport South District in Bloomington northeast of the Killebrew Drive/TH 77 interchange.
- o The TH 5 bridge over the Mississippi River north of TH 55.
- o The ISP for the Homart Development currently under construction in Bloomington northwest of the France Avenue/I-494 interchange.
- o The ISP for the Northland Plaza Development which is being constructed in Bloomington southeast of the France Avenue/I-494 interchange.
- o The ISP for the Edinborough Development which is being constructed in Edina northeast of the France Avenue/I-494 interchange.

The proposed roadway improvements were designed specifically to accommodate traffic associated with the Mall of America and Fantasyworld and other development in the Airport South District. The construction of the roadway improvements to TH 77 and I-494 is required as a condition of the Mall of America and Fantasyworld ISP to assure compliance with air-quality standards. The traffic associated with the Mall of America and the International Airport Park Plaza was included in the air-quality analysis contained in the Draft

EIS, which indicated no potential violations of air-quality standards. Thus, the proposed roadway improvement project will not interfere with the ability of these projects to attain air-quality standards.

Traffic volumes on the TH 5 bridge will increase because of traffic generated by new development in the Airport South District, growth in traffic generated by the Minneapolis-St. Paul International Airport, and general growth and new development in the rest of the metropolitan area. This increase in traffic will occur with or without the proposed improvements to TH 77 and I-494 except to the extent that development is contingent on the improvements. Traffic-volume forecasts and expected peak-hour level of service on the TH 5 bridge are shown below:

TABLE 17
DAILY TRAFFIC FORECASTS ON TH 5 BRIDGE

YEAR	WEEKDAY TRAFFIC VOLUME	PEAK HOUR LOS	SOURCE
1984	53,300	C	1
1986	47,200	C	1
1990	70,700	D	2
1995	76,500	E	3
2000	74,500	D	4
2005	77,200	E	3

SOURCES:

1. MnDOT 1984 Flow Map and preliminary 1986 Flow Map. LOS calculated using procedures given in the Mall of America and Fantasyworld Draft EIS.
2. Letter from BRW, Inc. to MPCA dated November 13, 1986, submitted in support of the Request for Modification of ISP 85-1.
3. Mall of America and Fantasyworld Final EIS.
4. Metropolitan Council Regional Travel Model 2000B trip table on F2000 highway network documented in the Mall of America and Fantasyworld Draft EIS.

The 1990 traffic-volume forecasts represent the level of development currently permitted in the Airport South District by the Mall of America and Fantasyworld ISP. To the extent that the traffic volume on TH 5 is dependent on development in the Airport South District, the volume will

not increase unless additional development is permitted in the District. As stated above, the improvement or lack of improvement to interchanges on TH 77 and I-494 will not affect the traffic volume on I-494. It should also be noted that there are alternative routes (I-494 bridge, Mendota bridge) expected to have excess capacity through the year 2005 which could accommodate traffic diverted from the TH 5 bridge by capacity restraints.

Traffic demand in the vicinity of the France Avenue/I-494 interchange will increase as a result of the projects under construction in the interchange area, development in the Airport South District, development at other locations in the I-494 corridor, and general growth and development in the metropolitan area. The growth in actual traffic volumes will be restricted by areas on I-494 with reduced capacity.

As discussed above, the improvement or lack of improvement to interchanges on TH 77 and I-494 will not affect the traffic volume on I-494. Existing and forecast traffic demand volumes on I-494 west of France Avenue are shown below.

TABLE 18
DAILY TRAFFIC FORECASTS ON I-494 WEST OF FRANCE AVENUE

YEAR	WEEKDAY TRAFFIC VOLUME	PEAK HOUR LOS	SOURCE
1984	104,700	C	1
1986	108,000	D	1
1990	124,400	D	2
1995	128,600	E	3
2000	131,400	E	4
2005	137,620	E	3
2010A	161,000	F	5
2010B	204,000	F	5

SOURCES:

1. MnDOT 1984 Flow Map and preliminary 1986 Flow Map. LOS calculated using procedures given in the Mall of America and Fantasyworld Draft EIS.
2. Letter from BRW, Inc. to MPCA dated November 13, 1986, submitted in support of the Request for Modification of ISP 85-1.
3. Mall of America and Fantasyworld Final EIS.
4. Metropolitan Council Regional Travel Model 2000B trip table on F2000 highway network documented in the Mall of America and Fantasyworld Draft EIS.
5. I-494 Corridor Study, based on Metropolitan Council land use forecasts.

The proposed improvements to the TH 77/I-494 area will have little if any affect on traffic operations in the vicinity of France Avenue and I-494. While the proposed project will improve traffic operations at the I-494/TH 77 interchange, other locations on I-494 will continue to have capacity deficiencies. Traffic flow in the vicinity of the France Avenue interchange will continue to be mainly influenced by capacity restraints at the I-35W/I-494 interchange, the TH 100/I-494 interchange, and the four-lane section of I-494 west of TH 100. These bottleneck areas will effectively meter the traffic volumes on I-494 and restrict the ability of the road system to deliver additional traffic to the France Avenue interchange area. This condition is the major reason that the TH 77/I-494 improvements are proposed in two stages with the ultimate improvements predicated upon the provision of additional capacity on I-494 west of the project area. The ISP Applications for the Northland Plaza, Homart, and Edinborough projects did not identify the potential for air-quality violations. The proposed project will not affect these findings.

4.3 NOISE

Supplemental information on noise impacts associated with the Alternative 1A roadway improvements has been developed in response to comments on the noise analysis contained in the Draft EIS.

4.3.1 Alternative 1A Noise Impacts

The only major differences between Alternative 1 and Alternative 1A in terms of noise impacts occur at the receiver sites on the west side of TH 77 north of I-494. The Alternative 1 roadway plan includes directional ramps from southbound TH 77 to eastbound I-494 and to the southbound collector-distributor roadway. These ramps begin on the west side of TH 77 at approximately East 72nd Street and climb up and over the I-494 interchange. The supporting berms for these ramps block a substantial portion of the traffic noise from the mainline of TH 77. These ramps are not a part of the Alternative 1A plan. As a result, the noise impacts of the Alternative 1A improvements will differ from those documented for the Alternative 1 improvements.

To address these Alternative 1A impacts, the 1A roadway improvements were modeled for the receivers west of TH 77 and north of I-494. The same procedures documented in the Draft EIS were used for this analysis. Future noise level predictions associated with Alternative 1A were made at receivers N1 through N12. Receivers N1 through N11 all represent existing multi-family residences (apartments).

Receiver N12 is located on the Rich Acres Golf Course. The results of this analysis are shown in Table 19. Table 20 compares the predicted noise levels to the applicable state noise standards, federal noise abatement criteria, and existing noise levels.

Existing noise levels in this area exceed the state noise standards and are approximately equal to or slightly below the federal noise abatement criteria. Forecast increases in traffic volumes coupled with the Alternative 1A roadway improvements will result in future noise levels equal to or slightly above existing noise levels. While increased traffic can be expected to increase noise levels, the various geometric changes to the roadways, including the depression of the mainline south of I-494 and construction of traffic barriers, will somewhat offset this increase.

4.3.2 Noise Mitigation Features

Figures 13, 14, and 15 show the locations of noise mitigation features of the Alternative 1A roadway improvements. The noise barriers created by the roadway design are described in Table 21 and in cross-section on Figures 16 and 17. Figure 18 shows cross-sections of TH 77 for the Alternative 1 improvements. South of I-494, TH 77 will be depressed and realigned east of the existing alignment. In addition, the ramps and C-D roads on the west side of TH 77 will form barriers blocking the path of noise between the mainline of TH 77 and the residential areas to the west. North of I-494, TH 77 will transition back to the existing alignment at the northerly project terminus at 70th Street. With the Alternative 1A improvements, noise-mitigative features (retaining walls, differences in grade) will end at approximately 74th Street and will be less extensive than those associated with the Alternative 1 improvements as described above.

4.4 MINERAL RESOURCES

There are no known metallic mineral deposits in the area, or non-metallic deposits other than construction resources. St. Peter sandstone underlies portions of the site, and has been mined under the Ford plant in St. Paul for glass-sand in the past. No mining is currently active, and new operations are considered to be unlikely. A mineral-occurrences report completed by the Department of Natural Resources in 1985 cited four mineral occurrences in Hennepin County. However, none of the four sites was near the TH 77/I-494 project area.

Major limestone/dolomite deposits are deeply buried and have little or no potential for development of aggregate quarries.

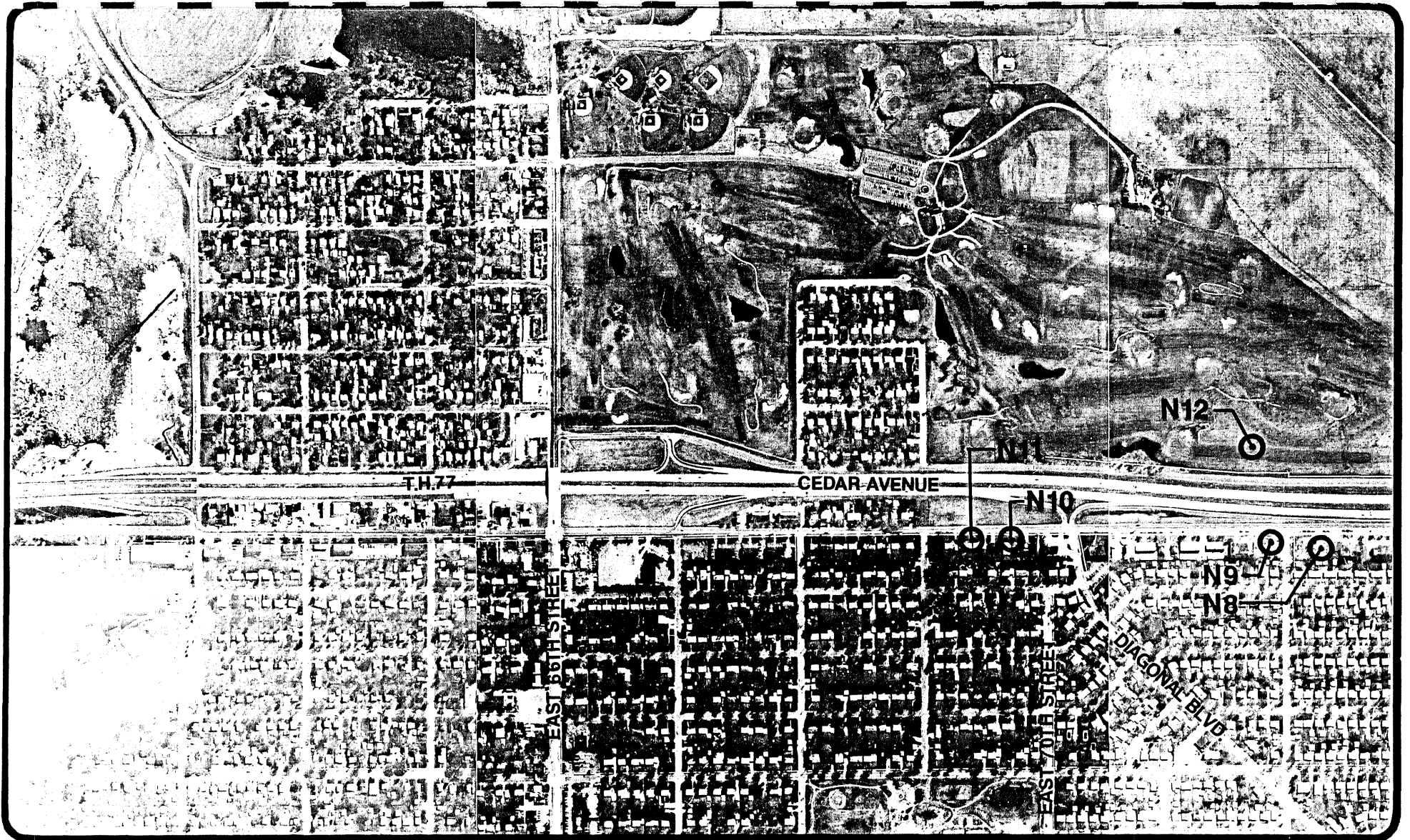
TABLE 19
 PREDICTED NOISE LEVELS (dBA)
 ALTERNATIVE 1A

Receiver	Land Use	Federal L10 Criteria	State Noise Standards				Existing Noise Levels				Future Noise Levels				Receiver
			Day		Night		Day		Night		Day		Night		
			L10	L50	L10	L50	L10	L50	L10	L50	L10	L50	L10	L50	
N1	Res.	70.0	65.0	60.0	55.0	50.0	69.5	65.1	67.8	62.7	71.1	64.2	68.8	60.5	N1
N2	Res.	70.0	65.0	60.0	55.0	50.0	70.3	65.7	68.6	63.4	71.8	65.7	69.5	61.8	N2
N3	Res.	70.0	65.0	60.0	55.0	50.0	70.3	65.7	68.4	62.9	70.9	65.3	68.4	61.3	N3
N4	Res.	70.0	65.0	60.0	55.0	50.0	64.9	62.0	63.2	59.8	65.6	62.3	63.3	58.9	N4
N5	Res.	70.0	65.0	60.0	55.0	50.0	69.6	65.3	67.7	62.6	69.1	64.1	66.5	60.1	N5
N6	Res.	70.0	65.0	60.0	55.0	50.0	65.0	62.0	63.3	59.7	65.1	61.6	62.6	58.1	N6
N7	Res.	70.0	65.0	60.0	55.0	50.0	69.8	65.4	67.8	62.6	70.3	66.7	67.8	63.1	N7
N8	Res.	70.0	65.0	60.0	55.0	50.0	68.7	64.6	66.8	61.9	69.8	66.3	67.4	62.8	N8
N9	Res.	70.0	65.0	60.0	55.0	50.0	67.1	63.3	65.3	60.6	67.9	64.8	65.5	61.4	N9
N10	Res.	70.0	65.0	60.0	55.0	50.0	65.8	61.3	64.1	58.2	67.0	63.6	64.8	59.8	N10
N11	Res.	70.0	65.0	60.0	55.0	50.0	65.9	61.0	64.1	57.8	66.7	63.4	64.5	59.7	N11
N12	Golf	70.0	65.0	60.0	55.0	50.0	65.0	61.8	63.5	59.8	66.5	63.7	64.1	60.4	N12

TABLE 20
NOISE IMPACT ANALYSIS
ALTERNATIVE 1A

Receiver	Standard Exceeded:				Change in Noise Levels (dBA)				Future Exceeds Standard By			
	Existing		Future		Day		Night		Day		Night	
	Federal	State	Federal	State	L10	L50	L10	L50	L10	L50	L10	L50
N1	N	Y	Y	Y	1.6	-0.9	1.0	-2.2	6.1	4.2	13.8	10.5
N2	Y	Y	Y	Y	1.5	0.0	0.9	-1.6	6.8	5.7	14.5	11.8
N3	Y	Y	Y	Y	0.6	-0.4	0.0	-1.6	5.9	5.3	13.4	11.3
N4	N	N	N	Y	0.7	0.3	0.1	-0.9	0.6	2.3	8.3	8.9
N5	N	Y	N	Y	-0.5	-1.2	-1.2	-2.5	4.1	4.1	11.5	10.1
N6	N	N	N	Y	0.1	-0.4	-0.7	-1.6	0.1	1.6	7.6	8.1
N7	N	Y	Y	Y	0.5	1.3	0.0	0.5	5.3	6.7	12.8	13.1
N8	N	Y	N	Y	1.1	1.7	0.6	0.9	4.8	6.3	12.4	12.8
N9	N	Y	N	Y	0.8	1.5	0.2	0.8	2.9	4.8	10.5	11.4
N10	N	Y	N	Y	1.2	2.3	0.7	1.6	2.0	3.6	9.8	9.8
N11	N	Y	N	Y	0.8	2.4	0.4	1.9	1.7	3.4	9.5	9.7
N12	N	N	N	Y	1.5	1.9	0.6	0.6	1.5	3.7	9.1	10.4

Note: Y = Yes, standard exceeded
N = No, standard not exceeded



**T.H. 77/I-494
IMPROVEMENT
PROJECT**

FIGURE 13

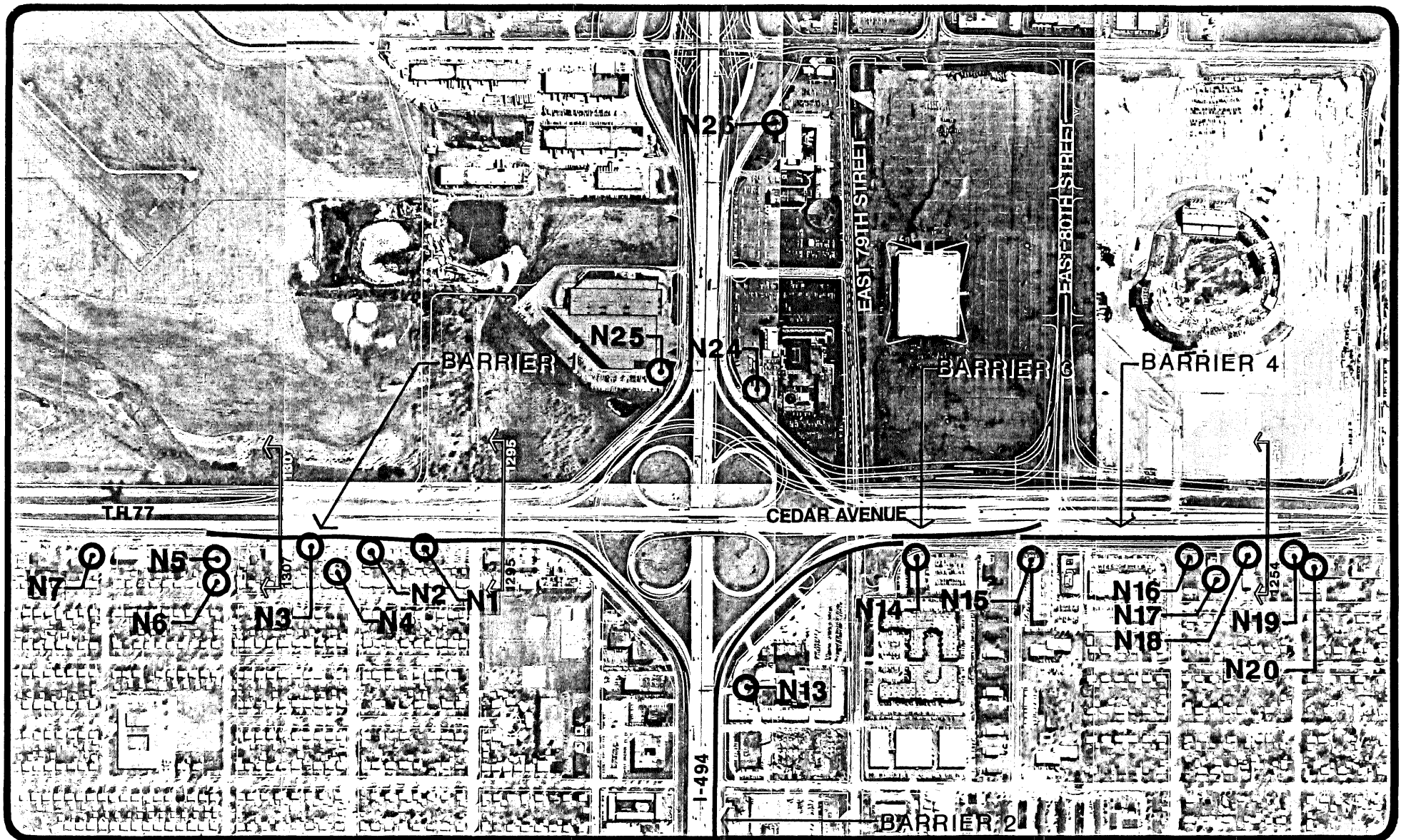
**Noise Sensitive Receiver Sites
and Mitigation Features**

NO ROADWAY IMPROVEMENT MITIGATION FEATURES
CREATED IN THIS AREA.



0' 700'

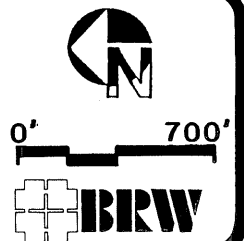




T.H. 77/I-494 IMPROVEMENT PROJECT

FIGURE 14

Noise Sensitive Receiver Sites
and Mitigation Features





T.H. 77/I-494 IMPROVEMENT PROJECT

FIGURE 15

Noise Sensitive Receiver Sites
and Mitigation Features

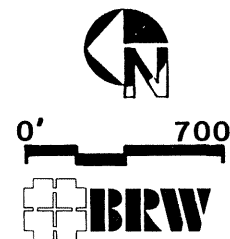
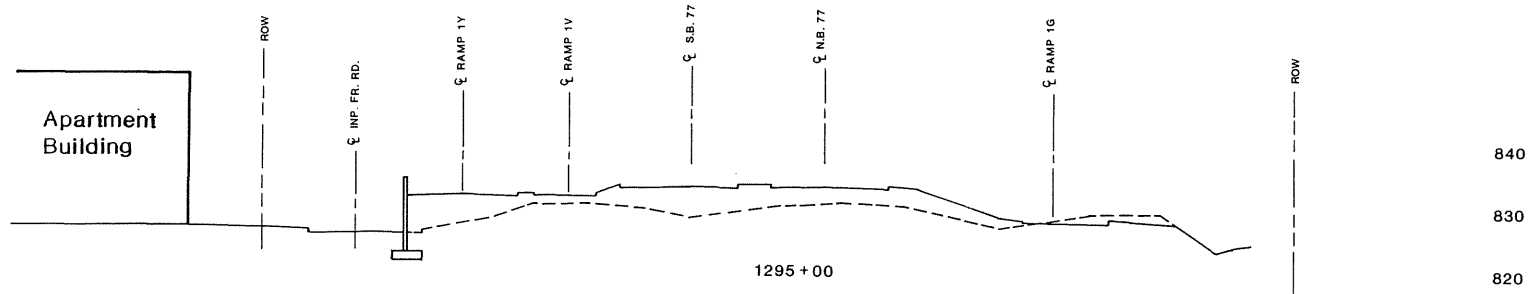
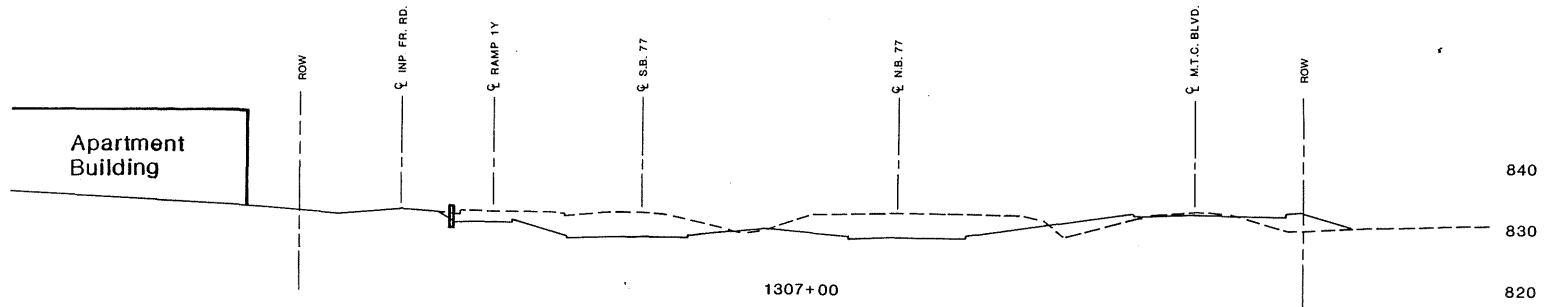


TABLE 21
NOISE BARRIER DESCRIPTION

BARRIER SEGMENT	HEIGHT (TOP OF BARRIER)	DESCRIPTION
B1	5 ft. above mainline at northern limit to 2 ft. above mainline at southern limit.	Jersey barrier and retaining wall of Ramp 1Y
B2	10 ft. above mainline at western limit, 6 ft. at midpoint, 3 ft. at southeastern limit.	Jersey barrier and retaining wall of eastbound 494 to southbound 77 ramp.
B3	9 ft. above mainline at northern limit to 19 ft. at southern limit.	Retaining wall of Loop L
B4	15-17 ft. above mainline.	Retaining wall of southbound C/D
B5	24 ft. above mainline at northern limit to 5 ft. at southern limit.	Barrier created by southbound frontage road and loop K retaining wall.



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T.H. 77/I-494 IMPROVEMENT PROJECT

FIGURE 16

Roadway Cross Section

- EXISTING
- PROPOSED IMPROVEMENT



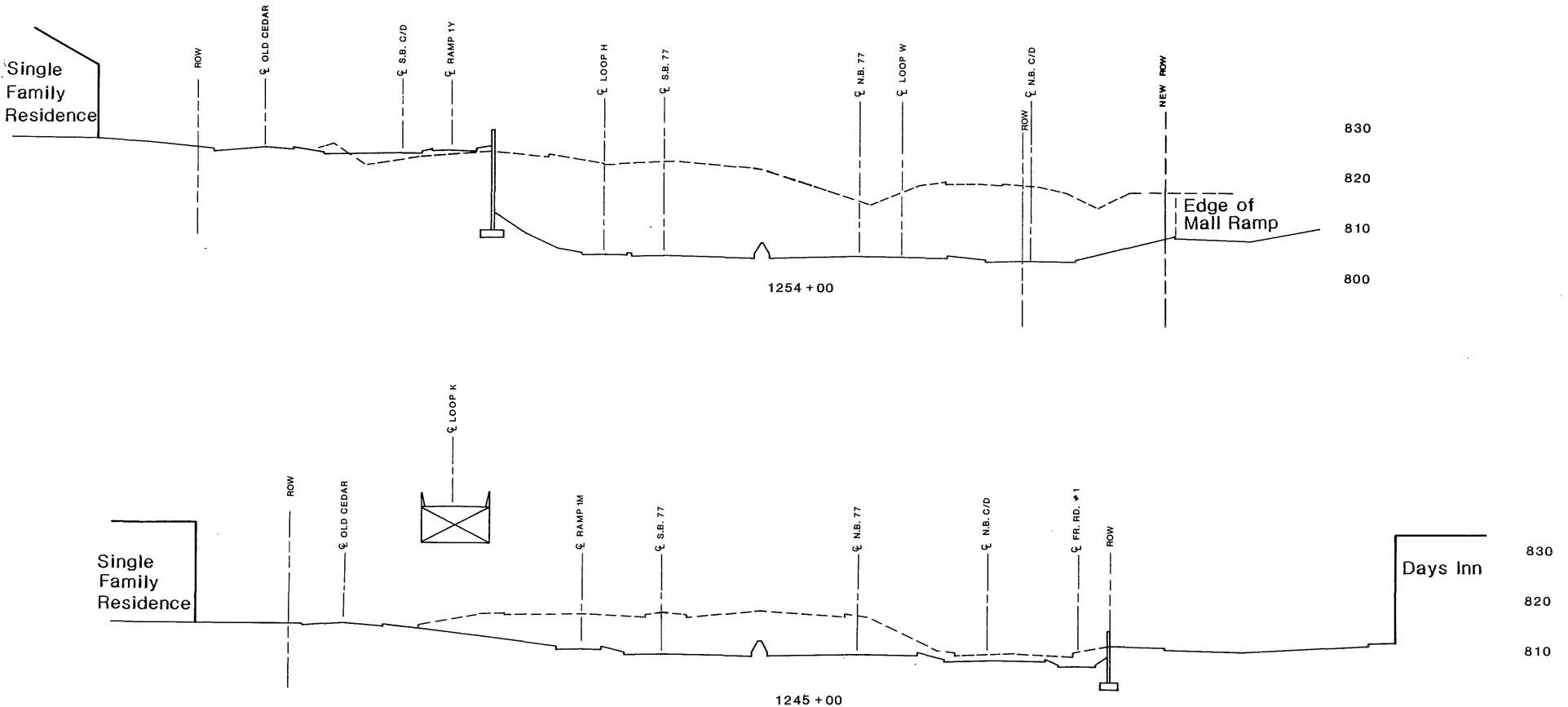
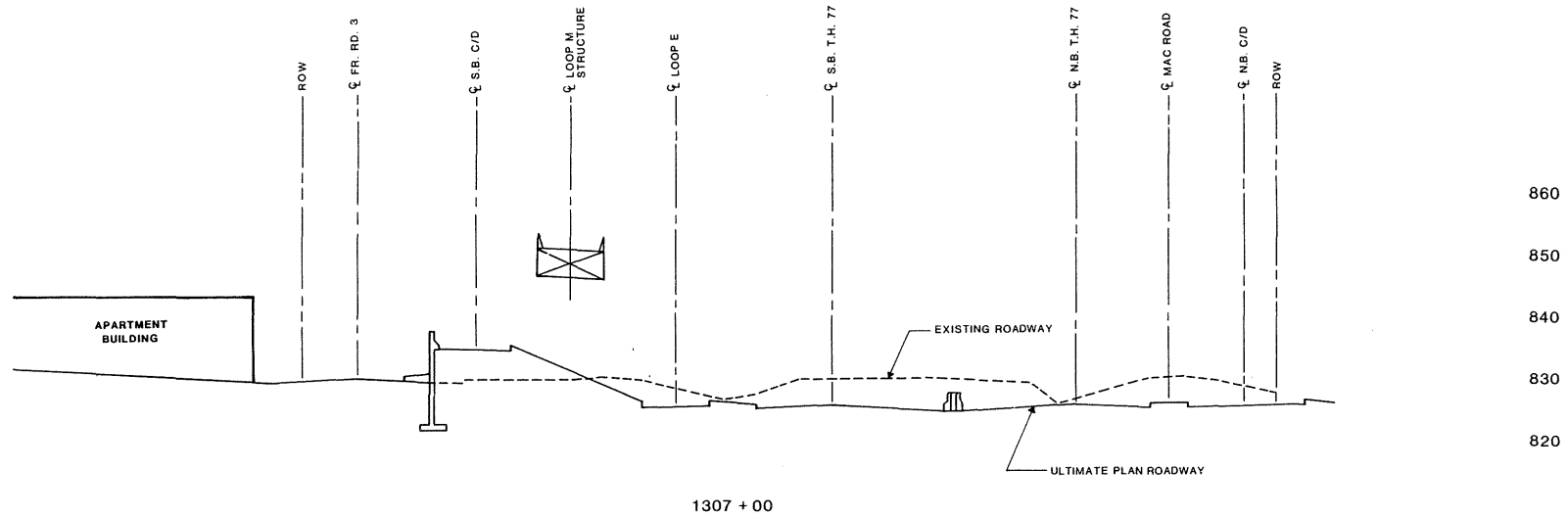


FIGURE 17
Roadway Cross Section

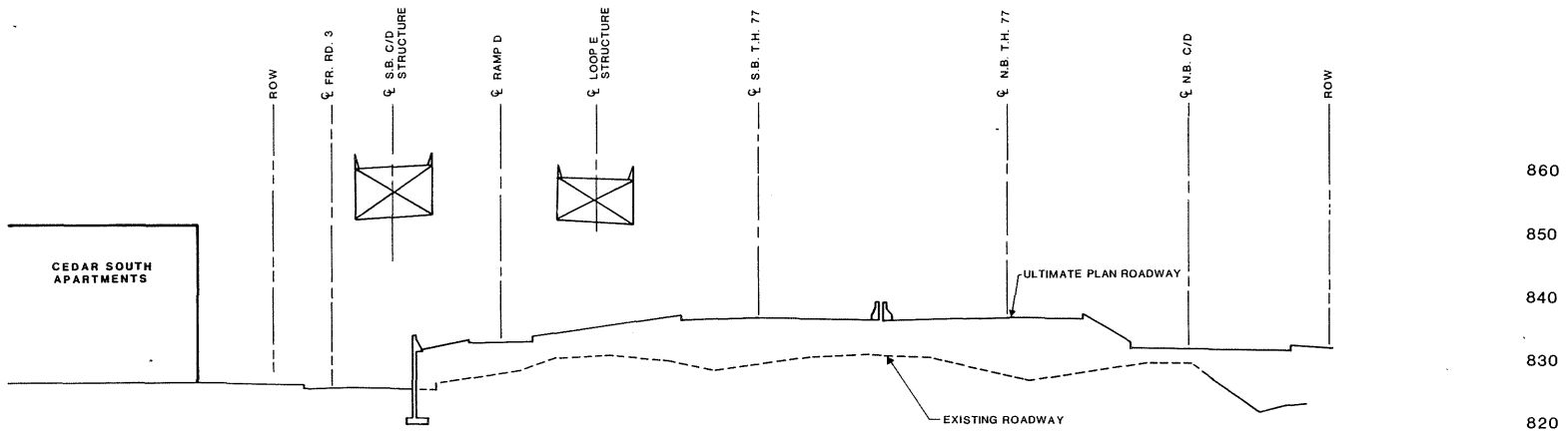
----- EXISTING
———— PROPOSED IMPROVEMENT

**T.H. 77/I-494
IMPROVEMENT
PROJECT**





1307 + 00



1295 + 00

4-39

T.H. 77/I-494 IMPROVEMENT PROJECT

FIGURE 18
ALTERNATIVE 1
ROADWAY CROSS SECTION

----- EXISTING
————— PROPOSED IMPROVEMENT



Glacial outwaste sand and gravel is deposited over the Platteville Limestone, and in the project area, terraced surfaces of valley-train sand and gravel have been mapped by the Minnesota Geological Society. The entire area is part of a granular terrace deposit and most of the soils are sand with some occasional gravel. This material is not unique to the area.

5.0

Impacts and Mitigation Measures

5.0 IMPACTS AND MITIGATION MEASURES

5.1 LEVEL OF SERVICE

The DEIS indicated that some congestion is expected on I-494 in the project area even with the implementation of Alternative 1, the preferred alternative. The congestion is not expected with the preferred alternative until traffic volumes reach the level forecast for the year 2005. The first stage improvements of the preferred alternative, Alternative 1A, will have capacity to serve the forecast traffic demand through 1995. However, areas of congestion on I-494 and TH 77 within the project area are expected by the year 1995. The 1995 peak-hour traffic volumes in the project area are approximately the maximum hourly volumes which can be delivered to the project area by the existing roadway system until improvements are made to I-494 west of the project area. However, these volumes may have to be accommodated for a greater number of hours each day beyond the year 1995.

In order to minimize the potential congestion problems, the project will incorporate ramp metering as part of the first stage improvements. The Minnesota Department of Transportation Traffic Management Center will do the planning for the ramp meters which will be included in the Stage I improvements. The following on-ramps to I-494 will be metered with the first stage improvements.

- o 12th Avenue on-ramp to eastbound I-494
- o 34th Avenue on-ramp to westbound I-494
- o 24th Avenue on-ramp to westbound I-494
- o NB TH 77 loop on-ramp to westbound I-494
- o NB TH 77 directional on-ramp to westbound I-494

The Stage I plans will also include provisions to allow ramp metering in the future, if needed, at the following locations:

- o 24th Avenue on-ramp to eastbound I-494
- o NB TH 77 on-ramp to eastbound I-494
- o 81st Street on-ramp to southbound TH 77
- o Killebrew Drive on-ramp to southbound TH 77
- o EB I-494 on-ramp to southbound TH 77

In addition to the proposed ramp metering in the project area, the Minnesota Department of Transportation is planning for ramp metering on the rest of I-494 between Portland Avenue and TH 169 and has programmed the installation of ramp meters on I-494 between Portland Avenue and TH 100 for 1988.

The exact locations of ramp meters have not been determined for the 2005 design concept, Alternative 1. This is dependent to some extent on the recommendations of the I-494 study. However it is anticipated that all of the ramps to the mainline of I-494 will be metered within the project area.

Metering of on-ramps to I-494 from the interchanges serving the Airport South District would help minimize congestion through the project area. Ramp metering would help divert traffic from the Airport South District to ramps or roads where excess capacity exists, preserve the integrity of mainline traffic operations, and act as incentive for ridesharing and moving travel to off-peak hours.

Preferential access for busses and HOV's from the Airport South District to westbound I-494 is planned at the 24th and 34th Avenue interchanges by providing bypass lanes on the left hand side of the 24th and 34th Avenue on-ramps to westbound I-494. It is anticipated that the incorporation of the above preferential access plans in the Stage I design along with the proposed ramp metering will provide the necessary incentives for transit use and car pools and van pools.

The other major mitigation action anticipated in the design is the use of travel demand management strategies in the Airport South District to reduce peak-hour travel.

5.2 TRAFFIC IMPACTS ON 77TH STREET

The DEIS indicated that one of the adverse effects of the preferred alternative was the impact on the residential neighborhood north of 77th Street of increased traffic on 77th Street resulting from the removal of the north I-494 frontage road and the removal of commercial screening for the creation of new access driveways.

A preliminary design plan addressing and mitigating the impacts of increased traffic on 77th Street on the residential neighborhood north of 77th Street will be prepared with input from the residents, businesses and city staff of the City of Richfield. The plan will also address the access changes expected to be necessary for businesses now using

the 78th Street frontage road. Some separation of commercial traffic generated by the property south of 77th Street and residential traffic from the area north of 77th is expected to be an integral part of the plan.

The preliminary design plan, after approval by the Richfield City Council, will provide a guide for the city to use in approving new or revised site plans for property owners in the area. Developers or property owners who approach Richfield for site plan approval will be made aware of the future street configuration and access situation after the TH 77/I-494 interchange is fully reconstructed, and will be required to recognize that access will be provided from 77th Street after 78th Street is removed.

The costs to develop and implement the plan, including necessary changes to 77th Street to replace the access function currently provided on 78th Street, are project costs applicable to the preferred alternative. The City of Bloomington will assume the cost of developing the preliminary design plan as part of the present Bloomington-Mn/DOT project agreement. Richfield's share of the Alternative 1 project cost, for example upgraded materials or landscaping above Mn/Dot standards, shall be in conformance with Mn/Dot's cost sharing policies in effect at the time the improvements are made.

5.3 TH 77 STUDY

In the City of Richfield's comments on the DEIS, the city requested that this project include access to Richfield to and from TH 77 at or in the vicinity of 75th Street, and that the project include noise mitigation measures including noise barriers and/or depressing TH 77 between I-494 and CSAH 62. In the Metropolitan Airports Commission response to the DEIS, the Commission requested that the project include a continuous frontage road along the east side of TH 77 north of the project area. These requests are proposed to be addressed in a study of TH 77 north of the project area.

A TH 77 study is proposed because there are several outstanding issues along this segment of TH 77 which would be better addressed concurrently. In light of these continuing major and possibly conflicting areas of concern on TH 77 north of the TH 77/I-494 project area, it appears unrealistic to expect that major proposals such as a new interchange in the vicinity of 75th Street, depressing TH 77 up to CSAH 62, or extensive noise abatement measures should be included in the geometric design of the TH 77/I-494 project before a study examines all of the issues, as the I-494

study is currently doing along I-494. The issues which the TH 77 study would address are outlined below.

- o Access to Richfield at or in the vicinity of 75th Street
- o A continuous east TH 77 frontage road through MAC property
- o The need for additional lanes on TH 77
- o Higher noise levels along TH 77 north of the project area
- o Substandard TH 77 access at Diagonal Boulevard and 66th Street
- o Mixed and changing land uses along the west side of TH 77 through Richfield
- o The TH 77/CSAH 62 interchange
- o A possible new west terminal at MSP Airport

Mn/Dot has agreed to participate in the proposed TH 77 study, and will invite the following agencies to participate as well:

- o City of Richfield
- o Metropolitan Council
- o Hennepin County Department of Transportation
- o Metropolitan Airports Commission
- o City of Bloomington

A proposed plan of action for the study has been developed, with an estimated start date of late 1987, and a time frame of approximately nine months to complete the study. It is anticipated that the study would result in recommendations for the future geometrics, access and noise mitigation appropriate to this segment of TH 77 and acceptable to the City of Richfield and MAC.

Documentation supporting Mn/Dot's commitment to a TH 77 study is included in the Appendix.

5.4 DISPLACEMENT AND RELOCATION

Alternative 1 will result in the probable relocation of two automobile service stations and one automobile repair business. The first stage of Alternative 1 may require the relocation of one automobile service station.

The acquisition of right-of-way resulting in displacement of the affected businesses will be in conformance with the policies and practices of the Minnesota Department of Transportation. Mn/Dot's policies are summarized below.

- o Private property cannot be acquired or damaged for public purposes without payment of fair compensation.
- o No one will be displaced by a construction project unless and until adequate replacement housing has already been provided or has been built and made available to all affected persons, regardless of race, color, religion, sex or national origin.
- o When relocation is required, Mn/DOT will make every effort to provide a minimum of 90 days notice (and in most cases 120 days) prior to the date that the move is required.
- o Mn/DOT will assist in locating and moving into suitable replacement housing.
- o Owners of small businesses and farms may be eligible for additional moving/relocating assistance from the Small Business Administration and the Farmers Home Administration.
- o In accordance with state law, Mn/DOT may acquire property by gift, direct purchase, or eminent domain proceedings.

5.5 NOISE

At a meeting held on May 21, 1987, to discuss noise mitigation measures for the project, representatives of Mn/DOT, the MPCA and the City of Richfield agreed that noise walls would not be constructed as part of the Stage I TH 77 and I-494 Improvement Project and that appropriate and feasible noise abatement measures should be developed for north of the project area as part of the TH 77 study. This decision is based on the following factors:

- o State noise standards are currently exceeded at the residential receiver sites, and implementation of the Alternative 1A improvements will not result in a significant change in noise levels. The noise increases on TH 77 north of I-494 are primarily related to forecast increases in traffic volumes, rather than construction of the Stage 1 improvements. Existing noise levels currently exceed the state noise standards by approximately 5 dBA. Design hour traffic volumes with the Stage 1 improvements will increase noise levels by 2 dBA or less.

- o Upon implementation of the Alternative 1 (ultimate) improvements, noise levels south of 72nd Street will be reduced.
- o Presently, both commercial and residential properties abut Old Cedar Avenue and TH 77 in the project area north of I-494. The Richfield Comprehensive Development Plan, which is in the process of being updated, classifies this area as mixed-use, including retail, light industrial, office, and multi-family residential uses. While noise walls may be warranted to mitigate the ongoing traffic noise impacts at the residential uses in this area, noise walls would affect the visibility of existing businesses and the area's future commercial viability.
- o The land use in the affected area has been changing. There are commercial uses which have been established in former single-family homes and other commercial uses which have displaced residential uses. The City of Richfield has received inquiries regarding the potential for commercial redevelopment of the area on the west side of TH 77 south of 66th Street.
- o Construction of a noise wall blocking the view from TH 77 of the existing commercial establishments could be viewed as a negative impact.
- o There are four single-family residences and three apartment buildings with exterior uses on the west side of TH 77 between I-494 and Diagonal Boulevard.
- o A continuous noise wall extending from just south of Diagonal Boulevard to just south of 76th Street would be required to reduce noise levels to the state daytime residential noise standards. The wall would be approximately 3,700 feet long and would be 8 feet high north of approximately 74th Street, and 12 feet high south of 74th Street.
- o A TH 77 study has been proposed to resolve noise and other issues associated with the proposed 2005 project design. The noise problems along TH 77 can best be addressed through a comprehensive study of all of the issues involved, including issues outside the project limits.
- o Noise walls constructed now could interfere with future plans for TH 77, as determined in the TH 77 study. The future design of TH 77 could physically conflict with the location of the noise walls as currently envisioned, or make the noise walls unnecessary.

- o Due to the high traffic volumes on TH 77 during the 6:00 to 7:00 AM hour, a noise wall over 30 feet high would be required to meet the state nighttime standards. It is not feasible to construct a noise wall of this height.
- o The area is significantly affected by aircraft noise and will remain so due to its proximity to Minneapolis-St. Paul International Airport. As illustrated in Figure 4.2.B in the Draft EIS, this area is in aircraft noise zones 1 and 2, the areas most severely affected by aircraft noise. In addition, the reflection of noise from the walls into the residential neighborhoods from aircraft is a concern.

Mn/DOT is committed to implementing equitable noise abatement measures required as a result of the TH 77/I-494 improvements, and will do so after the TH 77 study has identified the most appropriate and feasible mitigation measures. Documentation of Mn/DOT's commitment is included in the Appendix.

5.6 WATER QUALITY

5.6.1 Water Quality Impacts

The DEIS presented a detailed discussion of the existing water-quality environment in Section 4.2.6. The impacts resulting from implementation of the various project alternatives were discussed in Section 5.10 of the DEIS. In comments received since circulation of the DEIS, many agencies have acknowledged that the existing water quality is poor and that the proposed project contributes a very small increment to the existing situation, while also requesting that measures be taken on a much broader scale to improve water quality in the Long Meadow Lake area as part of this project.

The water-quality analysis presented in the DEIS for traffic-related pollutants and deicing salts is consistent with the level of environmental impact expected with the proposed project. The project alternatives analyzed in the DEIS consist of improvements to existing highways and two no-build alternatives. The incremental pollutant concentration and loading caused by the proposed highway improvements, as well as the no-build alternatives, is very small, as detailed in the DEIS.

As stated in Section 5.10, page 5-89 of the DEIS, all of the alternatives would have the same impact on water quality. Forecast traffic volumes for each alternative, shown in Table 5.1.A, page 5-4 of the DEIS, are all approximately the

same. The forecast traffic volumes are the only input parameters that are not watershed-related that are used in the traffic-related pollutant analysis. In comparing alternatives, all the watershed-related parameters are constant, and the traffic volumes are essentially constant. Therefore, the projected traffic-related pollutant concentrations for each alternative will essentially be equal. The no-build alternatives have no advantage in terms of reduced water quality impacts over either of the build alternatives.

The existing water quality is poor in Pond C, Long Meadow Lake and the Minnesota River. Long Meadow Lake is a wetland within the Minnesota Valley National Wildlife Refuge. The tributary area to Pond C is approximately 2,600 acres. The tributary area to Long Meadow Lake is much larger than 2,600 acres and includes Minnesota River overflows. The tributary area from the project highways is 45 acres.

5.6.2 Mitigation Features of Preferred Alternative

Pond C was constructed as a mitigative measure for environmental impacts as part of the Cedar Avenue improvements described in and required by the Final Environmental Statement for Trunk Highway 36 (Cedar Avenue), dated January 13, 1976.

Pond C was to function as a detention basin for stormwater runoff and as a treatment basin for deicing salts, traffic-related pollutants and hazardous spills. It is impractical to expect a stormwater treatment pond, Pond C, to be in strict conformance with the water-quality standards associated with the generic water-quality classification imposed by Minnesota Rules, Section 7050.0430.

Mitigative measures for this project address the impacts caused by the highway improvement project. The DEIS proposed the construction of two new stormwater detention ponds as mitigation in subwatersheds 1 and 2. The new Ramp V and Flume ponds will be operated as dry ponds. The DEIS also suggested two alternatives for mitigating runoff impacts in subwatershed 3, the Long Meadow Lake area. Because both measures require trade-offs, the DEIS stated that a separate study should be undertaken to examine all of the positive and negative impacts of the mitigation measures before a decision is made. Mitigation for potential subwatershed 3 impacts will be implemented after the water quality study described below is completed.

5.6.3 Other Mitigation Measures

Mn/DOT agrees that water quality in the Long Meadow Lake area is an important issue. However, the level of pollutants added to the wetland and subsequently to the Minnesota

River from the proposed highway improvements is and will continue to be insignificant compared to that entering from existing urban drainage and the contaminants added by non-point source pollution over the course of the river from source to mouth.

A level of mitigation appropriate to the level of impact from the proposed improvements to TH 77/I-494 would not result in any measurable improvement to overall water quality and would not be a prudent public expenditure. On the other hand, for the project proposer to undertake actions which would significantly increase water quality in the Long Meadow Lake area would constitute mitigation far out of proportion to the level of impact actually caused by runoff from the proposed highway improvements.

Both the Minnesota Department of Natural Resources and the U.S. Department of Interior urged that Mn/Dot initiate discussion with various agencies to find a solution to this problem.

The Metropolitan Council also commented on water quality in Pond C and Long Meadow Lake in its April 23, 1987, review of the Watershed Management Plan of the Richfield-Bloomington Watershed Management Organization (WMO). The area included in the Richfield-Bloomington Watershed District drains into Long Meadow Lake and the Minnesota River. However, Long Meadow Lake is outside the Richfield-Bloomington Watershed District. The Council recommended that the WMO conduct a study to identify the impacts and find answers to the area's water quality problems, and that the WMO then implement measures to address those impacts.

The City of Bloomington has agreed to coordinate with the Richfield-Bloomington Watershed Management Organization, composed of the city councils of the two cities, to address the water quality, capacity, operation as a dry basin and revised outlet of Pond C. Informational meetings were held on April 30 and May 7, 1987. The following agencies were contacted and agreed to participate:

- U.S. Department of Interior, Fish and Wildlife Service
- Minnesota Department of Natural Resources
- Minnesota Pollution Control Agency
- Minnesota Department of Transportation
- Hennepin County Department of Transportation
- City of Richfield
- Richfield-Bloomington Watershed District
- Lower Minnesota Watershed District
- Nine Mile Creek Watershed District

The participating agencies are expected to investigate the provisions of the new (1987) Clean Water Act and determine whether this project would qualify for funding under the Act, perhaps as a demonstration project. Because of the general agency consensus on the need for an in-depth look at measures to improve the existing Pond C water-quality conditions, legislative support may also be requested if necessary.

Documentation of Bloomington's commitment to initiate and participate in the study is included in the Appendix.

6.0

Responses to Written and
Public Hearing Comments on DEIS

6.0 RESPONSES TO WRITTEN AND PUBLIC HEARING COMMENTS ON DEIS

The location/design public hearing was held on March 12, 1987. Copies of the official hearing transcript are available for review at:

Minnesota Department of Transportation
District 5
2055 North Lilac Drive
Golden Valley, Minnesota

Bloomington City Hall
2215 W. Old Shakopee Road
Bloomington, MN

Comments on the DEIS were received at the hearing and during an official comment period ending March 23, 1987. All persons wishing to speak at the hearing filled out a "statement card" so indicating. All comments received are included, along with responses thereto, in this section. The comments and responses are organized as follows:

Section 6.1 - Written comments on the DEIS, including those submitted at the public hearing. In those instances where attendees filled out a statement card to announce the reading of written comments into the hearing record, the statement card follows the comment letter and responses.

Section 6.2 - Statements made orally at the public hearing and responses thereto.



United States Department of the Interior

OFFICE OF ENVIRONMENTAL PROJECT REVIEW
175 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604

TAKE PRIDE IN AMERICA
MAR 15 1987

March 16, 1987

Routing slip table with columns for names and checkboxes. Includes names like 'S. A. Asst.' and 'PAC'.

ER-87/134

Mr. Duane Brown, Assistant District Engineer
Minnesota Department of Transportation
District 5
2055 North Lilac Drive
Golden Valley, Minnesota 55422

Dear Mr. Brown:

The Department of the Interior has reviewed the Draft Environmental Impact Statement (DEIS) for Trunk Highway 77/Interstate 494 Improvements in Hennepin County, Minnesota, your file: 330 FHWA-MN-EIS-87-02-D and have the following comments for your consideration.

GENERAL COMMENTS

The proposed project does not involve any surface or mineral estate managed by the Bureau of Land Management. The subject document adequately discusses geology and glacial desposits in the project area although specific mineral resources are not mentioned. Sand and gravel are frequently obtained from glacial deposits, but the highly urbanized nature of the area where highway improvements have been proposed probably precludes mineral resource production. For completeness, subsequent versions of the environmental statement should discuss mineral resources. If no adverse impacts on mineral development are anticipated, a statement to that effect should be included in the Environmental Consequences and Potential Mitigation Measures section of the final report.

Chapter 4 of the draft provides an excellent review of both our current understanding of the effectiveness of wastewater/stormwater treatment by natural and man-made wetlands and the effects of contaminant loading upon individual wetland environments.

Contamination of water and sediments in an existing stormwater detention pond (Pond C) and subsequently Long Meadow Lake within the Minnesota Valley National Wildlife Refuge (NWR) is acknowledged. However, the discussion of environmental consequences of the proposed project (Chapter 5) does not recognize the additive nature of this and past highway and urban developments in bringing about the above-mentioned degradation. Consequently, possible mitigative measures are not considered in the context of the present project. Pond C, whose ability to remove contaminants from stormwater is now hopelessly overtaxed, will thus

RESPONSES:

6.1.1 U.S. Department of the Interior

- 1. A brief discussion of mineral resources has been added in Section 4.4 of the FEIS.
2. The DEIS is charged with identifying the specific environmental consequences of the proposed project, and not the environmental consequences of all past highway and urban development projects contributing to the existing environment. The existing conditions are fully described in Section 4.0, Existing Environment. Section 5.6.1, Water Quality Impacts, makes the point repeatedly that the incremental increase in pollution caused by the specific project alternatives would not result in any significant change to existing water quality.

3 | continue to perform its stormwater detention function in an even less satisfactory manner to the detriment of aquatic resources in Long Meadow Lake. This project provides what may be a final catalyst for development of a plan to adequately address present stormwater-related water quality problems affecting this area of Long Meadow Lake.

FISH AND WILDLIFE COORDINATION ACT COMMENTS

The proposed improvements of TH-77/I-494 are not expected to require encroachments on wild and scenic rivers, wetlands, or property acquired/developed with assistance under the Land and Water Conservation Fund Act of 1965 or lands that are subject to Section 4(f) of the Department of Transportation Act of 1966. Unavoidable encroachment on the floodplain of the Minnesota River in the project area is anticipated to be minimal.

THREATENED AND ENDANGERED SPECIES COMMENTS

The DEIS adequately describes (Page 5-123) possible effects of the project on piscivorous birds, including the federally listed threatened bald eagle (Haliaeetus leucocephalus). Specifically, piscivorous birds may ingest contaminated prey from Pond C, a stormwater detention pond receiving runoff from TH-77 and known to contain high levels of trace metals and polynuclear aromatic hydrocarbons.

SPECIFIC COMMENTS

Page 4-37, paragraph 4:

4 | This is the first of several references to Pond C and Pond 1 as class 4A, 4B, etc., waters. Both ponds contain fish populations (brown bullhead, carp and green sunfish in the case of Pond C) and both are accessible to fishermen. Consequently, both ponds apparently qualify as class 2B, 3B, 4A, etc., waters. As such, discharges to those ponds would be subject to specific limitations on chromium, copper, oil, pH and phenols as well as other specific parameters pursuant to provisions of Minnesota Rules, Part 7050.0210, Subpart 14 ("Undefined Toxic Substances").

RESPONSES:

3. The mitigative measures for stormwater runoff proposed in this EIS are intended to mitigate the impact of the proposed highway improvements. The mitigative measures proposed and constructed as part of this project cannot and should not mitigate the impacts of all past highway and urban development projects.

The ability of Pond C to remove pollutants from stormwater runoff is not directly related to the ability of Pond C to perform its stormwater detention function. The stormwater detention function of Pond C will not be affected by this proposed action. Further, the stormwater detention function will not impact the aquatic resources of Long Meadow Lake.

The Minnesota Department of Transportation is currently organizing an inter-agency study team to review and analyze the issue of reduced water quality caused by stormwater runoff. The water quality study is fully described in Section 5.6 of the FEIS.

4. Sections 3.8 to 3.13 of the FEIS present revisions to the pond classifications described in the DEIS.

Page 4-38, Table 4.2.J.:

5 | This table should be changed to reflect the above-described classification of Ponds C and 1.

Page 4-39, paragraph 2:

6 | As noted in this paragraph, the phosphorus data for Long Meadow Lake were collected in early spring and fall. However, because both periods were during flooding, the data and subsequent analysis may be more representative of the Minnesota River than Long Meadow Lake.

3

Page 4-40, paragraph 3:

7 | Hogback Ridge Pond (Pond 1) and the adjacent Hogback Marsh have not yet functioned as an urban runoff treatment system, so they are probably not good examples of a wetland system being used as such.

Page 4-45, paragraphs 5-7:

8 | It should be mentioned in this section that Kidder Marsh has become heavily invaded by purple loosestrife (Lythrum salicaria), a herbaceous flowering perennial plant introduced from Europe in the early 1800s. Having little or no known wildlife value itself, purple loosestrife invades and replaces desirable wetland vegetation. The Minnesota Valley NWR must now expend considerable effort to eradicate purple loosestrife in Kidder Pond and other Refuge lands and waters.

RESPONSES:

5. See previous response.
6. This comment is correct.
7. The statement in the draft EIS referred to the fact that the Pond 1 - Hogback Ridge marsh system has been constructed and is currently functioning. A storm sewer was completed within the last three years that is routed down the ravine above the Bass Ponds. It empties into Pond 1, and overflow is routed through Hogback Marsh before entering Long Meadow Lake.
8. The FEIS references the invasion of Kidder Marsh by purple loosestrife. See Section 3.7.

Page 5-106, last paragraph:

- 9 | As indicated previously, Pond C apparently qualifies for class 2B designation. This and related sections of the DEIS should be amended accordingly. Particularly with reference to trace metals and polynuclear aromatic hydrocarbons, the provisions of Minnesota Rules, Part 7050.0210, Subpart 14 should be addressed.

Page 5-109, paragraph 3:

- 10 | See above comments relative to Minnesota Rules.

Page 5-110, paragraph 3:

- 11 | Projected pollutant concentrations for a 1-year storm event in sub-watershed 3 (shown in Table 5.10.I.) would appear to violate in-place copper standards for Pond C. It is also possible that specific trace metal standards developed for Pond C through application of the earlier-cited section of Minnesota Rules would be violated.

- 12 | Further, the argument that projected mass loadings of highway-related contaminants from sub-watershed 3 would not adversely impact surface water quality in Long Meadow Lake is based on two erroneous assumptions. First, the runoff from 2,600 acres of highway/urban area presently routed through Pond C is itself contaminated and largely responsible for the sediment contamination depicted in Table 5.11.A. Thus, characterization of that runoff as a "buffer" for the sub-watershed 3 discharge is without basis.
- 13 | Secondly, compliance with a water quality standard does not infer lack of adverse water quality impacts to the water body in question.

RESPONSES:

9. See response Number 2.
Minnesota Rules, Part 7050.0210, Subpart 14 addresses water quality concerns with undefined toxic substances, or those substances which exhibit toxic effects at an unknown level. This section establishes how the level of toxicity shall be determined. All of the traffic-related pollutants listed in Table 5.10.H of the DEIS have defined toxic levels. Therefore, this section of the Minnesota Rules does not apply.
10. See response Number 2.
11. See response Number 9.
12. The proposers concur that the stormwater runoff from the 2,600+ acres of commercial and residential land uses, that is also routed through Pond C, is contaminated with water-quality pollutants at some concentration. The characterization of the large volume of contaminated stormwater runoff from the 2,600+ acres, acting as a buffer to the much smaller volume of contaminated stormwater runoff from the 45-acre sub-watershed 3, is accurate.
13. It is agreed that compliance with a water-quality standard does not infer lack of adverse water-quality impacts.

The comparison of the projected pollutant concentration to the water-quality standard was to determine whether or not the standard is being violated.

The comparison of the projected pollutant concentrations to the existing water quality, and a determination of the incremental pollutant concentration, were performed for the purpose of determining any adverse water-quality impacts.

Page 5-110, last paragraph:

- 14 This paragraph again attempts to show that the levels of traffic-related trace metals carried in runoff from sub-watershed 3 (Table 5.10.I.) will be buffered by coinciding inflow from the remaining 2,600 acres of Pond C tributary area. However, the water quality data for Pond C presented in Table 1B, Appendix B, was collected at the pond's outlet to Long Meadow Lake, by which time all available physical and biochemical contaminant removal processes are presumed to have taken place. Consequently, valid comparisons between the two sets of data are not possible.

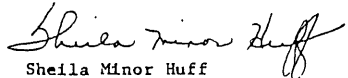
Page 5-118, paragraph 3:

- 15 In addition to the decrease in invertebrate abundance and diversity near stormwater outlets, the referenced study also identified a reduction in submergent aquatic vegetation at those sites.

Page 5-120, Section 5.11.1.3 (Kidder Marsh):

- 16 Please note our earlier comments on the degraded wildlife value of Kidder Marsh. In our view, the presently proposed project may represent the final construction-related forum from which to develop and implement measures to improve the quality of the Pond C discharge to Long Meadow Lake. The Refuge Manager, Minnesota Valley NWR, is prepared to work with the Minnesota Department of Transportation and contributing municipalities toward resolution of this problem.

Sincerely yours,


Sheila Minor Huff
Regional Environmental Officer

RESPONSES:

14. This comment is acknowledged. However, this comparison of the two sets of data is the only comparison that can be made at this time.

The assumptions made in the analysis for the DEIS are: that the modeled pollutant concentration is during or just after the storm event causing the runoff; that the detainment time for the storm routing through the pond is too short to achieve any significant physical or biochemical pollutant removal; and that the measured pollutant concentration at the pond's outlet is representative of the pollutant concentration in the pond (whereas in fact, the pollutant concentration in the pond may possibly be higher as observed in comment Number 14).

Therefore, the comparison of the two sets of data is conservative.

15. This comment is correct.
16. See Section 5.6 of this FEIS for a discussion of the proposed water quality study.


The Draft EIS evaluated noise impacts at twenty-eight receptors. According to Table 5.3.C, twelve of these are currently above Federal Noise Abatement Criteria (NAC). With the build alternatives, the number of receptors above the NAC is reduced to two. The Draft EIS asserted that noise levels would decrease because of improved traffic flow, depression of the highways, and the shielding provided by the walls and embankments of the new interchanges. Based upon the information that has been provided, we concur that the proposed activities will result in a reduction of highway traffic noise.

Noise abatement is not proposed for the receptors remaining above the NAC. The Draft EIS indicated that noise abatement would not be effective because the primary source of ambient noise is the Minneapolis-St. Paul Airport. The Metropolitan Council is considering measures to reduce airport noise. We encourage reevaluation of highway traffic noise abatement after airport noise controls have been implemented.

We have given this project an "EC-2" rating. This rating will appear in the Federal Register. The "EC" indicates our environmental concerns. The "2" notes that we have requested more information. The NOx and VOCs information requested above will satisfy our concerns.

Thank you for the opportunity to review the Draft EIS for the I-494/MN-77 project. If you have questions related to these comments, please contact Tom Nowicki, at 312-886-4244.

Sincerely yours,


William D. Franz, Chief
Environmental Review Branch
Planning and Management Division

RESPONSES:

6.1.2 U.S. Environmental Protection Agency

See Section 4.2.2 of this FEIS.



STATE OF
MINNESOTA
DEPARTMENT OF NATURAL RESOURCES

MAR 25 1987

BOX , 500 LAFAYETTE ROAD • ST. PAUL, MINNESOTA • 55186

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DNR INFORMATION
(612) 296-6157

March 19, 1987

Mr. Duane Brown
Assistant District Engineer, District 5
Minnesota Department of Transportation
2055 North Lilac Drive
Golden Valley, Minnesota 55442

RE: DRAFT EIS FOR S.P. 2758 & 2785, TH 77/I-494 IMPROVEMENTS, BLOOMINGTON & RICHFIELD

Dear Mr. Brown:

The Department of Natural Resources (DNR) has reviewed the above-referenced document and provides the following comments for your consideration.

1 | We feel that that Draft EIS does not adequately address mitigation for stormwater runoff impacts to the natural resources of the Long Meadow Lake area. Pond C cannot provide adequate treatment for all the contaminants it presently receives, and additional runoff from the proposed highway improvements will undoubtedly exacerbate the problem. Other future (private) development in the immediate watershed of Pond C (sub-watershed 3) will contribute additional runoff. For these reasons, mitigative measures need to be developed now to avoid compounding the existing undesirable water quality situation.

We would request that MN/DOT initiate discussion with the US Fish and Wildlife Service, the Minnesota Pollution Control Agency (PCA) and DNR to find a solution for this problem. If additional detailed study is needed, it should be done as part of this project.

2 | MN/DOT should also consult with the PCA regarding the classifications of ponds C and 1 to insure that they are consistent with PCA rules. This could have a significant bearing on whether compliance with discharge standards can be achieved, and on the need for mitigation if it cannot be achieved.

RESPONSES:

6.1.3 Minnesota Department of Natural Resources

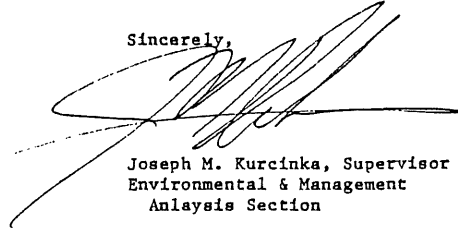
1. Section 5.6.3 of this FEIS describes the proposed water-quality study currently being initiated by Mn/DOT.
2. The MPCA has been contacted regarding the water-quality classification of Ponds C and 1. See Sections 3.8 to 3.13 of this FEIS for more information concerning corrections to the DEIS associated with this comment.

3

There are two protected wetlands (basins 1081w and 1082p) that are very close to portions of the proposed highway improvements. Wetland 1081w is just north of I-494 and three blocks east of 34th Avenue. Wetland 1082p is on the west edge of TH 77 and north of 86th Street. Any disruption of these basins below the ordinary high water mark is discouraged, but if necessary it would require a DNR permit.

Thank you for the opportunity to review this document. If you have any questions regarding these comments, please call Ken Wald of my staff at 296-4790.

Sincerely,



Joseph M. Kurcinka, Supervisor
Environmental & Management
Analysis Section

JMK/KW:pmc

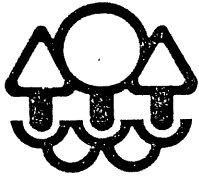
c: Earl Huber
Kathleen Wallace
Kent Lokkesmoe

ken144/1

RESPONSES:

3. Wetland 1081w, north of I-494 and east of 34th Avenue, will be added to the description of wetlands in or near the project area. Wetland 1082p (Wrights Pond) has been identified in the DEIS, and the potential impacts to it described. We do not anticipate any work in protected waters.

MAR 25 1987



Minnesota Pollution Control Agency

March 16, 1987

Mr. Duane Brown
Assistant District Engineer
Minnesota Department of Transportation
District 5
2055 North Lilac Drive
Golden Valley, Minnesota 55422

Dear Mr. Brown:

The Minnesota Pollution Control Agency (MPCA) staff has reviewed the draft environmental impact statement (EIS) for the proposed improvements on existing Trunk Highway (TH) 77 and Interstate (I) 494 in Hennepin County. The staff has comments in the air quality, traffic, noise, and water quality areas for incorporation into the final EIS.

Air Quality and Traffic

1 | Susanne Pelly of the Division of Air Quality, should be contacted at 296-7723, regarding Indirect Source Permit (ISP) requirements for alternatives 1 and 1A. On page 1-8 of the draft EIS, under Section 1.6 regarding permits/approvals required for the project, an ISP is not listed as a requirement for alternative 1A. An explanation must be provided in the final EIS supporting this determination. The final EIS must contain traffic forecasts [the increase in average annual daily traffic (AADT) volumes] for ten years after the completion of construction of highway modifications for alternative 1A (first stage improvements).
2 | This traffic forecast must be compared to the traffic threshold in the ISP rule, an increase in AADT volume of 10,000 or more vehicles per day, to determine if an ISP is required.

3 | Background ambient carbon monoxide (CO) concentrations in the draft EIS are derived from monitoring conducted in 1982 for the Airport South District. This monitoring is too out-of-date to be used for the project and must be redone to obtain representative background CO levels.

RESPONSES:

6.1.4 Minnesota Pollution Control Agency

1. The list of permits and approvals required on page 1-8 of the DEIS has been corrected. The FEIS identifies an Indirect Source Permit as required under Alternative 1A.
2. The FEIS (Section 4.1.1) includes traffic forecasts for ten years after completion of construction for Alternative 1A.
3. CO monitoring has been completed. The results are included in the FEIS (Section 4.2.1).

4 | At pages 5-6 and 5-7 of the draft EIS, the term "congestion" is used to describe traffic conditions on I-494 and TH 77 in the project area. In the final EIS, congestion should be defined in terms of Level of Service (LOS) designations. In addition, the final EIS should contain an explanation of what these LOS designations represent with regard to traffic capacity on affected roadways.

5 | The statement made in Section 5.2.3, regarding the consistency of the project with the State Implementation Plan is not complete. It does not adequately address the impact of the proposed project on the ability of other roadways and projects (projects which have already obtained ISP's such as the Homart development) located in the project area to meet the CO ambient air quality standards. The final EIS must contain a section addressing this issue.

Noise

6 | At page 5-62, it is stated that noise mitigation for the project will consist of depressing the mainline roadways and shielding receiving sites with retaining walls and berms used to support various ramps. Noise mitigation measures for the project must be described in more detail in the final EIS. The location of the retaining walls and berms, in relation to the affected noise receiver sites, must be identified in the final EIS.

RESPONSES:

4. The FEIS (Section 4.1.2) defines congestion in terms of Level of Service and includes an explanation of LOS designations.
5. The proposed project consists only of roadway improvements. It does not affect forecast travel demand within either the project area or the transportation analysis area. Either of the build alternatives will better serve trips through the project area (less delay and reduced CO emissions) than will the no-build alternatives. See Section 4.2.2 of this FEIS.
6. Noise mitigation measures are fully described in Sections 4.3 and 5.5 of this FEIS. Cross sections of key locations on TH 77 both north and south of I-494 are included to illustrate the horizontal configuration of the highway.

Water Quality

7 | Our staff recommends that all storm sewers be diverted out of Long Meadow Lake. The U.S. Fish and Wildlife Service has, in the past, proposed diverting existing storm sewer outlets to other locations in the Minnesota River Valley because of concern about ongoing impacts to Long Meadow Lake from the pollutants carried in the stormwater. In the case of one of the storm sewers, the proposal was accepted and the diversion has been constructed at Hogback Ridge (pond 1 wetland complex). In addition, the staff recommends that Pond C be redirected from Long Meadow Lake to the west side to TH 77 into Kidder Marsh as is proposed on page 5-114.

8 | Storm Water detention ponds should be operated as dry basins during non-runoff periods. The basins would have to be underlain with drain tile and/or have pervious bottoms. With dry basins, runoff to other surface bodies would be eliminated except during the heaviest storms. Soil filtration prior to confluence with ground water should provide the treatment needed to preserve water quality in Long Meadow Lake.

Thank you for the opportunity to comment on this project. If you have any questions about these comments, please contact Marlene Voita, of the Office of Planning and Review, at (612) 296-7275.

Sincerely,

for Barbara Lindsey Sims
Thomas J. Kalitowski
Executive Director

TJK/mfl

cc: Mr. Gregg Downing, Minnesota Environmental Quality Board
Ms. Susanne Pelly, Division of Air Quality
Mr. David Kelso, Division of Air Quality
Mr. Tim Larson, Division of Water Quality, Program Development

RESPONSES:

7. The issue of stormwater runoff into the Minnesota Valley National Wildlife Refuge and Long Meadow Lake in the vicinity of the proposed project, and the subsequent impacts from pollutants in the stormwater, is an issue that extends beyond the scope of this EIS. The pollutants in the stormwater are primarily generated from the 2,600+ acre tributary area which is composed of commercial and residential land uses. This tributary area is within the Cities of Bloomington and Richfield. The solution to this issue requires a joint cooperative effort between the agencies listed in Section 5.3 of this FEIS.

As detailed in Section 5.6.3, the Minnesota Department of Transportation is currently organizing an intergovernmental committee that will review this issue, identify potential solutions, and identify potential funding sources to implement the solutions.

8. It is agreed that stormwater detention ponds should be operated as dry basins during non-runoff periods. Both of the proposed new ponds, the Ramp V and the Flume Ponds, will be operated as dry basins.

Pond C, however, is an existing pond and is being operated as a wet basin. As a possible additional mitigative measure to those listed in Section 5.10.4.5 of the DEIS, Pond C could be redesigned to operate as a dry basin, should that be recommended in the findings of the proposed water-quality study.

John Himle
District 41A
Bloomington-Hennepin County

Committees:
Taxes
Economic Development & Housing
Environment & Natural Resources
Future & Technology
Rules & Legislative Administration

Assistant Minority Leader



Minnesota House of Representatives

Fred C. Norton, Speaker

March 12, 1987

Mr. Duane Brown
MN Department of Transportation
District 5
2055 North Lilac Drive
Golden Valley, MN 55422

Dear Mr. Brown:

It has come to my attention that an environmental review is in progress of the proposed highway improvement on Cedar Avenue near the old Metropolitan Stadium site in Bloomington.

As you may know, these proposed highway improvements were the central issue in H.F. 2123, which successfully passed the 1986 session of the Minnesota House and Senate and was signed into law by Governor Perpich. I was the chief author of H.F. 2123 and participated in all committee hearings and full House sessions pertaining to this legislation.

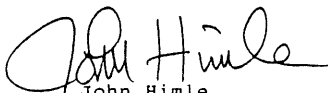
H.F. 2123 received an almost unprecedented amount of attention by the Minnesota legislature and statewide media. Legislative hearings concerning the proposed redevelopment of the former Met Stadium Site began in the early fall of 1985 and continued into the 1986 legislative session. This issue was reviewed by four House Committees: Taxes, Transportation, Local and Urban Affairs, and, Commerce and Economic Development. In addition, several state agencies including the Metropolitan Council, the MN Department of Transportation, the MN Pollution Control Agency and others provided their input and views to legislators during the development of H.F. 2123.

Probably more than any other bill in the 1986 session, legislators had a thorough understanding of the issues before them when they voted on H.F. 2123. The legislative intent of H.F. 2123, as formulated through the committee process and floor debate, clearly favors the construction of needed highway improvements on Cedar Avenue. Legislators also agreed that these improvements need to be completed in an expedited manner to minimize the possible traffic problems associated with the development on the Stadium site.

I would hope and urge that the transportation environmental review process act favorably toward an accelerated improvement schedule for Cedar Avenue in Bloomington. If you have any questions or need additional information, please feel free to contact me.

Thank you for your consideration.

Sincerely,


John Himle
STATE REPRESENTATIVE
District 41A

JH:mm

RESPONSES:

6.1.5 Minnesota House of Representatives

Representative John Himle Letter

No response necessary.

WILLIAM V. BELANGER, JR.
Senator 41st District
10716 Beard Avenue South
Bloomington, Minnesota 55431
Phone: (612) 881-4119
Office:
107 State Office Building
St. Paul, Minnesota 55155
Phone: (612) 296-5975

Senate
State of Minnesota

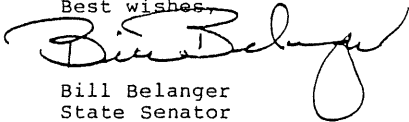
March 9, 1987

Rick Mussett
Community Development Department
City of Bloomington
2215 West Old Shakopee Road
Bloomington, MN 55431

Dear Rick:

As an author of the bill that made the development of the land at 494 & Cedar, known as the Met Stadium property, possible, I would encourage the necessary improvements to the Cedar Avenue corridor. These improvements should have been made years ago but due to politics the stretch of Cedar Avenue from Highway 494 to Killebrew Drive has not been brought up to freeway standards. It should be noted that Cedar Avenue from the 62nd Street Crosstown to the new Cedar Minnesota River Crossing with this short exception is to freeway standards. It is now time with the impending development of the stadium property to provide the necessary street and bridge improvements which will provide for the orderly ingress and egress of traffic.

Best wishes,



Bill Belanger
State Senator

BB/st

6-22
COMMITTEES • Taxes & Tax Laws • Employment • Rules & Administration • Economic
Development & Commerce
CHAIRMAN • Bloomington Legislative Delegation

RESPONSES:

6.1.6 Minnesota Senate

Senator Bill Belanger Letter

No response necessary.



Metropolitan Council
300 Metro Square Building
Seventh and Robert Streets
St. Paul, Minnesota 55101

Telephone (612) 291-6359

March 17, 1987

E.E. Ofstead, Assistant Commissioner
Technical Services Division
Minnesota Department of Transportation
Transportation Building
St. Paul, MN 55155

RE: Draft Environmental Impact Statement
TH 77/I-494 Improvements in Hennepin County
Metropolitan Council Referral File No. 13109-3

Dear Mr. Ofstead:

At its meeting on March 12, 1987, the Metropolitan Council considered the Draft Environmental Impact Statement for Th 77/I-494 improvements in Hennepin County. This consideration was based on a report of the Metropolitan Systems Committee, Referral Report No. 87-16. A copy of this report is attached.

The Council adopted the following recommendation contained in the above report:

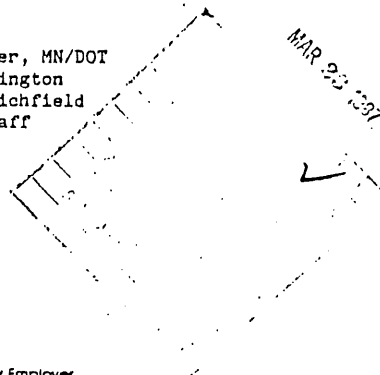
That this memorandum and findings be submitted to Mn/DOT as the Metropolitan Council's comments on the draft EIS for the TH 77/I-494 Improvement Project.

Sincerely,

Steve Keefe
Chair

SK:11
Attachment

cc: Duane Brown, Assistant District Engineer, MN/DOT
Rick Geshwiler, Planner, City of Bloomington
John G. Cartwright, Manager, City of Richfield
Connie Kozlak, Metropolitan Council Staff



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METROPOLITAN COUNCIL
Suite 300 Metro Square Building, Saint Paul, Minnesota 55101

REPORT OF THE METROPOLITAN SYSTEMS COMMITTEE
Referral Report No. 87-16

DATE: March 11, 1987

TO: Metropolitan Council

SUBJECT: Draft Environmental Impact Statement for TH 77/1-494 Improvements
in Hennepin County, Referral File No. 13109-3

BACKGROUND

Mn/DOT has submitted for review and comment a draft EIS for improvements on TH 77 between 76th and 86th Streets and I-494 between 12th and 24th Avenues. The EIS examines three alternatives, build improvements (Alt. 1), no-build (Alt.2) and Travel Demand Management (Alt. 3). A subalternative (Alt. 1A) is also included which represents the first stage of the ultimate improvement.

Alternative 1 is unchanged from that proposed in previous Council reviews such as the Mall of America draft and final EIS's, the draft and final scoping documents for TH 77/1-494, and Council approval to reconstruct the controlled access roads.

ISSUES

Mn/DOT's consultant, Dick Wolsfeld of BRW, Inc. responded to finding number 7, delaying construction of the 75th St. connection between 24th Av. S. and TH 77 until aviation studies are completed if at all possible. He said this is not very possible since reconstruction of the TH 77/1-494 and 24th Ave. interchanges will require closing the I-494 frontage road west of 24th Ave. which currently provides access to the MTC bus garage. 75th St. will replace this access.

The committee decided not to change the wording on finding 7, noting that the phrase "if at all possible" left Mn/DOT some options.

RECOMMENDATION

That this memorandum and findings be submitted to Mn/DOT as the Metropolitan Council's comments on the draft EIS for the TH 77/1-494 Improvement Project.

Respectfully submitted,

Carol Flynn, Chair



Metropolitan Council of the Twin Cities Area
300 Metro Square Building, 7th and Robert Streets
St. Paul, Minnesota 55101 Tel. 612 291-6359/TDD 291-0904

DATE: February 24, 1987
TO: Metro Systems Committee
FROM: Connie Kozlak, Transportation Planning
SUBJECT: Draft EIS for TH 77/I-494 Improvements in Hennepin County,
M.C. Dist. 12, Ref. 13109-3

AUTHORITY TO REVIEW

The passage of the National Environmental Protection Act in 1970 established the requirement that an Environmental Impact Statement (EIS) be written for all major federally-funded projects, including highways. In 1971 the Federal Highway Administration issued guidelines for preparation of highway EIS's. Either an EIS or a negative declaration statement must be prepared on any major highway project which did not have FHWA location approval prior to February, 1971. The draft EIS must be circulated to federal, state, and local agencies with jurisdiction by law or special expertise with respect to any environmental impact involved, and these agencies must be given at least 45 days to return their comments. All submitted comments on the draft EIS must then be taken into account in the preparation of the final EIS.

PROJECT DESCRIPTION

The draft EIS addresses improvements to TH 77 between 76th and 86th Streets and I-494 between 12th & 24th Avenues. The proposed highway improvements will be necessary to provide for the additional traffic demands expected to result from development in the Airport South area of Bloomington including the Mall of America.

The EIS examines three alternatives, including a no-build (Alt. 2) and a Travel Demand Management (Alt. 3) alternative. The latter includes no highway improvements but analyzes the impacts of handling increased traffic solely through increased transit, carpooling, staggered work hours, etc.

The build alternate (Alt. 1) includes travel demand management and highway improvements to serve the expected development for the year 2005 (shown on attachment A). These improvements include widening I-494, rebuilding the I-494 interchanges with 34th Av., 24th Av., TH 77 and 12th Av. and adding interchanges to TH 77 at 75th St., E. 81st St. and Killebrew Drive. The total estimated cost is \$189 million.

A subalternate (Alt. 1A) is also analyzed, which represents the first stage of the ultimate project and would be sufficient to serve 1995 development. The cost of stage I is estimated to be \$82 million. Construction is planned to begin in 1987 with improvements open to traffic by 1989. The ultimate project would not be built before 1995. Alternate 1A (shown on Attachment B) basically includes the TH 77 improvements, construction of an urban interchange at 24th

Ave. S. and construction of one directional ramp (northbound TH 77 to westbound I-494) in the interchange of TH 77 & I-494. The preliminary design does include provisions for ramp metering.

BACKGROUND

It has long been recognized that improvements are needed to I-494 and TH 77 in this vicinity. Table 12, Metropolitan Highway Needs, of the Transportation Policy Plan notes that interchange improvements are needed on I-494 from TH 77 to 34th Ave. and on TH 77 from I-494 to 90th Street. The Bloomington comprehensive plan also recognized these needs and in 1982 an Airport South Study was undertaken to study the area in more detail. After completion of this study an interchange was proposed to replace the existing signalized, at-grade intersection at TH 77 and Killebrew Drive. This interchange was approved by the Metropolitan Council in January, 1984.

However, development being proposed in the Airport South area (east of TH 77 and south of I-494) will generate traffic that will exceed the capacity provided by the existing system and this one additional interchange. As a result of extensive studies conducted by the City of Bloomington, in cooperation with the staffs of Mn/DOT, Metropolitan Council, Hennepin County, RTB and MPCA, the currently proposed plan for additional and modified interchanges was prepared. The Council has reviewed several of the studies which included these highway plans during the past two years such as the draft and final EIS's for the Mall of America and the draft and final Study Outline and Scoping documents for TH 77 and I-494.

In addition, Minnesota Statute 473.167, Subdivision 1, provides that the Council must review and approve any controlled access highway projects in the metropolitan area prior to construction. This approval is normally given after preparation of a draft EIS and selection of a preferred alternate by the Mn/DOT Commissioner. However, in the case of this project, the project was narrowed to one "build" alternative in the Final Scoping Document (dated June, 1986).

Bloomington and Mn/DOT requested this approval from the Council in Sept. 1986 (Ref. 13855-1). On October 9, 1986 the Council approved the reconstruction of TH 77 and I-494, subject to further approval of any design modifications. The Council also approved an amendment to Bloomington's Comprehensive Plan, (Ref. 13855-2) which recognized the proposed improvements, on October 9, 1986.

DISCUSSION

Metropolitan Development and Investment Framework (Paul Baltzersen)

From the perspective of the Metropolitan Development and Investment Framework, few new or additional issues are evident from this EIS on the transportation improvements in the vicinity of the former Bloomington Stadium site. Comments have been made previously through the metropolitan significance review of the Bloomington Mega Mall, the Mall's environmental impact statement, interchange requests and a comprehensive plan amendment.

Two comments on the EIS are offered at this time.

1. The population forecasts contained in Tables 4.1.A and 4.1.B are not the most current prepared by the Metropolitan Council and should be replaced

RESPONSES:

6.1.7 Metropolitan Council

1. Tables 4.1.A and 4.1.B, taken from the Draft Metropolitan Development and Investment Framework, have been revised in this FEIS to reflect the figures in the Final Framework as indicated.

in the final EIS. The most recent forecasts are contained in the recently adopted Metropolitan Development and Investment Framework and also in Attachment C.

2. The new Metropolitan Development and Investment Framework contains priorities on metropolitan investments. Priorities described in the Metropolitan Development and Investment Framework provide that metropolitan highway system improvements moved up in schedule at the request of local government should not result in a change to the ranking for other metropolitan highway investment.

Bloomington will be funding transportation improvements and will be repaid by the Minnesota Department of Transportation at a time when those improvements were otherwise scheduled so there is no conflict with MDIF policies.

Parks - J. Mauritz

2 | The draft EIS adequately addresses regional system impacts for parks, including the Mn Valley National Wildlife Refuge and potential trail corridors. No further comments are required if, as we presume, USDI, Fish & Wildlife Service will also comment with respect to the refuge, where water quality impacts and access issues may arise. A recent amendment to the regional preservation open space system plan makes the refuge eligible as a component of the regional system.

Transportation - C. Kozlak

The Council has approved the improvements and interchanges as presented in the ultimate design. From a transportation point of view this EIS presents no additional information on Alternate 1 that requires further comment.

This is, however, the first time Alternate 1A, the first stage, has been presented for Council approval. The concept of building the interchange in two stages is consistent with Council policies. The cost of the ultimate design is high enough (\$189 million) to make staging a sound idea strictly from a fiscal point of view. In addition, as the EIS points out, the 2005 traffic volumes are "demand" volumes, or the number of trips that would be attracted to the Airport South area by the land uses proposed to be there in 2005. Unless lanes are added to both I-494 and TH 77 beyond the study area of this EIS, it will not be possible to deliver to the study area the traffic volumes used to design the Alternate 1 improvements.

The Metropolitan Council is currently studying the I-494 corridor from the airport to Minnetonka and is examining alternative improvements that could be made west of the area being studied by this EIS. Alternative 1A does not require or assume additional lanes on I-494 west of the project area, but does not preclude future alternatives for I-494.

3 | The EIS does indicate that the preliminary design includes "provisions" for ramp metering. In order to preserve the integrity of the metropolitan highway system ramp metering should definitely be included in this project.

The EIS assumes a moderate level of transit and travel demand strategies will be implemented in addition to the roadway improvements.

RESPONSES:

2. The U.S. Department of the Interior has commented on the project.
3. Ramp metering is being proposed as part of the design of the project. Ramp metering is also being actively evaluated along I-494, independent of this or any other project, for implementation in 1988.

Air Transportation -C. Case

The proposed roadway improvements are immediately adjacent to, or located on MSP International Airport property. During the MC/MAC review of the MSP Airport Master Plan in 1979 several issues involving ground access and airport development were examined:

1. Ultimate physical capacity airport development plan (including runway 4/22)
2. Future road access to a new "West" terminal area (timing, design, location)
3. Adequacy of travel forecast data (Regional and airport traffic analysis)
4. Alternative access modes (especially a traffic management plan)
5. Airport safety zoning (especially runway approach areas)
6. Access to I-494 (especially 34th and 24th Ave. interchanges)

The overall thrust of the individual issues were predicated upon regional policy that regional systems receive higher priority than local needs. Thus, a portion of regional road capacity in the vicinity of the airport is "reserved" for airport users and takes precedent over local traffic demand.

Many of these issues were reviewed almost concurrent with the city of Bloomington's Comprehensive Plan preparation. A major outcome of that process was the preparation of the Airport South Generic EIS. Additional regional roadway analysis occurred with the Mall of America EIS. In both of these reports, an effort was made to further refine airport traffic information and relate it to regional and Airport South traffic demands on the regional road system common to the airport access areas.

Each of the previously mentioned EIS reports has considered the MSP airport planning elements concerning ground access and airport facility development. The TH 77/I-494 DEIS has included even more detail concerning airport requirements and roadway impacts. However, virtually all of the MSP Master Plan issues examined by the MC/MAC Committee are still unresolved. It is expected that the current I-494 study will provide some additional information on the regional road system. The MAC is also updating its MSP Airport Master Plan which would provide new information on any new access needs on TH 77 north of I-494 and also CSAH 62. In addition, the environmental documentation for runway 4/22 extension will also be available.

4 Of particular concern is the relationship of TH 77 design north of I-494 with any potential interchanges for access to the "west" terminal area off TH 77 and runway approach clearances, not only for an extended runway 4/22, but other alternatives to be evaluated as part of the MSP Master Plan Update. The potential for depressing 75th St. between TH 77 and 24th Ave. So. in the long-term should be evaluated for possible implementation. The runway 4/22 approach/departure area is experiencing airspace encroachment. The Registry Hotel and the Metro Financial Center have become controlling obstructions in this area. Proliferation of other development within current shadow effect areas of these structures can inhibit full effective use of airport facilities.

It is anticipated that the MAC on-going studies and the I-494 Study will be completed by late 1987. Both studies will provide clarification of the long-term airport area access and development needs.

RESPONSES:

4. The alignment for the new frontage road connecting 24th Avenue with TH 77 was obtained from the Metropolitan Airports Commission. Impacts of the new road were determined in coordination with MAC and were based on impacts of the Runway 4/22 extension.

FINDINGS

1. This EIS presents very little additional information on Alternate 1, the highway improvement alternative, that has not been previously reviewed by the Council.
2. Alternate 1 was approved by the Council in November, 1986 as being consistent with metropolitan transportation policies.
3. Alternate 1A, the first stage of constructing the ultimate interchange, has not been previously reviewed by the Council. This alternate is consistent with metropolitan policies.
- 5 | 4. Final designs for Alternates 1 and 1A should include ramp metering to minimize impacts on the regional highway system.
- 6 | 5. Tables 4.1.A and 4.1.B do not present the latest Metropolitan Council population forecasts. These tables should be revised in the final EIS as shown in Attachment 3.
- 7 | 6. The potential for eventually depressing 75th St. between TH 77 and 24th Ave. So. in the long-term should be evaluated for possible implementation.
- 8 | 7. The implementation of 24th Ave. and 75th St. connector although scheduled for first phase development, should be delayed awaiting the results of the aviation studies if at all possible.

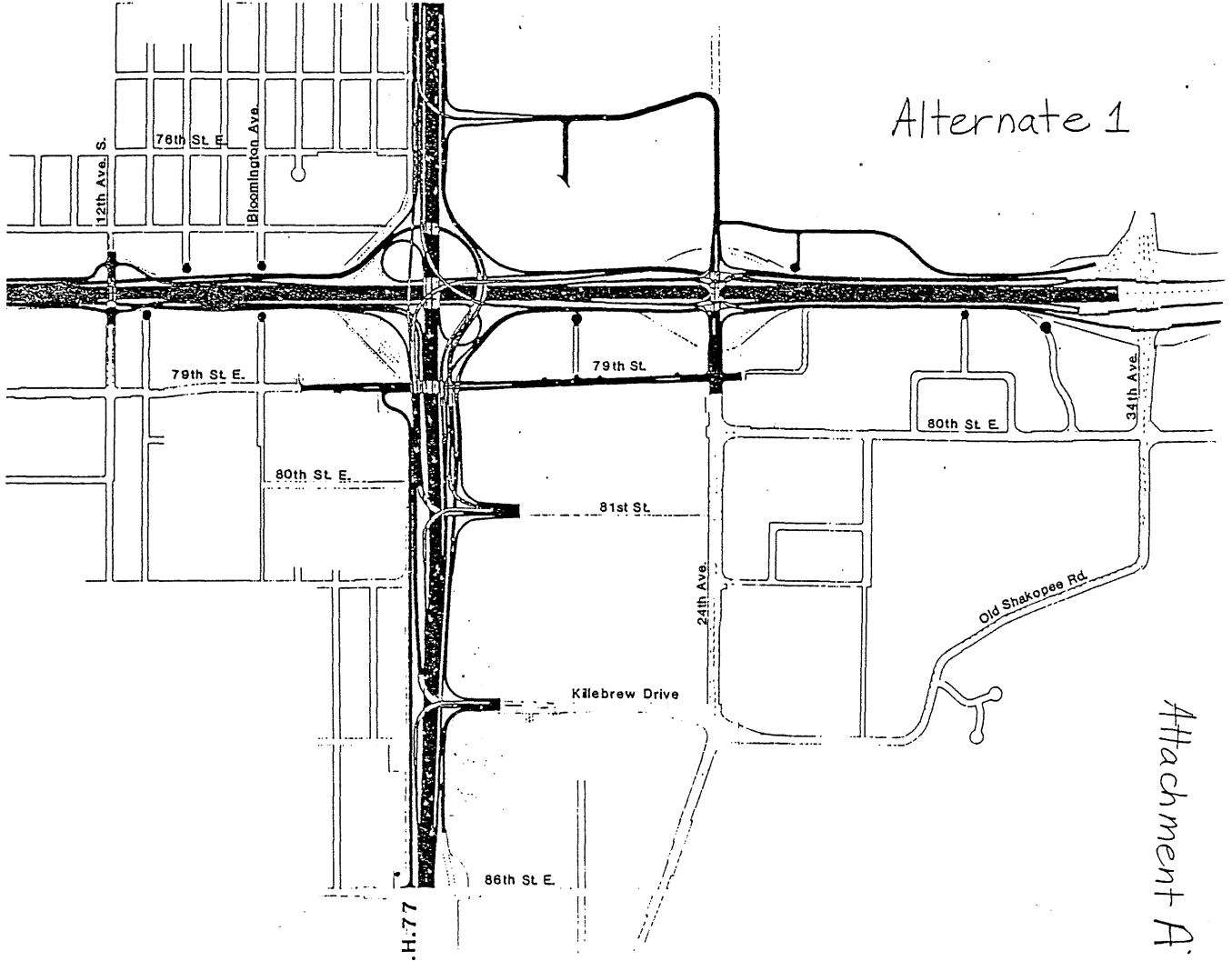
RECOMMENDATION

That this memorandum and findings be submitted to Mn/DOT as the Metropolitan Council's comments on the draft EIS for the TH 77/I-494 Improvement Project.

DPF343

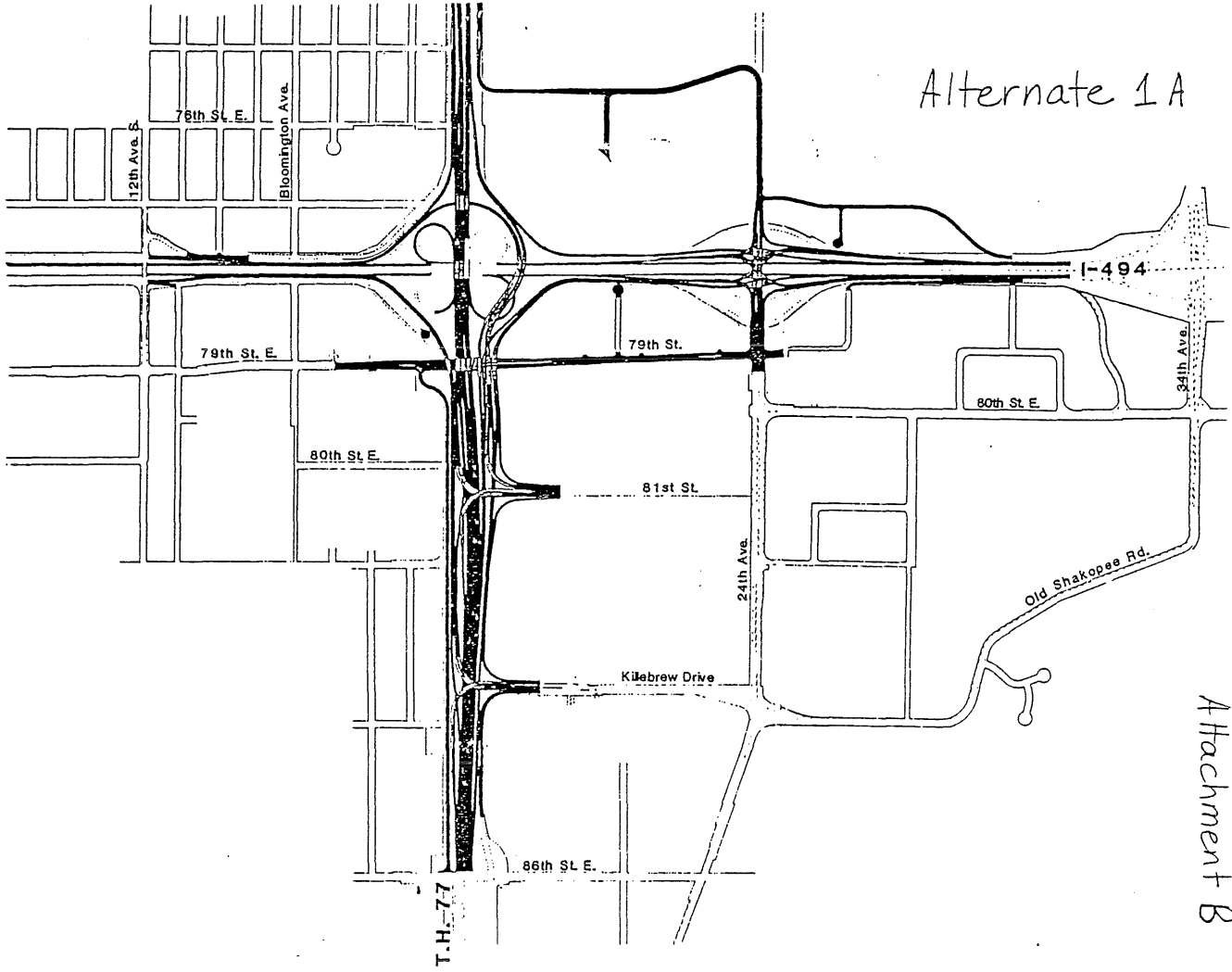
RESPONSES:

5. See comment Number 3.
6. See comment Number 1.
7. See comment Number 4.
8. Implementation of the 24th Avenue connector cannot be delayed because the frontage road is being removed as part of Stage I. MTC buses must be able to get in and out of the bus garage. The geometrics and other design specifics were prepared in close coordination with MAC and took into consideration the extension of Runway 4/22 and the needs of airport property leaseholders. Coordination will continue with MAC as part of the design process and the I-494 Corridor Study, and the airport's needs will be accommodated.



Alternate 1

Attachment A



Alternate 1A

Attachment B

TABLE 4.1.A
FORECAST OF METROPOLITAN AREA POPULATION
AND HOUSEHOLD GROWTH, 1980-2000

YEAR	POPULATION	HOUSEHOLDS
1980	1,985,873	721,357
1990	2,204,000	863,000
% Change 1980-1990	11.0%	19.6%
2000	2,310,000	931,000
% Change 1990-2000	4.8%	7.9%

TABLE 4.1.B
METROPOLITAN COUNCIL FORECASTS OF POPULATION

	1980	1990	2000	change 1980-2000	% change 1980-2000
Anoka	195,998	235,650	254,050	58,052	29.6
Carver	37,046	44,600	48,290	11,244	30.4
Dakota	194,279	250,310	279,900	85,621	44.1
Hennepin	941,000	1,005,410	1,036,830	95,419	10.1
Ramsey	459,784	472,550	476,570	16,786	3.7
Scott	43,784	58,080	65,900	22,116	50.5
Washington	113,571	137,700	148,860	35,289	31.1
Metro Area	1,985,873	2,204,000	2,310,000	324,127	16.3

Source: Metropolitan Development and Investment Framework, 1986.

DPF343

MAR 23 1987



Minneapolis · Saint Paul

METROPOLITAN AIRPORTS COMMISSION

P. O. BOX 11700 · TWIN CITY AIRPORT · MINNESOTA 55111

OFFICE OF EXECUTIVE DIRECTOR

PHONE (612) 726-1892

March 17, 1987

Mr. Duane Brown
 Assistant District Engineer
 Minnesota Department of Transportation
 District 5
 2055 North Lilac Drive
 Golden Valley, MN 55422

RE: Mn/DOT Draft Environmental Impact Statement
 - TH77/I-494 Improvement Project

Dear Mr. Brown:

Following below are our comments pertinent to the subject DEIS for the Cedar Avenue/I-494 interchange. These comments relate to specific sections/pages within the document:

- 1 | 1. Page 1-3, fourth paragraph: Reference to Runway 4/22 Extension being programmed for construction in 1987 should be changed to reflect construction in 1988.
- 2 | 2. Page 1-8, ninth paragraph: (Agency - Metropolitan Airports Commission). Question - Why is MAC included in Alternative 1 but not in Alternative 1A?
- 3 | 3. Page 4-23, section 4.2.4, first paragraph: First sentence states "MSP serves all commercial traffic in the Metropolitan Area". This should refer to all scheduled airline traffic.
- 4 | 4. Page 5-12, section 5.1.5: This section of the DEIS focusses on the impacts of the project on MSP. Though the specific impacts have been elaborated relevant to safety zone and clearance criteria, especially pertinent to Phase IA, discussion of "land release" required to execute this project is absent. Some additional graphic detail is advisable to present an enlarged view of the study area - including a delineation of MAC property and the existing land uses. The land release is a Federal action requiring an environmental assessment, so sufficient data should be included to assist the FAA in making their decision. Mn/DOT Aeronautics staff is aware of FAA requirements and should be consulted in this area.

RESPONSES:

6.1.8 Metropolitan Airports Commission March 17, 1987, Letter

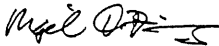
1. The FEIS will revise the construction date of the Runway 4/22 extension to 1988.
2. Inter-agency coordination will be maintained with MAC under both Alternative 1 and Stage 1 improvements, as noted in the FEIS.
3. The sentence has been revised in the FEIS to refer to scheduled airline traffic.
4. The FEIS includes an expanded discussion of land release required by FAA, including a graphic illustrating an enlarged view of the affected area with MAC property and land uses delineated. Mn/DOT Aeronautics staff will be consulted and their suggestions followed.

5

Given that FAA has found Phase IA to be acceptable from an airspace standpoint, Mn/DOT concurrence or lack thereof in FAA's finding would be most appropriate in this section.

If you require clarification on any of these comments, please contact me. We do appreciate the opportunity for the review and comment on this document.

Sincerely yours,



Nigel D. Finney
Deputy Executive Director - Operations

/kp

RESPONSES:

5. Mn/DOT concurs with the FAA's determination on aviation impacts under Alternative 1A. No formal concurrence from Mn/DOT Aeronautics is required.



March 19, 1987

Duane Brown, Assistant District Engineer
Minnesota Department of Transportation
District 5
2055 North Lilac Drive
Golden Valley, Minnesota 55422

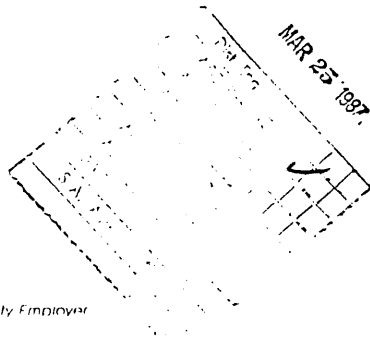
Dear Mr. Brown:

On Wednesday, March 18, 1987, the Policy Committee of the Regional Transit Board reviewed and took action on the Draft Environmental Impact Statement for Trunk Highway 77/Interstate 494 improvements (see attachment). The full board will be taking action on this DEIS on April 2, 1987, and, based on input by the committee, is expected to approve the committee recommendation.

Sincerely,

Elliott Perovich
Chairman

EP/mf
Att.



An Equal Opportunity Employer

REGIONAL TRANSIT BOARD

Suite 270 Metro Square Building, Saint Paul, Minnesota 55101

DATE: March 2, 1987
TO: Policy Committee
FROM: Randy Rosvold, Planner *RR*
SUBJECT: Draft Environmental Impact Statement (DEIS)
Trunk Highway (T.H.) 77/I-494 Improvement Project

Action Requested

That the Regional Transit Board (RTB) notify the Minnesota Department of Transportation (Mn/DOT) that their review of the Draft Environmental Impact Statement for T.H. 77/I-494 Improvement Project has been completed. The RTB raises specific concerns outlined in this review pertaining to the impacts on existing and future transit services, preferential treatments provided for transit and the transit use assumptions utilized in the development of the Draft Environmental Impact Statement.

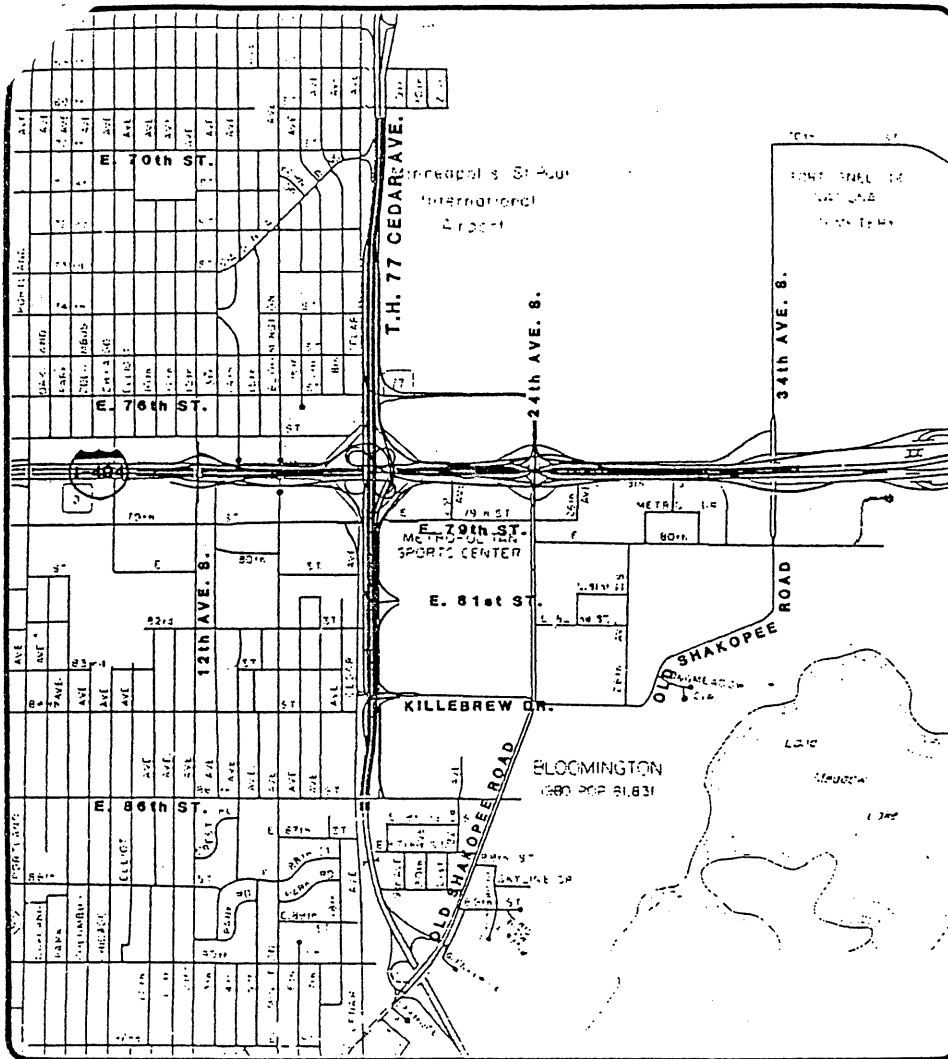
Background

Two previous environmental impact statements have been prepared for related projects in the Airport South Area in Bloomington. As part of the Airport South Transportation and Environmental Management Study, a generic EIS was prepared in 1984-1985 according to the Minnesota Environmental Quality Board Review Program. A state EIS was also prepared for the development proposal of the Mall of America and Fantasyworld by the City of Bloomington in 1986. The Regional Transit Board reviewed both of these environmental impact statements and provided written comments concerning the impacts the projects would have on existing and future transit services within the development area.

The Draft Environmental Impact Statement (DEIS) on the T.H. 77/I-494 Improvement Project builds on data presented in the previous environmental documents and the transportation plan for the Airport South district. The transportation needs cited in the previous documents are consistent with the transportation improvements described in this Draft Environmental Impact Statement.

The T.H. 77/I-494 Improvement Project proposes to upgrade sections of T.H. 77 and I-494 in order to eliminate existing roadway network deficiencies and enable the roadway system to accommodate future forecasted traffic resulting from the development of the Mega Mall/Airport South area. The specific plans are outlined in Figure 2.1.D and include lane additions on T.H. 77 and I-494, new and upgraded interchanges and a separated roadway system providing access from T.H. 77 and I-494 to the arterial streets serving the Airport South area.

The project is proposed to be constructed in at least two phases. The first stage improvements concentrate on T.H. 77 and are proposed to be completed by 1989. Improvements to I-494 would be completed in a subsequent stage by 1995. The preferred roadway improvement design concept was developed in conjunction with the Transportation Plan for the Airport South District completed by BRW in 1985.



**T.H. 77/I-494
IMPROVEMENT
PROJECT**

FIGURE 2.1.D
Proposed
T.H.77/I-494
Improvements



Four roadway alternatives were evaluated in the DEIS. All of the alternatives assume Year 2005 development including the phasing in of the Mall of America and Fantasyworld. The alternatives examined included: Alternative 1 (preferred alternative illustrated in Figure 2.1.D), complete roadway improvements with Travel Demand Management (TDM); Alternative 1a, stage 1 roadway improvements with TDM; Alternative 2, no roadway improvements and no TDM; and Alternative 3, TDM and no roadway improvements.

Throughout all of the studies conducted in the 494/T.H. 77 area, transportation and transit have been identified as important elements in the development of the area. This roadway improvement project addresses the future needs in the area to enable the highway network to satisfactorily accommodate anticipated traffic volumes.

The staff review of the DEIS raised several concerns relating to how this development will impact transit. These concerns are summarized below.

The first concern deals with the impacts on existing transit services. This includes both the impact on transit service operating within and through the area and the impact on the MTC South Garage. Issues relating to the South Garage include roadway access, bus circulation patterns, traffic capacity concerns and acquisition of additional right-of-way in front of the facility which will require tighter turning movements for buses leaving the garage.

1 | The existing transit services operating within and through the area are described in the DEIS in the section on existing conditions and roadway deficiencies on Pages 2-23 and 2-24. Figure 2.3.E which illustrates existing transit service needs to be updated to correspond with the narrative on existing bus routes. This map is missing Routes 78, 88, 89, 77A, 77C, 77E, 77G and does not illustrate the new realignment of Route 39.

The impacts on bus circulation to and from South Garage is adequately addressed in the DEIS. The first section on transportation impacts in Chapter 5.0, Environmental Consequences and Potential Mitigation Measures, deals with concerns about the South Garage.

The second area of concern deals with preferential treatment for transit. In Chapter 2, "Purpose of and Need for Action," it is noted that a transit center is proposed as an element of the Mall of America/Fantasyworld development which would have access to the regional highway system at Killebrew Drive, 81st Street and 24th Avenue. This transit facility will be ideally located within the center of the overall development at approximately 24th Avenue and 82nd Street.

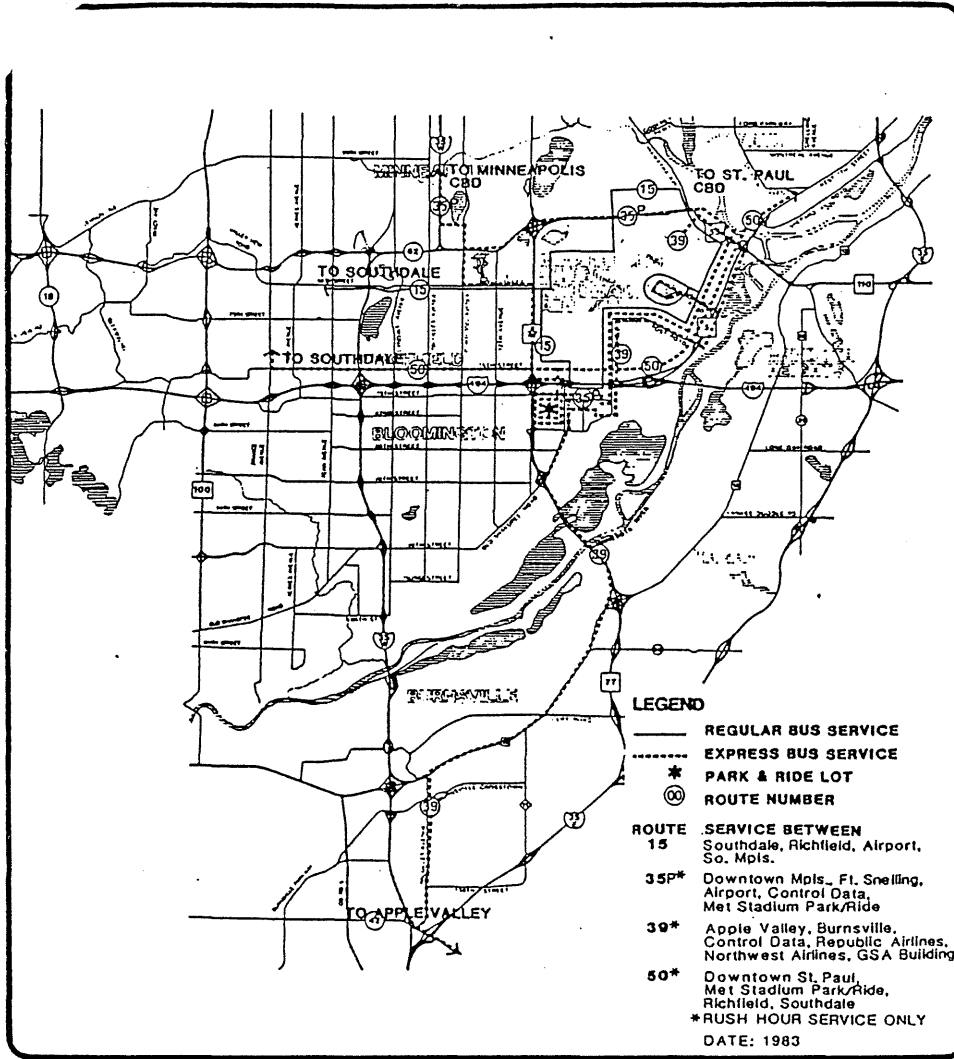
2 | The proposed transit station is consistent with the transit hub concept developed in the Transit Service Needs Assessment. However, preferential treatment for transit access to the facility should be examined and provided for if possible.

3 | In Chapter 5, "Environmental Consequences and Potential Mitigation Measures," mention is made of the possibility of a freeway flyer transit stop along T.H. 77 enabling commuter express routes on T.H. 77 to serve the Mega Mall/Airport South developments. Such a stop should be included in final design plans to encourage transit use in the area.

RESPONSES:

6.1.9 Regional Transit Board

1. Figure DEIS 2.3.E has been updated in this FEIS (Figure 5).
2. The preferred alternative has been developed to increase capacity and access for all vehicles to, as well as through, the Airport South District, including transit vehicles. Preferential access for transit is not feasible given the geometric constraints of the project area, but in any case, should not be necessary with the improved access, capacity, and circulation routes developed under Alternative 1.
3. A transit stop along TH 77 for Mall of America visitors using the TH 77 freeway flyer is not feasible under the geometrics of the preferred alternative. The desirability of a stop is also in question, since staying on the bus while the bus travels to the transit center of the Mall is much safer for passengers and eliminates the need to cross TH 77 and walk a considerable distance to the Mall.



T.H. 77/I-494 IMPROVEMENT PROJECT

FIGURE 2.3.E Existing Transit Service

0' 12,000'

4 | The last area of concern relates to the transit use assumptions. The traffic forecasts for T.H. 77 and 494 are based on the work done for the Airport South transportation plan. These assumptions use a moderate transit use scenario which implies a 1% - 2% mode split. In order to attain this level of transit usage, there will need to be increases in the amount of transit service in the Airport South area. These are being examined in the I-494 study currently underway but have not been adequately addressed in the DEIS.

Findings and Conclusions

- Mn/DOT has requested RTB review of the Draft Environmental Impact Statement 494/T.H. 77.
- 5 | - The impacts on bus circulation to and from the MTC South Garage bus facility are adequately addressed. However additional analysis should be conducted on the impact of reducing the front pull out area due to the relocation of the roadway.
- 6 | - The overall impacts on the existing transit service operating within and through the project area are adequately addressed. Specially the impact the different alternatives would have on existing and future route alignments and access need to be analyzed.
- 7 | - Preferential treatments for transit from the proposed Megal Mall transit station to the proposed roadway network should be further examined to determine if preferential access is possible.
- 8 | - The structure and form of additional transit services necessary to achieve a 1-2% moderate transit use mode split should be further defined and evaluated. The I-494 study should be used to provide some of these alternatives.
- 9 | - The opportunity to provide freeway flyer stops for commuter routes on T.H. 77 are mentioned but should be more fully analyzed and included in the final design plans.

Recommendations

That the Regional Transit Board (RTB) notify the Minnesota Department of Transportation (Mn/DOT) that their review of the Draft Environmental Impact Statement for T.H. 77/I-494 Improvement Project has been completed. The RTB raises specific concerns outlined in this review pertaining to the impacts on existing and future transit services, preferential treatments provided for transit and the transit use assumptions utilized in the development of the Draft Environmental Impact Statement.

RRPOLI/2

RESPONSES:

4. The assumed transit mode split of one percent to two percent was developed with input from the RTB and Metropolitan Council during the Airport South Generic EIS and Transportation Plan processes. The analysis was not repeated in the TH77/I-494 DEIS because both of the previous documents examined the transit modal split.
5. The preliminary design of the new connector street between 24th Avenue and TH 77 accommodates necessary bus movements, including turning movements. The front pull-out area of the MTC garage is not reduced as a result of the relocation of the frontage road.
6. The FEIS includes additional discussion of the impact of all project alternatives on existing and future route alignments and access in Section 4.1.
7. See comment Number 2.
8. See comment Number 4.
9. See comment Number 3.



DEPARTMENT OF TRANSPORTATION
320 Washington Av. South
Hopkins, Minnesota 55343-8468

935-3381

March 24, 1987

Mr. Duane Brown
Assistant District Engineer, District 5
Minnesota Department of Transportation
2055 North Lilac Drive
Golden Valley, Minnesota, 55422

CSAH 1, COUNTY PROJECT 8016
DRAFT ENVIRONMENTAL IMPACT STATEMENT
T.H. 77/I-494 IMPROVEMENT PROJECT

Dear Mr. Brown:

Thank you for the opportunity to review and comment on this document. Hennepin County offers the following comments about the document.

1 | We believe the proposed improvements as shown in alternate 1A, particularly at 24th Avenue and I-494 are consistent with our transportation plans. However, the document should address the issue of Intersection Management Systems on CSAH 1 between the I-494 ramps and Killebrew Drive because of the impact of the projected traffic demands upon the system.

2 | The projected traffic volumes for the years 1990, 1995 and 2005 show critical volumes on CSAH 1 at the ramps and since these volumes will be further accentuated by the compressed diamond concept they will have a significant impact upon the signal cycle length.

3 | The saturated volume condition at the ramp intersections will not allow traffic to clear during most of the peak hour cycle length and will therefore, reduce the level of service from E to F on CSAH 1 from the ramp intersections to Killebrew Drive.

4 | In order to alleviate this potential deficiency, we suggest the installation of traffic signals at 79th Street, 80th Street and 81st Street.

We therefore recommend that a traffic signal coordination system should be considered on CSAH 1 from the I-494 ramp intersections to Killebrew Drive to keep stability on this roadway and to move traffic more efficiently.

If you have any questions about these comments, please let me know.

Sincerely,

Theodore J. Hoffman, P.E.
Chief Design Engineer

BMP:mak

HENNEPIN COUNTY

RESPONSES:

6.1.10 Hennepin County Department of Transportation

1. The question of intersection management on CSAH 1 is addressed in the Preliminary Design Study of 24th Avenue, 81st Street and Killebrew Drive, prepared for the City of Bloomington in April, 1987. It is Bloomington's intent to install a coordinated signal system in this area and to coordinate the design with Hennepin County.
2. Based on the capacity analysis prepared for the Draft Preliminary Design Study referenced above, the ramp intersections will not be over capacity in the year 2005 pm peak hour, assuming that they are signalized.
3. Signals at 79th, 80th and 81st Streets are included in the preliminary design of CSAH 1.
4. See comment Number 1.

James H. Lindau
Mayor

John G. Pidgeon
Manager

March 9, 1987

Duane Brown, Assistant District Engineer
Minnesota Department of Transportation
District 5
2055 North Lilac Drive
Golden Valley, Minnesota 55422

RE: TH 77/I-494 Improvement Project Draft Environmental
Impact Statement

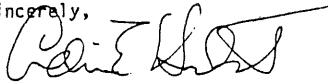
Dear Mr. Brown:

The City of Bloomington is in receipt of the Draft Environmental
Impact Statement (Draft EIS) for the TH 77/I-494 Improvement Project.

On review of this document, it appears that potential environmental
impacts and mitigation measures due to the project have been
thoroughly analyzed, along with establishing the need for improvements
to TH 77/I-494. Insofar as the transportation improvements described
in the TH 77/I-494 Draft EIS are consistent with the transportation
needs cited in the Mall of America and Fantasyworld EIS and the
Transportation Plan for Airport South District, the City of
Bloomington feels that the TH 77/I-494 Draft EIS adequately analyzes
the environmental impacts of the project. The City finds that
Alternatives 1 and 1A contain desirable improvements to meet the
transportation needs of not only the Airport South District, but also
those of the south metropolitan area.

Thank you for the opportunity to review and comment on this document.

Sincerely,



Adrian E. Herbst
Deputy Mayor

kcm



March 12, 1987

Mr. Duane Brown, Assistant District Engineer
Minnesota Department of Transportation, District 5
2055 North Lilac Drive
Golden Valley, MN 55422

Dear Mr. Brown:

The City of Richfield makes the following comments and recommendations regarding the Draft Environmental Impact Statement for the T.H.77/I-494 Improvement Project:

1. If the 78th Street frontage road is to be eliminated, improvements to 77th Street and buffering of the neighborhood must be included as part of the project.
2. "Old" Cedar Avenue should be retained as it now exists.
3. This plan is inconsistent with Policy 9 of the Transportation Section of the Metropolitan Development Guide, which requires that roadways be designed in a manner to be compatible with adjacent land use, or in those instances of incompatibility, measures to mitigate conflicts are established. This plan does not establish a plan to mitigate this incompatibility.
4. This plan is incompatible with adjacent land uses in Richfield because the Phase II plan would require additional traffic on 77th Street through the City of Richfield.
5. Any decision regarding 12th Avenue access should be delayed until completion of the I494 Traffic Corridor Study.
6. Whether or not there should ever be an improvement made, the project design should provide for the possibility of east/west traffic flow across TH77 in the vicinity of or between the new interchange proposed at TH77 and approximately 75th Street and the interchange of TH77/I494. The preference on the part of the City of Richfield is to connect an improved 77th Street with "old" Cedar Avenue and ultimately with the new interchange proposed for the vicinity of 75th Street and TH77.

telephone: 869-7521 (612)
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city of richfield

6700 portland avenue - minnesota 55423

March 12, 1987
Mr. Duane Brown
Page 2

7. Whether or not there should ever be an improvement made, the project design should provide for the possibility of access to northbound TH77 in the project area north of the TH77/I494 interchange. The preference on the part of the City of Richfield is to locate this access with the new interchange proposed in the vicinity of 75th Street and TH77.
8. Noise impact to the apartments in the project area should be addressed.
9. Table 5.3.B and Table 5.3.C should be corrected to reflect the conclusions reached on noise levels in Section 5.3.2.2 of Alternative 1.
10. Noise impacts resulting from improvements to TH77 should be mitigated with sound barrier walls, depression of TH77 the length of Richfield or a combination of mitigative measures acceptable to the City of Richfield.
11. The map on Page 2-18 is incorrect. 12th Avenue, Cedar Avenue and Diagonal Boulevard are classified as collectors in the City of Richfield.
12. The design should provide for pedestrian and non-motorized traffic across both I494 and TH77.
13. The regional planning for a) TH77 widening to six lanes between I494 and Crosstown 62, b) upgrading of the TH77/Crosstown 62 intersection and c) widening of Crosstown 62 between TH77 and I35W should begin immediately to accommodate expected traffic increases.
14. The cost of any design changes and/or improvements as outlined in these comments and recommendations should not be borne by the residents or the City of Richfield.

The City of Richfield, its residents, city council and city staff commit themselves to continued involvement in the Environmental Impact Statement process, the I494 Traffic Corridor Study and the preparation and approval of plans and specifications for the TH77/I494 Improvement Project.

Sincerely,

CITY OF RICHFIELD



James D. Prosser
City Manager

RESPONSES:

6.1.12 City of Richfield

1. The 78th Street frontage road is not eliminated in the first stage of the proposed project, but would be removed as the ultimate improvements are constructed. A preliminary design plan will be prepared for 77th Street to mitigate the traffic impacts caused by removal of the frontage road. The plan is fully described in Section 5 of the FEIS.
2. The west curb line of Old Cedar Avenue is being held at its present location except in a 650-foot segment between 76th and 77th Streets. In this segment the curb line is shifted to the west to accommodate the southbound TH 77 collector-distributor road. The maximum shift is about twenty feet, approximately 200 feet north of 77th Street, at the Inn Motel. The proposed first stage plan would reduce the width of the Old Cedar Avenue frontage road, from approximately forty feet to approximately 28 feet, to develop a collector-distributor road for southbound TH 77. All of the first stage construction would be within the existing right-of-way and the narrower frontage road would have sufficient capacity to serve existing and forecast traffic.

In later stages of Alternative 1, the Old Cedar Avenue frontage road may be moved to the west to accommodate the additional ramps and interchanges on TH 77. The new frontage road should be a four-lane facility, constructed to MSA standards, to provide access from 77th Street to the 75th Street interchange.

3. See Response Number 1.
4. See Response Number 1.
5. It is agreed that a decision regarding 12th Avenue access should be delayed pending the conclusions of the I-494 Corridor Study. The Stage 1 plan retains the existing access at 12th Avenue, but removes the sidewalk on the east side of the 12th Avenue bridge over I-494 to accommodate metering of the on-ramp to eastbound I-494. The west sidewalk would remain and continue to provide full pedestrian access. The off-ramp from westbound I-494 to 12th Avenue would be widened under Stage 1 to improve vehicle storage on the off-ramp.

Alternative 1 also shows the retention of access at 12th Avenue. However, Alternative 1 can be modified to accommodate any decision made in the I-494 study, since nothing being constructed in Stage 1 would preclude other alternatives.

RESPONSES:

6. Stage 1 improvements do not preclude the possibility of providing for east-west traffic flow across TH 77 in the vicinity of the proposed interchange at 75th Street. The roadway geometrics for Alternative 1, the preferred alternative, will be revised to provide for this possibility as part of the proposed TH 77 study described in Section 5 of the FEIS.
7. Stage 1 improvements do not preclude the possibility of access to and from the north on TH 77 in the project area north of the TH 77/I-494 interchange. The roadway geometrics for Alternative 1 will be revised to provide for this access as part of the TH 77 study described in Section 5 of the FEIS.

Access to northbound TH 77 will continue to be available from Old Cedar Avenue and 66th Street, north of the project area.
8. Sensitive receivers include apartment buildings as well as single-family homes, and were included in the noise analysis as stated on DEIS page 4-17. Receiver sites N-1, 2, 3, 7, & 9 all represent apartment buildings.
9. Tables 5.3.B and 5.3.C have been corrected as noted.
10. Noise impacts within and north of the project area are described in Sections 4 and 5 of this FEIS.
11. Richfield and the Metropolitan Council classify the streets in question differently. The map has been revised to show the classifications of both jurisdictions. See Section 3 of this FEIS.
12. Pedestrian and non-motorized traffic across TH 77 and I-494 would continue to be accommodated at the current locations under both Stage 1 and ultimate plans. The proposed improvements to the 12th Avenue bridge would eliminate the sidewalk on the east side of the bridge as part of Stage 1. However, the west sidewalk would remain and provide full accessibility. Should I-494 access eventually be removed at 12th Avenue, the existing bridge would remain or be modified to serve local traffic, including pedestrian and non-motorized traffic.
13. A study of TH 77 is proposed to address TH 77 between I-494 and CSAH 62, including the TH 77/CSAH 62 interchange and the Crosstown between I-35W and TH 55. The study is described in Section 5 of the FEIS.

RESPONSES:

14. The costs to develop and implement the 77th Street preliminary design plan will be considered project costs, subject to Mn/DOT cost-sharing policies summarized in Mn/DOT Office Memorandum dated November 15, 1985, (New Mn/DOT Policy for Cooperative Construction Projects), and Mn/DOT Policy Position Statement dated December 5, 1984, (Highways No. 84-2 Cooperative Bridge Widening Projects). The costs to conduct the TH 77 study have not been determined, but will be negotiated and fairly apportioned among the participating agencies as described in Section 5 of the FEIS.

Copies of Mn/DOT's cost sharing policies have been sent to the City of Richfield.

JAMES P. LARKIN
ROBERT L. HOFFMAN
JACK P. DALY
D. KENNETH LINDGREN
ANDREW W. DANIELSON
WENDELL R. ANDERSON
GERALD H. FRIEDL
ROBERT B. WHITLOCK
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JAMES P. QUINN
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REPLY TO Bloomington

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OF COUNSEL
JOSEPH GIBIS
JOHN A. MERRISH
JAMES A. BALOGH
*ALSO ADMITTED IN
WISCONSIN

March 12, 1987

Mr. Duane W. Brown
Assistant District Engineer
Minnesota Department of Transportation
District 5
2055 N. Lilac Drive
Golden Valley, Minnesota 55422

Re: Draft Environmental Impact Statement for
TH77/I-494 Improvement Project

Dear Mr. Brown:

This comment letter on the draft Environmental Impact Statement for the TH77/I-494 Improvement Project (the DEIS) is submitted on behalf of Triple Five Corporation, owner of the Metropolitan Stadium site and developer of the Fashion Mall of America on the Stadium site.

Triple Five Corporation strongly supports construction of the roadway improvements described as alternatives 1 and 1A in the DEIS. The roadway and interchange improvements proposed in the DEIS are necessary before the Fashion Mall of America, or any other significant redevelopment of the Stadium site, can proceed. Existing TH77 and I-494 cannot accommodate the traffic which would be generated by any significant redevelopment of the Stadium site, and access to the Stadium site off of TH77 is inadequate to serve any significant use of the land. The roadway improvements proposed in the DEIS would provide necessary capacity on the regional roadways to serve the Stadium site and would also provide direct access to the site off of TH77, thereby making possible development the Fashion Mall of America or any other significant redevelopment of this site.

In addition to making redevelopment of the Stadium site possible, the roadway improvements proposed in the DEIS will benefit the entire Airport South area and all of southeast Bloomington by providing the

Mr. Duane W. Brown
March 12, 1987
Page 2

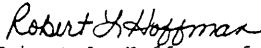
regional roadway capacity and local access to those regional roads necessary to serve current development in these areas of the City and to allow development in the Airport South area to continue consistent with approved City and Metropolitan Council plans. Existing capacity on TH77 and I-494 is inadequate to serve current development in this area of the City. This problem is aggravated with every new project which is developed. In addition to capacity deficiencies, access to TH77 and I-494 is woefully inadequate, particularly access to and from the area onto TH77. The proposed roadway improvements are specifically designed to address and resolve these existing capacity and access deficiencies.

In addition, the roadway improvements proposed in the DEIS will also eliminate the very dangerous at-grade intersection at TH77 and Killebrew Drive. This intersection is not only dangerous, as evidenced by accident records, it is also a major contributor to traffic backups and resulting noise and air pollution problems along TH77 between I-494 and the Minnesota River. Elimination of this at grade interchange and its replacement with direct freeway access to and from Killebrew Drive will be a significant benefit to the entire Airport South area, the significant commuter movement to and from Dakota County via the regional transportation system, as well as to every other vehicle which currently has to pass through this intersection.

Finally, we note that in addition to the many obvious benefits of the roadway improvements proposed in the DEIS traffic movements, the project as proposed will also significantly increase storm sewer capacity and decrease traffic noise level at residential receivers in the area.

The benefits of the proposed TH77/I-494 improvement project are many. The DEIS more than adequately addresses each of the impacts of the proposed project. Triple Five Corporation strongly concurs with the conclusion of the DEIS that the benefits of the project far outweigh its disadvantages. Triple Five Corporation urges that a final EIS be expeditiously prepared and reviewed and that the project proceed.

Very truly yours,


Robert L. Hoffman, for
LARKIN, HOFFMAN, DALY & LINDGREN, Ltd.

RLH:kw:BR3S

cc: Mr. Raphael Ghermezian Mr. Myron Calof
Mr. Nader Ghermezian Mr. Marvin DeJong
Mr. Eskander Ghermezian Mr. Maurice Sunderland
Mr. Bahman Ghermezian Mr. Tony Franceschini
Mr. Jack Abugov

RESPONSES:

No response necessary.



Air Cargo Center 7550 23rd Avenue South, Minneapolis, MN

55450	(612) 726-5483
7 DE	
State A.P. Eng.	
AD	
Adm.	
PAC	
S. A. Asst.	

March 20, 1987

Mr. Duane Brown
Assistant District Engineer
MN Department of Transportation
District 5
2055 N. Lilac Drive
Golden Valley, MN 55422

Re: Trunk Highway 77/Interstate 494 Improvements

Dear Mr. Brown:

Air Cargo Center has some very serious concerns regarding the 24th Avenue extension and improvements as part of the proposed Trunk Highway 77/Interstate 494 Improvements. These concerns regard loss of our existing parking/maneuvering space and our access to and from our facility and the airport ramps.

Our tenants' businesses are all airport related and the nature of air freight forwarding is critical with respect to time and accessibility. The 24th Avenue extension and traffic volume increase will effectively isolate us from the airport cargo ramps. From a safety standpoint, we will have very slow moving tractor-trailers attempting to pull out on to a heavily trafficked roadway. Some tenants move air freight in containers pulled by tugs to and from the airport cargo ramps through a security gate adjoining our property. The proposal provides no access of this type.

As the actual road is currently proposed, it calls for taking some of our land on the west side of 24th. This situation and the short distance between the turn to the west and our northeast building (7550 - 24th) create real problems for us in terms of parking and maneuvering.

The following outlines some of our concerns:

- Maintain adequate parking/maneuvering space east of 7550 - 24th and 7700 - 24th.
 1. 7700 - 24th loading docks on the east side need to be accessible.
 2. 7700 - 24th ramp requires space on the east for access.
 3. 7550 - 24th - Maintain comfortable double row parking while allowing for snow storage.

RESPONSES:

6.1.14 Air Cargo Center

1. Roadway design will be coordinated with all airport property leaseholders through the Metropolitan Airports Commission. The project will be designed to meet, and serve effectively, Air Cargo City's and MAC's needs.

- Maintain adequate space north of 7550 - 24th.
 1. Traffic must be able to move easily around the north end of the building.
 2. Allow access to overhead door on the north end of the building.
- Provide a minimum of 3 entrance/exits to Air Cargo Center.
- Provide stoplights to assist our access to increased traffic.
- Maintain direct access to cargo ramps.
- Provide access to Foreign Trade Zone site.
- Security and thru traffic.
 1. We are currently semi-secured. The increased traffic may jeopardize our security as well as introduce turn-around traffic, thru-traffic, and the possible use as a parking lot for airport customers.

This serves as a brief summary of our concerns. Our tenants represent a significant portion of the air freight handling on the airport, and provide a valuable service to the community. We would welcome the opportunity to further discuss the situation to reach a solution that would not adversely affect our tenants' businesses.

Sincerely,


Chas Arend
Building Manager

cc: Mr. James Fortman - MAC

1. GENERAL.

The draft EIS contains much good information about stormwater runoff, water quality, and wetlands. Nevertheless, Citizens for a Better Environment (CBE) is concerned that the draft EIS is flawed with respect to key elements of its analysis of the environmental impacts of stormwater runoff. The text of the draft also contains important information not included in its conclusions. This finding is based on the following:

A. After several years of discussion, Congress recently passed by a large margin of votes a major revision of the Clean Water Act containing provisions regarding nonpoint pollutants, including stormwater. The draft EIS contains no description of how the proposed design will meet the new requirements.

RESPONSES:

6.1.16 Response to Citizens for a Better Environment

1. The Water Quality Act of 1987, passed by Congress at approximately the same time the DEIS was circulated, does contain provisions regarding nonpoint source pollutants including stormwater. Section 405 under Title IV - Permits and Licenses concerning industrial and municipal stormwater affects this project. This section requires that industrial and municipal stormwater discharges be permitted within no more than three years from the effective date of the Act. The stormwater drainage system will be permitted in accordance with the provisions of this Act.

3. According to the text of the draft EIS, stormwater runoff is currently causing impacts to the Minnesota Valley National Wildlife Refuge and the proposed action will cause increased amounts of runoff. This refuge is a highly significant public resource. The draft EIS conclusions do not adequately address the significance of this issue.

2 | C. The section in the draft EIS entitled "Description of the Proposed Action and Need" too narrowly defines the proposal as being only the addition of traffic lanes and

RESPONSES:

2. The DEIS acknowledges that stormwater from the 2,600+ acre tributary area (composed of commercial, residential, and highway land uses) to the Minnesota Valley National Wildlife Refuge in the vicinity of this project is currently causing impacts to the refuge. The DEIS also acknowledges that this project will result in a slight increase in the volume of stormwater runoff. However, the potential environmental impacts from the project caused by the increase will be insignificant relative to runoff from the tributary watershed of Pond C and Long Meadow Lake.

The issue of stormwater runoff into the Minnesota Valley National Wildlife Refuge in the vicinity of the project and the subsequent impacts from pollutants in the stormwater is an issue that extends beyond the action proposed in the DEIS. The pollutants in the stormwater runoff to Pond C are primarily generated from the 2,600+ acre tributary area composed of commercial and residential land uses within the Cities of Bloomington and Richfield; this project only affects 45 acres of the 2,600 acres. Any solution to this issue will involve a joint, cooperative multi-agency effort.

The Minnesota Department of Transportation is currently initiating the organization of an inter-governmental study committee to review this issue, identify potential solutions, and identify potential funding sources to implement the solutions. See Section 5.6.2 and the Appendix of this FEIS for more information regarding this study.

interchanges. The proposal actually includes additional storm sewers and retention ponds. This omission indicates a failure to appreciate the potential seriousness of environmental impacts from such secondary project features. The purpose of this section of the draft EIS is to identify those project features relevant to important environmental impacts.

D. The draft EIS generally downplays the additional amounts of stormwater runoff likely to be caused by the highway improvements. This ignores other parts of the draft EIS which imply or state outright that the existing storm sewer and ponding system is currently overloaded and is polluting the Minnesota Valley National Wildlife Refuge.

RESPONSES:

3. The purpose of Section 1.1 of the DEIS is to summarize the proposed action and the need for the proposed action. A detailed description of the highway improvements is presented in Section 2.0. A description of mitigation measures, such as storm sewers and detention ponds which are to be constructed as part of the proposed action, is presented in Section 5.0, Environmental Consequences and Potential Mitigation Measures.
4. The additional volume of stormwater runoff resulting from the proposed action is estimated to be a very small percentage of the runoff volume in any of the receiving waters, Pond C, Long Meadow Lake or the Minnesota River. See Table 5.10.D of the DEIS for a summary.

Portions of the existing storm sewer and ponding system are designed for a more frequent design storm (10-year frequency) than current design storm criteria (50-year frequency). As a result, the existing system is under capacity or overloaded. The proposed action will include an increase in the storm drainage system capacity based on current design criteria, and will help mitigate potential flooding impacts.

Stormwater runoff, with a pollutant loading that is discharging into the Minnesota Valley National Wildlife Refuge, is an issue separate from the capacity of the highway storm sewer system. This issue is discussed in response Number 2 presented above.

5 E. The water quality analysis in the draft EIS addresses only those pollutants for which water quality standards currently exist, uses inappropriate assumptions, and only compares computer modeled concentrations in runoff with concentration in receiving water. This method is flawed because it seriously narrows the scope of analysis and does not predict environmental impacts. It also ignores the recent changes in the Clean Water Act, and acts as if the current poor water quality of the Minnesota River is an acceptable baseline and will remain polluted indefinitely. We maintain that the stormwater runoff system that is designed for this project must meet the objectives of the Clean Water Act 1987 amendments. The design proposed in the draft EIS perpetuates a system that causes chronic pollution.

RESPONSES:

5. The water quality analysis in the DEIS analyzes seventeen different traffic related pollutants, as shown in Tables 5.10.H and 5.10.I of the DEIS. These pollutants vary somewhat from the pollutants for which water quality standards exist, as shown in Tables 1A and 2A of Appendix B of the DEIS. The computer modeled concentrations are compared to both the water quality requirements and to existing water quality, as discussed in Sections 5.10.4.2 and 5.10.4.3 of the DEIS.

The assumptions used in the water quality analysis are appropriate, conservative assumptions that result in accurate projected pollutant concentrations, based on the level of analysis expected pursuant to the anticipated environmental impacts. This statement is based on a calibrated analysis of a tributary area to a segment of highway with measured pollutant concentrations using the same assumptions in both analyses. See DEIS page 5-106 for a discussion of the computer model used in the analysis.

The purpose of the analysis is to predict pollutant concentrations in the receiving waters, not to predict environmental impacts resulting from the pollutants.

As discussed above in Number 1, this project will comply with the Water Quality Act of 1987.

6 F. The draft EIS does not give guidelines to government agencies regarding the problems caused by the lack of a clear policy defining when protected wetlands should be used for waste disposal or treatment even though in this case the wetlands involved are highly significant, and some researchers are urging that such wetlands not be used.

The final EIS should be modified in appropriate sections to reflect the necessary conditions about significance of stormwater impacts and that design changes will be made in the proposed stormwater runoff systems. Specific suggestions are made in the following comments.

5. PAGES 1-1 AND 2 AND FIGURES 2.1.D

7 The "Description of the proposed action" and the figure should include a description of proposed storm sewers and new ponds, including locations of new or modified facilities and waters. The justification for the revisions is given in Comment #1 and other Comments.

2. PAGES 1-3 AND 6

8 Add statements in the "adverse impacts" sections of the summary to the effect that the stormwater runoff from the project will contribute to environmental impacts to wetlands in the Minnesota Valley National Wildlife Refuge and the Minnesota River (See Comments 17-20, 25, 39 and section 5.11.1.1 of the draft EIS). Include other material based on revisions of the final EIS.

RESPONSES:

6. See response Number 2. These types of guidelines or recommendations are clearly beyond the scope of this EIS.
7. The project is described in both the Summary and the Preferred Alternatives sections of this FEIS as including drainage facilities.
8. See response Number 2.

4. PAGES 1-5 AND 6

9 | Add the statement that the project will potentially
cause impacts to the bald eagle, an endangered species (See
Comment 39).

5. PAGES 1-5 AND 6

10 | Why is increasing the capacity of the storm sewer listed
as a beneficial water quality impact? Couldn't it cause an
increase in adverse impacts? Why is the increase in
pollutant concentrations--even though the analysis in the
draft EIS claims to project no violation of standards--not
listed as an adverse impact? Chloride concentration
increases that might violate standards should be mentioned.

RESPONSES

9. See the U.S. Department of Interior letter of comment, which indicates that the DEIS adequately describes the possible effects on the bald eagle.
10. An increase in the capacity of the storm sewer system is a beneficial water-quality impact because the larger system, including detention areas, has a greater potential for containment of hazardous spills.

The increase in pollutant concentrations, including chlorides in the receiving waters as predicted in the DEIS, is very small and less than the level of precision of the model. Therefore, the increase in pollutant concentrations can be described as insignificant. Since the increase is very small, an impact resulting from the increased pollutants cannot be identified that supports an adverse impact as a result of the proposed action.

6. PAGE 1-7

Depending on the response provided to these comments, it may be necessary to include an additional item to section 1.5 regarding the significance of stormwater impacts.

Significance of impacts is a central EIS issue because it determines whether or not the project design is modified and whether recommendations are made to decision-makers. CBE recommends that an issue statement be added here explaining the ongoing chronic problems of runoff pollutants (especially in Pond C), the new Clean Water Act requirements, and a description of pros and cons of alternative mitigation.

11

7. PAGE 2-13

CBE questions the statement associated with Policy 7. Specifically, we question whether the two previous EIS's adequately addressed the environmental impacts of stormwater runoff. More importantly, we feel the proposed stormwater runoff structures may not be compatible with environmental plans and policies. Previous objections to these structures have been ignored in the cited EIS's. Our position is supported by:

12

A. The technical support document for the Airport South Generic EIS (done by Hickok and Associates) was criticized in comments on that draft EIS. The EIS contains misleading statements about the Long Meadow Lake wetland;

13

RESPONSES:

11. See responses Number 1 and 2.
12. The final Airport South Generic EIS was found to be adequate and was approved in November, 1984, and the final Mall of America/Fantasyworld EIS was found to be adequate and was approved in April, 1986. This comment is beyond the scope of this EIS for the TH 77/I-494 Improvement Project.
13. See response Number 12.

14 B. The Final EIS on the Mall of America contains questions and criticisms of the previous studies submitted by the U.S. Fish and Wildlife Service (See Comment letter dated January 23, 1986 from Thomas Worthington reprinted in the Final EIS). The responses to these comments with respect to Pond C are clearly inadequate, and make unsupported assertions that there will be no impact (See especially the response to comment F13 in the Final EIS). In addition, they make reference to "a cooperative water quality testing and monitoring program . . . (to) serve as a basis in reviewing necessary improvements to the Pond 1-Pond C system." Where are the results of this monitoring program? Why were the results not used in this EIS? The responses to the Fish and Wildlife Service comments seem to us to indicate a failure to conform to important environmental plans and programs. Please add a statement clarifying how the project will conform to plans for refuge management, impacts to Long Meadow Lake, and to the new program in the 1987 Clean Water Act Amendments.

15

16

RESPONSES:

14. See response Number 12.
15. The cooperative water quality testing and monitoring program between the USDI Fish and Wildlife Service, the Minnesota Department of Transportation and the City of Bloomington was to serve as a basis for establishing baseline data and monitoring water quality after project implementation. The monitoring program has not yet been implemented.
16. The proposed action described in this EIS will not impact the management of the Minnesota Valley National Wildlife Refuge. Response Number 2 responds to plans for Long Meadow Lake. Response Number 1 responds to plans for conformance to the Water Quality Act of 1987.

8. PAGE 2-13

The statement associated with Policy 9 does not recognize the ongoing controversy over stormwater impacts as reflected in comments on the two previous EIS's. These reasons are also described in comment #7. The evidence in the draft EIS wetland section indicates that additional highway runoff is likely to cause more frequent occurrences of toxic runoff to the wildlife refuge (see page 5-119). This is clearly an "incompatible adjacent land use." The plans of local units of governments and affected agencies to reduce this incompatibility should be clearly described in the final EIS.

17

9. PAGE 4-37

What are the implications of not incorporating projections of the effects of the Mall of America on Pond C and Long Meadow Lake, since it will be using the same stormwater system?

18

RESPONSES:

17. The data presented in the draft EIS wetland section does not support the conclusion reached by CBE that "additional highway runoff is likely to cause more frequent occurrences (sic) of toxic runoff to the wildlife refuge." Each occurrence of stormwater runoff from any watershed, (whether industrial, commercial, residential or highway land use) will have some pollutant concentration in the runoff. Frequency of occurrence is a function of storm frequency. Volume of runoff is a function of storm intensity. Therefore, additional volumes of stormwater runoff from the highway will not result in more frequent occurrences of polluted runoff. Furthermore, additional volumes of stormwater runoff do not automatically imply a corresponding increase in pollutant loading or concentration because of the limited availability of pollutants within the watershed.
18. Since the Mall of America is not yet under construction, the effect of pollutants in runoff from the Mall of America cannot be measured and included in the existing water-quality data. Section 5.10.4.4 of the DEIS does compare the projected pollutant concentrations from the Mall of America/Fantasyworld EIS to the results from this EIS.

10. PAGE 4-38

19

The section on Long Meadow Lake is misleading in referring to this wetland as being a "lake". Historically, this area should more appropriately be referred to as a wetland, which typically have high nutrient levels. The refuge Master Plan refers to it as a wetland and so does the discussion on page 4-42. It is therefore inappropriate to term its water quality as "poor". The section should be clarified to show that the existing water quality is generally typical of natural wetlands used by wildlife.

11. PAGE 4-39

20

The statement in section 4.2.7.1 that "A detailed description of stormwater impacts is given in the Airport South EIS" is misleading (See Comment #7). Section 4.2.7.1 and 2 and Section 5.11 give a more complete discussion of stormwater impacts than the previous EIS's.

RESPONSES:

19. It is acknowledged that Long Meadow Lake is a large, complex riverine wetland as stated on page 4-42 of the DEIS.

The interpretation of the Carlson Trophic State Index (TSI) phosphorus value between 50 and 100 of "an indication that the lake has an excessive amount of nutrients, and water quality is generally considered to be poor," was established by the author of the Carlson TSI. This interpretation is with respect to nutrients only.

Existing water quality data is inadequate or unavailable for other natural wetlands, thus it cannot be concluded that the existing water quality of Long Meadow Lake is generally typical of natural wetlands. Further, Long Meadow Lake is subject to inundation by floodwaters of the Minnesota River and is located at the lowermost end of the watershed. As a result, it is subject to pollutants originating in a vast upstream watershed and cannot be described as a "typical" natural wetland.

20. The Airport South EIS does present a detailed description of stormwater impacts. The Airport South EIS was found to be adequate and was approved in November, 1984.

12. PAGES 4-40, 41

21

This discussion should be clarified to show that the use of artificial wetlands for water pollution treatment is the preferred treatment solution unless the loss of a "natural" wetland used for disposal is acceptable. Such a loss is a real possibility. This is especially important to note in the EIS because of the significance of the refuge's wetlands.

13. PAGE 5-90 AND TABLE 5.10 A AND B

22

What are the environmental impacts of the construction of the new Ramp V Pond and Flume Pond? The Flume Pond is described as a treatment and first-flush runoff collection Pond. How effective are these ponds, and how many years do they remain effective?

RESPONSES:

21. See DEIS page 5-120.
22. The environmental impacts of the construction of the proposed Ramp V and Flume ponds are included, although not specifically mentioned, in Section 5.19 of the DEIS, Construction Impacts.

The remarks concerning the Flume pond in Table 5.10.B correctly describe the pond as a treatment pond for the detention/capture of spill and first-flush runoff. The pond will be designed and operated as a dry pond. With normal maintenance the pond may be effective indefinitely.

The last paragraph reveals a serious inadequacy of this section of the draft EIS by saying that no methods exist to accurately predict Chloride concentrations and that Chloride concentrations are only a "best guess". All predictions are best guesses. Standard practice in EIS's is to give a range of potential impacts when faced with uncertainty, to use a "worst-case" analysis, and to demonstrate clearly how sensitive the analysis is to its assumptions. The assumptions listed on this page do not represent such an analysis because they do not present a range based on different methods of analysis and do not use worst-case assumptions. Such an analysis would use a scenario of a low-snow but relatively high salt-use winter where most of the salt was flushed into pond, Long Meadow Lake, and the Minnesota River by just enough rainfall to carry it. Such a winter would have relatively frequent light snowfalls. The Minnesota River would not be flooding Long Meadow Lake under this scenario.

The assumptions listed more closely resemble average or typical conditions rather than "worst-case" conditions. At the least, the analysis should include projected impacts assuming a spring when the Minnesota River is not flooding, and to include a description of how extensively the outcome of the analysis changes when different assumptions are used.

(See Comment #24)

23

RESPONSES:

23. The Deicing Salts section of the DEIS is adequate and consistent with the level of analysis expected pursuant to the anticipated environmental impact resulting from the proposed alternatives. The methodology to predict chloride concentrations from highway runoff in the DEIS is a conservative procedure. The assumptions used in the analysis and listed in the DEIS, are conservative assumptions. The combination of the procedure and assumptions results in a predicted chloride concentration which is a realistic worst case, analogous in terms of frequency to the 10-year, 7-day low flow criteria.

The anticipated environmental impact resulting from the project alternatives did not warrant an analysis of projected chloride concentrations based on different methods of analysis and a sensitivity analysis for each of the methods. This statement is supported by the results of the conservative method used in the DEIS which shows that the projected chloride concentrations meet the MPCA standards.

15. PAGE 5-103

24

Long Meadow Lake is a valuable wetland in an important national wildlife refuge. It will be a simple matter to project Chloride concentrations using a range of assumed River flood conditions, including the case of little or no spring flooding.

16. PAGE 5-104

25

The confidence with which the projected 93 mg/l Chloride concentration is used to compare against the MPCA 100 mg/l standard is unwarranted. On the previous page this figure is characterized as only an "order of magnitude". This means that only a slight underestimation in the modelled conditions or in the assumptions will mean violations of the MPCA standard. The statement should be changed to read the "Chloride concentrations are likely to violate the MPCA standard of 100 mg/l in the Minnesota River in the spring of some years, but the frequency of this occurrence cannot be accurately predicted".

RESPONSES:

24. See response Number 23.

25. See response Number 23.

The methodology used in the DEIS to project chloride concentrations was a flow-weighted averaging technique. Since this technique does not involve the use of any power functions, it is very unlikely that the methodology would be sensitive to slight changes in the modeled conditions or assumptions. It is anticipated that a given percent change in a condition or assumption will translate into an equal or lesser percent change in the projected chloride concentration. Further, the percent change in the project chloride concentration in the receiving water is significantly reduced because of the buffering effect of the Minnesota River.

Therefore, the conclusion suggested in the comments by CBE is unsupportable by the analysis performed for the DEIS.

17. PAGE 5-104

26

It should be noted that major programs are being instigated to control nonpoint source water pollution. It is reasonable and possible to prevent many of these pollutants from entering streams, lakes, and rivers. This section makes it appear as if continued water quality degradation is an inevitable consequence of development.

18. PAGES 5-104 AND 105

27

It is not acceptable to restrict the analysis only to traffic-related pollutants. The proposed action also includes construction of storm sewers that will empty into Long Meadow Lake and the Minnesota River. The source of the pollutants is thus immaterial. As written the discussion is inadequate to address impacts.

19. PAGE 5-106

28

The entire methodology appears to be based on two studies, one of which is 15 years old (no date is given for the other). Such models are highly sensitive to the assumptions that must be made about unquantifiable or little known parameters. No information on assumptions is given in the text, nor is there any discussion of outcomes using different methods. The entire water quality analysis outcome is based on this model, and therefore it must be verifiable to the reader. The best way to do this is to provide a

RESPONSES:

26. It is acknowledged that major programs are being developed to control non-point source water pollution.
27. The purpose of this EIS is to analyze the impacts of the proposed highway alternatives including no build alternatives, on the environment. The storm sewers already exist which empty into Long Meadow Lake and the Minnesota River. This project will affect the storm sewer for about 45 acres of the 2,600 acres that currently empty into Pond C and then into Long Meadow Lake. Therefore, restricting the analysis within this section of the DEIS to traffic-related pollutants is appropriate.
- Also see response Number 2.
28. The model used in the DEIS to project traffic-related pollutant concentrations is fully detailed in and verified against a measured drainage area in the Water Resources Report for TH 169 and TH 252/TH 610 prepared for Mn/DOT, State Projects 0217-01, 2771-01, and 2748-25. This information is given in the DEIS in the third paragraph on page 5-110.

See also response Number 23.

discussion of other methods of analysis and a description of how sensitive outcomes are to assumptions. This should be included in the final EIS.

20. PAGE 5-106 AND TABLES 5.10 H. AND I.

What are the environmental impacts of the increased levels of the pollutants listed in the two tables? There are no standards promulgated for some of the pollutants even though they are toxic (as mentioned on page 5-105). It is not acceptable to compare projected concentrations of some pollutants to the limited list for which there are standards.

The analysis should be expanded in the final EIS to include a detailed discussion of impacts of highway pollutants over the life of the project rather than short-term considerations such as concentrations. This should include accumulation in sediments and in the food chain. Such an analysis was not conducted for the previous EIS's.

29

RESPONSES:

29. The environmental impacts of the pollutants listed in Tables 5.10.H and 5.10.I are discussed in Section 5.11 and Appendix C of the DEIS.

The comparison of a projected concentration of a traffic-related pollutant to an established standard for that pollutant is an acceptable means of determining whether or not the pollutant meets the standard.

An expansion of the analysis of traffic-related pollutants to include accumulation in sediments and in the food chain goes beyond the scope of this EIS and involves a level of analysis that is not warranted based on the anticipated environmental impact resulting from the project alternatives. See response Number 2 for additional information.

21. PAGE 5-108

30 How do the existing condition concentrations listed in this table relate to the concentrations listed in Table 5.11.B on page 5-113? The figure in Table 5.11.B, which indicate higher concentrations, support the conclusion in these comments that the water quality analysis is an analysis of average conditions rather than "worst-case" conditions (See Comment #14).

22. PAGE 5-109

31 The statement about copper in the middle of this page demonstrated the inadequacy of equating ability of meeting a water quality standard with analysis of environmental impacts. The "impossibility" mentioned in the paragraph is a function of the inadequacy of this method. Techniques are available to analyze environmental impacts of the effect of copper on wildlife and aquatic life.

RESPONSES:

30. The existing conditions, traffic-related pollutant concentrations and loadings listed in Table 5.10.I of the DEIS, are the projected pollutant concentrations from the existing Cedar Avenue condition, as determined by the computer model used to project pollutant concentrations and loadings. (See response Number 28.) The data shown in Table 5.10.I was developed to show the incremental projected pollutant increase in sub-watershed 3 (45 acres) caused by the highway improvement only. The data in this table does not include projected pollutant concentrations and loadings from the entire area tributary to Pond C, approximately 2,600 acres. Therefore, the data in Table 5.10.I is not related to the data in Table 5.11.B.

The existing conditions, projected pollutant concentrations and loadings shown in Table 5.10.I (for chromium, copper, lead and nickel), are between the 90th percentile and maximum recorded values shown in Table 5.11.B. This would support a conclusion that the water-quality analysis in this DEIS is a "worst case" analysis.

31. Section 5.10.4.2 of the DEIS compares the projected traffic-related pollutant concentrations to the appropriate water quality requirements for the receiving water as defined by the MPCA in Minnesota Rules 7050.0220. See Section 4.2.6.4 of the DEIS for more information. The analysis of the environmental impacts of the traffic-related pollutants on wildlife and aquatic life is contained in Section 5.11, Wetland Impacts.

What are the assumptions about the "buffering effect" in Long Meadow Lake and the Minnesota River? Comments 17-20 also apply to this statement. The "finding" mentioned here is dependent on assumptions that Long Meadow Lake will always be "flooded". The discussion on pages 5-116 through 5-120 and the numbers in Tables 5.11. A and B contradict this finding because they show that even now toxic effects are occurring. This section should be changed.

32

RESPONSES:

32. The only assumption regarding the buffering effect in Long Meadow Lake and the Minnesota River is that as the upstream body of water discharges into the downstream body of water (Pond C into Long Meadow Lake into the Minnesota River), complete mixing occurs and at some point, away from or downstream of the outlet, the pollutant will be diluted by the much larger volume in the downstream body of water. Therefore, the downstream body of water is imparting a buffering effect on the discharge from the upstream body of water.

The DEIS did not assume that Long Meadow Lake will always be flooded with regard to the buffering effect to the traffic-related pollutants. Therefore, the finding that the projected pollutant concentrations in the stormwater runoff do not significantly impact the water quality of the receiving waters is valid.

See response Number 2 for more information regarding mitigation measures for the existing "toxic effects" from stormwater runoff from the area tributary to Long Meadow Lake.

33 | What exactly is the buffering effect of the 2,600 acres?
What are the assumptions? (See Comment #87) It is crucial to
analyze the effects of heavy metals because of their
toxicity.

34 | To what extent do heavy metals accumulate in the
Minnesota River sediments and what effect will they have over
the long term? What are the environmental impacts?

RESPONSES:

33. The buffering effect of the additional 2,600 acres upstream of Pond C is similar to that of the buffering effect of Long Meadow Lake and the Minnesota River as described in response Number 32. When the higher pollutant concentration in the volume of stormwater runoff from the smaller sub-watershed 3 (45 acres) is mixed with the lower pollutant concentration in the much larger volume of stormwater runoff from the remainder of the tributary area to Pond C (2,600 acres), the result is a pollutant concentration in Pond C that is only slightly greater than the pollutant concentration from the 2,600 acres. Thus, the 2,600 acres buffers the higher pollutant concentration from the much smaller area. For the analysis in the DEIS, a flow-weighted averaging procedure was used.

It is agreed that it is important to analyze the effects of heavy metals because of their "potential toxicity." Heavy metals were included in the analysis in the DEIS as indicated in Table 5.10.H and 5.10.I.

34. An analysis of heavy metal accumulation in the bottom sediments of the Minnesota River is beyond the scope of this EIS. Since the projected pollutant concentrations, including heavy metals, are less than, or equal to, the existing water quality of the Minnesota River; and since the volume of pollutants discharging into the Minnesota River is very small compared to the volume in the river, the conclusion can be made that heavy metal accumulation in the Minnesota River sediments caused by the proposed action of this EIS is insignificant and has no environmental impact.

This issue is clearly an issue of regional or statewide significance. See Section 5.6 of this FEIS for more information.

26. PAGE 5-112 DE-ICING SALTS

35 The analysis shows that concentrations are "guessed" to approach the standard. A more accurate analysis would show that the standard would likely be exceeded in some years.

What mitigation is necessary?

27. PAGE 5-114

36 What is the length of time that the new ponds will be affective as settling basins?

28. PAGE 5-114

37 The list of mitigation measures can be more complete. Pond C currently is polluting Long Meadow Lake and alternatives must be found. The final EIS should address alternative mitigation measures such as creation of artificial wetlands, planned dredging schedules, and diversion to the MWCC waste treatment facility under certain conditions. These measures should be analyzed in detail.

RESPONSES:

35. See responses Numbered 23 and 25. As stated in the DEIS, mitigative measures for deicing salts impacts are not needed or proposed for this project.
36. The two new ponds are to serve as settling basins for solids and litter and containment areas for spills, not as settling basins for fines or suspended particles. Therefore, the two new ponds will be effective over their entire life as settling basins for solids and litter. Periodic maintenance of the ponds by Mn/DOT will occur.
37. See response Number 2. As a possible additional mitigative measure to those listed in Section 5.10.4.5 of the DEIS, Pond C could be redesigned to operate as a dry basin. A dry basin would minimize direct runoff to Long Meadow Lake except during the less frequent, more intense storms and would provide some soil filtration prior to confluence with the groundwater or seepage into Long Meadow Lake. However, careful consideration will be given to this concept because some contaminants such as metals will become trapped in pond sediments during wet periods. As such, they will be unavailable to plants and animals. However, with a dry pond, the contaminants can change to a form that is readily dissolved in water. When the dry pond refills, the contaminants will move in water and may move into Long Meadow Lake through the soil filtration system. Due to this issue, the dry pond concept will be closely examined in the water quality study described in Section 5 of this FEIS.

29. PAGE 5-115

38 | The study mentioned at the top of the page was mentioned
in previous EIS's. Why wasn't it done as part of this EIS?
The EIS is inadequate until this study is completed.

30. PAGES 5-116, 5-118 AND 5-120

39 | It is not acceptable to conclude that there is not
enough information available to analyze the impacts of the
project. The information should have been collected.

31. PAGE 5-116

40 | What is the "disproportionate pollutant release"
referred to in the second-to-last paragraph?

32. PAGE 5-121

41 | What environmental impacts will occur to Wright's Pond?
It is inadequate to say that there is no data available.
This pond is in a park, and small children could be exposed
to toxic materials. It is immaterial that, as is stated on
page 5-93, the design allows for the construction of a new
storm sewer. If the pond currently is heavily polluted,
isn't it a mistake to add to the pollution by further
investment in another storm sewer?

RESPONSES:

38. See response Number 2.
39. The DEIS statements referred to address the difficulty of determining the difference in impact risks among the project alternatives, especially since there are ongoing impacts that will continue to occur under the "no build" alternative. The DEIS contains a description of these ongoing environmental impacts and quantifies them to some extent in Tables 5.11.A and 5.11.B.
40. Runoff from the urbanized watershed above Pond C contains pollutants that may flow through Pond C, which contains contaminated sediments. Heavy rains could also flush pollutants from Pond C. Therefore, Pond C, as well as the urban watershed, could be contributing pollutants to Long Meadow Lake.
41. The storm sewer into Wright's Pond has been eliminated for the project. See Section 3.10 of this FEIS for additional information.

42 CBE is opposed to the selection of mitigation measures involving stormwater runoff until a complete study has been completed. The study should include detailed monitoring plans for whatever solution is selected to determine whether it is working as designed and whether it will continue to work without deteriorating over time.

43 CBE strongly disagrees with the last sentence of the second paragraph in section 5.15. Previous statements in the draft EIS said that there is not enough information to determine impacts. Furthermore, any loss of individuals from a population of endangered species is significant. If the highway design proposed in the draft EIS is used, it means that further public money will be invested in a defective stormwater runoff design (Pond C). This investment means delay in resolving the problem and further risk to bald eagles.

In conclusion, the draft EIS does contain much good information. However, some of that information is not applied throughout the EIS, particularly concerning stormwater effects on wetlands. CBE hopes that these comments can be adequately addressed to form a sounder, more complete final EIS.

RESPONSES:

- 42. See response Number 2.
- 43. See response Number 9.

6.2 RESPONSES TO PUBLIC HEARING COMMENTS

A public hearing on the project was held on March 12, 1987, at Bloomington Educational Center in Bloomington, Minnesota. All persons wishing to speak at the hearing were requested to fill out a statement card. Most of the people speaking at the hearing either read letters of comment into the record or wrote their comments on the statement card. This section includes the statement cards for the people speaking at the public hearing. Comment letters which were read into the record at the hearing have been included in the previous section. Comments which were not also submitted in writing on the statement card are quoted from the hearing transcript before the response is given.

The official transcript of the hearing, together with affidavits and materials used at the hearing, is available for review at Mn/DOT District 5 offices at 2055 North Lilac Drive in Golden Valley, Minnesota.

STATEMENT CARD

Name <u>WILLIAM W. BRIGHT</u> Address <u>7638 - 12TH AVE. S.O.</u> <u>RICHFIELD, MN. 55423</u>	Check One <input type="checkbox"/> Elected Official <input type="checkbox"/> Public Agency Representative <input type="checkbox"/> Group Representative <input checked="" type="checkbox"/> Private Citizen
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Would Like To Speak	Position, Agency or Group _____ _____
All "Statement Cards" Submitted With Written Comments Will Be Included In The Record Of The Meeting.	

1 Statement: WIDENING I-494 WESTWARD ONLY AS FAR AS 12TH AVE. WILL
CREATE A TREMENDOUS BOTTLE NECK INTO THE PORTLAND AVE. UNDER
PASS WITH THE OVERFLOW EXILING ONTO 12TH AVE. - THE TRAFFIC
FLOW IS ALREADY CONSTANT - TO VERY HEAVY - AT RUSH HOURS.
 2 I AM STRONGLY AGAINST THE PROPOSAL THAT RICHFIELD
SHOULD PROVIDE APPROX. EAST-WEST ARTERIAL STREET - TO
COMPLEMENT THE WEST-BOUND TRAFFIC ON I-494 - CREATED BY
BLOOMINGTON'S - FASHION MALL OF AMERICA -
12TH AVE. IN RICHFIELD - EXCEPT FOR ONE CORNER ON
I. I. ST. AND ANOTHER ON 66TH ST. IS TOTALLY RESIDENTIAL -
 3 AND ACCORDING TO A SURVEY CONDUCTED BY THE
RICHFIELD PLANNING COMMISSION - ON NOV. 6, 1986
THE RESIDENTS PREFER TO KEEP IT AS SUCH!!

RESPONSES:

1. The existing capacity problems on I-494 are currently being studied by Mn/DOT, the Metropolitan Council, and all of the cities along the corridor west of TH 77. Traffic is projected to continue to increase even without the improvements proposed by this project. Traffic increases on cross streets, including 12th Avenue, will occur as I-494 traffic seeks less congested routes, loading up the local street system as well as the freeway if I-494 is not eventually upgraded. The first stage improvements will not widen I-494 within the project area. The 2005 design concept which would widen I-494 will not be implemented until a plan is developed for widening I-494 west of the project area.
2. The purpose of the project is to provide adequate high-way capacity for traffic generated by the Mall of America or any other major development on the regional road system, so that the local streets of Richfield and Bloomington are not subject to overflow as people seek alternate routes to the Airport South District.
3. Twelfth Avenue is one of the interchanges being examined as part of the I-494 Corridor Study. Under Stage 1, no significant changes would be made to 12th Avenue that would alter traffic volumes or land use on 12th Avenue.

STATEMENT CARD

Name <u>Don Fondrick</u> Address <u>City of Richfield Community Service</u> <u>6700 Portland Av S</u> <u>Dir</u>	Check One <input type="checkbox"/> Elected Official <input checked="" type="checkbox"/> Public Agency Representative <input type="checkbox"/> Group Representative <input type="checkbox"/> Private Citizen
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Would Like To Speak All "Statement Cards" Submitted With Written Comments Will Be Included In The Record Of The Meeting.	Position, Agency or Group <u>Director of Community Service</u>

RESPONSES:

No response necessary.

STATEMENT CARD

Name <u>Edwina Garcia</u> Address <u>6700 Portland Ave S.</u> <u>Richfield, mn. 55423</u>	Check One <input checked="" type="checkbox"/> Elected Official <input type="checkbox"/> Public Agency Representative <input type="checkbox"/> Group Representative <input type="checkbox"/> Private Citizen
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Would Like To Speak All "Statement Cards" Submitted With Written Comments Will Be Included In The Record Of The Meeting.	Position, Agency or Group _____ _____

Edwina Garcia, Richfield City Councilmember. I will not reiterate what our Community Services Director said in the record, but I do want to make a few comments.

First, we do appreciate the fact that the project team did go to Richfield and take--and conduct informational meetings, but we also want to make a few statements in regard to that. We realize that the project--that Stage 1 improvements are inevitable. And we also realize that Bloomington does have a strong voice in this project because it has provided the financing for it.

1 | While we may lack political clout and maybe political finances and neighbor financial clout, we do know that there are some adverse impacts that were listed in the EIS but were not really addressed. There were no real mitigation measures that were presented that are going to really alleviate the tremendously adverse impacts, the conflicts that will be between the residents, residential neighborhoods, and the businesses of Richfield.

2 | Bloomington and Richfield have been good neighbors in the past, and we expect to continue in that relationship. But we expect more than just to accommodate the Mall of America and the economic betterment of Bloomington. We need to have the crucial issues facing Richfield, Richfield residents, and Richfield businesses addressed; and we expect that the EIS will look at the comments that were submitted by the City of Richfield and address them in a reasonable and fair manner. Thank you.

RESPONSES:

Response to Garcia Statement.

1. While the DEIS identified impacts which would occur to the residential neighborhood north of 77th Street as a result of removing the frontage road between TH 77 and 12th Avenue, no mitigation measures were discussed in the DEIS under Alternative 1. In discussions held in April with Richfield staff, it was agreed that a preliminary design plan will be developed with input from Richfield and will be approved by Richfield to mitigate the impacts to 77th Street.

2. Several meetings have been held with Richfield city staff throughout the process of developing conceptual design and completing the DEIS. The comments submitted by Richfield have been addressed and responded to in the previous section of this FEIS.

STATEMENT CARD

Name: <u>ELICK GRESHWILER</u>	Check One
Address: <u>PLANNING DIRECTOR</u>	<input type="checkbox"/> Elected Official
<u>CITY OF BIRMINGHAM</u>	<input checked="" type="checkbox"/> Public Agency Representative
	<input type="checkbox"/> Group Representative
	<input type="checkbox"/> Private Citizen
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Would Like To Speak	Position, Agency or Group
All "Statement Cards" Submitted With Written Comments Will Be Included In The Record Of The Meeting.	

Statement: INTEROFFICE LETTER OF COMMENT
FROM BIRMINGHAM CITY COUNCIL

319/42176

Mn/DOT 19331 (4-77)

RESPONSES:

No response necessary.

STATEMENT CARD

Name <u>John R. Gieske</u> Address <u>7644 1st Ave So</u> <u>RICHFIELD MINN. 55423</u>	Check One <input type="checkbox"/> Elected Official <input type="checkbox"/> Public Agency Representative <input type="checkbox"/> Group Representative <input checked="" type="checkbox"/> Private Citizen
Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Would Like To Speak All "Statement Cards" Submitted With Written Comments Will Be Included In The Record Of The Meeting.	Position, Agency or Group _____ _____

Statement: IN ORDER TO MAKE FIGURE 2 POST DES. CAN.
ALTERNATIVE 1 WORTH WHILE 494 WOULD
HAVE TO BE REVISED MORE THAN THOWN.
IT WOULD HAVE TO BE CHANGED FROM
17th AVE. WEST THROUGH THE BUILT UP
AREA IN RICHFIELD 77th ST ~~WAS~~ SEPARATE
FROM THE RESIDENTIAL AREA. 77th ST
WOULD HAVE TO HANDLE MORE TRAFFIC
THAN 76th ST DOES NOW.

319/42176

Mn/DOT 19331 (4-77)

RESPONSES:

1. As stated in the DEIS, Alternative 1 does assume additional lanes on both 494 and TH 77 outside the project area.
2. Seventy-seventh Street does separate I-494 frontage road businesses from the residential area north of the street, and would be subjected to more traffic under the full development alternative (Alternative 1). No changes would occur to 77th Street under Stage 1. A preliminary design plan to mitigate the impacts to 77th Street will be prepared with input from, and subject to, the approval of Richfield as part of the project.

STATEMENT CARD

Name <u>William A. Gillick</u> Address <u>7638 - Bloomington Ave. Se</u> <u>Richfield, Mn. 55423</u>	Check One <input type="checkbox"/> Elected Official <input type="checkbox"/> Public Agency Representative <input type="checkbox"/> Group Representative <input checked="" type="checkbox"/> Private Citizen
Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Would Like To Speak	Position, Agency or Group _____ _____
All "Statement Cards" Submitted With Written Comments Will Be Included In The Record Of The Meeting.	

1 | **Statement:** *Serious "Environmental Impact Studies" must consider*
 2 | *the effect of the project on lifelong Richfield residents.*
 3 | *My hope is will be to bloomington. Shouldn't this community be*
the one to suffer "loss" of property with Elm Richfield.
In opposition to the eventual use of 77th St. as an access
road for the business properties between Bloomington and 72nd
Ave. presently existing on the same road, which could be
eliminated. This will seriously affect the neighborhood between 77th
& 76th streets

319/42176

Mn/DOT 19331 (4-77)

RESPONSES:

1. The DEIS considers the effect of the project on all residents of the project area, including lifelong and more recent residents of Richfield. See DEIS Section 5.4.1 on pages 5-64 and 5-65.
2. The project is consistent with Metropolitan Council regional planning for commercial development along I-494, part of the regional highway network. Richfield borders an interstate freeway, as does Bloomington, and both communities are affected when a freeway is widened. While both would lose frontage road access in certain locations, freeway frontage property will be served by new access and will benefit from higher property values as a result of the higher freeway capacity.
3. The impacts to the neighborhood north of 77th Street are identified in the DEIS. Mitigation measures are currently being discussed with, and will be approved by, the City of Richfield. A preliminary design plan will be developed and implemented as part of the project.

STATEMENT CARD

Name <u>TED HOFFMAN</u> Address <u>HENNEPIN Co. D.O.T.</u>	Check One <input type="checkbox"/> Ejected Official <input checked="" type="checkbox"/> Public Agency Representative <input type="checkbox"/> Group Representative <input type="checkbox"/> Private Citizen
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Would Like To Speak All "Statement Cards" Submitted With Written Comments Will Be Included In The Record Of The Meeting.	Position, Agency or Group _____ _____

STATEMENT READ INTO THE
 RECORD AT THE TH 77/I-494 PUBLIC HEARING
 MARCH 12, 1987

My name is Ted Hoffman. I am the Chief Design Engineer for the Hennepin County Department of Transportation.

Hennepin County agrees that the proposed highway improvements are essential because of the existing capacity deficiencies and the projected traffic demands resulting from the development of the airport south area. We believe that the traffic data that has been generated and analyzed as a result of the Draft Environmental Impact Statement clearly justifies the need for this project. We are supportive of the action Mn/DOT is taking in grappling with this very complex and highly sophisticated roadway network.

We believe the proposed improvements at 24th Avenue and I-494 are consistent with our transportation plans and further cannot be done soon enough.

I commend the Mn/DOT Staff and the cooperating agencies for their extensive coordination efforts in dealing with this very difficult problem.

RESPONSES:

No response necessary.

STATEMENT CARD

Name <u>STEVEN KURCAN</u> Address <u>10117 YUKON AVE S</u> <u>BLOOMINGTON MINNESOTA 55438</u>	Check One <input type="checkbox"/> Elected Official <input type="checkbox"/> Public Agency Representative <input type="checkbox"/> Group Representative <input checked="" type="checkbox"/> Private Citizen
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Would Like To Speak All "Statement Cards" Submitted With Written Comments Will Be Included In The Record Of The Meeting.	Position, Agency or Group _____ _____

Statement: _____

319/42176

Mn/DOIT 19331 (4-77)

WOULD LIKE TO READ TWO LETTERS INTO
 THE RECORD. THE LETTERS ARE FROM SENATOR BELANGER
 AND REPRESENTATIVE HIMLE

RESPONSES:

No response necessary.

STATEMENT CARD

Name <u>LES MONAHAN</u> Address <u>7301 ELLIOT AV. SO.</u> <u>RICHFIELD, MN 55423</u>	Check One <input type="checkbox"/> Elected Official <input type="checkbox"/> Public Agency Representative <input type="checkbox"/> Group Representative <input checked="" type="checkbox"/> Private Citizen
Yes <input type="checkbox"/> No <input type="checkbox"/> Would Like To Speak	Position, Agency or Group _____ _____
All "Statement Cards" Submitted With Written Comments Will Be Included In The Record Of The Meeting.	

Statement: I request that the highway I-494 from Cedar Ave. to
Met St. 1/2 mi. be widened to 6 lanes, using only
the south side of the old I-494, on the Bloomington side.
Richfield gains nothing from this project, Bloomington gains
everything, thus the idea looks what should be said!
Richfield is limited to space or land, I can't afford to lose
loss 3 or 4 businesses.

319/42176

Mn/DOT 19331 (4-77)

RESPONSES:

1. Widening I-494 on the south side only would result in substantially more roadway reconstruction and right-of-way costs, which will ultimately be born by the entire state as Mn/DOT repays Bloomington for the cost of the project in ten years. The I-494 Corridor Study currently in progress is expected to define twenty-year design solutions for the portions of the corridor under study, including the TH 77 interchange area.
2. Richfield's street system would suffer significant overloading if the Met Stadium site were developed without corresponding capacity improvements in the highways to handle stadium site traffic. People trying to get through the area, as well as those travelling to the Airport South District, will seek other routes if the highways are overloaded. Many of those alternate routes will be Richfield streets.
3. All of the developed communities along I-494 are land-locked, and none wishes to lose any of its businesses. The roadway configurations have been developed to minimize the amount of displacement necessary.

STATEMENT CARD

Name <u>David Scammon</u> Address <u>1704 W. Park</u> <u>Bloomington, MN 55401</u>	Check One <input type="checkbox"/> Elected Official <input type="checkbox"/> Public Agency Representative <input type="checkbox"/> Group Representative <input checked="" type="checkbox"/> Private Citizen
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Would Like To Speak All "Statement Cards" Submitted With Written Comments Will Be Included In The Record Of The Meeting.	Position, Agency or Group _____ _____ _____
Statement: <u>I'm concerned about the financing of</u> <u>the road project and that it is an interstate</u> <u>project and that Bloomington alone is</u> <u>responsible for the money.</u>	
319/42176 Mn/DOT 19331 (4-77)	

RESPONSES:

Bloomington is advancing the money to Mn/DOT to pay for the project, to avoid pre-empting other programmed highway construction. Mn/DOT will repay Bloomington in ten annual installments. Interest payments will be advanced from the Metropolitan Fiscal Disparities Pool, and be repaid to the Pool after the year 2010 in equal annual payments through adjustments to Bloomington's contribution to the Fiscal Disparities Pool.

STATEMENT CARD

Name <u>Hugh A Weber</u> Address <u>7020 - 14th Ave SE</u> <u>RICHFIELD</u> <u>MINN. 55423</u>	Check One <input type="checkbox"/> Elected Official <input type="checkbox"/> Public Agency Representative <input type="checkbox"/> Group Representative <input checked="" type="checkbox"/> Private Citizen
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Would Like To Speak All "Statement Cards" Submitted With Written Comments Will Be Included In The Record Of The Meeting.	Position, Agency or Group _____ _____
Statement: <u>STUDY SHOULD HAVE LOOKED AT POSSIBILITY OF</u> <u>(1) 29TH ST. MAKING I 494 ON 29TH ST. after improvement</u> <u>that seems to be affecting a lot fewer people for some distance</u> <u>The current land under I 494 would connect to PARKLAND, HUNES, Heritage roads</u> <u>(2) POWER REQUIREMENTS - I predict ELECTRICAL POWER WILL BE USED</u> <u>IN THE FUTURE TO LAUNCH NOISE - REDUCED TAKE OFFS</u> <u>JUST PLAN FOR THIS ELECTRICAL REQUIREMENT. AIRPLANE</u> 319/42176 Mn/DOOT 19331 (4-77) <u>(3) TRAFFIC FINDING THE PROPER LANE FOR THEIR DESTINATION WILL</u> <u>BE A PROBLEM! AGAIN LOOKING TO THE FUTURE, BAR CODE</u> <u>READERS IN AUTOMOBILES WOULD AID MOTORISTS TO SAFELY</u> <u>BE IN THEIR PROPER LANE.</u>	

RESPONSES:

1. The existing alignment was chosen because it is the least costly location for the highway improvements, and requires the least amount of right-of-way, and therefore, disruption of existing properties.
2. Provisions for electrical power have been included in project design, as illustrated on DEIS Figure 4.1.C. Existing power lines will be relocated during construction if necessary.
3. Signage will certainly be an important feature of the completed project. It will indeed be necessary to guide motorists clearly and safely through the interchange area to their desired destination.

STATEMENT CARD

Name <u>L. R. WOZNICZKA</u> Address <u>6744 WENTWORTH AVE S.</u> <u>RICHFIELD, MN 55423</u>	Check One <input type="checkbox"/> Elected Official <input type="checkbox"/> Public Agency Representative <input type="checkbox"/> Group Representative <input checked="" type="checkbox"/> Private Citizen
Yes <input type="checkbox"/> No <input type="checkbox"/> Would Like To Speak	Position, Agency or Group _____ _____
All "Statement Cards" Submitted With Written Comments Will Be Included In The Record Of The Meeting.	

Statement:

- 1 | ① The proposed Phase 1 development ~~will~~ will create a greater problem on Hwy 494 west of 12th Avenue.
 2 | Hwy 494 has traffic stoppage during peak hours at this time.
 3 | It seems 494 improvements should occur first rather than
 4 | Phase 2. It ^{also} seems that funds for 494 improvements west of 12th
 5 | ave. may be delayed by the proposed Cedar Ave interchange improvement,
 6 | jeopardizing the access to Richfield and threatening increased traffic
 7 | through the city of Richfield. I support and restate all other
comments to the FIS submitted by the Richfield Ad Hoc Committee
 and City Council, especially the need for pedestrian and Mn/DOT 19331 (4-77)
 bicycle traffic on TH 494 and TH 77 near their intersection.
- 6 | ② The application of Minnesota funds to provide extraordinary
access improvements to one parcel of undeveloped property
as proposed in Phase 1 ~~is~~ at the expense of Richfield
properties, and ^{in the form of greater air and noise pollution, ~~and~~ access degradation}
loss of tax base (when future solutions
to greater traffic flows on 494 and 77) appears to
be a misappropriation of public funds and is
blatantly discriminatory toward established property developments.

RESPONSES:

1. The project principally improves TH 77 in Stage 1 and I-494 in Stage 2 because the Met Stadium site cannot handle significant development without immediate improvements to TH 77 (particularly at Killebrew Drive) and without improvements to the 24th Avenue interchange with I-494. To improve I-494 first would require upgrading it west of 24th Avenue as well, which is under study but not yet programmed by Mn/DOT.
2. The City of Bloomington will fund the proposed interchange improvements initially. Bloomington will be repaid in ten annual installments by Mn/DOT. The funding has been arranged to avoid pre-empting funding for other Mn/DOT projects, and will not delay funding for I-494 improvements. I-494 is under study, and no money has been committed (programmed) to improve it beyond improvements identified as part of Stage 1.
3. The City of Richfield initially requested that access not be provided between TH 77 and the residential area to the west. Access is not precluded by Stage 1 improvements.

4. Traffic is expected to increase significantly along I-494 with or without the proposed improvements. If the highway's capacity to handle Airport South traffic is not improved, more and more traffic will spill over onto the local streets of Richfield.

Removing the frontage road will increase traffic on 77th Street as frontage road businesses are reoriented to 77th. A preliminary design plan to mitigate the effects of increased traffic and frontage road business access changes will be developed and implemented as part of the project. The plan is described in Section 5.1 of this FEIS.

5. There are currently no bicycle or pedestrian trails along either I-494 or TH 77 in the project area. Pedestrians and bicycles can continue to safely use 12th Avenue to cross I-494, as they do at present. East of TH 77, the only land use in the interchange area is airport property, which is not a pedestrian or bicycle destination.
6. The project would accommodate the redevelopment of the Met Stadium site which has been planned since the stadium closed. Intense development at that site is consistent with Metropolitan Council policy and Bloomington's Comprehensive Plan.
7. The entire I-494 corridor is heavily developed with commercial property and continues to add more traffic generators wherever land is available for development on either side of Richfield. Established properties may have their access modified but will benefit by the increasing property values along I-494.

7.0

Appendix

DEPARTMENT : Mn/DOT-Operations Division
Golden Valley District

STATE OF MINNESOTA

Office Memorandum

DATE : May 14, 1987

TO : File

FROM : Paul Keranen
Project Manager

PHONE : 593-8535

SUBJECT : S.P. 2758-40 Improvements to T.H. 77/I-494
DEIS

A meeting was held on May 7, 1987, at the Bloomington City Hall to discuss a proposed multi-agency study effort that would address agency comments on the DEIS relating to water quality in Long Meadow Lake. An attendance list is attached.

For background, the U.S. Office of Environmental Project Review, Department of Interior, the Minnesota DNR and MPCA provided comments on the DEIS relating to water quality problems in Long Meadow Lake. Since the water quality problems in Long Meadow Lake can be attributed not only to runoff from subject project area but runoff from adjacent and upstream Minnesota River areas as well, it was concluded that study of the problems exceeded the scope of the project EIS (runoff from the project into Long Meadow Lake is estimated at one to two percent of total runoff into the lake).

It was further concluded by Mn/DOT that a multi-agency study group be assembled to address the pertinent issues. A lead agency for such an effort would be sought from agencies having a direct interest in water quality issues in the area.

The Richfield-Bloomington watershed district (R-B) recently completed a "509 plan" to the Metropolitan Council for review. Council staff in their review of the watershed management plan recommended that the Richfield-Bloomington watershed management organization should collect data to define existing and potential impacts of stormwater runoff on Long Meadow Lake water quality and, following this effort, "...implement or mitigate identified impacts..." Should the district choose to address these recommendations it would seem that the district or even Bloomington itself might be a logical choice for lead agency. In reality however, Bloomington or the R-B district could feasibly only address those Long Meadow Lake water quality problems emanating from within the watershed district.

RECEIVED
DIVISION OF CITY PLANNING

MAY 15 1987

CITY OF BLOOMINGTON
MINNESOTA

Given this background, this May 7 meeting was held to more closely define agency concerns, the scope of required studies, who might best serve as the lead agency, and principal study elements and constraints. A summary of principal discussion points and conclusions reached follows:

Ed Crozier (DOI-MNWR) noted that water quality in the lake proper differs from that at the outlets so some of past collected water quality data may not be representative. He also notes that Pond C is heavily polluted and as insufficient capacity at the design outlet level to impound polluted runoff from high flows resulting in routing of polluted runoff directly into Long Meadow Lake. The generic EIS for the airport south area recommended a Pond C connection to Pond A. He does not want Long Meadow Lake to serve as a holding pond for runoff before it enters the Minnesota River.

Craig Affeldt of the MPCA suggested alternatives to the present Pond C operation to include creation of "dry basins" with filtered outlets which would filter out pollutants from runoff before or as it leaves the basin. John Dixon (Barr Eng.) noted that present aquifer levels in the area may preclude effective operation of such dry basins in the area. Mr. Affeldt also mentioned the possibility of a direct diversion of surface runoff around the lake to the Minnesota River. Larry Samstad (Engr. for LMWD) noted that the LMWD would be unfavorable toward such direct inflows. He further commented on the need for identifying a realistic base water quality level in Long Meadow Lake as the lake is directly by periodic Minnesota River flood inflows, surface runoff from the uplands, and groundwater inflow.

Mr. Larry Lee raised the question as to what should be the study scope or what needs to be addressed over and above those that were addressed in the Airport South EIS.

After substantial discussion, it was concluded that a study effort would be limited in scope to a hydraulic engineering - water quality study which would address the impacts of Pond C on Long Meadow Lake and adjacent marshes to include possible modification of Pond C geometrics and mode of operation. No additional monitoring of Long Meadow Lake water quality would be made as part of the study. Sufficient data appears to be available at other agencies. Ed Crozier noted that he would consider possible capacity and operational changes to Pond C. Mr. Ken Wald of Minnesota DNR noted that he sees no direct extensive Minnesota DNR participation in a study but offered limited staff time, data as available and general support of DOI and MPCA recommendations. Craig Affeldt stated that he would like to see the dry pond concept addressed and the MPCA could provide staff input.

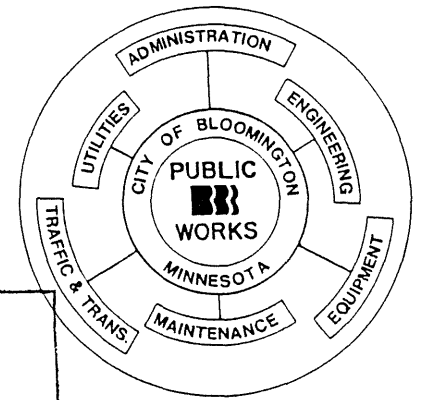
No financial support was offered by the Minnesota DNR, MPCA or DOI. It seemed to be the understanding of those present that Bloomington would lead the study effort with support from Mn/DOT and the other agencies.

cc:

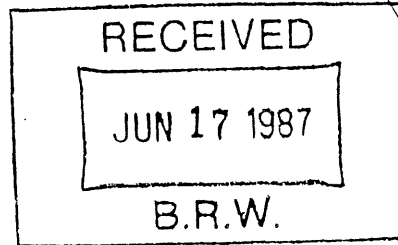
D. W. Brown
C. J. Hoffstedt
L. Lee - Bloomington
R. Langseth - Bloomington
G. Larson
File

**city of
bloomington, minnesota**

Municipal Building • 2215 West Old Shakopee Road • Bloomington, Minnesota 55431



May 12, 1987
Revised June 15, 1987



Duane Brown
Assistant District Engineer
Minnesota Department of Transportation
2055 North Lilac Drive
Golden Valley, MN 55422

Re: EIS - Trunk Highway 77/I.494

Dear Mr. Brown:

In response to comments regarding water quality on the DEIS of the Trunk Highway 77/I.494 project, a meeting was held between the representatives of the following organizations: Richfield, Bloomington, Lower Minnesota Watershed District, BRW and MN/DOT on April 30, 1987. At that meeting it was decided to hold another meeting in the City Council Chambers at 1:30 on May 7, 1987, and invite all interested agencies to discuss the various aspects of water quality related to this project.

The following agencies and organizations were invited:

Department of Natural Resources	Hennepin County Dept. of Transportation
Pollution Control Agency	Minnesota Dept. of Transportation
Metropolitan Council	U.S. Corps of Engineers
U.S. Fish & Wildlife Service	Consultants
Lower Minnesota Watershed District	City of Richfield
Nine Mile Creek Watershed District	City of Bloomington

The below named persons attended the meeting:

Greg Busacker	MN/DOT - CO	296-1651
Gerry Larson	MN/DOT - CO	296-1641
Lawrence Samstad	Lower Minn. River Watershed Dist.	445-7993
Paul F. Keranen	MN/DOT - Dist. 5	593-8535
Duane Brown	MN/DOT - Dist. 5	593-8404
Mike Eastling	Richfield	869-7521
Stephanie Eiler	BRW, Inc.	370-0700
Jim Ault	Hennepin Co.	935-3381
John Dickson	Nine Mile Creek Watershed Dist.	830-0555
Peter Sabee	" " " " " "	" "
Ed Crozier	MN Valley NWR	854-5900
Mary Mitchell	" " "	" "
Dave Johnson	DNR - Ecol. Services Sect.	297-4219
Ken Wald	DNR - Planning	296-4796
Peter Willenbring	E. A. Hickok & Assoc.	473-4224
Bill Weidenbacher	" " " " "	" "

Letter to Duane Brown
May 12, 1987, Revised June 15, 1987
Page 2

Marlene Voita	MPCA/OPR	296-7275
Tim Larson	MPCA - W.Q.	296-7356
Craig Affeldt	MPCA/OPR	296-7796
Ron Rudrud	City of Bloomington	881-5811
Brian N. Borg	" " "	" "
Larry Lee	" " "	" "
Russ Langseth	" " "	" "

Following a lengthy discussion by all those present, it was resolved that the characteristics of Pond C should be addressed further as regards water quality, capacity, operation as a dry basin and revised outlet.

The City of Bloomington will investigate the above items as regards Pond C in coordination with the other interested government agencies and using expert assistance by consultants as necessary. This work will start in June and continue until completed. Brian Borg, P.E., City Drainage Engineer, will be in charge of this work.

Appropriate corrective action will be taken by the City following completion of the study in conjunction with other cooperating agencies.

Sincerely,


Russell L. Langseth
Director of Public Works

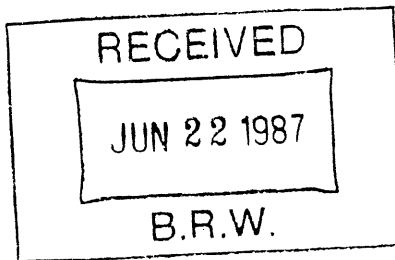
RLL/mlw

cc: John Pidgeon, City Manager
Larry Lee, Acting Director of Community Development

RECEIVED

JUN 3 1987

City of Richfield



May 26, 1987

Mr. Donald A. Fondrick
Director, Community Services
City of Richfield
6700 Portland Avenue
Richfield, Minnesota 55423

*copy
to Prosser
& Mike E.*

Subject: S.P. 2758-40 Improvements to TH 77/I-494
Final Environmental Impact Statement

Dear Mr. Fondrick:

Reference is made to your March 12, 1987 comments on the Draft Environmental Impact Statement for subject project. Reference is also made to our May 6 and May 21, 1987 meetings with you to discuss proposed responses and actions needed to resolve your comments.

It is our understanding that your principal areas of concern out of the 14 comments made in your March 12th letter are as follows:

- o The loss of access to businesses now fronting on 78th Street between 12th Ave. South and TH 77, the related reorientation of the business accesses to 77th Street and resultant increased commercial traffic on this residential street with the ultimate plan of improvement needs to be mitigated.
- o The project design for the ultimate plan should provide for the possibility of access to northbound TH 77 in the project area north of the TH 77/I-494 interchange.
- o The project design should provide for the possibility of two-way traffic across TH 77 at some point between 75th Street and the TH 77/I-494 interchange.
- o Noise impacts resulting from the proposed TH 77 improvements should be mitigated.
- o Regional planning to address and plan for the effects of increased TH 77 traffic on the TH 77/CSAH 62 interchange and on CSAH 62 between TH 77 and I-35W should begin immediately.

Further study and discussion of these concerns indicate they are beyond the scope of the first stage of the proposed project. It is our belief that these issues, together with the Metropolitan Airport Commission's desire for retention of the east frontage road along TH 77 with the ultimate plan and a possible west airport terminal expansion, should be studied separately.

It is our intention to make a separate study of these issues. This study would commence in a few months and be completed within a year. Expected work products will include conceptual plans of improvement (similar to those presently developed for the ultimate plan) for: reconfiguration of the 78th Street business accesses and the related separation of commercial and residential traffic on 77th Street; access across TH 77 north of I-494; noise abatement measures as required, and the CSAH 62/TH 77 interchange as required to accommodate projected increases in TH 77 traffic. We anticipate that Mn/DOT will be the lead agency for this study with support from the cities of Richfield and Bloomington, the Metropolitan Airport Commission, Hennepin County, and the Metropolitan Council.

Your views and comments concerning this proposed procedure for addressing Richfield's and some other unresolved EIS comments relating to subject project are requested.

Sincerely,



D.W. Brown, P.E.
Assistant District Engineer

cc: L. Lee
City of Bloomington

J. Povich
C. Hoffstedt
P. Keranen
Central File
File

DWB:jj
(P. Keranen)

DEPARTMENT : Mn/DOT Operations Division
Golden Valley District 5

STATE OF MINNESOTA

Office Memorandum

DATE : May 26, 1987

TO : FILE

FROM : Paul Keranen
Project Manager

PHONE : 593-8535

SUBJECT : S.P. 2758-40
Improvements to T.H.77/I-494

A meeting was held on May 21, 1987 at the Richfield City Hall to discuss noise abatement issues along T.H. 77 north of I-494. Present were:

P. Keranen - Mn/DOT, D-5	D. Fondrick - Richfield
G. Larson - Mn/DOT, C.O.	R. Nau - BRW
D. Kelso - MPCA	S. Eiler - BRW

In commenting on the draft EIS for subject project, the City of Richfield and others stated that noise abatement along T.H. 77 north of I-494 needs to be considered. Noise levels in the project area west of T.H. 77 are expected to increase slightly with the first stage T.H.77/I-494 project but be reduced slightly with the presently conceived ultimate plan of roadway development. Substantial analysis of the project and related comments since the DEIS indicate that noise in the project area north of I-494 is one of several complex issues that need to be addressed. It is the belief of Mn/DOT, and the cities of Richfield and Bloomington, that the identified issues should be addressed in a separate study to be initiated soon with Mn/DOT as the lead agency.

Mn/DOT, MPCA and a representative from BRW, Inc. recently made a field survey of the project area and tentatively identified the location and extent of needed noise abatement barriers along T.H. 77 north of I-494. These barriers would range in height from 8 to 12 feet, would obviously restrict visual access to several commercial properties fronting along the west side of T.H. 77 and would cost on the order of \$300 to \$350,000. Mn/DOT would be prepared to construct the noise walls required if found acceptable by local interests.

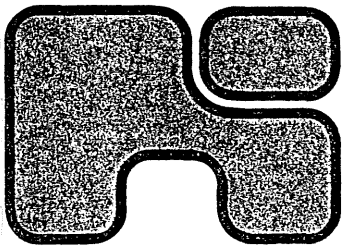
The City of Richfield is concerned that all matters such as changing land use in the area, the need for a 4-lane west frontage road, access to NB T.H. 77 from the area, haven't been sufficiently researched to know if a noise wall would be desirable at this time. In this regard, Don Fondrick noted that Richfield would support further study of the matter provided

May 26, 1987

some Mn/DOT commitment was made at this time to provide noise abatement measures for the area in question if and as indicated. Dave Kelso concurred in this qualified deferral of noise mitigation while additionally noting that subsequent development of an equitable noise abatement measure be made a condition of the project Indirect Source Permit (ISP). I indicated that Mn/DOT would commit itself to construction of noise barriers along the west side of T.H. 77 north of I-494 as a separate project if the proposed multi-agency study indicates a need.

cc: D. W. Brown/J. T. Povich
C. J. Hoffstedt
G. Larson
D. Kelso - MPCA
D. Fondrick - City of Richfield
✓ R. Nau - BRW
Files

PFK:pl



city of richfield

6700 portland avenue - minnesota 55423

June 10, 1987

Mr. Paul Keranen, Project Manager
Minnesota Department of Transportation
Operations Division
Division 5
2055 North Lilac Drive
Golden Valley, MN 55422

Subject: S.P. 2758-40
Improvements to TH77/I494

Dear Mr. Keranen:

The City of Richfield is in receipt of your office memorandum dated May 26, 1987 which summarizes a meeting to discuss noise abatement issues along TH77 north of I494. These issues were based on comments to the draft EIS for the TH77/I494 project. As a representative of the City of Richfield in attendance the May 21, 1987 meeting, I find your comments very nearly reflect the agreements reached at that meeting. The City of Richfield concurs with the items noted in your office memorandum. The City of Richfield requests it be a participant in the studies mentioned.

Sincerely,

Donald A. Fondrick, Director
Community Services Department

cc: D. W. Brown, MNDOT
J. T. Povich, MNDOT
G. Larson, MNDOT
D. Kelson, MPCA
R. Nau, BRW
J. Prosser, City Manager
M. Eastling, City Engineer

ACKNOWLEDGMENT OF NOTICE OF PROPOSED CONSTRUCTION OR ALTERATION

SPONSOR	Minnesota Department of Transportation District 5 - Golden Valley 2055 N. Lilac Drive Golden Valley, MN 55422		CONSTRUCTION LOCATION	
			PLACE NAME	
			Bloomington, MN	
			LATITUDE	LONGITUDE
		44° 51' 44"	93° 14' 50"	
CONSTRUCTION PROPOSED	DESCRIPTION	Stage I Bridge Structure Carrying Loop E over the interchange of TH 77 and I494		HEIGHT (IN FEET)
				ABOVE GROUND
				ABOVE MSL
				64
				894

The Federal Aviation Administration hereby acknowledges receipt of notice dated **December 19, 1986** concerning the proposed construction or alteration described above.

A study has been conducted under the provisions of Part 77 of the Federal Aviation Regulations to determine whether the proposed construction would be an obstruction to air navigation, whether it should be marked and lighted to enhance safety in air navigation, and whether supplemental notice of start and completion of construction is required to permit timely charting and notification to airmen. The findings of that study are as follows:

- The proposed construction does not require a notice to FAA.
- * The proposed construction is not identified as an obstruction under any standard of FAR, Part 77, Subpart C and would not be a hazard to air navigation.
- The proposed construction is identified as an obstruction under the standards of FAR, Part 77, Subpart C but would not be a hazard to air navigation.
- The structure should be obstruction marked and lighted per FAA Advisory Circular AC 70/7460-1, "Obstruction Marking and Lighting." Chapters _____
- Supplemental notice is required at least 48 hours before the start of construction and within five days after construction reaches its greatest height (use the enclosed FAA form).

This determination expires on **JUL 20 1988** unless:

- (a) extended, revised or terminated by the issuing office;
- (b) the construction is subject to the licensing authority of the Federal Communications Commission and an application for a construction permit is made to the FCC on or before the above expiration date. In such case the determination expires on the date prescribed by the FCC for completion of construction, or on the date the FCC denies the application.

NOTE: Any request for extension of the effective period of this determination must be postmarked or delivered to the issuing office at least 15 days prior to the expiration date.

- The proposed construction would exceed Part 77 obstruction standards and further aeronautical study is necessary to determine whether it would be a hazard to air navigation. Pending completion of any further study, it is presumed the construction would be a hazard to air navigation. Further study:
 - Has been initiated by the FAA.
 - May be requested by the sponsor within 30 days of date of this acknowledgement.
- If the proposed structure were reduced in height to not exceed _____ ft. above ground level (_____ ft. above sea level), it would not exceed Part 77 obstruction standards.

If the structure is subject to the licensing authority of the FCC, a copy of this acknowledgment will be sent to that Agency.

NOTICE IS REQUIRED ANYTIME THE PROJECT IS ABANDONED OR THE PROPOSAL IS MODIFIED.

* Stage I does not include the third and fourth or highest level of bridges in the Interchange. Preliminary study of future Stage II plans revealed a 3' penetration into FAA obstruction standards. Study did not include temporary construction equipment or light standards.

SIGNED Edward R. Heaps George A. McDermott Manager, Airspace Branch, AGL-520

ISSUED IN Des Plaines, Illinois ON JAN 20 1987

as cranes, derricks, etc., which may be used during the actual construction phase of this proposal. Such equipment which has a height greater than the proposed structure and a height which would exceed the notice standards of Part 77 of the Federal Aviation Regulations require separate notice. If prior notice for temporary construction equipment is required, please complete and return the enclosed FAA Form 7460-1

NOTICE

Great Lakes Region/AGL-520
2300 East Devon Avenue
Des Plaines, Illinois 60018

IN REPLY REFER TO
AERONAUTICAL STUDY
NO. 86-AGL-2607-OE

WLEDGMENT OF NOTICE OF PROPOSED CONSTRUCTION OR ALTERATION

Minnesota Department of Transportation District 5 - Golden Valley 55 N. Lilac Drive Golden Valley, MN 55422	CONSTRUCTION LOCATION	
	PLACE NAME	
	Bloomington, MN	
	LATITUDE	LONGITUDE
	44° 51' 44"	93° 14' 50"
DESCRIPTION Stage I Bridge Structure Carrying Loop E over the interchange of TH 77 and I494	HEIGHT (IN FEET)	
	ABOVE GROUND	ABOVE MSL
	64	894

Aviation Administration hereby acknowledges receipt of notice dated December 19, 1986 concerning the construction or alteration described above.

been conducted under the provisions of Part 77 of the Federal Aviation Regulations to determine whether the proposed construction obstruction to air navigation, whether it should be marked and lighted to enhance safety in air navigation, and whether supplemental and completion of construction is required to permit timely charting and notification to airmen. The findings of that study are as follows:

- proposed construction does not require a notice to FAA.
- proposed construction is not identified as an obstruction under any standard of FAR, Part 77, Subpart C and would not be a hazard to air navigation.
- proposed construction is identified as an obstruction under the standards of FAR, Part 77, Subpart C but would not be a hazard to air navigation.
- the structure should be obstruction marked and lighted per FAA Advisory Circular AC 70/7460-1, "Obstruction Marking and Lighting." Chapters _____
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Determination expires on **JUL 20 1988** unless:

- (a) extended, revised or terminated by the issuing office;
- (b) the construction is subject to the licensing authority of the Federal Communications Commission and an application for a construction permit is made to the FCC on or before the above expiration date. In such case the determination expires on the date prescribed by the FCC for completion of construction, or on the date the FCC denies the application.

NOTE: Any request for extension of the effective period of this determination must be postmarked or delivered to the issuing office at least 15 days prior to the expiration date.

- The proposed construction would exceed Part 77 obstruction standards and further aeronautical study is necessary to determine whether it would be a hazard to air navigation. Pending completion of any further study, it is presumed the construction would be a hazard to air navigation. Further study:
 - Has been initiated by the FAA.
 - May be requested by the sponsor within 30 days of date of this acknowledgement.
- If the proposed structure were reduced in height to not exceed _____ ft. above ground level (_____ ft. above sea level), it would not exceed Part 77 obstruction standards.

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* Stage I does not include the third and fourth or highest level of bridges in the Interchange. Preliminary study of future Stage II plans revealed a 3' penetration into FAA obstruction standards. Study did not include temporary construction equipment or light standards.

SIGNED Edward R. Heaps George A. McDermott
for Manager, Airspace Branch, AGL-520

ISSUED IN Des Plaines, Illinois ON JAN 20 1987



U.S. Department
of Transportation
**Federal Aviation
Administration**

Airports District Office
Room 111
6301 34th Avenue South
Minneapolis, MN 55450

June 10, 1987

Mr. Duane Brown, Assistant District Engineer
Mn/DOT
District 5
2055 North Lilac Drive
Golden Valley, MN 55422

Improvements to TH 77/I-494

Dear Mr. Brown:

We have reviewed the Review Draft of the Final Environmental Impact Statement (EIS) dated May 1987 for the subject improvements and have the following comments.

The environmental impacts associated with Stage 1 Improvements (Alternative 1A) are adequately assessed in the EIS for the release of airport property. However, when the TH 77 Study is completed further environmental assessment may be necessary. Prior to making a decision on the need for additional assessment, we concur that the written evaluation demonstrates that there have not been significant changes in the proposal. The specific item of concern to us in the TH 77 Study is the continuous TH 77 frontage road through MAC property.

Please notify this office of the results of the TH 77 study. Our comments will be provided based upon a review of the completed study and the development plans.

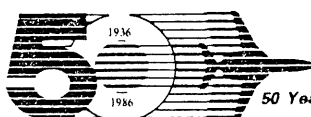
Thank you for the opportunity to participate in the development of this project.

Sincerely,

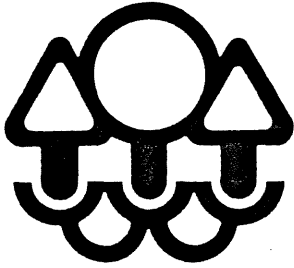
Glen Orcutt
Community Planner

JUN 12 1987

Dist Eng		
ADE Pres	<input checked="" type="checkbox"/>	
ADS Pres		
ADE Cons		
State Adm Eng		
ADE Maint		
Adm. Mgr.		
PAC		
S. A. Asst.		



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Minnesota Pollution Control Agency

June 9, 1987

Mr. D. W. Brown, P.E.
Assistant District Engineer
Minnesota Department of Transportation
District 5
2055 North Lilac Drive
Golden Valley, Minnesota 55422

Dear Mr. Brown:

Re: Improvements to Trunk Highway (TH) 77/I-494 Final Environmental Impact Statement

The Minnesota Pollution Control Agency (MPCA) staff has reviewed the draft of the final environmental impact statement (EIS) for the above referenced project. It is stated in the final EIS that mass transit will be increased as mitigation for traffic impacts. However, nowhere in the document does it say how this will be funded. Mass transit funding must be clarified prior to the issuance of the required indirect source permit (ISP). Also the final EIS concludes that there is the potential for federal and state eight hour carbon monoxide standards to be exceeded. Please contact Ms. Susanne Pelly, of the Division of Air Quality, at 296-7723 to resolve both of these ISP issues.

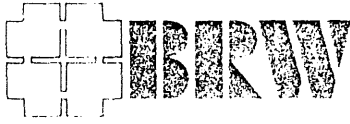
Thank you for the opportunity to comment on this draft document for the project. If you have any questions regarding these comments, please contact Marlene Voita, of the Office of Planning and Review, at 296-7275.

Sincerely,

Thomas J. Kalitowski
Executive Director

TJK:mfl

cc: Mr. Gregg Downing, Minnesota Environmental Quality Board
Ms. Susanne Pelly, Division of Air Quality
Mr. John Wachtler, Division of Air Quality



PLANNING
TRANSPORTATION
ENGINEERING
ARCHITECTURE

BENNETT, RINGROSE, WOLSFELD, JARVIS, GARDNER, INC. • THRESHER SQUARE • 700 THIRD STREET SOUTH • MINNEAPOLIS, MN 55415 • PHONE 612/370-0700

June 12, 1987

Ms. Susanne Pelly
Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul MN 55115

Dear Ms. Pelly:


Enclosed are revisions to pages 4-22 and 4-23 of the draft of the Final EIS for the TH 77/I-494 Improvement Project which have been made in response to the Agency letter of comment dated June 9, 1987. The revisions have been made to clarify the fact that we do not conclude that there is potential for the eight-hour standard to be exceeded.

The use of unrealistically conservative modeling techniques is fine as a screening procedure, but needs to be refined and reconsidered before major decisions are made contingent on the results. I believe that the alternative analyses contained in the attached material demonstrate that there is no potential for violation of the 8-hour standard. The probability of all of the worst case assumptions occurring simultaneously for eight consecutive hours must be less than 1 in 365 or, in other words, less than once per year. The alternative analyses demonstrate that only minor variations in any one of the key assumptions results in predicted concentrations below the state standards.

Please review the attached material carefully and call me with any questions. Also, please communicate your conclusions to Marlene Voita as soon as possible. Thank you.

Sincerely,

BENNETT-RINGROSE-WOLSFELD-JARVIS-GARDNER, INC.


Richard H. Nau
Associate

RHN/ar

Enclosures

cc: Gregg Downing, EQB Paul Keronen, Mn/DOT
 John Wachtler, MPCA Larry Lee, City of Bloomington
 Marlene Voita, MPCA Duane Brown, Mn/DOT

DAVID J. BENNETT
DONALD E. HUNT

DONALD W. RINGROSE
MARK G. SWENSON

RICHARD P. WOLSFELD
JOHN B. McNAMARA

PETER E. JARVIS
DONALD L. CRAIG

LAWRENCE J. GARDNER
RICHARD D. PILGRIM

THOMAS F. CARROLL
DALE N. BECKMANN

CRAIG A. AMUNDSEN
DENNIS J. SUTLIFF

MINNEAPOLIS

DENVER

PHOENIX

DRAFT

reconstructed further to the west. Analysis of a receptor site located 20 feet west of the existing service station yielded maximum predicted CO concentrations of 11.8 PPM 1-hour average and 8.4 PPM 8-hour average.

Area D - I-494 at Nicollet Avenue. This area was analyzed to represent typical conditions along I-494 in the transportation analysis area west of the project site. The analysis contained in the Draft EIS assumed I-494 peak hour average operating speeds of 10 MPH and 30 MPH average operating speeds on I-494 during the peak 8-hour period. The analyses assumed 1.0 meter per second wind speeds and a constant wind direction of 110 degrees from north. This conservative set of assumptions was used to identify potential problem areas among the receivers analyzed. With these worst-case assumptions and the revised background CO concentrations, maximum CO concentrations of 18.3 PPM 1-hour average and 9.2 PPM 8-hour average are predicted. The predicted worst case 8-hour concentration exceeds the 8-hour standard of 9 PPM.

The predicted worst case concentration at the I-494/Nicollet Avenue interchange prompted additional air quality analyses. These additional analyses consider the effect of increased average operating speeds on I-494, variable wind directions, increased wind speeds, and meteorological persistence. The results of these analyses are shown in Table 16.

The analyses indicate that all of the meteorological and traffic worst-case assumptions must occur simultaneously in order to predict a violation of the 8-hour CO standard. Any modification of one of these variables--changing wind direction by ten degrees or more, increasing 8-hour average vehicle speed on I-494 by five miles per hour, increasing wind speed by five miles per hour, or changing the persistence factor to simulate varying wind speeds and directions--reduces the predicted concentration below the state 8-hour standard. These modified scenarios are more representative of actual worst-case conditions than the worst case scenario presented in the Draft EIS. Therefore, it is reasonable to conclude that the project will not result in violation of air quality standards along I-494. The cases analyzed are discussed below:

- o Case 1 - This is the worst case condition presented in the Draft EIS.
- o Case 2 - With an average 8-hour wind speed of 1.5 meters per second, the predicted peak 8-hour concentration would be reduced to 7.5 PPM. It is extremely rare for wind speeds of 1.0 meters per second or less to persist for eight consecutive hours, particularly during the day.

TABLE 16
 PREDICTED WORST CASE 8-HOUR CO CONCENTRATIONS
 I-494 AT NICOLLET AVENUE

CASE	RECEPTOR	WIND SPEED (M/S)	WIND DIRECTION	PERSISTENCE FACTOR	I-494 SPEED (MPH)	PREDICTED 8-HOUR CO (PPM)
1.	D1	1.0	110	1.0	30	9.2
2.	D1	1.5	110	1.0	30	7.5
3.	D1	1.0	110	0.7	30	6.4
4.	D1	1.0	120	1.0	30	7.8
5.	D1	1.0	115	1.0	30	8.4
6.	D1	1.0	105	1.0	30	9.2
7.	D1	1.0	100	1.0	30	8.9
8.	D1	1.0	105	1.0	35	8.4
9.	D1	1.0	100	1.0	35	8.2
10.	D1	1.0	110	1.0	35	8.5
11.	D1	1.0	165	1.0	30	6.4
12.	D1	1.0	90	1.0	30	6.8
13.	D1	1.0	270	1.0	30	4.4
14.	D1	1.0	260	1.0	30	5.2
15.	D1	1.0	250	1.0	30	6.2

DRAFT

- o Case 3 - If a meteorological persistence factor of 0.7 is assumed, the predicted peak 8-hour CO concentration would be reduced to 6.4 PPM. A persistence factor would correct for varying wind speeds, wind directions, and atmospheric stability.
- o Cases 4,5,6,7 - If variations in wind direction of 10 degrees or more are assumed, predicted CO concentrations are reduced to below the standard. A variation of five degrees to the south (Case 5) reduces CO concentrations to below the standard. A variation of five degrees to the north (Case 6) yields predicted CO concentrations the same as Case 1. It is unlikely that winds would blow from 105 to 110 degrees at 1 meter per second for eight consecutive hours.
- o Cases 8,9,10 - If the average operating speed on I-494 for an 8-hour period is assumed to be 35 MPH rather than 30 MPH, the peak predicted 8-hour CO concentration is reduced to 8.5 PPM. While increased traffic volumes are likely to extend the AM and PM peak hours of congestion, average traffic speeds of 55 MPH during the middle of the day and in the evening will raise the 8-hour average operating speeds.
- o Cases 11,12,13,14,15 - Tests of five different wind directions do not indicate violations of the 8-hour standard.

Area F - I-494 Interchange with TH 77. In this study area, maximum CO concentrations of 12.2 PPM 1-hour average and 8.4 PPM 8-hour average associated with Alternative 1A in the year 1990 are predicted. Year 2005 maximum concentrations associated with Alternative 1 are 8.6 PPM 1-hour average and 5.9 PPM 8-hour average.

Area G - TH 77/CSAH 62 Interchange. Maximum predicted CO concentrations in the vicinity of this interchange are 9.9 PPM 1-hour average and 6.9 PPM 8-hour average. These concentrations are expected in the year 2005 with either the build or no-build alternatives.

The revised CO analyses indicate that the project will not result in potential violations of air quality standards.

4.2.2 Consistency with the State Implementation Plan

The project is in an area where the State Implementation Plan (SIP) is required to contain transportation control measures. The SIP was approved by the Environmental Protection Agency (EPA) on June 16, 1980. The Metropolitan Planning Organization passed a resolution on December 19, 1985, certifying that their transportation planning process



Metropolitan Council
300 Metro Square Building
Seventh and Robert Streets
St. Paul, Minnesota 55101

Telephone (612) 291-6359

June 9, 1987

D.W. Brown
Assistant District Engineer
Mn/DOT District 5
2055 No. Lilac Drive
Golden Valley, Minnesota 55422

Dear Mr. ^{Quane} Brown:

We have received the review draft of the I-494/TH 77 Final Environmental Impact Study which was sent for staff review since the Metropolitan Council is a project cooperating agency. Chauncey Case and I have reviewed the draft and have no further written comments. It appears to acknowledge all the issues raised in the Council's review of the draft EIS.

Thank you for giving the Council staff the opportunity to offer informal comments prior to completing this Final EIS.

Sincerely,

A handwritten signature in cursive script that reads "Connie Kozlak".

M. Constance Kozlak
Sr. Transportation Planner

CK/dpf

JUN 11 1987

Dist. Eng.			
AD/Asst. Eng.	✓	✓	
Asst. Eng.			
AD/Asst. Eng.			
State Aid Eng.			
AD/Asst. Eng.			
Adm. Mgr.			
PAC			
S. A. Asst.			